

Announcements

Jon Ballou & Kathy Traylor-Holzer Receive Award



Jonathan Ballou (SCBI) and Kathy Traylor-Holzer (CBSG Senior Program Officer) recently received the Lifetime Achievement Award of the Giant Panda Zoo Awards 2013.

With the award came high praise: "Ballou and Traylor-Holzer are two of the world's experts on genetic management. Their advice and work has been key to the successful captive breeding program of the giant panda." For more information about Jon and Kathy's work with giant pandas, please visit: <http://www.giantpandazoo.com/panda/news/jon-ballou-kathy-traylor-holze-receive-lifetime-achievement-award>. Congratulations, Jon and Kathy!

CBSG eUpdate: February 2014

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Thanks to our translators, Jean-Luc Berthier and Elizabeth Townsend (French), and Celia Sánchez (Spanish), for helping make this publication available in three languages.



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CBSG Announces Divestment from 70% of Fossil Fuel Exposure

One year after stating our goal to divest our reserve funds from fossil fuel companies, CBSG is proud to announce that we have moved our money and reduced our portfolio's fossil fuel exposure by 70%! In order to determine our new investment strategy, we partnered with the portfolio management firm HIP Investor. HIP Investor developed an investment strategy for CBSG that aligns with both CBSG's mission and our investment goals.

This investment strategy was unanimously approved by the GCN Board on 17 January 2014. After moving our money this month, CBSG is well on its way to reaching the goal of full divestiture by the end of 2017. We are proud to be one of the first conservation organizations to take this important step in addressing climate change and aligning our portfolio with our mission. We want our divestment to serve as an invitation for all conservation organizations – zoos, aquariums, NGOs, and others – to join us! For more information visit: <http://www.cbsg.org/divestment>.

There is Still Time to Register for the CBSG Facilitation Training Course in St. Louis!

There is still space in the CBSG Facilitation and Communication Skills Training Course, to be held **10-13 March 2014**. The training will be hosted by the Saint Louis Zoo in Saint Louis, Missouri, USA. Registration will remain open until the end of February. For more information about the training, visit <http://www.cbsg.org/latest-news/cbsg-facilitation-training-2014>.



Recent Activities

Symposium: The Role of Zoos in Wildlife Conservation

In October 2013, CBSG Mesoamerica participated in *The Role of Zoos in Wildlife Conservation*, a symposium held at the National Zoological Park of El Salvador to mark the zoo's 60th anniversary. The meeting was inaugurated by Dr. Ricardo Escobar, Director of the National Zoological Park and Lic. Mayra Barraza, National Director for Areas of Cultural Development. A total of 169 people attended the symposium, representing 20 institutions and organizations including many zoos in the region. CBSG Mesoamerica presented on "Zoos in the XXI Century and the One Plan Approach to Species Conservation," encouraging zoos to be active partners in wildlife conservation.



CBSG Mesoamerica convenor Yolanda Matamoros (far right)

Simulating Complex Social Systems in Population Viability Analysis

Nearly all computer models of wildlife population dynamics focus on the basic demographic processes of birth, death, and dispersal of individuals to and from nearby habitats. This relatively simple approach ignores many sources of complexity that limit our understanding of how wildlife populations might change over time in response to conservation management. For example, many species display complex social structure that may include cooperative care of young, territorial breeding groups, or complex social hierarchies. Extending traditional methods of population viability analysis (PVA) to include this social complexity could greatly improve our ability to properly manage endangered species.



Photo: Johannes Jansson/CC BY 2.5 DK

CBSG staff are involved in a five-year research project, funded by the US National Science Foundation, to explore methods for simulating complex aspects of wildlife population dynamics and to link them into more realistic "metamodels" to guide population management. Within this framework, a team of population biologists and researchers gathered from 20-22 January at Virginia Tech University in Blacksburg, Virginia to begin the design of a social system model for use in PVA. The meeting began with a series of presentations describing important features of social systems for a wide variety of species, including lion tamarins, dolphins, woodpeckers, wolves, and lions. The group then drafted a list of essential elements of social complexity in wildlife populations and implications for modeling needs. Following further presentations on existing model platforms that could be used to simulate complex social structure, participants began to outline the general characteristics and structure of a social modeling tool for use in PVA-based conservation management.

This new social modeling tool will likely feature an "expert system" type of opening interface that will guide the user to the appropriate type of social system needed, allowing the model to be flexible and responsive to the diversity of social systems. This new tool likely will be built "from scratch," borrowing concepts and techniques from other species-specific models. The software will initially be constructed as a stand-alone package, but will ultimately be modified so that it can be linked to other software such as *VORTEX* or *OUTBREAK* in a metamodel application. Further discussions will continue this year to focus on conceptual design of the software and identify potential funding opportunities for development.

Conservation Efforts Continue for Giant Pandas

Home to wild giant pandas (*Ailuropoda melanoleuca*), Sichuan Province in China was the center of several giant panda activities last November, and CBSG was fortunate to again participate. Events began with the *International Symposium on Giant Panda Conservation* held 7-9 November in Chengdu. Over 230 giant panda experts from both the *in situ* and *ex situ* communities summarized extensive research activities and historic conservation achievements, and identified current pressing issues and challenges for this species. About 60% of giant panda habitat, supporting over 70% of the wild population, is now protected in 64 nature reserves. The *ex situ* population is demographically and genetically strong, and increased efforts are underway to develop an effective release program to reinforce wild populations.

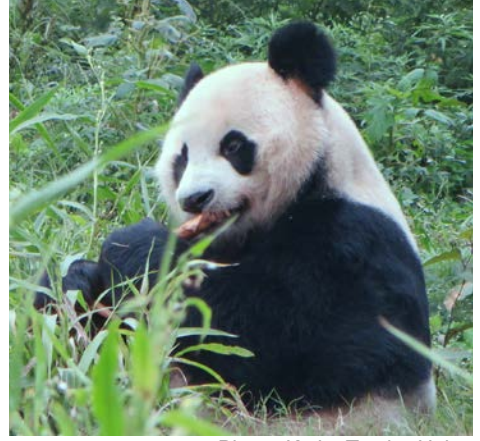


Photo: Kathy Traylor-Holzer

CBSG (including Jonathan Ballou, SCBI) assisted with data analysis and facilitated the masterplanning technical session, leading representatives from the major panda breeding centers through specific breeding recommendations for 2014, a role CBSG has served since 2002. Population management focuses primarily on intensive genetic management of the global *ex situ* population (now at 375 pandas), with less genetically valuable females designated to produce offspring suitable for release training efforts. This integrated conservation strategy is supported by both the Chinese Association of Zoological Gardens (CAZG) and the State Forestry Administration (SFA).

The 50th anniversary of Wolong Nature Reserve was celebrated on 10 November with tributes to the beauty, biodiversity, and local people of Sichuan. Immediately following, CBSG facilitated a workshop from 11-13 November in Dujiangyan to develop a masterplan for the Dujiangyan Giant Panda Rescue and Disease Control Prevention Base, in collaboration with SFA, Sichuan Forestry Department, China Conservation and Research Center for the Giant Panda, Smithsonian Conservation Biology Institute (SCBI), and Ocean Park Conservation Foundation Hong Kong. About 65 disease and giant panda experts gathered to identify priority wildlife disease issues and Base objectives, research and training needs, and potential partners. The Dujiangyan Base is one of three bases (along with Wolong and Bifengxia Bases) under the China Conservation and Research Center for the Giant Panda, which collectively promote an integrated approach to giant panda conservation with international support.

PHVA for the Red Panda in India

A Population and Habitat Viability Assessment (PHVA) workshop for the red panda (*Ailurus fulgens*) in India was held from 26-29 November, hosted by Darjeeling Zoo, West Bengal. The workshop was organized by Rotterdam Zoo of The Netherlands, the Central Zoo Authority, and Zoo Outreach Organisation of Coimbatore, India. The PHVA was facilitated by a joint team of CBSG South Asia and CBSG Europe, and funding was provided by the Central Zoo Authority, the Rotterdam Zoo Conservation Fund, and WWF Germany.

The aim of the workshop was to identify habitats, distribution ranges, degree of fragmentation, and threats to red pandas in India and the border areas of Nepal and Bhutan, and to develop a strategy to conserve them in natural habitats in these areas. The participants utilized information on habitat characteristics, identified and ranked threats, used simulation models conducted at an earlier Red Panda PHVA in Nepal in 2010, and reviewed methods and strategies for red panda conservation.



Participants were divided into three groups to facilitate discussion on the three aspects selected to create a vision: species habitat, threats to species, and awareness strategies. Each working group undertook tasks identifying specific actions to achieve their goals. These actions included important details such as the individuals responsible for moving the action forward, a timeline for completion of the action, important collaborators, and specific obstacles to overcome. Each group drafted a report on their discussions and recommendations to carry red panda conservation forward.

Integrated Planning for the Greater Sage Grouse in Canada

The greater sage grouse (*Centrocercus urophasianus urophasianus*) is one of the top priority species of conservation concern in Canada. Dependent upon sagebrush habitat for food and shelter, this species is at risk due to habitat loss and degradation, industrial disturbance, changing climatic conditions, and other threats. Populations now occupy only 7% of the historical range in Canada (in southern Alberta and Saskatchewan) and are estimated to have declined by 98% in the past 25-45 years to about 100 adults total in Canada split into two isolated populations, calling for immediate attention to prevent further decline and eventual extinction.



In collaboration with the Calgary Zoo's Centre for Conservation Research, the Reintroduction Specialist Group, and the Galliformes Specialist Group, CBSG conducted a Population and Habitat Viability Assessment (PHVA) workshop for the Canadian populations of this threatened species. The PHVA was held at the Calgary Zoo on 14-17 January with financial support from Alberta Environment and Sustainable Resource Development (ESRD). This international multi-stakeholder workshop included over 40 participants representing a diversity of expertise and perspectives, from field researchers, wildlife modelers, and government representatives to local ranchers and representatives from the energy industry. The workshop built upon existing recovery plans and strategies to further identify management actions to reduce the primary threats driving population decline and to explore intensive population management strategies to counteract the immediate risks to this small population and prevent imminent extirpation from Canada.

Modeling suggests that recent reproduction and survival rates are too low to sustain this population, and will likely result in extinction within 10 years if conservation action is not taken. Workshop participants outlined strategies for addressing the primary causes of poor population growth. These strategies include increasing functional sage grouse habitat, minimizing disturbance and habitat fragmentation, and reducing high predation rates facilitated by power lines and industrial structures on the landscape in concert with loss of sagebrush. Population management strategies were discussed in detail as methods to offset the stochastic threats to this small, fragmented population and prevent extinction before other conservation measures can be effectively achieved. This includes options for conservation translocations from wild to wild and captive to wild for both population reinforcement and reintroduction. The development of an *ex situ* population as an assurance population against extinction and a potential future source for translocations was viewed as an important and urgent need. Calgary Zoo is committed to this *ex situ* effort, with financial support from ESRD and Environment Canada.

This workshop successfully integrated a wide diversity of stakeholders to evaluate and recommend both *ex situ* and *in situ* conservation management techniques as part of an integrated conservation plan to support the recovery of the greater sage grouse in Canada. This joint collaboration of three IUCN SSC Specialist Groups encouraged the application of various IUCN guidelines – the new reintroduction guidelines, draft revised guidelines for *ex situ* management, and reintroduction guidelines for Galliformes – to properly assess and develop effective conservation strategies. The result is a strong example of the One Plan approach to species conservation planning in action.

Collaboration and Regional Species Management in Asian Zoos

For several years, Taipei Zoo has spearheaded discussions with other Asian zoos and within CBSG to promote collaborative efforts for regional management of Asian zoo species and to support their conservation. As part of this ongoing effort, Taipei Zoo hosted a two-day symposium in November on the *Regional Species Management Program of Primates*. The symposium opened with CBSG's presentation on a framework outlining considerations for the regional management of primates followed by specific species management presentations by many zoo association representatives (WAZA, EAZA, AZA, PAAZAB, and JAZA).

The symposium was followed by a small group discussion on the Asian and global orangutan *ex situ* populations, facilitated by CBSG in collaboration with the Orangutan International Studbook Keeper (Megan Elder). Participants from Taiwan, Singapore, Thailand, Hong Kong, South Korea, and Japan (as well as Europe and North America) reviewed the *ex situ* status of orangutans in each Asian country and identified important issues and needs. This group discussion resulted in the formation of a Regional Species Management



Jim Kao (RSMP point person) signing the participants' agreement to signify their commitment to collaborate to support orangutans (via the RSMP). Photos by Kathy Traylor-Holzer.



Plan (RSMP) for orangutans, a collaborative effort among key Asian zoos to work together to maintain genetically viable *ex situ* populations in Asia. This RSMP is the first such program of its kind and plans to use the orangutan as a model species for future additional regional programs. Studbook data issues regarding uncertain taxonomy or pedigrees and incomplete or outdated information were identified, and action steps were recommended to address these issues. An RSMP point person (Jim Kao) at the Taipei Zoo was identified to lead this process in Asia. The group agreed to meet again in late 2014, after the significant studbook issues have been addressed, to develop a masterplan for orangutans in Asian zoos.

CBSG also participated in the 2013 South East Asian Zoos Association (SEAZA) Annual Conference from 18-20 November in Ho Chi Minh City, Vietnam, hosted by the Saigon Zoo. The conference theme was "South East Asian Zoos Grow Together," promoting collaboration and capacity building in SEAZA zoos. CBSG presented our recent efforts to expand *ex situ* population management expertise and collaboration in Asia, highlighted participation of Asian zoos in WAZA Global Species Management Plans (GSMPs), acknowledged the recent formation of an Asian RSMP for orangutans, and offered our continued support for such initiatives in this biodiversity hotspot under threat. This presentation complemented earlier discussions held in Taipei regarding the desire to increase CBSG activities in the region.



Upcoming Activity

Facilitation and Communication Skills Course at Jersey

A Facilitation and Communication Skills course will be conducted from 24-28 February at Durrell Conservation Academy at Durrell's headquarters in Jersey. The course is co-directed by Dr. Susie Ellis (International Rhino Foundation) and Dr. Kristin Leus (CBSG Europe). This course is aimed at people working or planning to work in zoos or conservation organizations who wish to develop their facilitation skills. It is also relevant to other professionals or graduate level students who wish to develop their communication, facilitation, and management skills. During the course, participants will learn and practice essential workshop facilitation skills including decision making, conflict management, cross-cultural sensitivity, group dynamics, active listening, and consensus building. There is still time to sign up for the training, and a 50% discount is being offered on the course fee. For more information visit <http://www.durrell.org/training/courses/Facilitation-and-Communications-Skills/>.