2007 Annual Report



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OUR MISSION

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

Through:

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

CBSG transforms passionate commitment to wildlife into effective conservation.

WE'RE ALL IN CBSG TOGETHER



At a WAZA conference several years ago, the keynote speaker referred to CBSG as the "Captive Breeding Specialist Group." When Ed McAlister, then President of WAZA, stood to thank the speaker, he corrected the error saying, "We are the Conservation Breeding Specialist Group." He didn't say "they" or "it." He said "we." I remember the great pride I felt at that moment as I realized that we are, in fact, all in CBSG together.

We are extremely proud of all of you who collectively make up CBSG: staff, regional networks, Steering Committee, volunteers, donors, and other friends of CBSG. Each individual CBSG contribution, when added together, makes it possible for us to do the work you see described in the pages of this Annual Report. Your contributions enabled us to assist in the recovery of a federally listed endangered species, provide facilitation and population modeling training, and bring together teams of experts in conservation workshops that resulted in the development of action plans to increase the probability of species survival. Each individual donor can, and should, take credit for every project that bears the name CBSG.

CBSG is not just a small staff in an office in Minnesota. CBSG is an international network of

committed conservation professionals and practitioners. Whether you contribute as a workshop facilitator or modeler, with an annual donation or workshop sponsorship, or by sharing your expertise and passion through personal participation in a workshop or at CBSG's Annual Meeting, your contribution combines with those of hundreds of others to exponentially increase the conservation impact of the organization. Through our new technology initiative, described on pages 4-5, we will use the power of mass collaboration and social networking tools to utilize even more effectively all of the talent that exists within the CBSG community.

We are very proud again this year to highlight a handful of CBSG workshops that we feel are representative of the work we do each and every year on behalf of biodiversity. I hope you will use this Annual Report to help others to better understand the role you play in CBSG's efforts to save our planet's threatened species, so that they too can share in our collective vision of transforming passion for wildlife into effective conservation.

Omie By-

Dr. Onnie Byers Executive Director



FROM THE EXECUTIVE DIRECTOR & CHAIRMAN

BUILDING LINKS, SAVING SPECIES

One word that is often used in descriptions of CBSG is "linkage." The stories relayed in this report describe many kinds of linkages that CBSG helps to build and illustrate why these linkages are so valuable to successful conservation.

CBSG often partners with other Specialist Groups of the IUCN Species Survival Commission. For example, CBSG helped the Tapir Specialist Group to build an action plan to protect tapir species, and each year CBSG South Asia meets jointly with the Reintroduction Specialist Group – South Asia. CBSG México works with the Mexican government, and CBSG staff works with US governmental agencies to craft species recovery strategies. The Amphibian Ark was formed through the powerful linkage of CBSG with the Amphibian Specialist Group and the World Association of Zoos and Aquariums, and this partnership is catalyzing increased global awareness and conservation action for amphibians. As you scan the lists of our other activities in 2007, you will see more examples of our work to facilitate effective linkages with governments, zoos and zoo associations, universities, and conservation organizations.

The two new initiatives described within this report are both focused on tools for building links. New technologies and ideas about networks (of people) will enable us to use far-reaching links to achieve global collaborations. New methods for managing animal populations will make it easier to sustain the continuity of animals across the generations through cooperative breeding programs that are more flexible and therefore more responsive to the needs of the species and the organizations caring for them.

CBSG itself is a linked network that brings together experts from around the world, with an ongoing focus to strengthen the linkages between *ex situ* and *in situ* conservation and to serve as a key link between the zoo community and the international conservation community within the IUCN (which is, itself, a "union" of more than 1,000 governmental and non-governmental member organizations).

People often ask us how CBSG prioritizes our work, when our network has so many skills and conservation needs are so great. One key criterion is whether the project would build upon and use linkages to help achieve effective conservation. Priority goes to initiatives that connect the interests and resources of our sponsors to conservation needs, that forge new partnerships among organizations and among individuals, that use the diverse skills embodied within CBSG's membership, that involve our regional networks as our local extensions, that train more people in techniques for facilitating collaborations, that involve trans-disciplinary thinking, that link scientists with managers, and that use the special strengths of *ex situ* measures to enhance *in situ* conservation.

We encourage you to join us in more of our efforts on behalf of all species!



Pobert Lacy

Dr. Robert C. Lacy Chairman



HARNESSING THE POWER OF MASS COLLABORATION TOOLS FOR ENDANGERED SPECIES CONSERVATION

CBSG's work in conservation is based on a central philosophy that people from many different backgrounds and perspectives are needed to effectively address the global biodiversity crisis. Therefore, our program goals emphasize the exchange of information across diverse groups to reach agreement on the important challenges facing humans and wildlife. Currently, we implement these goals (and our mission) by bringing stakeholders together in interactive, participatory workshops in which an objective environment, thoughtful group facilitation, and expert knowledge are combined to foster a broad understanding of challenges and alternative solutions. Through this process, workshop participants create the type of meaningful and practical management recommendations that ultimately generate political and social support for conservation action.

CBSG has evolved greatly over 25 years of operation, and now has a unique opportunity to take a dramatic and significant leap forward. We always have been a participatory, collaborative organization with a philosophy of openness and inclusiveness. However, fixed resources have constrained the scale and scope of our conservation work. Today, internet-based tools, such as social software, blogs, and wiki technologies that are readily available in the corporate and business communities, will allow us to engage our philosophy on a scale never before imagined. And while the international conservation community has not yet embraced the use of these technologies, we are confident of the enormous potential for positive change that the application of social networking and collaboration tools could have on solving many of the complex problems of endangered species conservation. This new CBSG technology initiative is designed to bring these concepts to the forefront of our thinking, to engage the leaders in the field in meaningful discussion of the implications of these tools on our work, and to develop conservation-specific products through which collaboration, community building, problem analysis, and decision making can be enhanced, with the ultimate goal being the increased probability of survival of our planet's biodiversity.

Aims of this Initiative

- To improve conservation solutions Through the use of mass collaboration and social networking tools, we will be able to engage greater numbers and greater diversity of people in our conservation decision-making processes, thereby increasing the creativity, knowledge, and experience brought to bear on the problems facing threatened species.
- 2. To increase the implementation of those solutions Along with greater engagement in problem analysis and decision-making processes comes greater buy-in of stakeholders to the proposed solutions. Evidence suggests that this sense of ownership results in a greater commitment to and responsibility for implementation.
- To decrease the footprint of our work on the environment The use of web-based collaboration tools will result in decreased air and ground travel currently required to carry out conservation activities.



Project Description

This initiative will involve a series of meetings and electronic communications that will move the project from concept to design to implementation. The initial meetings will introduce the mass collaboration tools currently available and begin discussion of the potential for adoption of these tools by the conservation community. The next step will be to design prototype web-based tools and to use them to engage stakeholders and experts on specific questions of conservation concern. Finally, the implementation strategy will be designed. Implementation will involve conducting pre-PHVA work and developing baseline population models via our new interactive web-based tools. The implementation and write up of the report of this initiative will be done almost entirely using the new tools. We envision the ultimate end product of this initiative to be a set of conservation-specific mass collaboration tools and an associated training manual.

Conservation Significance

CBSG has a wide reach, but the urgent and complex problems of endangered species conservation require the global engagement of as many creative thinkers, areas of expertise, and sets of experiences as possible. The processes of CBSG have been highly effective, and incorporation of newly available technology has the potential to expand and engage our community exponentially. The result will be our ability to draw the attention of a far greater number of stakeholders and the very best minds to the questions of species survival. It is impossible to overstate the impact this could have on CBSG's ability to conduct conservation processes. Additionally, it may very well also increase collaboration and communication among endangered species conservation professionals beyond the CBSG network, and improve conservation decision-making.

RESPONDING TO THE NEED FOR EFFECTIVE MANAGEMENT FOR ALL SPECIES

When CBSG was formed nearly three decades ago, it helped to drive the rapid development of techniques for collaborative management of wildlife populations in captivity. As a result of CBSG working with its partners, cooperative breeding programs were initiated by the zoo associations in the North America, Europe, Japan, Australasia, and elsewhere. CBSG members were extensively involved in developing the scientific methodology for pedigree analysis and management, and in developing the software tools and training programs to enable the use of the new methods globally. The new methods converted many *ex situ* breeding programs from small, disconnected, and usually failing efforts by individual zoos into nationally or globally coordinated breeding programs that follow methods shown to be optimal for preserving genetic diversity. Many species that otherwise would have been lost from *ex situ* programs, and sometimes also from the wild, are still available for scientific study, education, reinforcement of wild populations, and enriching our lives.

We now know how to pair animals to sustain long-term breeding programs, but these methods are not applicable to every species. Some species breed only when they live within very large social groups or colonies, for which tracking and management of individual pedigrees is not possible. Thus, the population management methods developed in the past few decades might work well for tigers, condors, and Galápagos tortoises, but may not be sufficient for Partula snails, Kihansi spray toads, penguins, colonial bats, and the majority of species that are small, colonial, or have complex social systems. Many of these species are threatened with extinction if they are not protected through *ex situ* breeding programs. We cannot let such species disappear forever, so we must develop population management methods that will work for them.





Even with the best program management, for many species, no one breeding program or regional effort can adequately sustain and safeguard the *ex situ* population. Often, an inter-regional or global program is necessary to bring the combined resources needed to ensure long-term success. Processes for coordinating efforts among increasingly diverse partners are essential.

Partnerships in Ex Situ Conservation

- CBSG facilitated several of the workshops convened by the International Species Information System (ISIS) to design a new Zoological Information Management System (ZIMS) to allow zoos, aquariums, and their scientific partners to share more information on animals in *ex situ* programs.
- The Amphibian Ark, of which CBSG is a founding partner, developed guidelines for management of amphibian breeding programs.
- Our colleagues at the Zoological Society of London, including this year's recipient of the Ulysses S. Seal Award for Innovation in Conservation, Paul Pearce-Kelly (see page 24), have developed methods for monitoring breeding populations of invertebrates and determining when to move animals between breeding groups.
- The recipient of the 2006 Seal Award, Jonathan Ballou of the National Zoo (US), is working with CBSG Chair Bob Lacy and other colleagues to develop computer software that will include new genetic analyses that can incorporate information on multiple possible parents, and methods for making decisions about when to transfer animals among captive populations and to or from wild populations.
- CBSG is assisting the World Association of Zoos and Aquariums (WAZA) in developing Global Species Management Programs.

There is still much that needs to be discovered regarding how best to manage breeding populations of wildlife, and CBSG will convene working groups as appropriate to address such issues as how to use newly available DNA data in population management, how to use new reproductive technologies to assist species conservation, and how to integrate consideration of animal behavior and animal welfare into breeding program management.

The new directions for *ex situ* breeding technology are also bringing that field closer to wild population management. The care of many *ex situ* populations is not far removed from managing species in wildlife reserves or in other isolated remnants of habitat. Thus, the renewed efforts to sustain *ex situ* populations will lead to innovations that will also serve *in situ* conservation and strengthen the links between the two approaches for preserving species.



DEVELOPING A GLOBAL ACTION PLAN FOR TAPIRS



Lowland Tapir Facts

- The lowland tapir (*Tapirus terrestris*) occurs through a wide geographic range, from Colombia and east of the Andes throughout most of tropical South America.
- Lowland tapirs live mostly in tropical lowland rainforest, but can also be found in seasonally dry habitats such as the Chaco of Bolivia and Paraguay.
- The lowland tapir is distinguished by a short, narrow mane along its neck, a bristly coat, and white-tipped ears.

"Completing a new action plan for tapirs has been the biggest accomplishment in the history of the Tapir Specialist Group. We look forward to applying the action plans for the four species of tapirs." – Patrícia Medici, Chair of the IUCN/SSC Tapir Specialist Group

The Situation

Although they are widely distributed in South America, lowland tapirs are becoming rare throughout their range due to habitat destruction and poaching. Tapirs have low reproductive rates, and there may be too few adults left to bring the population back to healthy numbers without direct intervention.

The Process

In 2001, the Tapir Specialist Group (TSG) recommended PHVAs for all four tapir species. The Lowland Tapir PHVA was the final workshop in this series, conducted by CBSG Brasil, and evaluated the status and possible conservation strategies for the species. The PHVA used the knowledge of 70 experts from all 11 lowland tapir range countries to make its recommendations. Recommendations from all of the PHVA workshops were used to create an action plan for all four species of tapirs, which provides a blueprint for the necessary conservation strategies, research needs, and environmental education approaches to conserve tapirs in the wild and in captivity.



The Results

The new *Tapir Action Plan* is a "living" document, which will be continually updated according to tapir conservation needs in years to come. Progress made on tasks outlined in the action plan will be evaluated at the International Tapir Symposium meeting every three years. In French Guyana, the PHVA and action plan have already led to a decree prohibiting the sale of several native game species, including the lowland tapir. Work on Regional Collection Plans for captive tapir species is also underway. **RECOVERING A TINY FISH IN A GRAND RIVER**



Silvery Minnow Facts

- The United States government listed the silvery minnow as an endangered species in 1994.
- The silvery minnow lays its eggs directly in the water column, and spawns only during the melting of winter snow.
- Eggs and larvae rely on the slow slackwaters of the inundated floodplain for survival and growth.
- Efforts are currently underway to reintroduce the silvery minnow into the Rio Grande in Big Bend National Park, located in Texas on the US border with Mexico.

"We could have hired someone to run the model without input from the Program, but through the kind of collaborative process CBSG offers, we built a PVA everyone can understand, support, and refine through time. This type of approach offers the best strategy for identifying what's necessary to protect this species." – Brian Millsap, New Mexico State Administrator, US Fish & Wildlife Service

The Situation

Once among the most abundant fish in the Rio Grande River, the silvery minnow (*Hybognathus amarus*) now inhabits a stretch of river less than 200 miles long in New Mexico. As agricultural and municipal demand for water grows in this region, the remaining water left to flow downstream declines steadily – in drought years, it becomes a trickle at the bottom of the riverbed. To help this aquatic ecosystem and its species survive, a diverse body of stakeholders needed to come together to forge a creative and lasting solution.

The Process

The Middle Rio Grande Endangered Species Collaborative Program asked CBSG to design and conduct a comprehensive workshop process in order to develop recovery strategies for the silvery minnow. Before the workshop, a population viability analysis (PVA) was used to provide insight into the current status of the species and its aquatic habitat. CBSG-trained facilitators led discussions on short-term minnow management to prevent extinction, longer-term management meant to achieve recovery, and the communication necessary to promote involvement from the full diversity of Program stakeholders.

The Results

As a result of the workshop, information has been synthesized on species biology and river hydrology, promoting more effective communication and enhancing the impact of proposed future management actions. Participants clarified the vision and mission of the Collaborative Program, and proposed a continuation of the PVA in 2008. This expanded analysis will consider future conditions in the river and the resulting impacts on the reproduction and survival of the minnow. This work is ongoing and will lead to important recommendations for river management into the next decade and beyond.



REFOCUSING REINTRODUCTION IN SOUTH ASIA



Reintroduction Facts

- Introduction of non-native species into thriving habitats is a serious cause of extinction to local wildlife, but the improper release of native animals can have the same impact.
- Systematic and scientific breeding of *ex situ* populations would reduce the pressure to release surplus animals into the wild.
- RSG first drafted its IUCN Guidelines for Reintroduction in 1995. Many countries and unions, including the EU, have adopted these guidelines as formal policy for reintroduction projects.

"CBSG and RSG complement each other, and having both under one roof in South Asia is very useful. Using CBSG's tools for managing groups, strategic planning, and conflict resolution, zoos learn how the Reintroduction Guidelines can enhance the well-being of individuals to be released, the animals occupying the release site, and the habitat itself." – Pritpal Soorae, Program Officer, IUCN/SSC Reintroduction Specialist Group

The Situation

Reintroduction ideally leads to sustainable wild populations of animals in appropriate habitats. However, when reintroduction is used inappropriately to solve problems unconnected to or only loosely connected to conservation, the impact on the release area and local wildlife can be very destructive. Unfortunately, this misuse of the tools of reintroduction is not uncommon in many parts of the world, including South Asia. CBSG South Asia and the IUCN/SSC Reintroduction Specialist Group (RSG) are working together to address this serious conservation concern in this region.

The Process

To change practices in the region, CBSG South Asia and RSG South Asia hold joint annual meetings, in conjunction with the South Asian Zoo Association, to promote the principles of conservation breeding and the implementation of the IUCN reintroduction guidelines, which define best practices. These meetings are held in a different South Asian country each year, allowing a larger number of people to gather and discuss both conservation breeding and reintroduction issues.



The Results

CBSG South Asia and RSG South Asia target specific misunderstandings by applying CBSG tools and processes to real problems. At a recent meeting, a working group on human/leopard conflict found that CBSG conflict resolution tools opened new avenues for addressing many issues. In another working group, foresters translocating large carnivores to nearby habitats found CBSG population management tools and RSG guidelines useful for prey base arrangements in the new localities. Zoos that in the past have conducted improper reintroductions are now prepared to employ methods of planned breeding and population control and have the tools to conduct proper reintroduction procedures when necessary.

BRINGING THE MEXICAN WOLF HOME



Mexican Wolf Facts

- The Mexican wolf (*Canis lupus baileyi*) was the largest canid, and the only wolf species, native to México.
- This subspecies is the smallest wolf on the North American continent and the southernmost representative of the species.
- The last Mexican wolves roaming free in México were hunted out by early 1980s.
- The historic distribution of the Mexican wolf ranged from in the areas southeast Arizona, southeast New Mexico, and western Texas in the US through Sonora and Tamaulipas to Michoacán, Puebla, and north of Oaxaca in México.

"The experience and skills of CBSG México were very useful in leading this workshop to reach its goal. The group analyzed various available methodologies for these types of studies and was able to define the suitable study for the type of work we required and the conditions of the regions we were going to evaluate." – Oscar Moctezuma O., General Director, NATURALIA, A.C.

The Situation

More than 20 years after the extirpation of the Mexican wolf, the Mexican government is working with CBSG México to create a plan to reintroduce the species in its former range. An initial workshop identified possible release sites, but these sites needed further evaluation to understand the impact that prey availability and social perceptions would have on the possible reintroduction of wolves in those areas. CBSG México was invited by the Comisión Nacional de Áreas Naturales Protegidas (CONANP) to conduct a second workshop in 2007 to address the issues of prey availability and the social perception of local communities toward the species.

The Process

CBSG México brought together 25 experts representing 15 organizations to design methodology for evaluating the different release sites. To estimate prey availability, participants analyzed several possible techniques, and chose a camera-trap and olfactory station technique to estimate the density and relative abundance of large and small prey that could be hunted by wolves. To understand how local people will impact reintroduced wolves, a survey was designed to measure the social perception of people in towns near the possible release sites.

The Results

Since the workshop, prey assessment and social perception surveys have been conducted in the three potential release areas. The results were presented in a recent meeting, and the methodology developed in this second workshop made it possible to compare release sites objectively. Small adjustments have been made to refine the techniques used for prey assessment, and the information produced and gathered from these studies will provide important tools for decision-makers to finally select the first area where the Mexican wolf will once again roam free in México.



AMPHIBIAN CONSERVATION SUCCESS

The Situation

After thriving for over 360 million years, about one-half of the world's 6,000 amphibian species are in danger of extinction, and 165 species are believed to have become extinct since 1980. The urgent danger is Amphibian Chytrid Fungus, but other threats include habitat loss, pollution, pesticides, and climate change. CBSG has made a commitment to respond to this extinction crisis and, in partnership with the World Association of Zoos and Aquariums (WAZA) and the IUCN/SSC Amphibian Specialist Group (ASG), has formed an organization dedicated to safeguarding amphibian species – Amphibian Ark (AArk). CBSG and AArk staff worked together to conduct eight conservation workshops to benefit amphibians during 2007. Three are highlighted here.

ASSESSING COSTA RICAN AMPHIBIANS

Of the 188 amphibian species native to Costa Rica, 61 are considered threatened. Many Costa Rican amphibians are found nowhere else in the world, and an understanding of their conservation needs is critical to ensuring their survival.

The Process

Experts on the amphibians of Costa Rica have conducted a series of workshops since 2002 to evaluate the changing population status of the native amphibians. In 2007, CBSG Mesoamerica conducted a Conservation Assessment and Management Plan (CAMP) workshop to reassess the status of all the amphibian species native to Costa Rica. This workshop was followed immediately by an AArk Species Prioritization Workshop, based on the CAMP results.

The Results

Costa Rica is one of the only countries in the world (and the only one in Latin America) to have re-assessed their species since the 2004 Global Amphibian Assessment and followed with an AArk Species Prioritization Workshop to identify which species truly require ex situ intervention (as well as those that can be saved in situ), and to have drafted an integrated national conservation strategy for amphibians. Costa Rica is certainly one of the world leaders in preparing their response to the amphibian extinction crisis.





2007 Amphibian Ark Staff

Kevin Zippel, Program Director
Kevin Johnson, Taxon Officer
Richard Gibson, Taxon Officer
Lesley Dickie, Year of the Frog Global Campaign Manager



PRESERVING THE GREEN TOAD IN SWEDEN

Last S. S

The Swedish population of the green toad is critically endangered, with only 950 adults remaining, mainly due to human activity in the environment. Habitat restoration and reintroduction efforts have not improved the conservation outlook for this species.

The Process

CBSG Europe worked with Nordens Ark to conduct a PHVA workshop to address the continuing decline of this species. Twenty participants representing several stakeholder groups investigated the viability of existing populations, population sizes necessary for self-sustaining populations, and the effects of various reintroduction and other management strategies. They also considered the human factor, including legislation, organizational matters, human interest conflicts, education, and awareness.

The Results

The PHVA process incorporated stakeholder views and approaches into the existing conservation action plan for the green toad. Participants improved protocols for rearing, reintroductions and translocations, and outlined actions necessary to restore wild toad populations. Sweden's national Agency for Nature Conservation committed to implementing the recommendations. The network established at this workshop will provide the framework needed for the successful conservation of the green toad.



SAVING THE LAST KIHANSI SPRAY TOADS

Previously endemic to two hectares of spray zone surrounding the waterfall in Kihansi gorge, Tanzania, the Kihansi spray toad is likely extinct in the wild due to the construction of a hydroelectric dam and chytrid fungus. Today, small captive populations exist in two US zoos.



The Process

To promote a structured dialogue among key stakeholders, a PHVA workshop was held in May 2007 with the assistance of CBSG Southern Africa that utilized the diverse experience and knowledge of 60 participants from academia, government, NGOs, industry, and the private sector convened from 5 countries. The group collectively identified the outstanding issues to be addressed, and created a comprehensive plan to improve conservation efforts in the area.

The **Results**

The workshop resulted in an extinction risk assessment model based upon in-depth analysis of information on the life history, population dynamics, ecology, and history of the population, detailed management and research recommendations and input for a recovery and reintroduction plan in the future, with specific steps taken to ensure that infectious diseases are not transmitted during the movement of the captive animals.

2007 PHVA AND CAMP WORKSHOPS AND SPONSORS

Butler's Gartersnake PHVA

Wisconsin Department of Natural Resources (DNR)

Costa Rican Amphibian CAMP

Conservation International; FUNDAZOO; Nature Serve, Universidad de Costa Rica

Green Toad PHVA

Chester Zoo; Copenhagen Zoo; Nordens Ark; Swedish Association of Zoological Parks and Aquaria; Zoological Society of London

Gunnison's / White-tailed Prairie Dog PHVA

Colorado Division of Wildlife

Kihansi Spray Toad PHVA

Lower Kihansi Environmental Management Project

Lowland Tapir PHVA

Alexandria Zoological Park; Chicago Board of Trade Endangered Species Fund; Chicago Zoological Society; Connecticut's Beardsley Zoo Conservation Fund; Conselho Nacional de Desenvolvimento Científico e Tecnológico; Copenhagen Zoo; Denver Zoological Gardens; Dutch Foundation Zoos Help; Emmen Zoo; Evansville's Mesker Park Zoo & Botanic Garden; Herberstein Tier-und Naturpark; Houston Zoo; IUCN/SSC Tapir Specialist Group Conservation Fund; Los Angeles Zoo; Miami Metrozoo, Zoological Society of Florida; Nashville Zoo; Nature Conservation Trust, Apeldoorn; Prefeitura do Município de Sorocaba -PROJETO FAMA; Rum Creek Preserve; Safari de Peaugres; San Antonio Zoological Gardens & Aquarium; San Diego Zoo; San Francisco Zoo; Sedgwick County Zoo; Sorocaba Zoo; Twycross Zoo; U.S. Fish & Wildlife Service, Division of International Conservation; Virginia Zoological Park; Wildlife World Zoo; World Association of Zoos and Aquariums; Zoo de la Palmyre; Zoo Osnabrück; Zoologicka Garden & Chateau Zlin-Lesna

Mexican Jaguar PHVA

Alianza Telcel-WWF; Comisión Nacional de Áreas Naturales Protegidas (CONANP); Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO); Ecociencia, S.C.; Africam Safari

Rio Grande Silvery Minnow PHVA

Middle Rio Grande Endangered Species Collaborative Program



The PHVA Workshop Process

Population viability analysis (PVA) has been widely recognized as an important tool to quantify the impacts of human activities on the risk of extinction of wildlife species or populations. Historically, this tool has often been used within a narrow biological focus, largely ignoring important information from other disciplines and perspectives that can enhance the input to the PVA as well as expand the utility of the resulting recommendations. Our Population and Habitat Viability Assessment (PHVA) workshop process directly addresses this critical issue. We combine traditional PVA methodologies with structured tools for issue formulation and problem solving across a broad range of disciplines. Through this integration, stakeholders develop more effective recommendations for species conservation action, including the identification of personal responsibilities and timelines so the recommendations can become reality.

In 2007, CBSG led 7 PHVA Workshops on 8 species in 5 countries, involving a total of 385 people from 226 organizations.

The CAMP Workshop Process

The Conservation Assessment and Management Plan (CAMP) workshop is a rapid, broad-based evaluation of a selected group of species that occupy a particular country or region. The diverse expertise among workshop participants is applied to the IUCN's quantitative Red List system to categorize each species' degree of endangerment, based on estimates of the threats to these populations and their habitat. Through this process, the CAMP helps to establish priorities for global and regional species conservation, emphasizing the wise use of limited conservation resources. A computerized database is used to assemble and summarize all available information, and allows CAMP data to be queried and analyzed by all interested parties. Workshop reports include basic recommendations for conservation research and management activities.

In 2007, CBSG led one CAMP Workshop in Costa Rica, involving a total of 37 people from 15 organizations, and evaluating the status of 188 species. A ALA

2007 FACILITATION AND RISK ASSESSMENT TRAINING WORKSHOPS AND SPONSORS

Advanced Vortex Training Course Chicago Zoological Society; National Zoological Park

Facilitation Skills Training Course, Brazil Chicago Zoological Society; IPE Conservation Biology Training Course

Facilitation Skills Training Course, Omaha, USA CBSG; Omaha's Henry Doorly Zoo

Hoolock Gibbon Educator Training US Fish & Wildlife Service; Wildlife Conservation Society

Small Mammal Field Techniques Training Bat Conservation International; Chester Zoo; Knowsley Safari Park

Vortex Training, Colombia Facultad de Ciencias; Pontificia Universidad Javeriana

Facilitation and Risk Assessment Training for Conservation Professionals

CBSG offers courses in both facilitation and risk assessment for wildlife conservation. Facilitation course participants learn to apply skills in group dynamics, facilitation, structured problem solving, and communication and collaboration – all essential to implementing effective conservation action. Courses in risk assessment and population modelling provide participants with an overview of population biology and conservation planning. Primary focus is placed on the use of simulation methods for evaluating the risk of population extinction, and guidance on the skills needed to make population projections an effective part of a broader conservation assessment process.

In 2007, CBSG led 6 Training Workshops in five countries, involving a total of 303 people from 140 organizations.





The unique combination of CBSG's process design tools in concert with our knowledge-based facilitation skills can be applied to a wide variety of conservation planning needs. CBSG works with wildlife agencies, conservation organizations, zoological parks, and similar organizations to develop strategic conservation plans for individual species, protected areas, or conservation organizations. From strategic planning for national wildlife refuges to developing zoo conservation master plans, CBSG leads stakeholders through the exploration of issues and the development of goals to guide future actions.

In 2007, CBSG led 12 Conservation Planning Workshops in five countries, involving a total of 345 people from 165 organizations.



2007 ORGANIZATIONAL AND SPECIES CONSERVATION PLANNING WORKSHOPS AND SPONSORS

African Crane Trade Workshop

SeaWorld and Busch Gardens Conservation Fund; North Carolina Zoo; North of England Zoological Society / Chester Zoo Keeper for a Day Fund

AZA Felid Taxon Advisory Group Strategic Planning Cincinnati Zoo; White Oak Conservation Center

Beach Mouse Captive Population Feasibility US Fish & Wildlife Service

Costa Rican Amphibian Species Prioritization for *Ex situ* Conservation Programs Amphibian Ark; FUNDAZOO; Universidad de Costa Rica

Envirovet Strategic Planning University of Illinois; White Oak Conservation Center

Prey Availability Estimation for the Mexican Wolf Comisión Nacional de Áreas Natutrales Protegidas (CONANP), Mexico

Raptor Center Strategic Planning University of Minnesota Raptor Center

Saint Louis Zoo's WildCare Institute Strategic Planning St. Louis Zoo

Smithsonian/Environmental Protection Agency Wildlife Toxicology Workshop National Zoological Park

Sustainable Cattle Production in the Pantanal Brazilian Agricultural Research Corporation (Embrapa Pantanal)

Toledo Zoo Conservation Planning Workshop Toledo Zoo

Turtle Survival Alliance Strategic Plan Workshop Turtle Survival Alliance Foundation

ABOUT CBSG

The Conservation Breeding Specialist Group (CBSG) is a global volunteer network of over 500 conservation professionals, coordinated by a headquarters staff of 6, assisted by 8 Regional and National Networks on 5 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 part of the Species Survival Commission of the IUCN – The International Union for the 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 nongovernmental 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.



www.iucn.org/themes/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 190 species through more than 300 workshops held in 65 countries. CBSG has collaborated with more than 170 zoos and aquariums, 150 conservation non-governmental organizations (NGOs), 60 universities, 40 government agencies, and 30 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.



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 basic 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.

CBSG Network Convenors

CBSG Brasil Patrícia Medici Institute for Ecological Research

CBSG Europe Bengt Holst Copenhagen Zoo

CBSG Indonesia Jansen Manansang Taman Safari Indonesia

CBSG Japan Hiroshi Hori Nasu World Monkey Park **CBSG Mesoamerica** Yolanda Matamoros Simon Bolivar Zoo

CBSG México Amy Camacho Africam Safari

CBSG South Asia Sally Walker Zoo Outreach Organisation

CBSG Southern Africa Yolan Friedmann Endangered Wildlife Trust



CBSG DONORS

\$50,000 and above





\$20,000 and above





\$10,000 and above

Nan Schaffer San Diego Zoo White Oak Conservation Center

\$5,000 and above

Al Ain Zoo Australasian Regional Association of Zoological Parks and Aquaria Cleveland Zoological Society Linda Malek Point Defiance Zoo & Aquarium Toledo Zoo

\$1,000 and above

African Safari Wildlife Park Albuquerque Biological Park Alice D. Andrews Allwetterzoo Münster Association of Zoos and Aquariums Auckland Zoological Park Audubon Zoo Bristol Zoo Gardens British and Irish Association of Zoos and Aquariums Calgary Zoological Society Central Zoo Authority, India Chester Zoo Cincinnati Zoo Colchester Zoo Copenhagen Zoo Cotswold Wildlife Park Detroit Zoological Park Dickerson Park Zoo Durrell Wildlife Conservation Trust El Paso Zoo Everland Zoo Fort Wayne Children's Zoo

Fort Worth Zoo Fota Wildlife Park Gladys Porter Zoo Great Plains Zoo & Delbridge Museum Hong Kong Zoological and Botanical Gardens Japanese Association of Zoos and Aquariums Kansas City Zoo Laurie Bingaman Lackey Los Angeles Zoo Marwell Zoological Park Milwaukee County Zoo North Carolina Zoological Park Ocean Park Conservation Foundation Paignton Zoo Palm Beach Zoo at Dreher Park Parco Natura Viva – Italy Perth Zoo Philadelphia Zoo Phoenix 700 Pittsburgh Zoo & PPG Aquarium Prudence P. Perry Ringling Bros., Barnum & Bailey Robert Lacy Rotterdam Zoo Royal Zoological Society – Antwerp Royal Zoological Society – Scotland Saitama Children's Zoo San Antonio Zoo San Francisco Zoo Sedgwick County Zoo Schönbrunner Tiergarten – Zoo Vienna Taipei Zoo The Living Desert Thrigby Hall Wildlife Gardens Twycross Zoo

Union of German Zoo Directors

Utah's Hogle Zoo Wassenaar Wildlife Breeding Centre Wilhelma Zoo Woodland Park Zoo Zoo Frankfurt Zoo Zürich Zoological Society of Wales – Welsh Mountain Zoo Zoologischer Garten Köln Zoologischer Garten Rostock Zoos South Australia

\$500 and above

Aalborg Zoo Akron Zoological Park Banham Zoo and Sanctuary BioSolutions Division of SAIC Fairchild Tropical Botanic Garden Friends of the Roseamond Gifford Zoo General Mills Foundation Givskud Zoo Jacksonville Zoo and Gardens Katey and Mike Pelican Kerzner International North America, Inc. Knuthenborg Park and Safari Lincoln Park Zoo Lisbon 700 Little Rock Zoo Madrid Zoo – Parques Reunidos Nancy and Pete Killilea Naturzoo Rheine

Nordens Ark Odense Zoo Oregon Zoo Ouwehands Dierenpark Riverbanks Zoological Park Svenska Djurparksföreningen Wellington Zoo Wildlife World Zoo Zoo de Granby

\$250 and above

Alice Springs Desert Park Apenheul Zoo Arizona-Sonora Desert Museum Bramble Park Zoo Brandywine Zoo David Traylor Zoo of Emporia Ed Asper Edward and Marie Plotka Lee Richardson Zoo Mark Barone Montgomery Zoo Racine Zoological Society Roger Williams Park Zoo Rolling Hills Wildlife Adventure Sacramento Zoo Tokyo Zoological Park Society Topeka Zoological Park



DONOR INFORMATION

\$15,000 and above



\$100 and above

African Safari – France Aquarium of the Bay Bighorn Institute Chahinkapa Zoo Elias Sadalla Filho International Centre for Birds of Prey James and Pamela Sebesta Lincoln Children's Zoo Lion Country Safari, Inc. Miami Metrozoo Miller Park Zoo Steinhart Aquarium Steven J. Olson Tautphaus Park Zoo

\$50 and above

Alameda Park Zoo Casey Schwarzkopf Darmstadt Zoo Margie Lindberg Oglebay's Good Children's Zoo Safari de Peaugres Stiftung Natur-und Artenschutz in den Tropen Touroparc – France

2007 Sponsors of CBSG Participation in Conservation Workshops and Meetings

- 6th International Conference on Fertility Control for Wildlife/National Zoological Park
- Amphibian Ark Steering Committee Meeting/Amphibian Ark
- Association of Zoos and Aquariums Annual Conference/Chicago Zoological Society
- Channel Island Fox Interagency Recovery Team/US Fish & Wildlife Service (USFWS)
- **Colombian Amphibian Prioritization Workshop**/Colombian Zoos and Aquariums Association (ACOPAZOA)
- Conservation Medicine Seminar/Cornell University
- Envirovet 2007/University of Illinois; White Oak Conservation Center
- Gerenuk Biomaterials Disease Risk Assessment/Omaha's Henry Doorly Zoo; White Oak Conservation Center

Giant Panda Technical Meeting/National Zoological Park

- Japanese Association of Zoos and Aquariums (JAZA) Workshops and Annual Meeting/ CBSG; JAZA
- Small Population Management Advisory Group Mid-Year Meeting/CBSG
- Species Survival Commission Species Conservation Planning Task Force Meetings/Chicago Board of Trade; IUCN; Taipei Forestry Bureau of the Council of Agriculture
- Tiger Species Survival Plan Masterplan Meeting/AZA
- Translational Biomedical Seminar Series Lecture/University of Illinois
- Venezuelan Amphibian Biology and Management Course/SeaWorld; World Association of Zoos and Aquariums (WAZA)
- Venezuelan Amphibian Prioritization Workshop/Amphibian Ark
- WAZA Annual Conference/CBSG; Chicago Zoological Society
- Zoological Information Management System (ZIMS) Standing Watch for Animals and People Workshop/ISIS

ZIMS Studbook Review Meeting/CBSG

- Zoos and Aquariums Committing to Conservation /CBSG
- XXIV Congress of the Mexican Zoos and Aquariums Association/Africam Safari



Level 2 -

CBSG Steering Committee and GCN Financial Board (as of December 31, 2007)

Brad Andrews* SeaWorld/Busch Gardens, USA

Edward Asper African Safari Wildlife Park, USA

Jonathan Ballou National Zoological Park, USA

Evan Blumer Columbus Zoo/The WILDS, USA

Jeffrey Bonner Saint Louis Zoo, USA

Jerry Borin** Columbus Zoo/The Wilds, USA

Paul Boyle Association of Zoos and Aquariums, USA

Onnie Byers CBSG, USA

Amy Camacho Africam Safari, México

William Conway* Wildlife Conservation Society, USA

Mark Craig Al Ain Zoo, United Arab Emirates

James Cretney Marwell Zoo, UK

Lesley Dickie Zoological Society of London, UK

Peter Dollinger WAZA (World Association of Zoos and Aquariums), Switzerland

Holly Dublin IUCN/SSC, South Africa

Lee Ehmke* Minnesota Zoo, USA

Nathan Flesness* ISIS (International Species Information System), USA

Yolan Friedmann Endangered Wildlife Trust, South Africa

Suzanne Gendron Ocean Park Conservation Foundation, Hong Kong

Jo Gipps* Bristol Zoo Gardens, UK

Heribert Hofer Leibniz-Institut für Zoo und Wildtierforschung (IZW), Germany Bengt Holst* Copenhagen Zoo, Denmark

Kazuyoshi Itoh Ueno Zoological Gardens, Japan

Jim Jackson* Fossil Rim Wildlife Center, USA

John Knowles** Marwell Zoological Park, UK

Willie Labuschagne Management of Nature Conservation, United Arab Emirates

Robert Lacy* Chicago Zoological Society, USA

Richard Lattis Wildlife Conservation Society, USA

Lena Maria Lindén Nordens Ark, Sweden

Jansen Manansang Taman Safari Indonesia, Indonesia

Yolanda Matamoros Simon Bolivar Zoo, Costa Rica

Mike Maunder Fairchild Tropical Botanic Garden, USA

Gordon McGregor Reid Chester Zoo, UK

Patrícia Medici Institute for Ecological Research, Brazil

Theo Pagel Zoologischer Garten Köln, Germany

George Rabb Chicago Zoological Society, USA

Bill Rapley Toronto Zoo, Canada

Alex Rübel Zoo Zürich, Switzerland

Karen Sausman The Living Desert, USA **Christian R. Schmidt** Germany

Harry Schram EAZA (European Association of Zoos and Aquaria), The Netherlands

Lee Simmons* Omaha's Henry Doorly Zoo, USA

Rebecca Seal Soileau CBSG, USA

Mark Stanley-Price

Beth Stevens Disney's Animal Kingdom, USA

Miranda Stevenson BIAZA (British and Irish Association of Zoos and Aquariums), UK

Jean-Christophe Vie IUCN Species Programme, Switzerland

Sally Walker Zoo Outreach Organisation, India

Chris West Zoos South Australia, Australia

Frances Westley University of Waterloo, Canada

Dan Wharton Chicago Zoological Society, USA

Robert Wiese San Diego Zoo, USA

Jonathan Wilcken Auckland Zoo, New Zealand

David Wildt National Zoological Park, USA

* Member of GCN Financial Board and CBSG Steering Committee

** GCN Financial Board Member only



Statement of Activities and Changes in Net Assets for the Year Ending December 31, 2007

	Unrestricted	Restricted	Total
Support and Revenue:			
Contributions	US\$663,276	US\$46,445	US\$709,721
Workshops and Contracts	54,296	-	54,296
Other Program Service Fees	7,717	-	7,717
Sales Revenue	21,549	_	21,549
Investment Income	11,255	-	11,255
Net Assets Released from Restrictions:			
Satisfaction of Program Restrictions	29,305	(29,305)	_
Satisfaction of Time Restrictions	7,000	(7,000)	_
Total Support and Revenue	794,398	10,140	804,538
Expense:			
Program Services	586,563	-	586,563
Support Services:			
Management and General	121,515	-	121,515
Fundraising	54,163	-	54,163
Total Support Services	175,678	-	175,678
Total Expense	762,241	-	762,241
Change in Net Assets	32,157	10,140	42,297
Net Assets - Beginning of Year	266,826	36,305	303,131
Net Assets - End of Year	US\$298,983	US\$46,445	US\$345,428

Statement of Financial Position at December 31, 2007

Current Assets:	
Cash	US\$304,917
Pledges Receivable	_
Contracts Receivable	2,810
Prepaid Expenses	3,009
Total Current Assets	310,736
Investments	184,477
Property and Equipment - Net	2,256
Total Assets	US\$497,469

LIABILITIES & NET ASSETS Current Liabilities:

Accounts Payable	9,372
Accrued Salaries	7,005
Accrued Vacation	12,994
Deferred Workshop Revenue	20,000
Funds held for Other Species	
Conservation Organizations	102,670
Total Current Liabilities	152,041

Net Assets:

ASSETS

Unrestricted	298,983
Temporarily Restricted	46.445
Total Net Assets	345,428
Total Liabilities & Net Assets	US\$497,469

Notes to 2007 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 AArk activities as part of our commitment to AArk's success. GCN had an overall surplus of about US \$43,000 for the year in 2007. Our unrestricted activity (general operations) accounted for approximately US \$33,000 of the increase with the remaining US \$10,000 increase related to restricted activity. As of December 31, 2007, we had an unrestricted net asset reserve of US \$299,000, or more than eight months of operating expenses. Two components make up the temporarily restricted net asset reserve at year end; US \$39,445 is for the Amphibian Fund and about US \$7,000 is for 2008 commitments. The information on this page was taken from the 2007 audit. Copies of the full audit can be obtained by contracting the CBSG office.

2007 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. The contributions of recipients of this award need not have been through work connected with CBSG, but do reflect CBSG values of creative thinking that results in improved conservation action.

The 2007 Ulysses S. Seal Award was presented to Dr. Paul Pearce-Kelly of the Zoological Society of London (ZSL). A champion of endangered invertebrate species, he has led the invertebrate section of ZSL for over 15 years. During that time, he developed wonderful and effective exhibits to teach people about the grand diversity of life, and spearheaded conservation programs for a great number and variety of invertebrates around the world.



Sustainability

We are proud to partner with Mohawk Fine Papers and B & G House of Printing, Inc., California, USA to bring you our 2007 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, and new pages of resources focused on the topic of sustainability.



Much of Paul's work has focused on *Partula* snails, rescuing remaining individuals and establishing populations in zoos, developing husbandry techniques for the remaining snails, researching species biology, and developing methods to protect snails as they are reestablished in French Polynesia. Paul has applied techniques and knowledge from the



Partula snails, and all of his passion and energy, to saving and restoring populations of invertebrates on other islands, including Barberry carpet moths, palm beetles, giant earwigs, spiky yellow wood-lice, field crickets, red-barbed ants, and several species of tree and land snails. Paul has also developed methods to meet the challenge of demographically and genetically managing invertebrate species in captivity, and these methods will have a positive impact on maintaining group-living birds and mammals as well.

Past Ulysses S. Seal Award Winners

2003 Nathan Flesness, International Species Information System, USA
2004 Frances Westley, University of Waterloo, Canada
2005 Georgina Mace, Natural Environment Research Council (NERC) Centre for Population Biology, Imperial College, London, UK
2006 Jonathan Ballou, National Zoological Park, USA

This annual report is prined on 100% Post-Consumer Fiber. The selection of this paper preserves

- 1.36 trees for the future
- 579 gallons (2,192 liters) of wastewater flow
- 965,600 BTUs energy.







Special Acknowledgements

Evenson Design Group - www.evensondesign.com

The design of this Annual Report and other materials was donated by Evenson Design Group (EDG), a full service graphic design firm located in Culver City, California, USA. Since 1976, EDG has worked with small to enterprise-level clients creating many successful solutions for brand identity, packaging, corporate collateral, environmental signage, exhibit design, and web/multi-media projects.

Linda Malek is a strategic planning, business development, and marketing specialist based in southern California, USA. 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.

Printing courtesy of Omaha's Henry Doorly Zoo and B & G House of Printing, Inc., California, USA

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Virginia Lindgren Patricia Medici Phil Miller Oscar Moctezuma O., Naturalia, A.C. Robert Puschendorf M. Quazi/Karachi Zoo, Pakistan B. Ravichandran, Zoo Outreach Organisation, Coimbatore Jorge Rodriguez Lee Simmons Waverley Traylor Kathy Traylor-Holzer USFWS Sally Walker Rod Williams

