



## Recent Activities

### 2014 CBSG Annual Meeting

At the end of October, CBSG members and colleagues gathered in the fast-paced city of New Delhi for the 2014 CBSG Annual Meeting. One hundred and twenty participants from 24 countries joined us to discuss the application of the One Plan approach in India and beyond. Presentations over the three days showcased many fine examples of integrated conservation in action around the world. The participants worked with focus, energy, and good humor in plenary session and in working groups that met to discuss some of the key issues facing the CBSG community and the wildlife we are dedicated to protecting. Many thanks to our hosts at the Central Zoo Authority India and all who organized the meeting and helped it run smoothly. The proceedings from the meeting will become available soon.



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This symbol indicates that a project follows the One Plan approach to species conservation planning. Click [here](#) to learn more about the One Plan approach.



## Meta-modeling Climate Change Effects on the Arctic Ecosystem

The decline of polar ice has a number of direct impacts on the species that are dependent on it. CBSG Science Advisor Bob Lacy (Chicago Zoological Society) is involved in an ongoing collaboration with the Norwegian Polar Institute to test the use of PVA “meta-models” to examine the inter-dependencies of ringed seals, bearded seals, and polar bears in the Barents Sea, and to project the impacts of changing ice on this part of the arctic faunal community.



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A “PVA to Policy” style workshop was held in September 2014 to present the models to local officials, policy people, and biologists in Svalbard, Norway and to discuss the models with them. The models show that the largest effects of climate change may be on species not currently of conservation concern. Populations of some currently abundant species, like ringed seals, may collapse to much lower numbers. Because they are key species within the arctic food chains, there will likely be secondary impacts on species that prey upon them, are preyed on by them, or compete with them. The models also show that the effects of changed climate on wildlife populations with long generation times can be delayed for several decades when the impacts hit most severely on reproductive success. The use of such metamodels might be valuable for projecting impacts of changing climate in other regions of the Arctic or extended to include other species interactions. The next steps are to publish and publicize, contribute to the IUCN Climate Change Methods Manual, refine the Svalbard models, and include more species (and areas?) in the models.

## Population Viability Analysis for the Greater One-Horned Rhino in India

The northeastern state of Assam in India is home to about 2550 greater one-horned rhinos (*Rhinoceros unicornis*), 2400 of which reside in Kaziranga National Park. An international conservation initiative called Indian Rhino Vision 2020 has set a goal of having 3000 rhinos in up to seven protected areas in Assam by 2020. Achieving this goal requires translocation of Kaziranga animals to new or existing populations throughout the state. Quantitative risk assessment tools are vital in this process to determine optimal translocation strategies and identify high priority sites for release. CBSG was asked to facilitate



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the “Rhino Translocation Targets for Indian Rhino Vision 2020” workshop, held in November in Assam’s capital city, Guwahati. Workshop sponsors included the International Rhino Foundation, Worldwide Fund for Nature, and the Asian Rhino Specialist Group. Nearly 30 participants from Indian rhino range states provided valuable information to create a realistic demographic simulation model for testing a range of translocation scenarios. The model demonstrated the significant impact that even low rates of poaching can have on small rhino populations, such as in Manas National Park, which is home to just 30 animals. Translocation cannot create a viable population there if current poaching rates continue. From this analysis, park managers gained a

clear understanding of the value of strengthening anti-poaching efforts and discussed the socio-political barriers in some parts of Assam that impede progress in this area. The visit to Assam ended with an amazing tour of Kaziranga by safari vehicle and on the backs of elephants, where CBSG staff and colleagues spotted more than 50 rhinos and other wildlife species.

## Molecular Genetic Tools for Species Management

A workshop on molecular genetics for species management in zoos and aquaria took place at Antwerp Zoo (Belgium) in October. The workshop was organized by the Royal Zoological Society of Antwerp, the Royal Zoological Society of Scotland, EAZA, and CBSG, and was facilitated by CBSG Europe and CBSG HQ. Participants represented a wide range of organizations, expertise, and experience, including molecular genetic researchers, zoo-based molecular genetics laboratories, regional zoo associations, academia, livestock breeders, breeding program managers, software developers, population biologists, CBSG, and the recently formed IUCN SSC Conservation Genetics Specialist Group. The main issues with regard to the use of molecular genetics for species management have already been discussed in various publications and meetings. This group focused on how to overcome various challenges within three wide topic areas: 1) servicing the community; 2) stakeholder engagement and creating understanding; and 3) applied research and tool development. Participants identified what precisely could be done to start meeting these challenges, how to ensure complementarity across regions and disciplines, and either started developing the solution during the workshop or planned the next action steps to ensure post-workshop development. The workshop report will be available soon.



## SSC Specialist Groups and the One Plan Approach

As CBSG continues to support the One Plan Approach to species conservation planning, we are pleased to see other SSC Specialist Groups also adopting this approach. In October, the Flamingo Species Specialist Group invited CBSG to present the keynote address on the One Plan approach at the Third International Flamingo Symposium held in San Diego, CA. This gave CBSG the opportunity to present the concept to a new audience, comprised of approximately equal numbers of field-based and zoo-based flamingo experts. The participants expressed a great deal of interest in the One Plan approach and its application to flamingo conservation. Particularly gratifying was the discussion of integrating the concept into the vision of the Specialist Group.

The Tapir Specialist Group (TSG) provided another excellent opportunity to promote the One Plan approach by inviting CBSG to give a keynote address at the Tapir Symposium in November. TSG is a leader among SSC Specialist Groups in terms of conservation planning and implementation. CBSG has collaborated with TSG since 1994 to produce species conservation plans for each of the four tapir species. Thus, TSG was conducting integrated conservation since long before the One Plan approach label was coined. TSG reviews and updates each conservation plan every three years, and the results guide their work until the next symposium. After CBSG's keynote address at their recent meeting in Brazil, members formally adopted the OPA concept and integrated it into their new three-year species action plans.



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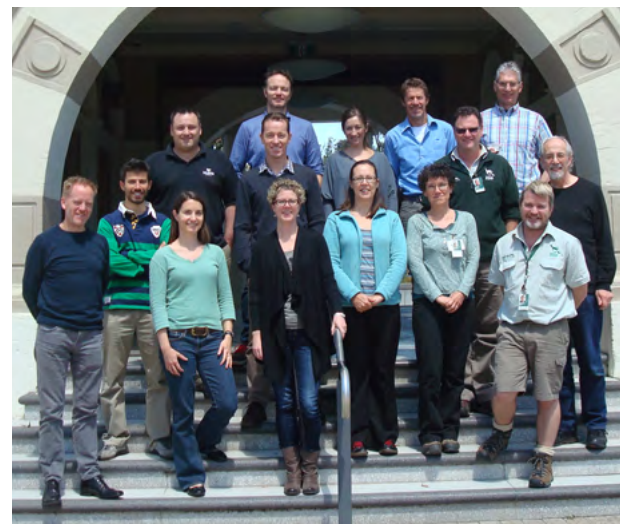
## Regent Honeyeater Disease Risk Analysis Workshop

The Regent Honeyeater (*Anthochaera phrygia*) is a Critically Endangered endemic passerine with a current estimated wild population of less than 400 birds across southeast Australia. In an effort to prevent extinction, the species has been the subject of an intensive recovery program for over 20 years, including a successful captive breed-for-release program. To date, 117 captive-bred birds have been released to supplement the wild population.

All translocated regent honeyeaters are given a veterinary health screen prior to transfer. As a result a number of parasites have been recently identified in these birds, although their significance is not well understood. CBSG Australasia was commissioned by the Taronga Conservation Society Australia and BirdLife Australia to conduct a Disease Risk Analysis (DRA) to identify potential disease hazards and provide a science-based review of existing disease management protocols. The DRA was completed in several stages and included a workshop, hosted by Taronga Zoo, Sydney in October and attended by 13 individuals with intimate knowledge of the honeyeater's biology, habits, management, and health care.

This risk analysis generally followed the process described in the recently published IUCN-OIE Manual of Procedures for Wildlife Disease Risk Analysis. The workshop was facilitated by CBSG Australasia, with key contributions from Tony Sainsbury and John Ewen (Zoological Society of London), Claudia Carraro (veterinary consultant) and Stefano Canessa (Melbourne University). Detailed risk assessments were completed on the disease hazards identified by stakeholders as of greatest concern: *Aspergillus fumigatus*, coccidia, *Trypanosoma* spp., *Salmonella* spp., and feather lice.

The workshop provided the first opportunity for the multi-disciplinary group to discuss disease issues in detail, and increased awareness of the complexity of identifying and managing disease in captive and free-living wildlife. The report is currently in draft form and will be finalized in early 2015 following stakeholder review. The workshop was sponsored by Taronga Conservation Society Australia, Victorian Department of Environment and Primary Industries, BirdLife Australia, Auckland Zoo, and the Zoological Society of London.



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## Developing Population Management for Conservation in Asia

Many of CBSG's recent initiatives involve promoting intensive population management for conservation – from supporting capacity building in *ex situ* management in range countries to the development of IUCN guidelines for *ex situ* activities for conservation and broadening the application of an integrated One Plan approach to species conservation. This autumn, CBSG again was involved in several activities to promote these approaches by Asian zoos.

### Increasing Masterplanning Expertise

Building upon past training in studbook development (2008) and PMx data analysis (2011), CBSG conducted an advanced population management training course for 25 studbook keepers from the Chinese Association of Zoological Gardens (CAZG). The training course was held 5-8 November at the Chongqing Zoo with added support from WAZA, and with Jonathan Ballou (Smithsonian Conservation Biology Institute - SCBI) serving as co-instructor. Prior to training, 40 studbooks were evaluated by Laurie Bingaman Lackey, and feedback was provided to promote the best possible data quality for further work. Participants identified potential conservation roles for each of their studbook taxa, considered population goals, and discussed how to handle masterplanning challenges such as taxonomic uncertainty, incomplete pedigrees, and social groups. Links to International Studbooks (ISBs) and GSMPs are being made. CAZG plans to initiate several masterplans in the near future.



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### Expanding Collaborations Within Asia



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On 26 October the Taipei Zoo hosted the second meeting of the Orangutan Regional Species Management Plan (RSMP), a collaboration among several Asian zoos to manage orangutans collectively within the region and serve as a model for other taxa. Over 20 participants attended the RSMP meeting, which was facilitated by CBSG. Megan Elder (ISB Keeper, Como Zoo) provided country, regional, and global status updates for both orangutan species as well as the hybrid population, while Graham Banes (Chinese Academy of Sciences) updated the progress of the Orangutan Conservation Genetics Project to use molecular data to resolve taxonomic and relatedness issues. Jim Kao (Taipei Zoo), RSMP point person in Asia, worked with Asian zoos over the past year to improve ISB data and compile institutional needs. Participants discussed potential animal transfers and future tasks to develop the RSMP. Several issues related to population management and RSMP administration were identified to be addressed at a two-day RSMP meeting to be held in late 2015.

### Promoting the One Plan Approach in Asia

The Orangutan RSMP meeting was held in conjunction with the 2014 Southeast Asia Zoo Association (SEAZA) Annual Conference. CBSG provided the keynote address to about 200 participants from 21 countries, setting the stage for the conference theme of the "One Plan Approach" for species conservation. Several meeting talks, case studies, and breakout groups embraced the One Plan approach theme. Similar themes ran through much of the 2014 CBSG Annual Meeting in New Delhi, including presentations and working groups on the Asian Species Action Partnership, the new IUCN *ex situ* and reintroduction guidelines, and *ex situ* management and linkages with *in situ* conservation for Indian species. The pervasiveness of the One Plan approach philosophy at these annual meetings further promotes its application in Asia.

### Putting the One Plan Approach into Practice

Since 2002, CBSG has provided assistance with the annual masterplanning for the global *ex situ* giant panda program. At the 2014 meeting in Chongqing on 10-13 November, CBSG again facilitated the development of next year's breeding recommendations, with support from SCBI. This genetically diverse and demographically healthy population is being managed both as an insurance population and also as a source population for reintroduction. Pre-release training and release trials are underway, and plans are ongoing to develop a concerted reintroduction program in the near future. This includes a shift in *ex situ* management to meet the added responsibility of supplying individuals in sufficient numbers and with appropriate characteristics to support effective reintroduction efforts.