CBSG News

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Volume 16
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Newsletter of the Conservation Breeding Specialist Group, Species Survival Commission,The World Conservation Union (CBSG, SSC, IUCN)

What is a CBSG Member?

This is a question that many of our members and colleagues have asked me in the past year. Now is an especially good time to provide more clarity on who is a CBSG member, what is expected of our members, and what is provided to our members. With the onset of its new quadrennium, the World Conservation Union (IUCN) has given new mandates to its commissions, including the Species Survival Commission (SSC). The SSC Chair has in turn decided which specialist groups to reauthorize, create, or disband. (I am pleased to report that the CBSG was reauthorized, and I have been reappointed as Chair.) The specialist group chairs now have the responsibility to recommend to the SSC who should be invited to be members of their groups for this new quadrennium.

Like the members of all SSC specialist groups, CBSG members are volunteers with expertise that is needed to serve species conservation through the work of the specialist group. Members serve in their individual capacities, and not as representatives of organizations. We value our partnerships with many organizations, but the CBSG is defined as a network of individual members. This fits well with the approach that we have found to be most productive in our conservation workshops – participants are invited for what they can offer as individuals; they are not representing the positions of their institutions, professional associations, or sponsoring organizations.

The original purpose of the CBSG was to promote conservation through scientific management of wildlife populations in captive breeding centers (primarily zoos and aquariums) and in other intensively managed settings. However, our focus has become broader, as it is increasingly recognized that *ex situ* breeding programs have conservation value only if they positively impact *in situ* populations, that many of the techniques developed for management of captive populations are needed also in managing wild populations (and the reverse), and that the distinctions among zoos, fenced wildlife parks, national parks, and isolated pockets of habitat are becoming blurred and less meaningful. Most wildlife populations are now restricted and can potentially benefit from the kinds of expertise that the CBSG provides. This provides an opportunity for effective collaborations with other SSC specialist groups and IUCN commissions to achieve fully considered, broadly supported, and ultimately successful conservation actions.

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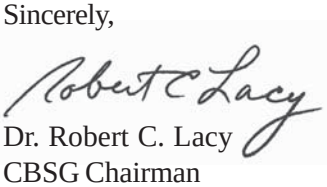
Thus, the CBSG needs among our members people with a wide array of expertise. We need experts in animal husbandry, behavior, nutrition, genetics, reproductive technology, field ecology, wildlife medicine, epidemiology, record-keeping, population modeling, risk assessment, organizational management, workshop facilitation, communication, and more. If you are willing to volunteer such expertise in support of the mission, philosophy, and work of the CBSG, then you are appropriate for consideration as a member of the CBSG.

All CBSG members receive our newsletter, announcements of our annual meetings, and occasionally other communications about our conservation work. CBSG members are automatically members of the Species Survival Commission, receive the bulletin (Species) of the SSC, and are invited to Commission meetings and to the World Conservation Congress. For both financial and practical reasons, we cannot extend an open invitation to all CBSG members to participate in our workshops. However, we do try to involve a number of members in each of our species risk assessments. We ask our members to inform us of their particular interests, areas of expertise, and availability to assist us in our work.

The CBSG also works with many colleagues who are not CBSG members. This includes 1000s of people who participate in our conservation assessment, planning, or training workshops, members of other IUCN groups with which we collaborate, members of other conservation organizations and agencies, and other experts upon who we may call to assist with a conservation issue. We can now invite non-member colleagues to be listed in our database for electronic communications (primarily distribution of our Newsletter). Thus, a colleague can be kept informed of our work even if CBSG membership is not desired or appropriate. Often, the most active and rewarding involvement in CBSG activities is through our regional networks. However, members of these local networks are not automatically members of the global CBSG.

Finally, the biggest problem we have in appointing, maintaining, and using our members is simply keeping track of where you are! I cannot nominate a person for membership if we do not have your current contact information. If you do not respond to the invitation from the SSC office (to be sent out soon, so watch for them!) and fill out their member database form, then we cannot list you in our membership. It is a priority of mine to find ways to make better use of the incredible resource that exists within our membership–putting more of you to work in more ways to achieve species conservation, and providing more back to you in return. We welcome any insights you may have as to how we can best achieve our common goals.
We hope to hear from you soon!

Sincerely,



Dr. Robert C. Lacy
CBSG Chairman

CBSG's mission is to save threatened species by increasing the effectiveness of conservation efforts worldwide.

Through:

- innovative and interdisciplinary methodologies,
- culturally sensitive and respectful facilitation, and
- empowering global partnerships and collaborations,

CBSG transforms passionate commitment to wildlife into effective conservation.

CBSG News

CBSG News is published by the Conservation Breeding Specialist Group, Species Survival Commission, World Conservation Union. *CBSG News* is intended to inform CBSG members and other individuals and organizations concerned with the conservation of plants and animals of the activities of CBSG in particular and the conservation community in general. We are interested in exchanging newsletters and receiving notices of your meetings. Contributions of US $35 to help defray cost of publication would be most appreciated. Please send contributions or news items to:

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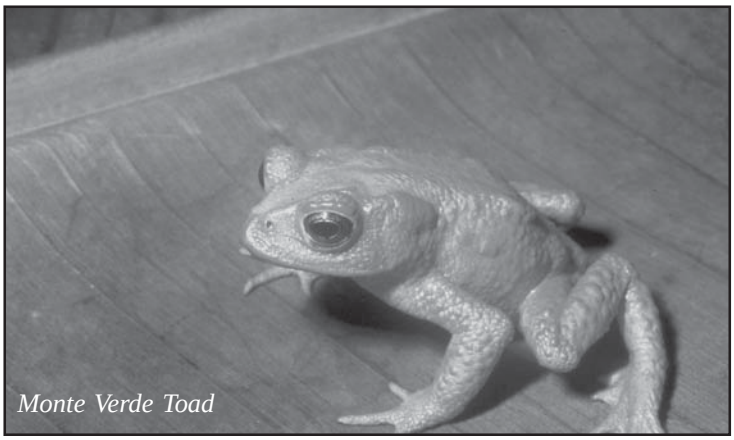


Monte Verde Toad

2005 CBSG ANNUAL MEETING

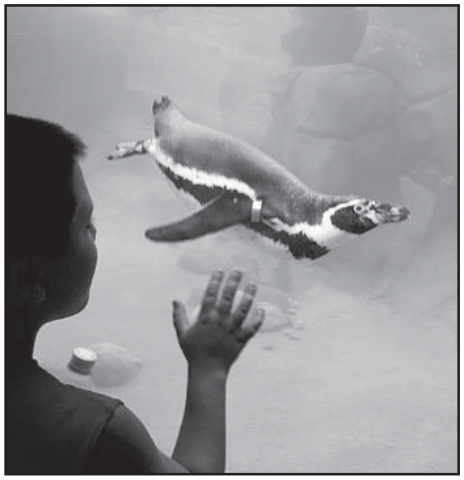
29 September-1 October 2005
Syracuse, New York, USA

This year's theme:

Responding to Emergent and Urgent Needs

Proposed Working Groups:

- Development of self-sustaining populations of elephants in the world's zoos and the global zoo community's role in elephant conservation *(Bruce Bohmke)*
- Issues related to minimizing/ending the use of wild-caught birds to support zoo exhibits and educational programs *(Chelle Plasse)*
- Development of coordinated global strategies for zoos to assist with conservation of rodents, bats, and other small mammals *(Pete Riger)*
- Emerging problems with mariculture *(Brad Andrews)*
- World Zoo and Aquarium Conservation Strategy - CBSG's role in implementation *(Jo Gipps)*
- Global, coordinated zoo-based conservation project prioritization *(Jeffrey Bonner)*
- Extractive reserves concept *(Bill Conway)*
- Low currency country (LCC) zoo engagement initiative *(Sally Walker)*
- North American conservation projects done as collaborations among zoos, governments, and other organizations



This year's Annual Meeting is being graciously hosted by the Rosamond Gifford Zoo and will be held 29 September – 1 October in Syracuse, New York. The agenda is shaping up nicely and the meeting promises to be stimulating, productive and fun! We are particularly pleased to offer a Symposium and Panel Discussion on Issues of Disease and Conservation and a host of working groups dedicated to responding to emergent and urgent conservation issues.

If you would like to register for the CBSG Annual meeting, please visit our web site:
www.cbsg.org

If you have questions, suggestions about the meeting program, or questions about local arrangements, please email:

2005cbsg@cbsg.org

ROSAMOND GIFFORD ZOO AT BURNET PARK

Ex situ Call to Action: Amphibian Extinction Crisis

Washington, DC, USA
3-4 August 2005

The IUCN's recent Global Amphibian Assessment highlighted a trend that has become increasingly apparent: amphibians are facing great threats. About a third of all amphibian species are threatened with extinction, 122 species have likely become extinct since 1980, and 435 species have declined into a category of greater threat during that time. Whole species groups are being decimated, and we have already lost a unique reproductive strategy with the extinction of the two species of gastric brooding frogs. Compounding the well known problems of habitat loss, pollution, and climate change, a new disease (chytridiomycosis) has decimated frog populations and caused extinctions in Central America and Australia. Salamander species may also be susceptible. If the chytrid fungus reaches other centers of amphibian diversity and has similar impacts, and if destruction of wetland habitats continues unabated, we could lose much of an entire class of vertebrates, with unknown but potentially devastating ramifications for ecological communities around the world. At this time, there is no known method to stop the spread of the chytrid fungus, nor to treat wild amphibian populations that are infected. Several groups have noted with alarm that perhaps the only way to safeguard hundreds of species of amphibians until we find methods for prevention or treatment of chytridiomycosis is to bring species into *ex situ* facilities.

A number of responses to the amphibian extinction crisis have been initiated. The CBSG convened a workshop on the response of the *ex situ* community to the amphibian crisis. This workshop was hosted by Conservation International, and participants represented zoos, aquariums, botanic gardens, private conservation consortia, and IUCN groups. Progress was made on plans for prioritizing species and sites for action, developing protocols for emergency rescue centers at or near the wild sites, identifying needs for long-term captive assurance colonies in range countries and elsewhere, supporting associated research and development of husbandry protocols, and capacity-building in field research and monitoring techniques and husbandry methods. The results of this meeting will be refined and discussed in the E*x Situ* Working Group at the Amphibian Summit in September, where the *ex situ* needs will be integrated with other components of an Amphibian Conservation Action Plan. This plan will be presented to representatives from governments and major foundations, who will be asked to help identify the significant resources that are needed.

In terms of the numbers of species that could face extinction, the imminent nature of the declines, the impacts on ecological communities, and the critical role that *ex situ* efforts must fill, the amphibian extinction crisis is perhaps the most important species conservation challenge ever faced by the *ex situ* community.

In the case of amphibian species threatened by disease and other urgent threats, it may be that *ex situ* efforts will be essential to their long-term survival. Zoos and other conservation breeding centers are facing a critical choice-either to respond to the calls for action or to let hundreds or possibly thousands of species go extinct due to our inaction. The challenge for the CBSG is equally large, and inescapable. Our primary role is to facilitate effective linkages between *in situ* and *ex situ* conservation efforts on behalf of species conservation. We must respond in partnership with the many other groups who have responded to this challenge.

Many issues remain to be resolved in this global problem. The CBSG will assist with the *Ex Situ* Working Group of the Global Amphibian Summit, will continue to develop strategies at our Annual Meeting, and will need to facilitate conservation planning and action for amphibians through the coming years. Although the necessary response requires urgency, commitment of resources, and creativity of action that is unprecedented, it is encouraging to see how rapidly the *ex situ* community has mobilized, with many zoological institutions immediately offering to devote significant resources to the problem. This is an extraordinary opportunity for zoos, aquariums, botanic gardens, private breeders, and governments to work together to achieve species conservation.

South African Leopard PHVA

Hoedspruit South Africa
11-14 April 2005

Leopards (*Panthera pardus*) are the most widespread large cat species and occupy a wide variety of habitats. They are considered critically endangered in North Africa, and are likely to be endangered in parts of West and North-East Africa. In many regions of South Africa, leopards are readily persecuted due to the perception that they take livestock or large numbers of antelope, their natural prey, which now have a high commercial value on many privately-owned game farms in the country. Despite the popular belief that leopards are common, we lack sufficient data on leopard population biology, carrying capacity, density, distribution and dynamics, particularly outside formal conservation areas. Without this information, there is no way for South Africa to make sound conservation or management decisions regarding leopards.

Despite the fact that the status of of leopards in South Africa is unknown, leopards continue to be hunted, persecuted and forced out of their natural territories. In 2004, South Africa and Namibia increased their leopard CITES quotas, allowing them to increase the numbers of leopards taken as trophies by foreign hunters. Many organizations and countries, opposed this increase, and urged South Africa to undertake leopard censusing and research. For South Africa to implement effective conservation strategies, the relevant stakeholders must work cohesively, the available data needs to be collated, and priority knowledge gaps must be addressed to preserve a species that holds enormous value to the country due to its charismatic nature and its profile as one of South Africa's "Big Five".

In response to the increased CITES quota and concerns expressed by a disparate group of stakeholders, a national workshop was conducted to evaluate the current status of leopards in South Africa and to make informed recommendations on the management and conservation of this species. The workshop aimed to identify the major threats and conservation priorities for leopards and their habitat throughout South Africa. The 33 participants at the multi-stakeholder workshop represented the conservation NGO community, DEAT, academic institutions, SANParks, various provincial conservation departments, private game reserves and the Professional Hunters Association of South Africa (PHASA). Over four days, the group explored and addressed issues pertaining to leopard population biology, population trends, habitat requirements and movement, conflict management and utilization. Population modeling provided an opportunity to test various management scenarios and proposals as well as determining if, where and how utilization quotas can be implemented without negatively impacting on the survival of the species in different subpopulations.

Workshop Results

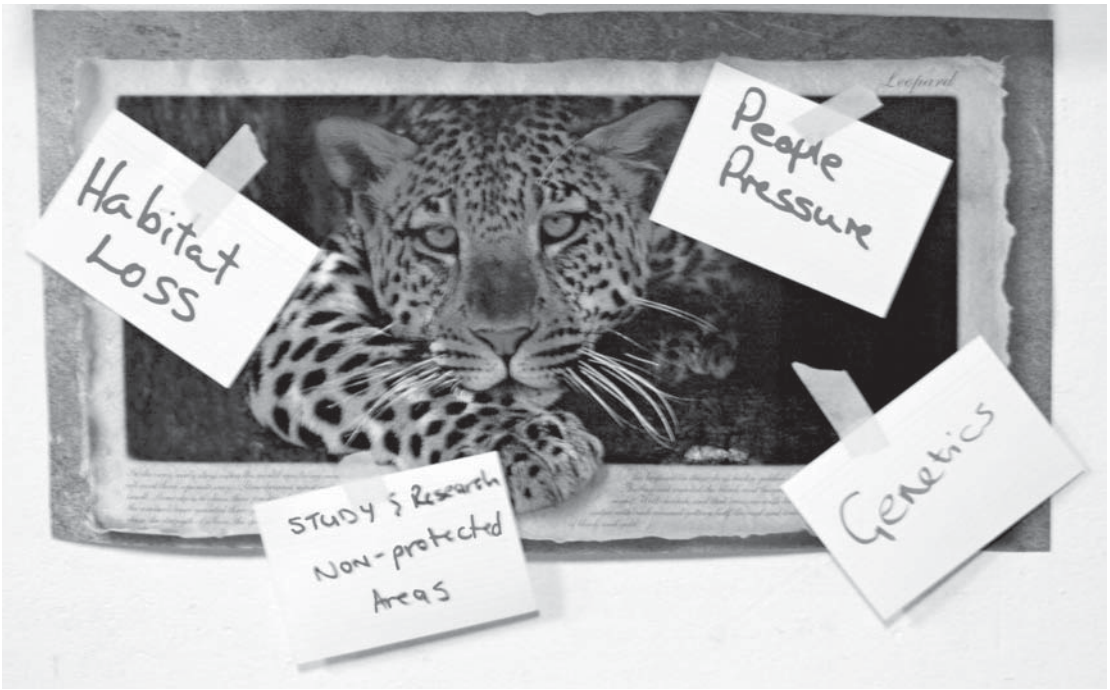
For the leopard, habitat loss and degradation is the foremost threat to survival. Our limited knowledge and understanding of home range requirements in different habitats, habitat fragmentation, and our lack of knowledge about the availability, feasibility and use of corridors between fragmented habitats, add to the challenges facing this species. At present there is no method to determine an optimal harvest of leopards. Accurate information on the illegal harvest of leopards is almost non-existent and the impact of current leopard losses is virtually impossible to determine.

This, and insufficient ecological information to guide appropriate decision-making and poor implementation of current legislation, were highlighted as serious issues that require urgent attention. Participants further identified a lack of scientific data to support methods to determine the most appropriate regional and national quotas and the uncertainty of the effects of removal on the demographics of a population. Aggravating this is continued farmer-predator conflict and the lack of capacity across the country to deal with problem animal management and illegal harvest.

The outcome of the PHVA will include a peer-reviewed, collaborative conservation strategy for leopards with a number of realistic, achievable conservation actions and recommendations for improving the current status, utilization and management of leopards in South Africa. Another significant outcome was the establishment of the National Leopard Forum to coordinate the continued conservation, research and management of leopards in the region. This Forum will:

- provide a communication forum/portal to disseminate information on leopards;
- spearhead the implementation of the leopard PHVA report;
- act as a filter and clearing house for leopard research and data;
- network and collaborate with other relevant organizations to identify all stakeholders;
- provide a watchdog role that can identify problem areas and negative impacts; and
- identify and address the gaps in knowledge and understanding of leopards.

Submitted by Brenda Daly and Yolan Friedmann, CBSG Southern Africa



Formosan Pangolin PHVA

Taipei, Taiwan
23-26 October 2004

The Formosan pangolin (*Manis pentadactyla pentadactyl)* is the type subspecies of the Chinese pangolin, one of three pangolin species found in Asia. This solitary, nocturnal mammal can be found in a diversity of forest habitats, grasslands and agricultural fields. Pangolins feed primarily on ants and termites, using their front claws to open insect nests and long sticky tongues to capture their prey. They spend most of the day in underground burrows, and curl into a ball when attacked, protected by thick scales that cover most of their bodies. Pangolins were thought to be relatively common in Taiwan until the early 20th century. Over the past several decades the population appears to have declined, and field sightings are now very rare.

The CBSG was invited to conduct a Population and Habitat Viability Assessment (PHVA) workshop for the Formosan pangolin. The PHVA workshop was held at the Taipei Zoo, and was sponsored by the Taiwan Council of Agriculture. Participants included pangolin researchers, university faculty and graduate students, zoo staff and other biologists involved in pangolin issues.

Immediately prior to the Formosan Pangolin PHVA workshop, CBSG conducted a 1.5 day training course on the use of *Vortex*. Many of the *Vortex* trainees also attended the PHVA, and they were able to come to the workshop with a better understanding of the model before applying it to the pangolin population.

At the workshop, Formosan pangolins were described as "extremely cute but darn hard to study". Finding, tracking and counting rare, shy, nocturnal animals living in burrows is not easy. The relationship between burrow density and pangolin density is also not well understood. Therefore, no reliable population estimates for Taiwan. Rapid growth of the human population and economic growth in Taiwan has led to habitat destruction and stronger hunting pressure on pangolins for their scales and meat. There is some evidence that pangolins may still be widely distributed across their historical range in Taiwan, population numbers have been greatly reduced.

Habitat loss and human induced threats were identified by the PHVA participants as the prime areas of concern. Ten primary land use activities that impact pangolins were identified:

- road construction
- housing
- agriculture
- stream canalization
- golf courses
- grave yards
- temples
- exercise activities
- forest recreation areas
- tree plantations

Specific actions were recommended to work toward the goals of reducing habitat loss, fragmentation and degradation and increased understanding of pangolins. Among the human caused threats predation by feral dogs and direct poaching of pangolins were identified as the most serious. However human development and associated human activities also threaten pangolins and their habitat. The impact of pesticides on pangolins is unknown but may be a potential threat. Likewise, little is known about the possible existence of exotic pangolin populations (Malayan pangolins, *Manis javanicus*) and the potential for hybridization between Malayan and Formosan pangolins. One or more goals and associated specific actions were stipulated to address all identified threats. The lack of knowledge related to husbandry and veterinary care of pangolins among

many who care for injured or displaced pangolins was also recognized. Some of this expertise has been developed at the Taipei Zoo and should be standardized and disseminated, while other research is still needed.

The paucity of biological information on the Formosan pangolin made the *Vortex* modelling of the population a challenging task and limited the ability to use the model to test alternative management scenarios. Modellers often have difficulty persuading PHVA participants that catastrophes do happen in real life and that it is likely that at least one or more types of catastrophes are applicable to the species under consideration. However, typhoon Nock-Ten hit Taipei on the second day of the workshop, causing the near extinction of the modelling group and a severe reduction in the population of the other groups. Luckily, population recovery was quick-everyone was able to re-join the workshop safe and sound the next day!

The baseline model projected a slow decline in the pangolin population. Sensitivity testing was used to identify those parameters most critical to the model results. This enabled the working group to develop a prioritized list of research needs for a more complete assessment of the viability of wild pangolin populations, which included suggestions regarding methodology and potential responsible parties. Although there was a limited amount of data on wild pangolin populations, this workshop provided the needed impetus to improve knowledge about pangolins. With the knowledge and expertise present, the workshop participants were able to develop prioritized goals and recommended actions that can serve as a framework for a pangolin conservation management strategy. The PHVA and associated *Vortex* course provided additional training in modelling and the PHVA process that can be applied across a diversity of species in Taiwan. The dedication of the different researchers and research groups to this aim of continued integration and

coordination of research was apparent when they chose to reconvene during the CBSG annual meeting in Taipei following the PHVA, to continue to identify specific actions towards these goals. We would like to thank them for making this workshop a success. Finally, the Taipei Zoo deserves a very big thank you for an impeccably organized course and workshop and for being incredible hosts!

Submitted by Kristin Leus, CBSG Europe, and Kathy Traylor-Holzer, CBSG

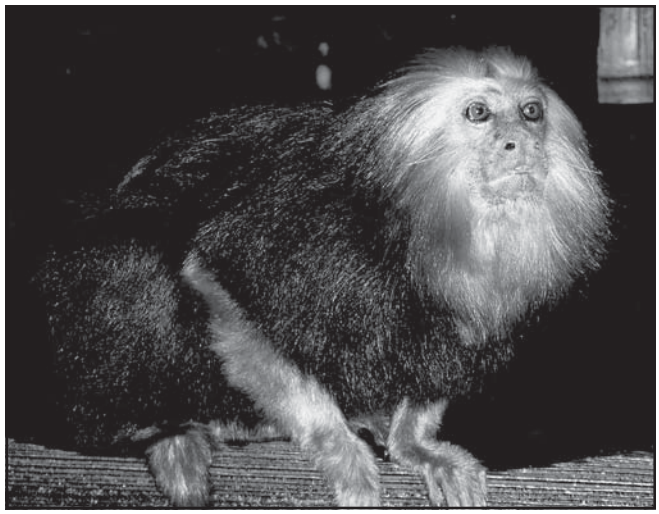
Lion Tamarin PHVA

Brasilia, Brazil
7-11 June 2005

Four lion tamarin species (golden, golden-headed, black and black-faced lion tamarins) inhabit the Mata Atlântica, or Atlantic forest, in Eastern Brazil, Paraguay and Northern Argentina (Misiones). The Atlantic forest was once 1,227,600 km² (an area about the size of the British Isles, the Benelux, France and Germany combined). To date, only 7.5% of the original area remains forested, and that area is highly fragmented. Of those forest fragments, only a portion can be considered primary forest. Deforestation and fragmentation in the Atlantic forest is mainly due to logging (for lumber and charcoal), various agricultural activities (such as sugar cane, rubber, eucalyptus,

coffee and cocoa plantations and cattle ranching), urbanization, industrialization, and associated road development. In addition to habitat loss, local wildlife, including lion tamarins, also has to contend with illegal hunting, wildlife trade, and disturbance due to the illegal collection of flora from the forest, such as heart of palm or "palmito" and ornamentals such as bromeliads, orchids, *Araceae* and tree ferns. The specifics and relative impacts of these threats are different for each lion tamarin species.

Two workshops had already been conducted on lion tamarins in Brazil, starting with a PVA (Population Viability Analysis) workshop in 1990 and a PHVA in 1997. A new workshop was needed to build upon



existing conservation action plans for the four species of lion tamarins and on the ongoing work in the ICCM (International Committee for Conservation and Management) for *Leontopithecus* species under IBAMA (Brazilian Federal Environmental Agency).

A major challenge in this PHVA was how to address the concerns ofall four species, making sure that individual threats and opportunities were identified and considered. Adding to these concerns were problems with language, restricting the participants to a manageable number, fundraising, and transport within Brazil. Despite initial concerns, the workshop proved to be very productive and extremely successful.

Fifty-one participants, including two facilitators, three *Vortex* modellers and one GIS expert participated in the workshop. Prior to the workshop, coordinators for each of the four species had collected relevant reference materials that were all compiled into briefing books, and the baseline data for the VORTEX models had been sent to the modellers.

Participants considered the current status of the four species and their conservation action plans. They reviewed achievements and published and non-published data, asking questions to refine the Vortex models. After splitting into species groups, it became obvious that there were several topics of common interest that would benefit from cross-species discussion (in topic-related groups instead of species-related groups). New groups were formed, and three topics of general interest were addressed:

- inter-institutional cooperation and communication
- metapopulation management (framework and methodologies), including conservation medicine
- regional landscape planning/ socio-economics and education

Participants turned initial frustration into working energy, and the groups defined realistic action steps for all three topics.

The species groups created separate conservation action plans for all four species, based on results from previous discussions. The modelling team was able to synthesize the data presented on all four species and provide input to the discussion groups. The modelling and GIS groups were able to work together, and the combination of *Vortex* and GIS proved very successful and helped participants find new solutions to many problems. Combining cross-species working groups with species-specific working groups meant that issues of overall threats and species-specific concerns could be addressed in the most appropriate way.

By the end of the workshop, participants had developed four new conservation action plans – one for each species. At the time of this writing, the plans are still considered working drafts. In the coming months the editorial group will transform the separate reports into four important documents that will lead the way in lion tamarin conservation during the coming decade.

Immediately following the PHVA, the ICCM had their annual meeting with IBAMA to make decisions influencing lion tamarin conservation in the future. The recommendations from the PHVA were used at the ICCM meeting, and many important decisions were made immediately,based on the recommendations of the PHVA.

The facilitators would like to thank all of the participants for their hard work and the sponsors for their generous financial support. The final report will be available at the end of the year.

Submitted by Bengt Holst, CBSG Europe, and Patricia Medici, CBSG Brasil

Chiricahua Leopard Frog PVA

Sierra Vista, Arizona, USA
6-9 December 2004

The Chiricahua leopard frog (*Rana chiricahuensis*) is federally listed as threatened without critical habitat. The species occurs at elevations of 3,281 to 8,890 feet in central and southeastern Arizona, west-central and southwestern New Mexico, and northern Sonora and the Sierra Madre Occidental of Chihuahua, Mexico. The range of this species is split into two disjunct parts: the northern populations along the Mogollon Rim in Arizona east into the mountains of the west-central New Mexico, and the southern populations in southeastern Arizona, southwestern New Mexico, and Mexico. Genetic analysis suggests the northern populations may be an undescribed, distinct species.

The species was once a habitat generalist, but it is now limited to the comparatively few aquatic systems in the southwestern United States that support few or no non-native predators (e.g. American bullfrogs, fish, and crayfish). These frogs require permanent or semi-permanent pools for breeding, water characterized by low levels of contaminants and moderate pH, and may be

excluded or exhibit periodic die-offs where a pathogenic chytridiomycete fungus is present. Threats to this species include predation by non-native organisms, especially American bullfrogs, fish, and crayfish; a fungal disease - chytridiomycosis; drought; floods; and disruption of metapopulation dynamics. Loss of Chiricahua leopard frog populations fits a pattern of global amphibian decline, suggesting other regional or global causes of decline may be important as well, such as elevated ultra-violet radiation, pesticides, or other contaminants, and climate change.

A Federally-mandated Recovery Plan is being completed, but the document had not received any form of outside review prior to this workshop. Additionally, a PVA had not yet been conducted on the species, making it more difficult for the Recovery Team to justify the delineation of specific quantitative recovery targets. To augment the plan, the US Fish & Wildlife Service invited CBSG to conduct a PVA for the leopard frog and to facilitate a workshop designed to review the existing plan and to devise a strategy for including the results of the PVA into the next version of the document.

The workshop was held at the Beatty's Guest Ranch in Miller Canyon near Sierra Vista, Arizona. Secluded in a beautiful canyon, with the crisp December air of the southeast Arizona mountain, this had to be one of our most spectacular and relaxing workshop locations! The workshop was led by Phil Miller and Juan Cornejo (of CBSG Mexico) and attended by 22 members of the Technical and Stakeholders Subgroups of the Recovery Team. Funding for CBSG was provided by the US Bureau of Land Management–Arizona State Office and the Turner Endangered Species Fund. The Beatty's Ranch provided lodging and a venue for the workshop.

The Recovery Team members were divided into three working groups: Population, Habitat, and Modeling. The Modeling group developed a

population viability model that mathematically allowed testing of various management scenarios and identification of population parameters most important in determining population viability. Over the course of the four-day workshop, the working groups periodically reconvened into a plenary session to assess progress and exchange ideas.

The Population and Habitat groups found that administrative and political barriers and a lack of cultural value ascribed to the Chiricahua leopard frog were threats or barriers to recovery that needed to be more fully described in the draft Recovery Plan. To address these challenges, the groups recommended expansion of specific recovery actions and added detail on how to implement them. Additional recommendations were made regarding funding and priority levels for recovery actions, emphasizing the need for agency cooperation, and the need to enhance bankline and streamside vegetation at habitat sites.

The development of complex models in *Vortex* of leopard frog population dynamics, in the presence or absence of extreme drought and under different management regimes, allowed the Modeling group participants to recognize that populations of fewer than about 50 adults appear to be at significantly elevated risk of decline and extinction compared to their larger counterparts. This was a significant finding, as the current Recovery Plan defined a "robust population" as being composed of 40 adult frogs. The workshop findings prompted the Recovery Team to redefine the notion of "robust"–and this was precisely the kind of input and expert external analysis the Team desired.

Overall, the Chiricahua leopard frog PVA workshop provided an excellent forum for Recovery Team members to work together in small groups over four days and to discuss and explore issues and solutions to a degree that had not been possible in previous recovery meetings lasting only five or six hours. Workshop organizers drove away from Beatty's Ranch with a sense of real accomplishment and were genuinely impressed with CBSG's approach to assisting other with action planning for endangered species.

Submitted by Phil Miller, CBSG

Attention CBSG Members!

We recently sent notices to all members to let us know if you wish to be considered for continued membership in the CBSG. We *must* hear back from you, with confirmation of your interest and contact information, before we can nominate you for membership. If you have not done so, please respond by email, fax, or post. If you had trouble getting through by email or fax, please try again. (We apologize for some problems we had when the large number of responses started to flow into the office.)

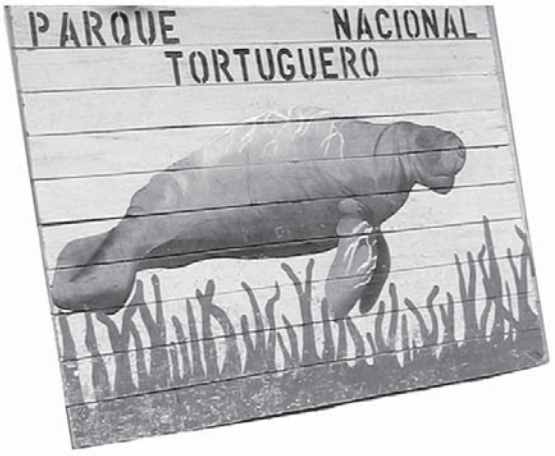
Costa Rican Manatee PHVA

Tortuguero National Park, Limon, Costa Rica
20-23 September 2004

Manatees are found in the channels of Tortuguero and San Juan Rivers in the north of the Caribbean coast of Costa Rica. Fewer than 100 manatees remain in this part of Costa Rica. This small population is slow to reproduce, and extremely vulnerable to the loss of only a few animals; even the death of one female each year can drive the population to extinction. In the past, manatees were prized by local hunters for their meat, blubber and skin. Although they are now protected, sedimentation and contamination of river channels and boat traffic threaten this critically endangered population.

CBSG was invited by the Tortuguero Conservation Area and PROMAR, an NGO dedicated to marine mammal conservation, to assist in the analysis of threats to this species and to establish a conservation strategy for its preservation. This workshop was organized with the support of Sea World, FUNDAZOO, Tortuguero Conservation Area and PROMAR. Twenty-eight participants representing 19 institutions evaluated the status of manatees and their habitat and analyzed the threats to their population. The workshop participants recommended strategies to minimize the impact of humans on manatees in Costa Rica, including:

- Reduce the annual manatee mortality due to boat collision and hunting.
- Start a research program to find basic information on local manatees, such as population size, number of subpopulations, natality, reproductive physiology and mortality rates and causes.
- Teach people from the community to report sightings.
- Compile all legislation related to the protection of the manatee and its habitat.
- Use TV and radio programs to teach local people about the manatee population and its conservation.
- Establish a manatee habitat database with the available information; distribute it to workshop participants, who will determine the gaps in the information to direct research in the park in the near future.



- Establish regulations for boat traffic in manatee habitat.
- Study the sedimentation processes in manatee habitat, and have a meeting with the authorities that manage the basins in the highlands to establish a process to reduce sedimentation.
- Analyze contamination of water and food in manatee habitat.

If the proposed actions are implemented, the manatee population could grow to carrying capacity and migration of more individuals could be allowed, all of which will benefit the manatee population in the Costa Rican Caribe.

During this workshop, the participants committed to take personal responsibility for the implementation of the recommendations. The staff of Tortuguero Conservation Area immediately incorporated the recommendations into their biannual work plan. PROMAR is seeking funds to finance the proposed actions, and FUNDAZOO is working with teachers in the Education Ministry to conduct an endangered species course and to educate zoo visitors on how their behavior impacts manatees and the environment. Tortuguero Conservation Area has now a Manatee Conservation Strategy with priorized needs and actions that will aid in evaluating research projects and organizing conservation activities for manatees in Costa Rica.

Submitted by Yolanda Matamoros,
CBSG Mesoamerica

Indonesian Proboscis Monkey PHVA

Cisarua-Bogor, West Java, Indonesia
4-6 December 2004

The endangered proboscis monkey (*Nasalis larvatus*) is endemic to Borneo, and is one of several species identified by the South-East Zoos' Association (SEAZA) and the Indonesian Zoological Parks Association as a vital species for further study and conservation efforts.

In response to the situation facing proboscis monkeys in Kalimantan, CBSG Indonesia organized a PHVA workshop with the financial support of CBSG Japan, SEAZA and Taman Safari Indonesia. About 50 participants representing forestry, conservation NGOs, universities and Asian zoos attended the workshop. Participants identified issues related to proboscis monkey conservation and formed four working groups – population biology and modeling, habitat issues, local community issues, and *ex situ* management – to address those issues.

Information on wild proboscis monkey populations is scarce, limiting ability to use simulation modeling to project population viability and test management scenarios. The population biology and modeling working group was able to develop a preliminary baseline *Vortex* model for proboscis monkeys. Using the model, the group then identified and prioritized research needs based upon sensitivity testing results.

The habitat working group identified four main problems resulting in habitat loss: forest conversion, logging, weak governance, and the gap between policy and implementation. Goals were identified to address each of these problems, with the highest priority being to lower the intensity of conversion of proboscis monkey habitat.

The local communities group identified main problems as: resource space conflict with humans, hunting, infrastructure development, toxin accumulation, lack of regulation of tourism activities, and lack of research on human-proboscis monkey interactions. Recommended goals include establishing community-based reserves, creating zones within protected areas, increasing community awareness, reinforcing traditional laws protecting monkeys, reconnecting isolated habitat through community reforestation initiatives, improving law enforcement, reducing road kills, and establishing ecotourism regulations to reduce impacts on proboscis monkeys.

The *ex situ* management working group recommended the development of a cooperative management program for the proboscis monkey in Indonesian zoos, using this species as a model for future *ex situ* conservation program development. Challenges include lack of knowledge, insufficient communication between organizations, insufficient zoo standards, lack of genetic management, lack of funds, and lack of education programs on proboscis monkey conservation.

The final report from the PHVA workshop tells a familiar story of habitat loss. Jansen Manansang, Convenor of CBSG Indonesia and president of SEAZA, remarked: "We want to ensure that our deliberations are turned into actions, and make a difference in the future of our flagship species…We are now taking the second step: using the PHVA report to develop guidelines, strategies and a master plan for the proboscis monkey."

Submitted by Jansen Manansang, CBSG Indonesia

International Black-Footed Ferret Recovery Workshop

Calgary, Alberta, Canada
1–4 April 2005

Since 1991, United States federal and state agencies, in cooperation with private landowners, conservation groups, Native Americans, and the North American zoo community, have been actively reintroducing black-footed ferrets back into Wyoming, Montana, South Dakota and Arizona since their disappearance in the mid-1980s. By the year 2010, biologists hope to have 1500 ferrets established in the wild, with no fewer than 30 breeding adults in each population. However, additional obstacles to this overall objective remain and must be systematically evaluated if black-footed ferret conservation in the wild is to succeed.

Ferret recovery efforts are also underway in Canada and Mexico. A recovery strategy for black-footed ferrets is required by June 2007 under the mandate of Canada's Species at Risk Act (SARA). The Recovery Team decided that the next step in strategy development is to determine quantitative population recovery goals. The group concluded that the best way to proceed with developing these targets would be to host a ferret population recovery planning workshop. Mexican authorities working on ferret recovery within their own country were invited to provide expertise and perspective on devising and implementing optimal recovery strategies for both ferrets and prairie dogs.

Parks Canada invited CBSG to design and facilitate a workshop that would bring together experts from across North America to focus on the development of a Canadian species recovery strategy, and direct attention to the continuation and evolution of recovery efforts in Mexico.

Overall objectives for this workshop included:

- Develop a set of draft population recovery goals as part of a larger Canadian Black-Footed Ferret Recovery Strategy;
- Identify management and/or research recommendations that can be incorporated into the Strategy;
- Identify specific management and/or research recommendations that can augment the existing Mexican Recovery Strategy for black-footed ferrets.

Almost overwhelmingly, participants identified maintenance of sufficient prairie dog habitat as the primary biological challenge facing ferret recovery across the species' range. Participants also recognized the need for broad acceptance of a dedicated prairie dog habitat management plan among many stakeholder domains.

Throughout the meeting, the participants engaged in open and productive discussions on the general feasibility of black-footed ferret recovery in Canada. The group decided that reintroduction of black-footed ferrets into Canada is a vital component of the regional conservation plan for the species. This provided the necessary framework for moving forward in conservation planning.

Ecology and Management of Prairie Dogs in Canada

The existing complex of prairie dog colonies in and around Grasslands National Park is relatively small compared to US and Mexican colonies and the predicted size needed to support a self-sustaining ferret population. The working group identified as a top-priority goal the establishment of a National Ferret Recovery Strategy for Canada. The group also recognized the importance of estimating the impact of ferret recovery on other Species at Risk within Canada, such as burrowing owls and sage grouse, and also called for the collection of detailed data on the ecology and demography of black-tailed prairie dogs, as well as for black-footed ferrets.

Population Biology and Simulation Modeling of Ferrets in Canada

This group modeled potential scenarios for the reintroduction and subsequent supplementation of black-footed ferrets to Grasslands National Park (GNP), southern Saskatchewan. The working group adapted an earlier CBSG model of black-footed ferret demography from South Dakota's Conata Basin to create a model specific to the GNP region. With the best information available, the group estimates that the GNP habitat could support somewhere between a minimum of 30 and, perhaps more realistically, 50 black-footed ferrets in the long term. A series of management scenarios were developed that included specific protocols for supplementation of ferrets to the Park with or without inbreeding effects or the detrimental impacts of disease or catastrophic drought.

Canadian Community Acceptance and Involvement

This group focused on achieving sufficient support from local and regional stakeholders and other authorities around the concept of black-footed ferret and black-tailed prairie dog management in southern Saskatchewan. The group recognized the likely need to expand the amount of prairie dog habitat suitable for ferret recovery to areas outside Grasslands National Park as an issue for community acceptance. In order to gain the trust and cooperation of local stakeholders, prairie dog and ferret biologists must develop a rigorous biological and social rationale for the expansion of the black-footed ferret reintroduction area. The working group suggests the creation and distribution of advanced communication materials, followed by personal meetings with local stakeholders to facilitate the exchange of information and perspectives on the issues surrounding management of prairie dogs in the context of ferret recovery.

Mexican Population Management

This group also used the 2003 Conata Basin model as the basis for their specific work. Current prairie dog colony size, density, and security may not be sufficient to allow for black-footed ferret population sustainability in the short- and long-term. Using this knowledge, the group developed a series of modeling scenarios intended to identify the amount and extent of prairie dog habitat required to support a viable population of ferrets. In addition, they identified the difficulties influencing the lack of success in recent ferret introductions in Chihuahua, and developed goals and actions targeted at addressing these difficulties.

The goal statements from all four working groups were prioritized at once by the workshop participants according to a single criterion – defined here as the importance of this goal to the successful recovery of the black-footed ferret in Canada and, separately, Mexico. The development of a Canadian National Recovery Strategy was a top priority, followed closely by the need to gain core-area stakeholder support for ferret recovery. In Mexico, it is important to maintain or improve the amount of available black-footed ferret habitat about current (2005) levels.

The workshop was a vital component of the ongoing process for creating a ferret recovery strategy in Canada. The Recovery Team is meeting again in September 2005, and the International Black-Footed Ferret Recovery Workshop report will likely form the basis for this evolving strategy.

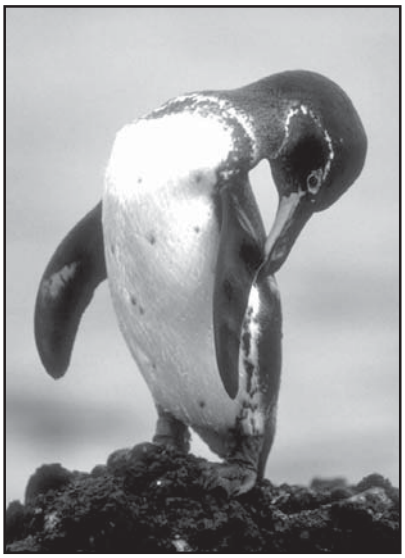
Submitted by Phil Miller, CBSG

Galápagos Penguin PHVA Workshop

Puerta Ayora, Galápagos, Ecuador
8-11 February 2005

The Galápagos penguin (*Spheniscus mendiculus),* one of many species endemic to the Galápagos Islands, is also one of the islands' most threatened species. In recent decades, the largest numbers of penguins were reported in the early 1970's when approximately 2,000 individuals were observed and the total population of the species may have been about 3,400. The population has declined, most dramatically after El Niño events, the most severe being in 1983 when the population declined to only 398 individuals in the surveyed area. A 2004 census showed a modest recovery of the population to 858 penguins in the same populations, with an estimated total population of about 1,500. With significant threats to the survival of the Galápagos penguin, it was recognized that a meeting was needed to discuss the conservation status of this charismatic species, with emphasis on analysis of the viability of the population and its habitat and the development of management recommendations.

The Galápagos Penguin PHVA workshop was the result of a series of CBSG workshops that have discussed penguin population and conservation problems. This series of meetings began with the Conservation Assessment and Management Plan for penguins in 1996. Next, PHVAs were conducted for the Humboldt penguin in 1998 and the African penguin in 1999. As part of the 2000 International Penguin Conference, a *Spheniscus* workshop was held to identify the similarities and differences in the



conservation problems and needs of the four species of *Spheniscus* penguins. The Galápagos penguin PHVA workshop was held at the Charles Darwin Station on 8-11 February 2005. The primary facilitator of the workshop was Yolanda Matamoros, convenor of CBSG Mesoamerica, and she was assisted by Onnie Byers. Bob Lacy led the modeling working group at the meeting.

The results of the PHVA workshop indicate that the Galápagos penguin is threatened due to a variety of factors. Increases in the frequency and intensity of El Niño events has resulted in probabilities of extinction estimated to be as high as 30% over the next 100 years. Mosquitoes, vectors of diseases such as West Nile Virus and avian malaria that are potentially lethal to the penguins and other birds, have been introduced recently to Galápagos. The increasing human activity including tourism, illegal fishing, and oil spills, and introduced predators such as cats could be affecting the breeding and feeding activities of the species. In addition, dangerous monofilament nets used in coastal fisheries could be common in the near future in the areas inhabited by the penguins.

Due to these threats, the participants of the workshop wrote and signed a declaration on the conservation of the Galápagos penguin in which they urgently recommend:

- The rapid implementation of regulations to prevent oil spills;
- Declaration of the Galápagos Marine Reserve as an especially sensitive zone by the International Maritime Organization;
- Establishment of regulations prohibiting the use of monofilament nets, especially in the penguin feeding and breeding areas;
- Formulation of measures that prevent the introduction of new diseases to Galápagos, such as to prohibit all international direct flights to the islands and fumigation of all national flights;
- Participation and inter-institutional cooperation in the ecological and health monitoring programs of the penguins; and
- Efficient control and inspection to ensure that the fishing regulations are strictly followed in the feeding and reproduction areas of the penguin.

The workshop participants hope that these minimal measures, which must be executed immediately, will allow the Galápagos penguin population to survive in spite of El Niño events that appear to be becoming increasingly frequent and severe due to global warming. The declaration containing the recommendations resulting from this important workshop was presented to the Minister of Environment of Ecuador and to the Galápagos authorities.

Many organizations contributed to the success of this workshop. Galápagos National Park and the Charles Darwin Foundation assisted in organization and coordination, while financing was provided by Sea World, the Darwin Initiative, the Saint Louis Zoo, and the Brookfield Zoo.

Submitted by: Yolanda Matamoros, CBSG Mesoamerica,Onnie Byers & Bob Lacy, CBSG

Dr. Onnie Byers Becomes Executive Director of CBSG

Most CBSG members know that Ulie Seal worked 200% time for the CBSG, serving as the chairman and leader, passionate spokesperson, administrative head, and active partner in developing and applying new tools and approaches for wildlife conservation. Our current chairman, Bob Lacy, is generously supported by the Chicago Zoological Society, where he continues to manage a population genetics research program. Although he serves only part-time as CBSG Chairman, the scope of our work continues to grow in response to undiminished conservation needs. To provide better management of the CBSG and to help respond to new opportunities, Onnie Byers has agreed to take on new responsibilities and to accept the new position of CBSG Executive Director.

Onnie manages the daily operations of the CBSG office, coordinates the meetings and business of our Steering Committee and the Global Conservation Network, serves as a key link to our Regional Networks and to WAZA, and helps to develop and maintain excellent relationships with our donors and other partners. While Onnie takes on new responsibilities, other staff will also being accepting new responsibilities for leading aspects of our work, so that we can be even more effective and efficient. We also will be relying increasingly on the CBSG membership, regional networks, and other conservation partners to carry out more of the work of the CBSG.

We expect that the new staff responsibilities in the CBSG will allow us to pursue some new initiatives, further develop our Regional and National CBSG Networks, increase our collaborations with the Species Survival Commission and its many other specialist groups, and strengthen our partnerships with WAZA and the regional zoo associations. Congratulations to Onnie on the important new position, and thanks to her and to all the staff for agreeing to do even more for the CBSG!

Alabama Beach Mouse PHVA & PVA

Point Clear & Fairhope, Alabama, US
8-11 June 2004 / 13-14 December 2004

Endemic to the coastal dunes of Alabama, the Alabama beach mouse (*Peromyscus polionotus ammobates*) is one of several endangered subspecies of oldfield mice known as beach mice. These nocturnal rodents inhabit vegetated sand slopes that include some of the most highly prized waterfront property in the southeastern U.S. Increasing commercial and residential development has the potential to negatively impact beach mouse populations through habitat loss and fragmentation, increased human-related mortality, and increased vulnerability to hurricanes.

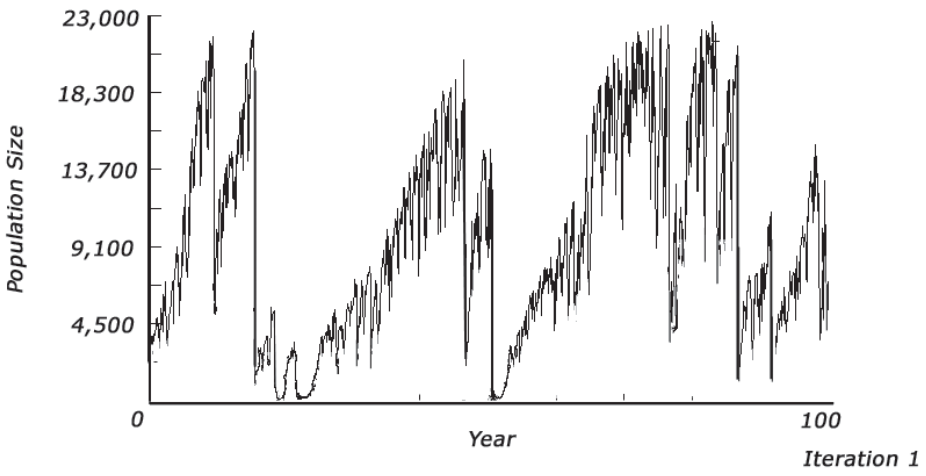
Alabama beach mice live along the Fort Morgan peninsula, a narrow strip of land protruding into Mobile Bay consisting of alternating patches of private and protected public land. Access to the frontal dunes, prime beach mouse habitat, is restricted, and beach visitors and residents reach the surf via large wooden boardwalks over this critical habitat. The US Fish and Wildlife Service faces the challenge of effectively conserving beach mouse populations and habitat while meeting the needs of local residents and businesses. This includes reviewing and issuing permits for any new residential or commercial development on private lands.

In conjunction with a Cumulative Impact Assessment for this species, the US Fish and Wildlife Service invited CBSG to conduct a PHVA workshop to assist in developing viability projections for Alabama beach mice. Thirty-one participants from 13 agencies and organizations met to develop the best model possible to assess the effect of development and other factors on Alabama beach mice. Unlike many endangered species, a plethora of biological data was available for beach mouse subspecies to help develop the Alabama beach mouse *Vortex* population model. Intense discussion among the participants during and following the workshop led to a complex and detailed model for this subspecies.

Central to model development was the simulation of hurricanes and their effects. Storms not only kill mice directly but also destroy frontal and secondary dunes that serve as primary mouse habitat. Five categories of hurricane intensity were modeled, each with a separate probability of occurrence, differential habitat impacts across the peninsula, and different rates of habitat recovery. Also modeled was the seasonal occurrence of hurricanes overlaid with seasonal fluctuations in Alabama beach mouse reproduction, survival and population size, all resulting in a highly complex model.

Alabama beach mouse populations, both in the field and as modeled by *Vortex*, are highly dynamic – crashing when hit by

hurricanes but typically recovering quickly due to high reproductive rates. The impact of storms, however, can leave the population vulnerable when other factors come into play, such as predation by domestic cats when population numbers are low and habitat is scarce following storms. Development of inland scrub habitat behind the frontal dunes may have minimal impact on mice under benign conditions, but may remove high elevation areas that serve as refuges for mice during and following hurricanes.



Three months after the PHVA, Hurricane Ivan (a Category 3 hurricane) passed over the Fort Morgan Peninsula, resulting in a major loss of primary and secondary dunes throughout Alabama beach mouse habitat. This event, combined with the need to evaluate additional development scenarios and the availability of additional data on storm effects, led to a follow-upPVA workshop with the US Fish and Wildlife Service to revise the Alabama beach mouse model. Using this revised model, the Alabama beach mouse is projected to have about a 14% risk of extinction over the next 100 years. Additional land development can lower Alabama beach mouse viability by reducing habitat, increasing mortality, and exacerbating the effects of hurricanes. Full build-out of privately owned lands would increase the risk of Alabama beach mouse extinction to 34% over 100 years, and could lead to high risk of local extinction not only in the developed areas but in adjacent private and public lands. Even without additional development, it is likely that beach mice will only persist in the central core of the current range; areas to the west will likely suffer local extinctions but may get recolonized, while eastern populations isolated by human development are projected to disappear within 5 to 10 years without continued translocation.

In an ironic twist of fate, beach mice appear to have helped to reduce hurricane damage to the human inhabitants and their prime "habitat" along the Gulf coast. Building restrictions to protect mouse habitat mean that homes and condominiums are set back far enough from the tide line to protect them from the brunt of Hurricane Ivanand similar storms. "Thank God for the beach mouse," exclaimed one civil engineering professor, who credited the beach mouse in saving the developments in this area.

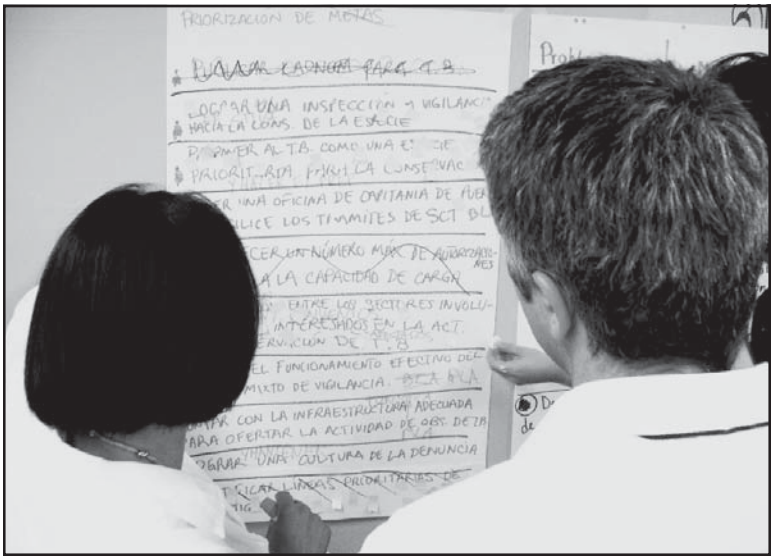
Submitted by Kathy Traylor-Holzer, CBSG

Whale Shark PHVA

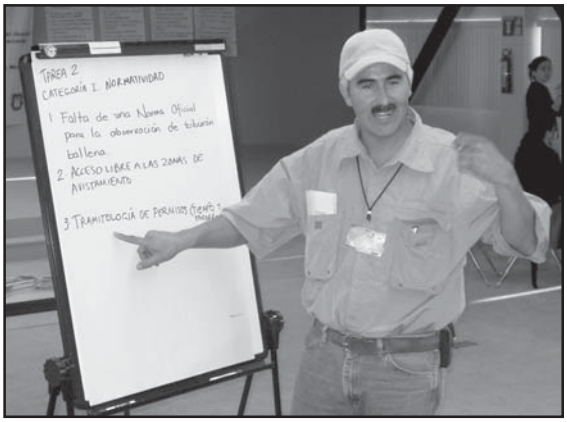
Ensenada, B.C.N, México
14-17 September 2004

Identified as Vulnerable by the IUCN and Threatened by the Mexican government, the whale shark (*Rhincodon typus*) is also quite poorly understood. The species inhabits all the tropical seas of the world between 35N and 35S, with the exception of the Mediterranean Sea. Despite its enormous size – it can grow to be more than 50 feet long – the whale shark is remarkably tame as it slowly plies the waters for its daily meal of krill. As a result, scuba divers travel great distances for the opportunity to swim with this giant of the oceans.

In recent years, Mexico has recognized the potential for using whale sharks as sources of tourism income. This has been employed with marked success in other parts of the world, most notably in Australia. However, the Mexican program remains in its infancy and, as a result, largely unregulated. This leads to unrestricted numbers of dive boats and tourists gaining intimate access to these creatures. While the specific impacts of such activities are unknown, the general consequences are unlikely to be beneficial. This, along with other human-caused threats to the species and its near-shore marine breeding habitats, necessitates the development of a sound scientific process for managing this important natural resource.



To stimulate the creation of a National Conservation Strategy for whale sharks in Mexico, the National Commission for Natural and Protected Areas (CONANP) invited CBSG to conduct a PHVA in Ensenada, in the northern reaches of Baja California, in mid-September 2004. Although it was a relatively small



crowd for the workshop, with just 22 participants, their backgrounds were nicely mixed among marine scientists, Federal agency representatives, ecotourism operators, and fishermen. Also included in the group were a private consultant from Australia who works intensely with the very successful whale shark ecotourism program in his country, and an independent consultant from the United States who works extensively with the development of international treaties focused on marine conservation issues. The workshop was facilitated by Amy Camacho from CBSG Mexico, with Phil Miller handling the PVA modeling process and others from the Mexico Regional Office providing valuable workshop support.

During the opening stages of the workshop, many participants identified the following as primary challenges to whale shark conservation: lack of biological knowledge; the need for a global approach to conservation of such a widely-distributed migratory species; and the need for government-regulated management of the booming national marine ecotourism business. Through analysis of the participant issue statements and subsequent discussions with local workshop organizers, we came up

with three working group themes: Biological Information, Sustainable Use / Ecotourism, and Local to Global Cooperation in Whale Shark Conservation.

The working groups came up with extensive lists management goals, with the following emerging as top priority when discussed by the entire group in plenary:

- Propose that the whale shark become a Priority Species for Conservation in Mexican legislation [thereby affording it special protection and funding];
- Maintain habitat quality and integrity, with technical, administrative, and legal instruments for evaluation and enforcement;
- Regulate appropriate human activity using the appropriate technical, administrative, and legal instruments, while simultaneously benefitting to the local community;
- Identify priority areas for research into the biology and management of the whale shark, including:
  - Population dynamics
  - Critical habitat – its distribution, extent and quality
  - Location of primary migration routes
  - Genetic structure of Mexican whale shark populations–is it a metapopulation?
  - Extent of distribution of abundance of the species in Mexican waters
- Publish a NOM [a regulatory document formally establishing this species as Endangered and, therefore, worthy of federal attention].

We found this list of top priorities particularly satisfying in that it cut across the specialties of each of the three working groups. Among the notable actions the groups created was the suggestion that this group of experts and interested parties write a letter to the Mexican government to urge them to take legislative action in order to raise the profile of whale sharks in the eyes of those developing and regulating conservation-based law. As soon as the action was developed, a sub-group of the Sustainable Use working group broke off from the larger body and wrote the letter. The group presented the letter along with a form for each person to add their signature. It was an extremely empowering moment for all workshop participants as they were able to add their voice to the call for action. In addition, numerous action steps called for the development of strong and consistent regulation of the emerging whale shark tourism industry across the country, with the foundation work described by our representative from Australia serving as an important precedent for the Mexicans. In addition, some very clear research recommendations emerged from the *Vortex*-based modeling efforts that should provide explicit guidance to many biologists on the best use of precious scientific resources.

All in all, despite a significant absence of detailed biological data on the species of interest, this whale shark PHVA represented a valuable step in the evolution of a sound management strategy for the species in Mexican waters. It is our hope the report produced from the meeting will form the basis of such a strategy.

Submitted by Amy Camacho and Luis Carrillo, CBSG Mexico

Hoolock Gibbon PHVA

Dhaka, Bangladesh
14-18 February 2005

The hoolock gibbon *(Hoolock hoolock hoolock)* is the only gibbon and the only ape in South Asia, valued for its uniqueness and its attractive personality. The hoolock gibbon has a very distinctive appearance — males are glossy black and females are light brown, both with bright, thick white eyebrows. Hoolock gibbons are gentle and friendly and have been popular as pets with local people. The species has popular names from almost every northeastern Indian state, several mimicking its call, which is a shrill and joyous whoop — "hoo hoo hoo hoo hoop hoop hoop hoop"!

At a Conservation Assessment and Management Plan (CAMP) workshop for South Asian Primates in 2002, participants assessed the Western hoolock gibbon *(Hoolock hoolock hoolock)* as critically endangered in Bangladesh and endangered in India based on IUCN Red List Criteria and regional and national guidelines. The CAMP participants determined that only 600-700 hoolock gibbons remained in 126 populations ranging from 1 to 40 individuals, making it the most highly threatened primate population in the region. In Bangladesh, hoolock gibbon populations are small and fragmented, existing in patches of non-contiguous habitat. Based on these sobering conclusions, the CAMP workshop recommended a PHVA for hoolock gibbon populations in both countries.

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Population and Habitat Recommendations

In Bangladesh it was determined that 8 hoolock gibbon populations had become extinct in the last 15 years as a result of habitat loss. In the remaining 22 known populations, 18 have fewer than 10 animals surviving in isolated and fragmented habitats that cannot sustain them. These populations need to be translocated to larger, viable habitats. The workshop

recommended measures for curtailing habitat loss through multi-species plantations, checking illegal felling, legislation, community based eco-development programs, commitment from politicians and legislators, and other measures. Continued monitoring of habitat is crucial, which requires more patrols to enforce laws, training in scientific monitoring methodology, and improved infrastructure.

Captive Management Recommendations

No additional hoolock gibbons should be captured from the wild for captive breeding. Instead, zoos should focus on education, research and a cooperative breeding program within the zoos currently holding hoolock gibbons. Improvements should be made to the zoo structure, including replacing the transfer system by promotion on merit and training. A management plan and a detailed husbandry manual should be produced for captive hoolock gibbons in both countries.

Education Recommendations

The workshop recommended improvement of the education system and increased teaching capacity in both rural and urban areas by training teachers on a national level and including conservation topics in the curriculum and in informal education. Species and habitat information should be made available for educators and others who want to develop websites, documentary films, and printed material. The workshop participants felt that zoos could play a much greater role in educating the public about hoolock gibbons and habitat loss, and should be aided by printed material, attractive and effective signage, trained educators and a variety of organized activities, including an outreach program for rural people in/near hoolock gibbon ranges. The Indian participants recommended development of a "Project Gibbon" along the lines of Project Tiger for the long-term conservation of the hoolock gibbon.

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Even before the participants left Bangladesh, some of the recommendations were put into practice; there were seminars at zoos holding hoolock gibbons, education training workshops with a special primate manual distributed to those concerned with primate education, and discussions with the IUCN and the government. A few weeks later, three hoolock gibbons were confiscated and returned to the forest, after being sold to a zoo by trappers. Dr. Anwarul Islam, Director of the Wildlife Trust of Bangladesh, and his very effective team got word of this, contacted the forest department and now are supervising the returned animals.

Action steps for hoolock gibbon will take place in earnest after the publication and dissemination of the workshop report. Thanks to USFWS there is a generous budget for production of educational material for all ages.

Submitted by Sally Walker, Sanjay Molur and B.A. Daniel, CBSG South Asia

Raptor Conference Announcement

The Second Neotropical Raptor Conference, and a Symposium on Raptors of the Southern Cone, will be held by the Neotropical Raptor Network (NRN) 11-14 June 2006 in Igazu, Argentina.

A workshop addressing captive breeding of raptors and a second workshop addressing falconry legislation in Argentina and Brazil are being considered, while other topics are open to suggestion.

For more information on the IRN, the Neotropical Raptor Conference, submission of abstracts and instructions for their preparation, registration, travel awards, Iguazu and Argentina, lodging, food, visas and transportation, please visit the NRN website:

http://neotropicalraptors.org

Mountain Tapir PHVA

Pereira, Colombia
12-15 October 2004

The first International Tapir Symposium held in 2001 concluded that a Population and Habitat Viability Assessment workshop should be conducted on each of the four tapir species, to achieve a more complete revision of the Global Tapir Action Plan being completed by the IUCN/SSC's Tapir Specialist Group (TSG). After the very successful Malay Tapir PHVA workshop, held in Malaysia in August 2003, TSG representatives identified the mountain tapir (*Tapirus pinchaque*) as the most appropriate candidate for the next workshop.

Although local efforts for conservation of mountain tapirs were already in place, it was important to identify strategies at a larger scale across all three range countries – Colombia, Ecuador and Peru. The major goal of the Mountain Tapir PHVA workshop was to gather, systematize and discuss all available data and information on mountain tapirs, including demographic parameters such as population age structure, birth rates, mortality rates, levels of dispersal, and other biological data such as the species' current ecological distribution, population-specific threats to survival across its range, and regional habitat availability. With this information, risk assessment tools and methodologies could be used to develop an updated Mountain Tapir Action Plan, helping to establish research, management and conservation priorities for the species. The Action Plan would concentrate on recommendations for conservation of wild populations, but would also focus attention on captive population management needs, education and capacity-building, research priorities, and funding. Specific workshop objectives were:

- To define the limits of mountain tapir populations in remaining habitats;
- To determine the status of mountain tapir sub-populations;
- To determine the threats to mountain tapirs in these sub-populations;
- To define geographic areas where mountain tapirs have a chance of long-term survival;
- To prioritize research, conservation and management actions necessary to protect mountain tapirs across these areas; and
- To develop a communication strategy to effectively engage policy- and decision-makers.

The workshop was organized by Patricia Medici (now CBSG – Brazil convenor), Diego Lizcano and Olga Montenegro in Colombia, and was facilitated by Phil Miller and CBSG – Mexico's Amy Camacho and Luis Carrillo and Pati Medici. This international team of facilitators was an important contributor to the overall success of the workshop.

Approximately 80 professionals, including researchers, conservationists, representatives from governmental agencies, non-governmental organizations, local and international conservation organizations, universities, research institutes, members of local communities, and zoological institutions from Colombia, Ecuador, and Peru, as well as TSG officers from other countries, attended the workshop. The workshop opened with a series of extremely interesting and informative talks on the status of mountain tapir conservation across the species' range. In Colombia, anti-government rebels control nearly 50% of the nearly 30 national parks and protected areas, to the extent that staff fear for their

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lives upon entering the area. As a result, managing these habitats is effectively impossible. However, in ensuing discussions, some people commented that perhaps rebel control of certain natural areas actually *benefits* those areas through a significant reduction in habitat use by local villages.

On the second day of the workshop, there was a disruption, as a number of people began to excitedly inform the working groups that a new participant had arrived. His name was Ovidio Paya but, due to his stature in the community, he was always addressed as Don Ovidio. Don Ovidio is the governor of an indigenous community that has done something no other community in Colombia has been able to do: broker a local peace with anti-government rebels. He was accompanied by three members of a national NGO called Fundación Nativa, which is very involved in merging biodiversity conservation with sustainable resource utilization among people of Colombia.

Ovidio Paya

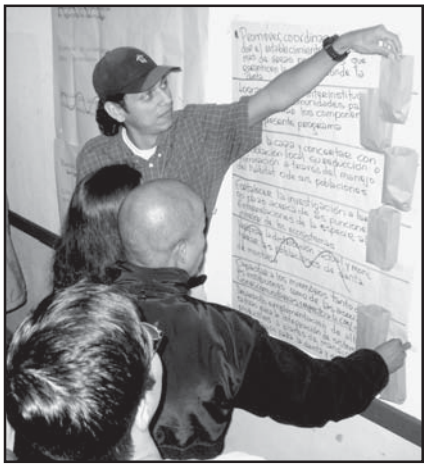
Soon after his arrival, Don Ovidio was able to speak to the crowd. He reiterated the need for wildlife biologists to respect the rights and cultures of the local indigenous communities, and to always give something back to these communities after they have assisted in the collection of information on local wildlife such as tapirs. The audience hung on his every word – you literally could have heard a pin drop on the floor of the meeting room. It was an amazing and very emotional story.

Based on the information presented, the workshop facilitators developed the following working groups: Risk assessment and PVA modeling; *ex-situ* population management; community participation and involvement; international cooperation; and management of tapir populations and habitats. Each of the groups worked through detailed tasks involving issue identification, data assembly and analysis, goal identification, and generation of action steps.

The following goals were identified as high priority by the working groups:

- Evaluate the intensity of tapir poaching and work with local communities to reduce or eliminate its impact through population or habitat management.
- Improve our estimates of tapir distribution, habitat characterization, population demography, and genetic composition.
- Develop National Action Plans for Ecuador and Peru.
- Develop and structure effective interdisciplinary groups to implement tapir conservation activities.
- Create more effective exchange of information and personnel between *in-situ* & *ex-situ* conservation programs.

The final report of the Mountain Tapir PHVA Workshop is currently being reviewed. As soon as it is finalized it will be widely distributed to workshop participants and all interested parties in Colombia, Ecuador and Peru, in both Spanish and English. The final report will also be made available as a free download from the TSG and CBSG websites. Based on the continued success of this collaborative effort, TSG is again partnering with CBSG to conduct a PHVA for Baird's tapir (*Tapirus bairdii*) in Belize, 15-19 August 2005. Watch *CBSG News* for a report of this workshop!



Submitted by Olga Montenegro and Diego Lizcano, CBSG Brasil

CBSG *News*

Newsletter of the Conservation Breeding Specialist Group
Species Survival Commission
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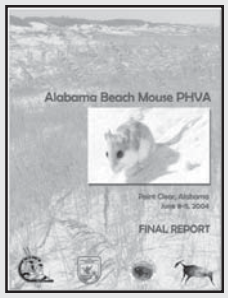
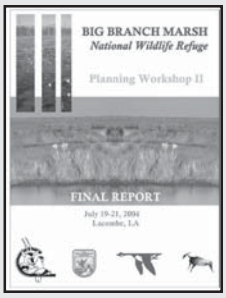
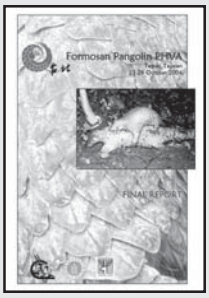


Alabama Beach Mouse
PHVA Report



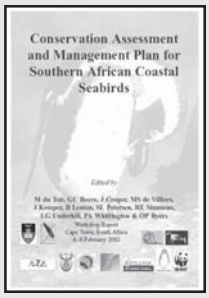
Big Branch Marsh
CCP Report II



Formosan Pangolin
PHVA Report

Indonesian Proboscis Monkey
PHVA Report

Pan African Sanctuaries Alliance
2004 Report



South African Coastal Seabirds
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