



CBSG News

Inside...

2004 Annual Meeting
Preview

CBSG Workshop
Updates

Donor News

CBSG Staff Changes

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

Promoting Conservation Partnerships

There will be several important and exciting conservation conferences in the next few months. The CBSG Annual Meeting will be hosted by the Taipei Zoo, 28-31 October, at the Grand Hotel in Taipei. Our Annual Meeting will again be held just before the Annual Conference of the World Zoo and Aquarium Association, and we will be taking advantage of the gathering in Taipei to conduct several workshops. We will have meetings of the CBSG Steering Committee and the Global Conservation Network (our financial advisors and managers), and the Conveners of CBSG Regional Networks will meet for a day to discuss ways in which we can effectively combine the power of local knowledge and action with the expertise and resources that a global network can bring to conservation problems. Prior to the CBSG Annual Meeting, there will be a Population and Habitat Viability Assessment (PHVA) workshop on pangolins. In conjunction with the PHVA, CBSG staff will conduct a short training course for colleagues from Asia on the Vortex population modeling program and the PHVA workshop processes.

The theme of our 2004 Annual Meeting is “The Evolving Role of Reintroduction as a Tool for Conservation”, and we are very pleased that Fred Launay, Chair of the IUCN/SSC Reintroduction Specialist Group (RSG), and several other members of the RSG will be joining us to talk about ways in which the CBSG and the RSG can work together. Other working group topics will include initial work on Guidelines on Captive Breeding for Conservation, further development of CBSG training courses, and taking the new World Zoo and Aquarium Conservation Strategy to the next stage with Action Planning. Each of these initiatives is important, and we need your input to make sure that we serve your needs and the needs of conservation as effectively as possible.

A few weeks later, in November, the IUCN-The World Conservation Union will be holding the 3rd IUCN World Conservation Congress. The Congress will be held in Bangkok, and will be the largest gathering on the environment ever held in Asia. The theme, “People and Nature – Only One World”, clearly fits with the emphasis of the CBSG on developing processes and tools that recognize the importance of attending to both the human and biological dimensions of conservation problems. The Congress will include a two-day meeting of the Species Survival Commission, which will be a wonderful opportunity for the

continued on page 2...

continued from page 1...

many SSC Specialist Groups to share information and develop strategies for working together toward our common goals. The Commission meeting will be followed by a three-day Conservation Forum, which will include presentations, discussions, workshops, and displays by IUCN member organizations, governments, NGOs, and private sector participants. In the Conservation Forum, the CBSG will conduct a training workshop on CBSG facilitation tools during a day in which there will be opportunities to attend any of many short training sessions being developed by IUCN partners. The Conservation Forum is followed by the IUCN Members' Business Assembly, during which the IUCN as a body will approve the Programme of the Union for the next four years (outlining priority activities for the IUCN as a whole and for its commissions), discuss and vote on resolutions, and elect a new IUCN President, Council Members, and Chairs of the Commissions (including a new chair of the Species Survival Commission).

As members of the SSC network, all CBSG members are invited to participate in the SSC meeting and the Conservation Forum in Bangkok. Only designated delegates of IUCN member organizations can vote in the Business Assembly, but all commission members can attend as observers.

It often seems that there are too many meetings and that we all travel too much (At least our families think so!). The meetings and international travel are tiring and can be expensive for those of us who are trying to do big things with small budgets. However, these conferences are unparalleled opportunities to meet with colleagues from around the world, learn about the activities of the diverse world of conservation organizations, gain new knowledge and skills, and tell others about the work that we are doing. For me personally, these conferences are my chance to meet with many of the 850 CBSG members, as regrettably I cannot possibly visit the more than 83 countries represented within the CBSG. I very much hope that many of you will be able join me at the meetings in Taipei and Bangkok.

Sincerely,



Robert C. Lacy
CBSG Chairman



CBSG's Statement of Vitality

"CBSG cares about saving endangered species and habitat. It bases its mission and activities on the development and implementation of scientifically sound processes. CBSG takes a leadership position in the conservation community based on cross-cultural, interdisciplinary and inter-sector partnerships. CBSG champions openness, inclusiveness, morality, ethics and risk-taking. It constantly evolves in response to the needs of all those concerned with conserving the planet's biodiversity. It depends on the warmth, support, acceptance and vitality of its extended community."

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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Contents...

<i>Annual Meeting Preview</i>	4-5
<i>CBSG Workshop Updates</i>	
Malay Tapir PHVA	6-7
Chilean Fisheries Workshop	8-9
Puerto Rican Crested Toad PHVA	10-11
Bornean and Sumatran Orangutan PHVA	12-13
South Asian Vulture Crisis Workshop	14
Peninsular Pronghorn PHVA	15
South African Vulture Conservation	16-17
Elk Summit	18-19
Javan Banteng Conservation Workshop	20
<i>Donor News Insert</i>	
Feature Institution: Minnesota Zoo	Donor 1-8
<i>Special Reports</i>	
Building Capacity in Conservation	
Using CBSG Tools and Processes	21-23
Saving Rhinos with Science at the Cincinnati Zoo	23
Ulle's Legacy	24
The Red Data Book of the	
Mammals of South Africa	25
South Asian Primate Network Launched	26-27
<i>Announcements: CBSG Staff Changes</i>	28

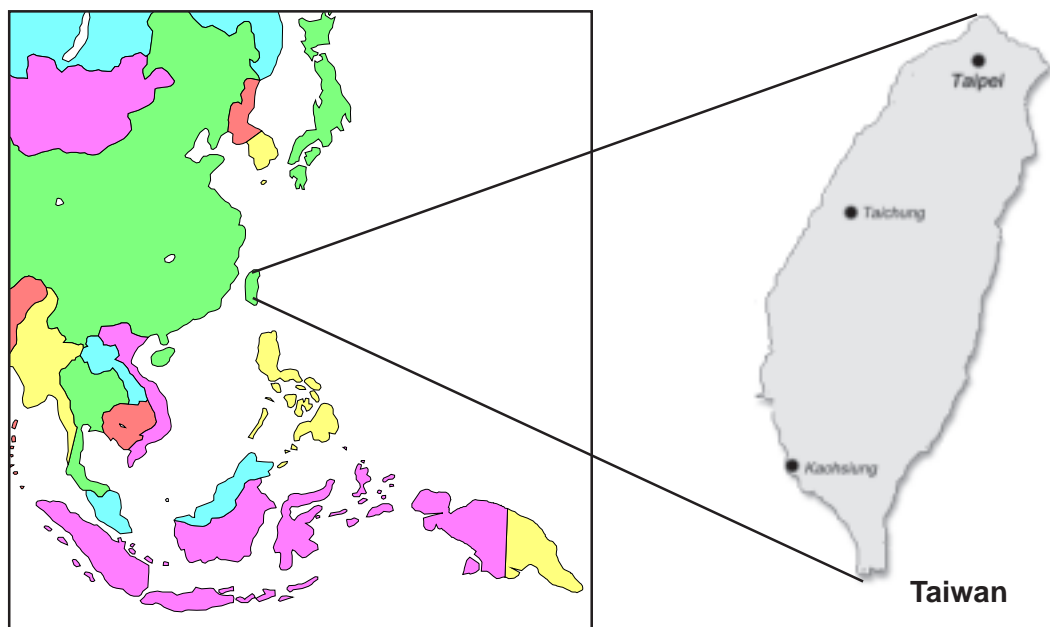


2004 CBSG Annual Meeting

October 28-31, 2004
Taipei, Taiwan

This year's theme:
The Evolving Role of Reintroduction in Conservation

Keynote Speaker:
Fred Launay, Chairman, IUCN Reintroduction Specialist Group



Hosted by the Taipei Zoo



As you may already know, the CBSG Annual Meeting is fast approaching. This year's meeting, hosted by the Taipei Zoo, will be held October 28 to 31, 2004 at the Grand Hotel, Taipei. CBSG's theme is "The Evolving Role of Reintroduction as a Tool for Conservation". Plenary presentations and working groups will focus on various aspects of reintroduction, including those reflected in the World Zoo and Aquarium Conservation Strategy.

The meeting's agenda is now being developed. Fred Launay, IUCN/SSC Reintroduction Specialist Group Chair, will present the keynote address. Other speakers include Hamish Currie of "Back To Africa" who will discuss diverse big picture concepts resulting from their experiences re-introducing sable and roan antelope into southern Africa, and Mark Stanley Price, Executive Director of Durrell Wildlife Conservation Trust, who will discuss reintroduction as defined by habitat/system restoration.

Currently proposed working group topics include: Captive Breeding Guidelines with reference to Reintroduction, CBSG Training and Zoo Biology

Modules, and World Zoo and Aquarium Conservation Strategy Action Planning.

Additional working groups will be convened to address other issues of importance to the conservation community. You can ensure that the agenda for this year's meeting will reflect the issues of concern to you by not only attending this conference but also convening a working group on a topic of your choice. Working group chairs will introduce their topics in plenary session to set the stage for the work to be accomplished when the groups meet. Throughout the course of the meeting,

CBSG's Regional Network Conveners will present updates on various conservation projects and developments around the world.

Much was accomplished at the 2003 CBSG Annual Meeting and we believe the same will be true this year. We want to encourage you to attend this year's meeting. The conference provides a great opportunity for learning, sharing and networking, all of which benefit from a more diversified group of participants. 🐢



We look forward to seeing you in Taiwan!

For more information or to register for the CBSG Annual Meeting please visit the conference web site at:

www.zoo.gov.tw/cbsg&waza.

The Malay Tapir Conservation Workshop

August 2003

Krau Wildlife Reserve, Peninsular Malaysia

During the First International Tapir Symposium held in Costa Rica in November 2001, it became clear that one of the biggest concerns among tapir experts was the limited attention that has been given to the conservation of Malay tapirs and that the Tapir Specialist Group (TSG) should give this species priority. As a consequence, the TSG decided to organize a Malay Tapir Conservation Workshop in Asia. The European Association of Zoos and Aquaria (EAZA) Tapir Taxon Advisory Group (TAG), the IUCN/SSC Conservation Breeding Specialist Group (CBSG), and the Malaysian Department of Wildlife and National Parks (DWNP) kindly agreed to support this initiative, and the first steps towards the organization of this important meeting were taken about two years ago.

The workshop was held in Krau Wildlife Reserve, Malaysia, August 12-16, 2003, and was a major success. The group was formed by 35 participants from Malaysia, Indonesia, and Thailand, with TSG representatives from several other countries also participating. Unfortunately, we did not have any participants from Myanmar. Dr. Philip Miller from the IUCN/SSC CBSG and Amy Camacho from CBSG Mexico facilitated the workshop using a *Population and Habitat Viability Analysis* (PHVA) format.

The first step of the workshop was to put together all available information and data about Malay tapirs. Participants contributed scientific articles, data and knowledge of the species and its habitat, and listed the major issues related to Malay tapir conservation. Based on this, participants were divided into four different working groups:

1. Distribution and Habitat
2. Population Biology and Simulation Modeling
3. Habitat Threats
4. Species Management

Each group had a series of tasks: (1) Identifying and defining problems and ranking them in order of priority; (2) Developing goals to achieve the change in the conditions identified in the problem statement, specifying minimum and maximum goals to achieve in the next five years, developing goals for each problem and ranking the goals in order of priority; and (3) Developing actions to accomplish the goals identified under the problems or issues, taking into account the scientific information on the species, its habitat, and the threats identified.

The Distribution and Habitat Working Group listed the following priority actions:

1. Approach regional agencies and request they incorporate/promote tapir conservation into their planned training programs for nationals to meet ASEAN Protected Areas occupational standards;
2. Widely distribute workshop outputs to relevant agencies/institutions and field personnel;
3. Recommend to those agencies/institutions under whose jurisdiction wildlife research and management fall, that they ensure that each tapir research project includes a training component for local people (staff/community/students);
4. Develop/build capacity on data collection;
5. Develop a tailor-made system reflecting the national needs and capacity that can ensure collected data are double-checked, crosschecked and deficiencies addressed; and
6. Strive to obtain independent review of information intended for public disclosure/publishing.

The Population Biology/Simulation Modeling Group listed the following priority actions:

1. Design and implement two detailed field studies (Sumatra and Peninsular Malaysia) to generate more precise estimates of selected demographic parameters, such as density and survival rates (primarily of adults);
2. Improve/add to our database on the distribution of Malay tapirs throughout their range;
3. Design and implement a study to evaluate the genetic diversity of Malay tapirs throughout their range;
4. Assess the level of extraction of Malay tapirs (hunting, by-catch, road mortality, etc); and

5. Periodically add results from long-term studies into a Malay tapir central database.

The Habitat Threats Group identified the following priority actions:

1. Conduct awareness campaigns on the need for conservation of tapir habitats;
2. Create incentives and support for people on the ground to enforce the law; and
3. Include conservation concerns in land use planning.

The Species Management Group identified the following priority actions:

1. Revise policy regarding wildlife management in Southeast Asia;
2. Conduct national level studies on resource management, land use, development, biological diversity, policies, and identification of sectors that support tapir habitat conservation;
3. Fundraise for tapir research;

4. Provide training on *in-situ* and *ex-situ* tapir conservation (e.g. population dynamics, species biology, reproduction, behavior);
5. Establish a global tapir forum;
6. Organize a NGO meeting on tapir conservation;
7. Establish an awareness campaign (local people, hunters);
8. Organize a rural participatory workshop;
9. Create opportunities in tourism-related jobs.

Recommendations coming from all four groups were put together and prioritized. The final outcome of the meeting will be a very detailed and updated action plan, listing and prioritizing strategies and actions for the conservation of Malay tapirs. The final copy of the report, available through the CBSG office, is finished and has been distributed to all interested parties in Southeast Asia. Also, this document will be incorporated as the Malay Tapir Chapter in the next, revised edition of the IUCN/SSC *Tapir Status Survey and Conservation Action Plan* (1997).

Excerpted from Tapir Conservation, December, 2003.

Submitted by Patrícia Medici, Chair, IUCN/SSC Tapir Specialist Group and Bengt Holst, Vice Director, Copenhagen Zoo, Chair, EAZA Tapir TAG.



Distribution of the Malay Tapir, *Tapirus indicus*.
(adapted from van Strien and Meijaard, unpublished 2004).



Exploitation and Management of Exotic and Naturalized Aquatic Genetic Resources In Relation to Native Biodiversity

September 2003

Puerto Varas, Chile

The introduction of exotic species constitutes a major threat to biological diversity, and there is scientific consensus that avoidance of such introductions represents one of the most important steps towards conservation and sustainable use of natural resources. However, aquaculture – the *prima facie* for world food production and a fast growing economic activity in the developing world – is often based on exotic species. This sort of paradox requires scientifically-grounded cost-benefit analysis in order to establish sound management practices.

Chile has gained international reputation as a leading country in aquaculture, mainly through the farming of alien salmonid resources. A massive industry has put the country as the second largest producer of farmed salmon in the world. However, introduction of alien species is second only to loss of habitat as the major factor affecting native biodiversity on a global scale. These introductions can have severe direct impacts in the form of ecological displacement of native species, as well as more indirect effects through modification of the native population genetic structure. In a scenario of global economic relationships and regional trade agreements, it is vitally important to focus this required debate for developing countries.

To accomplish this broad goal, researchers in genetics and aquaculture from Universidad del Los Lagos (Chile) and Stockholm University (Sweden) collaborated to organize a three-day workshop with participation from experts in aquaculture science and policy from South America, North America, and Europe. The workshop was designed to bring together a variety of stakeholders to act as a forum to:

- Raise public awareness of the possible effects of introducing alien species and populations;
- Provide background information on the main issues and implications related to species / population

introduction, exploitation and management, including naturalized ones;

- Provide guidelines to government and fisheries authorities, fisheries industries, regional management bodies, and research funding agencies on the need to focus research and development strategies on evaluation, monitoring and mitigation activities along with education plans in order to minimize the spread and impact of alien species and populations;
- Discuss the impact of the sustainable management of self-sustaining populations of naturalized species that are economically valuable; and
- Organize a national task force to deal with exotic and native species in a systematic and coordinated manner.

The workshop, entitled *Exploitation and Management of Exotic and Naturalized Aquatic Genetic Resources In Relation to Native Biodiversity*, was held 24 – 26 September at the Hotel Cabañas del Lago in Puerto Varas, Chile. A total of 29 experts participated in the discussions, with workshop facilitation conducted by CBSG's Phil Miller and CBSG Mesoamerica's Yolanda Matamoros.

At the beginning of the workshop, each participant was asked to introduce themselves and to identify their primary issue for the conservation of native aquatic biodiversity in the face of exploitation and management of exotic and naturalized genetic resources. This information was then used to identify three main working group topics: Status of Native Aquatic Biodiversity, Biological Aspects of Exotic and Native Species Management, and Exotic and Native Species Management Policy. Participants were then asked to join one of these groups at their discretion.

During the workshop, a smaller group of participants saw the value of convening a fourth group with the specific task of clearing up issues of nomenclature and terminology related to the management of exotic aquatic species. Each working group produced a detailed report on their deliberations, which is included in the document resulting from the meeting.

The working group on Status of Native Aquatic Biodiversity recognized that the lack of basic

information on native aquatic biodiversity prevents effective management of that biodiversity. Therefore poor management threatens this biodiversity and could lead to unsustainable policy decisions. There is a need for basic information on basic biology, the value of biodiversity, and the extent and breadth of aboriginal knowledge relevant to the issue of native aquatic biodiversity.

The Biological Aspects of Exotic and Native Species Management group first identified six major problems associated with the biological aspects of effects of established alien species and aquaculture on native species and ecosystems. A flow chart was then created that demonstrated possible effects of established alien species and aquaculture on the biology of native species and their ecosystems. Among the recommended actions included in this group was the suggestion that selected participants would write an article to be published in a Chilean fisheries journal that pointed out the possible harmful effects of aquaculture and established alien species on native biodiversity in Chile.

The Exotic and Native Species Management Policy working group identified the most relevant issues regarding the current situation of management policies for exotic and native species. Major problems included a general lack of information about effectiveness and compliance of policies and regulations on native and

exotic species management. To tackle this issue, a new system should be established to assure compliance with sanitary and environmental regulations. Another major topic that needs urgent action is the improvement of the decision-making

processes in relation to responsible introductions and restocking of alien species. The group identified numerous actions designed to enhance the legislative process in Chile to accomplish this objective.

There is no standard agreement of what the term “naturalized species” implies in terms of long-term persistence or value in an ecosystem. This lack of standard usage can lead to confusion that could hamper management and conservation efforts. Therefore, a working group on Terminology made major progress in the establishment of standardized definitions for terms such as “naturalized”, “alien”, “exotic”, and

“introduced” species. The group recommended that the term *established alien species* should be used instead of *naturalized* in the proceedings from this workshop, and in future discussions pertinent to this topic.

Submitted by Phil Miller,
CBSG Senior Program Officer



Puerto Rican Crested Toad

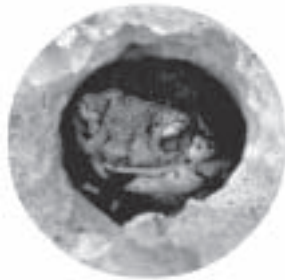
PHVA

October 2003

Boquerón, Puerto Rico

Puerto Rico's only native toad is called "sapo concho."

The Puerto Rican crested toad, *Peltophryne lemur*, was once found in areas of karst from Alta Baja to Aguadilla in the north, and from Coamo to Guánica in the south. After the introduction of another larger toad, the marine toad (*Bufo marinus*), to control the sugar cane beetle in the 1920s, both toads were called sapo concho. Because the native species was rarely seen, the name sapo concho was used to describe the more abundant marine toad. Two toads with the same name make conservation of the rare Puerto Rican toad difficult.



To further increase awareness of the island's unique sapo, scientists will now call the native toad "sapo concho puertorriqueño" and the marine toad will be called "sapo común," or common toad. A media campaign is being developed to help the public understand the importance of the unique crested toad and to distinguish it from the marine toad.

Conservationists are asking Puerto Ricans to identify areas where the toad may still be found and report sightings.

At an international meeting held in Boquerón from October 27 through 29, scientists, managers, educators, and other stakeholders tackled many issues dealing with the conservation of the sapo concho puertorriqueño. The group participated in a workshop to assess population viability and identify priority objectives for the recovery of this threatened species. The priority actions agreed to at the workshop will provide a framework for new management, research, and education projects.

This meeting coincided with the announcement by Guánica Forest Manager, Miguel Canals, that the range of the toad has been expanded. Toads recently reproduced at a protected area that has had captive-bred tadpoles reintroduced to Puerto Rico from 21

American and Canadian zoos and aquariums over the past 10 years.

The workshop was facilitated by CBSG and included representation from the U.S. Fish and Wildlife Service, Puerto Rico Department of Natural and Environmental Resources, American Zoo and Aquarium Association, Compañía de Parques Nacionales (Zoológico), and the University of Puerto Rico.

"This meeting helped the Ecological Service Office in Boqueron PR identify priorities and actions that must be implemented to conserve this species and, most importantly, reinforced communication and collaboration between state agencies, biologists, universities and the community necessary for the conservation of the sapo concho puertorriqueño," said Silmarie Padron, Fish and Wildlife Biologist of the Boqueron Field Office.

The workshop's management group emphasized the need to work together with the scientists, the community, and the non-governmental organizations to achieve the goal of protection and conservation of the Puerto Rican crested toad for future generations.

"Research concerns include finding and monitoring existing populations, identifying genetic differences between the northern and southern toads and documenting all aspects of the life history that may be important to ensure the survival of this species," said Dr. Enrique Hernández-Prieto of the University of Puerto Rico, Humacao Campus.

Exciting activities are planned by the workshop's education group. The Juan Rivero Zoo's serpentarium is being renovated to celebrate the sapo concho puertorriqueño and other species that are native to Puerto Rico. A new sapo concho puertorriqueño costume character will be unveiled soon and people should watch for posters and educational materials. In addition, opportunities to help conserve the toad will be available.

It is hoped that Puerto Ricans will get to know and appreciate the sapo concho puertorriqueño and recognize its rare and unique place on the island.

Activities since the PHVA

January 2004:

The U. S. Fish & Wildlife Service (USFWS) conducted a Research working group meeting in the Cabo Rojo National Wildlife Refuge to discuss research priority and the develop a protocol for searching for a population in the northern and southern part of the island, specially in Quebradillas, and Isabela following the recommendations and information discussed in the PHVA.

February 2004:

The Juan Rivero Zoo, Puerto Rico Department of Natural and Environmental Resources (DNER), Toronto Zoo and the USFWS celebrated the first Puerto Rican crested toad workshop for teachers in the island with the recognition of Mr. Ernesto Estremera for his 20 years of efforts and dedication for the conservation of the Puerto Rican crested toad in the northern part of the island. Approximately 40 teachers from different part of the island were present (teachers from the east, south, north, west and central parts of Puerto Rico).

In addition, the first crested toad mascot arrived on the island in the end of the month for educational purposes and is located at the Juan Rivero Zoo in Mayaguez, PR.

March 2004:

Personnel from the DNER, USFWS, Toronto Zoo and local schools from Quebradillas conducted a site visit to the north site of the island for a possible release site for the Puerto Rican crested toad.


The first draft of the Puerto Rican Crested Toad Protocol was produced.

June 2004:

A proposal for the Herpetological Initiative is being reviewed in order to conduct the following projects:

1. Identify potential toad habitat by GIS analysis to characterize historic and current toad habitat for the northern population.

2. Monitor the northern population for a period of two years at selected sites with trained search team and search protocols.
3. Identify adjacent landowners.

Also in June, Bob Johnson, Curator of Amphibians and Reptiles from Toronto Zoo was selected for the U.S. Fish and Wildlife Service Regional Director's 2003 Conservation Award recognizing his efforts and dedication to the conservation of our threatened species the Sapo Concho Puertorriqueño. 

*Submitted by Silmarie Padron,
U.S. Fish and Wildlife Service Biologist*



Bornean and Sumatran Orangutan PHVA

January 2004

Jakarta, Indonesia

Serious downward trends in the integrity of Indonesia's forest estate occurred throughout the 1990s due to widespread logging and conversion for plantation agriculture. Some protected areas were, in retrospect, left relatively unscathed, while others suffered from devastating fires that resulted from unwise land-use practices. Since the change in government in 1998, however, conservation in Indonesia has seen a virtual collapse, and deforestation has been enormous regardless of the legal status of the land. As a result, wild orangutans are in steady decline due to logging, habitat conversion, fires and poaching.

CBSG was invited to conduct a Population and Habitat Viability Assessment (PHVA) workshop for both Bornean (*Pongo pygmaeus pygmaeus*, *Pongo pygmaeus wurmbii* and *Pongo pygmaeus morio*) and Sumatran (*Pongo abelii*) orangutans to develop a strategic recovery plan for these threatened species and their habitat. Over 80 people participated in the PHVA, which was held 15-18 January 2004 and generously hosted by BOS Indonesia at the Schmutzer Primate Centre in Jakarta. At the PHVA, orangutan population data were integrated with estimates of human-based threats, such as current and projected land-use patterns. Computer models were used to evaluate current and future risk of population decline or extinction under alternative management scenarios. Participants developed detailed management recommendations based on these and other analyses.

In order to draw the greatest benefit from this gathering of experts, preparatory fieldwork was undertaken to assemble updated information on orangutan distribution and densities. This work was coordinated by Dr. Carel van Schaik and funded by Orangutan Foundation UK. Additional Sumatran surveys were conducted with the support of The Gouden Ark Foundation, The Netherlands. In order to obtain the necessary data, distribution maps produced by Rijksen and Meijaard (1999) were reviewed and the information updated through consultation with all relevant field experts. Based on their recommendations, priority survey areas were

identified. Visits to these areas were conducted by several teams of Indonesian and international researchers to update distribution information, estimate densities on the ground, and record the nature of habitat disturbance. The project results, including all known data on orangutan distribution, genetics and ecology, were presented at the workshop and can be found in the PHVA report. A presentation was also given focusing on the computer modeling tools to be used during the workshop and results of preliminary orangutan population projections. The participants then split up into three groups. Two were region-based (Borneo and Sumatra) and the third, Conservation Strategies, addressed global and local issues facing orangutan conservation.

Each region-based working group was asked to:

1. review the data and refine the baseline model;
 2. determine priority sites;
 3. identify threats to orangutan survival at priority sites;
 4. propose preliminary management recommendations;
 5. test effect of preliminary recommendations in population models;
 6. develop action plans for priority sites.
- The Conservation Strategies group mobilized the expertise represented at the PHVA workshop and used its results to develop new strategies to protect orangutans.

Results and Recommendations

Orangutans on Sumatra

With current estimated rates of logging and the associated removal of orangutans, model results indicate that habitat loss and other factors will cause Sumatran orangutan populations to decline quickly toward extinction. Sensitivity testing of the baseline model suggests that, in the absence of logging or



Photo courtesy of Orangutan Foundation

hunting, only populations of 250 or more orangutans show long-term viability. Logging decreases viability, and high annual logging rates of 10-20% quickly drive even large populations to extinction. Of the 13 identified orangutan populations on Sumatra, only 7 are estimated to contain 250 or more individuals. Of these 7 populations, 6 are believed to be subject to 10-15% annual habitat loss due to logging and are expected to decline quickly. This includes the largest Sumatran orangutan populations, which are found in West and East Leuser and in Singkil; these populations are projected to decline dramatically within the next few years due to high rates of illegal logging and are at risk of rapid extinction if habitat loss is not checked.

The conclusion is bleak – Sumatran orangutan populations may decline by 50% in about a decade, by 97% in 50 years, and will eventually disappear unless continued habitat loss is stopped. To counteract this threat, efforts need to be made to reduce high levels of logging and ultimately to stop further loss of habitat and carrying capacity through cessation of logging and/or habitat restoration. The urgency for action varies among the habitat units and is dependent upon the current rate of logging and size of the orangutan population; for some habitat units, the need for action is immediate if orangutans are to persist. Fragmentation due to the presence of roads or other factors exacerbates the urgency for such conservation action. The working group developed general recommendations for conservation action for the 13 habitat units identified for Sumatra. Conservation International Indonesia made a commitment to find funds to bring the group together again to work toward the next level of developing an effective Sumatran orangutan action plan. This workshop is scheduled for 5-8 October 2004.

Orangutans on Borneo

Our initial exploration of scenarios representing typical populations on Borneo suggests that orangutan populations restricted to habitats capable of supporting only about 50 animals can persist for a considerable number of years, but are unstable and vulnerable to extirpation. Habitats capable of supporting more than 250 orangutans appeared necessary to ensure good demographic and genetic stability. Even low rates of hunting could destabilize and threaten the persistence of initially large populations in extensive areas of habitat. Even in the best habitats, the slow breeding rates of orangutans cannot compensate for hunting at


rates of 2% and higher. The group identified a set of general recommendations for conservation of the orangutans on Borneo. Included are recommendations focusing on the areas of: awareness and education, economic development, law enforcement, habitat management, research (long-term) and population monitoring, policy, and wildlife corridors.

Conservation Strategies

While recognizing the value of two important existing international initiatives (GrASP - the Great Ape Survival Project and GAWHSP - the Great Ape World Heritage Species Project), the formation of two new institutions to improve the monitoring and conservation of populations and habitat blocks was endorsed: an Orangutan Scientific Commission (OSC) and an Orangutan Conservation Forum (OCF).

Some of the OSC's primary functions will include: monitoring and publicizing the status of populations and habitat units; providing an authoritative source of information; prioritizing research and funding needs; and raising awareness among international government and private donors

The OCF will focus on scientific aspects of conservation. Its important functions will include: communication with all levels of stakeholders about PHVA results and their scientific basis; liaison with the scientific commission providing data and distributing information; liaison with local stakeholders working at orangutan field sites regarding conservation status of the population and forest habitat, changes in policies, etc.; and advising preparation of the GrASP National Great Ape Survival Plan.

When these guidelines were outlined at the PHVA, NGOs representatives in the room pledged over \$25,000 to support the OCF. While the situation for the orangutans and their habitat is dim, this show of support provided enormous encouragement and motivation to the initiative and to the stakeholders gathered who are dedicating their careers to ensuring the survival of the orangutan. 

*Submitted by Onnie Byers,
CBSG Executive Officer*

South Asian Vulture Crisis and Recovery Plan

February 2004

Parwanoo, Himachal Pradesh, India

Four of the eight species of Gyps vultures are endemic to Asia — the oriental white-backed vulture (*G. bengalensis*), the long-billed vulture (*G. indicus*), the slender-billed vulture (*G. tenuirostris*), and the Himalayan griffon



(*G. himalayensis*). The first three species are listed as Critically Endangered and are now facing imminent extinction. Populations in India have declined by more than 97% over a 12-year period and by 92% in a 5-year period in Pakistan. The rate of decline is increasing and now exceeds 50% annually. Current captive populations are not viable for any of these species and do not provide an alternative to species extinction if wild populations disappear.


In response to this crisis two international meetings were held in February 2004 to address the causes of the decline and to develop a recovery plan for South Asian vultures. The Kathmandu Summit Meeting held on 5-6 February 2004 at Kathmandu, Nepal specifically addressed the veterinary use of the drug diclofenac. Recent research suggests that diclofenac (a non-steroidal anti-inflammatory drug) is the major cause of the observed rapid population declines. Vultures become exposed to diclofenac when feeding upon carcasses of domestic livestock that have been treated with the drug. Vultures appear to be highly susceptible to diclofenac and develop visceral gout and kidney failure quickly after feeding on contaminated carcasses, often showing a “drooping neck” syndrome. Diclofenac is cheap, safe, effective and readily available in India and Pakistan. Modelling results indicate that the observed rate of decline in vultures could be caused by contamination of less than 1% of livestock carcasses with diclofenac.

The meeting in Kathmandu was followed by an international workshop held at Parwanoo, Himachal Pradesh, India on 12-14 February 2004. This

workshop was funded by the Darwin Initiative and convened by Bombay Natural History Society and the Haryana State Government. Delegates included government representatives, conservation biologists, pathologists, NGOs and representatives from the IUCN Reintroduction and Conservation Breeding Specialist Groups. The objective of the workshop was to develop a recovery plan for these three vulture species in response to the catastrophic collapse of their wild populations. The resulting plan identifies the probable causes of the recent declines, current and future threats to vultures in the wild, and recommendations for action.

The draft recovery plan recommends that government authorities in all range states begin action immediately to prevent all veterinary uses of diclofenac that allow contamination of livestock carcasses accessible to vultures. Stricter bans are more desirable, including an outright ban on veterinary use. Public awareness of the threat of diclofenac poisoning will also be addressed.

Because vulture populations are so low and declining so rapidly, workshop participants felt that such measures cannot be implemented rapidly enough to prevent extinction in the wild. Therefore they recommended the immediate establishment of captive management programs for all three species. Young birds were scheduled for capture during the 2004 breeding season to establish captive populations at a minimum of three facilities primarily within the range countries, and plans were made for technology transfer in captive vulture management.

Vultures play a key ecological role in the Indian subcontinent. In many areas, religious and cultural beliefs forbid the consumption of meat, but because milk is a dietary staple, there are a large number of livestock carcasses available to scavengers. With the decline in numbers of vultures, increased carcass availability has led to an increase in feral dog populations, which could have serious consequences for human and wildlife health. The accumulation of carcasses may have implications for groundwater safety and disease. Vultures also play a key role in Parsi beliefs, as their human dead are not buried but are left to be eaten by birds in sky burials. The most famous site is the Towers of Silence in Mumbai where thousands of vultures used to congregate; now only smaller and inefficient scavengers remain. 

Submitted by Kathy Traylor-Holzer,
CBSG Program Officer

Peninsular Pronghorn PHVA

April 2004

La Paz, Baja California Sur, México

The Vizcaino Desert Biosphere Reserve is in the central region of the Baja California Peninsula. While the Reserve is the largest natural protected area in México, this vast habitat now hosts the last wild population of the fastest animal in North America: the peninsular pronghorn antelope. Fewer than 200 of these animals remain in the Reserve, with approximately 100 additional pronghorn raised in a semi-natural captive facility in the same location.

The Peninsular Pronghorn Recovery Plan was implemented in 1984, with management emphasis placed on mitigating the impacts of drought, coyote predation on fawns, and illegal hunting. To evaluate the Plan and to strengthen its effectiveness, Mexican authorities asked CBSG to coordinate a PHVA workshop in November, 1994 in La Paz, Baja California. The first workshop was instrumental in, among other things, developing guidelines for the establishment of the captive management program that was ultimately set up in 1998. Despite the continuing success of the program, new issues became important in the management of the species – in particular, the identification of a suitable site for establishment of a new pronghorn population within the Reserve, the optimal use of the wild and captive populations in the development of a release group, and the involvement of the local human communities living near the Reserve.

To address these issues, researchers and managers from the Reserve and the Center for Biological Research of the Northwest (CIBNOR) requested that a second PHVA workshop be held to honor the 10th anniversary of the first meeting. The second workshop took place in La Paz on 1- 4 April 2004, with more than 35 participants including recognized pronghorn experts in the United States and México as well as a large number of management personnel from the Vizcaino Desert Biosphere Reserve and other stakeholders from the nearby communities.


The workshop opened with a discussion centered around participants' views of the primary threats facing the continued survival of the pronghorn. Although there is clearly a lack of understanding of the

species' demography and population history, it also became evident on this first day that there was little appreciation among the local communities of the biological importance of the species and, therefore, little involvement of these communities in the development of effective species management plans. Based on these revelations, the following five working groups were formed: Wild Population Management; Captive Population Management; Habitat Management; Community Involvement; and Population Biology and Simulation Modeling.

From the working group discussions, the top three goals were:

1. Obtain as much information as possible on the social, ecological, economic, and political aspects of pronghorn conservation;
2. Design pre-release, release, and translocation strategies and identify the most appropriate sites;
3. Avoid or diminish the negative effects of human activities affecting the subspecies, including hunting.

Each working group then made an attempt to identify specific actions, using their particular topic-based perspective, that would help to achieve each of these high-priority goals.

Substantial improvements were made to the VORTEX-based simulation model of peninsular pronghorn population biology, leading to specific recommendations on research and management priorities. Using some of this information, members of the Habitat and Wild Population Management working groups joined forces to develop a detailed methodology for telemetry-based field studies of population-level and individual-level demographic dynamics. The elaboration of this proposal prompted a heated debate during the final plenary session on the risk of capture-induced mortality and the need for extreme care when considering capture protocols for a species such as this. In addition, those participants discussing aspects of community involvement – a topic almost completely absent from the 1994 workshop – developed a host of creative and thoughtful proposals for increasing the participation of local towns and their inhabitants in long-term pronghorn management strategies. 

*Submitted by Phil Miller,
CBSG Senior Program Officer*

South African Vulture Conservation

April 2004

Kimberley, South Africa



The Vulture Study Group (VSG) is a Working Group of the Endangered Wildlife Trust (EWT). The VSG coordinates and implements many vulture conservation programs through southern Africa and operates through a large network of volunteers and supporters. Working with landowners, farmers, scientists, conservation authorities and other NGOs, the VSG is involved with vulture monitoring and research, community conservation and education and awareness.

The South African Vulture Conservation workshop was organized by the EWT's Vulture Study Group, sponsored by Lomas Wildlife Trust, Rand Merchant Bank, Computer Facilities and Sasol and was attended by 64 people from a variety of stakeholder groups and organizations. The workshop ran over three days with the first day and a half being dedicated to presentations dealing with critical vulture issues and updates on various projects. The rest of the workshop was used to run a strategic planning workshop for vulture conservation in southern Africa and was facilitated by CBSG Southern Africa.

The workshop began with a group brainstorming session to determine the main issues facing vulture conservation in the region. These issues were then themed resulting in the formation of five Working Groups as follows:

- Political and Public Awareness
- Habitat Loss and Transformation
- Research and Monitoring
- Unnatural Mortalities
- Community-based Issues

Working groups were given a set of tasks that included formulating problem statements, developing possible solutions and developing recommendations and action steps for implementation. All problems and solutions were prioritized and filtered through a set of "checks" in order to ensure that solutions and recommendations were practical, realistic and appropriate.

Between intensive working group sessions, open plenary sessions were held whereby working groups presented their discussions and conclusions to the entire group, openly discussed them and made adaptations where necessary in order to ensure that the reports and outcomes were as inclusive and representative as possible.

The following summarizes the Working Group outcomes.

Political and Public Awareness

This group recognized that there is a lack of coordination between relevant provincial and national government departments and a lack of enforcement of existing legislation. A lack of ornithologists within conservation departments as well as the necessary environmental education, training and resource materials was also considered to be a problem. The available vulture information is not effectively disseminated and public knowledge of vultures and their conservation value is poor. To resolve this, the group suggested the establishment of a "unit" to appropriately address different stakeholder educational needs. Capacity building and scholarships for aspiring ornithologists were highlighted as a solution. Increased cooperation with conservation and law enforcement authorities throughout the SADC region was stressed, as was improved coordination between relevant departments.

Habitat Loss and Transformation

This group began by defining the difference between habitat loss, habitat degradation and the fact that not all habitat transformation is detrimental to vultures. The issues faced however include disturbance, climate change, land transformation, development and food shortages. The solutions developed deal with having a greater input into the Environmental Impact Assessment (EIA) process and encouraging greater implementation and enforcement of the existing legal structures and frameworks. Information dissemination and the use of vultures as habitat quality indicators were also stressed. Programs to provide landowners with incentives for undertaking sound conservation and land management practices were investigated. It was stressed that data on the impacts of habitat changes on vultures needs to be accumulated, collated and disseminated to a wide

variety of stakeholders. Various disturbance factors were explored and prevention measures include education and awareness and improved law enforcement.

Research and Monitoring

The Research Working Group focused on the lack of data on vulture population sizes and trends and much emphasis was placed on the need for data collation and the development of a centralized database. Coordinated and systematized species and region-specific data collection and monitoring programs were suggested as solutions to the issue of lacking data, which would aid in the analysis of regional species trends. The issue regarding the lack of data on the impacts of certain perceived threats could be resolved by developing systemic protocols for ringing, tracking and monitoring vultures. A market



survey into the use of vultures and their parts in the traditional medicine trade was also suggested. Gaps in the available data on vulture biology and ecology could be identified through the development of a matrix of available information, and conservation priorities could be set using this system as well as the IUCN Red Listing system for identifying species under greatest threat of extinction. Above all, results of research and relevant information must be widely disseminated to all appropriate stakeholders.

Unnatural Mortalities

This group dealt with all issues causing unnatural deaths of vultures including poisoning (intentional and secondary), powerline impacts and electrocutions, drownings, direct persecution, consumptive utilization and disease. In all, however, it was noted that the impacts and definitive data on the quantitative impacts were lacking and this needs to be addressed. Unsustainable use of all raptors was considered an issue that needs monitoring and intervention. In almost all solutions that this group investigated, partnerships with other organizations and projects were stressed. The EWT’s Poison Working Group

and its partnership with Eskom was cited as a project that can assist in addressing the problems of poisonings and powerline-related deaths. Increased research into the impact of chemical, contaminant and certain drugs such as NSAIDs needs to be conducted and the provision of safe food sources needs to be explored and communicated to relevant stakeholders.

Once again, the lack of definitive data on the impacts of certain threats was emphasized and research into the consumptive use of vultures, for example, in trade and traditional medicine, was highlighted as a priority. Human disturbance was considered to be a priority issue and can be dealt with through law enforcement, education and awareness campaigns and improved communication with all stakeholders.

Community-based Issues

This group tackled some very challenging and complex issues as they considered the roles played by vultures in various communities, ranging from indigenous peoples to landowners and commercial enterprises. The struggle for many communities to make a living was considered to be a major threat to vultures as they become an over-exploited resource. Empowering and educating people and offering them alternatives to making money from trade in vultures and their parts was explored. Much time was spent discussing the negative perception of many people of vultures, and education programs to address this were explored. “Use” was divided according to traditional users, gatherers and commercial trade. In many cases, the user and gatherer are very different and need to be dealt with differently, ranging from working with community leaders and traditional healers to improved law enforcement. Unemployment and poverty are the driving forces behind unsustainable commercial gathering and trade, and human population growth is a huge challenge to conservation programs.

*Submitted by Yolán Friedmann,
CBSG Southern Africa Convener.*

Elk Summit

April 2004

Prosser, WA, USA

The Yakima/Rattlesnake Hills population of Rocky Mountain elk is a wide-ranging natural herd that moves between private and public lands. During hunting season a large portion of the herd typically takes refuge on the Arid Lands Ecology (ALE) Unit of the Hanford Reach National Monument, which is closed to the public due to its research importance and ecological sensitivity and significance. In the spring and early summer, elk move back and forth between the ALE and adjacent private lands causing damage to agricultural crops (particularly wheat fields). Although herd size has been reduced from over 800 to approximately 500 animals over the last three years, the State of Washington has paid damage claims to adjacent private landowners.



Multiple jurisdictions, agencies and intermingled land ownerships create complex management challenges. There are many ideas about how best to manage the Yakima/Rattlesnake Hills elk herd. Interest stems from many areas, including recreational use, crop damage, Native American treaties, and population control for biological reasons. Some of these uses are compatible, but many are in conflict, at least in how they are applied. Interest and debate have become so intense that the Washington Department of Fish and Wildlife and the U.S. Fish and Wildlife Service decided to conduct a two-day workshop to look at management of this herd.

The Elk Summit was held in Prosser, WA on April 5-6, 2004 and CBSG was invited to design and facilitate the workshop. The goals of this workshop were three-fold: 1) establishment of open lines of communication among all parties with an interest in management of the Yakima/Rattlesnake Hills elk herd;

2) sharing of updated facts, such as elk population numbers, habitat quality, and agricultural losses; and 3) identification of potential herd management actions that could be taken to reduce agricultural losses. There was no expectation that all issues would be resolved during this meeting, but the organizers believed strongly that accomplishing the above goals would be of great value in the cooperative management of this elk herd.

The Process

The process designed for this meeting began with tasks intended to increase appreciation of each other's perspectives and to focus people on problem analysis rather than solutions. Each participant was asked to introduce him or herself and to answer two questions: 1) What do you hope to accomplish in this workshop?; and 2) What is your personal vision for the future of the Yakima/Rattlesnake Hills elk herd? Responses to question two indicated immediately that, although there was a great deal of frustration in the room and a definite need for more active management of the population, there is also almost unanimous appreciation for the elk and a desire to see the herd remain on the landscape.

The first day was spent with participants divided into seven stakeholder groups: hunting interests, adjacent landowners, tribal representatives, federal agencies, county representatives, state agencies and environmental interests. We used the mind-mapping tool to identify key concerns related to management of the Yakima/Rattlesnake Hills elk herd. A large number of clustered issues were generated and then each stakeholder group was given a different color set of dots and asked to prioritize the clusters of issues. The top priority issues were overwhelmingly those related to landowner concerns of damage from elk and from hunters. Because of the use of different colored dots for each group it was clear that this cluster of concerns was top priority to all groups in the room, not only to the landowner group. This revelation was important and helped to focus the work for the remainder of the workshop.

The next task was designed to help build a shared context of stakeholder concerns and priorities as well as to clarify needs versus solutions. Each stakeholder

group was asked to prepare a written problem statement for the top priority issue or group of issues from their own perspective. Then, for each problem statement the question was asked: “What are your stakeholder group’s needs in relation to solutions to this problem?” These problems and needs statements were then presented in plenary session.

On day two, participants rearranged themselves into mixed groups, with at least one representative of each stakeholder group among the members of each mixed group, to brainstorm possible solutions to meet the needs expressed by each stakeholder group and to define the potential effects of each solution. Most of the second day was dedicated to this task, and important discussions and relationship building took place in these mixed groups. The plenary reports from this session identified many creative solutions.

As soon as this plenary session ended, and with less than one hour left in the workshop, the participants reconvened in stakeholder groups to discuss what they had just heard and make commitments for concrete

steps they would be willing to take to make progress towards solving the problems and meeting the needs identified during the workshop. This was an essential step during which real commitments were made that all stakeholders had wanted to hear and were now witness to. In response to a strong need for continued dialogue and information sharing, the FWS agreed to produce an e-bulletin that will be sent regularly to all workshop participants providing progress reports on the commitments people and groups made at the meeting.

While the problems are long-standing and complex and frustrations remain, at the close of the workshop there was a sense of hope that a resolution can be reached and that the agencies with responsibility for managing the elk herd are prepared to respond to the needs of the stakeholders.

*Submitted by Onnie Byers,
CBSG Executive Officer*



Javan Banteng Conservation Workshop

June 2004

Surabaya, East Java, Indonesia

According to figures released by the Indonesian Biodiversity Conservation group, the wild banteng population in Java has fallen by some 80 percent since the mid-1990s and will become extinct if drastic action is not taken immediately. CBSG Indonesia recently held a workshop looking at the current situation of the Javan banteng (*Bos javanicus javanicus*). The focus of the workshop was to draw up plans for the species' future management.

More than 100 people attended the workshop in Surabaya, East Java, which was a cooperative effort with PAKARTI (Conservation of Indonesian Biodiversity), PKSBI (Indonesian Zoological Association) and FOKSI (an independent group aimed at disseminating knowledge on the conservation of Indonesian wildlife, with many members who are journalists).

A pre-workshop seminar was held in Surabaya, East Java, which attracted more than 100 people, including many journalists and government officials from the Department of Forestry and representatives from various National Parks in the region. The workshop, held on June 2-3 at Taman Safari Indonesia 2 at Prigen, in East Java, was attended by more than double the number of expected participants. This was a sign that there were many who were vitally interested in maintaining and conserving Indonesia's rich biodiversity.

We were particularly pleased that so many media representatives attended both the pre-seminar and the workshop. While the Javan banteng – which is an endangered sub-species – thrives in captivity, in the wild it is under great pressure due to the deteriorating condition of its habitat due to forest degradation and lack of water for the animals. Its population is also decreasing because of imbalances in the ecosystem and the economic situation of the area's local population, who see the banteng as an attractive source of bushmeat.

However, those involved in the workshop are now more optimistic about the species future and are confident that the strategies developed during the workshop, if carried out fully, will help develop better conditions for both the wild cattle and for the human population.

These strategies were agreed on by many organizations, both government and non-government, and the presence of so many journalists points to close monitoring of their progress by the media.

The strategies included:

- Minimize illegal poaching through a program of law enforcement, information sharing and publicity.
- Minimize forest degradation through integrated social forestry, law enforcement and a public-awareness campaign.
- Involve local communities to minimize their need to use bush meat through development of a medicinal plant and acacia carbon industries, optimization of the habitat buffer zone, and promotion of the banteng as part of an ecotourism program including the sale of local handicrafts.

These initiatives will be undertaken by representatives of the Indonesian National Parks, Department of Forestry, police officers, NGOs, media outlets, local government, and those in the tourism industry. 🐘

*Submitted by Jansen Manansang,
CBSG Indonesia Convener*



Building Capacity In Conservation Using CBSG Tools and Processes

In 1997, Zoo Outreach Organisation and CBSG India organized a series of seven prioritization workshops using the CBSG CAMP process, under a USAID scheme called the Biodiversity Conservation Prioritisation Project. Lack of data and experts led us to organize systematic networks in order to pull together taxon field biologists and help them get into action. Separate Chiroptera and Rodentia (including insectivora, scandentia & lagomorpha) networks were formed. Chiroptera and Rodentia make up about 50% of India and South Asia's mammal diversity and each group had about 50% Data Deficiency in the 1997 CAMP. This article is about these networks and how their activities could evolve in an elegant manner, largely due to CBSG tools and processes.

One of the first activities of the networks was to disseminate the CAMP Report to both volant and non-volant small mammal specialists, such as they were, and to encourage them to survey Data Deficient species. We organized a field techniques training workshop for bats in 2000 and 2003 and a similar workshop for rodents in 2002. In connection with the rodent training, we followed up by raising \$8000 for field studies for participants in order to have more information for the upcoming CAMP and simply to reinforce training for participants. We have had excellent trainers for these workshops, academics and specialist group chairs primarily from United Kingdom who emphasized the importance of animal welfare in conducting field studies along with up-to-date techniques.

For some reason, our bat biologists seem to take an inordinate interest also in rodents and vice versa. By

the time of our Non-volant Small Mammal CAMP, this had become obvious. Having been through five workshops together over a period of about four years made for a very coherent, convivial and cooperative group. Also, the combined tools and techniques conveyed over that period in the various workshops seemed to come together and a number of practical and potentially very effective recommendations were made. The next couple of years will be spent in implementation. Some examples are below.

Training

In the past, we have called people from abroad to India for training Indian field biologists and a small number from surrounding countries. The small number is due to the high cost of travel between South Asian countries. At the Network Working Group it was decided that the network would begin inviting the external experts to some of the surrounding countries that have almost no small mammal biologists so that a respectable number from that country can attend the workshop. In particular, Pakistan, Bangladesh and Nepal are lacking in small mammal biologists.



Another recommendation was to try combining chiroptera and rodent field studies training because it occurred to us that the timing for setting traps and collecting rodents was compatible and did not interfere with the setting up of mist nets and cave searches for studying bats. Therefore, the field studies training for these two groups could be combined, with an idea to encourage bat researchers to also do some rodent studies while they are in the area, and vice versa.

In keeping with our recommendations, a workshop has been planned for Pakistan in October 2004 in collaboration with the Karachi Zoo, the Zoological Survey Department, Pakistan Natural History Museum and IUCN Pakistan. This workshop will try the technique of combining chiroptera and rodent field techniques training with an eye to creating field biologists who routinely conduct studies of both groups.

In Pakistan currently there is not even one biologist conducting studies of this large group of mammals.

A further innovation related to training was a suggestion that genuine field studies can be conducted as a training exercise with a few experienced field workers and some interested students. A trial run of this type of exercise was carried out last month by Sanjay Molur and a couple of experienced biologists conducting bat and rodent inventory of some private estates in order to compare results with unique data from 100 and 50 years ago! This exercise lent insight into how such an exercise might be organized effectively.

Research, Database and Publications

Standardization and standards for research, compiling information and publications have been a vexing subject in South Asia and other regions that are trying to develop a scientific community among indigenous scientists. English is not the first language and even colleges and universities are often not up-to-date or up-to-standard in wildlife and conservation studies.

The Network Working group suggested that the network's host organization, Zoo Outreach Organisation, coordinate the development of a research form that researchers complete to: 1. add to an ongoing small mammal database as a way of capturing notes and

observations that would otherwise go unmissed and 2. provide potential to publish those observations as natural history notes in ZOOS' PRINT Journal. ZOOS' PRINT Editors would help researchers who are not comfortable with English to turn the form into a publishable note. A format based on the CAMP datasheet is to be explored and circulated for comment.



Artwork courtesy of Arnab Roy

Network host, Zoo Outreach Organisation, offered to make an attempt to enter such data as researchers submitted in the CAMP Data Entry Program as

and when it appeared and in whatever form. A "personal comment" or unpublished note could be entered carrying the same data quality as such when participants submit information in the CAMP, and upgraded when a note was published. The prospect of encouraging the habit of submitting natural history notes to a peer reviewed conservation publication can, if researchers take advantage of it, add quite a bit of information on some of the "information-poor" small mammals.

Another problem in developing countries' biological science is that type specimens, in this instance of South Asian small mammals, are mostly found in a few museums outside the region, which makes it difficult to confirm the taxonomy of many species. A



project for visiting these museums to update taxonomic questions for South Asian small mammals may fit the guidelines of a Darwin Initiative grant, and this will be attempted in collaboration with Mike Jordan, one of our UK advisors from Chester Zoo, which is our major Chiroptera network sponsor. This information can be added inbetween CAMPs to the CAMP Data Entry Program. It is also a way of maintaining the focus of the


taxon network on building a body of information as a community of researchers about their specialty. Mike Jordan also made a commitment to host a member of the South Asian network at Chester Zoo for a training in captive management and reintroduction, inspired by the discussion in the working group, and this activity has been carried out. P.O. Nameer, who along with B.A. Daniel, Chair, South Asian Invertebrate

Specialist Group attended the CBSG Facilitator Training Course and went from there to Chester Zoo for his training. Chester was conducting harvest mouse monitoring during that particular time, an extremely advantageous experience for Nameer and our network.

Conservation

The IUCN SSC Rodent Specialist Group Chair, Dr. Giovanni Amori, participated in the CAMP and Network Working Group, which made a discussion and decision to create taxon-based South Asian Action Plans for non-volant small mammals as assessed in the CAMP by the regional network and specialist group members more meaningful. Dr. Amori gave good direction and a strategy to put this plan into action.

CAMP workshops, with the Data Entry Program and other CBSG tools, processes and philosophy, are particularly useful in regions where we are trying to build a better conservation community. In some countries, this is being done practically from scratch, and in particular for non-charismatic and neglected taxon groups.

The primary sponsors of our small mammal work are Knowsley Safari Park (entire non-volant small mammal network and activities), Chester Zoo (volant small mammal network and many activities), Bat Conservation International, Columbus Zoo and Riverbanks Zoo (several training and education projects). 

Submitted by Sally Walker and Sanjay Molur, CBSG South Asia

Saving Rhinos with Science at the Cincinnati Zoo


In September of 2001, a Sumatran rhinoceros at the Cincinnati Zoo became the first of her species to reproduce in captivity since 1889. Currently, this same Sumatran rhino is pregnant again and due to give birth sometime this summer. This pregnancy is the first the female has carried naturally to term without being provided a hormonal supplement. If successful, she will be the first Sumatran rhino in history to produce two calves in captivity. Good news like this could not come at a more critical time in the conservation of Sumatran rhinos – fewer than 300 remain in the wild. Sumatran rhinos are primarily threatened due to poaching for the rhino's horn, which some cultures believe has medicinal properties.

At Cincinnati Zoo's Center for Conservation and Research of Endangered Wildlife (CREW), Dr. Terri Roth has been developing the scientific tools and processes for successful rhino breeding. "Sumatran rhinos are probably the most difficult species to breed and maintain in captivity," said Dr. Roth. "Scientific breakthroughs at CREW have given hope to the effort to save the species, but



Photo courtesy of Cincinnati Zoo

accomplishments haven't come easily. This second pregnancy is proof that the science of breeding Sumatran rhinos has been developed at the Cincinnati Zoo, and the first birth was not just a one time wonder."

The Cincinnati Zoo contributes to the survival of Sumatran rhinos in the wild as well by partnering with the International Rhino Foundation to support Rhino Protection Units and *ex-situ* breeding efforts in Southeast Asia. The Cincinnati Zoo Education department also developed a school guide to increase rhino awareness locally. To read more about Cincinnati Zoo's Sumatran rhino breeding program, visit www.cincinnati-zoo.org. 

Submitted by Terri Roth, Cincinnati Zoo

Ulíe's Legacy

The past 12 months have involved a variety of events that have shaped and cultivated one of the Minnesota Zoo's most notable wolves. This wolf is known as studbook #834 to the Mexican wolf SSP community, #10961 to the registrar at the zoo, or "Ulíe" to some keepers and the CBSG staff. He has evolved from the smallest male pup with ears that flopped over until he was nearly 3 months old to a yearling wolf that evokes a sense of what a wild wolf is all about. His gaze toward you appears to go right through you – like a wild wolf of the forest, mountains and plains of those places on earth where wolves are still allowed to exist. Those of you who have had the unique experience of seeing a wolf in the wild will know what I am talking about...a creature that seems to appear and disappear without a sound, but rather a sudden "feeling" of presence.

From the time he left the security of the den at 19 days of age, this wolf pup became a favorite of zoo visitors and staff alike. His floppy ears easily distinguished him from any other pup in the litter. This pup was fairly bold and quickly investigated his surroundings within the boundaries of the exhibit. He quickly emerged as the alpha male pup, and continues to maintain that position today. He often could be found to be on a solo journey of adventure to discover and conquer his surroundings, whether it was a bush, bird, bug or enrichment item given to the pack.

His overall behavior could be described as confident in human terms. And although he could be observed to be dominant over any other pup in the group, it was not a dominance that was shown by constant battle or force, but rather in a quiet, subtle way with just the way he walked, showed facial expression or vocalized to others. This does not mean, however, that he quietly accepted everything within his surroundings. For example, during this year's past breeding season, we observed him to double scent mark over the alpha female's urine spot (while watching *exactly* where the alpha adult male was). Needless to say, this type of behavior did not set well with the alpha male, and "Ulíe" was quickly and effectively schooled in the "rules 101 of a pup and don't ever challenge *me* again" by his sire.



"Ulíe" at one year

It has been exciting to watch this particular pup grow into an adult wolf over the past year. It is the part of my job that gives me the most satisfaction – observing wildlife doing behaving as they would if they lived in the wild. It is also satisfying to participate in a project where a combined effort of captive breeding and preservation of the species in its wild habitat is now a reality. Although "Ulíe" may never have the experience of hunting wild prey or roaming the wild mountains of the southwest, some of his relatives will. There are nearly 60 Mexican gray wolves in the wild, and this would not have been possible without the efforts of the staff of CBSG, the captive breeding community, state and federal agencies, and private individuals willing to tolerate wolves in their backyard. This is why this pup was named "Ulíe" – a small reminder of what is possible with a little cooperation, tenacity, and passion...qualities that remind me of Dr. Ulysses S. Seal. 🐾

*Submitted by Jackie Fallon,
Minnesota Zookeeper*

The Red Data Book of the Mammals of South Africa

The Endangered Wildlife Trust, the Conservation Breeding Specialist Group (CBSG) of the IUCN (World Conservation Union)'s Species Survival Commission, Vodacom and over 30 other participating organizations are proud to announce the launch of the *Red Data Book of the Mammals of South Africa: A Conservation Assessment*.

The previous South African Red Data Book for Mammals was published in 1986 and covered only a subset of species. Since then, South Africa has experienced changes to provincial borders and amendments to the taxonomic classification of many species. The knowledge of species and the tools for data accumulation and management have improved immeasurably, and the IUCN Red List categories and criteria applied in the process of assigning threat status to species have changed. This led to the dire need for a comprehensively updated publication assessing the conservation status of all terrestrial and marine mammals in South Africa.

This mammoth project began in January 2002 with the participation of almost 90 South African mammal conservationists, biologists and taxonomists in the South African Mammal Conservation Assessment and Management Plan (CAMP) process. During this workshop, and for 18 months thereafter, data were collated and revised, assessments were internally and externally reviewed, and the entire publication of over 700 pages was compiled and extensively edited.

Assessment Results

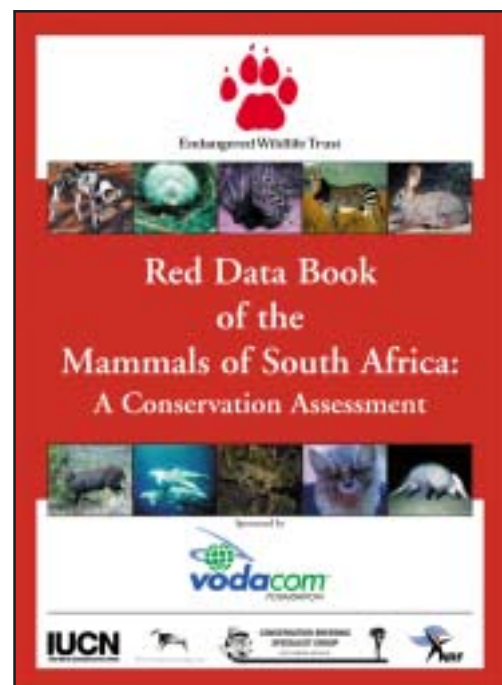
Of the 295 South African mammal species and subspecies evaluated, 52 (17.6%) were assigned threat categories according to the IUCN Red List criteria (version 3.1). These are divided into:

- 10 (3.4%) classified as Critically Endangered (considered to face an extremely high risk of extinction in the wild);
- 18 (6.1%) classified as Endangered (considered to face a very high risk of extinction in the wild);
- 29 (9.8%) classified as Vulnerable (considered to face a high risk of extinction in the wild).

- 53 (18%) were assessed as being Data Deficient and therefore, a threat category could not be assigned to these species. This does not assume that these species are not potentially highly threatened, but indicates a lack of comprehensive data on these species.
- 38 (12.8%) assessed as being Near Threatened (close to qualifying for or is likely to qualify for a threatened category in the near future); and
- 147 (49.8%) were assessed as being Least Concern (widespread and/or abundant).

Primary threats impacting negatively on many mammals include habitat loss and land transformation through deforestation, agriculture, timber planting and urban and industrial development. Poisoning, pollution and hunting have also been listed as having a negative impact on certain mammals. Habitats under greatest threat in South Africa, and which contain the highest number of highly threatened mammals, include savannah, grasslands and forests. This Red Data Book furthermore includes a "Gap Analysis" of species that occur either inside or not at all within the borders of South African Protected Areas. 🇿🇦

The *Red Data Book of the Mammals of South Africa: A Conservation Assessment* can be found at <http://www.ewt.org.za>.



South Asian Primate Network Launched as Associate of CBSG South Asia



Zoo Outreach Organisation (ZOO) and CBSG South Asia have a new addition to their collection of taxon-based regional networks. We welcome the South Asian Network of the IUCN SSC Primate Specialist Group.

Although CBSG South Asia is technically and administratively a network of its host organizations (ZOO and WILD), CBSG's tools and processes and their output provide the foundation and framework of many ZOO and WILD network activities.

The Primate Network is different from our other networks, which are made up of highly speciose and severely neglected fauna (South Asian species consist of 123 bats, 183 rodents and other non-volant small mammals, ~ 350 amphibians, ~ 620 reptiles, and numerous invertebrates). Primates are not particularly speciose compared to these groups and certainly not neglected in studies. In fact, the way we became involved with primates was out of a sense of failure in

our 1997 Biodiversity Conservation Prioritisation Project CAMP. Not enough primate researchers could attend to make the exercise satisfactory and to compensate for this, four years later, we asked Ardith Eudey, Primate Specialist Group Vice Chair for Asia to help us redeem ourselves. She agreed and unstintingly worked to help us put it on the ground. The networking done for this workshop created fertile ground for a ZOO/CBSG South Asia-style Network which was invited by the Chair of the IUCN SSC Primate Specialist Group (PSG).

South Asia is home to a very rich diversity of primates, including its own lesser ape; 7 species and 20 subspecies of langurs; 8 species, 10 subspecies and one population of macaques; and 3 species and 6 subspecies of loris – all adding up to 6 genera, 19 species and 36 subspecies (total 43 taxa), making up 14% of global primate taxa.

During the CAMP workshop, which attracted 50 primate biologists from 6 of the 7 South Asian countries (two participated by email), many problems of primate species of the region were illuminated. Some of these involve primates that range over contiguous borders of different countries. An interesting example of this and of the horror of deteriorating habitat and other man-made problems is the case of South Asia's only ape, the charming and attractive hoolock gibbon.

Participants listed a total of 126 localities for the hoolock gibbon of which 108 are in India and 18 are in Bangladesh. The total number of individual animals is between 600-700. Their distribution, however, is from a single animal in a locality to small populations of about 25 in the 126 different localities, which are, for the most part, fragmented. These numbers and the fact that they are sighted in so many places in the two countries creates a false sense of security about their status. Even foresters have mistaken their frequent occurrence for abundance and, therefore, sufficiency for survival. One forester from India quoted hoolock having been recorded from nine protected areas of one state, important hoolock habitats having been designated as reserve forests under the P.A. Network, and the establishment of a Gibbon Wildlife Sanctuary having been established exclusively for conservation has been taken as sufficient indication that the species



Artwork by Stephen Nash



Artwork by Stephen Nash

was safe. Although the officer's information is correct, it is not complete, as many of the 76 reserve forests (according to the CAMP workshop this is even more than the 40 stated by the forester), hold as few as 1-3 hoolocks and are severely fragmented. Participants in the CAMP workshop reported that out of the 126 locations and 97 subpopulations in India and Bangladesh there had been a continuous decline of 50% in the last 8 years. Combined with multiple threats, which include threats to habitat and quality of habitat as well as to the animals, these facts add up to a crying need for creative conservation action – fast!


Enter PHVA, and CBSG is on the job! Although dates have not been set, a host government, host NGO, venue and even a large chunk of the funding have been confirmed.

A subnetwork for hoolock gibbons will be set up working on a special range of educational materials to build interest before, during and following the PHVA. Due to our association with PSG, we have the talented primate artist Stephen Nash, who is currently drawing a complete set of all primate taxa, at our service. We are still in the midst of our education project to follow up the 2002 CAMP. Thanks to a grant from the Chester Zoo Education Department and to Stephen Nash's drawings, this year we will be able to publish a special booklet devoted to the 43 species and subspecies of South Asian primates using CAMP information in a style that will appeal to students and laypersons.

There are many other very complex primate problems with the 40 or so other species, including ever evolving

taxonomic issues that are cropping up hard and fast with so much information and dialogue on the subject. An international primate taxonomy workshop organized by the Primate Specialist Group, a book on primate taxonomy by Colin Groves, the CAMP workshop, and a soon-to-be-published scientific article on South Asian langur taxonomy have made remarkable progress in the subject in a very short time. At the CAMP workshop, primate taxonomist Douglas Brandon-Jones was able to interact with many field biologists who came with all kinds of new information. This was recorded on maps making location and confirmation of subspecies discovered many decades before possible. This new information resulted from a spate of projects over the last 15 years in the region. The Indo U.S. Primate Project, USFWS-funded projects in India and Bangladesh, a long-term Sri Lankan project run by Smithsonian Institution and others have made significant additions to primate knowledge.

PSG has a "Conservation Day" at the International Primatological Congress every year and this year one of the invited presentations features primate conservation in South Asia using the CAMP Process. This will take place in Turin, Italy in August. Finally, there is a proposal from the Indian Primate Research Centre for an event, an International Workshop on Primatology in India: Vision 2025 with multiple objectives. PRC has kindly invited the neonate PSG South Asia Primate Network to collaborate, and we see this as an excellent opportunity to follow-up on some of the important recommendations from the CAMP workshop to an even wider audience.

The primary sponsor of the PSG South Asia Primate Network is the IUCN SSC Primate Specialist Group. Major sponsors of educational material referred to are Margot Marsh Biodiversity Fund, Chester Zoo Education Department, Primate Conservation, Inc. and Appenheul Primate Park. 

*Submitted by Sally Walker and Sanjay Molur,
CBSG South Asia*

CBSG *News*

*Newsletter of the Conservation Breeding Specialist Group
Species Survival Commission
IUCN – World Conservation Union*



Staff Changes at CBSG



Shelly O'Brien, CBSG's Administrative Officer of 12 years, has left CBSG. Her many years of commitment to CBSG were much appreciated. While at CBSG, Shelly made travel arrangements for our busy Chairman and Program Officers, maintained our large member database, filed all workshop information, and filled publication orders among many other things. We wish her the best in her future ventures.



Moriya McGovern Rufer, CBSG's Program Assistant of four years, is leaving CBSG this August to return to graduate school. She will be earning her Masters degree in Entomology from the University of Minnesota. Her research will focus on the collective effect of urbanization on chironomid community structure in Minnesota lakes. While at CBSG, Moriya assisted the CBSG Program Officers with assembling workshop briefing books and CBSG Steering Committee packets, editing workshop reports, and other workshop preparation. She also graphically designed report covers, assisted in the design and maintenance of the CBSG website, and edited *CBSG News* and *CBSG Donor News*. We wish her the best in her studies.



Liz Follese was hired as an Administrative Assistant for CBSG in June 2004 after graduating from the University of Minnesota College of Natural Resources. Her bachelor's degree is in Natural Resources and Environmental Studies, with a focus in Environmental Education. While at CBSG, she will be handling office responsibilities and assisting Program Officers. Liz is looking forward to becoming a part of the CBSG organization and contributing to continuing conservation efforts. Welcome Liz!



Ginger Lindgren was hired as an Administrative Assistant for CBSG in July 2004. She previously worked for *Tea Source*, a small specialty tea retail store similar in structure to CBSG. Since her bachelor's degree is in Biology, she is looking forward to getting into the field of conservation and working with a group that is making a meaningful contribution to the environment. Ginger will be working with Liz in the CBSG office and assisting the Program Officers as well. Welcome Ginger!