Biodiversity Conservation Prioritisation Project (BCPP) India

Endangered Species Project

Conservation Assessment and Management Plan
(C.A.M.P.) Workshop

REPORT

1998

Authored by the participants

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Amphibians of India

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Report of BCPP CAMP for Amphibians of India

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Report of BCPP CAMP on Amphibians of India

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Biodiversity Conservation Prioritisation Project (BCPP) India
Conservation Assessment and Management Plan (C.A.M.P.) Workshops for Amphibians of India

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Amphibians of India
Indian Reptiles of India
Indian Mangrove Ecosystem
Mammals of India
Indian Freshwater fishes

Biodiversity Conservation Prioritisation Project (BCPP) India
Conservation Assessment and Management Plan (C.A.M.P.) Workshops for Amphibians of India

Hosts, Coordinators, Organisers, Collaborators

Host

Utkal University, Department of Zoology, Bhubaneswar

Coordinators / Facilitators

World Wide Fund for Nature, India, Coordinator
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Amphibians of India

Executive Summary

Biodiversity Conservation Prioritisation Project, India -- Endangered Species Project
Conservation Assessment and Management Plan (C.A.M.P.) Workshops

Amphibians of India
Hosted by Utkal University, Bhubaneswar, 22 – 26 April 1997

EXECUTIVE SUMMARY

Introduction

The Biodiversity Conservation Prioritisation Project, India undertook a prioritisation exercise for species, sites and strategies for conservation. The Endangered Species Subgroup selected the Conservation Assessment and Management Plan Workshop Process and the IUCN Red List Criteria (Revised, 1994) for assessing conservation status of species.

A Conservation Assessment and Management Plan (C.A.M.P.) Workshop was conducted for all Indian amphibians to assess their status in the wild. The Workshop took place from 22nd to 26th April, 1997, hosted by Utkal University, Department of Zoology, Bhubaneswar. Other local collaborators were the Forest Department of Orissa and the Declining Amphibian Populations Task Force South Asia. The Workshop was attended by 29 participants from 25 institutes with expertise ranging from field biology to forest management.

All Indian amphibians were assessed at the workshop as listed in the checklist of amphibians of south Asia by Indraneil Das. The checklist was further scrutinised at the workshop and only those species that were known to have occurred or occuring in India were evaluated. In total 205 taxa (including species aand subspecies) were evaluated at the workshop. The selection of species for assessment was not aproblem in the case of amphibians because the plan of action involved firstly assessment of all endemic taxa followed by the assessment of non-endemic taxa, depending on availability of time. The workshop was a great success in that the participants assessed all the amphibian taxa occuring in India in the stipulated 5 days.

The expertise available at the workshop included reputed field biologists with years of field study in various areas as well as those currently conducting studies. Participants worked in four working groups for five days and assessed 205 taxa. Information for every taxa was entered on “Taxon Data Sheets” in which details of the taxon distribution, population numbers, habitat structure, threats affecting the taxa, population decline and the quality of data provided for the taxa are given here. This information was used to assess the status of the taxon and assign a category of threat according to the IUCN Red List categories. Taxon specific recommendations were also made after categorisation for use in conservation action planning.

CAMP methodology

The Conservation Assessment and Management Plan process is a methodology for rapid assessment of taxa in the wild. This methodology is a rational and objective method of assigning threat categories and deriving recommendations for conservation action plans through participatory group inputs from many stakeholders. A CAMP process is a platform for a congregation of 10 to 40 experts from related fields such as field biologists, ecologists, habitat experts, wildlife managers, forest officials, captive managers, university researchers, academicians, non-governmental organisations, policy makers and other relevant stakeholders. The CAMP Workshop is organised and conducted by objective facilitators who do not have a professional or personal stake in the outcome of the assessments.

The assessment is also followed by research and conservation recommendations for every taxon. CAMPs provide a rational and comprehensive means of assessing priorities for intensive management within the context of the broader conservation needs of threatened taxa.

The Conservation Breeding Specialist Group developed the CAMP process methodology first for identifying priorities in captive management planning for the global zoo community, which needed to know the in situ conservation status of species in their care. The methodology, however, has proved so effective for assessing status in the wild that it has been recognised by IUCN SSC Specialist Groups, governmental and non-governmental agencies, conservation action planners and policy makers all over the world. The CAMP methodology is emerging as an effective means of conducting biodiversity inventory, identification and monitoring, thus satisfying Agenda Item 7 in the Conservation on Biological Diversity.

The CAMP process is a flexible process that allows much need-based variations to be incorporated in its conduct. For the first time, preliminary Taxon Data Sheets called “Biological Information Sheet” was sent in

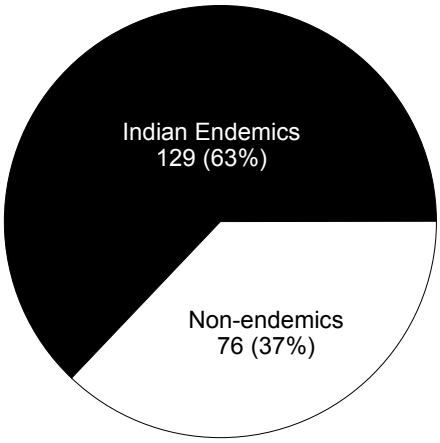
advance to all known amphibian researchers in India and all other people listed in the invitee list. Along with the Biological Information Sheet was also mailed the CAMP Manual to help the respondants in understanding the concept and objective of the workshop and the IUCN categories. The Biological Information Sheet is a modified Taxon Data Sheet that is more self-explanatory and does not require the help of an interpretive manual to be filled. This exercise helped in gathering information from different areas about different taxa before hand and the sheets were also utilised extensively at the workshop by participants for information that was not available within the context of the workshop. The sheets therefore provided the means of representation for participants who could not attend the workshop for some reason.

Results

Indian amphibians, which are about 205 taxa in number have a very high representation of endemics. Nearly sixty-three percent (63%) of the amphibians are endemic to India. Western Ghats is the richest region in India in terms of amphibian endemicity. Ninety-three taxa are endemic to this biogeographic region with 2 more taxa sharing their distribution with adjacent areas. Northeastern India, which has a very high diversity among amphibians does not have many endemics within the Indian context because of the jagged political boundary of the country. Though restricted in their distribution in this region, locations of many amphibians are found outside India thereby making them Indian political non-endemics. The case is similar in northern and northwestern India with many species ranging across neighbouring countries such as Pakistan, Nepal, Afghanistan and Tibet. A graph depicting amphibian distribution is given in the main report.

Eighty-seven endemic taxa are threatened according to the assessment at the workshop, based on the 1994 IUCN Red list categories. The high percentage of endemic taxa being threatened is due to restricted distribution of these taxa along with other man-induced threats to their wellbeing. Amphibian studies in India is still at its

Amphibians of India



Number of Indian amphibians = 205

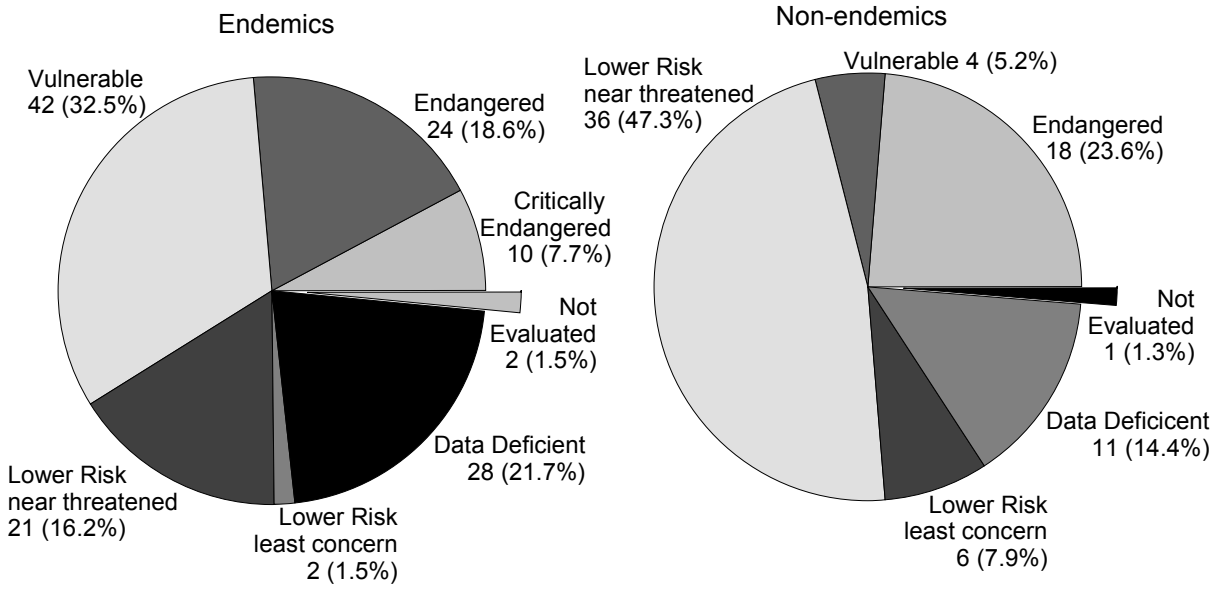
infancy stage since much more information regarding distribution, population dynamics and threats are required. The reasons for global declines in amphibians due to exessive UV radiation and fungi are yet to be determined among amphibians in India. Their decline (if any) due to these factors has not yet been established in India. Threats perceived to Indian amphibians are more physical in nature, such as those by habitat destruction, fragmentation, agricultural practices, pollution, pesticides and other kinds of human interference.

Categorisation of taxa was done according to the 1994 IUCN Red Liast categories. For a taxon to be threatened, any one of the five criteria within the categories has to be satisfied. These criteria or factors that are used in a categorisation of threat are 1. Population reduction; 2. Restricted distribution; 3. Population size; 4. Number of mature individuals and 5 Probability of extinction. The degree of threat depending on each or any of these five criteria determines the threat category.

One of the major outcomes of this workshop was the post-assessment research and management recommendations for every taxon. Participants identified lacunae areas that need prioritisation and this is indicated in the recommendation section. Survey and monitoring are the most frequently recommended research and management tools for understanding distribution and trends of amphibian populations. The

workshop was also an ideal forum to discuss controversial issues such as taxonomy and nomenclature of Indian amphibians. In the recent years, a few taxonomists have suggested frequent changes in generic names of some amphibians in India, which has led to confusion among field biologists. This issue was sorted during the workshop in a special issue working group. Other issues which were discussed separately include education and awareness, research priorities and captive breeding. The reports of each of these special issue working group is included in the main report.

Status of amphibians of India



Number of Indian endemics = 129
IUCN Assessment = Global

Number of non-endemics = 76
IUCN Assessment = National

Table 1. Alphabetical list of Amphibian taxa assessed.

Species	Family	IUCN	Criteria
INDIAN ENDEMICS			
Ansonia kamblei Ravichandan & Pillai	Bufonidae	DD	--
Ansonia ornata Günther	Bufonidae	EN	(B1, 2c)
Ansonia rubigina Pillai & Pattabhiraman	Bufonidae	EN	(B1, 2c, 3b)
Bufo abatus Ahl	Bufonidae	DD	--
Bufo beddomii Günther	Bufonidae	LRlc	--
Bufo brevirostrisRao	Bufonidae	DD	--
Bufo camortensis Mansukhani & Sarkar	Bufonidae	VU	(D2)
Bufo hololius (Günther)	Bufonidae	LR-nt	--
Bufo koynayensis Soman	Bufonidae	EN	(B1, 2c)
Bufo parietalis Boulenger	Bufonidae	LRnt	--
Bufo silentvalleyensis Pillai	Bufonidae	VU	(D2)
Bufoides meghalayanus (Yazdani & Chanda)	Bufonidae	CR	(B1, 2abc)
Chirixalus dudhwaensis Ray	Rhacophoridae	VU	(D2)
Euphlyctis ghoshi (Chanda)	Ranidae	EN	(B1, 2abc)
Gegeneophis carnosus (Beddome)	Caeciliidae	VU	(B1, 2c)
Gegeneophis fulleri (Alcock)	Caeciliidae	VU	(B1, 2ac)
Gegeneophis ramaswamii Taylor	Caeciliidae	EN	(B1, 2c)
Ichthyophis beddomei Peters	Ichthyophiidae	VU	(A1ac; B1, 2c)
Ichthyophis bombayensis Taylor	Ichthyophiidae	EN	(B1, 2c)
Ichthyophis longicephalus Pillai	Ichthyophiidae	VU	(B1, 2c)
Ichthyophis malabarensis Taylor	Ichthyophiidae	VU	(B1, 2c)
Ichthyophis peninsularis Taylor	Ichthyophiidae	VU	(B1, 2c; D2)
Ichthyophis sikkimensis (Taylor)	Ichthyophiidae	VU	(B1, 2c)
Ichthyophis subterrestris Taylor	Ichthyophiidae	VU	(B1, 2c)

Species	Family	IUCN	Criteria
Ichthyophis tricolor Taylor	Ichthyophiidae	EN	(B1, 2c)
Indirana beddomii Günther	Ranidae	VU	(A1ac)
Indirana brachytarsus (Günther)	Ranidae	VU	(B1, 2b)
Indirana diplostictus (Günther)	Ranidae	VU	(B1, 2c)
Indirana gundia Dubois	Ranidae	DD	--
Indirana leithii (Boulenger)	Ranidae	LR-nt	--
Indirana leptodactylus (Boulenger)	Ranidae	VU	(B1, 2c)
Indirana semipalmatus (Boulenger)	Ranidae	VU	(A1ac; B1, 2c)
Indirana tenuilingua (Rao)	Ranidae	DD	--
Indotyphlus battersbyi Taylor	Caeciliidae	CR	(B1, 2bc)
Kaloula baleata ghoshi Cherchi	Microhylidae	VU	(D2)
Limnonectes andamanensis (Stoliczka)	Ranidae	LR-lc	--
Limnonectes brevipalmatas (Peters)	Ranidae	LR-nt	--
Limnonectes keralensis (Dubois)	Ranidae	LR-nt	--
Limnonectes khasiensis (Anderxon)	Ranidae	DD	--
Limnonectes mawlyndipi (Chanda)	Rhacophoridae	CR	(B1, 2ac)
Limnonectes mawphlangensis (Pillai & Chanda)	Ranidae	CR	(B1, 2ac)
Limnonectes murthii Pillai	Ranidae	EN	(B1, 2c)
Limnonectes mysorensis Rao	Ranidae	CR	(B1, 2c)
Limnonectes nilagirica (Jerdon)	Ranidae	EN	(B1, 2c)
Limnonectes sauriceps (Rao)	Ranidae	DD	--
Limnonectes shompenorum Das	Ranidae	EN	(B1, 2abc)
Megophrys robusta (Boulenger)	Pelobatidae	EN	(B1, 2c)
Melanobatrachus indicus Beddome	Microhylidae	VU	(B1, 2c, 3c; D2)
Micrixalus fuscus (Boulenger)	Ranidae	LR-nt	--
Micrixalus gadgili Pillai & Pattabiraman	Ranidae	EN	(B1, 2c)
Micrixalus nudis Pillai	Ranidae	VU	(B1, 2c)
Micrixalus phyllophilus (Jerdon)	Ranidae	VU	(B1, 2c)
Micrixalus saxicola (Jerdon)	Ranidae	LR-nt	--
Micrixalus silvaticus (Boulenger)	Ranidae	VU	(B1, 2c)
Micrixalus thampii Pillai	Ranidae	EN	(B1, 2c)
Microhyla chakrapani Pillai	Microhylidae	VU	(D2)
Nyctibatrachus aliciae Inger, Shaffer, Koshy & Bakde	Ranidae	VU	(B1, 2c)
Nyctibatrachus beddomii (Boulenger)	Ranidae	LR-nt	--
Nyctibatrachus deccanensis Dubois	Ranidae	VU	(B1, 2c)
Nyctibatrachus humayuni Bhaduri & Kripalani	Ranidae	EN	(B1, 2c)
Nyctibatrachus kempholeyensis (Rao)	Ranidae	DD	--
Nyctibatrachus major Boulenger	Ranidae	LR-nt	--
Nyctibatrachus minor Inger, Shaffer, Koshy & Bakde	Ranidae	VU	(B1, 2c; D2)
Nyctibatrachus sanctipalustris Rao	Ranidae	EN	(B1, 2c)
Nyctibatrachus sylvaticus Rao	Ranidae	DD	--
Pedostibes kempi (Boulenger)	Bufonidae	CR	(B1, 2abc)
Pedostibes tuberculosus Günther	Bufonidae	VU	(B1, 2c)
Philautus beddomii (Günther)	Rhacophoridae	VU	(B1, 2c)
Philautus bombayensis (Annandale)	Rhacophoridae	EN	(B1, 2c)
Philautus chalazodes Günther	Rhacophoridae	VU	(B1, 2c; D2)
Philautus charius Rao	Rhacophoridae	LR-nt	--
Philautus cherrapunjiae Roonwall & Kripalani	Rhacophoridae	EN	(B1, 2ac)
Philautus crnri Dutta	Rhacophoridae	DD	--
Philautus elegans Rao	Rhacophoridae	DD	--
Philautus flaviventris (Boulenger)	Rhacophoridae	DD	--
Philautus garo (Boulenger)	Rhacophoridae	CR	(B1, 2bc)
Philautus glandulosus (Jerdon)	Rhacophoridae	VU	(B1, 2c)
Philautus hassanensis Dutta	Rhacophoridae	DD	--
Philautus kempiae (Boulenger)	Rhacophoridae	CR	(B1, 2abc)
Philautus kottigeharensis Rao	Rhacophoridae	DD	--
Philautus leucorhinus (Lichtenstein & Martens)	Rhacophoridae	LR-nt	--
Philautus melanensis Rao	Rhacophoridae	DD	--
Philautus namdaphaensis Sarkar & Sanyal	Rhacophoridae	VU	(B1, 2c; D2)
Philautus narainensis Rao	Rhacophoridae	DD	--
Philautus nobeli (Ahl)	Rhacophoridae	DD	--
Philautus parkeri (Ahl)	Rhacophoridae	DD	--

Species	Family	IUCN	Criteria
Philautus pulcherimus (Ahl)	Rhacophoridae	VU	(B1, 2c)
Philautus shillongensis Pillai & Chanda	Rhacophoridae	CR	(B1, 2abc)
Philautus shyamrupus Chanda & Ghosh	Rhacophoridae	VU	(B1, 2c; D2)
Philautus signatus (Boulenger)	Rhacophoridae	VU	(B1, 2c)
Philautus swamianus Rao	Rhacophoridae	DD	--
Philautus temporalis Günther	Rhacophoridae	EN	(B1, 2c)
Philautus travancoricus (Boulenger)	Rhacophoridae	DD	--
Philautus variabilis (Günther)	Rhacophoridae	LR-nt	--
Phrynoglossus borealis (Annandale)	Ranidae	EN	(B1, 2c)
Polypedates cruciger (Blyth)	Rhacophoridae	VU	(B1, 2c; D2)
Polypedates insularis Das	Rhacophoridae	EN	(B1, 2abc)
Ramanella anamalaiensis Rao	Microhylidae	DD	--
Ramanella minor Rao	Microhylidae	DD	--
Ramanella montana Jerdon	Microhylidae	LRnt	--
Ramanella mormorata Rao	Microhylidae	VU	(B1, 2bc; D2)
Ramanella triangularis (Günther)	Microhylidae	VU	(B1, 2c; D2)
Rana aurantiaca (Boulenger)	Ranidae	LR-nt	--
Rana curtipes Jerdon	Ranidae	LR-nt	--
Rana danieli Pillai & Chanda	Ranidae	LR-nt	--
Rana garoensis Boulenger	Ranidae	EN	(B1, 2abc)
Rana khare (Kiyasetuo & Khare)	Ranidae	EN	(B1, 2c)
Rana malabarica Tschudi	Ranidae	LR-nt	--
Rana senchalensis Chanda	Ranidae	CR	(B1, 2abc)
Rana travancorica Annandale	Ranidae	DD	--
Rhacophorus calcadensis Ahl	Rhacophoridae	DD	--
Rhacophorus jerdonii (Günther)	Rhacophoridae	VU	(B1, 2c; D2)
Rhacophorus lateralis Boulenger	Rhacophoridae	EN	(B1, 2c)
Rhacophorus malabaricus Jerdon	Rhacophoridae	LR-nt	--
Rhacophorus namdaphaensis Sarkar & Sanyal	Rhacophoridae	VU	(B1, 2c; D2)
Rhacophorus naso Annandale	Rhacophoridae	DD	--
Rhacophorus pleurostictus (Günther)	Rhacophoridae	VU	(B1, 2c)
Rhacophorus taeniatus Boulenger	Rhacophoridae	LR-nt	--
Rhacophorus tuberculatus (Anderson)	Rhacophoridae	LRnt	--
Scutiger occidentalis Dubois	Pelobatidae	DD	--
Tomopterna leucorhynchus Rao	Ranidae	DD	--
Tomopterna parambikulamana Rao	Ranidae	DD	--
Tomopterna rufescens (Jerdon)	Ranidae	LR-nt	--
Uraeotyphlus malabaricus (Beddome)	Uraeotyphlidae	EN	(B1, 2c)
Uraeotyphlus menoni Annandale	Uraeotyphlidae	VU	(B1, 2c; D2)
Uraeotyphlus narayani Seshachar	Uraeotyphlidae	VU	(B1, 2c)
Uraeotyphlus oxyurus (Dumeril & Bibron)	Uraeotyphlidae	VU	(B1, 2c)
NON-ENDEMICS			
Amolops afghanus (Günther)	Ranidae	LR-nt	--
Amolops formosus (Günther)	Ranidae	LR-nt	--
Amolops gerbillus (Annandale)	Ranidae	LR-nt	--
Amolops monticola (Anderson)	Ranidae	EN	(B1, 2bc)
Bufo fergusonii (Boulenger)	Bufonidae	LR-lc	--
Bufo himalayanus (Günther)	Bufonidae	LR-nt	--
Bufo latastii (Boulenger)	Bufonidae	LR-lc	--
Bufo melanostictus (Schneider)	Bufonidae	VU	(A1acd)
Bufo microtympanum (Boulenger)	Bufonidae	LR-nt	--
Bufo stomaticus Lütken	Bufonidae	LR-nt	--
Bufo stuarti (Smith)	Bufonidae	LR-nt	--
Bufo viridis Laurenti	Bufonidae	DD	--
Chaparana sikimensis (Jerdon)	Ranidae	LR-nt	--
Chirixalus doriae Boulenger	Rhacophoridae	EN	(B1, 2c)
Chirixalus simus Annandale	Rhacophoridae	EN	(B1, 2abc)
Chirixalus vittatus (Boulenger)	Rhacophoridae	EN	(B1, 2c)
Euphlyctis cyanophlyctis (Schneider)	Ranidae	LR-nt	--
Euphlyctis hexadactylus (Lesson)	Ranidae	LR-nt	--
Hoplobatrachus crassus (Jerdon)	Ranidae	LR-nt	--

Species	Family	IUCN	Criteria
Hoplobatrachus tigerinus (Daudin)	Ranidae	VU	(A1d)
Hyla annectans Jerdon	Hylidae	LR-nt	--
Kaloula taprobanica (Parker)	Microhylidae	LR-nt	--
Leptobrachium hasseltii Tschudii	Pelobatidae	EN	(B1, 2abc)
Limnonectes cancrivorus (Gravenhorst)	Ranidae	LR-lc	--
Limnonectes doriae (Boulenger)	Ranidae	VU	(D2)
Limnonectes limnocharis (Gravenhorst)	Ranidae	VU	(A1ac)
Limnonectes syhadrensis (Annandale)	Ranidae	LR-nt	--
Megophrys boettgeri (Boulenger)	Pelobatidae	LR-nt	
Megophrys kempii (Annandale)	Pelobatidae	EN	(B1, 2abc)
Megophrys lateralis (Anderson)	Pelobatidae	DD	--
Megophrys montana (Kuhl & van Hasselt)	Pelobatidae	EN	(B1, 2abc)
Megophrys parva (Boulenger)	Pelobatidae	LR-nt	--
Microhyla berdmorei (Blyth)	Microhylidae	LR-nt	--
Microhyla heymonsi Vogt	Microhylidae	EN	(B1, 2abc)
Microhyla ornata (Deumeril & Bibron)	Microhylidae	LR-lc	--
Microhyla rubra Jerdon	Microhylidae	LR-nt	--
Micryletta inornata (Boulenger)	Microhylidae	EN	(B1, 2abc)
Nytixalus moloch (Annandale)	Rhacophoridae	EN	(B1, 2abc)
Occidozyga lima (Gravenhorst)	Ranidae	DD	--
Paa annandalii (Boulenger)	Ranidae	EN	(B1, 2abc)
Paa blanfordii (Boulenger)	Ranidae	LR-nt	--
Paa hazarensis (Dubois & Khan)	Ranidae	DD	--
Paa liebigii (Günther)	Ranidae	LR-nt	--
Paa minica (Dubois)	Ranidae	DD	--
Paa sternostignata (Murray)	Ranidae	DD	--
Paa vicina (Stoliczka)	Ranidae	DD	--
Philautus andersonii (Ahl)	Rhacophoridae	EN	(B1, 2abc)
Philautus annandalii (Boulenger)	Rhacophoridae	LR-nt	--
Pleurodeles verrucossus (Anderson)	Salamandridae	EN	(A1ac)
Polypedates leucomystax (Gravenhrst)	Rhacophoridae	LR-lc	--
Polypedates maculatus himalayensis (Annandale)	Rhacophoridae	EN	(B1, 2abc)
Polypedates maculatus maculatus (Gray)	Rhacophoridae	LR-lc	--
Ramanella variegata (Stoliczka)	Microhylidae	LR-nt	--
Rana alticola (Boulenger)	Ranidae	LR-nt	--
Rana assamensis (Sclater)	Ranidae	LR-nt	--
Rana chalconota (Schlegel)	Ranidae	EN	(B1, 2abc)
Rana erythraea (Schlegel)	Ranidae	LR-nt	--
Rana leptoglossa (Cope, 1868)	Ranidae	EN	(B1, 2abc)
Rana livida (Blyth)	Ranidae	LR-nt	--
Rana nicobarensis (Stoliczka)	Ranidae	LR-nt	--
Rana nigrovittata (Blyth)	Ranidae	EN	(B1, 2bc)
Rana taipehensis Van Denburg	Ranidae	LR-nt	--
Rhacophorus appendiculatus (Günther)	Rhacophoridae	DD	--
Rhacophorus bipunctatus Ahl	Rhacophoridae	LR-nt	--
Rhacophorus bisacculus Taylor, E.H.	Rhacophoridae	EN	(B1, 2abc)
Rhacophorus maximus (Günther)	Rhacophoridae	LR-nt	--
Rhacophorus nigropalmatus Boulenger	Rhacophoridae	DD	--
Rhacophorus reinwardtii Kuhl & van Hasselt	Rhacophoridae	LR-nt	--
Scutiger nyingchinesis (Fei)	Pelabatidae	LR-nt	--
Scutiger sikimmensis (Blyth)	Pelobatidae	LR-nt	--
Taylorana hascheana Stoliczka	Ranidae	DD	--
Theloderma asper (Boulenger)	Rhacophoridae	DD	--
Tomopterna rolandae (Dubois)	Ranidae	LR-nt	--
Uperodon globulosus (Günther)	Microhylidae	LR-nt	--
Uperodon systoma (Schneider)	Microhylidae	LR-nt	--

IUCN Red List Categories and Criteria explained in brief below

* IUCN Red List *Categories :*

CR – Critically endangered -- a taxon is Critically endangered when it is facing an extremely high risk of extinction in the wild in the immediate future as defined by the criteria.

EN – Endangered -- a taxon is Endangered when it is not Critically endangered but is facing a very high risk of extinction in the wild in the near future as defined by the criteria.

VU – Vulnerable -- a taxon is Vulnerable when it is not Critically endangered or Endangered but is facing a high risk of extinction in the wild in the medium term future as defined by the criteria.

LR – Lower risk – a taxon is Low Risk when it has been evaluated and does not qualify for any of the threatened categories, Critically endangered, Endangered, Vulnerable, or Data Deficient. (LR-nt – near threatened, LR-lc –least concern, LR-cd – conservation dependent.

DD – Data deficient – A taxon is Data Deficient when there is inadequate information to make a direct or indirect assessment of its risk of extinction based on its distribution and/or population status.

NE – Not evaluated – A taxon is Not Evaluated when it has not yet been assessed against the criteria.

** IUCN Red List *Criteria*

A – Population reduction – (1) observed, infered, suspected or estimated reduction, or **(2)** projected or predicted reduction of at least 20% (VU), or 50% (EN), or 80% (CR) in 10 years or 3 generations whichever is longer based on **(a)** Direct observation; **(b)** index of abundance appropriate for the taxon; **(c)** decline in areas of occupancy, extent of occurrence and/or quality of habitat; **(d)** actual or potential levels of exploitation; **(e)** effects of introduced taxa, hybridisation, pathogens, pollutants, competitors, or parasites.

B – Restricted distribution -- Extent of occurrence estimated to be less than 20,000 sq km. (VU), or 5,000 sq km (EN) or 100 sq km (CR) and/or area of occupancy estimated to be less than 2000 sq.km. (VU), or 500 sq km (EN), or 10 sq km (CR), and qualifying for any two of the following : **(1)** severely fragmented, or known to exist in not more than 10 locations (VU), or 5 locations (EN), or single location (CR); **(2)** continuing decline, observed, inferred, projected in any **(a)** extent of occurance, **(b)** area of occupancy; **(c)** area, extent and/or quality of habitat; **(d)** number of locations or subpopulations; **(e)** number of mature individuals; **(3)** extreme fluctuation in either **(a)** extent of occurance, **(b)** area of occupancy, **(c)** number of populations or subpopulations, **(d)** number of mature individuals.

C – Population estimates – population estimated to number less than 10,000 (VU), or 2,500 (EN), or 250 (CR) mature individuals and either **(1)** estimated, continuing decline of at least 10% in 10 years or 3 generations or whichever is longer (VU), or 20% in 5 years or 2 generations, whichever is longer (EN), or 25% in 3 years or 1 generation whichever is longer (CR) OR in **(2)** continuing decline, observed, projected, inferred, number of mature individuals and population structure in the form of either **(a)** severely fragmented [no subpopulation estimated to contain more than 1000 (VU), or 250 (EN), or 50 (CR) mature individuals] ; **(b)** all individuals are in a single subpopulation.

D – Restricted populations – **(1)** Population estimated to number less than 1000 (VU), or 250 (EN), or 50 (CR) mature individuals; **(2)** Population restricted in area of occupancy of less than 100 sq km or less than 5 locations (VU).

E – Probability of extinction – quantative analysis showing the probability of extinction in the wild is at least 10% in 100 years (VU), or 20% in 20 years or 5 generations, whichever is longer (EN), or 50% in 10 years or 3 generations, whichever is longer (CR).

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Threat: L = Loss of habiat; Lf = Loss of habitat due to fragmentation; D = Diseases; E = Edaphic factors (changes in); H = Harvest; Hf = Harvest for food; I = Human interference; P = Predation; Ps = Pesticides; Pu = Pollution; R = Road kills; Sf = Fire as catastrophic event; Sn = Siltation; T =Trade; Tp = Trade of parts

Research Recommendations: G= Genetic management; H=Husbandry research; Hm = Habitat maangement; Lh= Life history studies; Lm = Limiting factor management; Lr = Limiting factor research; M = Monitoring; O = Other (specific to the species); P = PHVA; PP = PHVA pending further work; S= Survey search and find; T = Taxonomic and morphological genetic stdies; Tl= Translocations

Cultivation Recommendations : 1= Cultivation for conservation either only in in situ or both in situ and ex situ with the population maintaining 90% genetic diversity for 100 years; = same as 1 but periodic reinforce-ment of cultivations with genetic materials from the wild; 3= Cultivation only for research, education or husbandry but not for conservation; P = pending

Level of difficulty: 1 = Least difficult; 2 = Moderately difficult; 3 = Very difficult

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Amphibians of India

Summary Data Table

Species	Range	Area	No of loc./ F	% decline	Year/ gen.	Pop. no.	Data quality	Threats	IUCN	Crit. used	Research recommend.	Capt. Breed.	Lev. Diff.
INDIAN ENDEMICS													
Ansonia kamblei	B	Unk	1	Unk	Unk	Unk	2	Unk	DD	-	S, Lh, T, M, PP	3	Unk
Ansonia ornata	B	C	2	Unk	Unk	Unk	2	I	EN	RD	S, T, M, Lh, PP	2	Unk
Ansonia rubigina	B	B	2, F	Unk	Unk	Unk	2	I, L	EN	RD	S, M, Lh	2	Unk
Bufo abatus	Unk	Unk	1	Unk	Unk	Unk	2, 5	Unk	DD	-	S, L	No	Unk
Bufo beddomii	D	C	>10	Unk	Unk	Unk	2	I	LRlc	-	Lh	No	Unk
Bufo brevirostris	Unk	Unk	Unk	Unk	Unk	Unk	5	I	DD	-	S, Lh	No	Unk
Bufo camortensis	B	C	<5	Unk	Unk	Unk	2	No	VU	NM	S, M, T, Lh	No	Unk
Bufo hololius	D	D	>5, F	Unk	Unk	Unk	1	L, I	LR-nt	-	T, S, M	No	Unk
Bufo koynayensis	B	C	2	Unk	Unk	Unk	2	I, L	EN	RD	S, T, M, PP	2	Unk
Bufo parietalis	D	D	>10, F	Unk	Unk	Unk	2	L, Lf, I	LRnt	-	S, Lh, M	No	Unk
Bufo silentvalleyensis	A	B	1	Unk	Unk	Unk	2	Unk	VU	NM	S, T, M, PP	3	Unk
Bufoides meghalayanus	A	A	1	Unk	Unk	Unk	2	L, I	CR	RD	S, Lh, M	2	Unk
Chirixalus dudhwaensis	B	C	1	Unk	Unk	Unk	2	Unk	VU	NM	S, T	No	Unk
Euphlyctis ghoshi	B	C	1	Unk	Unk	Unk	2	L	EN	RD	S, Lh, T, M	2	Unk
Gegeneophis carnosus	C	D	6, F	Unk	Unk	Unk	2	I	VU	RD	S, Lh, T, M, PP	3	Unk
Gegeneophis fulleri	C	C	1	Unk	Unk	Unk	2, 5	L, I	VU	RD	S, Lh	No	Unk
Gegeneophis ramaswamii	B	B	2	Unk	Unk	Unk	2	L, I	EN	RD	S, Lh, T, M, PP	2	3
Ichthyophis beddomei	D	C	8	20	10	>2500	1, 2	I, E, Pu, L, Lf	VU	PR, RD	M, Hm	3	2
Ichthyophis bombayensis	B	C	3, F	Unk	Unk	Unk	2	E, L, I	EN	RD	S, T, M, Lh, Lr, PP	2	Unk
Ichthyophis longicephalus	C	C	2	<20	10	Unk	2	I	VU	RD	S, T, M, Lh, Lr, PP	3	Unk
Ichthyophis malabarensis	C	C	4, F	Unk	Unk	Unk	2, 3	I, E, L, Lf	VU	RD	S, Lh, Lr, Hm, M, PP	3	2
Ichthyophis peninsularis	C	C	2, F	Unk	Unk	Unk	2	L, I	VU	RD	S, T, M, Lh, PP	3	Unk
Ichthyophis sikkimensis	C	C	2	Unk	Unk	Unk	5	L, I	VU	RD	S, Lh, M	3	Unk
Ichthyophis subterrestris	C	C	5, F	Unk	Unk	Unk	2, 5	I	VU	RD	S, T, M, Lh, PP	3	Unk
Ichthyophis tricolor	B	B	3, F	Unk	Unk	Unk	2	I, L, Lf	EN	RD	S, T, M, Lh, PP	2	Unk
Indirana beddomii	D	D	Many	20	5	Unk	2	L, Lf, I	VU	PR	Lh, M, Hm, PP	3	3
Indirana brachytarsus	C	C	4	Unk	Unk	Unk	2	L, Lf, I	VU	RD	S, Lh, M, PP	3	Unk
Indirana diplostictus	C	C	10	Unk	Unk	Unk	2	L	VU	RD	S, Lh, M, PP	P	Unk
Indirana gundia	Unk	Unk	1	Unk	Unk	Unk	2	L	DD	-	S, Lh	No	Unk
Indirana leithii	D	D	>10, F	Unk	Unk	Unk	2	L, Lf, I	LR-nt	-	M, Lh, PP	No	Unk
Indirana leptodactylus	C	C	<10, F	Unk	Unk	Unk	2	I, Lf	VU	RD	S, Lh, M, P	3	Unk
Indirana phrynoderma													
Indirana semipalmatus	C	C	10	20	10	Unk	2	L, Lf	VU	PR, RD	S, Lh, M, PP	3	Unk
Indirana tenuilingua	Unk	Unk	1	Unk	Unk	Unk	-	Unk	DD	-	S, Lh	No	Unk
Indotyphlus battersbyi	A	B	2	Unk	Unk	Unk	2	I, L	CR	RD	S, T, Lh, M, PP	2	3
Kaloula baleata ghoshi	B	B	2	Unk	Unk	Unk	2, 5	No	VU	NM	S, T, Lh, Lr	No	Unk
Limnonectes andamanensis	C	D	50	Unk	Unk	Unk	2	No	LR-lc	-	T, Lh, M	No	Unk
Limnonectes brevipalmatas	C	C	>10	Unk	Unk	Unk	2	L, Lf, I	LR-nt	-	S, Lh, M, PP	No	Unk
Limnonectes keralensis	D	D	7, F	Unk	Unk	Unk	2	I, Pu, Lf	LR-nt	-	Lh, S, M, T	No	Unk
Limnonectes khasiensis	Unk	Unk	1	Unk	Unk	Unk	5	Unk	DD	-	S, T, Lh	No	Unk

Species	Range	Area	No of loc./ F	% decline	Year/ gen.	Pop. no.	Data quality	Threats	IUCN	Crit. used	Research recommend.	Capt. Breed.	Lev. Diff.
Limnonectes mawlyndipi	A	A	1	Unk	Unk	Unk	2	L	CR	RD	S, L, Hm, T	2	Unk
Limnonectes mawphlangensis	D	A	1	Unk	Unk	Unk	2	L, I	CR	RD	S, Lh, M, T	No	Unk
Limnonectes murthii	B	B	2	Unk	Unk	Unk	2	I	EN	RD	S, Lh, M, PP	2	Unk
Limnonectes mysorensis	B	A	1	Unk	Unk	Unk	5	I, L	CR	RD	S, M, Lh, T	2	Unk
Limnonectes nilagirica	C	B	6, F	Unk	Unk	Unk	5	L, I	EN	RD	S, Lh	No	Unk
Limnonectes sauriceps	Unk	Unk	1	Unk	Unk	Unk	5	Unk	DD	-	S	No	Unk
Limnonectes shompenorum	B	C	3	Unk	Unk	Unk	2	L, I	EN	RD	S, M, Lh	No	Unk
Megophrys robusta	B	B	3	Unk	Unk	Unk	2	L	EN	RD	T, S, M, Lh	2	Unk
Melanobatrachus indicus	C	C	4, F	Unk	Unk	Unk	2	I	VU	RD, NM	S, Lh, M, PP	3	Unk
Micrixalus fuscus	D	D	>10	Unk	Unk	Unk	2	L, Lf, I	LR-nt	-	M, Lh	No	Unk
Micrixalus gadgili	C	B	3, F	Unk	Unk	Unk	2	L, I, Lf	EN	RD	S, M, Hm, T, Lh, PP	1, 2	Unk
Micrixalus nudis	C	C	5	Unk	Unk	Unk	2	I L, Lf	VU	RD	S, M, Hm, PP	3	Unk
Micrixalus phyllophilus	D	D	>5, F	Unk	Unk	Unk	2	L, Lf, I	VU	RD	Lr, Lh, M	3	Unk
Micrixalus saxicola	D	D	8, F	Unk	Unk	Unk	2, 3	L, I, Lf	LR-nt	-	M.Lr, Lh	No	Unk
Micrixalus silvaticus	C	C	5, F	Unk	Unk	Unk	2	L, I, Lf	VU	RD	S, M, Lr, PP	3	Unk
Micrixalus thampii	B	B	1	Unk	Unk	Unk	2	I, Pu, L	EN	RD	S, M, PP	2	Unk
Microhyla chakrapani	A	B	1	Unk	Unk	Unk	2, 5	No	VU	NM	S, T, Lh, M	3	Unk
Nyctibatrachus aliciae	D	C	5, F	Unk	Unk	Unk	2	I	VU	RD	M, Lr, Lh, S, PP	3	Unk
Nyctibatrachus beddomii	D	D	>10	Unk	Unk	Unk	2	L, I, Lf	LR-nt	-	M	No	Unk
Nyctibatrachus deccanensis	C	C	5	Unk	Unk	Unk	2	1	VU	RD	S, M, Lh	3	Unk
Nyctibatrachus humayuni	D	B	4, F	Unk	Unk	Unk	2, 3	I, Pu, L, Lf	EN	RD	S, M, Lh, PP	P	Unk
Nyctibatrachus kempholeyensis	Unk	Unk	1	Unk	Unk	Unk	5	Unk	DD	-	S	No	Unk
Nyctibatrachus major	D	D	>10	Unk	Unk	Unk	2	Pu, E, I, Sn, Lf	LR-nt	-	M, Hm,	No	Unk
Nyctibatrachus minor	D	C	>2	Unk	Unk	Unk	2	I, Pu,	VU	RD, NM	S, Lh, M	No	Unk
Nyctibatrachus sanctipalustris	C	B	4	Unk	Unk	Unk	2	I, L, Lf	EN	RD	S, M, Lh, PP	2	Unk
Nyctibatrachus sylvaticus	Unk	Unk	1	Unk	Unk	Unk	5	Unk	DD	-	S	No	Unk
Pedostibes kempi	A	A	1	Unk	Unk	Unk	5	L, I	CR	RD	S, Lh, M	2	Unk
Pedostibes tuberculosus	D	C	4, F	Unk	Unk	Unk	2	I, Lf	VU	RD	S, Lh, M, PP	3	Unk
Philautus beddomii	C	C	6, F	Unk	Unk	Unk	2	L, I, Lf	VU	RD	S, Lh, , T, Hm, PP	3	Unk
Philautus bombayensis	C	B	4, F	Unk	Unk	Unk	2	I, Lf	EN	RD	S,M , T, Lh, PP	2	Unk
Philautus chalazodes	C	C	4, F	Unk	Unk	Unk	2	I, Lf	VU	RD, NM	S, M, T	3	Unk
Philautus charius	D	D	8, F	Unk	Unk	Unk	2	L, Lf, I	LR-nt	-	S, T, M	P	Unk
Philautus cherrapunjiae	B	C	2, F	Unk	Unk	Unk	2	L, I	EN	RD	S, Lh, M	Unk	Unk
Philautus crnri	Unk	Unk	1	Unk	Unk	Unk	5	Unk	DD	-	S, L	No	Unk
Philautus elegans	Unk	Unk	1	Unk	Unk	Unk	5	Unk	DD	-	S, T, Lh	No	Unk
Philautus flaviventris	Unk	Unk	1	Unk	Unk	Unk	2	Unk	DD	-	S, M, T	No	Unk
Philautus garo	A	A	1	Unk	Unk	Unk	5	L, I	CR	RD	S, T, Lh, M	2	Unk
Philautus glandulosus	D	C	6, F	Unk	Unk	Unk	2	I, L, Lf	VU	RD	S, M, T, PP	3	Unk
Philautus hassanensis	Unk	Unk	1	Unk	Unk	Unk	5	Unk	DD	-	S, T, Lh	No	Unk

Species	Range	Area	No of loc./ F	% decline	Year/ gen.	Pop. no.	Data quality	Threats	IUCN	Crit. used	Research recommend.	Capt. Breed.	Lev. Diff.
Philautus kempiae	A	A	1	Unk	Unk	Unk	5	L, I	CR	RD	S, T, Lh, M	2	Unk
Philautus kottigeharensis	Unk	Unk	1	Unk	Unk	Unk	5	Unk	DD	-	S, T, Lh	No	Unk
Philautus leucorhinus	D	D	>10	Unk	Unk	Unk	2	L, I, Lf	LR-nt	-	S, Lh, M	No	Unk
Philautus melanensis	Unk	Unk	1	Unk	Unk	Unk	5	Unk	DD	-	S, T, Lh	No	Unk
Philautus namdaphaensis	D	C	1	Unk	Unk	Unk	2	L, I	VU	RD, NM	S, Lh, M	3	Unk
Philautus narainensis	Unk	Unk	1	Unk	Unk	Unk	5	Unk	DD	-	S, T, Lh	No	Unk
Philautus nobeli	Unk	Unk	1	Unk	Unk	Unk	2	Unk	DD	-	S	No	UNK
Philautus parkeri	Unk	Unk	1	Unk	Unk	Unk	5	Unk	DD	-	S	No	Unk
Philautus pulcherimus	C	C	6	Unk	Unk	Unk	2	I	VU	RD	S, T, Lh, pp	No	Unk
Philautus shillongensis	A	A	1	Decl.	Unk	Unk	2	L, I	CR	RD	S, Lh, M	No	Unk
Philautus shyamrupus	D	C	1	Unk	Unk	Unk	2	L	VU	RD, NM	S, Lh, M	No	Unk
Philautus signatus	C	C	7	Unk	Unk	Unk	2	Pu	VU	RD	S, T, PP	No	Unk
Philautus swamianus	Unk	Unk	1	Unk	Unk	Unk	5	Unk	DD	-	S, T, Lh	No	Unk
Philautus temporalis	C	B	2	Unk	Unk	Unk	2	I	EN	RD	S, Lh, M, T	P	Unk
Philautus travancoricus	Unk	Unk	1	Unk	Unk	Unk	5	Unk	DD	-	S, T, PP	No	Unk
Philautus variabilis	D	D	10	Unk	Unk	Unk	2	I, L	LR-nt	-	Lh, M, T	No	Unk
Phrynoglossus borealis	B	B	1	Unk	Unk	Unk	2, 5	L	EN	RD	T, S, M, Lh	No	Unk
Polypedates cruciger	D	C	3, F	Unk	Unk	Unk	2	I, L	VU	RD, NM	Lh, S, T	No	Unk
Polypedates insularis	B	C	3	Unk	Unk	Unk	2	L, I	EN	RD	S, M, Lh	2	Unk
Ramanella anamalaiensis	Unk	Unk	1	Unk	Unk	Unk	5	Unk	DD	-	S	Unk	Unk
Ramanella minor	Unk	Unk	1	Unk	Unk	Unk	5	Unk	DD	-	S.	Unk	Unk
Ramanella montana	D	D	Many, F	Unk	Unk	Unk	2	L, I, Lf	LRnt	-	M, Lh	No	Unk
Ramanella mormorata	D	C	2, F	Unk	Unk	Unk	2	L, I	VU	RD, NM	S, M, Lh	No	Unk
Ramanella obscura													
Ramanella palmatus													
Ramanella triangularis	C	C	5, F	Unk	Unk	Unk	1, 2	I, Lf, L	VU	EO, NM	Lh, S, M	3	Unk
Rana aurantiaca	D	D	7	Unk	Unk	Unk	2	I	LR-nt	-	Lh, S, Hm, M	No	3
Rana curtipes	D	D	15	Unk	Unk	Unk	2	I, L, R	LR-nt	-	M, Lh, P	No	Unk
Rana danieli	D	D	6F	<20	10	Unk	2	L, I	LR-nt	-	S, Hm, T, Lr, Lh	No	Unk
Rana garoensis	B	C	1	Unk	Unk	Unk	5	L	EN	RD	S, Lh, M	P	Unk
Rana khare	B	B	3	<20	10	Unk	2	L	EN	RD	M, S, Lh, T	2	Unk
Rana malabarica	D	D	Many	Unk	Unk	Unk	2, 3	Lh, Lf, I	LR-nt	-	M, Lh, PP	No	Unk
Rana senchalensis	A	A	1	Unk	Unk	Unk	2	L	CR	RD	S, M, Lh	2	Unk
Rana travancorica	Unk	Unk	1	Unk	Unk	Unk	5	Unk	DD	-	S	No	Unk
Rhacophorus calcadensis	Unk	Unk	1	Unk	Unk	Unk	5	Unk	DD	-	S, Lh	No	Unk
Rhacophorus jerdonii	C	D	2, F	Unk	Unk	Unk	5	L, I	VU	RD, NM	S, T, M, Lh	No	Unk
Rhacophorus lateralis	B	C	2, F	Unk	Unk	Unk	2	I	EN	RD	S, Lh, PP	No	Unk
Rhacophorus malabaricus	D	D	10	Unk	Unk	Unk	2, 3	L, I	LR-nt	-	Lh, M, PP	No	Unk
Rhacophorus namdaphaensis	D	C	1	Unk	Unk	Unk	2	L	VU	RD, NM	S, Lh, M	3	Unk
Rhacophorus naso	Unk	Unk	1	Unk	Unk	Unk	5	Unk	DD	-	S, Lh	2	Unk
Rhacophorus pleurostictus	C	C	8	Unk	Unk	Unk	2, 3	L, I	VU	RD	S, M, PP	P	3

Species	Range	Area	No of loc./ F	% decline	Year/ gen.	Pop. no.	Data quality	Threats	IUCN	Crit. used	Research recommend.	Capt. Breed.	Lev. Diff.
Rhacophorus taeniatus	D	D	4	Unk	Unk	Unk	3	L, I	LR-nt	-	S, T, Lh, Lr, M	No	Unk
Rhacophorus tuberculatus	D	D	2	Unk	Unk	Unk	5	L	LRnt		T, S, Lh, M	3	Unk
Scutiger occidentalis	Unk	Unk	Unk	Unk	Unk	Unk	5	Unk	DD	-	S, T, Lh	No	Unk
Tomopterna dobsonii													
Tomopterna leucorhynchus	Unk	Unk	1	Unk	Unk	Unk	5	Unk	DD	-	S	No	Unk
Tomopterna parambikulamana	Unk	Unk	1	Unk	Unk	Unk	5	Unk	DD	-	S	No	Unk
Tomopterna rufescens	D	D	9	Unk	Unk	Unk	2	I, L, Lf	LR-nt	-	S, M, Lr	No	Unk
Uraeotyphlus malabaricus	C	B	2	Unk	Unk	Unk	2	L, I	EN	RD	T, S, PP	2	Unk
Uraeotyphlus menoni	Cs	C	1	Unk	Unk	Unk	2, 5	I	VU	RD, NM	S, T, M, Lh, PP	3	Unk
Uraeotyphlus narayani	C	C	3, F	Unk	Unk	Unk	2	I, L, Lf	VU	RD	S, T, M, Lh, PP	3	Unk
Uraeotyphlus oxyurus	C	C	> 5	Unk	Unk	Unk	2	I, Lf	VU	RD	S, Lh, M, PP	3	3
NON-ENDEMICS													
Amolops afghanus	D	D	7	Unk	Unk	Unk	2	L, I	LR-nt	-	T, M, Lh, Lr	No	Unk
Amolops formosus	D	D	4, F	Unk	Unk	Unk	5, 2	L, Pu, I	LR-nt	-	S, M, Hm	No	Unk
Amolops gerbillus	D	D	6	Unk	Unk	Unk	2	L, I	LR-nt	-	T, M, Lh, Lr, S	No	Unk
Amolops monticola	B	B	1	Unk	Unk	Unk	5	L, I	EN	RD	S, T, M, Lh	No	Unk
Bufo fergusonii	D	D	>10	Unk	Unk	Unk	2	No	LR-lc	-	M, Lh, T	No	3
Bufo himalayanus	D	D	6	Unk	Unk	Unk	2	L, I	LR-nt	-	T, S, M, Lh	No	Unk
Bufo latastii	D	D	4	Unk	Unk	Unk	2	No	LR-lc	-	T, S, Lh	No	Unk
Bufo melanostictus	D	D	Many	25	10	Unk	2	Hm, L, I, Ps	VU	PR	S, M	3	1
Bufo microtympanum	D	D	5, F	Unk	Unk	Unk	2	L, I, LF	LR-nt	-	M, Lh	No	Unk
Bufo stomaticus	D	D	Many	Unk	Unk	Unk	2	I	LR-nt	-	S, M, Lh	3	Unk
Bufo stuarti	D	D	1	Unk	Unk	Unk	5	L, I	LR-nt	-	T, S, M, Lh, Lr,	No	Unk
Bufo viridis	Unk	Unk	1	Unk	Unk	Unk	2	Unk	DD	-	S	No	Unk
Chaparana sikimensis	D	D	3	Unk	Unk	Unk	5	L, I	LR-nt	-	T, S, M, Lr	No	Unk
Chirixalus doriae	B	B	1	Unk	Unk	Unk	5, 2	L, I	EN	RD	S, Lh	No	Unk
Chirixalus simus	B	B	1	Unk	Unk	Unk	5	L	EN	RD	S, Lh	P	Unk
Chirixalus vittatus	B	B	1	Unk	Unk	Unk	2	L, I	EN	RD	S, M	No	Unk
Euphlyctis cyanophlyctis	D	D	Many	Unk	Unk	Unk	2	Ps, I, L, Po, Lf, Pu	LR-nt	-	S, M, Lr	3	1
Euphlyctis hexadactylus	D	D	Many	Unk	Unk	Unk	2	T, L, Ps, H, Pu	LR-nt	-	S, M, Lh, P	3	2
Hoplobatrachus crassus	D	D	Many	Unk	Unk	Unk	2	I, L, P	LR-nt	-	M, P	3	1
Hoplobatrachus tigerinus	D	D	>100	>20	10	Unk	2	Pu, Ps, Hm, Tp, Hf, I, T	VU	PR	Hm, Lh, M	3	1
Hyla annectans	D	D	5	Unk	Unk	Unk	2	L, I, Lf	LR-nt	-	S, M, Hm, T, Lh, Lr	No	Unk
Kaloula taprobanica	D	D	>50	10	20	Unk	2	L	LR-nt	-	S, M, Lh	No	Unk
Leptobrachium hasseltii	B	B	3	10	10	Unk	2	L, I	EN	RD	S, M, T, Lh, P	2	Unk
Limnonectes cancrivorus	D	D	5	Unk	Unk	Unk	2	No	LR-lc	-	S, M, T, Lh	No	Unk
Limnonectes doriae	B	B	5	Unk	Unk	Unk	2	No	VU	NM	S, Hm, M, T, Lh	No	Unk

Species	Range	Area	No of loc./ F	% decline	Year/ gen.	Pop. no.	Data quality	Threats	IUCN	Crit. used	Research recommend.	Capt. Breed.	Lev. Diff.
Limnonectes limnocharis	D	D	Many	25	10	Unk	2	L, I, Ps, Lf, H, Dp	VU	PR	S, M, T, Hm, Lr, G, Lh	3	1
Limnonectes syhadrensis	D	D	> 6	Unk	Unk	Unk	2	L, I	LR-nt	-	S, T, Lh	No	Unk
Megophrys boettgeri	D	D	1	Unk	Unk	Unk	5	L, I	LR-nt	s	S, M, T, Lh, Hm	3	Unk
Megophrys kempii	B	B	1	Unk	Unk	Unk	5	L, I	EN	RD	S, M, T, Lh	2	Unk
Megophrys lateralis	D	D	?	Unk	Unk	Unk	5	L	DD	-	S, M, T, Lh	No	Unk
Megophrys montana	C	B	2	Unk	Unk	Unk	2	L, I	EN	RD	S, Hm, M, T, Lh, P	2	Unk
Megophrys parva	D	D	5	Unk	Unk	Unk	2	L, I	LR-nt	-	S, M, T, Lh, Lr	No	Unk
Microhyla berdmorei	D	D	5	Unk	Unk	Unk	2	L, I	LR-nt	-	S, M, T, Hm, Lh, Lr	3	Unk
Microhyla heymonsi	B	B	3	Unk	Unk	Unk	2	L	EN	RD	S, T, Lh	2	Unk
Microhyla ornata	D	D	>1000	Unk	Unk	Unk	2	-	LR-lc	-	M	No	Unk
Microhyla rubra	D	D	Many	Unk	Unk	Unk	2	L, I	LR-nt	-	S, M, Lh	No	Unk
Micryletta inornata	B	C	1	Unk	Unk	Unk	2	L, I	EN	RD	S, M, T, Lh	2	Unk
Nytixalus moloch	B	B	1	Unk	Unk	Unk	5	L, I	EN	RD	S, T, Lh	P	Unk
Occidozyga lima	Unk	Unk	Unk	Unk	Unk	Unk	5	Unk	DD	-	S	No	Unk
Paa annandalii	B	B	1	Unk	Unk	Unk	2	L, I	EN	RD	S, M, T.Hm, Lh, Lr	No	Unk
Paa blanfordii	D	D	5, F	Unk	Unk	Unk	5	L	LR-nt	-	S, Hm, M, T, Lh, Lr	No	Unk
Paa hazarensis	Unk	Unk	Unk	Unk	Unk	Unk	5	Unk	DD	-	T, S, Lh	No	Unk
Paa liebigii	D	D	4, F	Unk	Unk	Unk	2	L, I	LR-nt	-	S, Hm, M, T, Lh, Lr	No	Unk
Paa minica	Unk	Unk	2	Unk	Unk	Unk	5, 2	L	DD	-	S, T, Lh	No	Unk
Paa sternostignata	Unk	Unk	Unk	Unk	Unk	Unk	5	Unk	DD	-	S	No	Unk
Paa vicina	Unk	Unk	2	Unk	Unk	Unk	2, 5	L	DD	-	S	No	Unk
Philautus andersonii	B	B	1	Unk	Unk	Unk	5	L, I	En	RD	S, M, Hm	2	Unk
Philautus annandalii	D	D	2	Unk	Unk	Unk	2	L	LR-nt	-	S, M, T, Hm, Lh, LR	No	Unk
Pleurodeles verrucossus	D	D	30	50	10	Unk	2	L, T, I, E	EN	PR	T, M, S, P	3	1
Polypedates leucomystax	D	D	Many	Unk	Unk	Unk	2	No	LR-lc	-	T, S, Lh	No	Unk
Polypedates maculatus himalayensis	C	B	2	Unk	Unk	Unk	2	L, I	EN	RD	T, S, Lh	No	Unk
Polypedates maculatus maculatus	D	D	Many	Unk	Unk	Unk	2	Unk	LR-lc	-	T, M	No	Unk
Ramanella variegata	D	D	Many	Unk	Unk	Unk	2	L	LR-nt	-	S, M, Lh	No	Unk
Rana alticola	D	D	6	Unk	Unk	Unk	2	Lh, I	LR-nt	-	T, M, S, Lh, Lr	No	Unk
Rana assamensis	D	D	2, F	Unk	Unk	Unk	2	L, I	LR-nt	-	T, M, S, Lr, Lh	No	Unk
Rana chalconota	B	C	3	Unk	Unk	Unk	2	L, I	EN	RD	T, S, Lh, P	No	Unk
Rana erythraea	D	D	6	Unk	Unk	Unk	2	L, I	LR-nt	-	T, S, M, Lh, Lr	3	Unk
Rana leptoglossa	B	B	1	Unk	Unk	Unk	5	L, I	EN	RD	T, M, Lh, Lr, S, P	2	Unk
Rana livida	D	D	6, F	Unk	Unk	Unk	2	L, I	LR-nt	-	T, M, S, Lr, Lh	No	Unk
Rana nicobarensis	D	D	6	Unk	Unk	Unk	2	L, I	LR-nt	-	T, M, Lh, Lr	No	Unk
Rana nigrovittata	D	B	5	Unk	Unk	Unk	5	L, I	EN	RD	T, S, M, P	No	Unk
Rana taipehensis	D	D	>100	Unk	Unk	Unk	2	L	LR-nt	-	T, Lh	No	Unk
Rhacophorus appendiculatus	Unk	Unk	Unk	Unk	Unk	Unk	-	Unk	DD	-	S	No	Unk
Rhacophorus bipunctatus	D	D	9	Unk	Unk	Unk	2	L	LR-nt	-	T, M, S, Lh, Lr	No	Unk

Species	Range	Area	No of loc./ F	% decline	Year/ gen.	Pop. no.	Data quality	Threats	IUCN	Crit. used	Research recommend.	Capt. Breed.	Lev. Diff.
Rhacophorus bisacculus	B	B	1	Unk	Unk	Unk	2	L	EN	RD	T, S, L, M, Lr, Lh, P	No	Unk
Rhacophorus maximus	D	D	9	Unk	Unk	Unk	2	L	LR-nt	-	T, S, M, Lr, Lh	No	Unk
Rhacophorus nigropalmatus	Unk	Unk	Unk	Unk	Unk	Unk	5	Unk	DD	-	T, M, Lr, Lh	No	Unk
Rhacophorus reinwardtii	D	D	10	Unk	Unk	Unk	2, 5	L	LR-nt	-	T, S	No	Unk
Scutiger nyingchinesis	D	D	1	Unk	Unk	Unk	2	Unk	LR-nt	-	T, S, Lh	No	Unk
Scutiger sikimmensis	D	D	3	Unk	Unk	Unk	2	L	LR-nt	-	T, S, M, Lh, Lr	No	Unk
Taylorana hascheana	Unk	Unk	Unk	Unk	Unk	Unk	5	Unk	DD	-	S, M	No	Unk
Theloderma asper	Unk	Unk	Unk	Unk	Unk	Unk	2	Unk	DD	-	S	No	Unk
Tomopterna rolandae	D	D	100	Unk	Unk	Unk	2	L	LR-nt	-	T, Lh	No	Unk
Uperodon globulosus	D	D	>25	Unk	Unk	Unk	2	L	LR-nt	-	S, M, Lh	No	2
Uperodon systoma	D	D	>20	Unk	Unk	Unk	2	L	LR-nt	-	No	Unk	No

Amphibians of India

Report

Biodiversity Conservation Prioritisation Project, India -- Endangered Species Project
Conservation Assessment and Management Plan (C.A.M.P.) Workshops

Amphibians of India
Hosted by Utkal University, Bhubaneswar, 22 – 26 April 1997

REPORT

Convention on Biological Diversity

The Convention on Biological Diversity adopted in Nairobi in May 1992 and signed by more than 150 states in June 1992 at Rio de Janeiro, came into force officially in December 1993. The Convention is a "framework agreement" in that its provisions are expressed as goals and policies (as opposed to "obligations"), leaving the implementation of its provisions up to individual parties (the states) at the national level. In the Convention, the importance of non-governmental organisations in implementing the provisions was specifically mentioned.

Articles in the Convention cover objectives, terminology, principles, legislation, cooperation and strategy as applied to various issues and methodology. One of the very basic methods of organising conservation action is prioritisation. Article 7 of the Convention deals with Identification and Monitoring, calling on parties to identify components of biological diversity important for its conservation and sustainable use. Components of an "indicative list" include:
* Ecosystems and habitats
* Species and communities, and
* Described genomes and genes of social, scientific and economic value.

Knowledge of species and communities can reveal crucial facts necessary to the management of ecosystems and habitats as well as to the identification of important genomes and genes. Identification, listing and prioritisation of species are one of the important tasks in conservation. In India, it is well known by biologists across many taxon groups that species information has many gaps. In many instances, the species has not been surveyed or studied since its description, perhaps in the 18th or 19th century. Even species, which have been studied more recently in the 20th century, require constant attention due to the fact that the very fabric of the earth is changing so rapidly. It is common knowledge today that the ecosystems and habitats which sustain species are deteriorating exponentially as a result of population expansion, industrialisation, and the build-up of habits resulting from decades and centuries of thinking the Earth and its resources were unlimited. Awareness of this fact is, of course, the raison d'être for the Convention on Biological Diversity itself.

Biodiversity Conservation Prioritisation Project – Endangered Species Component

The Biodiversity Conservation Prioritisation Project (BCPP) is an attempt to amalgamate the knowledge of government, academics, enthusiasts, and other knowledgeable persons of India to meet obligations of the Convention on Biological Diversity. This Project was funded by the Biodiversity Support Program, a consortium of organisations, USAID, World Resources Institute and the Nature Conservancy, and coordinated by World Wide Fund for Nature. It consists of three segments, sites, species and strategies for biodiversity conservation. The overall aim of the species segment is to list out species which need to be conserved for their biodiversity value in order of priority, under categories of medicinal and economic value, wild relatives of domesticated and cultivated species and other endangered fauna, flora and micro-organisms.

An Endangered Species Subgroup decided to use the IUCN criteria to assess the conservation status of a large part of Indian species diversity. A workshop "process" called the Conservation Assessment and Management Plan (CAMP) developed by the Conservation Breeding Specialist Group, SSC, IUCN was selected by the subgroup as the methodology to use for conducting the assessments. CBSG, India, a Regional Network of the Conservation Breeding Specialist Group was asked to conduct the "CAMP" workshops on the basis of their experience and expertise. The IUCN Red List criteria is central to the CAMP process.

IUCN Red List

Earlier efforts to monitor the earth's resources and activate conservation measures include the Red Data Books of IUCN, now called the World Conservation Union. The IUCN Red Data Books have provided a guide for species conservation status for the last three decades. A few years ago, it was felt that both the categories and methodology used by individuals compiling the Red Data Books needed review. Over a seven-year period, the IUCN Criteria for Endangerment used in compiling Red Data Books, were examined, revised, reviewed and improved over six different iterations. The present system, the IUCN Red List Categories, 1994, is more

objective, numerate, and consistent for all groups. The revised IUCN Red List Categories provide a methodology for assessment and categorisation, which can be applied, to any group of organisms (except microorganisms). The revised IUCN Red List criteria is being used now by conservation actioners and scientists all over the world and is not considered the best possible method available today for assessing the conservation status of species.

Conservation Assessment and Management Plan

One of the great difficulties of carrying out basic tasks such as identification and monitoring, creation of management and action plans and recovery programmes for species, is coordinating the great mass and variety of specialist knowledge and agency authority. Much time and energy is wasted in duplication of effort, territorial and ownership disputes, and inability to find and adhere to a common ground. The business community, realising the importance of effective communication and teamwork, has developed a broad spectrum of management strategies and tools which are used daily to manage time and human interaction. More and more, the conservation community is recognising the importance of using some of these tools to achieve their goals, rapidly and effectively. The Conservation Breeding Specialist Group (CBSG) of the Species Survival Commission of IUCN has pioneered the use of some these tools in well-planned strategic problem-solving and task -performance exercises. CBSG calls these exercises “processes” because — in the contemporary conservation scenario — nothing is static except the fact of change itself.

The Conservation Action and Management Plan Workshop was developed by CBSG for the purpose of prioritising species for conservation action including ex situ component. Over the last decade, CBSG has conducted dozens of CAMP workshops for literally hundreds of species, using (and thereby testing) the then current iteration of the IUCN Red List Categories as their basic methodology to glean a status ranking. The IUCN Red List guidelines and criteria are used in all CAMP workshops to assess and assign a category to each species.

For the CAMP Workshop CBSG has developed a Taxon Data Sheet and a Spreadsheet format which includes parameters necessary to assess the IUCN status as well as provide other useful information necessary for creating management and action plans. The spreadsheet organises the information in a concise manner so that it is accessible at a glance. The information in this Report is organised on spreadsheets in the Report section, followed by the individual Taxon Data Sheets. A CAMP Workshop also utilises principles of management psychology to guide human interaction. A set of Guidelines for Group Interaction is presented to the workshop participants who agree as a group to work accordingly in order to complete the task. Objective Facilitators (persons trained in management skills and the workshop process) are used to lead and guide the workshop so that individual and professional bias does not affect group decisions and to assist in maintaining the integrity and focus of the workshop.

CAMP Workshops bring together a variety of specialists and enthusiasts from academic, government, managerial, and even the commercial sector to evaluate taxa for setting priorities for conservation action. The fear of loss and hope of recovery of species drives CAMP Workshops. Individuals part with unpublished information in order to contribute to a body of information which will provide strategic guidance for application of intensive management and information gathering. CAMP Workshops results, are, or should be, dynamic, leading to specific conservation activities in forest, market, classroom, courtroom — locally and nationally as well as on the international stage.

Conservation of Indian amphibians

Recent reports of dramatic decline in amphibian populations all over the world has created an appropriate sense of alarm. The need for intensive, concentrated and expeditious action led the Species Survival Commission to initiate a special Task Force to document amphibian declines and the factors leading to decline. The Declining Amphibian Population Task Force (DAPTF) was established in 1991 to network amphibian field biologists and to document amphibian status all over the world. There are many regional groups working under the auspices of DAPTF, some of the more active ones in Canada, Australia, Ukraine and India. India is the first country in the world, however, to assess systematically the status of all of its described amphibians. This assessment took place in the CAMP workshop organised by Utkal University and DAPTF – South Asia under the auspices of the Biodiversity Conservation Prioritisation Project. This exercise is the first time a signatory to the Convention on Biodiversity has assessed all species of a group of organisms in their countries.

While there are a number of renowned amphibian researchers in India, the size of the task is so formidable in this large tropical country that it far exceeds the strength of current qualified manpower. While other countries are studying amphibian decline as a result of subtle environmental factors, in India even basic information on distribution is lacking. Therefore, the results of this workshop relate to the more obvious threats such as habitat destruction and human interference. Negative population trends due to changes in environmental conditions or parasites cannot be evaluated unless good information about population exists in the first instant. Furthermore, taxonomic confusion still persists in the checklist of Indian amphibians.

The 1996 IUCN Red Data Book lists only 3 species of amphibians as being threatened in India. The Indian Red Data Book of 1994 (Zoological Survey of India) lists only 1 species – *Tylototriton verrucosus* as being threatened. These low numbers in the Red Data Books are not, however, indicative of the level of security of India's amphibian fauna. They are, rather, an indication of lack of communication and collaboration between agencies and organisations in the country! ZOO/ CBSG, India had begun to network Indian amphibian researchers sometime before the CAMP workshop and found the level of knowledge of amphibian workers about other amphibian workers to be poor indeed. According to the directory of amphibian researchers produced from the network, more than 100 active researchers are listed within India.

The CAMP workshop was conducted with a view to bring together as many of the country's known and current as well as retired amphibian field biologists, so that the full depth of knowledge regarding population trends and status of all Indian amphibians could be utilised fully.

Goals of the workshop on amphibians of India

1. To assess the conservation status and assign an IUCN Red List category to the amphibian fauna of India using current population, habitat and threat information from participants.

2. To provide information about the species which would be useful in drawing up Action Plans and Management Plans, including recommendations for *in situ* and *ex situ* management; research, survey and monitoring; cultivation; investigation of limiting factors; taxonomic and other specific research, education and husbandry.

3. To organise special issue working groups at the workshop to discuss issues and problems which arise out of the interaction between participants so that the opinions and decisions of the amphibian community of India may form part of the CAMP Report.

4. To produce a Conservation Assessment and Management Plan Draft Report for evaluated species, which after review and comment by workshop participants, would be distributed to all agencies, organisations and individuals relevant to amphibian conservation.

Results and discussion

Since 1991 the IUCN Red List Categories have undergone a series of revisions to enhance their applicability to organisms other than mammals and to reflect the development of the new conservation sciences, population dynamics and conservation biology of the last two decades. The current version of the IUCN Red List Criteria is the version, which was ratified in December 1994 by the IUCN General Assembly. This version has far more objective and scientific criteria for assessment as well as detailed guidelines on how to use the criteria in deriving the category of threat status. The categories can be divided into 5 divisions as illustrated in the list and figure below.

1. Extinct (Extinct and Extinct in the Wild),
2. Threatened (Critically Endangered, Endangered and Vulnerable),
3. Non-threatened (Lower Risk -- near threatened, conservation dependent and least concern),
4. Data Deficient and
5. Not Evaluated

Methodology

Red Data Books in the past have been a compilation of information by one person or a group of persons, usually from temperate countries, who have access to all available literature on distribution and ecological information with reference to a particular species. The status according to old IUCN categories was derived based on the individual's perception of the status as understood from literature. Later, this exercise was broadened to include some range country representatives from different continental regions if the exercise was global in scope, such as the IUCN Red Data Books. In India national exercises such as the Indian Red Data Books relied on some specialistsfrom the different regions of India. In both cases specialists were asked to participate in providing more information on a taxon, information that was gathered by post and evaluated by the coordinator at a central office. There are many different methods in deriving status categories by different groups both internationally (such as those done by BirdLife International, World Conservation Monitoring Centre and the different Specialist Groups of the IUCN) and nationally (such as – for India – Botanical Survey of India or Zoological Survey of India). However the different exercises were coordinated, all the above methods of deriving status for a Red Data Book or other species review follow the IUCN Red List categories.

The methodology for assessment of threat adopted in India at the Conservation Assessment and Management Plan workshops is quite different in that it depends upon interaction between specialists. The objective of

assembling data is the same but in a CAMP Workshop every attempt is made to assemble a representative group of field biologists with direct field experience of the species and their habitat. Information is collected from several sources on the target taxa and in an interactive process of small working groups, this information and the personal field experience of participants is discussed extensively until the group reaches a consensus on every fact. A questionnaire called a Taxon Data Sheet, based on IUCN guidelines for deriving status as well as some additional questions, is provided and used to record this consensually processed information. The advantages of being able to have discussions on the different information provided by various field biologists as opposed to one person compiling data is, or should be, self-evident. Among the advantages of accruing better quality and quantity of information, the payoff resulting from participant "buy in" of the process is most worthwhile. In a national assessment this can have very positive effects on future research.

The Conservation Assessment and Management Plan for Indian amphibians was aimed to cover all amphibian taxa of India which number about 205. An interactive discussion was held in which workshop participants selected four categories of amphibian taxa: 1. Endemic taxa of Western Ghats, 2. Endemic taxa of northeastern India and rest of India including Andaman and Nicobar islands, 3. Non-endemic taxa found in southern India and 4. Non-endemic taxa found in other parts of India including Andaman and Nicobar islands.

Since this was the first All India exercise in amphibian status evaluation, it also provided researchers an opportunity to discuss checklists and taxonomy with other amphibian field biologists and taxonomists in India. A Special Issue Working Group was formed to discuss differences and recent views in taxonomy. Apart from this, other special issue working groups for amphibian conservation included education, captive breeding and future actions for field studies.

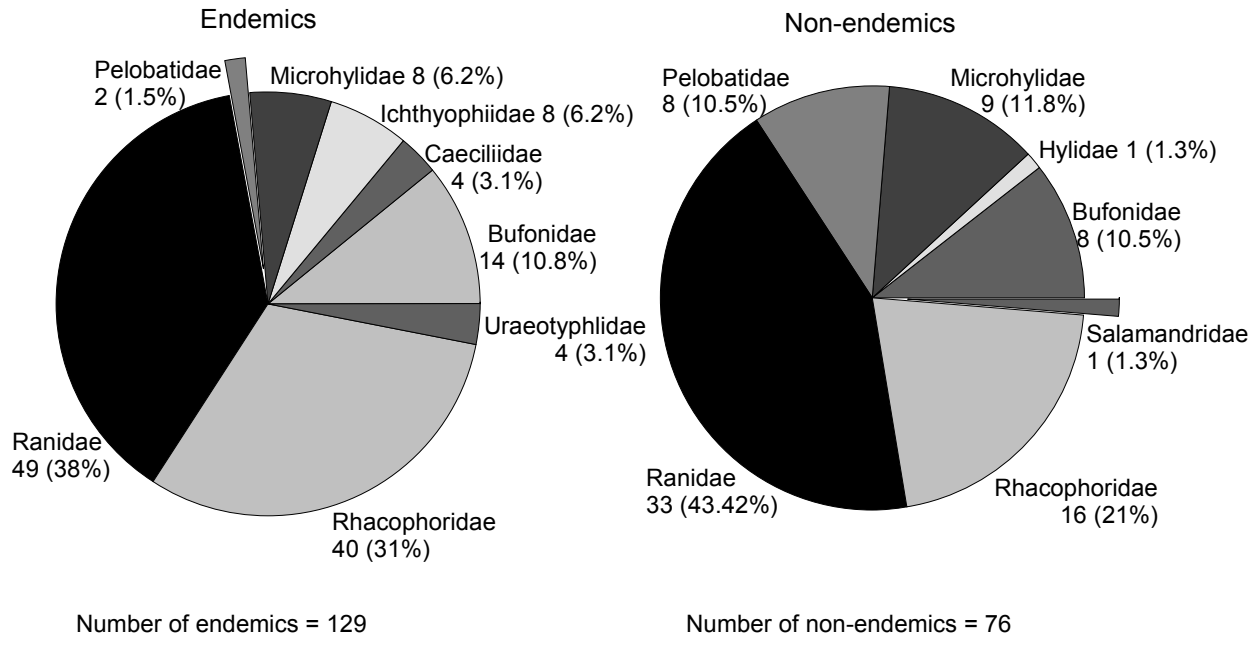
Assessment

Of the total of 205 amphibian taxa considered, 126 of these are endemic to India, and 76 non-endemic. Three taxa were not evaluated.

The IUCN categories are stated to work best at the global level. Guidelines for regional or national assessments are being discussed but have not been developed to date. In the absence of national or regional guidelines, however, the current Red List Criteria were used even for national assessments. Certain of the criteria are not so straightforward when applied to a national or regional population, however, it was found that any anomaly was "conservative" in favour of the species. In other words, some of the non-endemic taxa may have been given a higher category than their population status actually deserves. The alternative, however, was to leave off assessing non-endemic taxa until specific national / regional guidelines are developed, a process which could take years. In India, "wildlife" definition and legislation applies to all wildlife occurring naturally in India with no prejudice towards endemic species. While endemicity enhances the conservation value of a species, other considerations – legislative, ecosystemic, etc - are also valid. A biodiversity inventory should include all species.

Results

Families of amphibians represented in India



Number of endemics = 129

Number of non-endemics = 76

A total of 205 taxa were assessed at the workshop. A definite number could not be attributed to the check-list of Indian amphibians because some taxa considered were found not to occur in India or their occurrence in India was regarded as doubtful due to erroneous identification. Taxonomic confusion added to the difficulty in compiling a complete check list. The assessments were restricted to only previously described taxa and not ones that were being described at the time of the workshop or in press.

A total of 10 families are represented among Indian amphibians of which family Ranidae is the most represented followed by Rhacophoridae and Bufonidae. One taxon each represents families Hylidae and Salamandridae (both non-endemics).

Table 1. Checklist of Indian amphibians assessed at the workshop

Species	IUCN
Bufonidae	
Ansonia kamblei Ravichandan & Pillai *	DD
Ansonia ornata Günther *	EN
Ansonia rubigina Pillai & Pattabhiraman *	EN
Bufo abatus Ahl *	DD
Bufo beddomii Günther *	LRlc
Bufo brevirostrisRao *	DD
Bufo camortensis Mansukhani & Sarkar *	VU
Bufo fergusonii (Boulenger)	LR-lc
Bufo himalayanus (Günther)	LR-nt
Bufo hololius (Günther) *	LR-nt
Bufo koynayensis Soman *	EN
Bufo latastii (Boulenger)	LR-lc
Bufo melanostictus (Schneider)	VU
Bufo microtympanum (Boulenger)	LR-nt
Bufo parietalis Boulenger *	LRnt
Bufo silentvalleyensis Pillai *	VU
Bufo stomaticus Lütken	LR-nt
Bufo stuarti (Smith)	LR-nt
Bufo viridis Laurenti	DD
Bufoides meghalayanus(Yazdani & Chanda) *	CR
Pedostibes kempi (Boulenger) *	CR
Pedostibes tuberculosus Günther *	VU
Caeciliidae	
Gegeneophis carnosus (Beddome) *	VU
Gegeneophis fulleri (Alcock) *	VU
Gegeneophis ramaswamii Taylor *	EN
Indotyphlus battersbyi Taylor *	CR
Hylidae	
Hyla annectans Jerdon	LR-nt
Ichthyophiidae	
Ichthyophis beddomei Peters *	VU
Ichthyophis bombayensis Taylor *	EN
Ichthyophis longicephalus Pillai *	VU
Ichthyophis malabarensis Taylor *	VU
Ichthyophis peninsularis Taylor *	VU
Ichthyophis sikkimensis (Taylor) *	VU
Ichthyophis subterrestris Taylor *	VU
Ichthyophis tricolor Taylor *	EN
Microhylidae	
Kaloula baleata ghoshi Cherchi *	VU
Kaloula taprobanica (Parker)	LR-nt
Melanobatrachus indicus Beddome *	VU
Microhyla berdmorei (Blyth)	LR-nt
Microhyla chakrapani Pillai *	VU
Microhyla heymonsi Vogt	EN
Microhyla ornata (Deumeril & Bibron)	LR-lc
Microhyla rubra Jerdon	LR-nt
Micryletta inornata (Boulenger)	EN
Ramanella anamalaiensis Rao *	DD
Ramanella minor Rao *	DD
Ramanella montana Jerdon *	LRnt
Ramanella mormorata Rao *	VU
Ramanella triangularis (Günther) *	VU
Ramanella variegata (Stoliczka)	LR-nt
Uperodon globulosus (Günther)	LR-nt
Uperodon systoma (Schneider)	LR-nt
Pelobatidae	
Leptobrachium hasseltii Tschudii	EN
Megophrys boettgeri (Boulenger)	LR-nt
Megophrys kempii (Annandale)	EN
Megophrys lateralis (Anderson)	DD
Megophrys montana (Kuhl & van Hasselt)	EN
Megophrys parva (Boulenger)	LR-nt
Megophrys robusta (Boulenger) *	EN
Scutiger nyingchinesis (Fei)	LR-nt
Scutiger occidentalis Dubois *	DD
Scutiger sikimmensis (Blyth)	LR-nt
Ranidae	
Amolops afghanus (Günther)	LR-nt
Amolops formosus (Günther)	LR-nt
Amolops gerbillus (Annandale)	LR-nt
Amolops monticola (Anderson)	EN
Chaparana sikimensis (Jerdon)	LR-nt
Euphlyctis cyanophlyctis (Schneider)	LR-nt
Euphlyctis ghoshi (Chanda) *	EN
Euphlyctis hexadactylus (Lesson)	LR-nt
Hoplobatrachus crassus (Jerdon)	LR-nt
Hoplobatrachus tigerinus (Daudin)	VU
Indirana beddomii Günther *	VU
Indirana brachytarsus (Günther) *	VU
Indirana diplostictus (Günther) *	VU
Indirana gundia Dubois *	DD
Indirana leithii (Boulenger) *	LR-nt
Indirana leptodactylus (Boulenger) *	VU
Indirana phrynoderma *	
Indirana semipalmatus (Boulenger) *	VU
Indirana tenuilingua (Rao) *	DD
Limnonectes andamanensis (Stoliczka) *	LR-lc
Limnonectes brevipalmatas (Peters) *	LR-nt

Species	IUCN
Limnonectes cancrivorus (Gravenhorst)	LR-lc
Limnonectes doriae (Boulenger)	VU
Limnonectes keralensis (Dubois) *	LR-nt
Limnonectes khasiensis (Anderxon) *	DD
Limnonectes limnocharis (Gravenhorst)	VU
Limnonectes mawphlangensis (Pillai & Chanda) *	CR
Limnonectes murthii Pillai *	EN
Limnonectes mysorensis Rao *	CR
Limnonectes nilagirica (Jerdon) *	EN
Limnonectes sauriceps (Rao) *	DD
Limnonectes shompenorum Das *	EN
Limnonectes syhadrensis (Annandale)	LR-nt
Micrixalus fuscus (Boulenger) *	LR-nt
Micrixalus gadgili Pillai & Pattabiraman *	EN
Micrixalus nudis Pillai *	VU
Micrixalus phyllophilus (Jerdon) *	VU
Micrixalus saxicola (Jerdon) *	LR-nt
Micrixalus silvaticus (Boulenger) *	VU
Micrixalus thampii Pillai *	EN
Nyctibatrachus aliciae Inger, Shaffer, Koshy & Bakde *	VU
Nyctibatrachus beddomii (Boulenger) *	LR-nt
Nyctibatrachus deccanensis Dubois *	VU
Nyctibatrachus humayuni Bhaduri & Kripalani *	EN
Nyctibatrachus kempholeyensis (Rao) *	DD
Nyctibatrachus major Boulenger *	LR-nt
Nyctibatrachus minor Inger, Shaffer, Koshy & Bakde *	VU
Nyctibatrachus sanctipalustris Rao *	EN
Nyctibatrachus sylvaticus Rao *	DD
Occidozyga lima (Gravenhorst)	DD
Paa annandalii (Boulenger)	EN
Paa blanfordii (Boulenger)	LR-nt
Paa hazarensis (Dubois & Khan)	DD
Paa liebigii (Günther)	LR-nt
Paa minica (Dubois)	DD
Paa sternostignata (Murray)	DD
Paa vicina (Stoliczka)	DD
Philautus nasutus (Günther)	NE
Phrynoglossus borealis (Annandale) *	EN
Rana alticola (Boulenger)	LR-nt
Rana assamensis (Sclater)	LR-nt
Rana aurantiaca (Boulenger) *	LR-nt
Rana chalconota (Schlegel)	EN
Rana curtipes Jerdon *	LR-nt
Rana danieli Pillai & Chanda *	LR-nt
Rana erythraea (Schlegel)	LR-nt
Rana garoensis Boulenger *	EN
Rana khare (Kiyasetuo & Khare) *	EN
Rana leptoglossa (Cope, 1868)	EN
Rana livida (Blyth)	LR-nt
Rana malabarica Tschudi *	LR-nt
Rana nicobarensis (Stoliczka)	LR-nt
Rana nigrovittata (Blyth)	EN
Rana senchalensis Chanda *	CR
Rana taipehensis Van Denburg	LR-nt
Rana travancorica Annandale *	DD
Taylorana hascheana Stoliczka	DD
Tomopterna dobsonii *	NE
Tomopterna leucorhynchus Rao *	DD

Species	IUCN
Tomopterna parambikulamana Rao *	DD
Tomopterna rolandae (Dubois)	LR-nt
Tomopterna rufescens (Jerdon) *	LR-nt
Rhacophoridae	
Chirixalus doriae Boulenger	EN
Chirixalus dudhwaensis Ray *	VU
Chirixalus simus Annandale	EN
Chirixalus vittatus (Boulenger)	EN
Limnonectes mawlyndipi (Chanda) *	CR
Nytixalus moloch (Annandale)	EN
Philautus andersonii (Ahl)	EN
Philautus annandalii (Boulenger)	LR-nt
Philautus beddomii (Günther) *	VU
Philautus bombayensis (Annandale) *	EN
Philautus chalazodes Günther *	VU
Philautus charius Rao *	LR-nt
Philautus cherrapunjiae Roonwall & Kripalani *	EN
Philautus crnri Dutta *	DD
Philautus elegans Rao *	DD
Philautus flaviventris (Boulenger) *	DD
Philautus garo (Boulenger) *	CR
Philautus glandulosus (Jerdon) *	VU
Philautus hassanensis Dutta *	DD
Philautus kempiae (Boulenger) *	CR
Philautus kottigeharensis Rao *	DD
Philautus leucorhinus (Lichtenstein & Martens) *	LR-nt
Philautus melanensis Rao *	DD
Philautus namdaphaensis Sarkar & Sanyal *	VU
Philautus narainensis Rao *	DD
Philautus nobeli (Ahl) *	DD
Philautus parkeri (Ahl) *	DD
Philautus pulcherimus (Ahl) *	VU
Philautus shillongensis Pillai & Chanda *	CR
Philautus shyamrupus Chanda & Ghosh *	VU
Philautus signatus (Boulenger) *	VU
Philautus swamianus Rao *	DD
Philautus temporalis Günther *	EN
Philautus travancoricus (Boulenger) *	DD
Philautus variabilis (Günther) *	LR-nt
Polypedates cruciger (Blyth) *	VU
Polypedates insularis Das *	EN
Polypedates leucomystax (Gravenhrst)	LR-lc
Polypedates maculatus himalayensis (Annandale)	EN
Polypedates maculatus maculatus (Gray)	LR-lc
Rhacophorus appendiculatus (Günther)	DD
Rhacophorus bipunctatus Ahl	LR-nt
Rhacophorus bisacculus Taylor, E.H.	EN
Rhacophorus calcadensis Ahl *	DD
Rhacophorus jerdonii (Günther) *	VU
Rhacophorus lateralis Boulenger *	EN
Rhacophorus malabaricus Jerdon *	LR-nt
Rhacophorus maximus (Günther)	LR-nt
Rhacophorus namdaphaensis Sarkar & Sanyal *	VU
Rhacophorus naso Annandale *	DD
Rhacophorus nigropalmatus Boulenger	DD
Rhacophorus pleurostictus (Günther) *	VU

Species	IUCN
Rhacophorus reinwardtii Kuhl & van Hasselt	LR-nt
Rhacophorus taeniatus Boulenger *	LR-nt
Rhacophorus tuberculatus (Anderson) *	LRnt
Theloderma asper (Boulenger)	DD
Salamandridae	
Pleurodeles verrucossus (Anderson)	EN

Species	IUCN
Uraeotyphlidae	
Uraeotyphlus malabaricus (Beddome) *	EN
Uraeotyphlus menoni Annandale *	VU
Uraeotyphlus narayani Seshachar *	VU
Uraeotyphlus oxyurus (Dumeril & Bibron) *	VU

Table 2. Basis of criteria for assessing endemic and non-endemic amphibians of India

Species	IUCN	Endemic to	Threatened due to	Criteria
INDIAN ENDEMICS				
Ansonia kamblei	DD	Western Ghats	-	--
Ansonia ornata	EN	Western Ghats	Restricted distribution	B1, 2c
Ansonia rubigina	EN	Western Ghats	Restricted distribution	B1, 2c, 3b
Bufo abatus	DD	Eastern India	-	--
Bufo beddomii	LRlc	Western Ghats	-	--
Bufo brevirostris	DD	Western Ghats	-	--
Bufo camortensis	VU	Andaman & Nicobar	Population restriction	D2
Bufo hololius	LR-nt	Western & Eastern Ghats	-	--
Bufo koynayensis	EN	Western Ghats	Restricted distribution	B1, 2c
Bufo parietalis	LRnt	Western Ghats	-	--
Bufo silentvalleyensis	VU	Western Ghats	Population restriction	D2
Bufoides meghalayanus	CR	Northeastern India	Restricted distribution	B1, 2a, 2b, 2c
Chirixalus dudhwaensis	VU	Northern India	Population restriction	D2
Euphlyctis ghoshi	EN	Northeastern India	Restricted distribution	B1, 2a, 2b, 2c
Gegeneophis carnosus	VU	Western Ghats	Restricted distribution	B1, 2c
Gegeneophis fulleri	VU	Northeastern India	Restricted distribution	B1, 2a, 2c
Gegeneophis ramaswamii	EN	Western Ghats	Restricted distribution	B1, 2c
Ichthyophis beddomei	VU	Western Ghats	Population reduction; Restricted distribution	A1a, 1c; B1, 2c
Ichthyophis bombayensis	EN	Western Ghats	Restricted distribution	B1, 2c
Ichthyophis longicephalus	VU	Western Ghats	Restricted distribution	B1, 2c
Ichthyophis malabarensis	VU	Western Ghats	Restricted distribution	B1, 2c
Ichthyophis peninsularis	VU	Western Ghats	Restricted distribution; Population restriction	B1, 2c; D2
Ichthyophis sikkimensis	VU	Northeastern India	Restricted distribution	B1, 2c
Ichthyophis subterrestris	VU	Western Ghats	Restricted distribution	B1, 2c
Ichthyophis tricolor	EN	Western Ghats	Restricted distribution	B1, 2c
Indirana beddomii	VU	Western Ghats	Population reduction	A1a, 1c
Indirana brachytarsus	VU	Western Ghats	Restricted distribution	B1, 2b
Indirana diplostictus	VU	Western Ghats	Restricted distribution	B1, 2c
Indirana gundia	DD	Western Ghats	-	--
Indirana leithii	LR-nt	Western Ghats	-	--
Indirana leptodactylus	VU	Western Ghats	Restricted distribution	B1, 2c
Indirana phrynoderma	NE			
Indirana semipalmatus	VU	Western Ghats	Population reduction; Restricted distribution	A1a, 1c; B1, 2c
Indirana tenuilingua	DD	Western Ghats	-	--
Indotyphlus battersbyi	CR	Western Ghats	Restricted distribution	B1, 2b, 2c
Kaloula baleata ghoshi	VU	Andaman & Nicobar	Population restriction	D2
Limnonectes andamanensis	LR-lc	Andaman & Nicobar	-	--
Limnonectes brevipalmatas	LR-nt	Western Ghats	-	--
Limnonectes keralensis	LR-nt	Western Ghats	-	--
Limnonectes khasiensis	DD	Northeastern India	-	--
Limnonectes mawlyndipi	CR	Northeastern India	Restricted distribution	B1, 2a, 2c
Limnonectes mawphlangensis	CR	Northeastern India	Restricted distribution	B1, 2a, 2c
Limnonectes murthii	EN	Western Ghats	Restricted distribution	B1, 2c

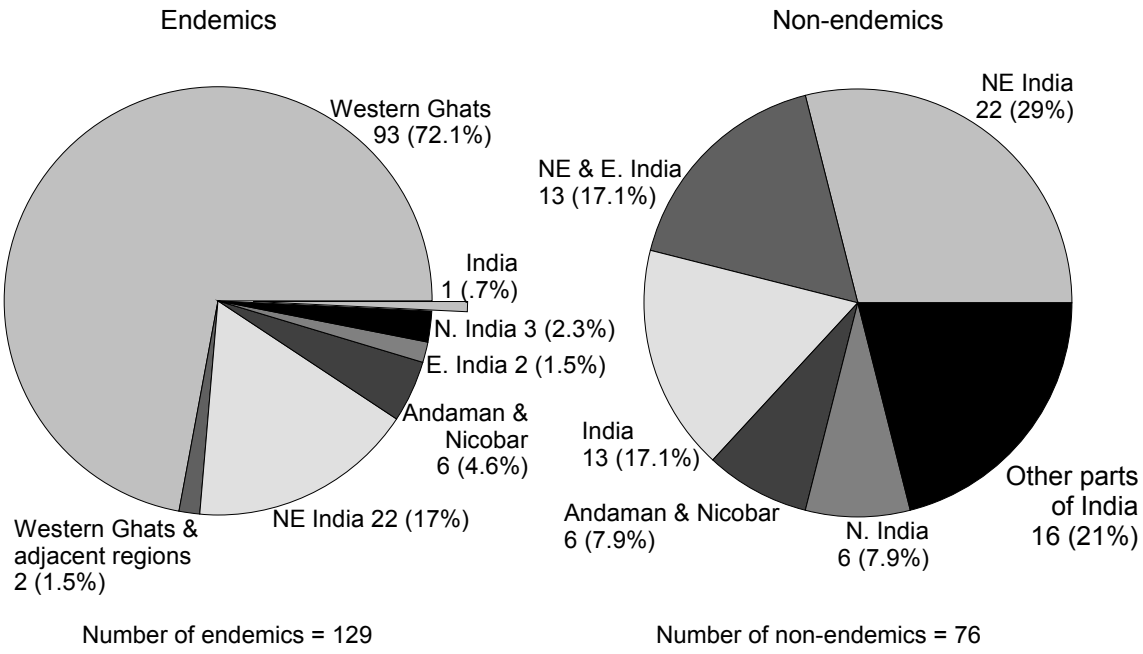
Species	IUCN	Endemic to	Threatened due to	Criteria
Limnonectes mysorensis	CR	Western Ghats	Restricted distribution	B1, 2c
Limnonectes nilagirica	EN	Western Ghats	Restricted distribution	B1, 2c
Limnonectes sauriceps	DD	Western Ghats	-	--
Limnonectes shompenorum	EN	Andaman & Nicobar	Restricted distribution	B1, 2a, 2b, 2c
Megophrys robusta	EN	Eastern India	Restricted distribution	B1, 2c
Melanobatrachus indicus	VU	Western Ghats	Restricted distribution; Population restriction	B1, 2c, 3c; D2
Micrixalus fuscus	LR-nt	Western Ghats	-	--
Micrixalus gadgili	EN	Western Ghats	Restricted distribution	B1, 2c
Micrixalus nudis	VU	Western Ghats	Restricted distribution	B1, 2c
Micrixalus phyllophilus	VU	Western Ghats	Restricted distribution	B1, 2c
Micrixalus saxicola	LR-nt	Western Ghats	-	--
Micrixalus silvaticus	VU	Western Ghats	Restricted distribution	B1, 2c
Micrixalus thampii	EN	Western Ghats	Restricted distribution	B1, 2c
Microhyla chakrapani	VU	Andaman & Nicobar	Population restriction	D2
Nyctibatrachus aliciae	VU	Western Ghats	Restricted distribution	B1, 2c
Nyctibatrachus beddomii	LR-nt	Western Ghats	-	--
Nyctibatrachus deccanensis	VU	Western Ghats	Restricted distribution	B1, 2c
Nyctibatrachus humayuni	EN	Western Ghats	Restricted distribution	B1, 2c
N. kempholeyensis	DD	Western Ghats	-	--
Nyctibatrachus major	LR-nt	Western Ghats	-	--
Nyctibatrachus minor	VU	Western Ghats	Restricted distribution; Population restriction	B1, 2c; D2
Nyctibatrachus sanctipalustris	EN	Western Ghats	Restricted distribution	B1, 2c
Nyctibatrachus sylvaticus	DD	Western Ghats	-	--
Pedostibes kempi	CR	Northeastern India	Restricted distribution	B1, 2a, 2b, 2c
Pedostibes tuberculosus	VU	Western Ghats	Restricted distribution	B1, 2c
Philautus beddomii	VU	Western Ghats	Restricted distribution	B1, 2c
Philautus bombayensis	EN	Western Ghats	Restricted distribution	B1, 2c
Philautus chalazodes	VU	Western Ghats	Restricted distribution; Population restriction	B1, 2c; D2
Philautus charius	LR-nt	Western Ghats	-	--
Philautus cherrapunjiae	EN	Northeastern India	Restricted distribution	B1, 2a, 2c
Philautus crnri	DD	Western Ghats	-	--
Philautus elegans	DD	Western Ghats	-	--
Philautus flaviventris	DD	Western Ghats	-	--
Philautus garo	CR	Northeastern India	Restricted distribution	B1, 2b, 2c
Philautus glandulosus	VU	Western Ghats	Restricted distribution	B1, 2c
Philautus hassanensis	DD	Western Ghats	-	--
Philautus kempiae	CR	Northeastern India	Restricted distribution	B1, 2a, 2b, 2c
Philautus kottigeharensis	DD	Western Ghats	-	--
Philautus leucorhinus	LR-nt	Western Ghats	-	--
Philautus melanensis	DD	Western Ghats	-	--
Philautus namdaphaensis	VU	Northeastern India	Restricted distribution; Population restriction	B1, 2c; D2
Philautus narainensis	DD	Western Ghats	-	--
Philautus nobeli	DD	Western Ghats	-	--
Philautus parkeri	DD	Western Ghats	-	--
Philautus pulcherimus	VU	Western Ghats	Restricted distribution	B1, 2c
Philautus shillongensis	CR	Northeastern India	Restricted distribution	B1, 2a, 2b, 2c
Philautus shyamrupus	VU	Northeastern India	Restricted distribution; Population restriction	B1, 2c; D2
Philautus signatus	VU	Western Ghats	Restricted distribution	B1, 2c
Philautus swamianus	DD	Western Ghats	-	--
Philautus temporalis	EN	Western Ghats	Restricted distribution	B1, 2c
Philautus travancoricus	DD	Western Ghats	-	--
Philautus variabilis	LR-nt	Western Ghats	-	--
Phrynoglossus borealis	EN	Northeastern India	Restricted distribution	B1, 2c
Polypedates cruciger	VU	Western Ghats	Restricted distribution; Population restriction	B1, 2c; D2
Polypedates insularis	EN	Andaman & Nicobar	Restricted distribution	B1, 2a, 2b, 2c
Ramanella anamalaiensis	DD	Western Ghats	-	--

Species	IUCN	Endemic to	Threatened due to	Criteria
Ramanella minor	DD	Western Ghats	-	--
Ramanella montana	LR-nt	Western Ghats	-	--
Ramanella mormorata	VU	Western Ghats	Restricted distribution; Population restriction	B1, 2b, 2c; D2
Ramanella triangularis	VU	Western Ghats	Restricted distribution; Population restriction	B1, 2c; D2
Rana aurantiaca	LR-nt	Western Ghats	-	--
Rana curtipes	LR-nt	Western Ghats	-	--
Rana danieli	LR-nt	Northeastern India	-	--
Rana garoensis	EN	Northeastern India	Restricted distribution	B1, 2a, 2b, 2c
Rana khare	EN	Northeastern India	Restricted distribution	B1, 2c
Rana malabarica	LR-nt	India	-	--
Rana senchalensis	CR	Northeastern India	Restricted distribution	B1, 2a, 2b, 2c
Rana travancorica	DD	Western Ghats	-	--
Rhacophorus calcadensis	DD	Western Ghats	-	--
Rhacophorus jerdonii	VU	Northeastern India	Restricted distribution; Population restriction	B1, 2c; D2
Rhacophorus lateralis	EN	Western Ghats	Restricted distribution	B1, 2c
Rhacophorus malabaricus	LR-nt	Western Ghats	-	--
Rhacophorus namdaphaensis	VU	Northeastern India	Restricted distribution; Population restriction	B1, 2c; D2
Rhacophorus naso	DD	Western Ghats	-	--
Rhacophorus pleurostictus	VU	Western Ghats	Restricted distribution	B1, 2c
Rhacophorus taeniatus	LR-nt	Northern India	-	--
Rhacophorus tuberculatus	LRnt	Northeastern India		--
Scutiger occidentalis	DD	Northern India	-	--
Tomopterna dobsonii	NE			
Tomopterna leucorhynchus	DD	Western Ghats	-	--
Tomopterna parambikulamana	DD	Western Ghats	-	--
Tomopterna rufescens	LR-nt	Western Ghats	-	--
Uraeotyphlus malabaricus	EN	Western Ghats	Restricted distribution	B1, 2c
Uraeotyphlus menoni	VU	Western Ghats	Restricted distribution; Population restriction	B1, 2c; D2
Uraeotyphlus narayani	VU	Western Ghats	Restricted distribution	B1, 2c
Uraeotyphlus oxyurus	VU	Western Ghats	Restricted distribution	B1, 2c
NON ENDEMICS				
Amolops afghanus	LR-nt	Eastern & Northern India	-	--
Amolops formosus	LR-nt	Northeastern India	-	--
Amolops gerbillus	LR-nt	NE & Eastern India	-	--
Amolops monticola	EN	Eastern India	Restricted distribution	B1, 2b, 2c
Bufo fergusonii	LR-lc	Western Ghats	-	--
Bufo himalayanus	LR-nt	Eastern & NE India	-	--
Bufo latastii	LR-lc	Northern India	-	--
Bufo melanostictus	VU		Population reduction	A1a, 1c, 1d
Bufo microtympanum	LR-nt	Western Ghats	-	--
Bufo stomaticus	LR-nt	India	-	--
Bufo stuarti	LR-nt	Northeastern India	-	--
Bufo viridis	DD	Northern, Western India	-	--
Chaparana sikimensis	LR-nt	Eastern, NE India	-	--
Chirixalus doriae	EN	Northeastern India	Restricted distribution	B1, 2c
Chirixalus simus	EN	Northeastern India	Restricted distribution	B1, 2a, 2b, 2c
Chirixalus vittatus	EN	Northeastern India	Restricted distribution	B1, 2c
Euphlyctis cyanophlyctis	LR-nt	India	-	--
Euphlyctis hexadactylus	LR-nt	Peninsular India	-	--
Hoplobatrachus crassus	LR-nt	India	-	--
Hoplobatrachus tigerinus	VU	India	Population reduction	A1d
Hyla annectans	LR-nt	Northeastern India	-	--
Kaloula taprobanica	LR-nt	India	-	--
Leptobrachium hasseltii	EN	Northeastern India	Restricted distribution	B1, 2a, 2b, 2c

Species	IUCN	Endemic to	Threatened due to	Criteria
Limnonectes cancrivorus	LR-lc	Andaman & Nicobar	-	--
Limnonectes doriae	VU	Andaman & Nicobar	Population restriction	D2
Limnonectes limnocharis	VU	India	Population reduction	A1a, 1c
Limnonectes syhadrensis	LR-nt	Eastern & Western India	-	--
Megophrys boettgeri	LR-nt	Northeastern India	Population restriction	--
Megophrys kempii	EN	Northeastern India	Restricted distribution	B1, 2a, 2b, 2c
Megophrys lateralis	DD	Northeastern India	-	--
Megophrys montana	EN	Northeastern India	Restricted distribution	B1, 2a, 2b, 2c
Megophrys parva	LR-nt	Eastern & NE India	-	--
Microhyla berdmorei	LR-nt	Northeastern India	-	--
Microhyla heymonsi	EN	Andaman & Nicobar	Restricted distribution	B1, 2a, 2b, 2c
Microhyla ornata	LR-lc	India	-	--
Microhyla rubra	LR-nt	Peninsular India	-	--
Micryletta inornata	EN	Andaman & Nicobar	Restricted distribution	B1, 2a, 2b, 2c
Nytixalus moloch	EN	Northeastern India	Restricted distribution	B1, 2a, 2b, 2c
Occidozyga lima	DD	Eastern India	-	--
Paa annandalii	EN	Eastern India	Restricted distribution	B1, 2a, 2b, 2c
Paa blanfordii	LR-nt	Northern & Eastern India	-	--
Paa hazarensis	DD	Northern India	-	--
Paa liebigii	LR-nt	Eastern & NE India	-	--
Paa minica	DD	Northern India	-	--
Paa sternostignata	DD	Northern India	-	--
Paa vicina	DD	Northern India	-	--
Philautus andersonii	En	Northeastern India	Restricted distribution	B1, 2a, 2b, 2c
Philautus annandalii	LR-nt	Eastern & NE India	-	--
Philautus nasutus	NE	Southern India	-	--
Pleurodeles verrucossus	EN	Eastern & NE India	Population reduction	A1a, 1c
Polypedates leucomystax	LR-lc	East, NE, Southern India	-	--
Polypedates maculatus himalayensis	EN	Northeastern India	Restricted distribution	B1, 2a, 2b, 2c
Polypedates maculatus maculatus	LR-lc	India	-	--
Ramanella variegata	LR-nt	India	-	--
Rana alticola	LR-nt	Eastern & NE India	-	--
Rana assamensis	LR-nt	Eastern & NE India	-	--
Rana chalconota	EN	Andaman & Nicobar	Restricted distribution	B1, 2a, 2b, 2c
Rana erythraea	LR-nt	Eastern, NE & A & N Isles	-	--
Rana leptoglossa	EN	Northeastern India	Restricted distribution	B1, 2a, 2b, 2c
Rana livida	LR-nt	Eastern & NE India	-	--
Rana nicobarensis	LR-nt	Eastern, NE & A & N Isles	-	--
Rana nigrovittata	EN	Northeastern India	Restricted distribution	B1, 2b, 2c
Rana taipehensis	LR-nt	North, Eastern & NE India	-	--
Rhacophorus appendiculatus	DD	Northeastern India	-	--
Rhacophorus bipunctatus	LR-nt	Northeastern India	-	--
Rhacophorus bisacculus	EN	Northeastern India	Restricted distribution	B1, 2a, 2b, 2c
Rhacophorus maximus	LR-nt	Eastern & N India	-	--
Rhacophorus nigropalmatus	DD		-	--
Rhacophorus reinwardtii	LR-nt	Eastern & NE India	-	--
Scutiger nyingchinesis	LR-nt	Northern India	-	--
Scutiger sikimmensis	LR-nt	Eastern & NE India	-	--
Taylorana hascheana	DD	Andaman & Nicobar	-	--
Theloderma asper	DD	Northeastern India	-	--
Tomopterna rolandae	LR-nt	India	-	--
Uperodon globulosus	LR-nt	India	-	--
Uperodon systoma	LR-nt	India	-	--

Endemic amphibians constitute 63% (129 taxa) of the total amphibian fauna of India while non-endemics make up the other 37% (76 taxa). The Table below illustrates the distribution of endemic and non-endemic taxa in India.

Distribution of amphibians in India



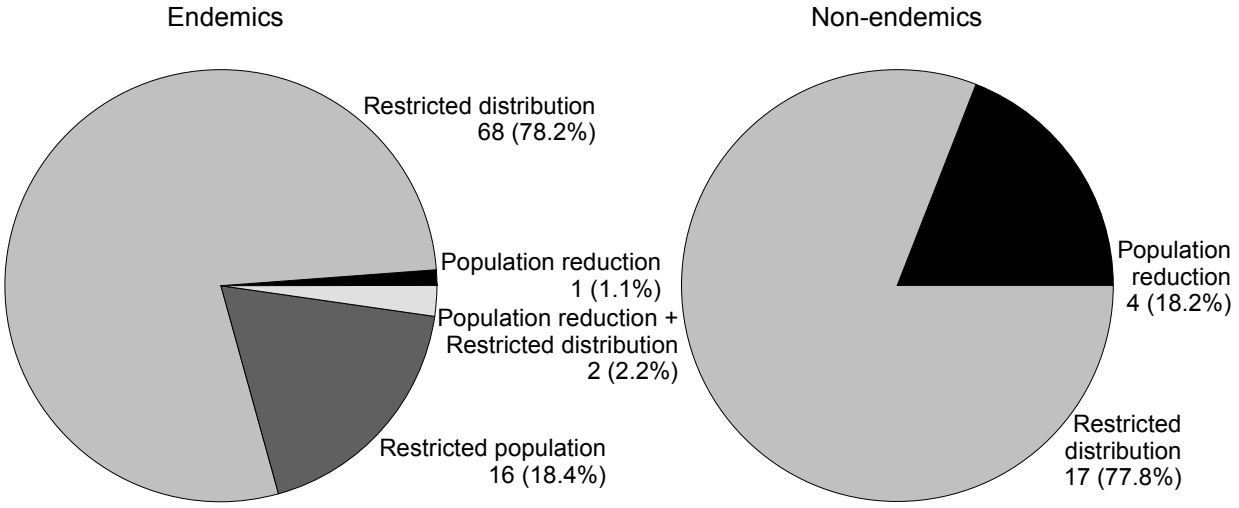
Number of endemics = 129

Number of non-endemics = 76

Criteria for threat

Totally 109 taxa (53% of all Indian amphibians) are threatened in India of which 87 are endemic (63.7% of endemic amphibians are threatened)) and 22 non-endemic (28.9% of non-endemic amphibians are threatened). As two-thirds of the taxa are endemic, the criteria for threat assessment is heavily skewed towards restricted distribution. One-hundred and seven taxa of the 129 endemic taxa are found in less than 10 locations. This high percentage of limited locations to which the taxa are confined is the reason for a majority of the endemic taxa to qualify for “criterion B”, for restricted distribution. Seventy-eight percent (68 taxa) of the threatened taxa (87 taxa) qualify for criterion B. The same is observed even for non-endemics as 77% (17 taxa) of the threatened taxa (22 taxa) qualify for criterion B.

Criteria used for assessing endemic and non-endemic taxa



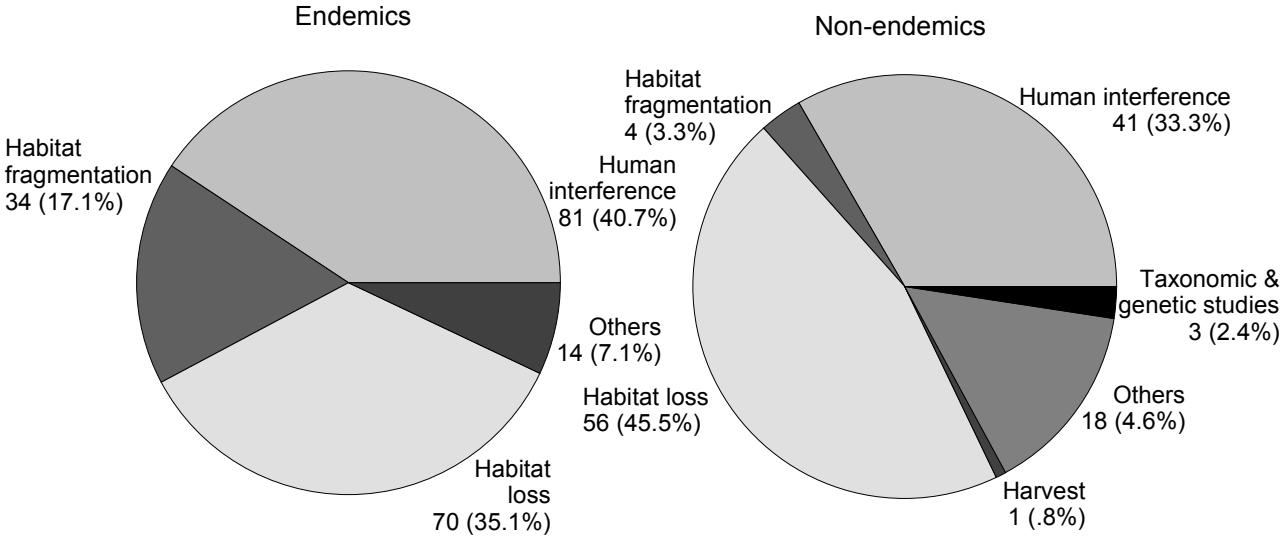
Number of threatened endemics = 87

Number of threatened non-endemics = 22

Threats

Loss of habitat and human interference are the two most common threats facing amphibians in India. Fragmentation of habitat is also a significant factor. Lack of consistent studies on population dynamics for most of the species preclude confident statements or even inference of reduction in population. Therefore, population reduction criterion has been applied only for five taxa. Assessment have been made mostly on the state of the habitat currently and knowledge of the habitat over years with respect to species distribution. Reduction in the extent of occurrence, area of occupancy or quality of habitat has been easier to determine because of the threats to the taxa. Hence, threat assessments combined with limited locations for various taxa have been based on this.

Threats affecting amphibian taxa



Number of endemics = 129
Total number of threats to endemics = 199

Number of non-endemics = 76
Total number of threats to non-endemics = 122

Human interference (man-made fires, lopping, grazing, etc.) has taken a large toll of amphibian populations. Dramatic losses of habitat has taken place which has led to reduction in areas of occupancy, distributional

ranges and habitat structure. Pesticides and pollution is a matter of concern with respect to amphibians but is not yet well studied or documented.

Most of the researchers confirmed that amphibian survival is susceptible to changes in the water and soil conditions. These could also be added to the list of threats after more systematic study and monitoring to fully understand the effects.

Although it has been documented in other countries that excessive ultra violet radiation and parasites have had an adverse effect on amphibians, due to lack of studies in India, however, these effects cannot be documented and threats in this exercise are more direct than abstract.

Table 3. Threat and status information

Species	Threats	IUCN
INDIAN ENDEMICS		
Ansonia kamblei	Unknown	DD
Ansonia ornata	Human interference	EN
Ansonia rubigina	Human interference, Loss of habitat	EN
Bufo abatus	Unknown	DD
Bufo beddomii	Human interference	LR-lc
Bufo brevirostris	Human interference	DD
Bufo camortensis	No	VU
Bufo hololius	Loss of habitat, Human interference	LR-nt
Bufo koynayensis	Human interference, Loss of habitat	EN
Bufo parietalis	Loss of habitat, Fragmentation, Human interference	LR-nt
Bufo silentvalleyensis	Unknown	VU
Bufoides meghalayanus	Loss of habitat, Human interference	CR
Chirixalus dudhwaensis	Unknown	VU
Euphlyctis ghoshi	Loss of habitat	EN
Gegeneophis carnosus	Human interference	VU
Gegeneophis fulleri	Loss of habitat, Human interference	VU
Gegeneophis ramaswamii	Loss of habitat, Human interference	EN
Ichthyophis beddomei	Human interference, Edaphic factors, Pollution, Loss of habitat, Fragmentation	VU
Ichthyophis bombayensis	Edaphic factors, Loss of habitat, Human interference	EN
Ichthyophis longicephalus	Human interference	VU
Ichthyophis malabarensis	Human interference, Edaphic factors, Loss of habitat, Fragmentation	VU
Ichthyophis peninsularis	Loss of habitat, Human interference	VU
Ichthyophis sikkimensis	Loss of habitat, Human interference	VU
Ichthyophis subterrestris	Human interference	VU
Ichthyophis tricolor	Human interference, Loss of habitat, Fragmentation	EN
Indirana beddomii	Loss of habitat, Fragmentation, Human interference	VU
Indirana brachytarsus	Loss of habitat, Fragmentation, Human interference	VU
Indirana diplostictus	Loss of habitat	VU
Indirana gundia	Loss of habitat	DD
Indirana leithii	Loss of habitat, Fragmentation, Human interference	LR-nt
Indirana leptodactylus	Human interference, Fragmentation	VU
Indirana phrynoderma		NE
Indirana semipalmatus	Loss of habitat, Fragmentation	VU
Indirana tenuilingua	Unknown	DD
Indotyphlus battersbyi	Human interference, Loss of habitat	CR
Kaloula baleata ghoshi	No	VU
Limnonectes andamanensis	No	LR-lc
Limnonectes brevipalmatas	Loss of habitat, Fragmentation, Human interference	LR-nt
Limnonectes keralensis	Human interference, Pollution, Fragmentation	LR-nt
Limnonectes khasiensis	Unknown	DD
Limnonectes mawlyndipi	Loss of habitat	CR
Limnonectes mawphlangensis	Loss of habitat, Human interference	CR
Limnonectes murthii	Human interference	EN
Limnonectes mysorensis	Human interference, Loss of habitat	CR
Limnonectes nilagirica	Loss of habitat, Human interference	EN

Species	Threats	IUCN
Limnonectes sauriceps	Unknown	DD
Limnonectes shompenorum	Loss of habitat, Human interference	EN
Megophrys robusta	Loss of habitat	EN
Melanobatrachus indicus	Human interference	VU
Micrixalus fuscus	Loss of habitat, Fragmentation, Human interference	LR-nt
Micrixalus gadgili	Loss of habitat, Human interference, Fragmentation	EN
Micrixalus nudis	Human interference Loss of habitat, Fragmentation	VU
Micrixalus phyllophilus	Loss of habitat, Fragmentation, Human interference	VU
Micrixalus saxicola	Loss of habitat, Human interference, Fragmentation	LR-nt
Micrixalus silvaticus	Loss of habitat, Human interference, Fragmentation	VU
Micrixalus thampii	Human interference, Pollution, Loss of habitat	EN
Microhyla chakrapani	No	VU
Nyctibatrachus aliciae	Human interference	VU
Nyctibatrachus beddomii	Loss of habitat, Human interference, Fragmentation	LR-nt
Nyctibatrachus deccanensis	Human interference	VU
Nyctibatrachus humayuni	Human interference, Pollution, Loss of habitat, Fragmentation	EN
Nyctibatrachus kempholeyensis	Unknown	DD
Nyctibatrachus major	Pollution, Edaphic factors, Human interference, Siltation, Fragmentation	LR-nt
Nyctibatrachus minor	Human interference, Pollution,	VU
Nyctibatrachus sanctipalustris	Human interference, Loss of habitat, Fragmentation	EN
Nyctibatrachus sylvaticus	Unknown	DD
Pedostibes kempi	Loss of habitat, Human interference	CR
Pedostibes tuberculosus	Human interference, Fragmentation	VU
Philautus beddomii	Loss of habitat, Human interference, Fragmentation	VU
Philautus bombayensis	Human interference, Fragmentation	EN
Philautus chalazodes	Human interference, Fragmentation	VU
Philautus charius	Loss of habitat, Fragmentation, Human interference	LR-nt
Philautus cherrapunjiae	Loss of habitat, Human interference	EN
Philautus crnri	Unknown	DD
Philautus elegans	Unknown	DD
Philautus flaviventris	Unknown	DD
Philautus garo	Loss of habitat, Human interference	CR
Philautus glandulosus	Human interference, Loss of habitat, Fragmentation	VU
Philautus hassanensis	Unknown	DD
Philautus kempiae	Loss of habitat, Human interference	CR
Philautus kottigeharensis	Unknown	DD
Philautus leucorhinus	Loss of habitat, Human interference, Fragmentation	LR-nt
Philautus melanensis	Unknown	DD
Philautus namdaphaensis	Loss of habitat, Human interference	VU
Philautus narainensis	Unknown	DD
Philautus nobeli	Unknown	DD
Philautus parkeri	Unknown	DD
Philautus pulcherimus	Human interference	VU
Philautus shillongensis	Loss of habitat, Human interference	CR
Philautus shyamrupus	Loss of habitat	VU
Philautus signatus	Pollution	VU
Philautus swamianus	Unknown	DD
Philautus temporalis	Human interference	EN
Philautus travancoricus	Unknown	DD
Philautus variabilis	Human interference, Loss of habitat	LR-nt
Phrynoglossus borealis	Loss of habitat	EN
Polypedates cruciger	Human interference, Loss of habitat	VU
Polypedates insularis	Loss of habitat, Human interference	EN
Ramanella anamalaiensis	Unknown	DD
Ramanella minor	Unknown	DD
Ramanella montana	Loss of habitat, Human interference, Fragmentation	LR-nt
Ramanella mormorata	Loss of habitat, Human interference	VU
Ramanella triangularis	Human interference, Fragmentation, Loss of habitat	VU
Rana aurantiaca	Human interference	LR-nt
Rana curtipes	Human interference, Loss of habitat, Road kills	LR-nt
Rana danieli	Loss of habitat, Human interference	LR-nt

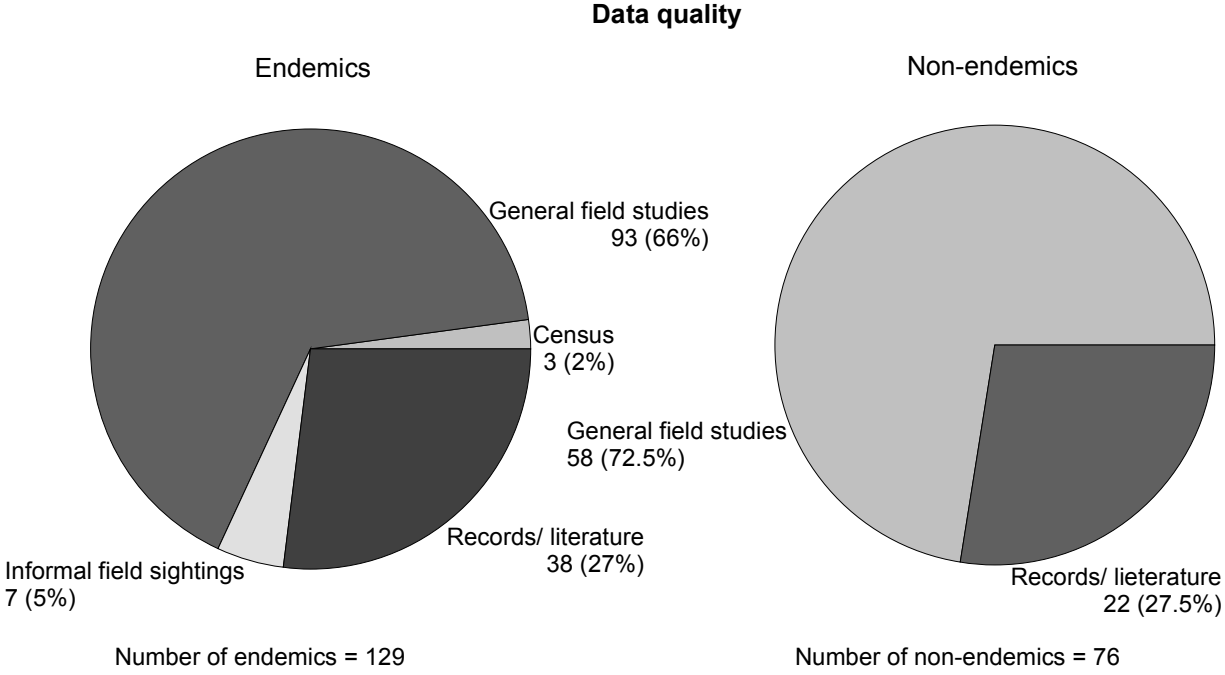
Species	Threats	IUCN
Rana garoensis	Loss of habitat	EN
Rana khare	Loss of habitat	EN
Rana malabarica	Loss of habitat, Fragmentation, Human interference	LR-nt
Rana senchalensis	Loss of habitat	CR
Rana travancorica	Unknown	DD
Rhacophorus calcadensis	Unknown	DD
Rhacophorus jerdonii	Loss of habitat, Human interference	VU
Rhacophorus lateralis	Human interference	EN
Rhacophorus malabaricus	Loss of habitat, Human interference	LR-nt
Rhacophorus namdaphaensis	Loss of habitat	VU
Rhacophorus naso	Unknown	DD
Rhacophorus pleurostictus	Loss of habitat, Human interference	VU
Rhacophorus taeniatus	Loss of habitat, Human interference	LR-nt
Rhacophorus tuberculatus	Loss of habitat	LR-nt
Scutiger occidentalis	Unknown	DD
Tomopterna dobsonii		NE
Tomopterna leucorhynchus	Unknown	DD
Tomopterna parambikulamana	Unknown	DD
Tomopterna rufescens	Human interference, Loss of habitat, Fragmentation	LR-nt
Uraeotyphlus malabaricus	Loss of habitat, Human interference	EN
Uraeotyphlus menoni	Human interference	VU
Uraeotyphlus narayani	Human interference, Loss of habitat, Fragmentation	VU
Uraeotyphlus oxyurus	Human interference, Fragmentation	VU
NON-ENDEMICS		
Amolops afghanus	Loss of habitat, Human interference	LR-nt
Amolops formosus	Loss of habitat, Pollution, Human interference	LR-nt
Amolops gerbillus	Loss of habitat, Human interference	LR-nt
Amolops monticola	Loss of habitat, Human interference	EN
Bufo fergusonii	No	LR-lc
Bufo himalayanus	Loss of habitat, Human interference	LR-nt
Bufo latastii	No	LR-lc
Bufo melanostictus	Hunting for medicine, Loss of habitat, Human interference, Pesticides	VU
Bufo microtympanum	Loss of habitat, Human interference, Fragmentation	LR-nt
Bufo stomaticus	Human interference	LR-nt
Bufo stuarti	Loss of habitat, Human interference	LR-nt
Bufo viridis	Unknown	DD
Chaparana sikimensis	Loss of habitat, Human interference	LR-nt
Chirixalus doriae	Loss of habitat, Human interference	EN
Chirixalus simus	Loss of habitat	EN
Chirixalus vittatus	Loss of habitat, Human interference	EN
Euphlyctis cyanophlyctis	Pesticides, Human interference, Loss of habitat, Poisoning, Fragmentation, Pollution	LR-nt
Euphlyctis hexadactylus	Trade, Loss of habitat, Pesticides, Hunting, Pollution	LR-nt
Hoplobatrachus crassus	Human interference, Loss of habitat, Predation	LR-nt
Hoplobatrachus tigerinus	Pollution, Pesticides, Hunting for medicine, Trade for parts, Hunting for food, Human interference	VU
Hyla annectans	Loss of habitat, Human interference, Fragmentation	LR-nt
Kaloula taprobanica	Loss of habitat	LR-nt
Leptobrachium hasseltii	Loss of habitat, Human interference	EN
Limnonectes cancrivorus	No	LR-lc
Limnonectes doriae	No	VU
Limnonectes limnocharis	Loss of habitat, Human interference, Pesticides, Fragmentation, Hunting, Decline in prey species	VU
Limnonectes syhadrensis	Loss of habitat, Human interference	LR-nt
Megophrys boettgeri	Loss of habitat, Human interference	LR-nt
Megophrys kempii	Loss of habitat, Human interference	EN
Megophrys lateralis	Loss of habitat	DD
Megophrys montana	Loss of habitat, Human interference	EN
Megophrys parva	Loss of habitat, Human interference	LR-nt
Microhyla berdmorei	Loss of habitat, Human interference	LR-nt

Species	Threats	IUCN
Microhyla heymonsi	Loss of habitat	EN
Microhyla ornata	No	LR-lc
Microhyla rubra	Loss of habitat, Human interference	LR-nt
Micryletta inornata	Loss of habitat, Human interference	EN
Nytixalus moloch	Loss of habitat, Human interference	EN
Occidozyga lima	Unknown	DD
Paa annandalii	Loss of habitat, Human interference	EN
Paa blanfordii	Loss of habitat	LR-nt
Paa hazarensis	Unknown	DD
Paa liebigii	Loss of habitat, Human interference	LR-nt
Paa minica	Loss of habitat	DD
Paa sternostignata	Unknown	DD
Paa vicina	Loss of habitat	DD
Philautus andersonii	Loss of habitat, Human interference	En
Philautus annandalii	Loss of habitat	LR-nt
Philautus nasutus	Human interference	NE
Pleurodeles verrucossus	Loss of habitat, Trade, Human interference, Edaphic factors	EN
Polypedates leucomystax	No	LR-lc
Polypedates maculatus himalayensis	Loss of habitat, Human interference	EN
Polypedates maculatus maculatus	Unknown	LR-lc
Ramanella variegata	Loss of habitat	LR-nt
Rana alticola	Loss of habit, Human interference	LR-nt
Rana assamensis	Loss of habitat, Human interference	LR-nt
Rana chalconota	Loss of habitat, Human interference	EN
Rana erythraea	Loss of habitat, Human interference	LR-nt
Rana leptoglossa	Loss of habitat, Human interference	EN
Rana livida	Loss of habitat, Human interference	LR-nt
Rana nicobarensis	Loss of habitat, Human interference	LR-nt
Rana nigrovittata	Loss of habitat, Human interference	EN
Rana taipehensis	Loss of habitat	LR-nt
Rhacophorus appendiculatus	Unknown	DD
Rhacophorus bipunctatus	Loss of habitat	LR-nt
Rhacophorus bisacculus	Loss of habitat	EN
Rhacophorus maximus	Loss of habitat	LR-nt
Rhacophorus nigropalmatus	Unknown	DD
Rhacophorus reinwardtii	Loss of habitat	LR-nt
Scutiger nyingchinesis	Unknown	LR-nt
Scutiger sikimmensis	Loss of habitat	LR-nt
Taylorana hascheana	Unknown	DD
Theloderma asper	Unknown	DD
Tomopterna rolandae	Loss of habitat	LR-nt
Uperodon globulosus	Loss of habitat	LR-nt
Uperodon systoma	Loss of habitat	LR-nt

Data quality

There is a tendency among scientists to be very conservative in their approach unless a very systematic study has been done and the results published. Initially, it was feared that it would not be possible to assess many of the Indian amphibians as a result. It was felt that not much was known on Indian amphibians because of lack of extensive monitoring or field studies. However, most of the assessments could be based primarily on the habitat structure and enough information was available. This was due to studies conducted in those areas either for amphibians or for other taxa. Therefore, participants based 66% of assessments for endemics and 72.5 % for non-endemics on General field studies.

In almost all of the remaining assessments for all amphibians, particularly where information regarding the validity of the species was not available (e.g. C.R.N. Rao and Ahl species) information was obtained only from records and literature.



The IUCN guidelines for assessment clearly suggest a "conservative" approach in favour of the taxa, e.g. " . . . the absence of high quality data should not deter attempts at applying the criteria, as methods involving estimation, inference and projection are emphasized to be acceptable throughout. Inference and projection may be based on extrapolation of current or potential threats into the future (including dependence on other taxa), so factors related to population abundance or distribution (including dependence on other taxa), so long as these can reasonably be supported. Suspected or inferred patterns in either the recent past, present or near future can be based on any of a series of related factors, and these factors should be specified. Taxa at risk from threats posed by future events of low probability but with severe consequences (catastrophes) should be identified by the criteria (e.g. small distribution, few locations). Some threats need to be identified particularly early, and appropriate actions taken, because their effects may be irreversible, or nearly so (pathogens, invasive organisms, hybridization)".

An exercise to determine the status of any taxon, particularly in the first instant, should not be de-railed by a lack of hard information. Thorough, all-encompassing hard data is impossible to gather for even a single taxon. The time required to gather such detailed information actually could delay conservation measures for threatened taxa. For many groups of organisms there is not even a complete checklist, so any effort to put together what is known by ALL people studying these groups is a valid starting point from which other, more complete and accurate, exercises can be planned.

The combination of elements which make up a CAMP workshop such as group effort of researchers and associated specialists, a neutral working environment, objective facilitation, good faith and good intentions can provide informed advice for conservation action planning. The results of this Workshop are the outcome of such an exercise.

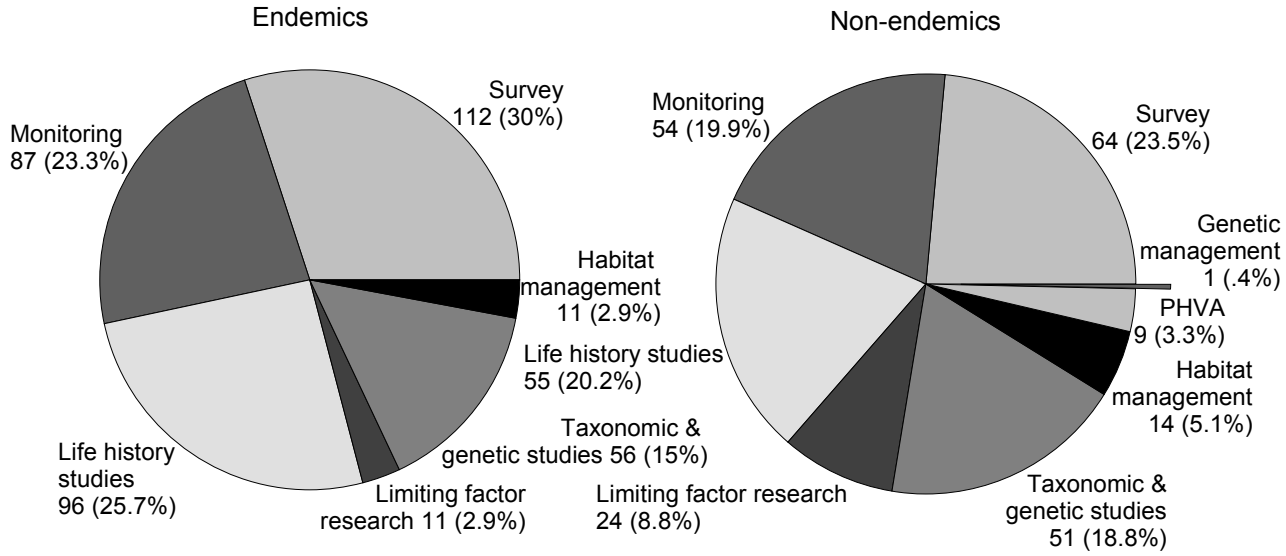
Conservation action and recommendations

The previous section dealt with the different values used in the IUCN categories for assessing taxa. This section concerns conservation action to insure the survival of the taxa in the long term, and their habitat. Conservation action can take many forms, of which keeping the habitat inviolate may be the best way of insuring survival of taxa. However, for some species habitat protection alone may not be sufficient. Constant pressure on habitat and individual taxa has forced many taxa into small, isolated or fragmented populations, which can result in a steady decline in numbers, genetic viability and general fitness, or what is called an "extinction vortex". To overcome these complications and avoid extinction, corrective actions need to be taken up, intensively and aggressively.

Table 4 summarises the various conservation actions recommended for the taxa. Since knowledge of species distribution is not nearly adequate, participants recommended Survey more than any other action, for more than 50% of the amphibians assessed. For taxa whose extent of occurrence far exceeded the area of occupancy, the recommendation was for more surveys within the range as to identify other areas of distribution. Since

population studies are lacking and trends in amphibian populations need detailed studies, Monitoring also was recommended for many taxa. Other conservation actions recommended were habitat management, taxonomic and genetics studies, limited factor research, life history studies, genetic management and population and habitat viability assessment studies.

Research and management recommendations



Number of endemics = 129
Number of research recommendation suggested = 373

Number of non-endemics = 76
Number of research recommendations suggested = 272

Table 4. Research recommendations as suggested for the assessed taxa

	T	S	M	G	H	Hm	Lm	Lr	Lh	P	O
INDIAN ENDEMICS											
CR	6	10	9	-	-	1	-	-	9	-	-
EN	13	24	21	-	-	1	-	1	21	-	-
VU	18	39	35	-	-	6	-	6	33	-	-
LR-nt	7	11	19	-	-	3	-	4	16	-	-
LR-lc	1	-	1	-	-	-	-	-	1	-	-
DD	11	28	2	-	-	-	-	-	16	-	-
NE	-	-	-	-	-	-	-	-	-	-	-
NON-ENDEMICS											
CR	-	-	-	-	-	-	-	-	-	-	-
EN	14	18	12	-	-	3	-	3	14	7	-
VU	2	3	4	1	-	3	-	1	3	-	-
LR-nt	25	29	31	-	-	8	-	19	30	2	-
LR-lc	5	3	4	-	-	-	-	-	4	-	-
DD		10	3	-	-	-	-	1	4	-	-
NE	1	1	-	-	-	-	-	-	-	-	-

Captive breeding and level of difficulty

Captive breeding recommendations are at 4 levels, Level 1, 2, 3 and 4 (see definition end of this report). Level 1 is for taxa to be interactively managed *in situ* and *ex situ* so as to retain 90% genetic diversity for 100 years.

Level 2 is for *ex situ* populations to be infused with fresh genetic material from the wild so as to retain sufficient diversity. Level 3 is not for conservation but only for education, husbandry and research. Level 4 is for commercial and sustainable utilisation.

Of the threatened taxa, only 57 endemic taxa and 17 non-endemic taxa were recommended for captive breeding. Within the recommendations, however, captive breeding for education, research and husbandry were encouraged more than for conservation. Not a single taxon was recommended for sustainable harvest including the species that were previously exported in the frog leg trade.

One of the reasons for not recommending captive breeding for conservation could be the fact that breeding techniques are not known. Participants could identify only 18 (8 endemic and 10 non-endemic) out of 205 taxa for which captive breeding technology was well known. Until last year, no zoo in India kept any amphibian, even for exhibition. This is clearly a good reason for such poor knowledge. Scattered efforts have been made in the past mostly in laboratories where common species have been kept or bred. In recent times, only the Coimbatore Zoological Park and Conservation Centre has taken up maintenance of amphibians in captivity. They have been successful in breeding some species.

It is unfortunate that captive breeding is so poorly known and misunderstood. Amphibians are small and harmless to man. They are relatively easy to maintain and breed in captivity and are not expensive. They are a group of organisms for which reintroduction could be a real possibility. Considering the rapidity and scope of amphibian decline and the percentage of threatened amphibians, captive breeding could provide a degree of security with minimal cost and danger, either to animal or man.

Table 5. Captive breeding recommendations for Indian amphibians

Captive Breeding	Level 1	Level 2	Level 3	Level 4	Pending	No
INDIAN ENDEMICS						
CR	-	8	-	-	-	2
EN	1	16	-	-	4	5
VU	-	-	29	-	2	11
LRnt	-	-	1	-	1	19
LRlc	-	-	-	-	-	2
DD	-	1	1	-	-	26
NE	-	-	-	-	-	-
NON-ENDEMICS						
CR	-	-	-	-	-	-
EN	-	7	1	-	2	8
VU	-	-	2	-	-	1
LRnt	-	-	7	-	-	29
LRlc	-	-	-	-	-	6
DD	-	-	-	-	-	11
NE	-	-	-	-	-	1

Table 6. Level of difficulty in breeding amphibians in captivity

Level of difficulty	Level 1	Level 2	Level 3	Unknown
INDIAN ENDEMICS				
CR	-	-	1	9
EN	-	-	1	23
VU	-	2	3	37
LRnt	-	-	1	20
LRlc	-	-	-	2
DD	-	-	-	28
NE	-	-	-	-
NON-ENDEMICS				
CR	-	-	-	-
EN	1	-	-	17
VU	3	-	-	1
LRnt	2	2	-	33
LRlc	-	-	1	5
DD	-	-	-	10
NE	-	-	1	-

Special issue working groups

Special working groups were formed at the workshop to discuss issues of importance in the context of assessing and conserving amphibians. Three groups were formed for subjects such as 1. Taxonomy and nomenclature, 2. Education and awareness, 3. Captive breeding of amphibians and 4. Strategies for field methods. The working group reports are presented below.

Nomenclature working group
Members: S. Prakash, Recorder; Members: I. Das, S. Dutta, S. Katre, S.V. Krishnamoorthy, A.K. Sarkar, M.S. Ravichandran, S.K. Chanda, K. Deuti. Observers: Workshop participants (also contributed in the latter part of the discussion). Facilitators: S. Molur, S. Walker

Introduction
In recent years, Alan Dubois of Paris Natural History Museums has proposed nomenclatural changes to some amphibians (mostly Ranids) and thereby reinstating old generic names. Dr. S.K. Dutta and Dr. I. Das have taken up that system of nomenclature change, thereby renaming and standardizing taxonomy of Indian Amphibians. The system though valid and rational, is not widely understood by all amphibian researchers in India (and abroad) and therefore has led to confusion and 'chaos' in taxonomy. This working group was set up to tackle that problem and for Dutta and Das to explain at length the rational behind the changes.

Dr. S.K. Dutta stated that the species nomenclature remains unchanged and only generic changes have been proposed, hence, there should not be much concern on this issue. Mr. K. Deuti asked for the reason for the sudden generic changed and asked if anyone could propose a change. S.K. Dutta replied that generic nomenclatures are very flexible and if anybody should wish to propose a new genus, he should first publish the report in a peer-reviewed publication.

Dr. S. Katre said that, by and large, non-taxonomists are not so rigid over species nomenclature changes, but there should be a scientific methodology or key available to them for reference and cross-checking, as there is none to date. Dr. I. Das said that species nomenclature are biological in origin and hence very should but the generic changes are man-made. Non-taxonomists should make species identifications from Boulenger's key following the international Code for Zoological Nomenclature rules.

S. Molur pointed out that not everybody had access to the key and hence whatever keys are available should be given for distribution to amphibian workers through the network. S. Dutta, I. Das and P.V. Desai agreed to take up the French translation of Dubois (1986, 1992) for this purpose. S. Walker pointed out that the check lists provided by I. Das and S.K. Dutta before the workshop had some contradictions and it would be helpful if these could be regularized at the workshop itself.

On the question of homonyms raised by Dr. Krishnamurthy, Dr. Das and Dr. Chanda replied that anybody working with any species of frog research should first get the specimens identified by recognized authority e.g. Zoological Survey of India, Bombay Natural History Society, etc. and also deposit a voucher species and obtain a registration number.

Dr. Bhupathy raised the issue of the minimum number required to describe a new species to which the reply was "preferably six." He also raised a question with regard to the loss of the only type specimen, e.g. how long the nomenclature should be confirmed in the list. The response was that until the concerned species is taxonomically resolved, its validity should not be questioned.

Dr. Katre asked Dr. Dutta to pronounce the name of his proposed name for species, *Philautus crnri* as she felt it was "impossible" to pronounce. However, the species name has been accepted in the existing scientific literature.

A consensus of the core discussion group and the participants was that the proposed scientific nomenclature is accepted and the taxon list should have the latest combination of the valid species name first followed by the original name.

Captive Breeding working group
Members: P.K. Mullick, A.K. Mondal, P.V. Desai, S. Bhat, I. Das, S.S. Kamble, A.Kumar, S. Walker.

It was agreed by the Workshop participants that captive breeding should be considered for threatened species with due precautions and that a Working Group should be formed to discuss the implications.

It was agreed by the working Group that in the matter of captive breeding the guidelines and policies of the IUCN Conservation Breeding Specialist Group. Reintroduction Specialist Group as well as Indian agencies such as the Central Zoo Authority and Wildlife Institute of India be used when formulating any strategy for captive breeding.

The Working Group identified the following areas of priority:
- edible and other commercially important species(including genetic material)
- ecologically important species including species in pest bio-control
- threatened species such as those identified by the workshop

The following centres were identified (by region) as places which may be interested in taking up systematic, scientific captive propagation programmes in future:

Southern India and Western Ghats of southern India - Coimbatore Zoological Park, Zoological Survey of India, Southern Regional Station, Madras Crocodile Bank, Madras Snake Park, Western Regional Station

Western India and Western Ghats - Goa University, ZSI Western Regional Station

Eastern India - Utkal University, Frog Culture Division of Central Institute of Freshwater Aquaculture (ICAR), at Kalyani, West Bengal

Northeastern India - North Eastern Hill University, Shillong

Northern India - Agra University, Dayalbagh Educational Institute

Educational Institutions which use amphibians for research and teaching activities should be identified and encouraged to take up captive breeding to sustain their activities.

Resource materials in captive breeding(see below) need to be collected and made available at affordable rate to appropriate institutions.
- Stud book of Indian species in North America and European Zoos
- Collection of literature on captive breeding methodology (including books, papers and manuals) from India and abroad.
- Standardization of technology (included breeding, hatchery management, etc.)
- Specific activities (collection of stock, preparation of hormonal extracts, hatcheries, larval and adult culture)

A few specific points were discussed
- Poly-culture (i.e. culture of several species together)
- Marking animals for individual identification
- Diseases, bacterial and parasite control
- Prioritizing species for captive breeding (using IUCN criteria)
- Reintroduction using Reintroduction Specialist Group guidelines
- Economic feasibility of frog farming for research laboratories and educational institutions to be assessed

Minimum needs of captive propagation programme were discussed with Dr. Mondal giving information from his work Basic steps include
a. Collecting breeding stock (captive bred stock wherever possible)
b. Acquiring pituitary extracts for induced breeding
c. Infrastructural set up
    Stage 1 - Hatcheries-small room
    Stage 2 - Tadpole culture - 2 acres
    Stage 3 - Frog culture - 4-5 acres

(The above is for commercial breeding in great numbers (millions), such as for consumption and export. For conservation breeding the requirements will undoubtedly vary from species to species and situation to situation)

Education working group
Members: K. Deuti, S.C. Deshpande, R.C. Gupta, M.R. Yadav, S. Sengupta. Observers: K. Mookherjee, B. Kakkar

Conservation Education and Environmental Awareness

Policy makers level
1. Environmental education camps to be done at rural, urban and zoo level and even for policy makers.
2. Policy makers should be encouraged to release funds for conservation education.
3. Policy makers to be addressed on larger issues affecting amphibian conservation by influential conservationists or activist campaigns (for examples of such issues, see below)

Public level
A. Urban
1. Popularising amphibians through television (wildlife firms depicting Indian amphibians), cartoon films with animal of "foggy" character, quiz, etc.) radio (frog calls, etc)

2. Zoos to exhibit amphibians and sell stickers, posters, leaflets, tee-shirts promoting amphibian protection and conservation and general knowledge of amphibians.

B. Rural
1. Creating awareness among villagers of the ecological importance of amphibians and their habitats by mass media (television, radio, newspapers, etc) in specific season (cropping season)

2. Villagers may be made aware of the ban in frog leg export by environmental awareness camps in local languages.

Educational institutions
A. Primary school level
1. Field and photo guides and colouring books on local amphibians to be produced and distributed among school children.

2. Posters (With species and life cycle of frogs and toads) to be made available to children.

3. Drawings and essay competitions on frogs to be arranged among school-children and the prize winners be awarded with momentos of frogs such as pins, lockets, tee-shirts, etc.

B. Secondary, High School and College levels
1. Usage of computer software to demonstrate dissection and minimise number of specimens dissected by students.

2. Behavioural studies on amphibians to be included in the curriculum. Students encouraged to do such field studies themselves.

3. Nature camps to be organised among students to promote "frog-watching."

Appendix: Issues in amphibian conservation education/activism
The use of pesticides damage amphibian populations. Integrated pest management and biological control of insect pests or pesticides is preferred. Fertilizers can also cause damage to the micro-environment. While direct contact of developing eggs and early tadpoles doses of fertilizers may show some immediate effects, this is purely of a temporary and transient nature, as its judicious application leads to good growth of phyto- and zooplanktons which for the food of tadpoles. Proper selection of fertilizers and their judicious application need to be investigated to derive the optimum benefits.

Toxic effluents are destructive to amphibian populations and should not be released at random but treated before released into the environment and closely monitored.

Detergents affect the eggs and larvae of amphibians. Manufacturers should be encouraged to print warnings on labels and industries, businesses and domestic establishments encouraged to be mindful of dumping detergents in amphibian habitats.

Fisheries may be educated not to kill frogs as few frogs eat fish fingerlings

Environmental impact assessment can be demanded by conservationists before projects on road construction etc. to be carried out.

Strategies in amphibian research working group
Members: S. Katre, A. Kumar, I. Das, S.V. Krishnamurthy, S.K. Chanda, A.K. Sarkar, S. Prakash, D.B. Sawarkar, D.K. Mohanta, M.S. Ravichandran, S. Bhupathy

The Working Group discussed strategies in amphibian research and produced the following list of needs and problems.

1. There should be better coordination among people for research.

2. The Indian Wildlife (Protection) Act should reflect, as much as possible, the results of ongoing and current research and the present assessment.

3. As demonstrated by the results of the Workshop there are many Data Deficient species, including a serious lack of surveys, which should be addressed.

4. Surveys should be two types
    a. Rarer species quantitative data not required
    b. Identifying species for quantification of population data

5. Priority to taxonomy of species under complexes categories, e.g. *Limnonectes limnocharis, Euphlyctis cyanophlyctis*

6. Ecological information on microhabitat should be collected

7. Two kinds of monitoring
    a. forest reserves
    b. disturbed areas

8. Modern tools and techniques should be learned and utilized on priority basis, such as cyto-taxonomy, chemo-taxonomy, molecular genetics, acoustics, etc. A workshop in these techniques is an urgent requirement.

9. A well maintained/ properly indexed/ and accessible central repository for specimen is required.

10. Regional voucher collection with audio-video photographs is required.

11. Bio-information on amphibians is required.

12. Training workshops on survey, monitoring and identification should be held regularly.

13. Literature should be categorised and bibliography updated.

14. Fundraising should be done for doing surveys. Additional funding agencies internationally, nationally, private, NGO should be identified.

15. Zoo Outreach Organisation should be asked to do the annual abstract of Indian Publications on amphibians.

16. In the areas where C.N.R. Rao had collected specimen and the type specimen are lost am intensive survey should be made and at night, in the current monsoon. ZSI will provide this help.

Conclusion

The BCPP Conservation Assessment and Management Plan Workshop for all Indian amphibians was a pioneering effort in several ways. For the first time in India, and perhaps anywhere, a systematic conservation workshop was held for a complete taxon group, which are neither particularly attractive or exciting or in trade. This CAMP shows that amphibians that are declining all over the world are threatened in India also with more than half the described taxa under threat.

The workshop was also a good exercise in the application of the IUCN Categories, which are meant for all living organisms except micro-organisms. Problems participants had using the categories were communicated to the Review Working Group of the Species Survival Commission, which benefited by our testing the categories on amphibians. Perhaps more important with regard to the IUCN categories, the workshop participants reported that they learned a great deal about conservation biology and population dynamics which would be reflected in the kinds and quality of information they aspired to collect in future field studies.

Several problems of amphibian systematics, research methodology and captive breeding were addressed in the special working groups, as well as the potential for education and awareness regarding amphibians. These working groups proved very useful in solving some of the often-debated subjects such as taxonomy, field methodology and captive breeding.

Perhaps the most useful achievement of the workshop was that it provided a forum and occasion for many amphibian field biologists and taxonomists to get together and discuss status of amphibian taxa in India; some of the researchers being tapped for their knowledge for the first time.

Since the CAMP workshop for Indian amphibians, a request for a CAMP workshop for amphibians of Sri Lanka has been received. The results of the amphibian CAMP for India will be included as part of the Amphibian Action Plan for south Asia being prepared by the South Asian Reptile and Amphibian Specialist Group. This could very well pave the way for similar assessments in other countries for making conservation action plans for amphibians and other taxonomic groups.

The IUCN categories and definitions to the Taxon Data Sheet

The Final version of the IUCN Red List Categories (December 1994) has evolved from inputs from specialists in different groups of taxa all over the world. Red List Categories were first introduced in the early 70s and only in 1991 a revaluation of the categories was done by Georgina Mace and Russell Lande which was called Version 1. For the first time a quantitative approach was introduced in assessing mammalian taxa. Version 2 and later versions attempted the approach of quantification for assessment for all groups of taxa except microorganisms. Non-threatened categories were also introduced during that iteration of the IUCN categories. The present version has been distinctly classified into threatened categories and non-threatened categories and a set of guidelines and criteria help in assessing the threat status of any taxa. The structure of the categories is given in Figure 1 of the Report.

The IUCN categories also give the option of assigning a taxon that is not endangered to a non-threatened category. The non-threatened categories are termed Lower Risk -near threatened, Lower Risk -least concern and Lower Risk -conservation dependent (see definitions of IUCN categories).

Definitions of the categories :
(These definitions are taken from the IUCN Guidelines for the Revised IUCN Red List Criteria but the examples have been added for this Report.)

EXTINCT (EX)
A taxon is Extinct when there is no reasonable doubt that its last individual has died.

EXTINCT IN THE WILD (EW)
A taxon is Extinct in the Wild when it is known only to survive in cultivation, in captivity, or as a naturalized population (or population) well outside the past range.

CRITICALLY ENDANGERED (CR)
A taxon is Critically Endangered when it is facing an extremely high risk of extinction in the wild in the immediate future as defined by the criteria listed in Table 1. An example of a Critically Endangered amphibian from the present Report is *Philautus garo* which has been classified as such because it is restricted in its distribution in northeastern India, fragmented and declining due to change in its quality of habitat, area and extent of occurrence.

ENDANGERED (EN)
A taxon is Endangered when it is not Critically Endangered but is facing a very high risk of extinction in the wild in the near future, as defined in the criteria listed in Table 1. The species *Nyctibatrachus humayuni* is Endangered and has been categorised as such because of its restricted distribution, fragmentation and declining due to change in its quality of habitat, area and extent of occurrence.

VULNERABLE (VU)
A taxon is Vulnerable when it is not Critical or Endangered but is facing a high risk of extinction in the wild in the medium term future, as defined by the criteria listed in Table 1. An example of a species that is Vulnerable is *Melanobatrachus indicus* because restricted in its distribution, fragmentation and change in its quality of habitat, area and extent of occurrence. It is also assessed as Vulnerable due to population restricted to less than 5 locations.

LOWER RISK (LR) A taxon is Lower Risk when it has been evaluated and does not qualify for any of the above categories -- Critically Endangered, Endangered, Vulnerable -- and is not Data Deficient. There are to sub-categories for Lower Risk which will be explained below

LOWER RISK -conservation dependent (LRcd)
Taxa which do not currently qualify under any of the categories above may be classified as conservation dependent. To be considered conservation dependent, a taxon must be the focus of a continuing taxon-specific or habitat-specific conservation program which directly affects the taxon in question. The cessation of this program would result in the taxon qualifying for one of the threatened categories above. There was no species assessed as LRcd in this workshop.

LOWER RISK -near threatened (LRnt)
A taxon is near threatened when it is not Critically Endangered, Endangered, or Vulnerable but is, none-the-less, felt to be facing a risk of being threatened. Species example: *Micrixalus fuscus*

LOWER RISK -least concern (LRlc)
A taxon is considered of least concern when it is not threatened, conservation dependent or near threatened. An example of an amphibian classified as least concern is *Limnonectes andamanensis*.

DATA DEFICIENT (DD)
A taxon is Data Deficient when there is inadequate information for making a direct, or indirect, assessment of its risk of extinction based on its distribution and/ or population status. Example: *Indirana gundia.*

NOT EVALUATED (NE) A taxon is Not Evaluated when it has not yet been assessed against the criteria for some reason. An example of an amphibian that was categorised as Not Evaluated is *Tomopterna dobsonii*.

Application of the IUCN categories
The IUCN categories can be applied at three levels, viz. Global, Regional and National.

Global assessment: This term is used when applying the IUCN categories to a taxon in its entire distributional range. In this sense, "global" does not mean that the assessment is being made to a taxon with a "world-wide" or global distribution. For example, *Gegeneophis ramaswamii* has a very limited distribution, found only in the Western Ghats, which is the "global distribution" of the species. Therefore, it has been assessed at the Global level in this workshop.

The IUCN categories work best at the Global level. This is tantamount to saying that the IUCN categories can be applied best to political endemics. Political endemics are endemics that do not have a distribution across political boundaries, that is, between nations. In this workshop all Indian endemics (129 taxa) have been assessed globally.

National assessment: The term National Assessment means applying the IUCN categories to a taxon with respect to its distributional range throughout India. The present categories cannot be applied to taxa at the National level without undertaking many complex exercises. Factors such as distributional range in the neighbouring countries also needs to be known since the guidelines for categorisation at the National level takes into consideration migration of the taxon across political boundaries. Also, it is required to understand the life history of the taxa to be able to qualify for any of the criteria of Restricted Distribution, Population Estimates and Population Restriction. The exercise of a National Assessment can be undertaken only in the presence of experts with species knowledge from all the countries throughout which the taxon is distributed.

In this workshop, all non-endemics (76 taxa) have been assigned IUCN categories based on National Assessment. This is because the taxa have been assessed for their complete distributional range in India and for a comprehensive National Action Plan, the assessment has been classified so.

Regional assessment: The term Regional Assessment means applying the IUCN categories to a taxon in part of its distributional range. A regional assessment, by deriving the status of the taxon for a region, which may differ from other regions in which it is found, thereby facilitates conservation activities, which can be implemented more appropriately over a smaller area. In this workshop, no amphibian taxon was assessed at the regional level.

The IUCN categories work best when applied to political endemics, as distribution range does not pose problems for assessment. Assessments for all endemics taxa (129) have been made at the Global level. The remaining non-endemic taxa (76) have been assessed Nationally. Nationally assessed taxa are denoted by the letter "N" following the IUCN category.

Criteria
The threatened categories of the IUCN Red List — Critically Endangered, Endangered and Vulnerable are derived based on 5 criteria (See Guidelines for Criteria for threat categories end of this report), viz:
A. Population reduction (PR)
B. Restricted distribution (either extent of occurence or area of occupancy) (RD)
C. Population number, restricted distribution and fluctuation (PE)
D. Adult population numbers (Mature individuals) or restricted population (RP)
E. Probability of extinction (PX)

The subcriteria within each of the above criteria vary to determine if a taxon is Critically Endangered, Endangered or Vulnerable. While assigning a threat category to a taxon, the criteria that the threat is based on is also given.

Population Reduction
Population reduction is not easy to estimate since it involves also estimation of loss of habitat and various threats affecting the population. Information from direct observation is the best source but in many cases there are no population monitoring studies and precise figures are difficult to derive. Therefore educated estimates with good reasoning is also encouraged to derive this information (See IUCN Guidelines under section Data Quality). For threatened categories, the minimum percent decline in population is 20% over 3 generations or 10 years whichever is longer. Depending on the rate of decline, the taxon is assigned a threat category (see IUCN categories chart before the Summary Data Table in the Executive Summary section).

Restricted Distribution
As per IUCN guidelines for Restricted Distribution (see definitions for Taxon Data Sheets) a taxon is assessed as threatened if it has a restricted distribution. To meet this criterion the taxa also has to qualify two of the three subcriteria (see IUCN categories chart end of this report). Restricted distribution as per IUCN is less than 20,000 sq.km. for the Extent of Occurrence and/ or less than 2,000 sq.km. for the Area of Occupancy of the taxa.

Number of locations
This subcriteria is important to know if the taxon is assessed according to the "Extent of occurrence" criteria. Any taxon distributed in less than 10 locations would qualify for a limited location distribution which would qualify it for
the threatened subcriteria. Depending on the number of locations below 10, the taxon would qualify for one subcriteria under Vulnerable, Endangered or Critically Endangered categories (see IUCN guidelines end of report)

If for any taxon, the number of locations is more than ten, then the question of whether the locations are fragmented or not becomes important. According to the guidelines, a population is fragmented from the other if there is no movement of genetic material between the populations. In most cases for plants it is difficult to assess what would be the critical distance for fragmentation. Information of number of locations is purely on the participants' judgement and their view of the soil invertebrate biology and migration capability. In certain cases the concept of fragmentation is very clear while not so in others.

Number of Mature Individuals
As per IUCN guidelines for the Number of Mature Individuals (see definitions for Taxon Data Sheets) a taxon is assessed as threatened if it has less than 1,000 mature individuals. Depending on the number, the degree of threat will be assigned.

It is always very difficult to estimate the number of mature individuals especially if the taxon is small and has a short generation time. In this CAMP no invertebrate was assessed based on the number of mature individuals

Data Quality
Assessments cannot be relied upon if there is no proper methodology or facts. It is therefore important to provide an authenticated account with the results. Data Quality is of six types, viz.
a) Reliable census or monitoring
b) General field study
c) Informal field sighting
d) Indirect information (from trade, local experts, practitioners, etc)
e) Herbarium/ museum/ literature/ collection records
f) Hearsay/ popular beliefs

Research recommendations
Research recommendations for most of the taxa are made based on the amount of information available and the need for understanding and managing the taxa in the wild. This is part of the conservation action plan that the group derives after the assessment of every taxon. The recommendations are:
a) Survey (S)
b) Monitoring (M)
c) Taxonomic and morphological genetic studies (T)
d) Genetic management (G)
e) Husbandry research (H)
f) Habitat management (Hm)
g) Limiting factor research (Lr)
h) Limiting factor management (Lm)
i) Life history studies (Lh) and
j) Other taxon specific recommendations (O)
k) Population and Habitat Viability Assessment

Captive breeding recommendations
Recommendations also include *ex situ* management and action plan along with *in situ* conservation. This includes different levels such as:
a) Level 1: Cultivation for metapopulation management by maintaining 90% heterozygosity for 100 years by supplementing individuals or genetic material from captivity into the wild.
b) Level 2: For maintaining healthy genetic material in cultivation by required input from the wild.
c) Level 3: Cultivation not for conservation but for either research, education or husbandry.
d) Level 4: Cultivation for either of the above and for sustainable utilisation.
e) Pending: Cultivation pending further input from research or scientists.
f) No: Cultivation not recommended.

Level of difficulty
This is an indicator of whether cultivation is known, partly known or unknown for any taxon that is recommended for cultivation
a) Level 1 -- Least difficult: Cultivation techniques completely known for either the taxon or similar taxon.
b) Level 2 – Moderately difficult: Cultivation techniques only partially in place for the taxon or similar taxon.
c) Level 3 – Very difficult: Cultivation techniques not known for the taxon or similar taxa.
d) Not known: Information about the level of difficulty not known by the assessors.

Amphibians of India

Taxon Data Sheets

Taxon Data Sheets

1. *Amolops afghanus* (Günther, 1858) -- LRnt/N -- (*Rana afghana* (Günther, 1858)). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Evergreen forest, torrent-dwelling. **Global Distribution:** Nepal, Burma, China & India. **Current National Distribution:** West Bengal, Assam, Arunachal Pradesh, Meghalaya, Tripura, Mizoram, Sikkim, Uttar Pradesh, Himachal Pradesh. **- Elevation:** 1500 m to 1800 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 7. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known . **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies; (A.K.Sarkar, 1985 in Sikkim, Darjeeling, Kargra, Meghalaya). **Recent Field Studies:** A.K. Sarkar, 1992 in Sikkim, Darjeeling, Kargra, Meghalaya; S.K. Chanda, 1994 in Northeast Region. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally) . DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Monitoring; Life history studies; Limiting factor research. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 204, 240. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D. Sawarkar, M.R. Yadav.

2. *Amolops formosus* (Günther, 1875) --LRnt/N -- (*Rana formosa* (Günther, 1875)). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Running streams of plains. **Global Distribution:** Nepal & India. **Current National Distribution:** Darjeeling, Sikkim, Meghalaya, Mussourie, U.P. **- Elevation:** 800 - 2750 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 4; Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** Records, Museums & Collection studies; General field studies . (S.K. Chanda, 1974 in Kashi hills) . **Recent Field Studies:** A.K. Sarkar, 1992 in Darjeeling. **Threats:** Loss of habitat; Pollution; Human interference. **Trade:** Not known. **Other Comments:** Pending intensive survey. **Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Habitat management. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 85, 86, 87, 201, 240. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D. Sawarkar, M.R. Yadav.

3. *Amolops gerbillus* (Annandale, 1912) --LRnt/N – (*Rana gerbillus* Annandale, 1912). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Evergreen forest. **Global Distribution:** China, Myanmar and India. **Current National Distribution:** Meghalaya, Assam, Arunachal Pradesh, West Bengal. **- Elevation:** 0 - 1800 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 6. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies (R.S. Pillai & S.K. Chanda, 1970's in Khasi Hills;. S.K. Chanda, 1983 in West Bengal & Northeast Region. **Recent Field Studies:** S.K. Chanda, 1990 in West Bengal & Northeast Region; . D. Roy, 1996 -97 in Meghalaya . **Threats:** Loss of habitat; Human interference. **Trade:** . **Other Comments:** Pending intensive survey. **Status- IUCN: LOWER RISK -NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Monitoring; Life history studies; Limiting factor research; Survey. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 46, 176, 240. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D. Sawarkar, M.R. Yadav.

4. *Amolops monticola* (Anderson, 1871) -- EN/N (B1, 2b, 2c) – (*Rana monticola* (Anderson, 1871)). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Evergreen forest torrent-dwelling. **Global Distribution:** China, Tibet & India. **Current National Distribution:** Darjeeling, West Bengal. **- Elevation:** 1700 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 1. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** Records, Museums, Collection studies (A.K. Sarkar, 1990 Darjeeling). **Recent Field Studies:** None. **Threats:** Loss of habitat; Human interference. **Trade:** Not known. **Other Comments: -- Status- IUCN: ENDANGERED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** B1, 2b, 2c (Restricted distribution, single location, continuing decline observed. in area of occupancy & quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. Recommendations-Research management: Survey; Taxonomic & morphological genetic studies; Monitoring; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 204. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D. Sawarkar, M.R. Yadav.

5. *Ansonia kamblei* Ravichandran & Pillai, 1990 -- DD -- **Family:** Bufonidae. **Taxonomic status:** Species. **Habit:** Torrenticolous . **Habitat:** Torrential toad - inhabits torrential streams in hilly areas in dry scrub forests . **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Maharashtra. **- Elevation:** At about 200 mts. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1 (Jeur dist., Sholapur - type locality). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** General field study (ZSI WRS Pune, 1983). **Recent**

Field Studies: None. **Threats:** Not known. **Trade:** No. **Other Comments:** Newly described species. Taxonomic status based on single specimen. **Status- IUCN: DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Taxonomic studies; Monitoring. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. - Names of facilities: —. **Sources (Refer Appendix):** 107, 194. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

6. *Ansonia ornata* Günther, 1875 --EN (B1, 2c) -- **Family:** Bufonidae. **Taxonomic status:** Species. **Habit:** Torrenticolous. **Habitat:** Wet evergreen and moist deciduous. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Karnataka. **- Elevation:** 150 - 1100 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 2 (Brahmagiri Hills -type locality; Dakshina Kannada dist., Karnataka). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution. **Data Quality:** General field studies (Daniels, R.J.R., 1988 -90 in South Canara). **Recent Field Studies:** None. **Threats:** Human interference. **Trade:** No. **Other Comments:** For nearly 110 years the species was not relocated after type study, until 1990. Recently reported by R.J.R. Daniels. **Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2c(Restricted distribution, severely fragmented, continuing decline observed in extent of occurrence, area of occupancy and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Monitoring; Life history studies. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 59, 119. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

7. *Ansonia rubigina* Pillai & Pattabhiraman, 1981 -- EN (B1, 2c, 3b) -- **Family:** Bufonidae. **Taxonomic status:** Species. **Habit:** Torrenticolous. **Habitat:** Evergreen, moist forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala. **- Elevation:** 1,000 -1,200 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 2; Fragmented (Silent Valley). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and fragmented. **Data Quality:** General field studies. **Recent Field Studies:** Shaji, C.P. and Easa, P.S. (1995 - 96) in Silent Valley. **Threats:** Human interference; Drying up of rivers and streams. **Trade:** No. **Other Comments: -- Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2c, 3b (Restricted distribution, limited location, severely fragmented, continuing decline observed in extent of occurrence, area of occupancy, extreme fluctuation in area of occupancy and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring, Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 107, 178, 217. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

8. *Bufo abatus* Ahl, 1925 – DD -- **Family:** Bufonidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Not known. **Global Distribution:** ENDEMIC to eastern India . **Current Regional Distribution:** West Bengal . **- Elevation:** 1,600 m. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1 (Darjeeling hills). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Habitat and range not known. **Data Quality:** Records; General field studies. **Recent Field Studies:** R. Dasgupta , ongoing study. **Threats:** Not known. **Trade:** No. **Other Comments:** Known from literature only. **Status- IUCN: DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 6. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

9. *Bufo beddomii,* Günther, 1875 – LRlc -- **Family:** Bufonidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Wet evergreen forests, agricultural fields, plantations adjoining forest areas. **Global Distribution:** ENDEMIC to Western Ghats. Current National Distribution: Karnataka, Tamil Nadu, Maharashtra & Kerala. **- Elevation:** 200 -1400 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** > 10 (Karnataka, Chickmagalur, Shimoga, South Canara, Kalakkad, Kudremukh, Sringeri, Annamalai, Sangali, Travancore hills, Ponmudi and Malabar). **Population Trends - % change- % Decline:** No decline. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** General field studies (Günther, 1875). **Recent Field Studies:** S.V. Krishnamurthy, 1990-92 in Sringeri; S.V. Krishnamurthy & M.B. Natraj, 1996 . ongoing in Kudremukh National Park; Karthikeyan, 1996 ongoing in Kalakkad; . A. Kumar, 1993 in Annamalai; ZSI, SRS & WGRS ongoing in Anaimalai. **Threats:** Human Interference. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - LEAST CONCERN. - Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Life history studies. **- PHVA:** No. Captive Breeding Recommendations- Captive breedingNo. **- Level of difficulty:** Not known. **Existing Captive Programs:** Yes. - Names of facilities: Coimbatore zoological park and conservation centre, Anaikatty, Cbe. **Sources (Refer Appendix):** 119, 120, 137, 139, 190. **Compilers:** S. Bhat, P.V. Desai, Katre S., S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

10. *Bufo brevirostris* Rao, 1937 – DD -- **Family:** Bufonidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Wet evergreen forest. **Global Distribution:** ENDEMIC to Western ghats . **Current Regional Distribution:** Not

Known . **- Elevation:** Not Known . **- Range (sq. km):** Not Known . **- Area Occupied (sq. km):** Not Known . **- Number of locations:** Not Known . **Population Trends - % change- % Decline:** Not known. - Time / Rate Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not Known . **Data Quality:** Literature. **Recent Field Studies:** None. **Threats:** Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** . **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

11. *Bufo camortensis* Mansukhani & Sarkar, 1980 -- VU (D2) -- **Family:** Bufonidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Forests, human habitations. **Global Distribution:** ENDEMIC to Andaman and Nicobar Islands. **Current Regional Distribution:** Andaman and Nicobar Islands. **- Elevation:** Sea level. **- Range (sq. km):** 1,750. **- Area Occupied (sq. km):** < 1, 750. **- Number of locations:** < 5 (Camorta, Nancowry). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted to the islands. **Data Quality:** General field studies (R.I. Crombie, 1980 in Nicobar). **Recent Field Studies:** I. Das, 1996. **Threats:** No. **Trade:** No. **Other Comments:** Population stable. *Bufo spinipes* Fitzinger in *Steindachner* is an older name for the population from the Nicobars. **Status- IUCN: VULNERABLE**. **- Criteria based on:** D2 (Restricted to less than 5 locations) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Taxonomic studies; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 52, 107, 149. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

12. *Bufo fergusonii* (Boulenger, 1892) --LRlc/N -- **Family:** Bufonidae. **Taxonomic status:** Species. **Habit:** Nocturnal/ burrowing terrestrial. **Habitat:** Scrub jungle and human settlements in highlands. **Global Distribution:** Southern India including Orissa and Sri Lanka. **Current National Distribution:** Kerala, Orissa, Tamil Nadu, Karnataka, Andhra Pradesh. **- Elevation:** Up to 1000 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** > 10 (Thiruvananthapuram, Barpali, Sambalpur, Chennai, Mysore, Dharwal, Hyderabad) . **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies (Ferguson, ZSI, Calcutta, 1892 in Thiruvanthapuram; . J.C. Daniel, 1965 in Tamil Nadu; Menon, 1986 in Palakkad; J.P. Donahue & . J.C. Daniel, 1961 in Hyderabad; R.D. Kanamadi & C.R. Hiremath, 1989 in Dharwad) . **Recent Field Studies:** M.S. Ravichandran, 1992 in Kalakkad Anamalais; A.K. Sarkar, 1992 in Darjeeling. **Threats:** No. **Trade:** Not known. **Other Comments:** The Indian species needs to be compared with the Sri Lankan to . see if they are distinct. **Status- IUCN: LOWER RISK - LEAST CONCERN (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Monitoring; Life history studies; Taxonomic and morphological genetic studies . **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Very difficult. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 19, 34, 54, 75, 84, 105, 130, 133. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, I. Das, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.S. Deshpande, A. Kumar, S.K. Dutta.

13. *Bufo himalayanus* (Günther, 1864) -- LRnt/N -- (*Bufo melanostictus* var. *himalayanus* Günther, 1864). **Family:** Bufonidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Evergreen forests. **Global Distribution:** Nepal & India. **Current Regional Distribution:** Darjeeling (West Bengal), Sikkim, Meghalaya & Arunachal Pradesh. **- Elevation:** 900 - 2750 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 6. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies. **Recent Field Studies:** S.K. Chanda, 1994 in Meghalaya & Arunachal Pradesh; A.K. Sarkar, 1992 in Darjeeling & Sikkim. **Threats:** Loss of habitat; Human interference. **Trade:** Not known. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Survey; Monitoring;. Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 41, 46, 103, 117, 204, 240. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D. Sawarkar, M.R. Yadav.

14. *Bufo hololius* (Günther, 1868) – LRnt -- **Family:** Bufonidae. **Taxonomic status:** Species. **Habit:** Terrestrial-litter. **Habitat:** Wet evergreen/ Plantations near W.E.G.; Dry deciduous. **Global Distribution:** ENDEMIC to Western Ghats & Easterm Ghats. **Current Regional Distribution:** Kerala, Karnataka & Andhra Pradesh. **- Elevation:** 720 -1100 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** > 5 (Malabar - type locality, Nagarjunasager, Chittoor, Sringeri); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known . **Global Population:** Widely distributed. **Data Quality:** General field studies (Sathyamoorthy, 1967 in Malabar; ZSI, FWBS, 1986 in Nagarjunasagar); Records. **Recent Field Studies:** S.V. Krishnamurthy & S. Katre, 1992 in Sringeri; S.V. Krishnamurthy & S. Katre, 1990-91 ongoing in ZSI, WGRS . **Threats:** Human interference; Loss of habitat . **Trade:** No. **Other Comments:** Eastern & Western Ghats populations may not be conspecific. **Status- IUCN: LOWER RISK - NEAR THREATENED**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Survey; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —.

Sources (Refer Appendix): 54, 103, 136, 139, 180**(Refer Appendix)**. **Compilers:** S. Katre, S. Bhat, S.V. Krishnamurty, A. Kumar, P.V. Desai, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.S. Deshpande, S.K. Dutta,. R. Gupta.

15. *Bufo koynayensis* Soman, 1963 -- EN (B1, 2c) – (*B. sulphureus* Grandison & Daniel). **Family:** Bufonidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Dry grassland near river Koyna. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Maharashtra. **- Elevation:** 500 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 2 (Satara and near Koyna river). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** . **Data Quality:** General field studies (P.W. Soman, 1963 near Koyna; Grandiison & Daniel , 1964 in Satara; Ashok Captain, 1994 in Koyna). **Recent Field Studies:** None. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2c(Restricted distribution, severely fragmented, continuing decline observed in extent of occurrence, area of occupancy and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Monitoring. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 109, 220. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, S.K. Dutta,. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

16. *Bufo latastii* (Boulenger, 1882) -- LRlc/N -- **Family:** Bufonidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Hill Streams; alpine forests. **Global Distribution:** Pakistan, Nepal & India. **Current National Distribution:** Himachal Pradesh and Jammu & Kashmir. **- Elevation:** 6000 feet . **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 4 (Dras, Ladakh, Naranag, Kashmir, and Himachal Pradesh). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Now known. **Data Quality:** General field studies (Gruber, 1980 in Kashmir). **Recent Field Studies:** Das, 1996 in Reckong Peo, Himachal Pradesh. **Threats:** No. **Trade:** No. **Other Comments:** Record from Jammu & Kashmir (needs verfication). **Status- IUCN: LOWER RISK - LEAST CONCERN (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Survey; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 68, 89, 103, 112, 240. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D. Sawarkar, M.R. Yadav.

17. *Bufo melanostictus* (Schneider, 1799) -- VU/N (A1a, 1c, 1d) -- ***Phyrnoides melanostictus* Cope, 1863**. **Family:** Bufonidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Plains & grasslands. **Global Distribution:** South Asia, South East Asia & West Asia (Australasia). **Current National Distribution:** . **- Elevation:** Plains to 3600 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** Many. **Population Trends - % change- % Decline:** 25 %. **- Time / Rate (Yrs or gens):** 10 Years. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Continuing decline observed in wild population. **Data Quality:** General field studies. **Recent Field Studies:** A.K. Sarkar, 1992 in all districts of West Bengal; M.C. Dash & J.K. Mohanta, 1993 in Sambalpur; S.V. Krishnamurthy & S. Katre, 1990-92 in Sringeri; . S.V. Krishnamurthy & S. Natarajan ongoing in Kudremukh; S. Katre, 1997 ongoing in Madekri ; A.K. Mondal, 1956-65 & 1974-93 in W. Bengal, in 1965-67, All India survey & in 1967-73 & 1994-96 in Orissa; D. Roy, 1996 - 97 in Meghalaya; H.V. Ghate, 1992-97 in Pune; P. Kannan in Mayiladuthurai, Tamil Nadu; Saibal Sengupta in Kamrup Dist. Assam; K. Gunasekhar in Tirupathi, Andhra Pradesh; D.B. Sawarkar in and around Nagpur. **Threats:** Harvest; Human interference; Loss of Habitat; Pesticides. **Trade:** No. **Other Comments:** In northern India *stomacticus* is often mistaken for *melanostictus.* Reproduction studied in detail by Mondal and Basu. **Status- IUCN: VULNERABLE (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** A1a, 1c, 1d (Population reduction due to decline in area of occupancy, extent of. occurence and/ or quality of habitat due to actual or potential levels of exploitation). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Least difficult. **Existing Captive Programs:** Yes. **- Names of facilities:** Frog culture division of CIFA (ICAR) at Kalyani, W. Bengal . **Sources (Refer Appendix):** 16, 79, 103, 113, 131, 190, 204, 207, 208, 212. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D. Sawarkar, M.R. Yadav, A.K. Mondal.

18. *Bufo microtympanum* (Boulenger, 1882) -- LRnt/N -- **Family:** Bufonidae. **Taxonomic status:** Species. **Habit:** Hilly areas/ terrestrial. **Habitat:** Dry deciduous forests/ moist deciduous forests. **Global Distribution:** India & Srilanka. **Current National Distribution:** Kalakkad (Tamil Nadu), Malabar, Silent Valley, Vanjikadavu (Kerala). **- Elevation:** Up to 2000 m. msl. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 5 (Trichur, Kalakkad, Kodaikanal, Silent Valley; Peninsular India); Fragmented . **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies (ZSI, Southern Regional station/ and ZSI Calcutta, 1980 in Trichur, Kalakkad, Kodaikanal, Silent Valley; J.C. Daniel, 1980 in Peninsular India). **Recent Field Studies:** M.S. Ravichandran, 1992 in Thirunelveli district; I. Das & R. Whitaker, 1990 in Vanjikadavu, Kerala; R.J.R. Daniels, 1988 - 90, W. Ghats in Karnataka. **Threats:** Loss of habitat; Human interference; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK -NEAR THREATENED (Nationally) . DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Monitoring; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 27, 54, 62, 76, 103, 105, 133, 172. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D. Sawarkar, M.R. Yadav.

19. *Bufo parietalis* Boulenger, 1882 – LRnt -- **Family:** Bufonidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats . **Current Regional Distribution:** Karnataka, Kerala & Tamil Nadu. **- Elevation:** 200 -1,400 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** > 10 (Silent Valley, Sabarigiri, Ponmudi, Malabar, Cochin Hills, Parambikulam Wildlife Sanctuary, Ooty); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Widely distributed but fragmented population. **Data Quality:** General field studies (ZSI SRS 1979 -85 in Silent Valley and Sabarigiri; Inger *et al*., 1982 in Ponmudi). **Recent Field Studies:** None. **Threats:** Loss of habitat, Human interference; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED. - Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. - Names of facilities: —. **Sources (Refer Appendix):** 27, 62, 172, 190. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

20. *Bufo silentvalleyensis* Pillai, 1981 -- VU (D2) -- **Family:** Bufonidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Wet evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala. **- Elevation:** 1,000 m. **- Range (sq. km):** 100. **- Area Occupied (sq. km):** 100. **- Number of locations:** 1 (Silent Valley National Park)**. Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Highly restricted distribution. **Data Quality:** General field studies (R.S. Pillai, 1979; ZSI, 1979). **Recent Field Studies:** C.P. Shaji and P.S. Easa, 1994 -96 in Silent Valley. **Threats:** Not known. **Trade:** No. **Other Comments: -- Status- IUCN: VULNERABLE**. **- Criteria based on:** D2 (Restricted to less than 100 sq. km. area and single location). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Monitoring. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 171, 217. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

21. *Bufo stomaticus* Lütken, 1862 -- LRnt/N -- (*Bufo andersonii* Boulenger, 1883). **Family:** Bufonidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Plains, Scrub forests, Human habitation. **Global Distribution:** Western Asia. **Current National Distribution:** Jammu & Kashmir to Karnataka, Assam, West Bengal, Bihar, Orissa. **- Elevation:** 400 to 2,750 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** Many. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies. **Recent Field Studies:** M.C. Dash & J.K. Mohanta, 1993 in Sambalpur district, Orissa; K. Deuti, 1996 in Kalyani, West Bengal; A.K. Sarkar, 1993 in Gujarat; S. Bhupathy, 1997 in Coimbatore; I. Das, 1996 in Chandigarh, Ambala; A.K. Mondal, 1958 -64 in and around Dhakuria and Jodhpur, 1984-86 in Howrah, Hooghly, Burdwan, W. Bengal, in 1967-73 in Orissa . **Threats:** Human interference. **Trade:** No. **Other Comments:** The subspecies *peninsularis* is not valid (Chanda & Das in prep.). Quantitative studies of Spermatogenetic cycle during annual seasonal variation done by Mondal in 1963 -74. **Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 79, 83, 103, 105, 205, 240. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D. Sawarkar, M.R. Yadav, A.K. Mondal, S.K. Dutta.

22. *Bufo stuarti* (Smith, 1929) -- LRnt/N -- **Family:** Bufonidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Evergreen forests. **Global Distribution:** India & Myanmar. **Current National Distribution:** Assam (India). **- Elevation:** 0 - 1,800 m.**. - Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** Many. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** Records/Museums/Collection studies (S.K. Dutta, 1992). **Recent Field Studies:** None. **Threats:** Loss of habitat; Human intereference. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Survey;Monitoring;Life history studies; Limiting factor research. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 102, 103, 219, 240. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D. Sawarkar, M.R. Yadav.

23. *Bufo viridis* Laurenti, 1768 -- DD/N -- (*Bufo variabilis*, Merrem, 1820). **Family:** Bufonidae. Taxonomic status : Species. **Habit:** Terrestrial. **Habitat:** Dry land. **Global Distribution:** Europe to Western Asia. **Current National Distribution:** Gujarat, Kashmir . **- Elevation:** Not known. **- Range (sq. km):** Not known . **- Area Occupied (sq. km):** Not known. **- Number of locations:** Not known. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies (A.K. Sarkar, 1980's in Gujarat). **Recent Field Studies:** None. **Threats:** Not known. **Trade:** Not known . **Other Comments:** Indian records need verification. **Status- IUCN: DATA DEFICIENT (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey. **- PHVA:** No. **Captive**

Breeding Recommendations- Captive breeding: No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 200. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D. Sawarkar, M.R. Yadav.

24. *Bufoides meghalayanus* (Yazdani & Chanda, 1971) -- CR (B1, 2a, 2b, 2c) -- **(***Ansonia meghalayana* Yazdani & Chanda, 1971). **Family:** Bufonidae. **Taxonomic status:** Species. **Habit:** Arboreal and terrestrial. **Habitat:** Potholes in ground and axils of leaves of Pandanas. **Global Distribution:** ENDEMIC to northeastern India. **Current Regional Distribution:** Meghalaya. **- Elevation:** 1,330 m. **- Range (sq. km):** < 100. **- Area Occupied (sq. km):** < 10. **- Number of locations:** 1 (Cherrapunji). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Single location and highly restricted distribution. **Data Quality:** General field studies (Yazdani & Chanda, 1970; Pillai & Yazdani, 1971). **Recent Field Studies:** None. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: CRITICALLY ENDANGERED**. **- Criteria based on:** B1, 2a, 2b, 2c(Restricted distribution, single location, continuing decline observed in extent of occurrence, area of occupancy and quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 46, 103, 107, 181, 242. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

25. *Chaparana sikimensis* (Jerdon, 1870) -- LRnt/N -- (*Rana sikimensis*, Jerdon, 1870). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** . **Habitat:** Evergreen forests. **Global Distribution:** Nepal & India. **Current National Distribution:** Darjeeling, Meghalaya (Khasi hills), Sikkim. **- Elevation:** 1700 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 3. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** Records/Museums/Collection studies. **Recent Field Studies:** Not known. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Monitoring; Limiting factor research; Survey. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 103, 128, 204. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D. Sawarkar, M.R. Yadav.

26. *Chirixalus doriae* Boulenger, 1893 --EN/N (B1, 2c) -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Rain forest. **Global Distribution:** India, Myanmar, Vietnam & Thailand. **Current Regional Distribution:** Arunachal Pradesh. **- Elevation:** Not known . **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 1 (Abor Hills). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known . **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Restricted to single location. **Data Quality:** Records; General field studies (Annandale, 1912). **Recent Field Studies:** None. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: ENDANGERED (Nationally). DATA DEFICIENT (Globally)- Criteria based on:** B1, 2c(Restricted distribution, single location, continuing declineobserved in area of occupancy, extent of occurrence and/ or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 13, 35, 45. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

27. *Chirixalus dudhwaensis* Ray, 1992 --VU (D2) -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Grassland. **Global Distribution:** ENDEMIC to northern India. **Current Regional Distribution:** Uttar Pradesh. **- Elevation:** 400 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 1(Dudhwa National Park). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** General field studies (P. Ray, 1990). **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments:** The validity of species is to be reconfirmed. **Status- IUCN: VULNERABLE**. **- Criteria based on:** D2 (Restricted to single location). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 196. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav, S.K. Dutta.

28. *Chirixalus simus* Annandale, 1915 -- EN/N (B1, 2a, 2b, 2c) -- (*Rhacophorus simus* (Annandale, 1915)) **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Not known. **Global Distribution:** India & Myanmar. **Current National Distribution:** Assam (India). **- Elevation:** Not known. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 1(Guwahati). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** Records/ Museums/ Collection studies (S.K. Dutta, 1992). **Recent Field Studies:** Saibal Sengupta, 1996 in Guwahati. **Threats:** Loss of habitat. **Trade:** No. **Other Comments: -- Status- IUCN: ENDANGERED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** B1, 2a, 2b, 2c (Restricted distribution, single location, continuing decline . observed in extent of occurrence, area of occupancy and quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research**

management: Survey; Taxonomic and morphological studies; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Pending. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 102. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D. Sawarkar, M.R. Yadav.

29. *Chirixalus vittatus* (Boulenger, 1887) -- EN/N (B1, 2c) -- (*Philautus vittatus*, Boulenger, 1887). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Evergreen forests. **Global Distribution:** India & Myanmar. **Current National Distribution:** Nagaland. **- Elevation:** 1400 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 1 (Naga Hills, Kohima). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies (Khare & Kiyasetuo, 1986 in Kohima). **Recent Field Studies:** Not known. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: ENDANGERED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** B1, 2c (Restricted distribution, single location, continuing decline observed in. area of occupancy, extent of occurrence and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 29, 135. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D. B. Sawarkar, M.R. Yadav.

30. *Euphlyctis cyanophlyctis* (Schneider, 1799) — LRnt/N -- *(Rana cyanophlyctis* (Schneider, 1799); *Occidozyga cyanophlyetis*, Schneider, 1799)**. Family:** Ranidae. **Taxonomic status:** Species.**Habit:** Aquatic. **Habitat:** All kinds of water bodies. Possess some degrees of salt tolerance as in seen .in Ramanathapuram Dist. of Tamil Nadu . **Global Distribution:** . South Asia & Southeast Asia..**Current National Distribution:** Throughout India. **- Elevation:** . Plains to 2,750 m.. **- Range (km2):** > 20,000. **- Area Occupied (km2):** > 2,000. **- Number of locations:** > 1000. **Population Trends - % change- % Decline:** Not known.**- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies. **Recent Field Studies:** Sant Prakash, 1982 -1996 in Shillong; D. Roy, 1996 in Khasi Hills;S. Sengupta, 1996 in Assam. Das, 1989 -1991 in Vadanammeli in Tamil Nadu; A.K. Mondal, 1965 -96 in Ramanathapuram District. P. Kannan in Mayiladuthurai,.Tamil Nadu; G. Ramaswamy in Manampandal, Tamil Nadu.**Threats: .** Pesticidies; Human Interference; Loss of habitat; Habital fragmentation;Poisoning; Pollution. **Trade:** No. **Other Comments:** A member of species variants. This must be treated as a species complex.Seed production and culture technology on commercial scale already developed .**Status** . **- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally). - Criteria based on:** —. **- CITES:** No.**- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations: - Research management:** Survey; Monitoring; Limiting factor research. **- P.H.V.A.:** No. **Captive Breeding Recommendations**: **- Captive breeding:** Level 3. **- Level of difficulty:** Least difficult. **Existing Captive Programs:** Yes. **- Names of facilities:** D. Roy, NEHU, Shillong;Frog culture Division of Central Inst. of Freshwater Aquaculture (ICAR), Kalyani.Coimbatore Zoological Park & Conservation Centre, Anaikatty, Coimbatore.**Sources (Refer Appendix):** 46, 70, 103, 120, 131, 185, 202, 240. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, .S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav, A.K. Mondal.

31. *Euphlyctis ghoshi* (Chanda, 1990) -- EN (B1, 2a, 2b, 2c) -- (*Rana ghoshi*Chanda, 1990; *Occidozyga ghoshi* (Chanda, 1990). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Aquatic. **Habitat:** Pond. **Global Distribution:** ENDEMIC to northeastern India . **Current Regional Distribution:** Manipur. **- Elevation:** 925 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 1 (Khugairk Forest). **Population Trends - % change- % Decline:** Not known. - Time / Rate Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and only one location. **Data Quality:** General field studies (Chanda, 1975). **Recent Field Studies:** None. **Threats:** Loss of habitat. **Trade:** No. **Other Comments:** This species is closely related to *Euphlyctis cyanophlyctis.* Singh in 1996. misidentified *R. macrodon* as *E. ghoshi*. **Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2a, 2b, 2c (Restricted distribution, single location, continuing decline observed in extent of occurrence area of occupancy and/ or quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No . **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Taxonomic studies; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 42, 103. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

32. *Euphlyctis hexadactylus* (Lesson, 1834) -- LRnt/N -- (*Rana hexadactyla* Lesson, 1834; *Occidozyga hexadactyla* lesson, 1834). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Aquatic. **Habitat:** Permanent water bodies with plenty of aquatic vegetation. **Global Distribution:** India, Sri Lanka, Bangladesh. **Current National Distribution:** Southern, western and eastern India. **- Elevation:** 100 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** Many. **Population Trends - % change- % Decline:** Not known . **- Time / Rate (Yrs or gens):** Not known . **- No. of Mature Individuals:** Not known. **Global Population:** Not known . **Regional Population:** Some decline in several districts of Kerala, Tamil Nadu and 24-Parganas and Nadia dist., of West Bengal. **Data Quality:** : General field studies (A.K. Mondal, 1965 -74 All India Survey particularly Tamil Nadu, Andhra Pradesh, Kerala, West Bengal, Karnatakka, Orissa, Tripura). **Recent Field Studies:** I. Das, 1989-91 in Mahabalipuram; A.K. Sarkar, 1996 in Calcutta; S.V. Krishnamurthy, 1990-92 in Sringeri; A.K. Mondal, 1994-96 in Cuttak, Puri and Khurdal dist., in Orissa; A.K. Mondal, 1974-93 in West Bengal; G. Ramaswamy in Manampandal, Tamil Nadu; P. Kannan in Mayiladuthurai in Tamil Nadu; P. Neeraja in Tirupatti, Andhra Pradesh. **Threats:** Human interference; Loss of habitat; Pesticides; Trade; Hunting; Pollution. **Trade:** Local, Domestic (illegal). **Other Comments:** Trade for frog legs. East & West population should be examined to see if they are the same species. Population gradually regaining position now due to imposition of ban on export of froglegs since 1986. Implementation of Breeding and culture techniques and conservation measures already evolved. Needs adquate practical

training. **Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** Appendix II. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Life history studies . **- PHVA:** Yes. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Moderately difficult. **Existing Captive Programs:** Yes. **- Names of facilities:** Frog culture division of CIFA (ICAR), Kalayani, W. Bengal;. Coimbatore Zoological Park & Conservation Centre, Anaikatty, Coimbaotre. **Sources (Refer Appendix):** 65, 72, 73, 103, 120, 131, 137, 139, 152, 153, 158, 185, 190, 204. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav, A.K. Mondal, V. Krishnamurthy.

33. *Gegeneophis carnosus* (Beddome, 1870) -- VU (B1, 2c) – (*Epicrium carnosum* Beddome, 1870). **Family:** Caeciliidae. **Taxonomic status:** Species. **Habit:** Sub-terranean/ aquatic. **Habitat:** Wet evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala & Karnataka. **- Elevation:** Up to 1500 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 6 (Wyanad, Tenmalai, Madikeri, Bonakad estate, Palode, Kallar); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted extent of occurrence. **Data Quality:** General field studies. **Recent Field Studies:** Katre S.,1996 -97 in Madikeri, Karnataka; R.S. Pillai, 1992 -93 in Tenmalai, Bonakad estate, Palode. **Threats:** Human interference. **Trade:** No. **Other Comments:** Specifically an altitudinal species. **Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c(Restricted distribution, severely fragmented, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Taxonomic studies; Monitoring. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** No known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 20, 60, 214. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, I. Das,. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar, S.K. Dutta.

34. *Gegeneophis fulleri* (Alcock, 1904) -- VU (B1,2a,2c) – (*Herpele fulleri* Alcock, 1904). **Family:** Caeciliidae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Rain forest. **Global Distribution:** ENDEMIC to northeastern India . **Current Regional Distribution:** South Cachar, Assam. **- Elevation:** Around 300 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 1 (Kathal -type locality). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and only one location. **Data Quality:** Records (Taylor, 1968 & S.K. Dutta, 1992); General field studies. **Recent Field Studies:** S. Sengupta, 1995 -96. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2a, 2c (Restricted distribution, single location, continuing decline observed in extent of occurrence and quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 9, 102, 103, 123, 226. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

35. *Gegenophis ramaswamii* Taylor, 1964 -- EN (B1, 2c) -- **Family:** Caeciliidae. **Taxonomic status:** Species. **Habit:** Sub-terranean. **Habitat:** Wet evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala. **- Elevation:** Up to 600 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 2 (Tenmalai, Pujapura, Thiruvananthapuram). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and only two locations. **Data Quality:** General field studies (E.H. Taylor, 1964 in Tenmalai forest; ZSI Survey; 1984 in Tenmalai forest). **Recent Field Studies:** None. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments:** Data mostly based on type specimen and locality. **Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2c (Restricted distribution, fragmented location, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Taxonomy studies; Monitoring. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Very difficult. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 103, 226, 231. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

36. *Hoplobatrachus crassus* (Jerdon, 1853) --LRnt/N -- ***Rana crassa* Jerdon, 1853; *Lim*Nonec*tes crassus* Dutta, 1992**. **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Subterranean. **Habitat:** Moist wetland to temporary pools or puddles, paddy fields and sandy tracts. **Global Distribution:** Sri Lanka, Nepal, India, Bangladesh. **Current National Distribution:** Andhra Pradesh, Madhya Pradesh, Uttar Pradesh, Karnataka, Orissa & . penninsular India. **- Elevation:** 800 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** > 1000. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Widely distributed. **Data Quality:** General field studies (A.K. Mondal, 1965-74 All India Survey) . **Recent Field Studies:** Das, 1996 in Nagercoil; A.K. Sarkar, 1992 -93 in West Bengal, Gujarat & Madhya Pradesh; J.K. Mahanta, 1995 in Sambalpur, Orissa; K. Deuti, 1996 in Nadia dist., W. Bengal; A.K. Mondal, 1974 -93 in W. Bengal. **Threats:** Human Interference; Pesticides; Loss of habitat. **Trade:** No. **Other Comments:** Sri Lankan population needs further research. Commercial breeding and culture techniques and conservation measures evolved. **Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Monitoring. **- PHVA:** Yes. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Least difficult. **Existing Captive Programs:** Yes. **- Names of facilities:** Frog culture division of CIFA (ICAR), Kalyani;. Coimbatore Zoological Park & Conservation Centre, Anaikatty, Coimbatore.

Sources (Refer Appendix): 70, 103, 120, 153, 155, 156. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.S. Sawarkar, M.R. Yadav, A.K. Mondal.

37. *Hoplobatrachus tigerinus* (Daudin, 1803) – VU/N (A1d) – (*Rana tigerina* Daudin, 1803. *Lim*Nonec*tes tigerinus* (Daudin, 1803)). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Innundated areas, particularly edges. **Global Distribution:** South Asia and Myanmar **Current National Distribution:** All over India up to 1,100 m. **- Elevation:** Plains to 2750 m. **- Range (sq. km):** > 20,000 . **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** > 100 locations. **Population Trends - % change- % Decline:** > 20 %- Time / Rate 10 years . **- No. of Mature Individuals:** Not known. **Global Population:** DecliningNational Population: Declining. **Data Quality:** General field studies (for North East). **Recent Field Studies:** D. Roy, 1995-96, field surveys in Nagaland, Meghalaya;. S. Prakash, 1992 in northeast; A.K. Sarkar, 1993 in Orissa, Uttar Pradesh and Madhya Pradesh; M.S. Ravichandran, 1995-96 in Southern India; M.R. Yadav, 1995-96 in Uttar Pradesh; S.V. Krishnamurthy & S. Katre, 1992 & 1996 in Sringeri, Kudremukh National Park. **Threats:** Pollution; Pesticides; Human interference; Harvest for food; Harvest for medicine; Trade for parts. **Trade:** Illegal trade in North East; to trade elsewhere. **Other Comments:** Vegetable matter was reportedly found in stomach of an adult animal. In Gujarat the species is protected. In Haryana and Punjab, frogs not found in ponds; In Northeastern India, the species is used for medicine; Used for food in South India, particularly in Kerala. **Status- IUCN: VULNERABLE (Nationally). DATA DEFICIENT(Globally)**. **- Criteria based on:** A1d (Population reduction due to actual or potential levels of exploitation). **- CITES:** Appendix II. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Habitat management; Monitoring; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Least difficult. **Existing Captive Programs:** No. **- Names of facilities:** —. **Sources (Refer Appendix):** 1; 64; 105; 109; 145; 254. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

38. *Hyla annectans* Jerdon, 1870 -- LRnt/N -- **Family:** Hylidae. Taxonomic status : Species. **Habit:** Arboreal. **Habitat:** Evergreen forest. **Global Distribution:** India, Myanmar, Thailand, China, & Vietnam . **Current National Distribution:** Assam, Nagaland, Meghalaya, Arunachal Pradesh, Mizoram. **- Elevation:** 1500 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 5 (Cherrapunji in Meghalaya, Samagoortirg in Nagaland). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies . **Recent Field Studies:** S.K. Chanda, 1979, 1994 in Nagaland, Mizoram; D.Roy, 1996 & 1997 in Shillong, Meghalaya; A.K. Sarkar in Northeast. **Threats:** Loss of habitat; Human interference; Loss of habitat due to fragramentation. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Habitat management; Monitoring; Taxonomic and morphological genetic studies; Life history studies; Limiting factor research. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 44, 45, 46, 128, 199, 209. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D. Sawarkar, M.R. Yadav.

39. *Ichthyophis beddomei* Peters, 1879 — VU (A1a, 1c; B1, 2c) -- Family: Ichthyophiidae. **Taxonomic status:** Species. **Habit:** Subterranean. **Habitat:** Wet evergreen forests. **Global Distribution:** . ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala, Tamil Nadu & Karnataka. **- Elevation:** . Above 600 m.. **- Range (km2):** > 20,000. **- Area Occupied (km2):** < 2,000. **- Number of locations:** At least 8 (Sringeri, Chickamagalur, Dakshina Kannada, Kudramukh, Wynad,.Kotegehar, Ooty, Kerala Nilgiris); Fragmented. **Population Trends - % change- % Decline:** 20%. **- Time / Rate (Yrs or gens):** 10 years. - **No. of Mature Individuals:** > 2,500. **Global Population:** Declining. **Data Quality:** Census and monitoring; General field studies (Ramaswamy and Sheshachar, 1945 in Kotegehar, Karnataka; R.S. Pillai, 1976 in Wynad). **Recent Field Studies:** R.S. Pillai, 1992 -93 in Sringeri and Chickamagalur; S.V. Krishnamurthy, 1992 in Sringeri and Chickamagalur; R.J.R. Daniels, 1988 -90 in South Canara; S.V. Krishnmurty & S. Katre, 1990 -92 in Sringeri and Chickamagalur;S.V. Krishnamurthy & Nataraj, 1997 in Kudremukh; G.K. Bhat, 1997 in Singeri; C.P. Shaji & P.S. Easa, ongoing in Kerala part of Nilgiri Biosphere Reserve; P.N. Krishnamurti in Koteghar, Mysore; M.F. Rahman & K.V. Rajagopala, 1978 in Ootacamund, Tamil Nadu & Zersoppa falls, Netravathi river, S. Kanara; Tikadar, .1964 in Kotegehar. **Threats:** . Human Interference, Change in edaphic factors, Pollution; Loss of habitat; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments:** Taxonomic status of specimen collected from east is to be verified. Threats ---- Acidic soil changing to alkaline due to change in cultivation of areca/ banana to coffee and use of lime as fertiliser. **Status- IUCN: VULNERABLE**.**- Criteria based on:** A1a, 1c (Continuing population reduction observed due to decline in area of occupancy, extent of occurrence and/or quality of habitat); B1, 2c (Restricted .distribution, severely fragmented, continuing decline observed in area of .occupancy, extent of occurrence and/or quality of habitat) . **- CITES:** . No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations** . **- Research management:** Monitoring; Habitat management. **- P.H.V.A.:** No. **Captive Breeding Recommendations**. **- Captive breeding**. Level 3. **- Level of difficulty:** Moderately difficult. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources: .** 17, 24, 114, 139, 176, 226, 227, 233. **(Refer Appendix). Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, .M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

40. *Ichthyophis bombayensis* Taylor, 1960 -- EN (B1, 2c) -- **Family:** Ichthyophiidae. **Taxonomic status:** Species. **Habit:** Subterranean, cryptic/ aquatic. **Habitat:** Wet evergreen forests . **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Karnataka, Gujarat. **- Elevation:** 300 -800 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 3(Sringeri, Kudremukh National Park, Surat, Dangs WLS); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** General field study. **Recent Field Studies:** S. V. Krishnamurthy, 1992 in Sringeri and Agumbe; S. V. Krishnamurthy & S. Katre, 1990 -92 in Sringeri; S. V. Krishnamurthy & B.M. Nataraja- ongoing project in Kudremukh National Park; R.S. Pillai, 1994 in Sringeri. **Threats:** Change in edaphic

factors; Loss of habitat; Human interference. **Trade:** Not known. **Other Comments:** Threats **--**Acidic soil changing to alkaline due to change in cultivation of areca/ banana to coffee and use of lime as fertiliser. Larval habitat is confined to shallow flowing waters. **Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2c (Restricted distribution, severely fragmented, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Monitoring; Life history studies; Limiting . factor research. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 114, 137, 139, 226, 227. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

41. *Ichthyophis longicephalus* Pillai, 1986 -- VU (B1, 2c) -- **Family:** Ichthyophiidae. **Taxonomic status:** Species. **Habit:** Sub-terranean soggy soil. **Habitat:** Wet evergreen forest. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala, Tamil Nadu. **- Elevation:** Above 350 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 2 (Silent Valley, Kerala; Kalakkad, Tamil Nadu). **Population Trends - % change- % Decline:** < 20%. **- Time / Rate (Yrs or gens):** 10 years. **- No. of Mature Individuals:** Not known. **Global Population:** < 20 % decline in 10 years. **Data Quality:** General field studies (ZSI SRS, 1984 in Kalakkad). **Recent Field Studies:** ZSI survey party, Madras, 1994 -96 in Kalakkad; C.P. Shaji & P.S. Easa, 1994 ongoing in Silent Valley, Kerala. **Threats:** Human interference. **Trade:** No. **Other Comments:** Study based only on 3 specimens. Species recorded in Kalakkad in 1984 but not in 1994 to 96 by the ZSI survey team. Human interference in Kalakkad. **Status- IUCN: VULNERABLE** . **- Criteria based on:** B1, 2c (Restricted distribution, severely fragmented, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Monitoring; Life history studies; Limiting . factor research. **- PHVA:** Pending . **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** -. **Sources (Refer Appendix):** 107, 172, 190, 217. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, I. Das. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

42. *Ichthyophis malabarensis* Taylor, 1960 -- VU (B1, 2c) -- **Family:** Ichthyophiidae. **Taxonomic status:** Species. **Habit:** Subterranean/ terrestrial; less aquatic. **Habitat:** Wet evergreen forests and areca plantations. **Global Distribution:** ENDEMIC to Western ghats. **Current Regional Distribution:** Karnataka & Kerala. **- Elevation:** Above 100m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 4; Fragmented (Travancore, Madhubungard -type locality; Sringeri; Kudremukh; Thodupuzha). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and fragmented. **Data Quality:** General field studies; Informal (accidental) field sighting (B.R. Sheshachar *et al.*, 1982, in Sringeri. **Recent Field Studies:** S.V. Krishnamurthy, 1992 in Sringeri; S.V. Krishnamurthy & S. Katre, 1993 in Sringeri; R.S. Pillai, 1992 in Chikmagalur. **Threats:** Human interference, Change in edaphic factors; Loss of habitat; Loss of habitat. due to fragmentation. **Trade:** No. **Other Comments:** Parental care, hatching mechanism published. **Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c (Restricted distribution, severely fragmented, continuing decline observed in area of occupancy and/or quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Limiting factor research; Habitat management;. Monitoring. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Moderately difficult. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 136, 139, 215, 226, 227. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

43. *Ichthyophis peninsularis* Taylor, 1960 -- VU (B1, 2c; D2) -- **Family:** Ichthyophiidae. **Taxonomic status:** Species. **Habit:** Sub-terrestrial. **Habitat:** Wet evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** . **- Elevation:** Kerala, Karnataka & Tamil Nadu. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 2 (Alamcholai, Vanjikadavu); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted in distribution and fragmented. **Data Quality:** General field studies (I. Das, 1990 in Vanjikadavu in Chalakudi). **Recent Field Studies:** R.S. Pillai, 1992 in Alamcholai, Marthondam, Neria in Mangalore). **Threats:** Loss of habitat; Human interference (man-made fires). **Trade:** Not known. **Other Comments: -- Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c (Restricted distribution, severely fragmented, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat); . D2 (Restricted to only 2 locations). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Monitoring; Life history studies. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known**. Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 76, 126, 226, 227, 228. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, I. Das. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

44. *Ichthyophis sikkimensis* (Taylor, 1960) -- VU (B1,2c) -- **Family:** Ichthyophiidae. **Taxonomic status:** Species. **Habit:** Subterranean. **Habitat:** Rain forest. **Global Distribution:** ENDEMIC to northeastern India . **Current Regional Distribution:** Sikkim and North Bengal (Darjeeling Dist.). **- Elevation:** 1,500 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 2 (Sikkim, Darjeeling). **Population Trends - % change- % Decline:** Not known. - Time / Rate Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and only two locations. **Data Quality:** Records. **Recent Field Studies:** None. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments:** Paratypes at the Natural History Museum, London. **Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c (Restricted distribution, severly fragmented,continuing decline observed in area of occupancy, extent of occurrence, and/ or quality of habitat); D2 (Restricted to 2 locations). **- CITES:** No. **- IWPA (1972;**

91): No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 102, 123, 204, 228. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

45. *Ichthyophis subterrestris* Taylor, 1960 -- VU (B1, 2c; D) -- **Family:** Ichthyophiidae. **Taxonomic status:** Species. **Habit:** Sub-terranean. **Habitat:** Wet evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats . **Current Regional Distribution:** Maharashtra, Karnataka, Kerala & Tamil Nadu. **- Elevation:** 100 -1200 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 5 (Travancore, Cochin, Kottayam, Colaba, Anamalais); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and fragmented. **Data Quality:** General field studies (R.J.R. Daniels, 1988 -90); Museum studies (E.H. Taylor, 1968). **Recent Field Studies:** S.K. Dutta, 1992 in Alibag, Colaba, Anamalais and Kottayam). **Threats:** Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c(Restricted distribution, severely fragmented, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat); D (Restricted to 5 locations) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Monitoring; Life history studies. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 54, 60, 226, 227. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, I. Das,. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar, S.K. Dutta.

46. *Ichthyophis tricolor* Taylor, 1960 -- EN (B1, 2c) -- **Family:** Ichthyophiidae. **Taxonomic status:** Species. **Habit:** Subterranean/ semi aquatic. **Habitat:** Wet evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala, Tamil Nadu & Karnataka . **- Elevation:** < 1,200 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 3 (Cochin - type locality, Sabrigiri, Indira Gandhi Wildlife Sanctuary); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and fragmented. **Data Quality:** General field studies (R.S. Pillai, 1985 in Sabarigiri, Kerala). **Recent Field Studies:** G.K. Bhat, ongoing in Sringeri, Karnataka; A. Kumar, ongoing in Anamalais;. M.S. Ravichandran, 1992 in Indra Gandhi Wildlife Sanctuary. **Threats:** Human interference; Loss of habitat; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments:** One specimen collected from I.G. Wildlife Sanctuary, 1979 - reported by Ravichandran, 1992 (Unpublished). **Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2c(Restricted distribution, severely fragmented, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Monitoring; Life history studies. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. - Names of facilities: —. **Sources (Refer Appendix):** 190, 226, 227. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

47. *Indirana beddomii* (Günther, 1875) -- VU (A1a, 1c) – (*Rana beddomii* Günther 1875; *Polypedates beddomii* Günther 1875). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Terrestrial/ moist/ litter-rich soil. **Habitat:** Wet evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Maharashtra, Karnataka, Kerala & Tamil Nadu. **- Elevation:** 200 -1400 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** Not Known. **Population Trends - % change- % Decline:** 20%. **- Time / Rate (Yrs or gens):** 5 years. **- No. of Mature Individuals:** Many. **Global Population:** Widespread species but perceptible population decline. **Data Quality:** General field studies (Günther, 1875 in Shivagiri, Malabar and Anamalais; Daniels, R.J.R., 1988 -90 in North Canara). **Recent Field Studies:** S.V. Krishnamurthy, 1990 -92 in Sringeri; S.V. Krishnamurthy and M.B. Nataraj & Dixit ongoing study in Kudremukh; S. Katre, ongoing study in Madikeri; V. Karthikeyan ongoing study in Kalakkad; Saravanakumar, 1995 in Anamalais; ZSI SRS, 1994 till date in southern Western Ghats; I. Das & R. Whitaker, 1990 in Vanjikadavu in Kerala; C.P. Shaji & P.S. Easa, 1994-96 in Nilgiris in Kerala. **Threats:** Loss of habitat; Human interference; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments:** A failry common litter species. **Status- IUCN: VULNERABLE**. **- Criteria based on:** A1a, 1c (Population reduction due to decline in area of occupancy, extent of occurrence and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Life history studies; Monitoring; Habitat management. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Very difficult. **Existing Captive Programs:** Yes. **- Names of facilities:** Coimbatore Zoological Park & Conservation Centre, Anaikatty, Coimbatore. **Sources (Refer Appendix):** 5, 76, 97, 119, 120, 124, 137, 139, 190, 217. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

48. *Indirana brachytarsus* (Günther, 1875) -- VU (B1, 2b; D2) – (*Rana brachytarsus* Günther, 1875). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Forest floor below litter. **Habitat:** Wet evergreen forest. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Tamil Nadu & Kerala. **- Elevation:** 800 - 1200 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 4 (Anamalais - type locality, Ponnmudi, Kalakkad, Vanjikadavu). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution . **Data Quality:** General field studies (A. Günther, 1875 in Anamalais type locality; R.F. Inger *et al.*, 1982 in Ponmudi; ZSI, SRS, 1984 -88 in Kalakkad; I. Das & R. Whitaker, 1990 in Vanjikadavu, Kerala; R.S. Pillai, 1990 in Achankovil). **Recent Field Studies:** ZSI SRS ongoing in Anamalais. **Threats:** Loss of habitat; Human interference; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments:** Sympatric species with *I. beddomii* to be checked. **Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2b(Restricted distribution, severely fragmented, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat); D2 (Restricted to 4 locations) . **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):**

No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Monitoring. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** Yes. **- Names of facilities:** Coimbatore Zoological Park & Conservation Centre, Anaikatty, Coimbatore. **Sources (Refer Appendix):** 76, 119, 120, 124, 125, 191. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, I. Das,. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

49. *Indirana diplostictus* (Günther, 1875) -- VU (B1, 2c) -- (*Rana diplosticta* Günther, 1875). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Near hillstreams, seepage floors. **Habitat:** Evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Tamil Nadu & Kerala. **- Elevation:** 800 - 1000 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. - Number of locations: around 10 (Ponmudi, Periyar, Idukki, Kodaikanal, Srivilliputhur). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution. **Data Quality:** General field studies (R.F. Inger, et al, 1980 in Ponmudi; ZSI SRS, 1982 -90 in Periyar, Idukki and Kodaikanal; ZSI SRS, 1982 in Srivilliputhur). **Recent Field Studies:** ZSI-SRS ongoing in Anamalais; V. Karthikeyan ongoing in Kalakkad. **Threats:** Loss of habitat. **Trade:** No. **Other Comments: -- Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c (Restricted distribution, severely fragmented, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history; Monitoring. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Pending. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. - Names of facilities: —. **Sources (Refer Appendix):** 27, 119, 124, 125, 190. **Compilers:** S. Bhat, P.V. Desai, Katre S., S.V. Krishnamurthy, S.S. Kamble, I. Das,. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

50. *Indirana gundia* (Dubois, 1986) -- DD – **(***Ranixalus gunida* Dubois, 1986). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Karnataka. **- Elevation:** Not known. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1 (Kempholey forests). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** General field studies (Dubois, 1985 in Kempholey gundi). **Recent Field Studies:** None. **Threats:** Loss of habitat. **Trade:** No. **Other Comments: --** Status. - IUCN: **DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 93. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.S. Deshpande, A. Kumar.

51. *Indirana leithii* (Boulenger, 1888) -- LRnt -- (*Rana leithii* Boulenger, 1888). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Moist forests to evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats (Central India). **Current Regional Distribution:** Gujarat, Maharashtra, Karnataka, Tamil Nadu, Kerala (Madhya Pradesh)**- Elevation:** 400 - 2,000 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** >10; Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Widely distributed. **Data Quality:** General field studies (BNHS, 1978, 1982, 1984 in Mundanthuri WLS, Kodaikanal; Krishnamurthy, 1990-1992 & 1997 ongoing in Augumbae, Kudremukh, Sringeri; ZSI-WRS, 1992 in Bhimashankar; Kandala, Gujarat & Madhya Pradesh; A.G. Sekar, BNHS, 1992 in Matheran). **Recent Field Studies:** S.V. Krishnamurthy and M.B. Nataraj & Dixit ongoing study in Kudremukh. **Threats:** Loss of habitat; Human interference; Loss of habitat because of fragmentation. **Trade:** No. **Other Comments:** The Madhya Pradesh population needs to be studied & verified. **Status- IUCN: LOWER RISK - NEAR THREATENED**. **- Criteria based on:** — . **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Monitoring; Life history studies. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. - Names of facilities: —. **Sources (Refer Appendix):** 40, 43, 56, 57, 60, 136, 137, 172,211. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, I. Das. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

52. *Indirana leptodactylus* (Boulenger 1882) -- VU (B1, 2c) -- (*Polypedates brevipalmatus* Günther, 1875; *Rana leptodactyla* Boulenger, 1882). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Leaf litter of moist forest floor. **Habitat:** Evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala & Tamil Nadu. **- Elevation:** > 800 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** < 10 (Anamalai - type locality, Tenmalai, Kodaikanal, Parambikulam, Eravikulam N.P.); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution. **Data Quality:** General field studies (Boulenger, 1970 in Anamalais - type locality; ZSI Calcutta, 1914 in Tenmalai; BNHS, 1966 in Kodaikanal; G.U. Kurup, 1976 in Parambikulam; BNHS, 1981 in Eravikulam NP). **Recent Field Studies:** ZSI SRS - ongoing in Anamalais - Indira Gandhi WLS. **Threats:** Human interference; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments:** —. **Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c (Restricted distribution, severely fragmented, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Monitoring. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** Yes. **- Names of facilities:** Coimbatore Zoological Park & Conservation Centre, Annaikatty, Coimbatore. **Sources (Refer Appendix):** 27, 40, 102, 103, 120. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

53. *Indirana semipalmatus* (Boulenger, 1882) -- VU (A1a, 1c, B1, 2c) – (*Rana semipalmata* Boulenger, 1882). **Family:** Ranidase. **Taxonomic status:** Species. **Habit:** Terrestrial forest. **Habitat:** Moist evergreen forests to aquacultural lands & plantations. **Global Distribution:** ENDEMIC to Western Ghats . **Current Regional Distribution:** Tamil Nadu, Kerala & Karnataka. **- Elevation:** 200 - 1100 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 10 (Malabar, Pulloorampara, Kodaikanal, Idukki, Parambikam, Kalakkad, Siruvani, Sringeri, Agumbe, Kudremukh NP). **Population Trends - % change- % Decline:** 20%. **- Time / Rate (Yrs or gens):** 10 years. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and decline in population . **Data Quality:** General field studies (Boulenger, 1882 in Malabar; BNHS, 1960 in Pulloorampara; BNHS, 1971 in Kodaikanal). **Recent Field Studies:** ZSI SRS 1980 ongoing in Idukki, Parambikulam, Kalakkad, Siruvani; S.V. Krishnamurthy & M.B. Nataraj ongoing in Kudremukh National Park; S. Katre ongoing in Madikeri; S.V. Krishnamurthy, 1990 -92 in Sringeri; S.V. Krishnamurthy, 1994 in Agumbe. **Threats:** Loss of habitat; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments:** —. **Status- IUCN: VULNERABLE**. **- Criteria based on:** A1a, 1c (Population reduction observed due to decline in area of occupancy, extent of occurrence and/or quality of habitat); B1, 2c (Restricted distribution, severely fragmented, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Monitoring. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. - Names of facilities: —. **Sources (Refer Appendix):** 27, 40, 60, 102, 103, 123, 124, 125, 139, 172, 190. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

54. *Indirana tenuilingua* (Rao, 1937) -- DD – (R*ana tenuilingua* Rao, 1937). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known . **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Karnataka. **- Elevation:** Not known. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1 (Kempholey Ghats). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** . **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments: --** Status. - IUCN: **DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 189. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.S. Deshpande, A. Kumar.

55. *Indotyphlus battersbyi* Taylor, 1960 -- CR (B1, 2b, 2c) -- **Family:** Caeciliidae. **Taxonomic status:** Species. **Habit:** Subterranean. **Habitat:** Wet evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Maharashtra. **- Elevation:** Up to 200 m. **- Range (sq. km):** < 100. **- Area Occupied (sq. km):** < 100. **- Number of locations:** 2 (Khandala & Ratnagiri). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and single location. **Data Quality:** General field studies (E.H. Taylor, 1960; P.W. Somen, 1975 in Ratnagiri). **Recent Field Studies:** ZSI Pune, 1995. **Threats:** Human interference; Loss of habitat. **Trade:** No. **Other Comments:** Loss of habitat due to tourism and resorts. Taxonomic validity needs to be evaluated w.r.t. *I. battersbyi* and *G. carnosus.* **Status- IUCN: CRITICALLY ENDANGERED**. **- Criteria based on:** B1, 2b, 2c (Restricted distribution, severely fragmented, continuing decline observed in area of occupancy and/or quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Monitoring; Life history studies. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Very difficult. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 107, 221, 226. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, I. Das,. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

56. *Kaloula baleata ghoshi* Cherchi, 1954 -- VU (D2) -- **Family:** Microhylidae. **Taxonomic status:** Subspecies. **Habit:** Commensal. **Habitat:** Coastal. **Global Distribution:** ENDEMIC to Andamans . **Current Regional Distribution:** South & Little Andamans. **- Elevation:** Sea level. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 2. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Limited distribution but no threats identified. **Data Quality:** General field studies (R. Whitaker, 1970 in South Andamans); Records. **Recent Field Studies:** Mehta, 1985 -1994 in South Andamans; I. Das, 1994 in South Andamans; Sivasunder, ongoing study in south Andamans and middle Andamans. **Threats:** None. **Trade:** No. **Other Comments:** Commensal, easily dispersed by ships, taxonomic status to be confirmed. Species not recorded in **Recent Field Studies:** None **Status- IUCN: VULNERABLE**. **- Criteria based on:** D2 (Restricted to only 2 locations). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomy; Life history studies; Limiting factor research. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 50, 241. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

57. *Kaloula taprobanica* (Parker, 1934) -- LRnt/N -- (*Kaloula pulchra taprobanica*** Parker, 1934. *Kaloula pulchra* Gray, 1831). **Family:** Microhylidae. **Taxonomic status:** Species. **Habit:** Subterranean to arboreal. **Habitat:** Disturbed areas; plantations; scrubs. **Global Distribution:** Sri Lanka, India. **Current National Distribution:** West Bengal, Madhya Pradesh, Karnataka, Tamil Nadu, Orissa, Bihar, Assam. **- Elevation:** Up to 400 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** > 50. **Population Trends - % change- % Decline:** 10% . **- Time / Rate (Yrs or gens):** 20 years . **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Gradual continuing decline observed. **Data Quality:** General field studies (A.K. Mallick *et al*., 1970's in West

Bengal; . A.K. Sarkar *et al.*, 1986 in West Bengal). **Recent Field Studies:** Das, 1996 in Vadanemmeli, Tamil Nadu; J.C. Daniel & K.K. Verma, 1964 in Madhya Pradesh; A.K. Mondal, 1974 -93 in Nadia Dist., **Threats:** Loss of habitat. **Trade:** No. **Other Comments:** The specimens from Northeast region needs verification. 50% decline in population in Howrah, West Bengal. **Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Life history studies . **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 58, 103, 111, 147, 148, 163, 204. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav, A.K. Mondal.

58. *Leptobrachium hasseltii* Tschudl, 1838 -- EN/N (B1, 2a, 2b, 2c) -- **Family:** Pelobatidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Evergreen forests. **Global Distribution:** India & South East Asia. **Current National Distribution:** Khasi hills & Meghalaya. **- Elevation:** 1400 m. **- Range (sq. km):** < 5, 000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 3 (Barapani & Mawphlong, Cherrapunji). **Population Trends - % change- % Decline:** 10 %. **- Time / Rate (Yrs or gens):** 10 yrs . **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Continuing gradual decline in its restricted distribution in India. **Data Quality:** General field studies (R.S. Pillai & S.K. Chanda, 1970 in Meghalaya). **Recent Field Studies:** S.K. Chanda, 1990's in Khasi hills. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: ENDANGERED (Nationally). Data Deficient (Globally)**. **- Criteria based on:** B1, 2a, 2b, 2c (Restricted distribution, limited location, continuing decline . observed in extent of occurrence, area of occupancy and quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Taxonomic and morphological genetic studies; . Life history studies . **- PHVA:** Yes. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** -. **Sources (Refer Appendix):** 46, 103, 176, 209, 234. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

59. *Limnonectes andamanensis* (Stoliczka, 1870) -- LRlc -- (*Rana limnocharis* var. *andamanensis* Boulengesr, 1920). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** All kinds of forest including mangroves - primary, secondary, human settlements, rice fields. **Global Distribution:** ENDEMIC to Andaman Islands . **Current Regional Distribution:** Andaman islands. **- Elevation:** Sea level. **- Range (sq. km):** About 7,500. **- Area Occupied (sq. km):** About 7,500. **- Number of locations:** 50. **Population Trends - % change- % Decline:** Not known. - Time / Rate Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution. **Data Quality:** General field studies. **Recent Field Studies:** I. Das, 1994; Sivasunder, ongoing study. **Threats:** None. **Trade:** No. **Other Comments:** A member of the *Limnocharis* group which needs revision. **Status- IUCN: LOWER RISK - LEAST CONCERN. - Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic studies;; Life history studies; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 40, 102, 201, 222. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

60. *Limnonectes brevipalmatus* (Peters, 1871) -- LRnt -- (*Rana brevipalmata*, Peters, 1871). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Leaf litter; temporary pools; forest floor. **Habitat:** Evergreen forests and tea estates. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Tamil Nadu & Kerala. **- Elevation:** 600 - 2200 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. - Number of locations: > 10 (Anamalais, Periyar WLS, Valparai, Wynad, Kodaikanal). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution. **Data Quality:** General field studies (G.U. Kurup, 1967 in Anamalais). **Recent Field Studies:** ZSI SRS ongoing in Periyar WLS, Valparai, Kodaikanal, Wyanad. **Threats:** Loss of habitat; Loss of habitat due to fragmentation; Human interference. **Trade:** No. **Other Comments:** Type locality in error. **Status- IUCN: LOWER RISK - NEAR THREATENED. - Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Monitoring. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 40, 165, 170, 190. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble,. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

61. *Limnonectes cancrivorus* (Gravenhorst, 1829) -- LRlc/N – (*Rana cancrivora* Gravenhorst, 1829). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Mangroove/ rice field. **Global Distribution:** South-east Asia. **Current National Distribution:** Great Nicobar, South Andamans. **- Elevation:** Sea level. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 5. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies (A.K. Sarkar, 1980's in south Andamans; R.S. Pillai, 1980's in Nicobar). **Recent Field Studies:** R.J.R. Daniels, 1990 in Nicobar. **Threats:** No. **Trade:** No. **Other Comments:** Species complex need for revision. **Status- IUCN: LOWER RISK - LEAST CONCERN (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Taxonomic and morphological genetic studies; Life history studies . **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 63, 110, 173, 201. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D. Sawarkar, M.R. Yadav.

62. *Lim*nonec*tes doriae* (Boulenger, 1887) -- VU/N (D2) -- (*Rana doriae* Boulenger, 1887). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Rain forest & disturbed areas. **Global Distribution:** India, Thailand, Malaysia, & Myanmar. **Current National Distribution:** Andamans & Great Nicobar. **- Elevation:** 100 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 5. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Restricted distribution. **Data Quality:** General field studies . **Recent Field Studies:** A.K. Sarkar, 1992 in Campbell Bay, Mt. Warriali, Ruttand island (Chiriata), & Wright Mayo; I. Das, 1997 in Wandoor; Sivasunder, 1997 in Wandoor. **Threats:** No. **Trade:** No. **Other Comments:** Pending further intensive survey. **Status- IUCN: VULNERABLE (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** D2 (Population restricted to 5 locations). **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Habitat management; Monitoring; Taxonomic and morphological genetic studies; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 28, 102, 103, 201. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D. Sawarkar, M.R. Yadav.

63. *Lim*nonec*tes keralensis* (Dubois, 1980) -- LRnt – (*Rana verrucosa* Günther, 1875; *Rana keralensis* Inger *et al,* 1984). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi aquatic. **Habitat:** Wet evergreen/ moist deciduous. **Global Distribution:** ENDEMIC to Western Ghats . **Current Regional Distribution:** Karnataka, Kerala & Tamil Nadu. **- Elevation:** 500 - 1,400 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 7 (Kalakkad, Anaimalais, Silent Valley, Sringeri, Vanjikadavu, Valparai, Tandikudi); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known . **Global Population:** Widely distributed. **Data Quality:** General field studies. **Recent Field Studies:** N. Karthikeyan, 1996 in Kalakkad; Saravana Kumar, 1995 in Anamalai;. M.S. Ravichandran ongoing in Anamalai; C.P. Shaji & P.S. Easa, 1994-96 in Silent Valley; S.V. Krishnamurthy & S. Katre, 1990-92 in Sringeri; I. Das & . R. Whitaker, 1990 in Vanjikadavu. **Threats:** Human interference; Pollution; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments:** Records from outside W. Ghats need to be verified. **Status- IUCN: LOWER RISK - NEAR THREATENED**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Life history studies; Survey; Monitoring; Taxonomic and morphological genetic studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** Yes. **- Names of facilities:** Coimbatore Zoological Park & Conservation Centre, Anaikatty, Coimbatore. **Sources (Refer Appendix):** 60, 76, 120, 139, 190, 198, 217. **Compilers:** S. Katre, S. Bhat, S.V. Krishnamurty, A. Kumar, P.V. Desai, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.S. Deshpande.

64. *Lim*nonec*tes khasiensis* (Anderson, 1871) -- DD -- (*Rana khasiana* Anderson, 1871). Family**:** Ranidae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known. **Global Distribution:** ENDEMIC to northeastern India . **Current Regional Distribution:** Meghalaya. **- Elevation:** Not known. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1 (Khasi Hills). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Habitat and range not known. **Data Quality:** Records. **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments:** Literature record only. **Status- IUCN: DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 10, 102, 103. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

65. *Lim*nonec*tes limnocharis* (Gravenhorst, 1829) -- VU/N (A1a, 1c) – (*Rana limnocharis*, Gravenhorst, 1829). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi terrestrial. **Habitat:** Water edges in forests, plains, paddy fields. **Global Distribution:** Afghanistan, Western China, South & south-east Asia. **Current National Distribution:** Throughout India. **- Elevation:** Plains to 2750 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** > 1000. **Population Trends - % change- % Decline:** 25 %. **- Time / Rate (Yrs or gens):** 10 years. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies. **Recent Field Studies:** Observation made by all participants. **Threats:** Loss of habitat, Human interference; Pesticides; Loss of habitat due to fragmentation; Decline in prey species; Hunting. **Trade:** No. **Other Comments:** Investigations to resolve the 'species complex' may unravel many hitherto undescribed species. Technology of commercial breeding and seed production has been already developed. **Status- IUCN: VULNERABLE (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** A1a, 1c (Population reduction observed due to decline in area of occupancy, extent of occurrence and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Habitat management; Monitoring; Taxonomic and morphological genetic studies; Life history studies; Limiting factor research; Genetic studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Least difficult. **Existing Captive Programs:** Yes. **- Names of facilities:** D. Roy, NEHU,Shillong; Frog Culture division of CIFA (ICAR), Kalyani, W. Bengal. Coimbatore Zoological Park & Conservation Centre, Anaikatty, Coimbatore. **Sources (Refer Appendix):** 26, 46, 81, 103, 110, 120, 131, 137, 157, 182, 190, 240. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D. B. Sawarkar, M.R. Yadav, A.K. Mondal.

66. *Lim*nonec*tes mawlyndipi* (Chanda, 1990) -- CR (B1, 2a, 2c) – (*Rana mawlyndipi* Chanda, 1990) -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Forest stream. **Global Distribution:** ENDEMIC to northeastern India . **Current Regional Distribution:** Meghalaya. **- Elevation:** 1,498 m. **- Range (sq. km):** <

100. **- Area Occupied (sq. km):** < 10. **- Number of locations:** 1 (Mawlindip, Khasi Hills). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Highly restricted and only one location. **Data Quality:** General field studies (S.K. Chanda, 1990). **Recent Field Studies:** None. **Threats:** Loss of habitat. **Trade:** No. **Other Comments: -- Status- IUCN: CRITICALLY ENDANGERED**. **- Criteria based on:** B1, 2a, 2c (Restricted distribution, single location, continuing decline observed in extent of occurrence and quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Habitat management; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 43, 96, 103. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

67. *Lim*nonec*tes mawphlangensis* (Pillai & Chanda, 1977) -- CR (B1, 2a, 2c) -- (*Rana mawphlangensis* Pillai & Chanda, 1977). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Forest -stream. **Global Distribution:** ENDEMIC to northeastern India . **Current Regional Distribution:** Meghalaya, West Bengal & Manipur. **- Elevation:** 1,535 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** < 10. **- Number of locations:** 2 (Mawphlang, Khasi Hills, Cheerachandpur & Darjeeling). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Single location. **Data Quality:** General field studies (R.S. Pillai & S.K. Chanda, 1973). **Recent Field Studies:** K.S. Singh, 1990 in Manipur; S.K. Chanda, 1980 in Darjeeling. **Threats:** Loss of habitat; Human inteference. **Trade:** No. **Other Comments: -- Status- IUCN: CRITICALLY ENDANGERED**. **- Criteria based on:** B1, 2a, 2c (Restricted distribution, severely fragmented, continuing decline observed in extent of occurrence and quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Taxonomic studies; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 41, 46, 175, 218. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

68. *Lim*nonec*tes murthii* (Pillai, 1979) -- EN (B1, 2c) -- (*Rana murthii* Pillai, 1979). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Forest floor / marsh. **Habitat:** Evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala. **- Elevation:** 2000 - 2200 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 2 (Nadurattam, Kothagiri). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution. **Data Quality:** General field studies (T.S.N. Murthy, 1978 in Nadurattam; ZSI SRS,1989 in Kothagiri). **Recent Field Studies:** ZSI SRS, WGRS ongoing in Western Ghats. **Threats:** Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2c (Restricted distribution, two locations, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Monitoring. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 94, 102, 103, 169, 190. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

69. *Lim*nonec*tes mysorensis* (Rao, 1922) -- CR (B1,2c) -- (*Rana limnocharis mysorensis* Rao, 1922). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi aquatic. **Habitat:** Wet evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Karnataka. **- Elevation:** Not known. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 10. **- Number of locations:** 1 (Jog Falls). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution in only one location. **Data Quality:** Museum study (S.K. Dutta & N. Singh, 1996). **Recent Field Studies:** None. **Threats:** Human interference; Loss of habitat. **Trade:** No. **Other Comments: --** Status. - IUCN: **CRITICALLY ENDANGERED**. **- Criteria based on:** B1, 2c (Restricted distribution, single location, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Life history studies; Taxonomic and morphological . genetic studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 104, 188. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.S. Deshpande, A. Kumar.

70. *Lim*nonec*tes nilagirica* (Jerdon, 1853) -- EN (B1,2c) – *(Rana limnocharis nilgirica* (Jerdon, 1853); *Rana nilagirica* Jerdon, 1853). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Wet evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats . **Current Regional Distribution:** Tamil Nadu & Kerala. **- Elevation:** Not Known. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 6 (Wynad, Nilgiris, Coonoor, Gudalur, Masinagudi, Attakatti, Vandaravu); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution in only two locations. **Data Quality:** Museum & literature study (A. Dubois, 1986; S.K. Dutta, 1992). **Recent Field Studies:** None. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: --** Status. - IUCN: **ENDANGERED**. **- Criteria based on:** B1, 2c (Restricted distribution, severely fragmented, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 94, 102, 198. **Compilers:** S.

Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, I. Das. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.S. Deshpande, A. Kumar.

71. *Limnonectes sauriceps* (Rao, 1937) -- DD – (*Rana sauriceps* Rao, 1937). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known . **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Karnataka. **- Elevation:** Not known. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1 (Wattekok, Coorg). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** Museum, records, literature (A. Dubois, 1981). **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments: --** Status. - IUCN: **DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 90, 189. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.S. Deshpande, A. Kumar.

72. *Limnonectes shompenorum* Das, 1996 -- EN (B1, 2a, 2b, 2c) – (*Rana macrodon* var. *blythii* (in part). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Rain forest. **Global Distribution:** ENDEMIC to Andaman and Nicobar Islands. **Current Regional Distribution:** Andaman & Nicobar islands. **- Elevation:** Sea level. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 3 (Kofen Heat, Campbell Bay & Shompen Hut in Great Nicobar). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution. **Data Quality:** General field studies. **Recent Field Studies:** Das, 1994 in Great Nicobar; R.J.R. Daniels, 1996 in Great Nicobar. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments:** Subsistence hunting by tribals. **Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2a, 2b, 2c(Restricted distribution, 3 locations, continuing decline observed in area of occupancy, extent of occurrence and/ or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities: --**. **Sources (Refer Appendix):** 63, 71, 201. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

73. *Limnonectes syhadrensis* (Annandale, 1919) -- LRnt/N -- (*Rana limnocharis* var. syhadrensis Boulenger, 1920. *Rana syhadrensis* Annandale, 1919). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Terrestrial, aquatic. **Habitat:** Wet evergreen forests. **Global Distribution:** Pakisthan, India & Nepal. **Current National Distribution:** Maharashtra & Orissa. **- Elevation:** 200-400 msl. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** > 6 (Khandala, Satara, Igathpuri, Poona). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies (Annandale, 1919 in Khandale, Satara, Igathpuri; R.J.R. Daniels, 1988-90 in Khandala; Paranjpe, 1970' in Poona & Khandale). **Recent Field Studies:** R.J.R. Daniels, 1992 in Khandala; S.K. Dutta, 1986 in Orissa. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic and morphological genetic studies; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 15, 40, 60, 102, 103, 162. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav, S.K. Dutta.

74. *Megophrys boettgeri* (Boulenger, 1899) -- LRnt/N – (*Leptobrachium boettgeri* Boulenger, 1899). **Family:** Pelobatidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Evergreen forests. **Global Distribution:** China & India. **Current National Distribution:** Arunachal Pradesh. **- Elevation:** 800 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 1. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** Records, Museums & Collection studies (S.K. Dutta, 1992). **Recent Field Studies:** A.K. Sarkar, 1990 . **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Habitat management; Monitoring; Taxonomic and morphological genetic studies; Life history studies . **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 36, 46, 102, 103. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

75. *Megophrys kempii* (Annandale, 1912) -- EN/N (B1, 2a, 2b, 2c) -- (*Megalophrys kempii* Annandale, 1912). **Family:** Pelobatidae. Taxonomic status : Species. **Habit:** Terrestrial. **Habitat:** Evergreen. **Global Distribution:** China & India. **Current National Distribution:** Arunachal Pradesh. **- Elevation:** 800 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 1 (Abhor hills). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Restricted distribution. **Data Quality:** Records/ Museums/ Collection Studies; (A.K. Sarkar, 1990). **Recent Field Studies:** None **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments:** Taxonomic validity needs confirmation. **Status- IUCN: ENDANGERED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** B1, 2a, 2b, 2c (Restricted distribution, single location, continuing decline observed in extent of occurrence, area of occupancy and quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No.

Recommendations- Research management: Survey; Monitoring; Taxonomic and morphological genetic studies; . Life history studies . **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 13, 103, 109. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

76. *Megophrys lateralis* (Anderson, 1871) -- DD – (*Ixalus lateralis* Anderson, 1871). **Family:** Pelobatidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Evergreen forests . **Global Distribution:** Bangladesh, Myanmar, China, Vietnam & India. **Current National Distribution:** Assam. **- Elevation:** Not known. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** Not known. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known . **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** Record (Dutta, 1992). **Recent Field Studies:** Not known. **Threats:** Loss of habitat. **Trade:** Not known . **Other Comments: -- Status- IUCN: DATA DEFICIENT (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Not known. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Taxonomic and morphological genetic studies; Life history studies . **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 10, 102. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

77. *Megophrys montana* (Kuhl & van Hasselt, 1822) -- EN/N (B1, 2a, 2b, 2c) -- ***Megophrys monticola* (Kuhl & van Hasselt, 1822). Family:** Pelobatidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Evergreen forests. **Global Distribution:** India, Thailand, Myanmar, Borneo, Philippines & the Malay Peninsular . **Current National Distribution:** Meghalaya. **- Elevation:** 1600 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 2 (Khasi Hills, Garo hills). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known . **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies; (S.K. Chanda, 1973 in Khasi hills; I. Das, 1988 in Nongkhyllem, Meghalaya). **Recent Field Studies:** None. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments:** Species has been changed to *montana*. (see Dubois, 1992). **Status- IUCN: ENDANGERED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** B1, 2a, 2b, 2c (Restricted distribution, limited location, continuing decline . observed in extent of occurrence, area of occupancy and quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Habitat management; Monitoring; Taxonomic and morphological genetic studies; Life history studies. **- PHVA:** Yes. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 23, 96, 122, 176, 177. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav, A.K. Mondal.

78. *Megophrys parva* (Boulenger, 1893) – LRnt -- (*Leptobrachium parvum* Boulenger, 1893). **Family:** Pelobatidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Evergreen forests. **Global Distribution:** India, Myanmar, Bangladesh, Thailand, Nepal, Malay Pennisula. **Current National Distribution:** Assam, Meghalaya, Sikkim & West Bengal. **- Elevation:** 900 to 1800 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 5 (Khasi Hills, Garo Hills, Lachung, Kaziranga, Darjeeling). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies (S.K. Chanda, 1980 in Darjeeling & Sikkim). **Recent Field Studies:** None. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Taxonomic and morphological genetic studies; Life history studies; Limiting factor research. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 35, 41, 46, 53, 103, 204, 240. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

79. *Megophrys robusta* (Boulenger, 1908) -- EN (B1, 2c) -- Pelobatidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Temperate forest. **Global Distribution:** ENDEMIC to eastern India. **Current Regional Distribution:** West Bengal & Assam . **- Elevation:** 1,400 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 3 (Darjeeling, Kalimpong & Tura, Garo Hills). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and only two locations. **Data Quality:** General field studies. **Recent Field Studies:** A.K. Sarkar, 1995 in Darjeeling. **Threats:** Loss of habitat. **Trade:** No. **Other Comments: -- Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2c(Restricted distribution, few locations, continuing decline observed area of occupancy, extent of occurrence and/ or quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic studies; Survey; Monitoring; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 38, 204. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

80. *Melanobatrachus indicus* Beddome, 1878 -- VU (B1, 2c; D2) -- **Family:** Microhylidae. **Taxonomic status:** Species. **Habit:** Wet grasses, terrestrial. **Habitat:** Moist evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Tamil Nadu & Kerala. **- Elevation:** 300 to1000 m. **- Range (sq. km):** <

20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 4; Fragmented (Anamalai, Vanjiperiyar, Valparai, Kalakkad). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and fragmented. **Data Quality:** General field studies (Beddome, 1878 in Anamalai - type locality). **Recent Field Studies:** V. Karthikeyan, 1996 in Kalakkad; J.Daltry, 1996 in Periyar; ZSI SRS, ongoing in Anamalais. **Threats:** Human interference. **Trade:** No. **Other Comments:** Rediscovered in 1996 in Kalakkad and Periyar first time after 1878. **Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c, 3c (Restricted distribution, severely fragmented, limited locations, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat and extreme fluctuation in locations or subpopulations); D2 (Restricted population due to limited locations). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** EN (B1,2c). **Recommendations- Research management:** Survey; Life history studies; Monitoring. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. - Names of facilities: —. **Sources (Refer Appendix):** 21, 198, 237. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, I. Das. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

81. *Micrixalus fuscus* (Boulenger, 1882) -- LRnt – (Ixalus fuscus Boulenger, 1882). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Stream dwelling. **Habitat:** Moist semi evergreen forest. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Tamil Nadu, Kerala & Karnataka. **- Elevation:** Up to 1200 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** > 10 (Palani Hills, Coutralam, Madumalai, Periyar, Sabari Hills, Ponmudi, Panjikaitavu, Kalakkad, Anamalais, etc.). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Widely distributed taxon. **Data Quality:** General field studies (R. Whitaker, 1971 in Palni Hills; R.F. Inger *et al.*, 1982 in Ponmudi; I. Das & R. Whitaker, 1989 in Panjikaitavu; ZSI SRS, 1981 in Sabari Hills; R.S. Pillai, 1975 in Coutralam). **Recent Field Studies:** V. Karthikeyan, ongoing study in Kalakkad; ZSI-SRS, ongoing study in Anamalais. **Threats:** Loss of habitat; Loss of habitat due to fragmentation; Human interference. **Trade:** No. **Other Comments:** A fairly common frog of the area. **Status- IUCN: LOWER RISK - NEAR THREATENED**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Monitoring; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 27, 30, 124. **Compilers:** S. Bhat, P.V. Desai,S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

82. *Micrixalus gadgili* Pillai & Pattabiraman, 1990 -- EN (B1, 2c) -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Decomposing leaf litter - forest floor. **Habitat:** Evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala. **- Elevation:** About 1,000 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 3(Periyar, Sabarigiri, Siruvani); Fragmented . **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and fragmented. **Data Quality:** General field studies (ZSI-SRS, 1981-89 in Periyar; R.S. Pillai, 1981 in Sabarigiri; ZSI-SRS, 1981-89 in Siruvani). **Recent Field Studies:** ZSI-SRS, ongoing studies in Anamalais. **Threats:** Loss of habitat; Human interference; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments: -- Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2c (Restricted distribution, limited location, severly fragmented, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Habitat management; Taxanomic and morphological genetic studies, Life history studies. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 1; Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 179, 193. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

83. *Micrixalus nudis* Pillai, 1978 -- VU (B1, 2c) -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Small streams with shallow bottom. **Habitat:** Wet evergreen forests and moist deciduous. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala. **- Elevation:** 200 - 1,000 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 5 (Siruvani, Ponmudi, Kottagira, Silent Valley, Wyanad). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and only in 5 locations. **Data Quality:** General field studies (ZSI-SRS, 1989 in Siruvani and Kottagiri; R.S. Pillai, 1979 in Silent Valley and 1976 in Wyanad; R.F. Inger, 1982 in Ponmudi). **Recent Field Studies:** C.P. Shaji & P.S. Easa, 1994 -96 in Niligiri Biosphere Reserve; V. Karthikeyan, ongoing studies in Kalakkad. **Threats:** Human interference, Loss of habitat; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments: --** - IUCN: **VULNERABLE**. **- Criteria based on:** B1, 2c (Restricted distribution, limited location, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Habitat mangemennt. **- PHVA:** Pending . **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 107, 124, 168, 172, 190, 217. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

84. *Micrixalus phyllophyilus* (Jerdon,18 53) -- VU (B1, 2c) – (*Micrixalus opisthortrodus*, Günther, 1868). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Leaf litter. **Habitat:** Wet evergreen forest. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Karnataka, Kerala & Tamil Nadu. **- Elevation:** 800- 2,000 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** > 5; Fragmented (Nilgiris, Kalakkad, Kothagiri). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and fragmented. **Data Quality:** General field

studies (Annandale, 1919 in Nilgiris; R.S. Pillai, 1976 in Nilgiris; ZSI-SRS, 1984-85 in Kalakkad). **Recent Field Studies:** ZSI SRS ongoing studies . **Threats:** Loss of habitat; Loss of habitat due to fragmentation; Human interference (man-made fire). **Trade:** No. **Other Comments: -- Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c (Restricted distribution, limited location, severely fragmented, continuing decline observed in extent of occurrence, area of occupancy and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Limiting factor research; Life history studies; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 31, 118, 127, 168. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, S.K. Dutta,. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

85. *Micrixalus saxicola* Jerdon, 1853 -- LRnt -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Hill stream. **Habitat:** Wet evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Karnataka & Kerala. **- Elevation:** 400 - 1,400 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. - Number of locations: 8 (Kalakkad to Karnataka); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Widely distributed. **Data Quality:** General field studies (ZSI-SRS, 1979 in Silent Valley; Karthikeyan & Muralidharan in Wynad; R.J.R. Daniels, 1988-90 in Kalakkad); Informal field sighting. **Recent Field Studies:** V. Karthikeyan, 1996 in Kalakkad; ZSI, SRS, 1993 in Kalakkad. **Threats:** Loss of habitat; Human interference; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Monitoring; Limiting factor research; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 27, 62, 119, 123, 124, 127, 172. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

86. *Micrixalus silvaticus* (Boulenger, 1882) -- VU (B1, 2c) – (*Ixalus sylvaticus* Boulenger, 1882). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Seepage/ water. **Habitat:** Wet evergreen forest . **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala & Tamil Nadu. **- Elevation:** Above 800 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 5 (Malabar **--**type locality, Ooty, Silent Valley, Kalakkad, Mariyanshola, Mudumalai, Kalakkad); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and fragmented. **Data Quality:** General field studies (ZSI-SRS, 1978 in Nilgiris; Silent Valley and Kalakkad, ZSI - SRS, 1984 in Kalakkad; J. Roux, 1920 in Mariyanshola, Mudumalai Kukkal). **Recent Field Studies:** ZSI - SRS and WGRS ongoing in Western Ghats. **Threats:** Loss of habitat; Human interference; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments:** No. **Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c (Restricted distribution, limited location, severely fragmented, continuing decline observed in extent of occurrence, area of occupancy and/or quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey ; Monitoring; Limiting factor research. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 27, 172, 198, 206. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, I. Das. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar. **. .**

87. *Micrixalus thampii* Pillai, 1981 -- EN (B1, 2c) -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Near hill stream. **Habitat:** Wet evergreen forest. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala. **- Elevation:** 800 - 1,000 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 1 (Silent Valley). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and found in a single location . **Data Quality:** General field studes (R.S. Pillai, 1979). **Recent Field Studies:** C.P. Shaji & P.S. Easa, 1994-96 in Silent Valley. **Threats:** Human interference; Pollution; Drying up of streams . **Trade:** No. **Other Comments: -- Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2c (Restricted distribution, single location, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring . **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Pending. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 171, 217. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

88. *Microhyla berdmorei* (Blyth, 1855) – LRnt/N -- **Family:** Mcrohylidae. **Taxonomic status:** Species. **Habit:** Terrestrial/ fossorial. **Habitat:** Evergreen forests. **Global Distribution:** India, Myanmar, Burma, Indochina, Malaysia, & Indonesia . **Current National Distribution:** Meghalaya, Assam, Mizoram, Arunachal Pradesh & Tripura. **- Elevation:** 1500 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 5. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies (S.K. Chanda, 1979 in Meghalaya, Assam, Mizoram, Arunachal Pradesh; S.K. Sarkar, 1988 in Tripura). **Recent Field Studies:** S.K. Chanda, 1994 in Meghalaya, Assam, Mizoram, Arunachal Pradesh. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. - IWPA (1972, 91): No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Habitat management; Monitoring; Taxonomic and morphological genetic studies; Life history studies ; Limiting factor research. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** Yes. **- Names of facilities:** —. **Sources**

(Refer Appendix): 25, 44, 45, 46, 199. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

89. *Microhyla chakrapani* Pillai, 1977 -- VU (D2) -- **Family:** Microhyliclae. **Taxonomic status:** Species. **Habit:** Fossorial. **Habitat:** Human settlement. **Global Distribution:** ENDEMIC to Andaman & Nicobar . **Current Regional Distribution:** North Andamans. **- Elevation:** Sea level. **- Range (sq. km):** < 100. **- Area Occupied (sq. km):** < 100. **- Number of locations:** 1 (Maya Bunder). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution but a well adapted species. **Data Quality:** Records; General field studies. **Recent Field Studies:** I.Das, 1996; Sivasunder, ongoing study. **Threats:** No. **Trade:** No. **Other Comments:** Recent surveys have not revealed any existence of the species. The species should be compared with species from Myanmar. **Status- IUCN: VULNERABLE**. **- Criteria based on:** D2 (Restricted population in a single location). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Life history studies; Monitoring . **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 150, 166. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

90. *Microhyla heymonsi* Vogt, 1911 -- EN/N (B1, 2a, 2b, 2c) -- **Family:** Microhylidae. **Taxonomic status:** Species. **Habit:** Terrestrial, fossorial. **Habitat:** Rain forests. **Global Distribution:** East & South East Asia. **Current National Distribution:** Great Nicobar. **- Elevation:** 100 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 3. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Restricted distribution in India. **Data Quality:** General field studies. **Recent Field Studies:** Das, 1997 in Galathea and Shompen Hut in Great Nicobar. **Threats:** Loss of habitat. **Trade:** Not known. **Other Comments:** Further taxonomic investigation required. **Status- IUCN: ENDANGERED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** B1, 2a, 2b, 2c (Restricted distribution, limited location, continuing decline . observed in area of occupancy, extent of occurrence and quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic and morphological genetic studies; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 63, 67, 150, 201, 238. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

91. *Microhyla ornata* (Duméril & Bibron, 1841) – LRlc -- **Family:** Microhylidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Fossorial moist dry humus, secondary forests, scrub forests and human habitation. **Global Distribution:** South Asia & South East Asia. **Current National Distribution:** Throughout India. **- Elevation:** Plains to 2,750 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2, 000. **- Number of locations:** > 1000. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies. **Recent Field Studies:** M.C. Dash & J.K. Mohanta, 1993 in Sambalpur; P.K. Mallick *et al*, 1980 in Howrah; A.K. Sarkar *et al*, 1992 in W. Bengal; D. Roy, 1996 & 1997 in Khasi hills;. D.B. Sawarkar, 1993 & 1994 in Nagpur; S.V. Krishnamurthy & S. Katre,1992 in . Sringeri; Krishnamurthy & Nataraj, 1997 in Kudremukh National Park; A.K. Mondal, 1958-96 in Assam, U.P., M.P., Maharashtra, Gujarat, A.P. ; S.C. Deshpande in Nagpur; A.D. Padhye & H.V. Ghate, 1989 in Pune; H.V. Ghate, 1997 June in Pune. **Threats:** No. **Trade:** No. **Other Comments:** Introduction of breeding and hatchery techniques as evolved by Mondal, 1981, 1986, 1995 for commercial production of seeds for ranching programme. Generally difficult to see in non-breeding season. **Status- IUCN: LOWER RISK - LEAST CONCERN (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Monitoring . **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** Yes. **- Names of facilities:** Not known. **Sources (Refer Appendix):** 79, 100, 107, 139, 161, 204. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav, A.K. Mondal, S.C. Deshpande.

92. *Microhyla rubra* Jerdon, 1854 -- LRnt -- **Family:** Microhylidae. Taxonomic status : Species. **Habit:** Fossorial. **Habitat:** Dry deciduous primary & secondary forests, paddy fields and sandy tracts. **Global Distribution:** Peninsular India & Sri Lanka. **Current National Distribution:** Peninsular India. **- Elevation:** 50 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** Many. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies (A.K. Mondal, 1965 -66 in Tamil Nadu & Kerala;. ZSI. SRS, 1988, Kalakkad, Mudumalai, Courtallum; P.V. Desai & S. Bhat in Goa) . **Recent Field Studies:** A.K. Sarkar et al, 1993; S. S. Kamble & H. V. Ghate, 1994 in Kalakkad Mudumalai, Courtalam. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Life history studies . **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 80, 129, 190, 205. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav, A.K. Mondal, S.S. Kamble, S. Bhat, P.V. Desai.

93. *Micryletta inornata* (Boulenger, 1890) – EN/N (B1, 2a, 2b, 2c) -- (*Microhyla inornata* Boulenger, 1890). **Family:** Microhylidae. **Taxonomic status:** Species. **Habit:** Terrestrial, fossorial. **Habitat:** Rain forests. **Global Distribution:** India, Myanmar, Burma, Thailand, Vietnam, Malaysia, & Sumatra. **Current National Distribution:** Andaman Islands. **-**

Elevation: 50 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 1 (Andaman Islands). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies (R.S. Pillai, 1977 in South Point, Port Blair). **Recent Field Studies:** None. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: ENDANGERED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** B1, 2a, 2b, 2c (Restricted distribution, single location, continuing decline . observed in extent of occurrence, area of occupancy and quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Taxonomic and morphological genetic studies; . Life history studies . **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 31, 150, 201. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

94. *Nyctibatrachus aliciae* Inger, Shaffer, Koshy & Bakde, 1984 -- VU (B1, 2c) – **Family:** Ranidae.

Taxonomic status: Species. **Habit:** Under small stones and boulders (Terrestrial - semiaquatic). **Habitat:** Evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats (South of N. Canara) . **Current Regional Distribution:** Kerala & Tamil Nadu. **- Elevation:** > 1,000 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 5 (Anamalais, Kalakkad, Ponmudi, Kodayar, Siruvani); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Widely distributed but fragmented. **Data Quality:** General field studies . **Recent Field Studies:** Saravanakumar, 1995 in Anamalais; V. Kartikeyan, 1996 in Kalakkad; . R.F. Inger, 1982 in Ponmudi; ZSI-SRS, 1988 in Kodayar; ZSI-SRS, 1989 in Siruvani. **Threats:** Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c (Restricted distribution, limited location, severely fragmented, continuing decline observed in area of occupancy and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Monitoring; Limiting factor research; Life history studies; Survey . **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** Yes. **- Names of facilities:** Coimbatore Zoological Park & Conservation Centre, Anaikatty, Coimbatore. **Sources (Refer Appendix):** 120, 124, 190. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

95. *Nyctibatrachus beddomii* (Boulenger, 1882) -- LRnt -- (*Nannobatrachus beddomii* Boulenger, 1882).

Family: Ranidae. **Taxonomic status:** Species. **Habit:** Leaf litter. **Habitat:** Evergreen, moist, deciduous, semievergreen forest. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala & Tamil Nadu. **- Elevation:** 200 - 1,800 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** > 10 (Tirunelveli hills, Anamalais, Godayar hills, Silent Valley). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Widely distributed. **Data Quality:** General field studies. **Recent Field Studies:** ZSI-SRS ongoing study in Anamalais Hills. **Threats:** Loss of habitat; Human interference; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 27, 124, 125, 190, 216. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

96. *Nyctibatrachus deccanensis* Dubois 1984 -- VU (B1, 2c) -- (*Rana pygmaea* Günther, 1875). **Family:**

Ranidae. **Taxonomic status:** Species. **Habit:** Marshy area. **Habitat:** Evergreen Forests/ Riparian forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala & Tamil Nadu. **- Elevation:** Above 200 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 5 (Anamalais, Siruvani, Bhavani river, Kalakkad). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and in 5 locations. **Data Quality:** General field studies (ZSI-SRS, 1980 in Siruvani; Anandale, 1918 in Bhavani River; ZSI-SRS, 1985 in Kalakkad). **Recent Field Studies:** None. **Threats:** Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c (Restricted distribution, limited location, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat); D2(Restricted population in 5 locations) . **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. - Names of facilities: —. **Sources (Refer Appendix):** 31, 119, 127, 190. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, I. Das. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

97. *Nyctibatrachus humayuni* Bhaduri & Kripalani, 1955 -- EN (B1, 2c) -- **Family:** Ranidae.

Taxonomic status: Species. **Habit:** Near hill streams. **Habitat:** Wet evergreen. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Maharashtra & Karnataka. **- Elevation:** < 700 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 4 (Khandala, Mahabaleswar, Bhimashanker, UttaraKannada); Fragmented . **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies; Informal field sightings. **Recent Field Studies:** H.V. Ghate, 1997 in Khandala & Bhimashanker; R.J.R. Daniels, 1988 - 90 . **Threats:** Human interference; Pollution; Loss of habitat; Loss of habitat due to. fragmentation . **Trade:** No. **Other Comments: -- Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2c(Restricted distribution, limited location, severely fragmented, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat). **-**

CITES: No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Life history studies . **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Pending. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 22, 62, 107, 192. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

98. *Nyctibatrachus kempholeyensis* (Rao, 1937) – DD -- (*Nannobatrachus kempholeyensis* Rao, 1937). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known . **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Karnataka. **- Elevation:** Not known. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1 (Kempholey Ghats). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** Museum, records, literature studies. **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments: -- Status- IUCN: DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 189. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.S. Deshpande, A. Kumar.

99. *Nyctibatrachus major* Boulenger 1882 -- LRnt -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Torrential / aquatic. **Habitat:** Evergreen moist, deciduous. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala, Karnataka & Tamil Nadu. **- Elevation:** < 1,200 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** > 10 (Wynad-type locality; Siruvani, Sabarigiri, Palani Hills, Silent Valley, Wynad, Periyar, Kalakkad, Sringeri, Vanjikadavu, Masinagudi). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Widely distributed species. **Data Quality:** General field studies (ZSI-SRS, 1979-1989 in Siruvani, Sabarigiri, Palani hills, Wynad, Silent Valley & Periyar WLS). **Recent Field Studies:** S.V. Krishnamurthy, 1992 - ongoing in Sringeri; C.P. Shaji & P.S. Easa, ongoing. in Nilgiris Biosphere Reserve; V. Kartikeyan, 1996 onwards in Kalakkad; ZSI-SRS, ongoing in Indira Gandhi Wildlife Sanctuary, Anamalais; I. Das & . R. Whitaker, 1990 in Vanjikadavu, Kerala; I. Das, 1996 in Nilambur, Kerala. **Threats:** Pollution; Changes in edaphic factors; Human interference; Loss of habitat due to siltation through creation of check dams; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments:** Regional population decline in the peripheral population in Sringeri and Kudremukh 20 - 30% in the last five years. **Status- IUCN: LOWER RISK - NEAR THREATENED**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Monitoring (especially for core region populations); Habitat management in peripheral populations. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. - Names of facilities: —. **Sources (Refer Appendix):** 27, 76, 127, 136, 137, 138, 139, 142, 146, 167, 198, 217. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

100.*Nyctibatrachus minor* Inger, Shaffer, Koshy & Bakde, 1984 --VU (B1, 2c) -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi aquatic. **Habitat:** Evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala & Karnataka. **- Elevation:** > 600 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 2 (Ponmudi - type locality and Sringeri); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and only two locations. **Data Quality:** General field studies (Inger *et al*.,1982 in Ponmudi) . **Recent Field Studies:** S.V. Krishnamurthy & S. Katre, 1990-92 in Sringeri. **Threats:** Human interference; Pollution. **Trade:** No. **Other Comments: --** Status. - IUCN: **VULNERABLE**. **- Criteria based on:** B1, 2c (Restricted distribution, limited location, severely fragmented, continuing decline observed in area of occupancy, extent of occurrence,and/or quality of habitat); D2 (Restricted population in 2 locations). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 124, 125. **Compilers:** S. Katre, S. Bhat, S.V. Krishnamurty, M.S. Ravichandran, I. Das, S.S. Kamble, P.V. Desai, S. Bhupathy, S.C. Deshpande, A. Kumar, R. Gupta.

101.*Nyctibatrachus sanctipalustris* Rao, 1920 -- EN (B1, 2c) -- (*Nyctibatrachus sanctipalustris modestus* Rao, 1920). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Torrenticolous. **Habitat:** Wet evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Karnataka. **- Elevation:** 600 -1200 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 4 (Sringeri, Kudremukh, Shimoga, Coorg). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** General field studies (C.R.N. Rao, 1919 in Shimoga; R.J.R. Daniels in Coorg, 1988 -90). **Recent Field Studies:** S.V. Krishnamurthy and M.B. Nataraj & Dixit ongoing study in Kudremukh. **Threats:** Human interference; Loss of habitat; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments:** Most information from Sringeri as per *N. major*. **Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2c(Restricted distribution, limited location, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Life history studies. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 60, 47, 103, 139, 187. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

102.*Nyctibatrachus sylvaticus* Rao, 1937 – DD -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known . **Global Distribution:** ENDEMIC to Western Ghats . **Current Regional Distribution:** Karnataka. **- Elevation:** 1000 - 1200 m. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1 (Kempholey forest). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** Records, literature study (S.K. Dutta, 1992; M.S. Ravichandran, 1996). **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments:** Nothing is known about this species, except from original collection. **Status- IUCN: DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 102, 103, 189, 192. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, S.K. Dutta. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.S. Deshpande, A. Kumar.

103.*Nyctixalus moloch* (Annandale, 1912) -- EN/N (B1, 2a, 2b, 2c) – (*Theloderma moloch* (Annandale, 1912). *Phrynoderma moloch* Annandale, 1912). **Family:** Rhaeophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Moist evergreen. **Global Distribution:** India, Myanmar, Thailand & China. **Current National Distribution:** Arunachal Pradesh & Assam. **- Elevation:** 900 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 5,00. **- Number of locations:** 1(Abor hills). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** Records, Museum & Collection studies (S.K. Dutta, 1992). **Recent Field Studies:** None. **Threats:** Loss of habitat; Human interference. **Trade:** No . **Other Comments:** Species complex need for revision. **Status- IUCN: ENDANGERED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** B1, 2a, 2b, 2c (Restricted distribution, single location, continuing decline in. extent of occurrence, area of occupancy and quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic and morphological genetic studies; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Pending. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 13, 102, 103, 240. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

104.*Occidozyga lima* (Gravenhorst, 1829) -- DD/N – (*Occidozyga lima* (Kuhl & Van Hasselt, 1822). *Rana lima* (Gravenhorst, 1829)). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Aquatic. **Habitat:** Not known. **Global Distribution:** India, Bangladesh, Myanmar, China, Vietnam, Malaya, Java, Borneo and Khulna . **Current National Distribution:** Lower Bengal. **- Elevation:** Not known. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** Not known. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** Records/Museum/Collection studies. **Recent Field Studies:** Not known. **Threats:** Not known. **Trade:** Not known. **Other Comments:** The records suggests Bangladesh location however it needs to be. investigated for parts of Bengal in India. **Status- IUCN: DATA DEFICIENT (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 103, 110, 143, 204. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

105.*Paa annandalii* (Boulenger, 1920) -- EN/N (B1, 2a, 2b, 2c) -- *(Rana annandalii* Boulenger, 1920) **Family:** Ranidae. **Taxonomic status:** Species.**Habit:** Aquatic. **Habitat:** Evergreen forests (hill streams). **Global Distribution: .** Nepal, India..**Current National Distribution:** North Bengal. **- Elevation:** . 900 to 2,750 m.. **- Range (km2):** < 5,000. **- Area Occupied (km2):** < 5,00. **- Number of locations:** 1 (Ghoom, Darjeeling). **Population Trends - % change** . **- % Decline: .** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies; (Daniel, 1962 in Ghoom). **Recent Field Studies:** Not known. **Threats:** . Loss of habitat; Human interference. **Trade:** No. **Other Comments: Status: - IUCN: ENDANGERED (Nationally).DATA DEFICIENT (Globally)**. **- Criteria based on:** B1, 2a, 2b, 2c (Restricted distribution, single location, continuing decline in.extent of occurrence, area of occupancy and quality of habitat). - **CITES:** No.**- IWPA (1972; 91):** Schedule IV. - **RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations: - Research management:** Survey; Habitat management; Monitoring; Taxonomic and morphological .genetic studies; Life history studies; Limiting factor research. **- P.H.V.A.:** No. **Captive Breeding Recommendations: - Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 40, 53, 204, 240. **(Refer Appendix). Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, .S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

106.*Paa blanfordii* (Boulenger, 1882) – LRnt – (*Rana blanfordii* Boulenger, 1882). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi aquactic. **Habitat:** Hill streams. **Global Distribution:** Nepal, India. **Current National Distribution:** Uttar Pradesh, Himachal Pradesh & West Bengal. **- Elevation:** 1700 to 3600 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 5; Fragmented (Darjeeling, Nainital, Garhwal, Kangra, Dharmsala). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** Records/Museums/Collection studies (Dutta, S.K.). **Recent Field Studies:** None. **Threats:** Loss of habitat. **Trade:** No. **Other Comments:** Pending Survey. **Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Habitat management; Monitoring;

Taxonomic and morphological genetic studies; Life history studies; Limiting factor research . **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 27, 102, 204, 240. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

107.*Paa hazarensis* (Dubois and Khan, 1979) -- DD/N -- (*Rana hazarensis* Dubois & Khan, 1979**)**. **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Aquatic. **Habitat:** Water bodies. **Global Distribution:** Pakistan and India. **Current Regional Distribution:** Jammu & Kashmir. **- Elevation:** 2,000 m. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1 (Hayara, Pakistan occupied Kashmir). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not Known. **Regional Population:** Not Known. **Data Quality:** Records. **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments: --** Status. - IUCN: **DATA DEFICIENT (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Survey; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 98, 103, 132. **Compilers:** I. Das, P.K. Mallik, S.K. Chanda, A.K. Sarkar, D. Roy, S. Prakash, S.K. Dutta. S. Sengupta, D.B. Sawarkar, M.R. Yadav, J.K. Mahanta, S. Prakash.

108.*Paa liebigii* (Günther, 1860) -- LRnt/N – (*Rana liebigii* (Günther, 1860)). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Hill Streams. **Global Distribution:** India, Nepal, & China . **Current National Distribution:** Sikkim, Arunachal Pradesh & West Bengal. **- Elevation:** 900 to 3,600 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 4 (Darjeeling, Kurseong, Ladiung in Sikkim, Arunachal Pradesh); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies . **Recent Field Studies:** A.K. Sarkar, 1992 -in Darjeeling & Kurseong. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)** . **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Habitat management; Monitoring; Taxonomic and morphological genetic studies; Life history studies; Limiting factor research . **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 116, 204, 209, 240. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

109.*Paa minica* (Dubois, 1975) -- DD/N -- (*Rana tuberculata* Tilak & Ray, 1985. *Rana minica* Dubois, 1975). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Aquactic. **Habitat:** Water bodies, Hill streams. **Global Distribution:** Nepal, India. **Current National Distribution:** Uttar Pradesh. **- Elevation:** Not known. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 2 (Solan). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** Records/Museum/Collection studies; General field studies (Vasisht *et al.*, 1987 in Solan; Tilak & Ray, 1985 in Solan). **Recent Field Studies:** None **Threats:** Loss of habitat. **Trade:** No. **Other Comments:** Indian records are based on *R. tuberculata*. **Status- IUCN: DATA DEFICIENT (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic and morphological genetic studies; Life history studies . **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 88, 95, 236. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

110.*Paa sternostignata* (Murray, 1885) -- DD/N – (*Rana sternostignata* Murray, 1885). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Aquactic. **Habitat:** Hill streams. **Global Distribution:** Pakistan, India. **Current National Distribution:** Jammu & Kashmir. **- Elevation:** Not known. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** Not known. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** Records/Museum/Collection studies. **Recent Field Studies:** None. **Threats:** Not known. **Trade:** Not known. **Other Comments: -- Status- IUCN: DATA DEFICIENT (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 99, 159. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

111.*Paa vicina* (Stoliczka, 1872) -- DD/N – (*Rana vicina* Stoliczka, 1872). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Aquactic. **Habitat:** Hill Streams. **Global Distribution:** Pakistan, India. **Current National Distribution:** Jammu & Kashmir, Himachal Pradesh, Punjab & Uttar Pradesh. **- Elevation:** 1,800 to 3,600 m. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 2 (Shimla, Murrae). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** Records/Museum/Collection studies; General field studies (Sclater, 1892 in Shimla). **Recent Field Studies:** None. **Threats:** Loss of habitat. **Trade:** No. **Other Comments: -- Status- IUCN: DATA DEFICIENT (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA**

(1972; 91): Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 102, 209, 223, 240. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

112.*Pedostibes kempi* (Boulenger, 1919) -- CR (B1, 2a, 2b, 2c) – **(***Nectophryne kempi* Boulenger, 1919). **Family:** Bufonidae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Evergreen forest. **Global Distribution:** ENDEMIC to northeastern India . **Current Regional Distribution:** Meghalaya. **- Elevation:** 750 m. **- Range (sq. km):** < 100. **- Area Occupied (sq. km):** < 10. **- Number of locations:** 1 (Tura, Garo Hills). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted to a single location. **Data Quality:** Records (R.F. Inger & S.K. Dutta, 1986; S.K. Dutta, 1992; Barbour, 1938). **Recent Field Studies:** None. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: CRITICALLY ENDANGERED**. **- Criteria based on:** B1, 2a, 2b, 2c (Restricted distribution, single location, continuing decline observed in area of occupancy, extent of occurrence and quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** VU (D2). **Recommendations- Research management:** Survey; Life history studies; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 19, 39, 46, 102, 103, 123. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

113.*Pedostibes tuberculosus* Günther, 1875 -- VU (B1, 2c) – (*Nectophryne tuberculosa* Boulenger, 1882). **Family:** Bufonidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Evergreen forest. **Global Distribution:** ENDEMIC to Western Ghats . **Current Regional Distribution:** Kerala & Goa. **- Elevation:** Above 1,000 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 4; Fragmented (Malabar - type locality; Ponmudi; Silent Valley, Kotigao WLS, Goa) . **Population Trends - % change- % Decline:** Not known. - Time / Rate Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted in area of occupancy and fragmented. **Data Quality:** General field study (ZSI Calcutta, 1980 in Silent Valley; Inger *et al*, 1982 in Ponmudi). **Recent Field Studies:** R. Whitaker, 1995 in Kotegao WLS, Goa. **Threats:** Human interference; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments: -- Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c(Restricted distribution, limited locations, severely fragmented, continuing decline observed in extent of occurrence, area of occupancy and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** VU (B1,2c). **Recommendations- Research management:** Survey; Life history studies; Monitoring. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 27, 103, 119, 124, 172. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

114.*Philautus andersonii* (Ahl, 1927) -- EN/N (B1, 2a, 2b, 2c) – (*Rhacophorus andersonii* Ahl, 1927. *Philautus tuberculatus* (Anderson, 1878)). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Evergreen forests. **Global Distribution:** Myanmar, China & India. **Current National Distribution:** Meghalaya. **- Elevation:** 1,400 to 1,800 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 5,00. **- Number of locations:** 1 (Garo hills, Khasi hills). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Restricted distribution in India. **Data Quality:** Records/Museum/Collection studies (S.K. Dutta, 1992). **Recent Field Studies:** Not known. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments:** No. **Status- IUCN: ENDANGERED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** B1, 2a, 2b, 2c (Restricted distribution, single location, continuing decline in. extent of occurrence, area of occupancy and quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Habitat management. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 7, 46, 102, 103, 240. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

115.*Philautus annandalii* (Boulenger, 1906) -- LRnt/N – (*Rhacophorus annandalii* (Boulenger, 1906)). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Evergreen forests. **Global Distribution:** Bhutan & India. **Current National Distribution:** West Bengal, Meghalaya, Arunachal Pradesh, Assam. **- Elevation:** 900 to 1,800 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 2 (Darjeeling, Goalpara, Namdapha, Gibbons land). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies (J.C. Daniel, 1962 in Darjeeling; Annandale, 1912 in Assam). **Recent Field Studies:** S.K. Chanda, 1994 in Arunachal Pradesh; Sarkar, 1992 in Darjeeling. **Threats:** Loss of habitat. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Habitat management; Monitoring; Taxonomic and morphological genetic studies; Life history studies; Limiting factor research . **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 37, 46, 103, 204, 240. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

116.*Philautus beddomii* (Günther, 1875) -- VU (B1, 2c) – (*Ixalus beddomii* Günther 1875. *Rhacophorus beddomii* (Günther 1875)). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Moist litter. **Habitat:** Evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats . **Current Regional Distribution:** Tamil Nadu & Kerala. **- Elevation:** 800 - 2,000 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. - Number of locations: 6 (Malabar, Valparai, Palani hills, Periyar WLS, Kalakkad, Anamalais); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution. **Data Quality:** General field studies (Günther, 1975 - type in Malabar; ZSI -SRS, 1976 - 85 in Valparai, Palani hills, Periyar WLS, Kalakkad). **Recent Field Studies:** V. Kartikeyan, 1996 in Kalakkad. **Threats:** Loss of habitat; Human interference; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments: -- Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c(Restricted distribution, limited location, severely fragmented, continuing decine observed in extent of occurrence, area of occupancy and/or quality ofhabitat) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey ; Life history studies; Monitoring; Taxonomic and morphological genetic studies; Habitat management. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 31, 119, 232. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, I. Das. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

117.*Philautus bombayensis* (Annandale, 1919) -- EN (B1, 2c) -- (*Rhacophorus bombayensis* (Annandale, 1919); *Ixalus bombayensis* Annandale, 1919). **Family:** Phacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal / leaf litter. **Habitat:** Wet, evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Karnataka & Maharashtra. **- Elevation:** 200 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 4 (Khandala, Satara (Khas), Castle Rock, Uttara Kannada, Pune, Bhimshankar); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution & fragmented. **Data Quality:** General field studies. **Recent Field Studies:** No. **Threats:** Human interference; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments:** Threat due to tourism and human interference. **Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2c (Restricted distribution, limited location, severely fragmented, continuing decline observed in extent of occurrence, area of occupancy and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring;Taxonomic and morphological genetic studies; Life history studies. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 16, 109. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

118.*Philautus chalazodes* Günther, 1875 -- VU (B1, 2c) -- *Rhacophorus chalazodes* (Günther, 1875). *Ixalus chalazodes* Günther, 1875. **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Moist, litter under stones. **Habitat:** Evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala & Tamil Nadu . **- Elevation:** 700 - 2,200 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 4 (Anamalais Hills, Nilgiris Hills); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and four fragmented populations. **Data Quality:** General field studies (J. C. Daniel, 1977 in Anamalais Hills, Nilgiri Hills; . R. H. Beddome, ZSI, Calcutta , 1873, 1975 collections from South India). **Recent Field Studies:** ZSI-SRS, ongoing in Anamalais. **Threats:** Human interference; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments: -- Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c(Restricted distribution, limited location, severely fragmented, continuing decline observed in extent of occurrence, area of occupancy and/or quality of habitat); D2 (Restricted population in four locations). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Taxonomic and morphological genetic studies. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 8, 31, 60, 103, 119, 190. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

119.*Philautus charius* Rao, 1937 -- LRnt -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Semi-arboreal. **Habitat:** Rain forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala, Karnataka & Tamil Nadu. **- Elevation:** 300 -1,200 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 8 (Ponmudi, Kodaikanal, Siruvani, Achankoil, Sringeri, Agumbe) ; Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Widely distributed. **Data Quality:** General field studies (Inger, *et al.*, in Ponmudi, 1982); ZSI, SRS in Kodaikanal, Siruvani, Achankoil, 1986 -89; R.S. Pillai in Achankoil, 1990). **Recent Field Studies:** S.V. Krishnamurthy in Sringeri, 1992; S. Katre ongoing in Coorg. **Threats:** Loss of habitat; Human interference; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments:** Taxonomic status needs verification. **Status- IUCN: LOWER RISK - NEAR THREATENED**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Monitoring. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Pending. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 124, 189, 190
(Refer Appendix). **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

120.*Philautus cherrapunjiae* Roonwal and Kripalani, 1961 -- EN (B1,2a,2c) -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal / Terrestrial. **Habitat:** Evergreen forest. **Global Distribution:** ENDEMIC to northeastern India . **Current Regional Distribution:** Khasi Hills, Meghalaya and Namdapha Biosphere Reserve. **- Elevation:** 1,330 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 2; Fragmented.

Population Trends - % change- % Decline: Not known. - Time / Rate Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and only two locations. **Data Quality:** General field studies (A.K. Sarkar, 1980 in Namdapha Biosphere Reserve). **Recent Field Studies:** None. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2a, 2c (Restricted distribution, limited location, severely fragmented, continuing decline observed in extent of occurrence and/ or quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 103, 197, 203. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

121.*Philautus crnri* Dutta, 1985 -- DD -- (*Philautus longicrus* Rao, 1937). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known. **Global Distribution:** ENDEMIC to Western Ghats . **Current Regional Distribution:** Karnataka . **- Elevation:** 1,000 m. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1(Kempholey). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** Records, literature (S.K. Dutta, 1985). **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments:** Type specimen lost (Renaming based on literature). Name is unpronounceable. **Status- IUCN: DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 101, 103, 189. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

122.*Philautus elegans* Rao, 1937 -- DD -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known. **Global Distribution:** ENDEMIC to Western Ghats . **Current Regional Distribution:** Karnataka. **- Elevation:** 1,000 m. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1 (Kempholey). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** Records. **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments:** Type specimen lost. **Status- IUCN: DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 189. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

123.*Philautus flaviventris* (Boulenger, 1882) -- DD -- (*Rhacophorus flaviventris* (Boulenger, 1882). *Ixalus flaviventris* Boulenger, 1882). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala. **- Elevation:** 800 m. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1 (Malabar). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Information lacking. **Data Quality:** General field studies. **Recent Field Studies:** ZSI-WGRS, ongoing. **Threats:** Not known. **Trade:** No. **Other Comments:** Known only from type specimen. **Status- IUCN: DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Taxonomic and morphological genetic studies. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. - Names of facilities: —. **Sources (Refer Appendix):** 8, 27. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

124.*Philautus garo* (Boulenger, 1919) -- CR (B1, 2b, 2c). (*Ixalus garo,* Boulenger, 1919; *Rhacophorus garo* (Boulenger, 1919). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal /terrestrial. **Habitat:** Hilly area (Sal forests). **Global Distribution:** ENDEMIC to northeastern India . **Current Regional Distribution:** Meghalaya. **- Elevation:** 750 m. **- Range (sq. km):** < 100. **- Area Occupied (sq. km):** < 10. **- Number of locations:** 1 (Tura, Garo Hills). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted to a single location. **Data Quality:** Records (S.K. Chanda, 1994). **Recent Field Studies:** None. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: CRITICALLY ENDANGERED**. **- Criteria based on:** B1, 2b, 2c (Restricted distribution, single location, continuing decline observed in area of occupancy and quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Life history studies; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 39, 46. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

125.*Philautus glandulosus* (Jerdon, 1853) -- VU (B1, 2c) -- (*Rhacophorus glandulosus* (Jerdon, 1853). *Ixalus glandulosus* Jerdon, 1853). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Nearby stagnant water bodies, tea & coffee estates. **Habitat:** Evergreen forests, coffee and tea estates . **Global Distribution:** ENDEMIC to Western Ghats . **Current Regional Distribution:** Tamil Nadu, Kerala & Karnataka. **- Elevation:** 800 - 2000 mts. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** < 2,000. - Number of locations: 6 (Anamalais Hills, Nilgiri, Periyar WLS, Kudremukh, Kotagiri, Coonoor, Avalanche, Ootacamund); Fragmented . **Population Trends - % change- % Decline:** Not known. **- Time / Rate**

(Yrs or gens): Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted area of occupancy and fragmented. **Data Quality:** General field studies (T.B. Fletcher, ZSI, Calcutta in Anamalais Hills; . ZSI-SRS, 1978 in Nilgiris Hills; ZSI-SRS, 1980 in Periyar WLS; Thurston, 1888. in Kudremukh & Kotagiri). **Recent Field Studies:** ZSI - SRS, ongoing in Anamalais in Indira Gandhi WLS. **Threats:** Human interference; Loss of habitat; Loss of habitat due to fragementation. **Trade:** No. **Other Comments: -- Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c (Restricted distribution, limited location, severely fragmented, continuing decline observed in extent of occurrence, area of occupancy and/or quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Taxonomic and morphological genetic studies. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. - Names of facilities: —. **Sources (Refer Appendix):** 27, 127, 198, 232, 239. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, I. Das. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

126.*Philautus hassanensis* Dutta, 1985 -- DD – (*Philautus montanus* Rao, 1937). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Karnataka. **- Elevation:** 1,000 m. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1 (Kempholey). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** Records (literature). **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments:** Type specimen lost - Renaming is based on literature studies. **Status- IUCN: DATA DEFICIEN**T. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 101, 103, 189. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

127.*Philautus kempiae* (Boulenger, 1919) -- CR (B1,2a,2b,2c) -- (*Ixalus kempiae* Boulenger, 1919). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Terrestrial / Arboreal. **Habitat:** Hilly area (Sal forests). **Global Distribution:** ENDEMIC to northeastern India . **Current Regional Distribution:** Tura, Garo Hills, Meghalaya. **- Elevation:** 750 m. **- Range (sq. km):** < 100. **- Area Occupied (sq. km):** < 10. **- Number of locations:** 1. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Highly restricted. **Data Quality:** Records (S.K. Dutta, 1992). **Recent Field Studies:** None. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: CRITICALLY ENDANGERED**. **- Criteria based on:** B1, 2a, 2b, 2c (Restricted distribution, single location, continued decline observed in extent of occurence, area of occupancy and/ or quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Life history studies; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 39, 102. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

128.*Philautus kottigeharensis* Rao, 1937 – DD -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known. **Global Distribution:** ENDEMIC to Western Ghats . **Current Regional Distribution:** Karnataka. **- Elevation:** 1,000 m. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1(Kottigehar - Mudigere Taluk., Karnataka). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** Records. **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments:** Type specimen lost. **Status- IUCN: DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 189. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

129.*Philautus leucorhinus* (Lichtenstein & Martens, 1856) -- LRnt – (*Rhacophorus leucorhinus* (Lichtenstein & Martens, 1853)). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Moist evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats . **Current Regional Distribution:** Karnataka, Kerala & Tamil Nadu. **- Elevation:** 0 -2,000 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** > 10 (Kerala forests, Wynad, Sringeri, Mudumalai, Valparai). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Widely distributed. **Data Quality:** General field studies (ZSI, Calcutta/ Southern Regional Station, 1989 in Kerala Forests and Wynad). **Recent Field Studies:** S.V. Krishnamurthy, 1990- ongoing in Sringeri. **Threats:** Loss of habitat; Human interference; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments:** Species not conspecific with specimens from Sri Lanka. Studies by . K.N. Manamendra- Arachchi in progress; Foliage usage as green manure. **Status- IUCN: LOWER RISK - NEAR THREATENED**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 2, 105, 139, 144, 190, 198**. Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

130.*Philautus melanensis* Rao, 1937 – DD -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known. **Global Distribution:** ENDEMIC to Western Ghats . **Current Regional Distribution:** Karnataka. **- Elevation:** 1,000 m. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1(Kempholey). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** Records. **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments:** Type specimen lost. **Status- IUCN: DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 189. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

131.*Philautus namdaphaensis* Sarkar & Sanyal, 1985 -- VU (B1, 2c) -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal /terrestrial. **Habitat:** Evergreen forest. **Global Distribution:** ENDEMIC to northeastern India . **Current Regional Distribution:** Arunachal Pradesh . **- Elevation:** 350 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 1 (Namdapha Biosphere Reserve). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known . **- No. of Mature Individuals:** Not known. **Global Population:** Found only in a single location. **Data Quality:** General field studies (Sarkar & Sanyal, 1981). **Recent Field Studies:** None. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c (Restricted distribution, single location, continuing decline observed in extent of occurrence, area of occupancy and quality of habitat); D2 (Restricted population in a single location) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 203. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

132.*Philautus narainensis* Rao, 1937 -- DD -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known. **Global Distribution:** ENDEMIC to Western Ghats . **Current Regional Distribution:** Karnataka. **- Elevation:** 1,000 m. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1 (Kottigehar, Karnataka). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** Records. **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments:** Type specimen lost. **Status- IUCN: DATA DEFICIENT- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 189. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

133.*Philautus nasutus* (Günther, 1868) -- NE/N -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Wet evergreen forests. **Global Distribution:** India & Sri Lanka. **Current National Distribution:** Kerala, Karnataka, Tamil Nadu. **- Elevation:** 0-1200 m msl. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** > 10 (Siruvani, Achan Kovil (Kerala), Sringeri (Karnataka), Kalakkad (Tamil Nadu). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies. **Recent Field Studies:** Krishnamurthy, 1990-92 in Sringeri. **Threats:** Human interference. **Trade:** No. **Other Comments:** This species is a Sri Lankan endemic. Indian records are based on misidentification. Further studies need to be undertaken before its distribution in India is validated. Hence this species in Not Evaluated. **Status- IUCN: NOT EVALUATED (Nationally)** . **DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic & Morphological genetic studies. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Very difficult. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 103, 105. 133, 139, 190. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

134.*Philautus noblei* (Ahl, 1927) -- DD -- (*Rhacophorus noblei* Ahl, 1927). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala. **- Elevation:** Not known. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1 (Malabar). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** Ahl, 1927. **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments: -- Status- IUCN: DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 7, 103**. Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

135.*Philautus parkeri* (Ahl, 1927) -- DD -- (*Rhacophorus parkeri* Ahl, 1927). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala. **- Elevation:** Not known. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not

known. **- Number of locations:** 1(Malabar). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** Ahl, 1927. **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments: -- Status- IUCN: DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 7, 103. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

136.*Philautus pulcherimus* (Ahl, 1927) -- VU (B1, 2c) – (*Rhacophorus pulcherimus* Ahl, 1927). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Moist litter, under stone, bark of trees. **Habitat:** Evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala . **- Elevation:** 700 -2,000 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 6 (Valparai, Silent Valley, Kalakkad, Parambikulam, Wynadu, Manantoddy). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution. **Data Quality:** General field studies (ZSI SRS in Valparai, Wyanad, Silent Valley, Parambikulam, Kalakkad, 1976 -85). **Recent Field Studies:** ZSI SRS in Anamalais, ongoing. **Threats:** Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c(Restricted distribution, limited location, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Life history studies. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 7, 124, 125, 189, 190, 232. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

137.*Philautus shillongensis* Pillai & Chanda, 1973 -- CR (B1, 2a, 2b, 2c) -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal / Fossorial. **Habitat:** Pine forest. **Global Distribution:** ENDEMIC to northeastern India . **Current Regional Distribution:** Meghalaya. **- Elevation:** 1,524 m. **- Range (sq. km):** < 100. **- Area Occupied (sq. km):** < 10. **- Number of locations:** 1 (Shillong). **Population Trends - % change- % Decline:** Declining. - Time / Rate: Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Highly restricted close to urban area and continuing decline inferred. **Data Quality:** General field studies (R.S. Pillai & S.K. Chanda, 1973). **Recent Field Studies:** D. Roy, 1993 -94. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments:** Deforestation cause of decline. **Status- IUCN: CRITICALLY ENDANGERED**. **- Criteria based on:** B1, 2a, 2b, 2c (Restricted distribution, single location, continuing decline observed in extent of occurrence, area of occupancy and quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 174. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

138.*Philautus shyamrupus* Chanda & Ghosh, 1989 -- VU (B1, 2c) -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal /terrestrial. **Habitat:** Evergreen forest. **Global Distribution:** ENDEMIC to northeastern India . **Current Regional Distribution:** Arunachal Pradesh. **- Elevation:** 350 metres . **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 1 (Namdapha Biosphere Reserve). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known . **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and only one location. **Data Quality:** General field studies (Chanda & Ghosh, 1989). **Recent Field Studies:** None. **Threats:** Loss of habitat. **Trade:** No. **Other Comments: -- Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c (Restricted distribution, single location, continuing decline observed in extent of occurrence, area of occupancy and quality of habitat); D2 (Restricted population in single location). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 48, 107. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav, S.S. Kamble.

139.*Philautus signatus* (Boulenger, 1882) -- VU (B1, 2c) – (*Rhacophorus signatus* (Boulenger, 1882)). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Near hill stream, leaf litter and under stones. **Habitat:** Wet evergreen forests and tea plantations. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala, Tamil Nadu. **- Elevation:** 800 -2,200 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 7 (Anamalais Hills, Coonoor, Ooty, Silent Valley, Karapara, Ponmudi). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribtion. **Data Quality:** General field studies (ZSI, Calcutta in Anamalais Hills and Coonoor, (ZSI specimens years & place not mentioned); ZSI, SRS in Ooty, Silent Valley, Karapara, 1979 -80; R.F. Inger, *et al.,* in Ponmudi, 1982). **Recent Field Studies:** ZSI SRS ongoing in Anamalais (Indira Gandhi Wildlife Sanctuary). **Threats:** Pollution. **Trade:** No. **Other Comments: -- Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c(Restricted distribution, limited location, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 27, 103, 124, 125, 172. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

140.*Philautus swamianus* Rao, 1937 -- DD -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Karnataka. **- Elevation:** 1,000 m. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1(Kempholey, Hassan). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** Records. **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments:** Type specimen lost. **Status- IUCN: DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 189. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

141.*Philautus temporalis* (Günther, 1864) -- EN (B1, 2c) -- (*Ixalus temporalis* Günther, 1864). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Altitudinal/ on dead leaves. **Habitat:** Deciduous/evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala. **- Elevation:** 130 -900 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 2 (Ponmudi, Wynad). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution. **Data Quality:** General field studies (R.F. Inger, 1982 in Ponmudi). **Recent Field Studies:** None. **Threats:** Human interference. **Trade:** No. **Other Comments:** Species not conspecific with specimens from Sri Lanka. Studies by. K.N. Manamendra-Arachchi in progress. **Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2c (Restricted distribution, limited location,continuing decline observed in extent of occurrence, area of occupancy, and/or quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Survey; Life history studies;. Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Pending. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 103, 105, 117, 124. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

142.*Philautus travancoricus* (Boulenger, 1891) -- DD -- (*Rhacophorus travancoricus* (Boulenger, 1891)) -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala. **- Elevation:** Not known. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1(Travancore). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** From Literature. **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments:** Known only form type study by Boulenger, 1891. **Status- IUCN: DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 32, 33. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

143.*Philautus variabilis* (Günther, 1858) -- LRnt -- *Rhacophorus variabilis* (Günther, 1858) . ***Ixalus variablis* Günther, 1858**. **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Away from water/ found on ground or litter and on shurbs. **Habitat:** Evergreen forest/riparian system. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** . **- Elevation:** Up to 2,000 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** > 10 (Kothagiri, Ponmudi, Silent Valley, Maryland, Kodaikonal, Mariyanshola, Kalakkad). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Widely distributed. **Regional Population:** Not known. **Data Quality:** General field studies (ZSI, Southern Regional Station, 1989 in Kothagiri;. Inger *et al*., 1982 in Ponmudi; R.S. Pillai, 1979 in Silent Valley). **Recent Field Studies:** M.S. Ravichandran, 1992 in Kalakkad. **Threats:** Human interference; Loss of habitat. **Trade:** Not known. **Other Comments:** The species identity in Sri Lanka is doubtful. Taxonomy of the Sri Lankan specimen is being worked out by K.N. Mahamendra-Arachchi. **Status- IUCN: LOWER RISK - NEAR THREATENED**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Life history studies; Monitoring; Taxonomic and morphological studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 103, 105, 115, 124, 133, 190, 198. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.S. Deshpande, A. Kumar.

144.*Phrynoglossus borealis* (Annandale, 1912) -- EN (B1, 2c) -- (*Micrixalus borealis* Annandale, 1912) **-- Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi aquatic. **Habitat:** Evergreen forest. **Global Distribution:** ENDEMIC to northeastern India . **Current Regional Distribution:** Arunachal Pradesh. **- Elevation:** 800 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 1 (Abor hills). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known . **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution in only one location. **Data Quality:** Records; General field studies (A.K. Sarkar, 1990). **Recent Field Studies:** None. **Threats:** Loss of habitat. **Trade:** No. **Other Comments: -- Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2c (Restricted distribution, single location, continuing decline observed in extent of occurrence, area of occupancy and quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. - RDB, International (1996)No. **Recommendations- Research management:** Taxonomic studies; Survey; Monitoring; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive**

Programs: None. **- Names of facilities:** —. **Sources (Refer Appendix):** 13, 46, 96. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

145.*Pleurodeles verrucossus* (Anderson, 1871) -- EN/N (A1a, 1c) – (*Tylototriton* verrucossus Anderson, 1871). **Family:** Salamamdridae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Temperate forest & rain forest hills. **Global Distribution:** East Nepal, Myanmar, Thailand, W. China, India (Darjeelng & Northeast Region). **Current National Distribution:** Darjeeling (W. Bengal), Meghalaya, Arunachal Pradesh, Manipur, Sikkim. **- Elevation:** 1200 - 2200 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 30. **Population Trends - % change- % Decline:** 50% (India) . **- Time / Rate (Yrs or gens):** 10 yrs. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Continuing rapid decline observed. **Data Quality:** General field studies. **Recent Field Studies:** S. Bhupathy, 1993 in Mahananda WL Sanctuary, W. Bengal; R. Dasgupta, 1996 in Darjeeling. **Threats:** Loss of habitat; Human interference; Edaphic factors; Trade. **Trade:** Local. **Other Comments:** Species may be in Jammu & Kashmir; needs to be verified. **Status- IUCN: ENDANGERED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** A1a, 1c (Population reduction observed due to decline in extent of occurrence, area of occupancy and quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** Schedule II, Part I. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological and genetic studies; Survey; Monitoring. **- PHVA:** Yes. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Least difficulty. **Existing Captive Programs:** -. **- Names of facilities:** Darjeeling Govt. College, Darjeeling. **Sources (Refer Appendix):** 11, 78, 204. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav, S. Bhupathy.

146.*Polypedates cruciger* (Blyth, 1852) -- VU (B1, 2c) -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Shrubs, herbs. **Habitat:** Evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Tamil Nadu, Goa and Karnataka. **- Elevation:** Up to 500 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 3 (Keeriparai, Kanyakumari in Tamil Nadu and Goa & Karnataka). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted area of occupancy. **Data Quality:** General field studies (R.J. R. Daniels, 1988 -1990 in Kanyakumari - Keeriparai). **Recent Field Studies:** Desai ongoing studies in Goa. **Threats:** Human interferences (mining activity); Loss of habitat. **Trade:** No. **Other Comments: -- Status- IUCN: VULNERABLE (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** B1, 2c. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Survey; Life history studies . **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 64, 74, 105, 133. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

147.*Polypedates insularis* Das, 1995 -- EN (B1, 2a, 2b, 2c) -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Primary rain forest. **Global Distribution:** ENDEMIC to Andaman and Nicobar islands . **Current Regional Distribution:** Andaman & Great Nicobar. **- Elevation:** Sea level. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 3. **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted to the island. **Data Quality:** General field studies. **Recent Field Studies:** Das, 1994 in Great Nicobar; R.J.R. Daniels, 1995 in Great Nicobar. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2a, 2b, 2c(Restricted distribution, limited location, continuing decline observed in extent of occurrence, area of occupancy and quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 63, 67. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

148.*Polypedates leucomystax* (Gravenhorst, 1829) -- LRlc/N -- (R*hacophorus leucomystax* (Gravenhorst, 1829)). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Forest & human settlements in highlands. **Global Distribution:** India & South-east Asia. **Current National Distribution:** West Bengal, Northeast India, southern India. **- Elevation:** 1100 - 1400 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** Many. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies. **Recent Field Studies:** D. Roy, 1995-97 Meghalaya; A.K. Sarkar, 1992 W. Bengal; S.V. Krishnamurthy & S. Katre, 1992 in Sringeri. **Threats:** No. **Trade:** No. **Other Comments:** Taxonomic status to be confirmed. **Status- IUCN: LOWER RISK - LEAST CONCERN (Nationally) . DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Survey; Life history studies . **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 103, 110, 136, 139, 204. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav, S.V. Krishnamurthy, S.K. Dutta.

149.*Polypedates maculatus himalayensis* (Annandale) -- EN/N (B1, 2a, 2b, 2c) -- **Family:** Rhacophoridae. **Taxonomic status:** Subspecies. **Habit:** Arboreal. **Habitat:** Moist deciduous forests. **Global Distribution:** China & India. **Current National Distribution:** Namdapha, Deban Valley (Arunachal Pradesh). **- Elevation:** 900 to 1,400 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 2 (Namdapha & Deban Valley).

Population Trends - % change- % Decline: Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies (A.K. Sarkar, 1985 in Namdapha, Arunachal Pradesh). **Recent Field Studies:** None. **Threats:** Loss of habitat; Human interference. **Trade:** Not known. **Other Comments: -- Status- IUCN: ENDANGERED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** B1, 2a, 2b, 2c (Restricted distribution, limited location, continuing decline in. extent of occurrence, area of occupancy and quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Survey; Life history studies . **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 240. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav, S.K. Dutta.

150.*Polypedates maculatus maculatus* (Gray, 1834) -- LRlc/N -- **Family:** Rhacophoridae. **Taxonomic status:** Subspecies. **Habit:** Arboreal. **Habitat:** Forest & Human habitation. **Global Distribution:** South Asia. **Current National Distribution:** Plains of India in general. **- Elevation:** 400 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** Many. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies . **Recent Field Studies:** P.K. Mallick, 1997 Northeast; A.K.Sarkar, 1992 W. Bengal; M.C. Dash, 1993 Orissa; S.V. Krishnamurthy & S. Katre, 1993 in Sringeri; N. Indra in Annamalainagar, Tamil Nadu; P.Kannan in Mayiladuthurai, Tamil Nadu. **Threats:** No. **Trade:** Not known. **Other Comments: -- Status- IUCN: LOWER RISK - LEAST CONCERN (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Monitoring . **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 79, 121, 131, 139, 204. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav, S.K. Dutta.

151.*Ramanella anamalaiensis* Rao, 1937 -- DD -- **Family:** Microhylidae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known . **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Tamil Nadu. **- Elevation:** Not known. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1 (Anamalai Hills). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** Records, literature study. **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments:** Nothing is known about this species except original description. Status. - IUCN: **DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 189. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, S.K. Dutta. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.S. Deshpande, A. Kumar.

152.*Ramanella minor* Rao, 1937 -- DD -- **Family:** Microhylidae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known . **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Karnataka. **- Elevation:** Not known. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1 (Saklespur, Hassan). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** Records, literature study. **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments:** Nothing is known about this species except original description. **Status- IUCN: DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 189. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, S.K. Dutta M.S. Ravichandran, S. Bhupathy, R. Gupta, S.S. Deshpande, A. Kumar.

153.*Ramanella montana* Jerdon 1854 -- LRnt -- **Family:** Microhylidae. **Taxonomic status:** Species. **Habit:** Terrestrial wet grasslands. **Habitat:** Moist deciduous and wet evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current National Distribution:** Tamil Nadu, Kerala, Karnataka, Maharashtra, Gujarat. **- Elevation:** 200 - 1000 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** Many (Ponmudi, Kalakkad, Silent Valley, Sringeri, Kudremukh, Khandala, Wynad, Idukki, Ahwa in Gujarat); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Widely distributed. **Data Quality:** General field studies (Jerdon, 1854 in Wyanad). **Recent Field Studies:** C.P. Shaji and P.S. Easa, 1994-96 in Silent Valley; Karthikeyan, 1996 in Kalakkad; ZSI Southern National station ongoing in Indra Gandhi Wildlife Sanctuary; S.V. Krishnamurthy, 1990-92 in Sringeri; S.V. Krishnamurthy and B.M. Natraj ongoing in Kudremukh National Park. **Threats:** Loss of habitat; Human interference; Loss of habitat because of fragmentation. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Monitoring; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known**.** Existing Captive Programs: None. **- Names of facilities:** —. **Sources (Refer Appendix):** 54, 57, 127, 137, 139, 163, 172, 217. **Compilers:** S. Bhat, P.V. Desai, Katre S., S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

154.*Ramanella mormorata* Rao, 1937 -- VU (B1,2b,2c) -- **Family:** Microhylidae. **Taxonomic status:** Species. **Habit:** Fossorial. **Habitat:** Evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional**

Distribution: Saklespur, Hassan dist. and Goa. **- Elevation:** . **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 2; Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and only two locations. **Data Quality:** General field studies (Rao, 1937 in Sakleshpur, Hassan) . **Recent Field Studies:** Das & Whitaker, 1995 in Goa; Desai, 1995-96 in Bicholi, Goa; . **Threats:** Loss of habitat (encroachment); Human interference. **Trade:** No. **Other Comments:** Needs more research. **Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2b, 2c (Restricted distribution, limited location, severely fragmented, continuing decline observed in area of occupancy and/or quality of habitat); D2 (Population restricted to 2 locations) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 76, 77, 102, 189. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.S. Deshpande, A. Kumar.

155.*Ramanella triangularis* (Günther, 1875) -- VU (B1, 2c; D2) -- (*Callula triangularis* Günther, 1875) -- **Family:** Microhylidae. **Taxonomic status:** Species. **Habit:** Wet grassland / terrestrial; aboreal. **Habitat:** Wet evergreen forest. **Global Distribution:** ENDEMIC to Western Ghats . **Current Regional Distribution:** Kerala, Tamil Nadu & Karnataka . **- Elevation:** 300 - 1000 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 5(Ponmudi, Srivilliputtur, Nilgiri, Ootacamund, Malabar & Mudigere); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution. **Data Quality:** Census and monitoring; General field studies (R.F. Inger, et al, 1982 in Ponmudi; A. Malhotra & K. Davis, 1990 in Srivilliputhur; J.C. Daniel, 1962 in the Nilgiris and Malabar; I. Das, 1989 in Chalakudy; C.R.N. Rao, 1937 in Mudigere). **Recent Field Studies:** No. **Threats:** Human interference; Loss of habitat due to fragmentation; Loss of habitat. **Trade:** None. **Other Comments:** —. **Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c (Restricted distribution, limited location, severely fragmented, continuing decline observed in extent of occurrence, area of occupancy and/or quality of habitat); D2 (Population restricted to 5 locations). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Life history studies; Survey; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. - Names of facilities: —. **Sources (Refer Appendix):** 103, 119, 124, 146, 163, 189, 232. **Compilers:** S. Bhat, P.V. Desai, Katre S., S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

156.*Ramanella variegata* (Stoliczka) -- LRnt/N -- **Family:** Microhylidae. **Taxonomic status:** Species. **Habit:** Fossorial. **Habitat:** Mostly forested areas; Sometimes roadside derelict areas and swamps and paddy fields. **Global Distribution:** Sri Lanka, India. **Current National Distribution:** Madhya Pradesh, Orissa, Tamil Nadu, West Bengal, Andhra Pradesh. **- Elevation:** 400 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 12. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies. BNHS, Bombay, 1960 in Calicut Dist.,. **Recent Field Studies:** Sarkar *et al*., 1993 in Adilabad, Andhra Pradesh; Dash & Mohanta, 1993 in Sambalpur; A.K. Mondal, 1969-73 in forests of Cuttack dist. and 1994-96 in Khurdah and Puri dist., in Orissa. **Threats:** Loss of habitat. **Trade:** No. **Other Comments:** Status revision required. **Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 79, 190, 205. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav, A.K. Mondal.

157.*Rana alticola* (Boulenger, 1882) -- LRnt/N -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Evergreen forest. **Global Distribution:** India, Bangladesh, Myanmar, & Vietnam. **Current National Distribution:** Assam, Tripura, Meghalaya, Sikkim. **- Elevation:** 900 to 3,600 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 6 (Shillong, Garo hills, Jaintia hills, Barapani, Parattua, Assam, Sikkim). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies. **Recent Field Studies:** S.K. Chanda, 1994 in Khasi hills; Garo hills; Dirak Assam; Parathia, Tripura. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Monitoring; Survey; Life history studies; Limiting factor research. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 27, 46, 102, 240. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

158.*Rana assamensis* (Sclater, 1892) -- LRnt/N -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Evergreen forests. **Global Distribution:** India & Nepal. **Current National Distribution:** West Bengal & Meghalaya. **- Elevation:** 900 to 1,800 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 2 (Kurseong, Khasi Hills in Darjeeling); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies . **Recent Field Studies:** S.K. Chanda, 1994 in Darjeeling. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:**

Taxonomic and morphological genetic studies; Monitoring; Life history studies; Limiting factor research; Survey. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 47, 210, 240. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

159.*Rana aurantiaca* (Boulenger, 1904) – LRnt – (*Rana bhagmandalensis* Rao, 1922). **Family:** Randidae. **Taxonomic status:** Species. **Habit:** Terrestrial to semi arboreal. **Habitat:** Moist evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Karnataka, Kerala & Tamil Nadu. **- Elevation:** 300 -1,400 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 7 (Sringeri, Kudremukh, Thekkadi, Courtallam, Kalakkad). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Widely distributed species. **Data Quality:** General field studies (G.V. Kurup, 1974 in Thekkadi; R.S. Pillai, 1975 in Courtallam; ZSI/ Southern Regional Station, 1985 in Kalakkad). **Recent Field Studies:** S.V. Krishnamurthy & S. Katre, 1990-96 in Sringeri & Kudremukh; S.V. Krishnamurthy & S. Katre, 1994 in Sringeri; S.V. Krishnamurthy & . B.M. Nataraj, 1997 in Kudremukh National Park. **Threats:** Human interference. **Trade:** No. **Other Comments:** Species not conspecific with specimens from Sri Lanka, K. N. Manamendra Arachi, in progress; Junior synonym for this species *R. bhagmandalensis* Rao 1922 (according to Dutta, 1989). **Status- IUCN: LOWER RISK - NEAR THREATENED. - Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Life history studies; Survey; Habitat Management; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Very difficult. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 103, 105, 108, 137, 139, 140, 190. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.S. Deshpande, A. Kumar.

160.*Rana chalconota* (Schlegel, 1837) -- EN/N (B1, 2a, 2b, 2c) -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Vegetation in proximity of water. **Global Distribution:** India (Great Nicobar), Indonesia, Malaysia, Thailand, Singapore, & Java . **Current National Distribution:** Great Nicobar. **- Elevation:** Sea level. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 3 (Gulathea National Park). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Restricted distribution in India. **Data Quality:** General field studies. **Recent Field Studies:** Das, 1997 in Galathea, Shompen Hut, Campbell Bay. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments:** Further taxonomic investigation. **Status- IUCN: ENDANGERED (Nationally). DATA DEFICIENT (Globally). - Criteria based on:** B1, 2a, 2b, 2c (Restricted distribution, limited location, continuing decline in. extent of occurrence, area of occupancy and quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Survey; Life history studies . **- PHVA:** Yes. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 61, 69, 71, 103. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

161.*Rana curtipes* Jerdon, 1853 --LRnt -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Forest floor, litter frog. **Habitat:** Semi evergreen, evergreen forests, moist deciduous and dry deciduous. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Karnataka, Tamil Nadu, Goa & Kerala. **- Elevation:** Up to 2,000 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. - Number of locations: 15 (Wynad, Sabarigiri, Ponmudi, Anamalais, Kalakkad, Karapara, Periyar WLS, Sringeri, Nadowli, Dandeli, Londa, Castlerock, Supa, Nagargali, Anmode). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Widely distributed. **Data Quality:** General field studies (ZSI-SRS, 1979-87 in Wynad, Sabarigiri, Ponmudi; ZSI Calcutta, 1877 in Anamalais WL, Kalakkad, Karapara; ZSI-WGRS, 1984 in Periyar WLS; ZSI, WRS, 1990 -92 in Karnataka; L. Lobo, 1961 in Dandeli, Londa, Castlerock, Supa, Nagargali, Anmode; Sclater, 1892 in Nadowli). **Recent Field Studies:** Saravanakumar, 1995 in Anamalais; ZSI SRS, 1991; Sundaram, Jamunadevi & S. Katre ongoing in Madikeri; S.V. Krishnamurthy, 1990-92 in Sringeri. **Threats:** Human interference; Loss of habitat; Road kills. **Trade:** No. **Other Comments:** Large scale mortality due to vehicular traffic enroute migration. **Status- IUCN: LOWER RISK - NEAR THREATENED. - Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Monitoring; Life history studies. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. - Names of facilities: —. **Sources (Refer Appendix):** 40, 56, 103, 127, 136, 137, 139, 141, 145, 190, 209, 224. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

162.*Rana danieli* Pillai & Chanda, 1977 -- LRnt -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Rainforest. **Global Distribution:** ENDEMIC to Northeastern India. Current Regional Distribution: Meghalaya, Assam, Arunachal Pradesh, West Bengal. **- Elevation:** 1,500 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 6 (Khasi Hills, Jaintia Hills, Kohima, West Bengal, Garo Hills, Arunachal Pradesh); Fragmented. **Population Trends - % change- % Decline:** < 20%. **- Time / Rate (Yrs or gens):** 10 years. **- No. of Mature Individuals:** Not known. **Global Population:** Widely distributed but perceptible reduction in population. **Data Quality:** General field studies (Kiyasetuo, 1988 in Kohima; FMNH specimens in Garo & Jaintia Hills; S. Prakash, 1982-90 in Khasi Hills). **Recent Field Studies:** D. Roy, up to 1994 in Meghalaya. **Threats:** Loss of habitat; Human interference. **Trade:** —. **Other Comments:** Collected only once from each location. **Status- IUCN: LOWER RISK - NEAR THREATENED. - Criteria based on: —. - CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Habitat management; Taxonomic studies; (Systematic status should be investigated); Limiting factor research; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources**

(Refer Appendix): 46, 134, 175. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Denti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav, S.K. Kar.

163.*Rana erythraea* (Schlegel, 1837) -- LRnt/N -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic, Fresh water swamp. **Habitat:** Plains. **Global Distribution:** India, Bangladesh, Myanmar, Malaysia, & Indonesia. **Current National Distribution:** Assam, Meghalaya, Mizoram, West Bengal, Great Nicobar. **- Elevation:** 400 -800 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 6. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** No dearth. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies . **Recent Field Studies:** A.K. Sarkar, 1992 in Bankura, Howrah, 24 parganas Mednipur; S.K.Chanda, 1994 in Khasi Mills, Serchip; D. Roy, 1995-97 in Guwahati; A.K. Mondal, 1984-96 in 24 Paraganes. (North & south), Nadia, Howrah, Hooghly Midnapore and Burdwan dist., of W. Bengal. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments:** Confused with *Rana taipehensis.* Northeast India population may have a mix of both *R. erthraea & R. teipehensis* Taxonomic studies is needed to solve the confusion. Breeding techniques developed by Mondal, 1972. **Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally) . DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Survey; Monitoring; . Life history studies; Limiting factor research . **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known . **Existing Captive Programs:** Yes. **- Names of facilities:** Frog culture division of CIFA (ICAR) at Kalyani, W. Bengal. **Sources (Refer Appendix):** 46, 103, 204. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav, A.K. Mondal, S.K. Dutta.

164.*Rana garoensis* Boulenger, 1920 -- EN (B1,2a,2b,2c). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi aquatic. **Habitat:** Moist evergreen forests. **Global Distribution:** ENDEMIC to northeastern India. **Current Regional Distribution:** Meghalaya. **- Elevation:** 800 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 1 (Garo Hills). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution. **Data Quality:** Records. **Recent Field Studies:** None. **Threats:** Loss of habitat. **Trade:** No. **Other Comments: --** Status. - IUCN: **ENDANGERED**. **- Criteria based on:** B1, 2a, 2b, 2c (Restricted distribution, single location, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Pending. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 40. **Compilers:** I. Das, P.K. Mallik, S.K. Chanda, A.K. Sarkar, D. Roy, S. Prakash, S. Sengupta, D.B. Sawarkar, M.R. Yadav, J.K. Mahanta, S. Prakash.

165.*Rana khare* (Kiyasetuo & Khare, 1986) – EN (B1, 2c) -- (*Pterorana khare* Kiyasetuo & Khare, 1986). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Mountain streams. **Global Distribution:** ENDEMIC to northeastern India . **Current Regional Distribution:** Nagaland & Manipur. **- Elevation:** Around 1,500 m. **- Range (sq. km):** 200 . **- Area Occupied (sq. km):** < 200 . **- Number of locations:** 3 (Sanuorut, Rukhroma in Nagaland, location unknown in Manipur). **Population Trends - % change- % Decline:** < 20%. - Time / Rate 10 years. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and continuing decline observed. **Data Quality:** General field studies (Kiyasetuo & Khare, 1984 in Nagaland). **Recent Field Studies:** K.H. Singh & M. Devi, 1997 in Manipur. **Threats:** Loss of habitat. **Trade:** No. **Other Comments:** Known from three locations only. **Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2c (Restricted distribution, limited locations, continuing decline observed in extent of occurrence, area of occupancy and/ or quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Taxonomic studies;; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 135, 95. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

166.*Rana leptoglossa* (Cope, 1868) -- EN/N (B1, 2a, 2b, 2c) -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Plains . **Global Distribution:** India & Myanmar. **Current National Distribution:** Assam. **- Elevation:** 800 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 1 (Assam). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** Records/Museum/Collection studies (Museum, BNHS). **Recent Field Studies:** S.K. Chanda, 1990 in Assam. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: ENDANGERED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** B1, 2a, 2b, 2c (Restricted distribution, single location, continuing decline in. extent of occurrence, area of occupancy and quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Monitoring . Life history studies; Survey; Limiting factor research. **- PHVA:** Yes. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 46, 51, 103. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav, S.K. Dutta.

167.*Rana livida* (Blyth, 1855) -- LRnt/N -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Hill streams in dense forests. **Global Distribution:** India, Myanmar, China, Vietnam & Nepal. **Current National Distribution:** West Bengal, Manipur, Meghalaya. **- Elevation:** 0 to 2,750 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 6 (Darjeeling, Cherrapunji, Nalbari, Sikkim); Fragmented. **Population Trends - %**

change- % Decline: Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies (S.K. Chanda, 1980 in Gezing, W. Sikkim & in Darjeeling, W. Bengal; A.K. Sarkar, 1983 in Darjeeling). **Recent Field Studies:** D. Roy, 1994 in Nalbari in Assam. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Monitoring; Life history studies; Survey; Limiting factor research. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 46, 204, 209, 240. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

168.*Rana malabarica* Tschudi, 1838 -- LRnt -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Evergreen moist deciduous forests. **Global Distribution:** ENDEMIC to India (Western Ghats, central India & eastern India). **Current Regional Distribution:** Maharashtra, Kerala, Tamil Nadu, Karnataka, Goa, Orissa, Madhya Pradesh. **- Elevation:** < 1,000 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** Many. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Widely distributed. **Data Quality:** General field studies (V.K. Chari, BNHS, 1962, 1975, 1976 in Edanad, Begur, Silent Valley; R. S. Pillai, 1976 in Kanhaghad; ZSI-SRS, 1984-87 in Kalakkad WLS; Krishnamurthy, 1992 in Agumbe; B.M. Murhar in Nagpur; Y.M. Naik, 1984 in Surpesanwar WLS; J.C. Daniel & T.G. Selukar 1964 in Bastar, Madhya Pradesh; I. Das, 1984 in Mudumalai Wildlife Sanctuary; Hurecht, 1882 in Coonoor); Informal field sighting (Ghate, 1993-95 in Pune). **Recent Field Studies:** C.P. Shaji & P.S. Easa ongoing in Kerala part of the Nilgiri Biosphere Reserve; Sarkar, 1993 in Kalahandi, Orissa. **Threats:** Loss of habitat; Human interference; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments:** --. **Status- IUCN: LOWER RISK - NEAR THREATENED**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Montoring; Life history studies;. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 40, 49, 55, 107, 158, 190, 217, 234. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, I. Das, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar, S.K. Dutta.

169.*Rana nicobarensis* (Stoliczka, 1870) -- LRnt/N -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Plains. **Global Distribution:** India, Myanmar, Thailand, Malay peninsula, Borneo, Java, Philipines, Sumatra. **Current National Distribution:** Assam, West Bengal, & Nicobar Islands, Tripura. **- Elevation:** 800 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 6 (Darjeeling, Jalpaiguri, Belonia, Udaipur (Tripura), Great Nicobar). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies (A.K. Sarkar, 1989 in Great Nicobar islands)**. Recent Field Studies:** A.K. Sarkar, 1992 in Jalpaiguri, Darjeeling, West Bengal; Belonia, Tripura; Udaipur, Tripura; I. Das, 1994 in Great Nicobar. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments:** Further taxonomic work required. **Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Monitoring; . Life history studies; Limiting factor research . **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 201, 204, 222. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

170.*Rana nigrovittata* (Blyth, 1855) -- EN/N (B1, 2b, 2c) -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Plains and Evergreen forests. **Global Distribution:** India, Myanmar, Thailland & Malay . **Current National Distribution:** Assam, Cachar. Tezpur, Sibsagar, Cherrapunji (Meghalaya), Samagooting (Nagaland). **- Elevation:** 800 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 5. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Restricted are of occupancy in India. **Data Quality:** Records/Museum/Collection studies. **Recent Field Studies:** None. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: ENDANGERED (Nationally). DATA DEFICIENT (Globally). - Criteria based on:** B1, 2b, 2c (Restricted distribution, limited location, continuing decline in. area of occupancy and quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Survey; Monitoring. **- PHVA:** Yes. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 25, 102, 209. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

171.*Rana senchalensis* Chanda, 1986 --CR (B1, 2a, 2b, 2c) -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Stream bed. **Global Distribution:** ENDEMIC to northeastern India . **Current Regional Distribution:** West Bengal. **- Elevation:** 1,700 m. **- Range (sq. km):** < 100. **- Area Occupied (sq. km):** < 10. **- Number of locations:** 1 (Senchal Lake). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Highly restricted in only one location. **Data Quality:** General field studies (S.K. Chanda, 1980). **Recent Field Studies:** None **Threats:** Loss of habitat. **Trade:** No. **Other Comments: -- Status- IUCN: CRITICALLY ENDANGERED**. **- Criteria based on:** B1, 2a, 2b, 2c (Restricted distribution, single location, continuing decline observed in extent of occurrence, area of occupancy, and quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive**

breeding: Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** -. **Sources (Refer Appendix):** 41. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav, S.S. Kamble.

172.*Rana taipehensis* Van Denburg, 1909 -- LRnt/N -- (*Rana erythraea* (Schlegeda, 1837); *Rana bilineata* Pillai & Chanda, 1981; *Rana albolineat*a (Dubois, 1981)). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic, found in swamps. **Habitat:** Plains . **Global Distribution:** South-east Asia. **Current National Distribution:** West Bengal, Uttar Pradesh, Assam, Orissa, Meghalaya. **- Elevation:** 400 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** > 100. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies . **Recent Field Studies:** S.K. Dutta, 1996 in Orissa; K. Deuti, 1997 in Calcutta . **Threats:** Loss of habitat. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 82, 102, 103, 235. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

173.*Rana travancorica* Annandale, 1910 -- DD -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala. **- Elevation:** Not known. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. - Number of locations: 1 (type locality - Malabar). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** Museum/records & literature study (R.F. Inger & S.K. Dutta, A. Dubois, A. Boulenger). **Recent Field Studies:** None. **Threats:** . **Trade:** . **Other Comments: -- Status- IUCN: DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 12, 40, 94, 103, 123. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar. **.**

174.*Rhacophorus appendiculatus* (Günther, 1858) – DD/N – (*Polypedates appendiculatus* Günther, 1858). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Not known . **Habitat:** Not known . **Global Distribution:** Myanmar, Thailand, Malay & India. **Current National Distribution:** Arunachal Pradesh. **- Elevation:** Not known. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** Not known. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** . Recent Field StudiesNot known. **Threats:** Not known. **Trade:** Not known. **Other Comments: -- Status- IUCN: DATA DEFICIENT (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 103, 115. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

175.*Rhacophorus bipunctatus* Ahl, 1927 -- LRnt/N – (*Rhacophorus binaculatus* (Boulenger, 1882)). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Evergreen forests. **Global Distribution:** Thailland & India. **Current National Distribution:** Northeast Region. **- Elevation:** 1600 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 9 (Khasi Hills, Kaziranga, Saikot, Porathia, Srang). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies . **Recent Field Studies:** Chanda, 1994, Northeast Region; Ray, 1997 in Shillong. **Threats:** Loss of habitat. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and genetic studies; Monitoring; Survey; Life history studies; Limiting factor research. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 7, 27, 46. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

176.*Rhacophorus bisacculus* Taylor, E.H., 1962 -- EN/N (B1, 2a, 2b, 2c) -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Evergreen forest. **Global Distribution:** Thailand & India. **Current National Distribution:** Nagaland. **- Elevation:** 1600 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 1. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies (Khare & Kiyesato, 1986 in Kohima). **Recent Field Studies:** None. **Threats:** Loss of habitat. **Trade:** No. **Other Comments: -- Status- IUCN: ENDANGERED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** B1, 2a, 2b, 2c (Restricted distribution, single location, continuing decline observed in extent of occurrence, area of occupancy and quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Survey; Limiting factor research; Monitoring; Life history studies. **- PHVA:** Yes. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer**

Appendix): 102, 135, 230. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

177.*Rhacophorus calcadensis* Ahl, 1927 -- DD -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known. **Global Distribution:** ENDEMIC to Western Ghats (Kalakkad, Tamil Nadu) . **Current Regional Distribution:** Kerala, Tamil Nadu. **- Elevation:** Not known. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1 (Kalakkad). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** Records. **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments: -- Status- IUCN: DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 7, 27. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

178.*Rhacophorus jerdonii* (Günther, 1875) -- VU (B1, 2c) -- (*Polypedates jerdonii* Günther, 1875). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Rain forest. **Global Distribution:** ENDEMIC to northeastern India . **Current Regional Distribution:** Arunachal Pradesh & West Bengal. **- Elevation:** 1800 -2750 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 2; Fragmented (Abor Hills, Darjeeling). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and only two locations. **Data Quality:** Records (S.K. Chanda, 1994). **Recent Field Studies:** None. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c (Restricted distribution, limited locations, severely fragmented, continuing decline observed in extent of occurrence, area of occupancy and quality of habitat); D2 (Population restricted to 2 locations). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic studies; Survey; Monitoring; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 46, 103, 119, 204, 240. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

179.*Rhacophorus lateralis* Boulenger, 1883 -- EN (B1, 2c) -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Shrubs - Arboreal. **Habitat:** Wet evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Karnataka, Kerala. **- Elevation:** 800 -1,200 m. **- Range (sq. km):** < 5,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 2 (Malabar-type locality, Koppa in Mysore); Fragmented. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution. **Data Quality:** General field studies (Boulenger in Malabar, 1883). **Recent Field Studies:** None. **Threats:** Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2c (Restricted distribution, limited location, severely fragmented, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 27, 193, 209. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, I. Das. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

180.*Rhacophorus malabaricus* Jerdon, 1870 -- LRnt -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Wet, evergreen forests; moist deciduous forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala & Karnataka. **- Elevation:** Below 2000 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 10. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Widely distributed. **Data Quality:** General field studies; (BNHS, 1914 in Kothathiri; Marha, 1977 in Nagpur; R.S. Pillai, 1981 in Silent Valley; R.F. Inger *et al*., 1982 in Ponmudi; BNHS, 1984 in Kalakkad; I.Das, 1989 in Vanjikadavu); Informal field sighting. **Recent Field Studies:** Krishnamurthy and Nataraj ongoing in Kudremukh Natl. Park; Krishnamurthy & Katre, 1990-92 in Sringeri; A.G. Sekar, 1990 in Goa; I. Das, 1996 in Nilambur; Ashok Captain, 1996 in Castlerock, Goa. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Life history studies; Monitoring. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 2, 56, 124, 125, 128, 139, 172, 190, 217. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, I. Das. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

181.*Rhacophorus maximus* (Günther, 1858) -- LRnt/N -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Evergreen forest. **Global Distribution:** Nepal & India. **Current National Distribution:** West Bengal & Northeast Region. **- Elevation:** 1,700 to 6,000 feet. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 9 (Cherranpunji, Jaindia Hills in Meghalaya, Semagooting in Nagaland, Sibsagar Dist., Assam). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies . Recent Field StudiesChanda, 1994 in Northeast Region. **Threats:** Loss of habitat. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally). DATA DEFICIENT (Globally)** . **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Survey; Limiting factor

research; Monitoring; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 46, 203, 209, 240. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

182.*Rhacophorus namdaphaensis* Sarkar & Sanyal, 1985 -- VU (B1, 2c) **-- Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Evergreen forest. **Global Distribution:** ENDEMIC to northeastern India . **Current Regional Distribution:** Arunachal Pradesh. **- Elevation:** 350 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 1 (Namdapha Biosphere Reserve). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known . **- No. of Mature Individuals:** Not known. **Global Population:** Found only in one location. **Data Quality:** General field studies (A.K. Sarkar & D.P. Sanyal, 1981). **Recent Field Studies:** None. **Threats:** Loss of habitat. **Trade:** No. **Other Comments: -- Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c (Restricted distribution, single location, continuing decline observed in extent of occurrence, area of occupancy and/ or quality of habitat); D2 (Population restricted to single location). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Monitoring; Habitat management. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 46, 203. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

183.*Rhacophorus naso* Annandale, 1912 -- DD -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Stream-bed. **Global Distribution:** ENDEMIC to northeastern India . **Current Regional Distribution:** Rotung, Arunachal Pradesh. **- Elevation:** Not known. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1. **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** Records (S.K. Chanda, 1994). **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments: -- Status- IUCN: DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 13, 46. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

184.*Rhacophorus nigropalmatus* Boulenger, 1895 -- DD/N -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Not known. **Global Distribution:** Phllipines, Sumatra, Borneo, Malay peninsula, India. **Current National Distribution:** Not known. **- Elevation:** Not known. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** Not known. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** Records/Museum/Collection studies (Inger & Dutta, 1986). **Recent Field Studies:** None. **Threats:** Not known. **Trade:** Not known. **Other Comments:** Pending further survey. **Status- IUCN: DATA DEFICIENT (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Monitoring; Life history studies; Limiting factor research. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 106, 123. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

185.*Rhacophorus pleurostictus* (Günther, 1864) -- VU (B1, 2c) – (*Polypedates pleurostictus* Günther, 1864). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Evergreen and moist deciduous forests. **Global Distribution:** ENDEMIC to Western Ghats . **Current Regional Distribution:** Tamil Nadu, Kerala. **- Elevation:** 300 - 2200 mts. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 8 (Anamalais Hills, Nadukani, Eravikulam, Coonoor, Kodaikanal, Bangitappali). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution. **Data Quality:** General field studies (ZSI Calcutta, 1973 in Coonoor; BNHS, 1915 in Anamalais; J.C. Daniel, 1977 in Nadukani; BNHS, 1981 in Eravikulam WLS;ZSI - SRS, 1980 in Kodaikanal); Informal field sightings. **Recent Field Studies:** ZSI -SRS, ongoing in Indra Gandhi Wildlife Sanctuary. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c(Restricted distribution, limited location, continuing decline observed in extent of occurrence, area of occupancy and/or quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Pending. **- Level of difficulty:** Very difficult. **Existing Captive Programs:** None. - Names of facilities: —. **Sources (Refer Appendix):** 31, 56, 117, 190, 198. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, I. Das. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

186.*Rhacophorus reinwardtii* Khul & van Hasselt, 1822 -- LRnt/N – (*Polypeddates reinwardtii* (Khul & van Hasselt, 1882)). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Evergreen forests. **Global Distribution:** Java, Borneo, Sumatra, India. **Current National Distribution:** Meghalaya, Assam, Arunachal Pradesh & West Bengal. **- Elevation:** 1700 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 10. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** Records/Museum/Collection studies; General field study(S.K. Chanda, 1978 in Meghalaya, Khasi Hill; Sarkar, 1985 in

Namdapha; S.K. Chanda, 1986 in Darjeeling & North West Bengal, 1986). **Recent Field Studies:** None. **Threats:** Loss of habitat. **Trade:** No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED (Nationally) . DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Survey. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 103, 143. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

187.*Rhacophorus taeniatus* Boulenger, 1906 -- LRnt -- Family: Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal /Shurbs near temporary rain-water puddles. **Habitat:** Sal forests. **Global Distribution:** ENDEMIC to northern India . **Current Regional Distribution:** Bihar and Uttar Pradesh. **- Elevation:** About 500 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 4 (Purnia in Dudhwa National Park, Dehra Dun, Rajaji National Park). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** Informal field sightings. **Recent Field Studies:** P. Ray, 1980 in Dudhwa National Park; S. Bhupathy,1992 -93, in Dehra Dun. & Rajaji National Park. **Threats:** Loss of habitat; Human interference. **Trade:** No. **Other Comments:** 25 pair in 2 acres at Rajaji National Park, U. P. **Status- IUCN: LOWER RISK - NEAR THREATENED**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Life history studies; Limiting factor research; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 37, 195. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

188.*Rhacophorus tuberculatus* (Anderson, 1871) -- LRnt -- (*Polypedates tuberculatus* Anderson, 1871). **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Evergreen forest. **Global Distribution:** ENDEMIC to northeastern India . **Current Regional Distribution:** Arunachal Pradesh & Assam. **- Elevation:** 400 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 2 (Namdapha Biosphere Reserve and Sibsagar). **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Widely distributed but only in two locations. **Data Quality:** Records (Annandale, 1912). **Recent Field Studies:** None. **Threats:** Loss of habitat. **Trade:** No. **Other Comments: --** s. **Status- IUCN: LOWER RISK-NEAR THREATENED**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic studies; Survey; Life history studies; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 10, 13. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

189.*Scutiger nyingchinesis* Fei, 1977 -- LRnt/N -- **Family:** Pelobatidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Dry lands. **Global Distribution:** W. China, India. **Current National Distribution:** Srinagar. **- Elevation:** > 2000 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 1. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies (Dubois, 1978). **Recent Field Studies:** Not known. **Threats:** Not known. **Trade:** Not known. **Other Comments:** Indian records of above species are based on the paratypes of *S. occidentalis*. **Status- IUCN: LOWER RISK - NEAR THREATHENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Survey; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 89. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

190.*Scutiger occidentalis* Dubois, 1978 -- DD -- Family: Pelobatidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Dry land. **Global Distribution:** ENDEMIC to northern India. **Current Regional Distribution:** Jammu and Kashmir . **- Elevation:** 2,000 m. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** Ladakh and western Himalaya. **Population Trends - % change- % Decline:** Not known. - Time / Rate: Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** Records. **Recent Field Studies:** None. **Threats:** Not Known. **Trade:** No. **Other Comments: -- Status- IUCN: DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 89, 102. **Compilers:** P.K. Mallick, I. Das, S.K. Chanda, A.K. Sarkar, D. Roy, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

191.*Scutiger sikkimensis* (Blyth, 1854) -- LRnt/N -- **Family:** Pelobatidae. **Taxonomic status:** Species. **Habit:** Terrestrial. **Habitat:** Evergreen forests. **Global Distribution:** Nepal, China & India. **Current National Distribution:** Sikkim & Meghalaya. **- Elevation:** 1700 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 3 (Sikkim, Khasi Hills). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies (Chanda, 1978 in Sikkim & Meghalaya). **Recent Field Studies:** None. **Threats:** Loss of habitat.

Trade: No. **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATHENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological studies; Survey; Monitoring; Life history studies, Limiting factor research. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 44, 46. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

192.*Taylorana hascheana* Stoliczka, 1870 -- DD/N – (*Rana hascheana* Stoliczka, 1870; *Limnonectes hesheana* (Stoliczka, 1870)). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Semi-aquatic. **Habitat:** Streams. **Global Distribution:** India, Malaysia, Vietnam, Java, Penang, Thailand. **Current National Distribution:** Andamans. **- Elevation:** 100 m. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** Not known. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** Records/Museum/Collection studies . **Recent Field Studies:** None. **Threats:** Not known. **Trade:** Not known. **Other Comments:** Further survey & taxonomic investigations required. **Status- IUCN: DATA DEFICIENT (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 94, 103, 201, 222. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

193.*Theloderma asper* (Boulenger, 1986) -- DD/N -- **Family:** Rhacophoridae. **Taxonomic status:** Species. **Habit:** Arboreal. **Habitat:** Plains; Rainforests . **Global Distribution:** Malaysia & India. **Current National Distribution:** Arunachal Pradesh. **- Elevation:** 800 m. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** Not known. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies (S.K. Dutta & R.F. Inger, 1986). **Recent Field Studies:** Not known. **Threats:** Not known. **Trade:** Not known. **Other Comments:** Pending further systematic redescription. **Status- IUCN: DATA DEFICIENT (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 46, 106, 120. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

194.*Tomopterna leucorhynchus* (Rao, 1937) – DD – (*Rana leucorhynchus* Rao, 1937). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known . **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Karnataka. **- Elevation:** Not known. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1 (Watthole, Coorg). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** Records, literature study (R.F. Inger & S.K. Dutta, 1986; S.K. Dutta, 1992;. A. Dubois, 1983-84). **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments:** Nothing is known about the species except original description. Status. - IUCN: **DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 91, 92, 102, 103, 123, 189. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.S. Deshpande, A. Kumar.

195.*Tomopterna parambikulamana* (Rao, 1937) -- DD -- (*Rana parambikulamana* Rao, 1937). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Not known. **Habitat:** Not known . **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala. **- Elevation:** Not known. **- Range (sq. km):** Not known. **- Area Occupied (sq. km):** Not known. **- Number of locations:** 1 (Parambikulam). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** Records, literature study. **Recent Field Studies:** None. **Threats:** Not known. **Trade:** No. **Other Comments:** Nothing is known about the species except original description. Status. - IUCN: **DATA DEFICIENT**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** Schedule IV. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 183, 189. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, S.K. Dutta. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.S. Deshpande, A. Kumar.

196.*Tomopterna rolandae* (Dubois, 1983) -- LRnt/N -- **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Fossorial. **Habitat:** Sandy soil. **Global Distribution:** Sri Lanka, India. **Current National Distribution:** Peninsular India. **- Elevation:** 250 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 100. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies . **Recent Field Studies:** Deuti, 1996; Dash, 1993; Das, 1988-96 in Vadenemmeli; . Dutta, 1996; Bhupathy, 1997. **Threats:** Loss of habitat. **Trade:** No. **Other Comments:** Sri Lankan 'Types' should be compared with Indian species. **Status- IUCN: LOWER RISK - NEAR THREATHENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **-**

CITES: No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic and morphological genetic studies; Life history studies . **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 70, 79. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

197.*Tomopterna rufescens* (Jerdon, 1853) – LRnt – (*Rama rufescens* (Jerdon, 1853)). **Family:** Ranidae. **Taxonomic status:** Species. **Habit:** Terrestrial grasslands. **Habitat:** Wet evergreen and shola grasslands; Dry deciduous . **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala, Karnataka & Maharashtra. **- Elevation:** < 1,200 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** 9 (Minchikuli, Sathiamangalam, Idukki, Kadamcheri, Kudremukh, Kandala,Shringeri, Malabar - type locality). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Widely distributed. **Data Quality:** General field studies. **Recent Field Studies:** S.V. Krishnamurthy, 1992 in Sringeri; P. T. Cherian, 1981 in Idduki; . C. Radhakrishnan, ZSI WGRS, 1981 in Kodamcheri; ZSI-SRS, 1989 in . Minchikuli; S.V. Krishnamurthy in Varahaparvatha . **Threats:** Human Interference; Loss of habitat; Loss of habitat due to fragmentation. **Trade:** . **Other Comments: -- Status- IUCN: LOWER RISK - NEAR THREATENED**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Limting factor research. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 27, 40, 127, 136, 137, 139. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

198.*Uperodon globulosus* (Günther, 1864) -- LRnt/N -- **Family:** Microhylidae. **Taxonomic status:** Species. **Habit:** Fosserial. **Habitat:** Subterranean Secondary forests, in and around derelict areas and swamps, paddy fields and little outskirts of human habitation. **Global Distribution:** Bangladesh, India. **Current National Distribution:** West Bengal, Assam, Orissa, Maharashtra, Bihar, Karnataka, Goa; Bangladesh. **- Elevation:** 400 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** > 25. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies . **Recent Field Studies:** Sarkar *et al.*, 1992, 1993; Sengupta, 1996; Mallick *et al*., 1980; Mallick, 1990; Deuti, 1995; Desai ongoing; A.K. Mondal, 1968-73 in Orissa and 1974-86 in Bengal and 1988 in Bangladesh. **Threats:** Loss of habitat. **Trade:** No. **Other Comments:** Regularly induced fred by A.K. Mondal during 1978-86 at Frog culture division of CIFRI (ICAR), Kalyani, W. Bengal. **Status- IUCN: LOWER RISK - NEAR THREATHENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Monitoring; Life history studies. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Moderate difficult . **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 46, 152a, 154, 204. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D.B. Sawarkar, M.R. Yadav.

199.*Uperodon systoma* (Schneider, 1799) -- LRnt/N -- **Family:** Microhylidae. **Taxonomic status:** Species. **Habit:** Fossorial; Sandy tracts. **Habitat:** Scrub & Human habitation. **Global Distribution:** Sri Lanka, Nepal & India. **Current National Distribution:** Himachal Pradesh, West Bengal, Orissa, Tamil Nadu, Kerala, Karnataka, Madhya Pradesh, Andhra Pradesh. **- Elevation:** 200 m. **- Range (sq. km):** > 20,000. **- Area Occupied (sq. km):** > 2,000. **- Number of locations:** > 20. **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Regional Population:** Not known. **Data Quality:** General field studies . **Recent Field Studies:** Sarkar *et al*., 1993; Dash & Mohanta, 1993; Dutta, 1992; Deuti, 1994; I. Das, 1988-1996 in Vadanemmeli, Tamil Nadu; Bhupathi, Coimbatore, ongoing; Katre, Bangalore, ongoing; A.K. Mondal, 1965-66 in Tamilnadu, Kerala,Karnataka and Andhra Pradesh & in 1967-73 in Cuttack dist. in Orissa). **Threats:** Loss of habitat. **Trade:** No. **Other Comments:** North-western population should be systematically studied. **Status- IUCN: LOWER RISK - NEAR THREATHENED (Nationally). DATA DEFICIENT (Globally)**. **- Criteria based on:** —. **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Not known. **- PHVA:** No. **Captive Breeding Recommendations- Captive breeding:** No. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 66, 79, 102, 205. **Compilers:** P. K. Mallick, I. Das, S.K. Chanda, D. Roy, A.K. Sarkar, K. Deuti, S. Prakash, S. Sengupta, J.K. Mohanta, D. Sawarkar, M.R. Yadav, A.K. Mondal.

200.*Uraeotyphlus malabaricus* (Beddome, 1870) -- EN (B1, 2c) -- ***Cecilia malabarica* Beddome, 1870**. **Family:** Ureaotyphlidae. **Taxonomic status:** Species. **Habit:** Subterranean/ aquatic. **Habitat:** Wet evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala & Tamil Nadu. **- Elevation:** Above 500 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 500. **- Number of locations:** 2 (Malabar - type locality and Kalakkad). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and only 2 locations. **Data Quality:** General field studies (M.S. Ravichandran in Kalakkad, 1985; Beddome, 1870 in Malabar Hills; R.J. R. Daniels, 1988 -90). **Recent Field Studies:** None. **Threats:** Loss of habitat, Human interference. **Trade:** No. **Other Comments:** Specific type locality not known. **Status- IUCN: ENDANGERED**. **- Criteria based on:** B1, 2c (Restricted distribution, limited location, continuing decline observed in extent of occurrence, area of occupancy and/or quality of habitat) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Taxonomic studies; Survey. **- PHVA:** . **Captive Breeding Recommendations- Captive breeding:** Level 2. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 20, 103, 107, 164, 190, 229. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

201.*Uraeotyphlus menoni* Annandale, 1913 --VU (B1, 2c; D2) -- **Family:** Uraeotyphlidae. **Taxonomic status:** Species. **Habit:** Sub-terranean. **Habitat:** Wet evergreen forest. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Kerala. **- Elevation:** Above 500 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 1 (Thrissur). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Single population. **Data Quality:** Museum studies (E.H. Taylor, 1968); General field studies (R.J.R. Daniels, 1988 -90). **Recent Field Studies:** H.V. Ghate. **Threats:** Human interference. **Trade:** No. **Other Comments: -- Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c (Restricted distribution, single location, continuing decline observed in extent of occurrence, area of occupancy and/or quality of habitat); D2 (Population restricted to single location) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Monitoring ; Life history studies. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 14, 60, 107, 190, 226. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, I. Das. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

202.*Uraeotyphlus narayani* Seshachar, 1939 --VU (B1, 2c; D2) -- **Family:** Uraeotyphlidae. **Taxonomic status:** Species. **Habit:** Subterranean/ semiaquatic. **Habitat:** Wet evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Karnataka & Kerala. **- Elevation:** above 700 - 1000 mts. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** 3; Fragmented (Sringeri, Kottayam dist., Ernakulam). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Restricted distribution and fragmented populations. **Data Quality:** General field studies; Informal field sightings (Balakrishna et al, 1982 in Sringeri, Karnataka; R.J.R. Daniels, 1988 -90). **Recent Field Studies:** S.V. Krishnamurthy & S. Katre, 1990 -92 in Sringeri. **Threats:** Human interference; Loss of habitat; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments:** —. **Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c(Restricted distribution, limited location, severely fragmented, continuing decline observed in extent of occurrence, area of occupancy and/or quality of habitat); D2 (Population restricted to 3 locations) . **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Taxonomic studies; Monitoring; Life history studies. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Not known. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 17, 18, 60, 139, 213, 215, 226. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

203.*Uraeotyphlus oxyurus* (Duméril & Bibron, 1841) -- VU (B1, 2c) -- *Caecilia oxyurus* Duméril & Bibron, 1841. **Family:** Uraeotyphliidae. **Taxonomic status:** Species. **Habit:** Subterranean. **Habitat:** Wet evergreen forests. **Global Distribution:** ENDEMIC to Western Ghats. **Current Regional Distribution:** Tamil Nadu & Kerala. **- Elevation:** Above 300 m. **- Range (sq. km):** < 20,000. **- Area Occupied (sq. km):** < 2,000. **- Number of locations:** > 5 (Cochin, Malabar, Kalakkad, Maryland in Palani hills). **Population Trends - % change- % Decline:** Not known. **- Time / Rate (Yrs or gens):** Not known. **- No. of Mature Individuals:** Not known. **Global Population:** Not known. **Data Quality:** General field studies (Daniels, 1988 -90); ZSI SRS, 1984 in Kalakkad; Elayidom *et al*, 1963 in Calicut; J. Roux, 1928 in Maryland, Palni hills). **Recent Field Studies:** None. **Threats:** Human interference; Loss of habitat due to fragmentation. **Trade:** No. **Other Comments: -- Status- IUCN: VULNERABLE**. **- Criteria based on:** B1, 2c (Restricted distribution, limited locations, continuing decline observed in area of occupancy, extent of occurrence and/or quality of habitat). **- CITES:** No. **- IWPA (1972; 91):** No. **- RDB, National (1994):** No. **- RDB, International (1996):** No. **Recommendations- Research management:** Survey; Life history studies; Monitoring. **- PHVA:** Pending. **Captive Breeding Recommendations- Captive breeding:** Level 3. **- Level of difficulty:** Very difficult. **Existing Captive Programs:** None. **- Names of facilities:** —. **Sources (Refer Appendix):** 100, 198. **Compilers:** S. Bhat, P.V. Desai, S. Katre, S.V. Krishnamurthy, S.S. Kamble, I. Das. M.S. Ravichandran, S. Bhupathy, R. Gupta, S.C. Deshpande, A. Kumar.

***Indirana phrynoderma* and *Tomopterna dobsonii,* both endemics are not listed here as they were Not Evaluated. However, *Philautus nasutus* (non-endemic) has been included (# 133) because it was initially assessed and later categorised Not Evaluated because of misidentification by the biologists.**

Taxon Data Sheet
Sources

Information in the Taxon Data Sheets has been referred to sources, which are listed below

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