

# CBSG NEWS



Newsletter of the Conservation Breeding Specialist Group, Species Survival Commission, IUCN-The World Conservation Union

## CBSG Annual Meeting 2007

We are proud to bring you the proceedings of the 2007 CBSG Annual Meeting. In August 2007, 95 people from 24 countries gathered in Budapest, Hungary to meet and reconnect with fellow conservationists, to discuss issues of great concern to the international conservation community, and to work together in support of CBSG's mission to transform passion for wildlife into effective conservation.

The focus of the 2007 Annual Meeting was climate change. This was in direct response to a Climate Change Resolution drafted at last year's CBSG Annual Meeting, and adopted by WAZA, calling for improved performance in three specific areas: 1) species risk assessment; 2) zoo and regional collection planning; and 3) zoo community commitment to climate change mitigation. To share ideas and progress our thinking in these areas, a two-part symposium was held, followed by productive working group discussions. The reports from these groups, and all other working groups convened in Budapest, are presented in this issue of *CBSG News*.



*Budapest Zoo*

CBSG remains committed to minimizing our unintended negative impacts on the environment, and we are taking a number of steps to realize this commitment. The 2007 Annual Meeting was the first for which we provided participants with the opportunity to offset carbon dioxide emissions associated with travelling to the meeting.



The total amount collected (US\$1,179) went towards World Land Trust's reforestation projects in Ecuador, where WLT is working with partner organization Fundación Jocotoco to create a network of reserves to protect threatened species. More information about this project is available on their [website](#). While carbon offsetting was voluntary in 2007, this conservation action will be mandatory in the future because we need to ensure that we are contributing to the solution rather than exacerbating the problem with our own activities.

As reported previously, we are drastically reducing our paper usage in the CBSG office. In addition, the majority of the paper we do use is made from 100% post-consumer waste (PCW), rather than newly harvested wood or the standard “recycled” content that comes mostly from the manufacturing process. We provide this paper to our local printer for use in the production of all CBSG documents. There are several sources for PCW paper (we purchase ours through [World Centric](#)) and the cost is not significantly higher than that of 100% recycled paper. CBSG is actively exploring ways in which newly available technologies can aid in our efforts to reduce our environmental footprint and we will continue to reduce, reuse and recycle.



A highlight of every CBSG Annual Meeting is the awarding of the Ulysses S. Seal Award for Innovation in Conservation. This award is very appropriately viewed, by not just CBSG and our partners, but also by the Species Survival Commission and others, as one of the foremost awards given in conservation. This year we had the pleasure to present this award to Paul Pearce-Kelly of the Zoological Society of London. A champion for the world's invertebrate species, Paul has developed world-class invertebrate exhibits, led conservation programs for a great number and variety of invertebrates, and developed the record keeping systems and population management techniques needed to demographically and genetically manage these species. Excerpts from Bob Lacy's presentation can be found in the pages of this newsletter.

The 2007 CBSG Annual Meeting was a tremendous success, with many of the recommendations made by working groups in Budapest being implemented today, and we are confident that the same will be true for this year's meeting. The 2008 Annual Meeting will be held in Adelaide, South Australia on 16-19 October and hosted by Zoos South Australia (Adelaide and Monarto Zoo). We hope that you will join us for powerful presentations, meaningful and productive discussions, and fish and chips on the beach.

Sincerely,

A handwritten signature in cursive script that reads "Onnie Byers".

Dr. Onnie Byers  
Executive Director, CBSG



**CBSG News**

*CBSG News* is published by the Conservation Breeding Specialist Group, Species Survival Commission, IUCN-the World Conservation Union. *CBSG News* is intended to inform CBSG members, and other individuals 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.

**CBSG News**

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## Paul Pearce-Kelly: Recipient of the 2007 Ulysses S. Seal Award for Innovation in Conservation

**Presented in Budapest, Hungary, 26 August 2007**

Conservation can sometimes be a depressing profession. We deal with losses of habitats, losses of wildlife populations, and sometimes losses of irreplaceable species. But we are not in this profession because it is fun to struggle with problems that often seem to be almost hopeless. Instead, we work in conservation because a rich and healthy natural world is important to us personally as well as to all human societies.

Although most of us here at these meetings do fight to help conserve one or a few species that are at risk, imagine what your outlook on life would be if in your care were more than a dozen species that were critically endangered, and another dozen species that were already extinct in the wild and therefore were absolutely dependent on you for their continued existence.

Moreover, think about taking on that awesome responsibility if those species were not the big charismatic pandas, or tigers, or cranes, but were instead critters that most people don't get very excited about – at least not in a positive way – such as Barberry carpet moths, palm beetles, giant earwigs, spiky yellow wood lice, field crickets, red-barbed ants, and a whole bunch of tree and land snails that all look alike to the uninformed person.

As many of you know, the champion of these species and many other invertebrates for many years has been Paul Pearce-Kelly at the Zoological Society of London. If you have spent any time with Paul, you also know that he hasn't become depressed by the magnitude of the task of saving so many species that almost no one else cared about. Paul is the most optimistic, even downright cheerful, conservationist I know!

Paul's boss at ZSL accurately described Paul as "a whirlwind of boundless energy and enthusiasm for the task at hand." I can think of one other colleague for whom that description would also have been appropriate – and that would be Ulie Seal. I am especially pleased to announce that the recipient of the 2007 Ulysses S Seal Award for Innovation in Conservation is Paul Pearce-Kelly.

Paul has worked at the Zoological Society of London for 25 years, starting – remarkably – as a junior keeper in mammals. He quickly switched over to the important



part of biodiversity, and he has led the invertebrate section in the zoo for about 15 years. During that time, he not only helped to develop truly wonderful and effective exhibits to tell people about the grand diversity of life, but he also spearheaded conservation programs for a great number and variety of invertebrates.

The work of Paul and his colleagues on *Partula* snails is well known:

- They rescued the remaining individuals of a number of species that had been decimated by a biological control program that went bad;
- they developed husbandry techniques for caring for and propagating the species;
- they convinced many of their colleagues in other zoos to accept cheerfully the challenge and responsibility of helping to maintain *Partula* populations;
- they developed and disseminated new record keeping systems that allow effective husbandry and population management for *Partula* and other invertebrates;
- they have researched the species biology and causes of endangerment in the native habitats in French Polynesia;
- they developed exclusion systems to protect *Partula* from the invasive predatory snail;
- and they have been involved in reestablishing populations on the islands.

Paul has applied some of the techniques and lessons from Partula, and all of his passion and energy, to save and restore populations of invertebrates on other islands – including giant palm beetles on the Seychelles, giant earwigs and spiky yellow woodlice on St. Helena, Bermuda land snails, and a number of species in the UK.

Paul may be in love with the little creatures, but he doesn't shy away from big problems and issues. For a number of years Paul has been leading a group of colleagues who are working to develop ways to demographically and genetically manage those species for which breeding programs are not as easy as putting pairs together in exhibits, reporting a litter or birth now and then, and tracking and managing pedigrees using our standardized software. For many invertebrates, you cannot tag and monitor individual animals, you cannot always tell who is a male, who is a female, and who might be both male and female, and you cannot easily control and monitor pairings.

Yet the maintenance of genetic diversity and management of stable numbers of individuals is at least as important for the invertebrate species that are down to the last few individuals as it is for the mammal and bird species that can be bred in monogamous pairs. Importantly, the record keeping systems and population management techniques that Paul is helping to develop will also be extremely valuable for colonial, herd, or otherwise group-living birds and mammals, and Paul is working to integrate the ZSL tools into the new ZIMS.

One of Paul's current projects is typically ambitious and important – understanding the impacts of climate change on species, increasing understanding of these impacts both within our profession and among our

public, and helping zoos and aquariums make and then act on a commitment to mitigate the negative impacts of climate change on biodiversity.

The nominator of Paul for the Seal Award related an exchange that occurred at last year's meeting in Leipzig. When someone commented on Paul changing his focus from Partula to climate change, Paul quickly responded, with a large smile on his face, 'If I have to change the world to save Partula, then I will'. As usual, Paul takes on the hardest tasks, and he does it with such glee that we just have to step up to work with him.

The Ulysses S. Seal Award for Innovation in Conservation is very appropriately viewed, by not just the CBSG and our partners in the zoo and aquarium but also by the Species Survival Commission and others, as one of the foremost awards given in conservation. It is truly heartening to read the nominations that we received, as all of the nominees are people who have had huge impacts on how we do conservation.

Before I present Paul with the award I want to make a request of everyone here. Please consider how you and your institution can work with Paul to help protect and restore populations of invertebrates – because we have the ability to make a very big difference for the little species that have big impacts on the ecological systems.

I am very pleased to present Paul Pearce-Kelly with the 2007 Ulysses S. Seal Award for Innovation in Conservation.

*Bob Lacy, Chairman, CBSG*



## Amphibian Conservation Issues Working Group

*Participants: Jeff Bonner, Don Boyer, Luis Carrillo, Nate Flessness, Suzanne Gendron, Shelly Grow, Franck Haelewyn, Kazushi Kuwabara, Sarah Long, Akira Murayama, Ingo Pauler, Radoslaw Ratajszczak, Oliver Ryder, Lee Simmons, Matthias Li Sing-Chung, Elizabeth Townsend, Carly Waterman, Dan Wharton, Bob Wiese, Kevin Zippel*

This working group set out to address outstanding issues identified by the collective participants, with respect to amphibian conservation. Issues were brainstormed then arranged and addressed in order of priority. The top priority issues were Amphibian Ark's 2008 Year of the Frog campaign, banking of biomaterials, and management of priority species.

The Year of the Frog campaign represents a combined effort of the world's *ex situ* community to draw attention to the efforts to rescue and preserve amphibians in danger of extinction. Global coordination of messages and events will generate the greatest awareness and best help to launch necessary infrastructure, recovery and research efforts, and the requisite funding. How will this be achieved? A Year of the Frog "Global Infopak" exists, in CD form and bound document. The format is based on past EAZA campaigns and developed by international PR firm Fleishman Hillard. This infopak includes an action plan, funding, benefits to frogs, benefits to people, causes of the problem, and



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key messages that everyone should be able to integrate into their campaigns.

### Actions

- The Infopak needs to be translated into different languages. Within the group, volunteers offered to translate it into Spanish, Japanese and Chinese. Translators will be recruited for other languages.
- AArk regional representatives should consider appointing national representatives within their region to facilitate further communications.
- Further development and implementation of the communications and fundraising plan is a huge task and will require outside help. We therefore recommend that a public relations firm should continue to be retained for the task, particularly fundraising.



- A business model should be developed, including retail / commercial projects to raise funds.
- Success stories about current amphibian activities should be compiled and widely disseminated.
- Share, disseminate, and develop age appropriate educational programs. Some programs are already being developed by SAZARC, AZCARM and AZA.
- Further recruit celebrity involvement and high profile public figures.

The rescue and establishment of assurance populations of amphibians is appropriate to avoid extinction. Establishment and management of rescued/assurance populations is guided by the highest professional standards and with necessary governmental approval. Accurate record keeping, data collection, and bio-materials banking should occur such that genetic and demographic management are incorporated into *ex situ* conservation efforts. The requisite expertise in field collection of animals and samples, pathogen diagnosis and treatment, husbandry, and biosecurity measures needs to be documented and established as protocols for use in rescue efforts.

#### Assurance Populations

- Form an AArk Advisory Committee on Genome Resource Banking including geneticists, population biologists, and zoo veterinarians, to identify key issues and write the protocols for proper and rapid collection and storage of biomaterials. This will be done in conjunction with the Amphibian Specialist Group (ASG). Protocols will be distributed through the AArk network, as well as shared with the Amphibian Specialist Group.
- This committee will work with ASG, and its national representatives around the world, to identify range-country facilities capable of storing such biomaterials.
- Protocols should be developed for reintroductions and health screening prior to transfers between institutions.

There are not enough institutions participating in programs to manage priority species. It is important for zoos to link with scientists, sponsors, and other collaborators to efficiently and effectively focus attention on key species that have been identified for conservation action by regional experts. This is especially true between institutions that have resources and those who



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need them. However, there is not a transparent means in place to form requisite partnerships.

#### Partnerships

- The AArk species prioritization process needs to be completed for all countries/regions. AArk taxon officers will continue to work on this, with GAA evaluators, regional zoo representatives, and other experts as required.
- A Latin American partner database has been created by AArk and ALPZA and is available online to match institutions needing resources with those who have them. This needs to be done for other regions as well.

Updates on these and other amphibian conservation activities can be found on the [Amphibian Ark website](#).

## Watching for Animal Diseases in Real Time Working Group

*Participants: Anne Baker, Suzanne Boardman, Nate Flesness, Bart Hiddinga, Heribert Hofer, Greg Geise, Willie Labuschagne, Lena Linden, Eric Miller, Karin Schwartz, Lee Simmons, Hassan Syed, Kathy Traylor-Holzer, Eric Tsao, Chris West*

The Zoological Information Management System (ZIMS) is the forthcoming new information system for zoos and aquariums that will offer an unprecedented real-time ability to provide a current epidemiological perspective on animal diseases detected in institutional collections. The system will offer 4,000 data fields for medical records, thus expanding the capacity for collection of medical information.

ISIS has determined that ZIMS will be a unique resource. The World Organization of Animal Health (OIE) has a system with information predominantly on domestic animals from 169 countries. This system uses government filters and integrators, causing a time lag of 1- 6 months before information is disseminated. The OIE database is not useful for early warnings on spread of disease, and is focused on animals affecting agriculture. Before animal diseases are reported, consequences are considered for economic interests such as trade, and thus important information may be filtered by the governments.

ZIMS is breaking new ground, which may make some governments and institutions nervous. The main focus for ZIMS is to manage zoological collections, but the pooled data have implications for many other benefits.

### Benefits of ZIMS

In terms of health benefits for animals in zoological collections, pooled medical data will be available to facilitate exchange of information. Treatment protocols, anesthesia libraries, physiological and morphometric normal values, disease prevalence and many other health related information will be easy to share in real time. Collaborations to improve medical care will be facilitated by ready access to a compilation of data from animals in captivity worldwide. ZIMS may be able to



alert species coordinators when a certain disease trend occurs that causes concern. This rapid alert system can lead to early detection and treatment.

### Concerns for a Pooled Medical Database

*There is a concern that because sensitive information on animal health will be readily accessible, it will identify specific institutions with health problems in their animals.* ISIS intends that pooled information will identify the source of the data by region but not by specific institution.

*Control on integrity of "reporting" – how do you know that information is legitimate or that information is disclosed?*

The responsibility for data integrity rests at the institution level. If an institution does not enter data about disease in their animals in order to avoid negative attention, it becomes an ethical issue. ZIMS will offer channels for more open communication, and the amount of information shared can be adjusted over time.

*Who will have access to information in pooled system?*

ZIMS will have the ability to establish different access levels for staff within member institutions, inter-institutional information exchange, the ISIS community, and others outside the ISIS community.

*How will information requests be handled?*

ISIS protocols have been established for the current system and will be adapted and augmented to use with ZIMS. In some countries such as the United States, the government has regulations requiring free access to information from government-controlled agencies and institutions. The U.S. Freedom of Information Act (FOIA) does not apply to ISIS, because it is not a government institution, which means that ISIS is not required to grant access to ZIMS records to the U.S. government. However, in the case of a disease outbreak that will affect animals and the public, ZIMS can







act as a bio-surveillance system for early detection of the spread of potential health dangers.

*Shared data can be misunderstood or used out of context to alter public perception.*

ZIMS will facilitate development of physiological/morphometric baseline values and historical data to provide correct context for information. Due to concerns that information may be used out of context to sensationalize a story, ISIS restricts the media from access to animal data. Institutions may choose whether to use ZIMS information to put their own stories in context.

**External Relationships**

ISIS will be interacting with other entities in relation to ZIMS information such as the media, governments, international agencies, wildlife veterinarians, wildlife researchers and academics. Policies need to be developed to handle these interactions. Different levels of security will be set up for access to information.

**ISIS Actions**

Focus groups will be set up to offer initial recommendations for different levels of access to ZIMS information: within institutions, among institutions, within the ISIS community and external parties. Institutions will have the ability to change the level of access each group has to their information.

- Hire a veterinary epidemiologist to network among zoo vets, wildlife veterinarians, and world health organizations.
- Meet with regional veterinary associations to determine opportunities.
- Review protocol for responding to data requests.
- Establish user agreement or license, which includes code of ethics.
- Establish a Crisis Group, an executive group from the zoo and veterinary world to develop action plans for worst-case scenarios for veterinary emergencies.



## Conservation Breeding in Indian Zoos Working Group

*Participants: Nate Flesness, Greg Geise, Heribert Hofer, Mike Jordan, Bob Lacy, Neil Maddison, Ivan Rehak, Christian Schmidt, Brij Raj Sharma, Lee Simmons, Dave Tonkyn, Kathy Traylor-Holzer, Sally Walker*

Recent policy decisions by the Technical Committee of the Central Zoo Authority (CZA) included utilizing ISIS/ZIMS for all Indian zoos, and establishing collaborative relationships with the international zoo community for cooperative breeding of selected Indian mammals, birds and reptiles in order to maintain assurance populations for threatened species. CZA has scheduled two meetings of Indian zoo directors and species coordinators for selected taxa to familiarize them with *in situ* and *ex situ* Indian taxa.

These meetings have three objectives for Indian zoos:

1. Proper captive populations to continue display;
2. Healthy animals to act as insurance and for reintroduction or release in the wild if necessary; and
3. Creation of planned coordinated conservation breeding programs in Indian zoos.

The coordinating and participating zoos have already been asked to:

- Construct appropriate enclosures for the targeted species to fulfill their physical and behavioral needs.
- Create off-display conservation breeding facility either in the zoo compound or as satellite facilities.
- Prepare and update a National Studbook for the identified endangered species that will be used in conservation breeding programs.
- Prepare conservation breeding management plans for the targeted species.

These initiatives are underway to support zoos as they take on the responsibility of participating in conservation breeding programs. ISIS has been contacted to assist the Indian zoos in data compilation and record-keeping. Help is being sought from national/ international organization, institutions, NGOs and related bodies. WAZA and CBSG have also been approached to provide external guidance.

Dr. Sharma presented a list of the identified Indian species suggested for the coordinated conservation breeding programs, and the working group suggested



experts from around the world who might assist with the project or attend the planned meeting.

In February 2008, a small group including Indian zoo directors and a small group of experts will meet for a seminar on conservation breeding, records and environmental enrichment. Immediately following that meeting, a larger group of international participants, directors of zoos holding threatened Indian species, species coordinators and researchers will convene to discuss enhanced networking, capacity building, cooperation, sourcing of animals, training on species coordination and related topics. The primary purpose of this initiative is the linking of expertise abroad to the need in India to establish *ex situ* programs.

Several dozen taxa have been identified and prioritized for the program due to their status in the wild, or because they are of particular interest. Many species could be grouped into taxonomically similar animals to reduce the number of experts required at these meetings. Taxon Advisory Groups were used as a focus for selection, and the group prepared a tentative list of species to be involved in this program.

## Ghrial Conservation Working Group

Participants: Don Boyer, Michael Jorgenson, Virginia Lindgren, Sophie Oliver, Ivan Rehak, Christian Schmidt, Brij Raj Sharma, Sally Walker

The ghrial (*Gavialis gangeticus*) is a large crocodile native to northern parts of the Indian subcontinent. A PHVA was conducted on the ghrial population in 1995, when the wild population was estimated at 2,500 animals. Since that date, habitat destruction and persecution of ghrial have led to a significant population decline, and the current wild population is approximately 200 adults, found in a few protected areas disconnected by several hundred kilometers.

The National Chambal Sanctuary in Northern India holds the largest wild population of ghrial (about 90% of the total) followed by Katarniaghat Wildlife Sanctuary and Son Wildlife Sanctuary. In Nepal, the Rapti and Narayani rivers also hold a few ghrial. The ghrial is locally extinct in its previous range countries including Pakistan, Bhutan, Bangladesh and Myanmar. The current conservation situation in the last ghrial refuges is alarming. In recent years, a significant population decrease has been recorded from the Chambal Sanctuary – a stronghold for the ghrial. A 2006 survey there found only 82 adult females and four adult males.

The ghrial is very rare in captive collections outside range countries. A large captive population exists in India. According to the India Central Zoo Authority data, there are 291 ghrial housed in 24 zoos in the country. However, scientific monitoring and scientific management are not being carried out with the captive population in India. A proposal for a resolution to conserve the ghrial has been submitted to WAZA, and the working



group's first action was to review the resolution and support its passage.

The group discussed barriers to ghrial conservation, which include a lack of knowledge about the genetic health of the captive population, local resistance to re-introduction, persecution of ghrial, lack of law enforcement in protected areas, and misuse of protected areas by local people. The group also agreed that pressure from outside groups may be necessary to encourage conservation of the ghrial.

Possible strategies for ghrial conservation were discussed and prioritized by the group, leading to the development of six goals for ghrial conservation.

### Goals

- Urge the IUCN to advocate urgent action by the Indian Government to reduce biotic pressure in critical ghrial protected areas.
- Investigate the need for both range country *ex situ* populations, and non-range country *ex situ* populations as assurance colonies.
- Improve scientific management of captive ghrial by developing an international studbook and identifying the genetic diversity in the current *ex situ* population.
- Involve local communities in ghrial conservation. Develop special educational materials designed for stakeholders including the non-literate population.
- Stimulate an interest of the international zoo community to support and contribute to the ghrial conservation.
- Raise funds to support *in situ* and *ex situ* conservation efforts.

## Global Species Management Plan Working Group

*Participants: Brad Andrews, Anne Baker, Jean-Luc Berthier, Onnie Byers, Amy Camacho, Aude Desmoulins, Fiona Fiskin, Greg Geise, Jo Gipps, Bart Hiddinga, Kazuyoshi Itoh, Bjarne Klausen, Willie Labuschagne, Bob Lacy, Jansen Manansang, Yolanda Matamoros, Victor Molnár, Anna Plumb, Tracy Rehse, Geer Scheres, Karin Schwartz, Hassan Syed, Kathy Traylor-Holzer, Eric Tsao, István Vidákovits, Bob Wiese, Tim Woodfine*

The 2006 GSMP Working Group defined a Global Species Management Program as a global program that involves managing a particular taxon with agreed set of goals, to an agreed strategy, across more than one region with the aim of involving all regions in the program. At the 2007 working group's meeting, additional information was added to the definition. It was clarified that a GSMP may be organized for two or more regions. It is not necessary for there to be actual animal movements among the regions at the beginning and the GSMP may begin as a collaborative effort for research to better coordinate overall management that may or may not include international movements. In some cases, there may already be a Global Action Plan that has led to a Global Collection Plan that should stand as input to the GSMP.

The first charge of the working group was to become familiar with the previous work that had been done. Four documents were reviewed to form the basis of the discussion:

- CIRCC report by Jonathan Wilken
- CBSG Workshop report from 2006
- WAZA draft GSMP policy document
- GSMP draft Application Form

Ongoing work needs to be done to develop priority species lists in several regions. One issue with the prioritization process as identified by CIRCC was that mistakes had been made at the regional level where management programs for individual species may have been started before developing TAGs and regional collection plans. It is important to learn from these mistakes and not repeat them at the global level. Thus, the first step to developing a GSMP would be a Global-Regional Collection Plan. The ISIS software REGASP was designed with that idea in mind when it attempted to collect Regional Collection Plans in a central database such that there could be inter-regional access to the information.



### WAZA Draft GSMP Policy Document

After reviewing the WAZA GSMP policy document, there was discussion questioning if the WAZA system was too rigid and whether it might exclude some non- or semi-managed species. The group questioned whether the development of a GSMP for a critical species with low population numbers be omitted if no organized regional program was currently in place. The definition of a GSMP was considered too restrictive. The group felt that the WAZA document should broaden the scope of GSMPs to include collaboration for cooperative research for assessment of a species population. Thus, the establishment of a GSMP may not include actual movement of animals among regions.

The criteria within the WAZA document were also assessed. GSMP programs need to be based on accurate, current information about specimens in the population and their location. This information is maintained in International Studbooks operated under WAZA. There was nothing in the section about participation in ISIS and use of the new upcoming web-based Zoological Information Management System (ZIMS). Similarly, under "Records Keeping", the importance of accurate records was outlined but once again ZIMS was not mentioned.

### WAZA GSMP Application

The Application to Establish a Global Species Management Program was evaluated for content to see if the information requested would give a complete picture of a proposed GSMP. One issue raised was that it was hard to determine what information was required if components necessary for an effective GSMP had not yet been established. Work is needed to more clearly define the criteria to establish the need for a GSMP and

also for components of a successful GSMP. Suggestions were made to improve the application.

### Evaluation of a Preliminary Application for a GSMP

A completed application for a GSMP was evaluated to assess the application process, using an avian species from the southern part of Africa. In this example, the GSMP would be formed to sort out the genetics of the population, and movement of animals among regions would not occur until the genetics were known. There was emphasis on data gathering and research to sort out the captive population.

Estimates on *ex situ* population numbers for this avian species were made from data found in studbooks and on the ISIS website. The applicant had difficulty finding the names of regional coordinators. WAZA should undertake the responsibility of maintaining contact information for TAG chairs until ZIMS is released.

From this exercise, it is clear that WAZA needs to more clearly define what is encompassed by a GSMP. For this avian species, movement of animals for breeding management was not the initial charge for the GSMP. Collaborative research and collection of data was needed to sort out the taxonomy of the captive population. The WAZA policy document needs to expand definitions of not only the GSMP but the role of the Coordinator and Management Committees.

### Actions

The CBSG GSMP Working Group recommends the following action steps:

#### For CIRCC

- Continue to seek regional zoo association recommendations for species priorities lists.
- Clarify WAZA GSMP policies and definitions.
- Align GSMP Policy document with application form
- Make changes to application form as described above to clarify application process.

#### For WAZA

- Develop an updated listing of TAG chairs and Species Coordinators for the conservation management programs of all regional associations in the WAZA membership.
- Follow through to hire a part-time GSMP Coordinator within the WAZA Executive Office.



## Climate Change and Species Risk Assessment Working Group

*Participants: Frands Carlsen, James Cretney, Lesley Dickie, Holly Dublin, Mark Craig, Heribert Hofer, Kristin Leus, Matthias Li, Phil Miller, Tiit Maran, Linda Malek, Yolanda Matamoros, Paul Pearce-Kelly, Richard Pearson, Miranda Stevenson, David Tonkyn, Jean Christophe Vie, Carly Waterman, Chris West*

Rapid climate change will affect most if not all species and habitats on earth, and understanding these effects has been called a “Grand Challenge in ecology.” It is also a Grand Challenge in conservation, which cannot be ignored. Climate change is not yet the greatest threat to species survival; in most areas this honor goes to habitat destruction and fragmentation, over harvesting, pollution, or invasive species. However, climate change effects are cumulative, and directly or in concert with other threats they will comprise the greatest risk to species survival in coming decades.

The world’s zoo community provides the last refuge for species that are disappearing or lost in the wild. Climate change will cause the list of species that require this protection to grow dramatically and perhaps in surprising ways. Even species in well-protected or pristine reserves may be at risk, and the challenge is to identify all these species in a timely manner, so that zoos can plan for the time when they disappear in the wild. At the 2006 Annual Meeting, CBSG was challenged to address the looming threat of climate change and consider which species, now considered secure, might require captive breeding in the future to survive. A working group met and discussed these issues, then developed an ambitious set of goals for the coming year.

Currently in the IUCN species assessment process and the CBSG CAMP process, climate change can be noted as a threat, but there is no way to detail how climate change impacts particular species and to what extent a these impacts can be mitigated. Current attempts at climate change modeling are aimed at covering the whole planet rather than the impacts on individual taxa or ecosystems, and many models are more focused on terrestrial impacts of climate change due to available information. To create an effective model, current climate impact observations and associated vulnerable traits must be included.

Some potential effects of climate change such as increased frequency of El Niño events can already be modeled with tools we have by increasing the frequency of catastrophes. This raises the question of how detailed the climate change factor needs to be in order to be effectively incorporated in the threat analysis.

The group felt that most of the necessary data is available but not necessarily accessible. It is likely that ZIMS will be key to making this data accessible. The group decided that collecting this information by taxonomic group would be most useful for climate change assessment needs. Focusing on range-restricted and low mobility species is likely to be most informative.

### Taxon Level Data Review

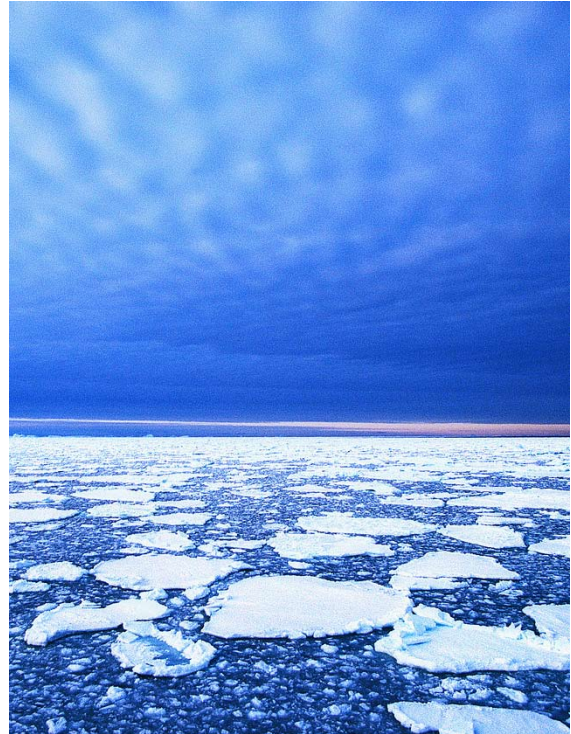
The group selected amphibians as a taxon for which the IUCN has already done an assessment, and was selected for the IUCN project on incorporating climate change into Red Listing. This allows the *in situ* and *ex situ* data elements to be captured and utilized to inform review needs and associated template development.



If a suitable data template can be agreed the *ex situ* dynamics of hopefully any taxa group can start to be incorporated and this data made readily accessible by IUCN as part of the ongoing assessment process.

### Actions

- Request information on *ex situ* species from the zoo community, including: disease risk, diet profiles as determinants of *ex situ* potential robustness, temperature/rainfall tolerances, reproductive and seasonal data, average life expectancy of species in optimum conditions, pH requirements, aquatic dynamics, information on intertidal taxa, and information on successes and failures in keeping the species in captivity.
- The *ex situ* community should work on questionnaires to capture data that are relevant to the assessment of species' sensitivities to climate change.
- A summary of the report of this workshop was inserted in the background paper for the SSC workshop in October 2007.
- Continue the conversations between SSC and ISIS regarding the functional linking of ZIMS and SIS.
- Inform the IUCN/SSC climate change workshop that this group believes it is important to incorporate physiological tolerance and probably immunological tolerance parameters into the species assessment data module for the Red List.
- Decide how data gathered by zoos will be fed into species assessment exercises.
- Paul Pearce-Kelly and Phil Miller will collaborate on quarterly updates and solicit further information and actions from working group members.



## Potential CBSG Workshops in Europe Working Group

*Participants: Jean-Luc Berthier, Frands Carlsen, Aude Desmoulin, Bengt Holst, Mike Jordan, Bjarne Klausen, Kristin Leus, Tiit Maran, Christian Schmidt Gloria Svampa, Istvan Vidakovits, Carly Waterman*

Workshops suggested by the working group participants fell into two categories, taxon-based workshops and skills training.

### Taxon Based Workshops

For each suggested workshop, the main issues, comments about feasibility and contact persons for further investigation and information were recorded.

The following list is only of potential workshops to be facilitated by CBSG Europe. It is not a list of priorities. The CBSG Europe team will approach the contact persons mentioned to further investigate the need and feasibility of the various workshops. Based on this evaluation and the urgency of the issues at hand, a timeline will be drawn up. The CBSG Europe team will stay in close contact with Jean-Christophe Vie, Deputy Coordinator, Species Program IUCN, to investigate potential roles for the CBSG Europe team in IUCN organized species assessment workshops, and vice versa.

Potential workshop species include: European otter, vultures in Europe, island endemics, Cyprus grass snake, European wild cat, rodents, Iberian lynx, European hamster, flying squirrel, walrus, porpoise, ringed seal, Dalmatian penguin, Turkmenian markhor, silvery-



brown tamarin, European endangered amphibians, invasive species (e.g. grey squirrel).

### Skills Training

- Vortex courses: CBSG Europe has already received many requests for a Vortex workshop. One will be planned for 2008.
- Facilitation courses: CBSG Europe has already received a request for a facilitation workshop by BIAZA. The workshop is planned for January 2008.
- Geographic Information System (GIS)
- Institutional conservation/research action planning workshops: It was felt that although there is probably a "market" for these types of workshops in European zoos, people need more information on the process, outcome and cost of such workshops. CBSG Europe will develop the necessary informational material.





## CBSG Conservation Action Package Working Group

*Participants: Onnie Byers, Luis Carrillo, Mike Jordan, Virginia Lindgren, Neil Maddison, Etsuo Narushima, Claire Oldham, Yasumasa Tomita, William Van Lint, Sherman Wong*

PHVA reports contain recommendations that could be used by zoos, conservation organizations, and others to make conservation choices. However, these organizations often do not use these documents, and are not always aware that reports that may be relevant to their organization have been published. As zoos are not involved in the PHVA production process, they may think that it is not applicable to them. These documents also tend to be technical and long. This limits their appeal to a larger audience, and the structure of PHVA reports can make key information difficult to find.

The working group reviewed possible solutions to this problem, including:

- Produce a checklist of types of stakeholders to be invited to PHVA workshops, which includes zoo representatives.
- Make full copies of all PHVA reports available on the CBSG website when possible.
- Create a one-page summary of each PHVA report, making it easier for zoos and other project funders to interpret.
- Ensure that new PHVA reports clearly explain how the actions in the report can become projects for a funding institution.
- Produce a more “reader friendly” final document that is aimed a broad audience.

The group felt that it was most important to make PHVA reports accessible to a wider audience, and to raise awareness and accessibility of these documents. To

help other organizations use the PHVA reports, CBSG could produce a companion report to the traditional report, designed to summarize the PHVA results and recommendations, and be more accessible to sponsors, especially zoos.

The summary document would be easier to interpret, and would be produced based on the PHVA final report. This document might include a problem statement, strategies – including priority projects – split into topics, costs, and contacts.

In a simpler document, strategies should be broken down into groups, such as educational strategies, pollution strategies, habitat strategies, and anti-poaching strategies.

An information point person should be selected to disseminate the information from a PHVA report to a wider audience. The PHVA could also be presented as several documents: perhaps as a set of projects rather than as a single document.

Links to appropriate PHVA reports could be provided on the IUCN Red List website species pages. The link should direct them to the reader-friendly version of the PHVA report. Links to PHVA reports could also be provided on the SSC website as appropriate.

### Actions

- Request assistance from regional zoo associations in promoting the new report format to their members.
- Set up a list serve to inform interested parties when reports are released.
- Create a template for a “reader friendly” version of PHVA reports.
- Produce draft examples from existing PHVA reports.
- Introduce this new format into PHVA protocol.



## Zoos and *In Situ* Field Project Prioritization Working Group

*Participants: Onnie Byers, Lesley Dickie, Holly Dublin, Greg Geise, Franck Haelewyn, Bengt Holst, Mike Jordan, Michael Jorgensen, Willie Labuschagne, Lena Linden, Neil Maddison, Eric Miller, Etsuo Narushima, Claire Oldham, Christian Schmidt, Lee Simmons, Miranda Stevenson, Gloria Svampa, Hassan Syed, Yasumasa Tomita, William van Lint, Sally Walker, Carly Waterman, Chris West, Sherman Wong, Tim Woodfine*

The Field Project Prioritization (FPP) initiative was born along with the publication of the *World Zoo and Aquarium Conservation Strategy* (WZACS) and is intended to help zoos of all types and sizes to fulfill the visions set out in the Strategy. Specifically, WZACS calls on all zoos to be directly associated with conservation programs in the wild; to integrate all aspects of their work with conservation activities; and to become a worldwide force for conservation, contributing to conservation in the wild by providing knowledge, skills and resources.

We know that if efforts are focused and sustained, the international zoo and aquarium community has the potential to impact conservation like no other industry. CBSG, in collaboration with WAZA's Conservation Committee, has been working opportunistically over the past few years to develop tools that zoos and aquariums can use to identify and prioritize field conservation projects on the basis of conservation need and opportunity for significant impact.

EAZA has a developing database that came online at the end of August 2007, and is being road tested within EAZA. This testing will include evaluation of the FPP criteria. The revised database was made available to the global conservation community in January 2008.

The success of this project so far raises several questions and considerations that were discussed by the working group, including:

1. Where will the database reside permanently? Who might manage it so that all field projects can be entered and evaluated?
2. SSC projects and zoo projects need to be included
3. It will be a challenge to computerize and oversee this project.
4. Input from non zoo-based organizations needs to be included.
5. Does the database link directly to the WZACS so



researchers can see that a zoo is contributing to the WZACS?

6. Does it identify specific threats to be addressed?

In discussing the above considerations, the group produced a list of actions, many of which have already been addressed.

### Actions

- Make the EAZA database available online.
- Conduct technical analysis and stabilization of the EAZA database.
- Standardize responses for the FPP questionnaire.
- Conduct global evaluation of the database.
- Revise the database and questionnaire based on input from testers.
- Convene a stakeholder-inclusive meeting, including technical experts, WAZA, regional zoo associations, and IUCN/SSC representation to take next steps.

## Zoos and Climate Change Working Group

*Participants: Brad Andrews, Amy Camacho, Mark Craig, James Cretney, Lesley Dickie, Fiona Fiskin, Suzanne Gendron, Jo Gipps, Michael Joergensen, Jansen Manansang, Yolanda Matamoros, Phil Miller, Claire Oldham, Sophie Oliver, Miranda Stevenson, Carly Waterman, Vince Zsigmond*

This working group decided that the response of zoos and aquariums needs to involve more than climate change, and the focus of the group became sustainable development and the reduction of the ecological footprint of both zoos and their visitors.

### Sustainable Development

Zoos have a critical role to play in communicating sustainability to a wider audience, and the working group discussed ways to educate the public on this topic, including aspects of:

- The effect / damage done to the planet by the lifestyle choices of individuals, and how this differs by country.
- People come to the zoo/aquarium because they have an interest in animals and wildlife and these institutions can use this interest to communicate this important message to visitors.

Zoos and aquariums can relate animals to ecological impact and use collections to reflect on people's personal behavior – so that zoos and aquariums both educate patrons and change their behavior. To do this, zoos and aquariums should contribute the SSC's threat assessment database with species information, and incorporate different threat categories including climate change into institutional collection planning processes. Institutions can also relate species problems to environmental ones, such as the babirusa and destruction of teak forests.

### Greener Zoos and Aquariums

The Triple Bottom Line Approach may be a good model for many institutions to use, i.e. reporting on economic, social and ecological aspects of what zoos and aquariums do. The focus of the group was how to get zoos and aquariums to integrate the triple bottom line approach in their strategy and everything that they do.

The working group recommended the following approaches to implementing sustainability programs in zoos and aquariums. These factors were discussed in detail in the group meeting.

- Consider and balance economic, social and envi-



ronmental sustainability factors in all organizational decisions.

- Establish clear policies on sustainability matters to ensure the adoption of an organization-wide approach.
- Adopt a common approach to calculating Ecological Footprints, and measure performance on an annual basis for comparison with other zoos and sectors.
- Work towards the accreditation of an Environmental Management System (such as ISO14001) to provide a structured approach for continued environmental performance improvements.
- Develop clearly defined roles and teams to take forward the sustainability agenda within the organization.
- Display a consistent approach to sustainable and ethical procurement across the organization, especially if certain products are promoted in shops and cafés.
- Reduce carbon emissions as much as possible before engaging in offsetting activities or considering developing offsetting conservation projects for other businesses or visitors to invest in.
- Increase the involvement of local people in organizational decisions, and communicate sustainability best practice to visitors and the general public.
- Develop a formal triple bottom line reporting framework to report on sustainability performance annually.
- Work together with other zoos to make collective progress towards a more sustainable approach.
- Have zoos partner zoos in other areas with such schemes.

It was subsequently agreed at the WAZA Annual Conference to produce a WAZA statement and resource book.

## CBSG Schedule

Dates	Meeting Description	Location
<b>FEBRUARY 2008</b>		
9-15	SSC Specialist Group Chairs Meeting	Abu Dhabi, UAE
18-19	Population Management/Facilitation Seminar	Cisarua, INDONESIA
20-23	Indonesian Gibbon Conservation Planning Workshop	Sukabumi, INDONESIA
21-24	Conference on India's Conservation Planning	New Dehli, INDIA
28-29	Cornell University PVA/Biocomplexity Lectures	Ithaca, NY, USA
<b>MARCH 2008</b>		
27-28	Prioritization of Costa Rican Native Arboreal Plants	Santa Ana, COSTA RICA
27-29	Studbook/Population Management Training	Singapore, SINGAPORE
<b>APRIL 2008</b>		
11	ISIS Board Meeting	Berne, SWITZERLAND
12-13	CBSG Steering Committee Meeting	Berne, SWITZERLAND
17-19	Population Management Training	Apple Valley, MN, USA
26-1 May	International Tapir Symposium	Cancun, Mexico
<b>MAY 2008</b>		
19-22	Tasmanian Devil PHVA	Tasmania, AUSTRALIA
<b>JUNE 2008</b>		
<b>JULY 2008</b>		
13-17	Society for Conservation Biology Annual Meeting Tiger SSP Masterplan Meeting	Chattanooga, TN, USA Toledo, OH, USA
<b>AUGUST 2008</b>		
20-22	Kruger National Park Lion Tuberculosis Risk Assessment	South Africa
25-29	Aruba Conservation Planning Workshop	ARUBA
<b>SEPTEMBER 2008</b>		
1-5	Green Macaw PHVA	COSTA RICA



## WAZA: Zoos United in Conservation



WORLD ASSOCIATION OF  
ZOOS & AQUARIUMS

It is a pleasure for us to recognize the World Association of Zoos and Aquariums (WAZA) in this donor feature. We want to thank WAZA for its great work in conservation, its productive collaborations with CBSG, and its generous financial support of our organization. WAZA's mission is to provide leadership and support for zoos, aquariums and partner organizations of the world in animal care and welfare, conservation of biodiversity, environmental education and global sustainability.

WAZA has a long history of working with zoos and aquariums to tackle common issues, share information and knowledge, and represent these institutions in international bodies such as the IUCN. WAZA has been influential in developing and keeping international studbooks for rare and endangered species, and is an active partner with other conservation organizations around the world. Currently, more than 200 zoos and aquariums are institutional members of WAZA, and about 1,100 zoos and aquariums are linked to WAZA through their membership in a regional or national association.

### Recent WAZA Initiatives

The DEADLINE project for Ocean's Life, in collaboration with the NGO YaquPacha. DEADLINE works to reduce threats to vital ocean species and habitats, including bycatch, overfishing, ocean litter, pollution, underwater noise, harmful fish farming, and dead zones. DEADLINE recently hosted a booth to raise awareness for these issues at BOOT 2008, the world's largest water sports fair.



WAZA's DEADLINE project

Members of WAZA, and the wider WAZA network undertake or support thousands of *in situ* projects. To date, WAZA member associations have contributed to reintroduction and restocking projects for about 200 species. In addition, *in situ* activities often include educational programs aimed at the local people and politicians, biological programs, socio-economic projects, social work among the local people, PR activities and much more on a national and international scale – all in order to secure the conservation efforts far into the future.

### Collaboration with CBSG

CBSG and WAZA have a history of working together, and our collaborations have been especially productive and rewarding in the past several years. This synergy allows each organization to benefit from the skills, insight, and passion of the other: three members of the WAZA Council, and five current and past presidents of WAZA sit on the CBSG Steering Committee; resolutions crafted at the CBSG Annual Meetings are often considered and adopted by the WAZA membership at their annual conference; WAZA has been a financial supporter of CBSG's work for many years, and CBSG has served in a facilitation role for several WAZA committee meetings. Two high-profile collaborative efforts in recent years have been the production of the World Zoo and Aquarium Conservation Strategy (WZACS) and the founding of the Amphibian Ark.

### World Zoo and Aquarium Conservation Strategy

The WZACS presents a vision of the roles that all zoos and aquariums can and must play in the conservation of wildlife and ecosystems. The document, which is the result of assistance and advice from over 350 people, is truly international in its scope and in its production. The Strategy is aimed at all zoos and aquariums, however large or small, however rich or poor, and not just those that are members of WAZA. The Strategy provides a common



DEADLINE information booth at BOOT 2008

philosophy for zoos and aquariums across the globe and defines the standards and policies that are necessary to achieve their goals in conservation. The WZACS will be of use and interest not to only zoo and aquarium people but to anyone concerned with biodiversity conservation and sustainable development.

*“The WZACS was a truly collaborative project between CBSG and WAZA. Ulie Seal suggested that a new 10-year strategy document was needed, and, as Chair of the WAZA Conservation Committee and a member of the CBSG Steering Committee, I was delegated, with help from many others from all around the world, to bring it to fruition. Published in May 2005, the document is now available for download from the [WAZA website](#) in eight languages, and is of serious value to strategic thinkers in the world zoo community.”*

Jo Gipps, CBSG Steering Committee

### Amphibian Ark

In response to increasing threats to amphibian populations worldwide, WAZA and CBSG joined together to found the Amphibian Ark (AArk). AArk began as collaboration between CBSG, WAZA, and the Amphibian Specialist Group, and the new organization has become increasingly independent and effective, working to conserve amphibian species worldwide. WAZA President Gordon McGregor Reid serves on the AArk Executive Committee, and WAZA member institutions are key to preserving *ex situ* assurance populations of amphibians.



We thank WAZA for their valuable contribution to CBSG’s mission and to conservation efforts worldwide, and look forward to further collaboration!

## New and Increasing Donors

- |                           |  |                                     |                               |
|---------------------------|--|-------------------------------------|-------------------------------|
| Aalborg Zoo               | Cotswold Wildlife Park                 | Miller Park Zoo                     |                               |
| African Safari-France     | David Traylor Zoo of Emporia           | Milwaukee County Zoological Society | Saint Louis Zoo               |
| Alameda Park Zoo          | Dickerson Park Zoo                     | Minnesota Zoo                       | San Francisco Zoo             |
| Alice Andrews             | Disney’s Animal Programs               | Nancy & Pete Killielea*             | Steven J. Olson               |
| Alice Springs Desert Park | Durrell Wildlife Conservation Trust    | Nordens Ark                         | Thrigby Hall Wildlife Gardens |
| Allwetterzoo Münster      | Ed Asper                               | Oglebay’s Good Children’s Zoo       | Toronto Zoo                   |
| Apenheul Primate Park     | El Paso Zoo                            | Oregon Zoo                          | Twycross Zoo                  |
| Auckland Zoo*             | Fota Wildlife Park                     | Ouwehands Dierenpark                | Union of German Zoo Directors |
| Aquarium of the Bay       | General Mills Foundation*              | Palm Beach Zoo at Dreher Park       | Utah’s Hogle Zoo              |
| ARAZPA                    | Givskud Zoo                            | Phoenix Zoo                         | Welsh Mountain Zoo            |
| BIAZA                     | International Centre for Birds of Prey | Pittsburgh Zoo                      | Wildlife World Zoo, Inc.      |
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| Bristol Zoo Gardens       | Knuthenborg Safari Park                | Rolling Hills Zoo                   | Zoological Society of London  |
| Casey Schwarzkopf*        | Lion Country Safari, Inc.              | Rotterdam Zoo                       | Zoologischer Garten Köln      |
| Central Zoo Authority*    | The Living Desert                      | Royal Zoo Society Antwerp           | Zoologischer Garten Rostock   |
| Chester Zoo               | Miami Metrozoo                         | Safari Parc de Peaugres             |                               |
| Colchester Zoo            |  |                                     | * New donors                  |
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**Thank You!**

## CBSG Donors

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Steven J. Olson  
Tautphaus Park Zoo

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Margie Lindberg  
Oglebay's Good Children's Zoo  
Safari Parc de Peaugres - France  
Stiftung Natur-und Artenschutz in  
den Tropen  
Touro Parc - France

## 2007 CBSG Annual Meeting Participant List

<b>AFPZ</b> Franck Haelewyn	<b>CBSG</b> Onnie Byers Robert Lacy Virginia Lindgren Philip Miller Elizabeth Townsend Kathy Traylor-Holzer	<b>Italian Association of Zoos and Aquariums</b> Gloria Svampa Garibaldi	<b>Taipei Zoo</b> Eric Hsien-Shao Tsao
<b>Africam Safari</b> Amy Camacho Luis Carrillo	<b>CBSG/AArk</b> Kevin Zippel	<b>IUCN/SSC</b> Holly Dublin	<b>Tallinn Zoo</b> Tiit Maran
<b>Al Ain Zoo</b> Mark Craig	<b>CBSG Indonesia</b> Jansen Manansang Sherman Tommy Wong	<b>IUCN</b> Jean-Christophe Vie	<b>Tama Zoological Park</b> Etsuo Narushima Yasumasa Tomita
<b>Allwetterzoo Muenster</b> H. Joerg Adler	<b>CBSG Mesoamerica</b> Yolanda Matamoros	<b>Kittenberger Kálmán Növény- és Vadaspark</b> Balázs Falusi	<b>Toledo Zoo</b> Anne Baker
<b>Asa Zoological Park</b> Kazushi Kuwabara	<b>Central Zoo Authority</b> Brij Raj Sharma	<b>Leibniz Institute for Zoo &amp; Wildlife Research</b> Heribert Hofer	<b>Twycross Zoo</b> Suzanne Boardman Claire Oldham
<b>AZA</b> Shelly Grow Brandie Smith	<b>Chester Zoo (NEZS)</b> Mike Jordan	<b>LJM Associates</b> Linda Malek	<b>Ueno Zoological Gardens</b> Kazuyoshi Itoh
<b>AZA Population Management Center</b> Sarah Long	<b>Chicago Zoological Society</b> Dan Wharton	<b>Management of Nature Conservation, UAE</b> Willie Labuschagne	<b>Zoo Frankfurt</b> Christian Schmidt
<b>BLAZA</b> Anna Plumb Miranda Stevenson	<b>Clemson University</b> David Tonkyn	<b>Marwell Zoological Park</b> James Cretney Tim Woodfine	<b>Zoo Outreach Organisation</b> Sally Walker
<b>Binder Park Zoo</b> Greg Geise	<b>Conservation &amp; Animal Welfare Trust</b> Akira Murayama	<b>Milwaukee County Zoo</b> Karin Schwartz	<b>Zoo Wrocław</b> Radoslaw Ratajszczak
<b>Bio/Zoo Information</b> Michael Joergensen	<b>Copenhagen Zoo</b> Frands Carlsen Bengt Holst Kristin Leus	<b>National Zoological Gardens of South Africa</b> Clifford Nxomani Tracy Rehse	<b>Zoological Society of London</b> Lesley Dickie Fiona Fiskin Sophie Oliver Paul Pearce-Kelly Carly Waterman
<b>Bristol Zoo Gardens</b> Jo Gipps Neil Maddison	<b>Department of National Zoological Gardens</b> Renuka Bandaranayake	<b>Nordens Ark</b> Lena Linden	<b>Zoological Society of San Diego</b> Donal Boyer Robert Wiese
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<b>Busch Entertainment Corporation</b> Brad Andrews	<b>DJBZ/ParisZoos-Museum National d'Histoire Nature</b> Jean-Luc Berthier	<b>Omaha's Henry Doorly Zoo</b> Lee Simmons	<b>ZooParc de Beauval</b> Aude Haelewyn-Desmoulin
	<b>EAZA</b> Bart Hiddinga William Van Lint	<b>Prague Zoo</b> Ivan Rehak	<b>Zoos South Australia</b> Chris West
	<b>ISIS</b> Nate Flesness Hassan Syed	<b>Saint Louis Zoo</b> Jeffrey Bonner R. Eric Miller Melody Noel	
		<b>Szegedi Vadaspark</b> Róbert Veprik	





## CBSG Network Updates

### CBSG South Asia

CBSG South Asia uses CBSG skills such as process design and conflict resolution as tools in designing education materials and creating games and activities to illustrate important conservation issues. We use information from PHVA and CAMP workshops to create educational materials for a wide range of target groups from children to senior policy makers.

This year, CBSG South Asia has devoted time to the development and delivery of education programs to supplement our focused conservation activities and to experiment in providing solutions to sticky wildlife problems. One example of the latter is our "Monkey Manners" education program. Our interest in this is personal as well as academic because many staff from Zoo Outreach Organisation and CBSG South Asia have had unpleasant experiences with free-ranging monkeys breaking into our homes and causing property damage. We committed to take up the issue at the 2002 South Asian Primate CAMP workshop where primate biologists discussed the problem in a working group. Since 2002, what was an irritant has become a danger, with many cases of children being bitten by monkeys, a man falling to his death from a roof when trying to defend himself against marauding monkey troops, and an increase in the number and degree of aggressiveness of troops of displaced or migratory free-ranging monkeys.



No educational material on this topic was available to the public. CBSG South Asia feels that education is key to reducing problems and teaching people how to prevent monkeys from coming to their location, as well as how to behave around monkeys during an encounter. These are not long-term solutions, but an attempt to confront the problem and reduce the probability of human injury.

Our strategy is to give materials free to people who are doing education for the first time, or who cannot afford props such as packets and masks. We raise money from zoos that have supported CAMP and PHVA workshops in the past to fund this project. We serve and teach 200 education partners throughout South Asia who we can call upon in times of need.

Each workshop conducted by CBSG South Asia was followed by 30-50 activities carried out later by participants including teachers, NGOs and foresters. With our education partners, we can reach thousands of people who need to learn about wildlife conservation.

*Submitted by Sally Walker, CBSG South Asia*



## CBSG Europe in Action

The green toad (*Bufo viridis*) is considered critically endangered in Sweden according to the IUCN Red List criteria. For a few endangered amphibian species like the fire-bellied toad and the tree frog, captive breeding and reintroduction has proven to be a successful conservation approach. However, for the green toad the situation is still very troublesome. In spite of habitat restoration, large scale captive rearing and reintroduction efforts, it has not been possible to establish self-sustaining wild populations of the green toad. More knowledge about the biology and habitat demands of the green toad as well as the threats that influence the future existence of the species was needed.

Conservation efforts needed to be coordinated, existing action plans for different regions needed to be integrated, and relevant *in situ* and *ex situ* measures involving all stake-holders had to be taken. In short: There was a serious need for an overall, realistic, integrated, and scientifically based conservation action plan for the species. A PHVA workshop was exactly what was needed to achieve those goals. So, almost a year ago, CBSG Europe began discussing this workshop, and decided that the green toad would be an ideal species for the first independent PHVA workshop conducted by our regional network.

From the beginning, it was obvious that some of the participants were very skeptical about the workshop process. Despite concerns, the participants began work. Conservation concerns were aired and resulted in four working groups:

- Population modelling (*Vortex* simulations)
- Population management, including *ex situ* rearing, (re)introductions and translocations



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- Habitat, including environmental demands of the species and general biology
- The human factor, including legislation, organizational matters, education, and awareness

These working groups remained together during the entire workshop and developed problem statements, goals and action steps for their own field of expertise. Work during the three first days extended far into the night in order to get everything ready for the last session on day four: the presentation of the developed action steps to be included in the conservation action plan for the green toad in Sweden.

During the second day of the workshop, the working groups began working together to create an action plan. Even the most skeptical participants began to enjoy the workshop process, and some even asked if the workshop could be extended another day!

At the end of day four, we had a draft action plan ready. Time frame for completion of the final document is early March 2008, when a printed action plan will be available.

This workshop was a success, not only from a technical point of view, but also from a social point of view. We are convinced that the network that was established during this workshop will persist during the years to come, and consequently we will have the right framework for following up on the action plan.

*Submitted by Bengt Holst and Kristin Leus, CBSG Europe*

## CBSG Southern Africa

### African Crane Trade Project – Mitigation Planning Workshop

Four species of cranes are resident in Africa — grey crowned crane (*Balearica regulorum*), black crowned crane (*Balearica pavonina*), wattled crane (*Grus carunculatus*) and blue crane (*Anthropoides paradisea*). Due to an increasing number of rumors about the trade in cranes, confiscations of illegally kept cranes in South Africa and the findings from a study in Mali showing high levels of international trade and domestication of black crowned cranes, the African Crane Trade Project was initiated in 2006 as a project under the International Crane Foundation / Endangered Wildlife Trust Partnership.

Preliminary investigations during 2006 and 2007 showed that all four crane species were affected by the illegal removal of individuals and eggs from the wild for food, traditional use, domestication and illegal trade. In addition, the captive populations within zoo associations were unsustainable and the CITES database indicated that large numbers of wild caught cranes were still being traded.

A workshop, facilitated by CBSG Southern Africa, to present these findings and to develop a mitigation plan was held in Naivasha, Kenya from 8 – 11 October 2007. Twenty-five participants from eight countries were present at the workshop and represented local communities, NGOs, universities, governments and zoos.

It was agreed that a proposal to upgrade the black and grey crowned cranes from Appendix II to Appendix I at the next CITES Conference of Parties meeting would be developed and promoted. Concurrently, a review of the current status of the cranes would be made and a proposal for a Vulnerable status for the black and grey crowned cranes proposed. Two motions would also be developed for the IUCN's World Conservation Congress to be held in 2008, including one on the crane trade and the other on the inconsistencies in CITES data.



© Mike Jordan



An illegally kept crane  
© Tanya Smith

The participants were divided into four working groups: supply, international demand, legislation, and research and conservation action. Within each of these groups, solutions and action steps were developed. The supply of cranes and local *in situ* issues need to address the key elements of poverty, cultural beliefs, the lack of awareness at a local level and the need for community empowerment. A review of current legislation to identify gaps and loopholes and the need for greater awareness of current local, regional and international legislation and policies were the key solutions to addressing the lack of adequate and weak legislation and law enforcement. In order to address the conservation and research project needs and responses to the trade issue, information on crane biology and ecology is required, networks for information exchange should be established, and communities should be involved in research and conservation programs. A full understanding of the extent and factors driving the international demand for cranes, the routes followed, and mortality rates need to be obtained. Sustainable captive populations need to be developed and broader awareness created around the crane trade and its effects on wild populations.

By working together and involving many partners in the implementation of this plan, the extent of the removal of cranes from the wild and its subsequent impact on wild populations can be reduced. Additional measures will need to be implemented over time as the threat is more clearly understood and some of the factors addressed. Each mitigation measure implemented as a result of the workshop and those decided upon over time will contribute to an accumulated conservation action securing the future of cranes in the wild in Africa.

Submitted by Yolan Friedmann, Kerry Morrison and Brenda Daly, CBSG Southern Africa

## CBSG Brasil: Working with Local Stakeholders to Conserve the Brazilian Pantanal

The Pantanal is one of the world's largest freshwater wetlands and is considered a priority biome for wildlife conservation, as well as a unique contributor to the global ecosystem. Most of the Pantanal floodplain is privately owned and used for extensive cattle ranching. Traditional cattle ranching practices have had little impact on the biome and, until recently, the Pantanal was considered a relatively pristine biome. Now, new technologies and alterations in land use practices are often accompanied by environmental degradation and deforestation, causing damage to watercourses and natural vegetation.

CBSG Brasil organized a meeting to address the following questions: How can this trend be reversed? How can the Pantanal produce cattle in a competitive market without negatively impacting biodiversity? What are the major problems in the cattle ranching industry that have led to this change and how can these trends be reversed? The meeting brought together all of the stakeholders involved in cattle production and commercialization in the Pantanal region for the first time.

Only two months after taking the Facilitation Training Course, CBSG Brasil team member Arnaud Desbiez acted as the main facilitator for this workshop. The meeting was organized by the Brazilian Agricultural Research Corporation (EMBRAPA Pantanal) and the

Center for Research of the Pantanal (CPP). Over 50 participants, including ranch owners, universities, cattle river transporters, researchers, policy-makers, bankers, government officials, cowboys, representatives from cattle producer unions, cattle slaughter and commercialization enterprises, extension workers, and representatives from local non-governmental organizations participated in the workshop. This meeting was the first time all stakeholders involved in the production of cattle in the Pantanal had the opportunity to meet face to face and interact.

The workshop was extremely successful. Strategies for tackling some crucial problems were designed. Most importantly, for the first time a detailed diagnosis of all the stakeholders, their relationships, conflicts, problems and potential solutions was established. Materials from the workshop are being compiled and will be widely distributed. New working groups elected coordinators and will follow up and meet again to continue this process, guaranteeing the implementation of the strategies. CBSG Brasil has been asked to continue to facilitate these future workshops.

*Submitted by Arnaud Desbiez, CBSG Brasil*



*Cattle in the Brazilian Pantanal*

## Continuing Efforts in Lowland Tapir Conservation: Post-PHVA Results

The Sarayaku Indigenous Community includes a territory of 1,400 square kilometers, located in the Middle Eastern Amazon region of Ecuador. It is inhabited by indigenous groups of kichwa nationality. This community promotes an alternative model of development that searches for equilibrium between human being (*Runa*) and environment (*Pachamama*). To support conservation and prevent the entrance and establishment of oil operations in the territory, a community management plan and two community reserves where hunting is forbidden were created.

In April 2007, we attended the Lowland Tapir Conservation Workshop: Population and Habitat Viability Assessment, organized by the IUCN/SSC Tapir Specialist Group (TSG) in Sorocaba, São Paulo, Brazil.

Upon our return to Ecuador, one of our first actions was to discuss the results, knowledge and new ideas acquired during the PHVA workshop with other members of the Sarayaku Indigenous Community. In May 2007, approximately one month after the workshop in Brazil we held a meeting that was attended by 100 people from the community. During the meeting we showed the community results based on Vortex models elaborated during the workshop in Brazil. Using Vortex we had the opportunity to model the impact of the recently implemented Sarayaku lowland tapir community management plan. The model developed during the PHVA workshop showed that one of the important parameters in assessing the impact of the management plan was the initial population size of lowland tapirs in the Reserva Comunitaria de Sarayaku. If the initial popula-



tion of tapirs in the community is 1,000 individuals, then levels of hunting previous to the implementation of the management plan do not threaten the tapir population, as long as no additional threats occurred. However, if the initial population size of the tapir population is 500 then the communal management plan secures the population. Without the establishment of the plan, the tapir population would go extinct in 100 years.

After discussing the outcomes from the Vortex models and results of the PHVA workshop, the community decided to estimate the population of tapirs and other important mammal species inside the territory in order to evaluate whether the current rules are adequate both to help save tapirs and permit food security for Sarayaku people. A new project that will monitor population densities of tapirs and other wildlife in Sarayaku territory is being initiated as a direct result of the Lowland Tapir PHVA Workshop.

We now appreciate the usefulness of Vortex modeling, which allowed us to visualize the results and consequences of our project and develop concrete actions to be implemented. The Lowland Tapir PHVA Workshop was an extraordinary opportunity to link scientific knowledge to our reality. By presenting and discussing results with our community we were able to take a further step towards conservation of tapirs and Amazonian wildlife.

*Submitted by Andrés Tapia and José Dionicio Machoa Santi, Brazil*





**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.

## Special Congratulations

Pati Medici, convenor of the CBSG Brasil Network and Chair of the IUCN/SSC Tapir Specialist Group received the 2008 Golden Ark Award—an international conservation award for her contributions to lowland tapir research and conservation in Brazil, as well as for her work as Chair of the IUCN/SSC Tapir Specialist Group (TSG).



The Golden Ark Foundation in the Netherlands promotes the conservation of species of wild animals and plants. In pursuit of its mission and goals, the Foundation has established the Golden Ark Award, a prestigious conservation award, which rewards and funds individuals for their internationally outstanding species conservation efforts. The Golden Ark Award honors creativity, leadership, innovation and entrepreneurship in the field of species conservation, and aims to stimulate award winners to sustain their dedicated work.

Pati will receive €50,000 to be used in a conservation project of her choice. She has decided to use this to establish an endowment fund for the Lowland Tapir Conservation Initiative (LTCI) in Brazil. The goal of this fund will be to generate, in the future, at least 25% of the annual budget of the LTCI every year.

Congratulations Pati!