

Annual Reports of Heads of CBSG and WAZA

Editorial Note:

Last week I attended three meetings of international associations, the International Congress of Zookeepers ICZ in Seattle, the annual meeting of the IUCN SSC Conservation Breeding Specialist Group CBSG, and the annual conference of the World Association of Zoos and Aquariums WAZA. In the next few issues of ZOOS' Print we will cover those meetings. The next few pages will lay the groundwork for the next issues, by familiarising you with the last year of CBSG and WAZA. Some of the details, I will edit out so this won't be too long. These are not needed for your understanding and appreciation of the dynamic conservation work being undertaken by CBSG and WAZA in collaboration with some of the most effective conservation institutions and individual in the world.

Annual Review of the Activities of the Conservation Breeding Specialist Group 2008-09

CBSG Membership

The commissions of the IUCN are reauthorized every four years when the IUCN enters its new quadrennium. The commissions then appoint their specialist groups, subcommittees, and task forces for that quadrennium. Bob Lacy has been asked by Simon Stuart, chair of the Species Survival Commission, to continue to lead CBSG and Bob has, in turn, invited the CBSG membership for this quadrennium.

Specialist Group members are individuals who volunteer to serve in one or more of the networks of technical experts that comprise the SSC. We expect CBSG members to contribute actively to our conservation work, through participation in meetings, workshops, or via remote collaboration. In addition, for the first time, each member will be required to establish a profile on the CBSG Members Site to share with the rest of the network their name, email address, language(s) spoken, and their areas of taxonomic and disciplinary expertise. We will use this database to keep members informed of activities that might be of interest to them and to contact them when we need someone with their expertise to assist with a project. This will also allow CBSG members to connect with other members all over the world who share their areas of interest, can help you answer a question, or assist you with a conservation project. This site is provided through the generous support of the International Species Information System, and is hosted on the ISIS portal. The site is evolving and there are some bugs still being worked out but it is a significant step towards our goal of creating an even more powerful conservation network.

Species Conservation Planning

For the past two years, CBSG led the Species Conservation Planning Task Force (SCPTF) which was created to help the SSC develop a more complete and sound approach to species conservation planning (http://www.cbsg.org/cbsg/content/files/scptf_overview.pdf). The SSC wants to (and feels it must) follow up on the SCPTF effort, turning species conservation planning into a signature product of the SSC, just as is Red List assessment. In a meeting chaired by Bob Lacy, the SSC decided to establish a new Species Conservation Planning Subcommittee, which, like other SSC Sub-Committees, will report directly to the SSC Steering Committee. In addition, the meeting recommended that a new, staffed Species Conservation Planning Unit be created within the IUCN's Species Programme. These two new entities will elevate conservation planning within the SSC and coordinate the work of the Specialist Groups in implementing Species Conservation Strategic Planning.

CBSG and all SSC Specialist Groups are being urged to consider how they can contribute to the development and implementation of a more active and powerful Species Conservation Strategic Planning initiative throughout the SSC. CBSG's next steps with regard to assisting the SSC with conservation planning are relatively straight forward. Our facilitators will receive training in the Species Conservation Strategic Planning process, and we will ensure that the Species Conservation Planning Unit is aware of our availability to assist other SSC Specialist Groups and those engaged in species conservation planning. This is a golden opportunity for CBSG to go on doing what we do well but at the same time reappraise what we do and what more we can do to advance the cause of conservation. We look forward to building on all of this over the coming months.

CBSG Summary of Activities

November 2008 – October 2009

Gerry Marantelli/Amphibian Research Centre

Amphibian Ark Update

Since we met in Adelaide nearly one year ago, the threats to amphibians have only intensified. In Central America, amphibian chytrid jumped the Panama Canal and headed into eastern Panama where it is expected to be as devastating as it was in the west. In South America, the disease was documented for the first time in Bolivia. In Asia, the first record of amphibian chytrid (in Japan) was published, followed not long after by other reports in Indonesia and the Philippines. Although research on 'anti-Bd' metabolites from naturally occurring bacteria is promising, showing that resistance can be given to susceptible amphibian species in the lab, field trials still seem far off. The food trade continues to apply considerable pressure to wild amphibians with one billion frogs harvested as food per year, and we continue to document new ways

pesticides harm amphibians and threaten us. Habitat loss continues as the number one threat at as great a pace as ever, although we are thrilled that the IUCN/SSC Amphibian Specialist Group and partners preserved habitat for 11 threatened amphibian species in Sri Lanka. Regardless of which of these threats is behind a particular decline, when amphibians disappear, their losses are surely felt.

So the AArk community has continued to work hard this past year to do our part to help amphibians:

- We added new Training Officer Ron Gagliardo, who helped lead the AZA husbandry course twice in the past year, as well as another in Malaysia. Ron's position is funded through a private foundation and hosted by Zoo Atlanta. Our partners at Durrell Wildlife Conservation Trust led a workshop in Bolivia, and saw several offspring courses in Latvia, the Netherlands, and Germany spawned from their 2008 course in Jersey. Our partners in ARAZPA held a workshop in Sydney as well as abroad in Thailand. Since 2004, we have collectively run 24 training workshops in 13 countries with nearly 1000 students! Upcoming AArk training workshops include Indonesia, Sri Lanka, Brazil, and possibly also Argentina, Cuba, Gabon, Panama.

- Continuing our efforts in species prioritization, we held workshops in Panama, Indonesia, and Brazil, bringing our total to 16 countries/regions and ~25% of all species (50% of species that are categorized as Threatened or Data Deficient). We are currently tracking 95 priority amphibian species in captivity, with over half of these brought in since the release of the Amphibian Conservation Action Plan. Upcoming workshop plans include Argentina, Bolivia, Cameroon, Caribbean, Chile, and Guatemala. Our process has impressed our colleagues enough that it has now been adapted to evaluate trees in Costa Rica, and soon, chameleons in Madagascar! Furthermore, our Taxon Officers have continued to hone the tool to make broader conservation action recommendations (not just *ex situ* prioritization), and as a result our partners from the IUCN Red List have agreed to incorporate it into their update process for amphibians.

AArk has also recently added Carlos Martinez Rivera as our Taxon Officer for Latin America, where he facilitates partnerships and will help coordinate Taxon Management Groups. Carlos is based in Philadelphia and his part-time work with AArk is donated by The Philadelphia Zoo.

- Three AArk officers joined a team of amphibian experts at San Diego Zoo to draft updated standards for amphibian biosecurity practices. In addition, the AArk Biobanking Advisory Committee (ABAC) now has 27 members from 8 different countries and is assembling biobanking protocols and a database of repositories. AArk Research Officer Robert Browne has drafted an Amphibian Conservation Research Guide, which will help our partners make meaningful contributions to research, particularly to the conservation research agenda of ACAP.

- Our partners around the world continue to lead model rescue and management programs, including the public opening of EVACC in western Panama, a new coalition to start a similar program in eastern Panama, and rescue of Caribbean mountain chickens.

- AArk launched a new Seed Grant program awarding two \$5000 grants to projects in Kenya and Madagascar. We also worked with the enthusiasts at Caudata.org to launch a new annual grant program for salamander conservation with \$1000 going to "Pandi mushroom-tongue salamander Project: Conservation status assessment of a threatened Andean salamander from Colombia - *Bolitoglossa pandi*" submitted by Giovanni Alberto Chaves Portilla, Fundacion Ecodiversidad Colombia.

- For publicity, we supported wonderful articles in The New Yorker, National Geographic, CSM, Time For Kids, and the PBS documentary The Thin Green Line, as well as our own AArk Newsletter #6 and Recommendations for Raising Live Amphibians in Classrooms. Through our species naming auctions, we were able to raise \$23,000 for Venezuelan biologists and saw our first new species published. We also solidified our presence on the public networking sites and invite you to join us in our Facebook Group and Cause as well as on MySpace. And, in addition, we are thrilled to announce that current half-time Taxon Officer Kevin Johnson has been able to join us as a Communications Officer for the rest of his time. In the near future, watch the AArk Newsletter for the launch of our new membership program and a description of our role in the newly formed Amphibian Survival Alliance.

Many thanks to all of our partners who are involved in and support these important conservation actions. Progress is measurable, but slow, and not in proportion to the need. Please, if you are not already involved, get onboard the AArk! -- **Kevin Johnson**

Biocomplexity Update

We continue to work with partners to develop "meta-model" methods and tools for linking together analyses from diverse disciplines to help assess risks and develop effective recovery plans for species. As described below, we used our new MetaModel Manager software to link a simulation of lion population demography and social system to epidemiological modelling programs for projecting the dynamics of tuberculosis in the Kruger Park ecosystem. We have also demonstrated through test cases the ability to develop multi-species models to study the viability of species with tightly linked fates. We are working with colleagues now to develop the tools for spatially explicit population viability models that will allow assessment of the effects of landscape change on the fates of species. Building on a collaboration that was started at our 2008 annual meeting in Adelaide, we are working with colleagues there to link our species projections and risk assessments to predictions about climate change impacts on species habitats. Our work on

developing and testing metamodel tools for examining biocomplexity is supported by the Chicago Zoological Society.

Other News

- CBSG currently has a membership of 564 individuals from 59 countries and is supported by 147 donor institutions, organizations, and individuals.
- We have produced the 2008 CBSG Annual Report, highlighting several of 2008's successful workshops.
- We continue to work to decrease our environmental footprint. We print all our reports and other materials on 100% post-consumer waste paper, strive for carbon neutrality at our annual meeting, and are championing the use of web-based technology to facilitate virtual meetings whenever possible and appropriate.
- CBSG conducted or participated in 33 workshops/meetings since November 2008, including 4 Population and Habitat Viability Assessment (PHVA) Workshops, 8 Organizational and Species Conservation Planning Workshops, 6 Training Workshops, and 14 other Conservation Workshops and Meetings.
- Seven documents have been produced by CBSG in the past year. A list of these publications can be found on a following page.

Selected Workshop Summaries

Jaguar PHVA

CBSG Mesoamerica conducted a PHVA workshop for jaguars in Costa Rica on 2-6 March, building in part upon previous jaguar workshops and management strategies, including the development of a regional corridor for jaguars throughout Mesoamerica. The workshop was sponsored by a local coffee grower, VOLCAFE, and was held at the Simon Bolivar Zoo in San Jose. The 50 participants included government representatives, researchers, university staff and students, NGOs, developers, environmental educators, veterinarians, zoo staff, potential funders, and others. Key recommendations included strategies for reducing human-jaguar conflicts in key corridor areas. This PHVA provided another opportunity for the CBSG Mesoamerica modelers Jorge Rodriguez and Gustavo Gutierrez to expand their modeling expertise under mentorship from the CBSG main office.

There are tentative plans for them to instruct a Vortex training course in early 2010 at the University of Costa Rica for participants from Central and South America, solidifying their understanding of Vortex and increasing modeling expertise and CBSG awareness in the region.

Disease Risk Assessment for Lions in Kruger National Park

Tuberculosis is believed to have entered the wildlife population in South Africa's Kruger National Park in the 1950s from infected domestic cattle. Disease-based mortality has been documented in lions, raising concern among wildlife managers and veterinary health officials. At the invitation of South

African National Parks veterinarians, and with the support and participation of Omaha's Henry Doorly Zoo staff, CBSG led a Disease Risk Assessment Workshop on 16-20 March 2009. This was the first CBSG workshop to use a metamodel as the focal disease risk assessment tool, and integrated a model of lion population dynamics developed at the University of Minnesota with CBSG's OUTBREAK model to create a metamodel of disease dynamics in Kruger's lion population.

Cheetah PHVA

CBSG Southern Africa and the CBSG main office worked with the Carnivore Conservation Group of the Endangered Wildlife Trust (EWT) to conduct a PHVA for cheetahs in South Africa, as a precursor to the development of a national strategy for cheetahs. Sixteen participants (primarily researchers, NGOs and landowners) convened at the Venetia Limpopo Nature Reserve on 17-21 April 2009 to discuss data and strategies for managing cheetahs in fenced reserves and on private lands. The results of the PHVA will help guide the national strategy workshop scheduled for mid-June. Development of preliminary cheetah models prior to the PHVA provided the opportunity for informal Vortex training for several EWT and zoo staff. Workshop support for all participants was generously provided by the Howard G. Buffett Foundation and the De Beers Consolidated Mines.

Whooping Crane Eastern Partnership Program Review

One of our newest projects involves North America's whooping crane. Specifically, the Whooping Crane Eastern Partnership (WCEP) is trying to establish a second migratory population of the species, complementing the existing population that breeds in Canada's Wood Buffalo National Park and resides along the Gulf Coast in the winter. The newest Eastern Migratory Population (EMP) is to nest in Wisconsin and winter in Florida. However, the program has encountered significant difficulties in establishing a breeding population in Wisconsin. Moreover, the diverse group of organizations that make up the Partnership results in a complex decision-making structure that impedes progress on species conservation. To address these difficulties, the Partnership has requested an external review of all aspects of their operations so that they can establish an EMP and, by extension, improve the prospects for range-wide recovery. CBSG has been asked to chair this five-member review panel, which includes experts on crane biology and ecology, captive breeding for recovery, and conservation program evaluation.

