CBSG Australasia: 2012-13 Regional Report

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For the period October 2012- October 2013

Introduction

CBSG Australasia was launched at the Adelaide CBSG Conference in 2008. In addition to localising delivery of CBSG workshops, the Branch has the following priorities:

- the development of disease risk assessment and management tools
- · the uptake of virtual tools for virtual collaboration
- the new generation of population management tools
- evaluation

CBSG Planning for the Quadrennium

In February, both C. Lees and R. Jakob-Hoff attended the CBSG Regional Networks meeting in Minnesota, USA. This gave shape to the role of the networks in delivering CBSG's commitment to the SSC's strategic goals for the quadrennium. In late August and early September, meetings were held in Auckland to refine and further develop CBSG Australasia's contribution to this and an action plan is being drafted for completion in October.

IUCN Guidelines for Wildlife Disease Risk Analysis (DRA) and a Manual of Procedures for Wildlife Disease Risk Analysis

Initiated by CBSG in 2010 and involving a global team led by CBSG Australasia these documents have been through extensive peer review by both the IUCN Species Survival Commission and the Wold Organisation for Animal Health (OIE). While this has delayed the anticipated publication date it has enhanced the robustness of the final documents and reaffirmed the global demand for this work. Publication is now scheduled for the end of 2013 at which time the documents will be globally distributed for free down-load. A limited number of hard copies will also be available for those without ready access to computers.

To enhance the uptake of these documents train-the-trainer modules will be developed during the 2013-14 year. The aim is to identify and train individuals globally who are appropriately placed and motivated to use the wildlife DRA process on issues of concern in their part of the world. Richard Jakob-Hoff has facilitated a number of face-to-face DRA training workshops in Australia, Chile and Singapore during the past 24 months and comments and suggestions collected from participants to feed into the design of these training modules.

Virtual Collaboration Tools

Over the past three years, CBSG has been exploring the use of web-based tools that allow remote collaborators to meet in real time, sharing audio and an interactive screen. During the past year, these tools have enabled:

- Two members of the IUCN SSC Species Conservation Planning Sub-committee to join a meeting in Oxford, England, from two separate locations in the USA.
- Pre-workshop population viability analyses (PVA) (using Vortex (Lacy et al., 2009)) to be progressed for Indochinese hog deer, with collaborators in New Zealand, Cambodia and Israel meeting to agree program parameters and review model outputs.
- PVA and conservation planning guidelines to be discussed and progressed for a species of langur, with collaborators in New Zealand, Australia and Vietnam.
- Progress on workshop design and genetic management strategies for southern corroboree frogs in the lead up to a genetic management planning workshop in Australia.
- CBSG Australasia staff on the North Island of New Zealand to join a meeting of the Kakapo recovery team on the South Island, and to present, remotely, the results of recent genetic analyses using PMx software (Ballou et al., 2013).

Training Workshops

Training in small population management was provided to staff at Taronga Conservation Society, Australia (TCSA).

A one-day introduction to Structured Decision Making was also held at for TCSA staff, which explored the issues around a recent release of regent honeyeaters as part of the recovery program for the species.

In May, a three-day introduction to CBSG processes and tools, including workshop sessions around specific regional projects and issues, was delivered in Auckland to a group of CBSG Australasia members from the zoo, wildlife agency and technical college communities.

Contributions to Species Conservation Planning

Eastern Barred Bandicoots

In October 2012, K. Traylor-Holzer and C. Lees facilitated a three-day PVA and planning workshop for eastern barred bandicoots (*Perameles gunnii*), hosted and funded by Zoos Victoria. The workshop considered the population parameters needed to secure a viable meta-population of bandicoots in predator-free environments and considered the future contribution of captive breeding for release in this context.

Christmas Island Lizards

A three-year review of the captive program for Christmas Island skinks and geckos, both now thought to be extinct in the wild, was carried out by a small group comprising Peter Harlow (TCSA), Paul Andrew (TCSA and CBSG Australasia) and Caroline Lees (CBSG Australasia). A report recommending amendments to strategies for genetic and demographic management has been produced and distributed.

Rotoroa Island Restoration

In April, O. Byers and C. Lees co-facilitated a planning workshop for Auckland Zoo's role in the restoration of Rotoroa Island in New Zealand. The Island is situated in the Hauraki Gulf, a short boat ride from Auckland. It is being developed as a site where school groups, tertiary students and casual visitors can visit to learn about the art and science of island restoration. The Zoo is leading a number of the restoration and schools-related activities as part of a wider team of project stakeholders. One of the aims of the project is to connect through strategic exchanges, populations of threatened taxa restored to the island to those on neighbouring islands, to improve overall species viability.

IUCN SSC Species Conservation Planning Sub-Committee

In August, C. Lees and P. Miller (CBSG HQ) attended the IUCN/SSC Species Conservation Planning Sub-Committee meeting in Oxford, England, to help progress an action plan for the quadrennium. A number of actions were committed to that complement CBSG activities, including further development of the conservation planning tools matrix, first developed at a 2010 CBSG workshop in Abruzzi, Italy (Lees *et al.*, 2012).

Kakapo

Work continued on the application of the small population management tool PMx to genetic management of wild kakapo (Strigops habroptilus), a species confined to small islands in New Zealand and numbering only 124 at time of writing. In September 2013 one of the more recent PMx functions (Management Sets) was used to guide a round of movements between islands, to improve within-island gene diversity.

Southern Corroboree Frog

The southern corroboree frog (*Pseudophryne corroboree*) is restricted to the Kosciuszko National Park in Australia. The species has been in continual decline for the past 20 years and is likely to be extinct within the next 2-3 years, persisting only as a result of wildlife agency organised releases. The primary threat is chytridiomycosis. Recovery efforts are focussed around growing and sustaining a breeding population of this species within its natural range, through an efficient and well-targeted program of captive breeding and release. CBSG Australasia facilitated a one-day workshop on genetic management of the species in September.

Tasmanian Devils

C. Lees attended three meetings of the Tasmanian Devil Meta-population Advisory Committee (MAC) which provides high level guidance on the delivery of a disease-free insurance meta-population for this species, which is under threat from Devil Facial Tumour Disease. The involvement of CBSG Australasia in this project began in 2008, when CBSG facilitated a stakeholder-inclusive workshop in Tasmania to forge an initial plan for meta-population deployment (CBSG, 2008).

Mala

Following attendance at a 2012 Structured Decision Making workshop for the conservation of mala (a desert-living Australian marsupial, extinct in the wild on mainland Australia but held in a few predator-

free enclosures), C. Lees joined the newly constituted Mala Recovery Team. One of the recommendations from the SDM workshop was the use of a PVA model to help team members refine estimates of the consequences to long-term species viability, of some of the actions proposed. Work has begun on refreshing the population model developed by collaborators as part of the 2009 CBSG virtual workshop on mala.

Other Activities

In late 2012, C. Lees became a CBSG Program Officer. In addition to working on the CBSG Australasia-related activities described above, C. Lees took part in:

- The Sumatran Rhino Summit, Singapore, April 2013, to provide population modelling expertise alongside Andrew Putnam from San Diego Zoo.
- Conservation planning projects for Indochinese Hog Deer (Axis porcinus annamiticus) and Cat
 Ba Langurs (T. p. poliocephalus). These projects are still at the planning stage, with a workshop
 for the former likely to take place before the end of 2013.
- A collaboration with Sally Walker, CBSG South Asia to stimulate the development of national zoo associations in South Asia, to strengthen zoo networks across the region.

References and Reports

Ballou, J.D., Lacy, R.C., Pollak, J.P. (2011). PMx: Software for demographic and genetic analysis and management of pedigreed populations (Version 1.0.20120209). Chicago Zoological Society, Brookfield, Illinois, USA. Available from http://www.vortex9.org/PMx.html

Byers, O., Lees, C., and Wilcken, J. (Eds) (2013) *Wildlife Restoration and Community Engagement on Rotoroa Island: Workshop Report*. IUCN SSC Conservation Breeding Specialist Group: Apple Valley, MN.

Harlow, P., Andrew, P and Lees C. (2013) Christmas Island blue-tailed skink and Lister's gecko: captive program review and recommendations 2013. Internal report for the Christmas Island Management Team and Taronga Zoo.

Lacy, R.C., Borbat, M., and Pollack, J.P. (2009). Vortex: A stochastic simulation of the extinction process. Version 9.95. Chicago Zoological Society. Brookfield, Illinois.

Lees, C., Wilcken, J., Miller, P., deWan, A., Converse, S., and Byers, O. (2012). *Compilation and Categorisation of Species Conservation Planning Tools: the CBSG Abruzzi Workshop DRAFT Report.* IUCN/SSC Conservation Breeding Specialist Group: Apple Valley, MN.

Lees, C. (2013) Report on National Zoo Association Trip. Zoo's Print Magazine 28(8):1-5pp

Lees, C., Traylor-Holzer, K., Parrot, M. (Eds) (2013). *Eastern Barred Bandicoot PVA Workshop Report*. IUCN SSC Conservation Breeding Specialist Group: Apple Valley, MN.

Lees, C. (2013) Sumatran Rhinoceros Crisis Summit: DRAFT Interim Wild Population Modelling. Draft Report. Unpublished.

Lees, C. (2013) Draft report on the application of PMx to genetic management of kakapo. Report for the Kakapo Recovery Team.