2010 Annual Report

Saving threatened species by increasing the effectiveness of conservation efforts worldwide

CONSERVATION BREEDING SPECIALIST GROUP

CONTENTS

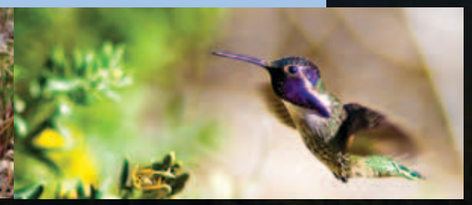
OUR MISSION

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

By:

- **developing innovative and interdisciplinary methodologies,**
- **providing culturally sensitive and respectful facilitation,**
- **promoting global partnerships and collaborations, and**
- **fostering *ex situ* contributions to species conservation,**

CBSG transforms passion for wildlife into effective conservation.



FROM THE EXECUTIVE DIRECTOR

In 1993 the Convention for Biological Diversity was adopted, with the aim to halt the decline of biodiversity. In 2002 the world's governments agreed to work "to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level", and the United Nations declared 2010 to be the International Year of Biodiversity. However, the latest Global Biodiversity Outlook confirms that the world has largely failed to meet this target and, in fact, the rates of species loss have accelerated.

There are many reasons why species are in decline, some of which are well within the scope of conservation activity, including how we collaborate with each other and how we plan strategically to save species. One of CBSG's key initiatives of 2010 was to partner with the IUCN/SSC's Species Conservation Planning (SCP) Subcommittee to enhance species conservation planning tools and processes and ultimately improve the conservation status of species.

In June 2010 CBSG convened a Species Conservation Planning Tools Workshop in the gorgeous Abruzzo National Park in Italy. Twenty-two participants from nine countries and representing 14 institutions – including five SSC Specialist Groups and the SCP Subcommittee – gathered to share tools and expertise and to discuss how best to use the new Species Conservation Strategic Planning guidelines and other approaches effectively for developing plans for conserving species, in support of our shared mission. We reviewed the wide suite of tools available for species conservation planning, and we evaluated the situations in which different processes and tools may be most effective in supporting planning that results in improved conservation status of species. This evaluation also allowed us to identify where development of new tools could be useful.

This was only the first step, albeit an essential one, of a longer term initiative designed to move species conservation planning forward strategically and efficiently within, and beyond, the SSC. CBSG is a significant contributor to the SCP Subcommittee and leads the Subcommittee's Tool Development Working Group. We look forward to advocating the "one plan" approach in which intensively managed populations and expertise are integrated into the conservation planning for each species, and the resulting recommendations clearly define the role the *ex situ* community can and must play in long-term sustainability of the species in the wild.

At the recent United Nations COP10 conference in Nagoya, stock was taken and the goal posts were moved. We now have a Decade of Biodiversity and a 2020 target. It is imperative that we work together collaboratively, and use all available and appropriate tools, if we are to meet this challenge. As is illustrated throughout this Annual Report, the CBSG has the network, the expertise, and the commitment to help the world make this a successful decade for species.

Dr. Onnie Byers, *Executive Director*

FROM THE CHAIRMAN

The world's species are still in trouble. In this Annual Report, we proudly describe some of the many ways in this past year that CBSG is responding to that biodiversity crisis.

The largest, but often neglected, component of species diversity is the insects. In both India and the USA, we helped new networks of invertebrate conservationists to come together and form new Specialist Groups of the IUCN Species Survival Commission. One problem that has frustrated conservation is the difficulty in melding area-based and species-based approaches. Much of our work erases this barrier, finding synergies rather than competition. We put some of the IUCN's new tools for conservation planning to work in helping Brazil develop a conservation plan for a river basin, focused around key threatened species of the river. Emerging, devastating diseases are another difficult challenge for species conservation. We utilized and built on our partnerships with other thematic specialist groups in the Species Survival Commission to respond to the need by the wildlife veterinary community for tools to analyze and then manage disease risks. The world's zoos have recognized that their irreplaceable *ex situ* wildlife populations are also at risk, and are not always used effectively within integrated conservation efforts for the species. CBSG has responded to requests from the World Association of Zoos and Aquariums, regional zoo associations, and the zoo community as a whole to work with them to identify the problems and then find solutions, so that *ex situ* populations can be sustained into the future as components of successful species conservation.

I encourage you to read the short descriptions in this report about these efforts and others that we have led around the world to respond to the species extinction crisis. More information can also be found on our website, and we are always happy to provide reports and other details to individuals and institutions with interests in particular projects. CBSG is sometimes chastised for not ever being able to say "no" when we are asked by the IUCN, governments, and other organizations to respond to a conservation need. That is true! We cannot say no, because the fates of many of the world's species depend on us responding.

Dr. Robert C. Lacy, *Chairman*

CONSERVING THE LAKE TITICACA FROG

Lake Titicaca Frog Facts

- The Lake Titicaca frog is the largest totally aquatic frog in the world and is endemic to Lake Titicaca, 12,500 feet above sea level on the Peru/Bolivia border.
- As an adaptation to their high-altitude habitat, these frogs have developed large folds of skin, which allow them to breathe (through their skin) in the oxygen-poor environment.
- A major threat to these frogs is human consumption. In April 2005 a collection of approximately 4,400 individual frogs was confiscated at a local market in Lima.

"I felt the workshop was a great success. We had a lot of people very interested in helping this species. It helped to facilitate new collaborations and work together on a common goal. We hope to continue and have more of these in the future to achieve our common goal of saving the Lake Titicaca Frog from disappearing." —Thomas Weaver, Tropical Discovery Supervisor, Denver Zoological Foundation

The Situation

The Lake Titicaca frog (*Telmatobius culeus*) is a unique species endemic to its namesake lake on the mountainous border of Boliva and Peru. This Critically Endangered species is adapted to survive the challenges of high levels of ultraviolet radiation, freezing temperatures, and oxygen depleted air posed by its native habitat. Hunting for consumption, habitat loss, invasive species, and climate change threaten the population, which has decreased by approximately 80%. Current research supports a link between climate change and disease spread in Ecuador, where three other high elevation species of *Telmatobius* are on the decline.

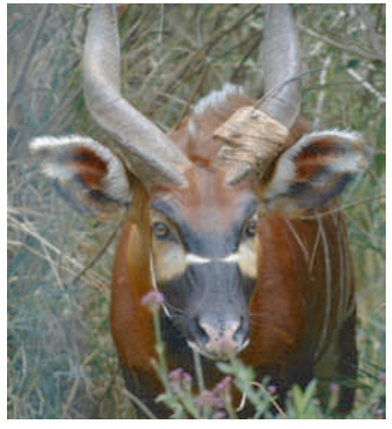
The Process

In 2007 Denver Zoo began a conservation project to address the decline of Lake Titicaca frogs. Building upon these efforts, in 2010 Denver Zoo and CBSG supported a 3-day meeting in Peru for participants from both Peru and Bolivia interested in working on conserving the species. Participants reviewed current knowledge of the species and drafted a conservation action plan incorporating both biological and social components with specific recommendations for actions focused on recovering the species. The friendships and collaborations resulting from the workshop promise to improve prospects for conservation success, as conservation work crosses the political boundaries of the lake and involves a diversity of stakeholders.

The Results

A follow-up meeting was held in spring 2011 to begin work on recommendations from the 2010 action plan. Major collaborators will conduct a pilot study of the lake, including a population survey, DNA analysis, and monitoring for the presence of chytrid fungus. Denver Zoo will support similar workshops on a bi-annual basis to foster project progress and cohesiveness.

PROTECTING THE LAST MOUNTAIN BONGOS IN KENYA



Mountain Bongo Facts

- The bongo (*Tragelaphus eurycerus*) is the largest and heaviest African forest-dwelling antelope, weighing up to 300kg.
- The mountain bongo (*T.e. isaaci*) is a subspecies endemic to mountain forests in Kenya. Bongos are notoriously shy and elusive, making surveillance and study challenging.
- Until a hunting ban in the 1970s, the subspecies was highly prized by game hunters for its rarity and its stunning coat.

"The Mountain Bongo Workshop gave us the way forward to protection of the few remaining wild herds in Kenya's mountain forests. Importantly, the workshop raised our awareness of the genetic and demographic targets that we must work towards to improve our chances of long-term success. " —Mike Prettejohn, Manager, Bongo Surveillance Project

The Situation

Estimates suggest that in the last four decades the number of mountain bongos in Kenya has plummeted from about 600 individuals to fewer than 100, all restricted to small remnants of isolated habitat. The principal threats are considered to be poaching and habitat loss or disturbance, though small size and isolation are burgeoning issues. Much good work has been achieved by several organizations through community programs and surveillance projects. This workshop offered an opportunity to enhance coordination of this effort and to formalize a strategy for conservation through the Kenya Wildlife Service (KWS).

The Process

Fifty-nine participants from 20 organizations gathered in Nyeri, Kenya to create a national strategy for conserving the mountain bongo. Prior to the workshop, a status review was completed by KWS staff and available to participants through a dedicated website. A detailed discussion of threats converged on four broad streams relating to: poaching and security, habitat issues, small population issues, and disease. A long-term vision was developed, and working groups convened to develop goals and actions around identified threats. Finally, a national framework for implementation was designed and agreed upon.

The Results

Since the workshop, surveillance work has been extended into the two areas prioritized by participants – west Mau and Londiani. A previously unmapped herd of 4-6 bongos was found in west Mau and though none were apparent in Londiani, the area shows potential for re-establishment. Tree-planting initiatives have begun in Eburu – one of two areas where restoration of forest connectivity was emphasized by workshop participants. Tissue samples have been collected from 74 wild and 65 captive bongos for genetic analysis, with a view to characterizing the remaining genetic profile of the subspecies and designing a complementary program of restoration and management.

PROTECTING NATURE'S POLLINATORS

Bumble Bee Facts

- Foraging bumble bees can range up to 2km from their nest, and tend to visit the same patches of flowers as long as nectar remains available, a habit called flower constancy.
- The United States and Canada are home to about 50 species of native bumble bees (genus *Bombus*), which are important wild pollinators of fruit and vegetable crops, including tomatoes, peas, beans, sunflowers, apples, raspberries, strawberries, and currants.
- One theory suggests that a fungal pathogen, *Nosema bombi*, is the cause of the recent die-off of native bumble bees; however, the evidence is circumstantial and insufficient to draw any firm conclusions.

"Having representatives from government and industry in addition to researchers means the priorities discussed at the meeting stand a better chance of getting implemented. The only way to develop a good conservation plan is to have everyone feel like they're a part of it. "
—Ed Spevak, Curator of Invertebrates, Saint Louis Zoo

The Situation

Bumble bees are among the most important wild pollinators in both agricultural and natural ecosystems. Recent precipitous population declines in North America of several formerly common bumble bee species (*Bombus spp.*) underscored the need to develop a comprehensive approach to arrest this alarming trend before bumble bee diversity is lost, affecting both natural ecosystems and human wellbeing.

The Process

In response to this need, 52 individuals representing a broad coalition of stakeholders, including researchers, government agency representatives, and commercial breeders, met at the Saint Louis Zoo to develop a collaborative strategy for bumble bee conservation. Intensive discussions centered around habitat loss and degradation, climate change and range shifts, genetic and demographic issues, diseases, parasites and pathogens, import issues and regulations, and education, outreach and citizen science, and resulted in identification of goals to address research needs and intervention opportunities. The workshop was funded by the U.S. Department of Agriculture National Institute of Food and Agriculture through the University of Illinois, Saint Louis Zoo, the Xerces Society for Invertebrate Conservation, the U.S. Forest Service, Pollinator Partnership/ North American Pollinator Protection Campaign, Koppert Biological Systems and Biobest.

The Results

This workshop led to two important achievements: the development of a North American Bumble Bee Species Conservation Strategy, which will be used to guide future research, conservation actions, funding opportunities, and possible proposed laws and regulations governing bumble bees; and establishment of an IUCN/SSC Bumble Bee Specialist Group, which will help to implement and support this strategy and other action plans. In addition, three species – *B. affinis*, *B. terricola*, and *B. occidentalis* – will be submitted for consideration to the IUCN for listing on the Red List of Threatened Species.

CONSERVING BIODIVERSITY OF THE PARAIBA DO SUL RIVER

Paraiba River Facts

- The Paraiba do Sul watershed comprises two of the most industrialized centers of Brazil: São Paulo and Rio de Janeiro States. In the metropolitan area of Rio de Janeiro, about 8.5 million inhabitants depend on the Paraiba do Sul river for water supply.
- On the Brazilian Red List, almost 40 vertebrates are listed as endangered in the Paraiba do Sul basin, including 9 freshwater fish.
- Over the last decade, two huge chemical accidents (in Cataguases in 2003 and in Resende in 2008) caused species damage. Millions of liters of water were poisoned with toxic substances and tons of fish and aquatic invertebrates died.
- In 2010, 141 hydropower dams were installed or planned in the Paraiba do Sul basin. The dams are responsible for the river fragmentation, and directly impact many of the migratory species.

"Having the Action Plan practically ready on the last day of the workshop made us all very happy and able to get right to work the next day. CBSG Brasil´s support was invaluable throughout this process, which stretched over several months meetings and workshops."
–Carla Polaz, Centro Nacional de Pesquisa e Conservação de Peixes Continentais

The Situation

Covering an area of over 55,000 km^2, the Paraíba do Sul river basin is one of the largest in Brazil, draining the states of Minas Gerais, Rio de Janeiro and São Paulo. Even though it is located between major urban-industrial centers it still harbors highly threatened biodiversity, including approximately 40 species of threatened vertebrates in the river and many more virtually unknown invertebrate species. Environmental degradation, dam construction, destruction of riparian areas, domestic sewage and untreated industrial waste have major environmental impacts. CBSG Brasil was invited to conduct a workshop to create a National Action Plan for the Endangered Aquatic Species of the Paraíba do Sul River basin.

The Process

The action plan was created in two workshops. The first meeting identified the main goals of the action plan and key stakeholders. A matrix of endangered fish species and threats was developed to analyze the impact of each threat on each fish species. Six umbrella species were identified, with the strategy to focus the action plan on these species and thereby address all main threats to the river system. Results from this threat analysis were used to determine working groups for the second workshop, which took place six months later. Each working group analyzed problems related to their topic, developed goals to mitigate or resolve the problem, and established detailed actions.

The Results

By March 2011, about 30% of the 86 recommended actions were accomplished, and almost all had been initiated. The first annual meeting for the National Action Plan has been conducted, and priority areas for conservation of the Paraiba do Sul river basin were defined. Many research projects have been started, including species inventory and a monitoring program for Hoge's side-necked turtles. A website has been created and is being used to communicate information and the results of conservation efforts for the Paraiba do Sul River.

RESTORING A SYMBOL OF THE NORTH AFRICAN DESERT

Scimitar-horned Oryx Facts

- This species gets its name from its long, graceful horns that can grow to be several feet long.
- The oryx's white coat helps to reflect the strong heat of the desert sun.
- Scimitar-horned oryx can raise their body temperature by several degrees to avoid sweating, thereby conserving precious water.

"This second oryx workshop held in Algeria was a wonderful opportunity to share the results of the first meeting with our African colleagues from oryx range states and then to build on that largely theoretical work with their insights and practical experience with actually managing the animals in semi-wild conditions." —John Newby, CEO, Sahara Conservation Fund

The Situation

A century ago thousands of scimitar-horned oryx (*Oryx dammah*) inhabited the Sahelo-Saharan region of Africa, from Egypt and Sudan in the east to Mauritania and Senegal in the west. Catastrophic population decline, however, drove this species to extinction in the wild by the 1980s. Ironically, this species is now one of the most abundant antelopes in captivity, with large numbers in Europe, the United States and the Middle East. Scimitar-horned oryx have been reintroduced from captive stock into relatively small, fenced protected areas in Tunisia, Morocco, and Senegal. To ensure the long-term success of scimitar-horned oryx reintroduction programs across its range, CBSG is facilitating a comprehensive planning process to evaluate the biological and social integrity of proposed release sites.

The Process

Sponsored by the Al Ain Wildlife Park and Resort and the Sahara Conservation Fund, a CBSG - led workshop in Algiers brought together 20 stakeholders from 13 organizations and ten countries to develop a tool to better evaluate potential release sites across North Africa. Participants prioritized factors they considered to be essential pre-requisites to restoration project success, including socio-economic, political and security conditions. Features that increase a site's overall conservation impact, such as location, local ecology and free-ranging potential, were also identified. The resulting evaluation matrix will be a valuable tool that can be used both qualitatively and quantitatively to assess the conservation value of candidate restoration sites.

The Results

The resulting comprehensive and detailed Site Evaluation Matrix continues to undergo refinement and will soon be available to evaluate candidate sites across the species' ancestral range. Building on the momentum created in Algeria, a workshop is currently planned for early 2012 that will focus on developing a reintroduction strategy within Chad – a range country with some of the best remaining scimitar-horned oryx habitat.

SAVING SOUTH ASIA'S MICRO-INVERTEBRATES

Asian Invertebrate Facts

- Invertebrates are the most numerous group in the animal kingdom, accounting for 97% of all animal taxa.
- More than one third of human food comes from plants pollinated primarily by insects.
- CBSG South Asia and SAsISG have conducted assessments for 703 species of invertebrates, nearly 80% of which have been published on the IUCN Red List.

"The SAsISG, originally initiated by CBSG, has provided very useful service in networking invertebrate specialists in South Asia, carrying out invertebrate conservation-oriented research and outreach programs. In particular the Third International Asian Lepidoptera Conservation Symposium and Training Programs conducted jointly by SAsISG and collaborators earn special mention, as the efforts made were highly commendable. "—Dr. George Mathew, Entomologist, Kerala Forest Research Institute

The Situation

Twenty years ago the concept of invertebrate conservation was almost nonexistent in India. Although thousands of invertebrate species had been identified in India, both by colonial naturalists and later Indian scientists, the importance of invertebrates was not well understood. Research on invertebrates in India focused on these species as pests of agriculture, vectors of disease, or as commercial producers. Invertebrate researchers worked in isolation with little communication among them, and no institutions or groups of individuals focused on conservation activities with respect to invertebrates. Like much of the world, wildlife conservation focused primarily on charismatic mammals and ignored these important but neglected species.

The Process

In 1994 CBSG India (now CBSG South Asia) created an Invertebrate Special Interest Group (ISIG). The Zoological Society of London provided training for two staff at its Invertebrate Conservation Centre and sponsored 5 training workshops in Indian zoos. ISIG published a national directory of invertebrate experts, a bi-annual newsletter, and educational materials on invertebrate conservation. In 1997 CBSG South Asia conducted CAMP workshops for a national biodiversity project and assessed the status of 136 invertebrate taxa. In 2000 ISIG expanded to cover South Asia, becoming the Invertebrate Conservation and Information Network of South Asia and creating interest among researchers, zoos, government institutes, universities and individuals.

The Results

In 2000, CBSG South Asia's invertebrate network was formally recognized as the IUCN SSC South Asian Invertebrate Specialist Group (SAsISG). Although administrative changes within SSC resulted in a five-year gap in IUCN status from 2005 to 2010, work continued. In 2010 a reconstituted SAsISG assisted IUCN/Zoo Outreach Organisation (ZOO) with a Freshwater Biodiversity CAMP, assessing 186 molluscs and 367 dragonflies of Eastern Himalaya. SAsISG/ZOO hosted the Third Asian Lepidoptera Symposium in 2010, and more symposia, training and assessments are planned. These combined and continuing efforts demonstrate that invertebrate conservation has come of age in South Asia.

INTENSIVE MANAGEMENT OF POPULATIONS FOR CONSERVATION

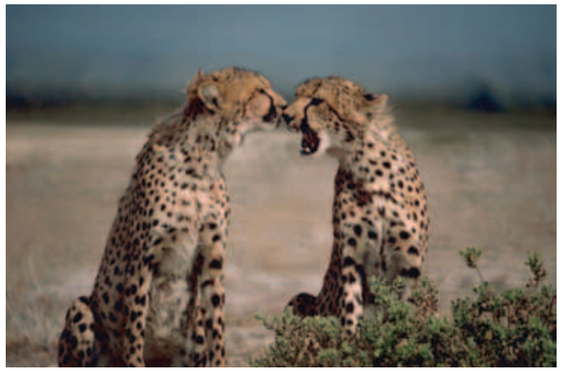
As habitats are increasingly altered and wildlife populations impacted by human activities, more species are being actively managed on some level to combat the risks of small population size and other threats. This has led to a new term among conservationists – Intensively Managed Populations (IMPs). Intensive population management is one facet of biodiversity conservation and can occur in a variety of settings, from populations managed solely in field conditions to those managed within zoos and aquariums. Although potentially a powerful tool for species conservation, intensive *ex situ* population management is falling short of its potential. Zoos and aquariums managed only a small portion of the world's threatened species, and many of these are not currently managed sufficiently for long-term viability that would allow them to contribute positively to species conservation.

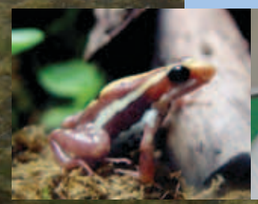
In December 2010 CBSG convened a workshop on this topic that brought together 45 zoo professionals, academics and field biologists from 12 countries spanning six continents to discuss the challenges of ensuring that intensive population management contributes positively to integrated and effective conservation plans for species. Discussions and recommendations ranged from changes needed within the zoo community to improve its conservation effectiveness, to strong support for increased collaboration between the field and zoo conservation communities to develop true species conservation plans that integrate all conservation activities for the species.

Specifically, we need to:

- Refocus the zoo community on species conservation, so that zoos are effective conservation partners and are recognized as such;
- Identify priority species for *ex situ* management for conservation;
- Improve the viability and success of long-term IMP programs, ensuring that each species has a precise and appropriate management plan and adequate resources to achieve its conservation goals;
- Improve the success of species conservation programs by optimally managing populations along a continuum of management intensity, scale, and location, and expand metapopulation strategies for managing multiple populations effectively;
- Increase collaboration between the zoo community and its conservation partners, and improve overall understanding of the role and function of IMPs in species conservation; and
- Incorporate intensively managed populations as potential effective conservation tools into holistic species conservation strategies.

Throughout its history CBSG has been a leader in providing population management tools and strategies to both the wildlife conservation and zoo communities, and serves as a link between species conservation planning efforts *in situ* and *ex situ*. We therefore accept the challenge to be active promoters of tools and processes to support assessment and prioritization of species for intensive management, improved program design, expansion of population management capabilities especially in range countries, increased collaboration between *in situ* and *ex situ* managers to better integrate field and zoo conservation planning, and management of multiple interacting populations across the broad spectrum of management. We will apply our facilitation skills and population management expertise to assist zoo associations, zoos and aquariums, and our other conservation colleagues to implement the necessary changes and activities identified at the workshop and to promote effective species conservation. The recommendations from this landmark workshop will serve as a guiding reference upon which future population management innovations may build.





CONFRONTING ANIMAL DISEASE IN WILDLIFE CONSERVATION PROGRAMS

Lions across South Africa's Kruger National Park are now found sick and dying from a new threat that lingers in the majestic animal's prey. More than a million bats in the northeastern and central United States have been killed in the past four years by a fungal infection that robs the animals of their fat reserves during winter hibernation. And the Tasmanian devil – the small but tenacious marsupial of southern Australia – is on the brink of disappearing from a contagious cancer that kills with frightening ease.

Human populations continue to expand around the world, as do the domestic livestock upon which we so critically depend. As these burgeoning populations come into more frequent and closer contact with native wildlife, the risk of disease introduction and transmission across these boundaries is greatly increased. The lion and the devil are just two of the thousands of wildlife species now confronting this new and very threatening reality.

Conservation medicine professionals are now linking with researchers in public health to broaden the domains of expertise needed to deal with the complex interface of human, livestock and wildlife disease ecology. But despite our ability to recognize these risks, zoo and wildlife medicine professionals have historically been hard-pressed to find and apply tools that can analyze these risks and use the resulting information to guide more effective conservation planning.

To address this need, CBSG staff and colleagues around the world have been working for more than a decade to create a resource of tools that can be used by conservation professionals to prioritize diseases of concern in a specific wildlife conservation project, quantify the risk of disease introduction, and design optimal management strategies to minimize that risk. This early work culminated in the 2003 CBSG publication of *A Workbook for Animal Movements and Disease Risk*, which was applied to practical issues of wildlife disease management worldwide. Despite its initial utility, this document became outdated in this rapidly-evolving field and now requires major revision in order to effectively respond to the modern needs of the user community.

Towards that end, CBSG is now engaged in an exciting collaboration with a number of our sibling SSC interdisciplinary partners, including the Wildlife Health, Reintroduction, and Invasive Species Specialist Groups, to revise our Disease Risk Analysis workbook from the ground up. This effort is being led by our CBSG Australasian Regional Network, and they are challenging an international team of renowned experts in wildlife disease epidemiology, disease ecology, public health, conservation biology, and computer science to develop state-of-the-art tools and processes for effective disease risk assessment and management. We are employing the latest in Internet-based virtual meeting technology to allow team members to discuss complex issues, exchange ideas, and give detailed presentations without the need to physically meet in the same room – cutting costs, energy consumption, travel time, and individual fatigue.

Our plans for this new resource are ambitious, with completion of the new guide to be followed by a global training program for CBSG and the larger conservation community. We are confident that our plans can be realized with continued and generous support. Through our efforts, perhaps we can make our world a little safer for the wildlife we all cherish.

2010 PHVA AND SPECIES CONSERVATION PLANNING WORKSHOPS AND SPONSORS

Bongo Conservation Planning, Kenya
The Kenya Wildlife Service; Woburn Safari Park

Costa Rica Amphibian Conservation Strategy Follow-up, Costa Rica
Biology School, Universidad de Costa Rica; FUNDAZOO

Dwarf Caiman PVA, Brazil
Embrapa Pantanal; Instituto Nacional de Pesquisas da Amazônia

Eastern Himalaya Freshwater Red List Evaluation (2 meetings), India
IUCN; MacArthur Foundation

Giant Panda *Ex Situ* Technical Meeting, China
Fuzhou Zoo; Smithsonian Institution

Insectivorous Bat Captive Population Feasibility Workshop, USA
Bat Conservation International; The Nature Conservancy; Saint Louis Zoo; US Fish and Wildlife Service

Lake Titicaca Frog Conservation Strategy Workshop, Peru
Biology Faculty, Universidad Nacional del Altiplano; Denver Zoo

North American Bumble Bee Species Conservation, USA
Saint Louis Zoo; University of Illinois

Paraiba River Action Plan Workshop, Brazil
Centro Nacional de Pesquisa e Conservação de Peixes Continentais – CEPTA; Centro Nacional de Pesquisa e Conservação de Répteis e Anfíbios – RAN; Companhia Energética de São Paulo – CESP; Instituto Chico Mendes da Conservação de Biodiversidade – ICMBIO

Red Panda PHVA, Nepal
EAZA; Rotterdam Zoo; WWF Germany

Rio Grande Silvery Minnow PVA (7 meetings), USA
Middle Rio Grande Endangered Species Collaborative Program

Scimitar-horned Oryx Reintroduction Planning, Algeria
Al Ain Wildlife Park and Resort; The Sahara Conservation Fund

Tiger SSP Masterplan Meeting, USA
Beardsley Zoo; Seneca Park Zoo; Toronto Zoo

TNC Chimpanzee Conservation Action Planning Workshop, Tanzania
Jane Goodall Institute

USDA Invasive Species Meeting, USA
US Department of Agriculture, Animal & Plant Health Inspection Service

Waterbird Mortality Research Issues Workshop, USA
US Geological Survey

WAZA Sumatran Tiger Global Species Management Plan Meeting, Indonesia
Taman Safari Indonesia; Zoological Society of London

Western Ghats Freshwater Red List Evaluation, India
Critical Ecosystem Partnership Fund; IUCN

PHVA and Species Conservation Planning

Using CBSG's structured tools for issue formulation and problem solving across a broad range of disciplines, stakeholders collaborate in development of effective recommendations for species conservation action, including the identification of personal responsibilities and timelines to ensure that the recommendations can become reality. Our Population and Habitat Viability Assessment (PHVA) process combines this approach with traditional population viability analysis (PVA) methodologies to enhance both the process and product of the species conservation planning workshop. CBSG also assists with planning for intensively managed populations.

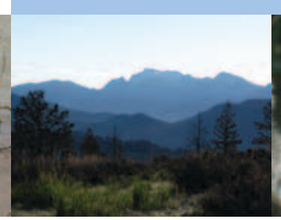
In 2010, CBSG led or co-led 25 PHVA and Species Conservation Planning Workshops on 1,832 species in 11 countries, involving a total of 447 people from 267 organizations.

Training in Conservation Techniques

CBSG offers training courses in a variety of skills that build capacity and promote effective conservation. Facilitation courses allow participants to hone their skills in structured decision making, communication, group dynamics and conflict resolution. Courses in risk assessment and modeling provide an overview of population biology and conservation planning, focusing on the use of simulation methods for evaluating extinction risk under various management strategies. Training is also available in *ex situ* population management principles, techniques, and software. Other types of conservation-related training courses are offered periodically to meet the specific needs of organizations or regions.

In 2010, CBSG led 20 Training Workshops in 12 countries, involving a total of 414 people from 249 organizations.




2010 TRAINING WORKSHOPS AND SPONSORS

CAZG Scientific Committee Population Management Overview, China
CAZG; Humane Society International

CBSG Australasia Facilitation Training Workshop, New Zealand
Auckland Zoo; CBSG Australasia

Cornell University Vet School Disease Risk Lectures, USA
Cornell University

EAZA Facilitation Training, Netherlands
EAZA

Emerging Wildlife Conservation Leaders (2 workshops), USA
Defenders of Wildlife; International Fund for Animal Welfare; US Fish & Wildlife Service; White Oak Conservation Center; Wildlife Conservation Network

Human-Elephant Coexistance Education Training, Bhutan
Asian Elephant Conservation Fund - US Fish and Wildlife Service; Columbus Zoo and Aquarium; Elephant Family; Schonbrunner Zoo; Twycross Zoological Garden

Human-Elephant Coexistance Education Training, Indonesia
Asian Elephant Conservation Fund - US Fish and Wildlife Service

Human-Elephant Conflict Mitigation Refresher Course, Indonesia
Asian Elephant Conservation Fund - US Fish and Wildlife Service

JAZA Instructor PM2000 Training, USA
CBSG; San Diego Zoo Global

Nordens Ark Research School: Conservation of Threatened Felids, Sweden
Hasselblad Foundation

PMx Overview, Germany
CBSG; Cologne Zoo

PMx Overview, USA
CBSG; San Diego Zoo Global

Population Management Training (2 courses), Australia
CBSG; Taronga Conservation Society Australia

Sloth Bear Conservation Educator Training (2 courses), India
Alertis-Fund for Bear and Nature Conservation

Vortex Training Course, Costa Rica
FUNDAZOO

Vortex/Conservation Biology Course, Brazil
Chicago Zoological Society

Western Ghats Freshwater Red List Training, India
Critical Ecosystem Partnership Fund; IUCN

2010 TOOL DEVELOPMENT WORKSHOPS AND SPONSORS

Climate Change Metamodeling Meeting, USA
Chicago Zoological Society

Lion Tamarin Corridor Modeling Discussion, USA
CBSG

Metamodel Development Meeting, USA
Chicago Zoological Society

Outbreak User's Manual Development, USA
CBSG

Outbreak/Disease Risk Discussions , USA
Auckland Zoo; CBSG Australasia; Chicago Zoological Society

PMx Development Meeting, USA
Chicago Zoological Society

Species Conservation Planning Tools Workshop, Italy
CBSG

2010 PLANNING WORKSHOPS FOR CONSERVATION ORGANIZATIONS AND SPONSORS

Conservation Strategy Planning for Santa Ana Conservation Center, Costa Rica
FUNDAZOO

European Union *Ex Situ* Conservation for Wild Species in Europe (3 meetings), Belgium
European Commission – DG Environment

Intensive Management of Populations for Conservation Workshop, USA
CBSG; Columbus Zoo & Aquarium; San Diego Zoo Global

International Congress of Zookeepers Strategic Planning, Singapore
Chester Zoo; Greater Cleveland AAZK

Mate Choice Meeting, USA
Institute of Museum & Library Services; Saint Louis Zoo

Mate Choice Symposium and Workshop, USA
Institute of Museum & Library Services; Saint Louis Zoo

Simon Bolivar Zoo Conservation Strategy Update, Costa Rica
FUNDAZOO

Whooping Crane Eastern Partnership Review (2 meetings), USA
International Crane Foundation; Whooping Crane Eastern Partnership

Tool Development

One of CBSG's most valuable and consistent strengths is in development and application of a variety of tools designed to help conservation professionals manage biodiversity. These tools can range from quantitative simulation software rooted in the science of population biology and decision analysis, to sophisticated facilitation techniques intended to identify levels of agreement across alternative conservation strategies among diverse stakeholder groups. We are committed to evaluating the contents of our "conservation toolkit" and to improving those tools and processes that evolve through expert research. In addition, collaboration with other conservation organizations gives us access and exposure to new tools that can help us broaden our capabilities and increase our effectiveness.

In 2010, CBSG conducted 7 Tool Development meetings in 2 countries, involving a total of 47 people from 27 organizations.

Planning for Conservation Organizations

CBSG works with conservation organizations, including wildlife agencies, zoological parks, associations of conservation professionals, and similar groups to develop plans for conservation action. From strategic planning for national wildlife refuges to developing zoo conservation master plans, CBSG leads stakeholders from the establishment of an agreed vision through the exploration of issues and the development of goals to develop a conservation culture and to guide future actions.

In 2010, CBSG led 11 Planning Workshops for Conservation Organizations in 4 countries, involving a total of 187 people from 102 organizations.

ABOUT CBSG

The Conservation Breeding Specialist Group (CBSG) is a global volunteer network of over 500 conservation professionals, coordinated by a headquarters staff of six and assisted by nine Regional and National Networks on six continents. This network is dedicated to saving threatened species by increasing the effectiveness of conservation efforts worldwide. CBSG is recognized and respected for its use of innovative, scientifically sound, collaborative processes that bring together people with diverse perspectives and knowledge to catalyze positive conservation change. CBSG is a Specialist Group of the Species Survival Commission of the IUCN – The International Union for Conservation of Nature, and is supported by a non-profit organization incorporated under the name Global Conservation Network.

www.iucn.org

The International Union for Conservation of Nature (IUCN) brings together states, government agencies, and a diverse range of non-governmental organizations in a unique world partnership that seeks to influence, encourage and assist societies throughout the world in conserving the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.

http://www.iucn.org/about/work/programmes/species/about_ssc

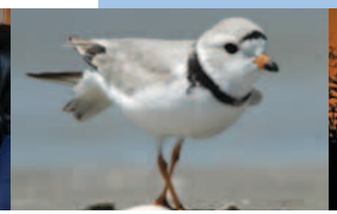
The Species Survival Commission is the largest of IUCN's six volunteer Commissions, with a global membership of 8,000 experts. SSC advises IUCN and its members on the wide range of technical and scientific aspects of species conservation and is dedicated to securing a future for biodiversity.

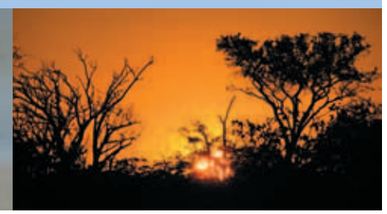
History

Since its inception in 1979, CBSG has assisted in the development of conservation plans involving over 230 species through more than 440 workshops held in 67 countries. CBSG has collaborated with more than 190 zoos and aquariums, 180 conservation non-governmental organizations (NGOs), 65 universities, 50 government agencies, and 35 corporations. By applying unique conservation tools, and training others in their use, CBSG contributes to the long-term sustainability of endangered species and ecosystems around the globe.

Our Approach to Conservation

CBSG promotes effective and comprehensive conservation action, by emphasizing the exchange of information across diverse groups to reach agreement on the important challenges facing humans and wildlife. Our interactive, participatory workshops provide an objective environment, expert knowledge, and thoughtful group facilitation designed to systematically analyze problems and develop focused solutions using sound scientific principles. This process enables workshop participants to produce meaningful and practical management recommendations that generate political and social support for conservation action at all levels – from local communities to national political authorities. Rapid dissemination of these recommendations allows them to be used almost immediately to influence stakeholders and decision-makers, and maintains the momentum generated at the workshop.





2010 ULYSSES S. SEAL AWARD FOR INNOVATION IN CONSERVATION

Ulie Seal's great passion and talent was his creative thinking about how new science could be most effectively applied to solving the problems of wildlife conservation. His contributions were amplified many times over by his further ability to recognize, encourage, and collaborate with others who were also making such innovative contributions. Fittingly, CBSG has chosen to honor Ulie, the founder and first Chairman of CBSG, by creating the Ulysses S. Seal Award for Innovation in Conservation.

Ulysses S. Seal Award Winners

2010 Gordon McGregor Reid, Chester Zoo, UK
2009 Lena Lindén, Nordens Ark, Sweden
2008 Sally Walker, Zoo Outreach Organisation, India
2007 Paul Pearce-Kelly, Zoological Society of London, UK
2006 Jonathan Ballou, Smithsonian National Zoological Park, USA
2005 Georgina Mace, Natural Environment Research Council (NERC) Centre for Population Biology, Imperial College, London, UK
2004 Frances Westley, University of Waterloo, Canada
2003 Nathan Flesness, International Species Information System, USA

The 2010 Ulysses S. Seal Award was presented to Gordon McGregor Reid – a notable scientist, former President of the Linnean Society, Chair of the Freshwater Fish Specialist Group, and a leader in the IUCN and zoo world. He developed Chester Zoo as a model for how a zoo can be successful as a zoo while making major contributions to conservation projects around the world. He has served as WAZA President, on CBSG advisory committees, and as one of the original co-leaders of the Amphibian Ark.

Although Gordon's personal accomplishments are numerous, perhaps his biggest impact has been very similar to the most notable aspect of Ulie Seal's leadership – he recognizes, encourages, mentors, and supports people who are able and eager to make a difference for species conservation.

Along with several honorary PhD degrees, Gordon is also an honorary citizen of Bolivia, he twice was the winner of the Waterlife Cup for excellence in aquarium keeping, he has several species of fish named after him, and a number of species of fish and amphibians probably owe their continued existence to him. His contributions to understanding and protecting biodiversity have been felt on all continents, across diverse and extremely speciose taxa, and he has guided the zoo community, governments, NGOs, field research teams, and academia.

CBSG DONORS

$50,000 and above

Chicago Zoological Society
Inspiring Conservation Leadership

$20,000 and above

Minnesota Zoo
Omaha's Henry Doorly Zoo
Toronto Zoo
ZSL Living Conservation

$15,000 and above

Columbus Zoo and Aquarium / The Wilds
Disney's Animal Kingdom
Saint Louis Zoo Animals Always®
SeaWorld Parks & Entertainment
Wildlife Conservation Society Bronx Zoo
World Association of Zoos and Aquariums WAZA | *United for Conservation®*

$10,000 and above
San Diego Zoo Global

$5,000 and above
Al Ain Wildlife Park and Resort
British and Irish Association of Zoos and Aquariums
Chester Zoo
Cleveland Metroparks Zoo
Toledo Zoo

$2,000 and above
Allwetterzoo Münster
Auckland Zoological Park
Bristol Zoo Gardens
Copenhagen Zoo
Dallas Zoo
Dickerson Park Zoo
Gladys Porter Zoo
Japanese Association of Zoos and Aquariums
Linda Malek
Marwell Wildlife
Milwaukee County Zoo
North Carolina Zoological Park
Paignton Zoo
Phoenix Zoo
Royal Zoological Society of Antwerp
Schönbrunner Tiergarten – Zoo Vienna
Sedgwick County Zoo
Taronga Conservation Society Australia
Wassenaar Wildlife Breeding Centre
Wilhelma Zoo
Zoo and Aquarium Association
Zoo Zürich
Zoologischer Garten Köln

$1,000 and above
Aalborg Zoo
Akron Zoological Park
Audubon Zoo
Central Zoo Authority, India
Colchester Zoo
Conservatoire pour la Protection des Primates
Cotswold Wildlife Park
Detroit Zoological Society
Everland Zoological Gardens
Fort Wayne Children's Zoo
Fota Wildlife Park
Hong Kong Zoological and Botanical Gardens
Kansas City Zoo
Laurie Bingaman Lackey
Los Angeles Zoo
Nordens Ark
Ocean Park Conservation Foundation
Palm Beach Zoo at Dreher Park
Parco Natura Viva – Garda Zoological Park
Perth Zoo
Philadelphia Zoo
Pittsburgh Zoo and PPG Aquarium
Point Defiance Zoo and Aquarium
Prudence P. Perry
Ringling Bros., Barnum and Bailey
Rotterdam Zoo
Royal Zoological Society of Scotland – Edinburgh Zoo
Saitama Children's Zoo
San Antonio Zoo
Seoul Zoo
Swedish Association of Zoological Parks and Aquaria
Taipei Zoo
The Living Desert
Thrigby Hall Wildlife Gardens
Twycross Zoo
Union of German Zoo Directors
Woodland Park Zoo
Zoo Frankfurt
Zoo Madrid – Parques Reunidos
Zoological Society of Wales – Welsh Mountain Zoo
Zoologischer Garten Rostock
Zoos South Australia

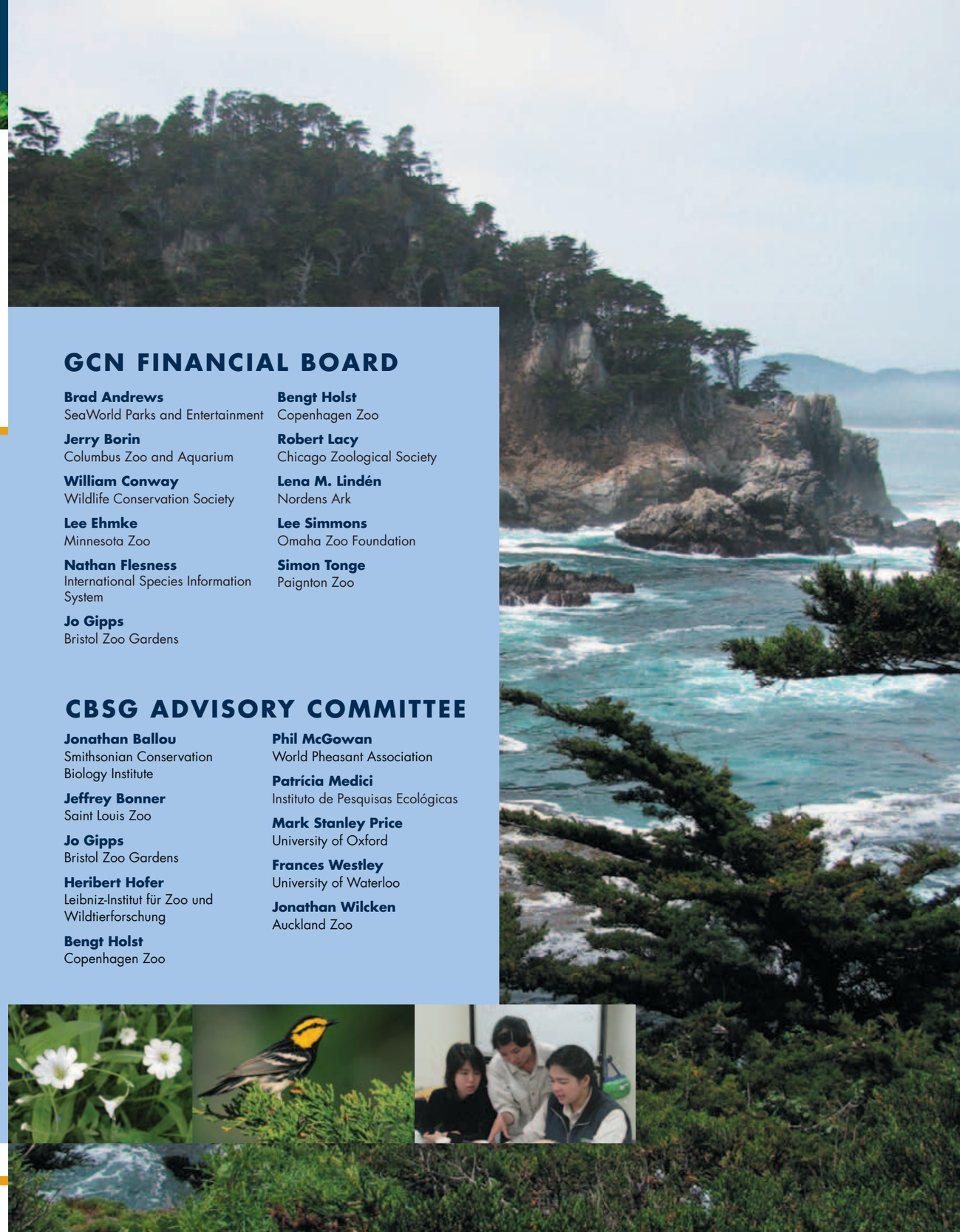
$500 and above
Banham Zoo
Cincinnati Zoo and Botanical Garden
Edward and Marie Plotka
Friends of the Rosamond Gifford Zoo
Givskud Zoo
Jacksonville Zoo and Gardens
Katey and Mike Pelican
Knuthenborg Park and Safari
Little Rock Zoo
Odense Zoo
Oregon Zoo
Ouwehands Dierenpark
Riverbanks Zoo and Garden
Wellington Zoo
Wildlife World Zoo and Aquarium
Zoo de la Palmyre

$250 and above
Alice Springs Desert Park
Apenheul Primate Park
Arizona-Sonora Desert Museum
Bramble Park Zoo
Brandywine Zoo
David Traylor Zoo of Emporia
Ed Asper
International Centre for Birds of Prey
Lee Richardson Zoo
Lincoln Park Zoo
Mark Barone
Mowhawk Fine Papers
Racine Zoological Gardens
Roger Williams Park Zoo
Rolling Hills Wildlife Adventure
Sacramento Zoo
Tautphaus Park Zoo
Tokyo Zoological Park Society

$100 and above
African Safari – France
Chahinkapa Zoo
Darmstadt Zoo
Elaine Douglass
Lion Country Safari
Safari de Peaugres
Steinhart Aquarium
Steven J. Olson
Touroparc – France

$50 and above
Alameda Park Zoo
Vicki Scheunemann
Stiftung Foundation for Tropical Nature and Species Conservation

$25 and above
JE Schwolow



GCN FINANCIAL BOARD

Brad Andrews
SeaWorld Parks and Entertainment

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Columbus Zoo and Aquarium

William Conway
Wildlife Conservation Society

Lee Ehmke
Minnesota Zoo

Nathan Flesness
International Species Information System

Jo Gipps
Bristol Zoo Gardens

Bengt Holst
Copenhagen Zoo

Robert Lacy
Chicago Zoological Society

Lena M. Lindén
Nordens Ark

Lee Simmons
Omaha Zoo Foundation

Simon Tonge
Paignton Zoo

CBSG ADVISORY COMMITTEE

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Smithsonian Conservation Biology Institute

Jeffrey Bonner
Saint Louis Zoo

Jo Gipps
Bristol Zoo Gardens

Heribert Hofer
Leibniz-Institut für Zoo und Wildtierforschung

Bengt Holst
Copenhagen Zoo

Phil McGowan
World Pheasant Association

Patrícia Medici
Instituto de Pesquisas Ecológicas

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University of Waterloo

Jonathan Wilcken
Auckland Zoo

2010 STRATEGIC COMMITTEE

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Smithsonian National Conservation Biology Institute, USA

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Saint Louis Zoo, USA

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Association of Zoos and Aquariums, USA

Amy Camacho
Africam Safari, México

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Wildlife Conservation Society, USA

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Minnesota Zoo, USA

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International Rhino Foundation, USA

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International Species Information System, USA

Suzanne Gendron
Ocean Park Conservation Foundation, Hong Kong

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Endangered Wildlife Trust, South Africa

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Nordens Ark, Sweden

Dave Mallon
Antelope Specialist Group, UK

Jansen Manansang
Taman Safari Indonesia, Indonesia

Yolanda Matamoros
Simón Bolívar Zoo, Costa Rica

Mike Maunder
Al Ain Wildlife Park and Resort, UAE

Phil McGowan
World Pheasant Association, UK

Gordon McGregor Reid
Chester Zoo, UK

Patrícia Medici
Instituto de Pesquisas Ecológicas, Brazil

Sanjay Molur
Zoo Outreach Organisation, India

Dave Morgan
African Association of Zoos and Aquaria, South Africa

Jackie Ogden
Disney's Animal Kingdom, USA

Theo Pagel
Zoologischer Garten Köln, Germany

Paul Pearce-Kelly
Zoological Society of London, UK

Bill Rapley
Toronto Zoo, Canada

Ivan Rehak
Prague Zoo, Czech Republic

Alex Rübel
Zoo Zürich, Switzerland

Rebecca Seal Soileau
US Army Corps of Engineers, USA

Lee Simmons
Omaha Zoo Foundation, USA

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University of Oxford, UK

Miranda Stevenson
British and Irish Association of Zoos and Aquariums, UK

Stuart Strahl
Chicago Zoological Society, USA

Gloria Svampa
Museo Civico di Zoologia di Roma, Italy

Yasumasa Tomita
Tokyo Zoological Park Society, Japan

Kris Vehrs
Association of Zoos and Aquariums, USA

Sally Walker
Zoo Outreach Organisation, India

Chris West
Zoos South Australia, Australia

Frances Westley
University of Waterloo, Canada

Robert Wiese
San Diego Zoo, USA

Jonathan Wilcken
Auckland Zoo, New Zealand

David Wildt
Smithsonian Conservation Biology Institute, USA

Statement of Activities and Changes in Net Assets for the Year Ending December 31, 2010

	Unrestricted	Temporarily Restricted	Total
Support and Revenue:			
Contributions	US$588,586	US$36,245	US$624,831
Workshops and Contracts	147,459	–	147,459
Other Program Service Fees	5,160	–	5,160
Sales Revenue (Net Cost of Goods Sold of $0 in 2010 and $9,577 in 2009)	–	–	–
Investment Income	18,487		18,487
Other Income	–	–	–
Net Assets Released from Restrictions:			
Satisfaction of Program Restrictions	–	–	–
Satisfaction of Time Restrictions	15,792	(15,792)	–
Total Support and Revenue	775,484	20,453	795,937
Expense:			
Program Services	582,992	–	582,992
Support Services:			
Management and General	128,604	–	128,604
Fundraising	78,266	–	78,266
Total Support Services	206,870	–	206,870
Total Expense	789,862	–	789,862
Change in Net Assets	(14,378)	20,453	6,075
Net Assets - Beginning of Year	867,278	15,792	883,070
Net Assets - End of Year	US$852,900	US$36,245	US$889,145

Statement of Financial Position at December 31, 2010

ASSETS	
Current Assets:	
Cash	US$801,114
Contracts Receivable	–
Prepaid Expenses	2,544
Total Current Assets	803,658
Investments	167,677
Property and Equipment - Net	3,194
Total Assets	US$974,529
LIABILITIES & NET ASSETS	
Current Liabilities:	
Accounts Payable	–
Accrued Salaries	11,545
Accrued Vacation	13,965
Deferred Workshop Revenue	–
Funds held for Other Species Conservation Organizations	59,874
Total Current Liabilities	85,384
Net Assets:	
Unrestricted	852,900
Temporarily Restricted	36,245
Total Net Assets	889,145
Total Liabilities & Net Assets	US$974,529

Notes to 2010 Financial Statements

The finances to support the work of CBSG and related species conservation activities are held and managed by the Global Conservation Network (GCN), a USA 501(c)3 not-for-profit organization. CBSG manages the financial aspects of Amphibian Ark activities as part of our commitment to AArk's success. GCN had an overall surplus of about US $6,100 for the year in 2010. Our unrestricted activity (general operations) accounted for an approximate decrease of US $(14,400) with a US $20,500 increase related to restricted activity. As of December 31, 2010, we had an unrestricted net asset reserve of US $852,900, or eighteen months of operating expenses. Two components make up the temporarily restricted net asset reserve at year end; US $5,000 is for the Amphibian Ark Fund and about US $31,200 is for 2011 CBSG commitments. The information on this page was taken from the 2010 audit. Copies of the full audit can be obtained by contacting the CBSG office.

CBSG HEADQUARTERS STAFF

Robert Lacy
Chairman

Onnie Byers
Executive Director

Philip Miller
Senior Program Officer

Kathy Traylor-Holzer
Senior Program Officer

Virginia Lindgren
Administrative Assistant

Elizabeth Townsend
Administrative Assistant

CBSG NETWORKS

Regional Networks take CBSG tools and principles deep into the local institutions of a region or country, allowing stakeholders to work with our proven conservation techniques and adapt them to meet their own needs. This level of freedom to shape a Network according to the needs of the culture, society, and services of the individual country is a requirement for success. Regional and National Networks of CBSG are not just desirable but necessary due to the sheer magnitude of the problem of biodiversity loss on this planet, as well as the diversity in environment, culture and social systems, economic conditions, policy and governance, and philosophy in different countries and regions. Most of our activities within the regions where we have networks are organized by the staff of those networks, who also often assist with other CBSG activities around the world.

CBSG Australasia
Co-Convenor: Caroline Lees
Auckland Zoo

Co-Convenor: Richard Jakob-Hoff
Auckland Zoo

CBSG Brasil
Convenor: Arnaud Desbiez
Royal Zoological Society of Scotland

CBSG Europe
Convenor: Bengt Holst
Copenhagen Zoo

CBSG Indonesia
Convenor: Jansen Manansang
Taman Safari Indonesia

CBSG Japan
Advisor: Hiroshi Hori

CBSG Mesoamerica
Convenor: Yolanda Matamoros
Simón Bolívar Zoo

CBSG México
Convenor: Amy Camacho
Africam Safari

CBSG South Asia
Convenor: Sally Walker
Zoo Outreach Organisation

CBSG Southern Africa
Convenor: Mike Jordan
Endangered Wildlife Trust

2010 SPONSORS OF CBSG CONFERENCE PARTICIPATION

Asian Lepidoptera Conservation Symposium, India
Hong Kong Department of Science and Technology; Kadoorie Farm & Botanic Garden; New Delhi & Woodward Family

Biodiversity Conservation in the Arabian Peninsula, United Arab Emirates
Dolphin Energy; Environment Agency-Abu Dhabi; Sharjah Airport International Free Zone Authority; Sharjah Cooperative Society; Sharjah Islamic Bank; Sharjah Transport; The Sharjah Environment Co.

SAZARC and CBSG/RSG Annual Conference, Nepal
CBSG; Chester Zoo; Cleveland Metroparks Zoo; Columbus Zoo and Aquarium; Department of National Park and Wildlife Conservation; German Nepal Friendship Association; National Trust for Nature Conservation/Central Zoo, Nepal; North Carolina Zoo; Sedgwick County Zoo; Saint Louis Zoo; Universities Federation for Animal Welfare; Zoolgical Society of London

SSC Steering Committee Meeting, Venezuela
IUCN Species Survival Commission

WAZA Annual Conference, Germany
CBSG; Chicago Zoological Society

Special Acknowledgements

Linda Malek is a strategic planning, business development, and marketing specialist based in southern California. She currently donates her expertise to CBSG as we enhance stakeholder communication and increase targeted development efforts, and has directed EDG in the design of this Annual Report and other marketing and development tools.

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CEPTA: Paraiba river participants photo, p. 7
B.A. Daniel: Poecilotheria spider study photo, p. 9
Glíucia Drummond: Mesoclemmys hogei (turtle) photo, p. 7
M. Siliwal: Poecilotheria hanumavilasumica (spider) photo p. 9
Ed Spevak, Saint Louis Zoo: Bumblebee photos, p. 6
Ron Surratt: Bongo at Mount Kenya Wildlife Conservancy, p.5
Thomas Weaver, Denver Zoo: Lake Titicaca Frog p. 4
Tim Woodfine, Marwell Wildlife: Oryx photos p. 8

Sustainability

We are proud to partner with Mohawk Fine Papers and B&G House of Printing in California to bring you our 2010 Annual Report. This report was printed on Mohawk Options Smooth Digital with i-Tone 100% PC White, which contains 100% PCW (post-consumer waste), FSC (Forest Stewardship Council) certified, and made with 100% Windpower. Only the exact number of Annual Reports required were printed.

In our continuing efforts to reflect sustainability within our own organization, please visit the CBSG website, which features the electronic version of the Annual Report.

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