Conservation Breeding Specialist Group
SSC, IUCN

Annual Meeting Reports, Palm Desert, October 2000

Species Survival Commission

IUCN
The World Conservation Union

The Conservation Breeding Specialist Group (CBSG) is an international conservation organization dedicated to protecting global biodiversity. The diversity and quality of CBSG projects, in addition to the range of countries involved and types of documents they produce is astounding. The mission of the Conservation Breeding Specialist Group is *"to conserve and establish populations of threatened species through conservation breeding programs and through intensive protection and management of these plant and animal populations in the wild."*

CBSG is part of IUCN — The World Conservation Union. Headquartered in Switzerland, The World Conservation Union serves as the United Nations of Conservation. Most national governments and significant non-governmental conservation organizations are members of IUCN. CBSG is one of the one hundred Specialist Groups belonging to the Species Survival Commission (SSC), one of six IUCN commissions. CBSG represents captive breeding in conservation in the world.

CBSG, then, is the scientific representative and international linking organisation for the ex situ/captive breeding/zoo community and the in situ/field/wild community. Wildlife and governmental officials invite CBSG to help with their conservation efforts. CBSG uses numerous processes and tools it has developed to carry out its globally recognized program. Some of these are : Population and Habitat Viability Assessments (PHVAs), Conservation Assessment Management Plans (CAMPs), Zoo Conservation Planning, Training and Communication.

Meetings -- Annual, Regional, etc.
CBSG holds annual meetings with wildlife experts and scientists from around the world. Annual CBSG meetings are linked to the World Zoo Organisation meetings which are scheduled a decade in advance and mostly in the western world.

To increase accessibility, CBSG participates in annual regional zoo meetings in Africa, Australasia, Central America, Europe, India, Japan, North America, Southeast Asia and South Asia. CBSG holds regional meetings at the invitation of the Region, usually at the time of the Regional Zoo Association Annual meeting. This year CBSG Chairman, U. S. Seal will represent CBSG in Asia at the South East Asian Zoo Association Meeting to be held in Philippines in January 2001 and at the South Asian Regional Meeting which will be held in Sri Lanka in September 2001.

Membership
Approximately 924 professionals working in the fields of species recovery planning, research, veterinary medicine, reproductive physiology, education, animal management (zoo and wildlife), and other disciplines comprise the membership of CBSG. These members are selected by the Chairman; there are nearly 100 full members of CBSG, SSC, IUCN in South Asia. Now it is time for a new membership according to the tradition of IUNC SSC to reconvene specialist groups each triennium.

Regional and National Networks
CBSG permits individuals and institutions in different countries and regions to form CBSG Regional and National Networks which focus on species and conservation problems in their area. These individuals and institutions/organisations undertake to finding funding for their network in country or by approaching different zoos and conservations organisations world wide; CBSG, SSC, IUCN provides training in the CBSG tools and special visits, such as for regional meetings, so that capacity and skills can develop and the Networks can organise and conduct their own meetings and workshops. CBSG India was the first of these and often serves as a model for others. CBSG India is now one of three national networks in CBSG South Asia, a network which formed to coordinate activities in the region.

Significance for Indian conservation actioners
The meetings held by CBSG -- particularly the Annual Meeting -- include issues which have long-term global implications. This year these include :

Transponders -- Eric Miller, St. Louis Zoo
CITES Captive Breeding Policy -- Koen Brouwer, EAZA
Invertebrates -- Paul Pearce-Kelly, London Zoo
Conservation Handbook for Zoos --Mary Talbott Rosevere
IUCN Draft Policy on *ex situ* Pop Mgmt -- Bill Conway
Bushmeat -- Tony Rose, Biosynergy Institute & Phil Miller
Elephants -- Mike Hutchins, AZA
CIRCC -- Bernard Harrison
Scientific Advisory Committee to ISIS -- Bob Lacy
Cheetah Global Masterplan -- Jack Grisham

This Report is to give ZOOS' PRINT readers information of future and current issues which relate to the successful linking *in situ* and *ex situ* conservation action so that they can get involved in such activities on a regional or global level. .

CBSG Working Group Report : (ONGOING) IUCN DRAFT POLICY ON THE MANAGEMENT OF *EX SITU* POPULATIONS FOR CONSERVATION – Draft 10.22.00

PREAMBLE

IUCN affirms that the goal of conservation is the maintenance of viable populations of all species in the wild. However, conservation managers and decision-makers should adopt a realistic approach to what is possible. The threats to species *in situ* continue to grow. In the future, most wildlife will live in human modified environments. Threats, which include climate change, invasive species, unsustainable use and disease, are difficult to control. The reality of the current situation is that we shall be unable to ensure the survival of as many species as possible without increasing the role and use of *ex situ* conservation.

If the decision to bring a species under *ex situ* management is left to the last minute, it is frequently too late to implement, risking permanent loss of the species. However, ex *situ* conservation should never be considered as an alternative to *in situ* conservation, and close integration between *in situ* and *ex situ* approaches should be sought wherever possible.

The decision to implement a propagation program and the appropriate design of such a program (away from present or historical habitat) will depend on the species' specializations and circumstances. A species-specific propagation plan may involve a range of objectives in reproduction, research, reinforcement, reintroduction, etc., but should be clearly stated and agreed among organizations participating in the program.

The Convention on Biological Diversity, the World Botanical Conservation Strategy and the World Zoo Conservation Strategy clearly define the conditions that *ex situ* propagation facilities and their cooperative networks must satisfy to realize their full potential in conservation.

VISION

Present biodiversity levels will be maintained through all available means including, where appropriate, *ex situ* propagation.

GOAL

Those responsible for *ex situ* wildlife populations will use all the resources and means at their disposal to maximize the conservation values of these populations for the world's biodiversity, including restoration, reintroduction and genome resource banking.

Range states should seek qualified organizations with which to collaborate in the precautionary propagation of Vulnerable and Endangered species (according to the IUCN Red List Criteria, 2000). Such programs should be located outside the remaining range of vulnerable species if they might be endangered by natural catastrophes or political and social disruptions.

POLICY STATEMENTS

The basis for responsible *ex situ* population management in support of conservation is founded on benefits for species:

➡ The primary objective of *ex situ* propagation is to help sustain a species and its natural community, to aid the preservation of biological diversity and provide resources which may lead to saving other ecosystem components.

➡ *Ex situ* populations may have been established prior to the inception of the Convention on Biological Diversity, nonetheless all *ex situ* and *in situ* populations should be managed in an integrated, multi-disciplinary way and developed, where possible, with range state participation.

➡ *Ex situ* populations must be distributed to reduce risk of loss through catastrophe and should not compete for resources with wildlife populations in nature.

➡ For *ex situ* populations to contribute most effectively to species management in the wild, their propagation should be initiated when husbandry protocols are sufficiently known to ensure a reasonable probability of success, ideally before the species reaches Vulnerable status.

➡ Although there will be species-specific exceptions due to unique life histories, the decision to initiate *ex situ* programs will be based on one or more of the following Red List Criteria: 1.) when there are fewer than 1,000 mature individuals; 2.) when the species/population has a very restricted area of occupancy (<20 km2); 3.) when the species/population is prone to effects of human activities or stochastic events; 4.) when the species/ population is likely to become Critically Endangered or Extinct in a very short time.

➡ Extreme and desperate situations, where species/ populations are in imminent risk of extinction, must be dealt with on an emergency basis. SSC is encouraged to establish a rescue intervention system to facilitate action.

➡ For those endangered species for which husbandry protocols do not exist, surrogates of closely related taxa can serve important functions (e.g., development of husbandry protocols and staff training). Their collection and propagation should be encouraged.

➡ Long-range planning for *ex situ* populations must minimize the effect of artificial selection in the interest of successfully returning individuals to natural habitats.

➡ *Ex situ* populations should seek to benefit *in situ* conservation efforts by increasing public awareness and concern through education and conservation training programs and by stimulating direct action *in situ*.

➡ Where appropriate, the use of *ex situ* methodologies, population data and genetic resources offer material for research and utilization, the benefits of which should be applied to conservation of *in situ* populations and their ecosystems.

This report was prepared by: *William Conway, Fred Daman, Susie Ellis, Jo Gipps, John Knowles, Alan Lieberman, Jeremy Mallinson, Jerry Millhon, Oliver Ryder and Dave Wildt. Helpful comments on a first draft were received from: Georgina Mace, Mike Maunder and Simon Stuart.*

CBSG Working Group Report : TRANSPONDERS

Introduction
This report will be divided into four parts:
1) Support for CITES resolution
2) Standardization of implantation sites
3) System recommendations
4) Central data base

1. Support for CITES resolution
The working group strongly urges the implementation of CITES Resolution 8.13 (Rev) adopted in 1992, that states:

a) Parties, where possible and appropriate, without excluding the use of other methods, adopt the use of implantable transponders bearing permanent, non-programmable, unalterable and permanently unique codes for the identification of live animals.

b) Parties take into account the findings of the IUCN/SSC's CBSG regarding the frequency, size, sterility and method of placement of the transponder.

c) Microchip transponders be implanted where consistent with the well-being of the specimens .

d) The location of the implanted transponders in each animal group be standardized according to the advice from the IUCN/SSC's CBSG as detailed in the standards drafted by CBSG in 1990 and amended in 2000. Specialist groups with concerns about the needs of particular species should contact CBSG for consideration of modifications in the recommendations. "

The working group recognizes that the precepts of permanent "marking" with transponders is limited by both the availability of transponders and the timing of when the individual was marked, in order to be effective for the uses outlined in CITES Resolution 8.13 (Rev.). So, we recommend that:

a) authorized suppliers must be registered and a system must be instituted which links specific transponder ID numbers to said suppliers.
b) The accuracy of "tracking" identified individuals is limited temporally such that no information can/should be assumed prior to the time of implantation.

The working group also strongly recommends that the ISO Central Secretariat be contacted and strongly urged to resolve and/or make recommendations regarding the current problems of varying standards of the systems and problems with the compatibility of various systems, including the need for a reliable transponder "reader" that can evaluate multiple systems including all of the commonly used systems.

2. Standardization of Implantation sites
Following is a list of implantation sites that the working group is recommending (changes and additions to the guidelines developed by the 1990 working group are noted in **bold print**).

Fish: -- Large (>30cm) – left base of dorsal fin
-- Small (<30cm) - coelomic cavity

Amphibians: -- lymphatic or coelomic cavity

Reptiles: -- lizards, small (<12.5cm snout to vent) - coelomic cavity
-- lizards, large (>12.5cm snout to vent) - lateral left body side anterior to inguinal region
-- chelonians: leg left hindlimb socket or leg (note that chelonians less than10cm in length may be difficult to implant and alternative methods may need to be considered)
-- crocodilians: left side anterior to the nuchal cluster or left hindleg.
-- snakes: left side dorsal to vent

Birds:
All birds in left pectoral muscle or thigh, except:
Ratites - in pipping muscle (in chicks) or in lateral left neck if adults.
Vultures, Old and New World - left base of neck.

Mammals:
Behind the left ear or to the left of the spine in between scapula
The following exceptions are noted:
Elephants: Left tail fold
Hyrax: left lumbar area*
Loris: Left lumbar area*
* Site selection due to thick skin over neck (hyrax) or dermal plate in neck area (loris).
Carnivores: For some species (e.g., cheetahs in southern Africa and Mexican wolves in North America) microchips have been placed at the left tail base, so that area should be checked.

As in the previous report, we recommend that all other implants (e.g, MGA implants as used by some institutions) that include microchips be placed on the right side of an animal in order to avoid confusion with identification implants.

When possible, implants should be placed in a shallow, intramuscular position in order to reduce the chances of implant migration. To reduce the chances of a "lost" chip through the injection site, consideration should also be given to using medical glue (or suture) to close the implant site.

Due to complications with tracking individuals in data bases, we recommend that transponders not be re-used and destroyed when they are no longer in use for identification of the original recipient.

3. Standardization of systems
Currently, we recognize that the technology available through the Trovan company is the most widely used and recommended by regional zoological organizations (on at least two separate occasions, independent tests by zoological managers has resulted in the selection of the Trovan product). Based on that fact, we recommend that the Trovan system continue to be the global standard (in spite of challenges of product availability in North America due to patent lawsuits by competing companies).

We also recognize that multiple systems are currently in use, that transponder technology is evolving, and that in the future other systems may offer advantages that are unforeseen at the present time. This working group and regulatory agencies should be prepared to evaluate and possibly change the recommendations for implementation of those systems as the systems evolve.

4. Central data base

We recommend that CITES identify a central data base for recording transponder information in regard to appendix listed species moving in international trade. This data base should be accessible by regulatory agencies involved in this trade.

For the zoological community, we recommend that transponder numbers, implantation site, microchip manufacturer data, and individual animal identification be recorded with the International Species Information System (ISIS).

(Participants: R. Eric Miller, Evan Blumer, Koen Brouwer, Nate Flesness, Robert Lacy, Ferdi Schoeman, Lee Simmons). The report was reviewed and agreed by more than 100 participants from 20 countries in two plenary sessions of the annual CBSG meeting at Palm Desert, 20-22 October, 2000).

CBSG Working Group Report : Bushmeat Crisis Working Group Report

Introduction
Frands Carlsen, EAZA Bushmeat Campaign Steering Committee, began by summarizing EAZA's Bushmeat Campaign. The Campaign is composed of three parts:
i. An education module directed at visitors to EAZA member institutions;
ii. A petition against the illegal and unsustainable harvesting of wildlife aimed at collecting 1 million signatures from visitors; and
iii. A fundraising effort for selected bushmeat-oriented projects.

Mike Hutchins, Director of the AZA's Conservation and Science Department, provided a brief overview of the Bushmeat Crisis Task Force and their efforts to address the bushmeat issue in western and central Africa.

Once these two initiatives, and others such as CITES and the UK's Ape Alliance, were discussed, it became clear that it would be very useful to somehow link these programs, and initial discussions between AZA and EAZA addressed this issue in a bit more detail.

Finally we recognize that, while the study of the "bushmeat crisis" is directed primarily towards primates and other species in Africa, this crisis is truly global in scope, affecting a broad diversity of species and countries. Consequently, action to stem this crisis is needed around the world.

Proposed Working Group Agenda
- What role can CBSG play with the various bushmeat initiatives in addressing the issues surrounding the bushmeat crisis?
- What role can individual institutions and individuals play in addressing the issues?
- How do we get the global zoo community and other institutions to collaborate effectively to treat the bushmeat crisis?
- Education and public outreach: How can this be done to increase awareness of the problem across all levels, from local villages to the consumers and decision makers?
- Political lobbying: To whom should it be directed, and how should it be done to maximize the effectiveness of existing and future regulations?
- Mechanisms for fund raising (selective project support): Should it be done as charity, or as a proactive investment?
- Research and monitoring effects of bushmeat conservation activities; ability to better identify important parameters to monitor;
- Identify conservation capacity – where can conservation organizations place their intellectual weight on such a complex socio-biological issue?

Day 2
Issues and concepts that define the global bushmeat crisis
- Logging / Mining / Oil activities and the resulting increase in access to previously inaccessible wildlife areas;
- Changes in cultural practices brought about by increased contact with outside influences, increasing affluence, and growing urbanization
- Increasing protein requirements as a result of growing human populations
- Economics / market change – increased marketability of bushmeat
- Government policies – absence of effective law enforcement
- Lack of engagement in process on the part of some range country scientists and international scientists
- Wildlife population decline and fragmentation through unsustainable harvest
- Increased risk of disease transmission between humans and wildlife
- Inadequate education of local and external communities
- Ineffective political lobbying as a means of influencing behavior of consumers
- Insufficient protected area management
- Lack of appropriate economic alternatives
- Absence of alternative protein resources

Specific activities and competencies that an organization like CBSG can bring to bear on the bushmeat issue:
- Wild population biological data collection, analysis and synthesis
- Human-caused threat identification and specification
- Research and management prioritization
- Local community needs assessments
- Human population data collection, analysis and synthesis
- Quantitative population risk assessment / population viability analysis
- Development specific management recommendations
- Strategic visioning / planning

Because so much energy and effort has already been put forth by other organizations towards describing the characteristics of the bushmeat issue, we thought it appropriate to focus on specific facets of CBSG activities that can help to address the issue in potentially creative and constructive ways

WORKING GROUP RECOMMENDATIONS

1. Proposed CBSG In-Country Bushmeat Crisis Workshop
Purpose: To assess the extent of the bushmeat crisis in a selected Central African country, and to assess the African perspective in order to propose and prioritize alternative solutions to the crisis.

Location: Likely to be central Africa, perhaps focused on Cameroon or at least in a country in that region that has the necessary infrastructure that can handle an international workshop.

General Characteristics:
The workshop appears to take the rough form of a CAMP-style workshop, in which biological and social data are pulled together on species affected by the bushmeat crisis to assess the current wildlife and human situation, provide alternative management scenarios, and provide a forum for education of low- and high-level managers and decision-makers in the country of interest. Recent experiences in Papua New Guinea and Ecuador provide excellent examples of the successes that can be gained by explicit incorporation of local needs and perspectives in the context of this issue.

Proposed Workshop Partners
- International NGOs working in the region (identified by organizations like AZA and EAZA's bushmeat working groups)
- Industry representatives working in the area (loggers)
- Local human population organizations (villages) affected by the situation

2. "Bushmeat Coalition" Strategic Visioning Workshop
Purpose: To bring together the different bushmeat initiatives around the world – specifically those working groups from EAZA, CITES, AZA, and the Ape Alliance – to craft a strategic plan for effectively addressing the crisis through the pooling of appropriate resources.

The 1999 Strategic Planning Workshop for the Biodiversity Conservation Information System (BCIS), facilitated by CBSG, could serve as a model for the design of this workshop process. BCIS is a consortium of diverse conservation organizations working towards the development of a global conservation database. As a result, we feel that there are many parallels with a "Bushmeat Coalition" when considering workshop process design and intended workshop outcomes.

Participants: Bjarne Klausen(b.klausen@odensezoo.dk), Jim Else, Frands Carlsen (fhc-zoo@inet.uni2.dk), Jim Geenan, Tony Rose (bushmeat@aol.com), Norm Rosen (normrosen@aol.com), Phil Miller (pmiller@cbsg.org), Peter Wilson, Terry Sellards, Mike Hutchins

CBSG Working Group Report : Cheetah Working Group:

Day 1:
Common overall theme: Need for global masterplan to solve problems ex situ and in situ and to link the two.

***Ex situ* issues for discussion:**
- There is no articulated goal for the captive program?
- It is not clear how ex situ programs do (and can) support in situ programs?
- There are significant disease problems influencing all captive populations (there are common diseases to all regions and specific diseases within regions; need linkage to understand).
- There is a lack of reproductive success and differentiation in success among institutions. Much of successful breeding can be traced back to a few individual animals and institutions.
- There are many problematic husbandry issues (related to disease, medical management, reproduction; animal behavior, diet, nutrition, enclosure sizes).
- The is a need to develop methods to exploit the charisma of the cheetah to motivate the public and the decision makers to ensure funding to support conservation (education and outreach).
- There are genetic management issues related to:
- Identifying thoroughly the global population of animals and improving the studbook.
- Genetic status of the extant population using the latest in molecular technologies (what is the conventional wisdom on lack of genetic variation).
- Exchanging new genes using both the shipment of animals and biomaterials.
- Developing methods of 'insuring' founder animals via breeding and also genome resource banking (a significant component of the population is aging).
- A few questions related to paternity.
- Recruiting cheetahs managers for better management in all regions.
- Whether it is possible to eliminate some health problems via better systematic mating (and/or better research projects to determine if more intensive management can be used to eliminate some of these problems).
- Enhanced assisted breeding to support ease of shipping genetic material, overcoming behavioral problems and eliminating need to take more animals from the wild.
- Record keeping (inconsistent record maintenance by breeders, farmers, etc.).

There are political issues related to the:
- goal of captive populations and a poor perception by some of the range countries.
- The issue of financial gain from transactions (breeding for sale)
- There is a need for enhanced communication among and within the regions. There is a need for promoting more 'buy-in'.
- There is a need to more training programs for people interested in breeding and management (e.g., transponders, diets, etc.).
- Zoos need to provide animals to new zoos (e.g., Chinese zoos) so that non-recognized commercial breeders are not utilized.

Numbers of cheetahs in captivity:
Southern Africa, 58 facilities, 448 animals (34%)
North America, 67 facilities, 261 animals (20%)
Europe, 77 facilities, 311 animals (24%)
Far East (Asia, -Japan and Thailand), 25 facilities, 124 animals (10%)
Great Britain/Ireland, 13 facilities, 54 animals (4%)
Northeast Africa/mideast/India, 15 facilities, 34 animals (3%)
Central and South America, 8 facilities, 33 animals (3%)
Australia/New Zealand, 7 facilities, 27 animals (2%)
Other (unknown), 2 facilities, 4 animals (<1%)

Comments: There have been comments about trying to breakthrough captive breeding problems by studying a captive population in Namibia (working in the natural range).

***In situ* issues for discussion:**
- We are unsure of number of animals living in nature, including developing a methodology for accurate censusing.
- We are unsure of the level of fragmentation and the status of cheetah populations in many regions of Africa (and Iran).
- There are political issues associated with controversies related to down-listing the cheetah by the U.S. Fish & Wildlife Service.
- There is a need for updating current knowledge on the genetic status of the wild population using newest genetic technology (i.e., level of genetic variation and issue of genetic subspeciation).
- The public is unaware of the grave status of cheetahs in nature, including the threats.
- There is a need to determine how to link community development to cheetah conservation.
- There is a need to determine what range countries need, including in exchange for animals or genetic biomaterials.
- There is an issue of developing protocols for animal translocation and developing metapopulation strategies.
- There is an issue of how to train local wildlife managers and scientists in technologies that would be useful to cheetah conservation.
- There is poor communication about what is being done among and within countries with respect to cheetah management and conservation.
- There are too few funds to support field research (both basic and applied) of cheetahs.
- There needs to be more information on habitat and wildlife management, including dealing with human/carnivore/livestock conflicts.

Organizations/people to be considered for invitation:

Africa:
Gus Mills (South Africa, National Parks)
Laurie Marker (CCF)
Aulf Tubbesing (Veterinarian, Namibia, dealing with captive facilities)
PAZAAB representative
Willie L. (National Zoo of South Africa)
Northwest Province and North Province representatives
Lente Roode (Hoedspruit Breeding Center)
Ann van Dyk (de Wildt Breeding Center)
Woody Meltser (Onderstepoort Veterinary School)
Chris Foggin (Veterinarian dealing with commercial game farming, Zimbabwe)
Sarah Durrant (Field researcher, Serengeti)
Bruce Davidson (Cheetah Coordinator, Zimbabwe Ministry of Environment)
Nettie Purchase (Cheetah Researcher, Zimbabwe)
Lise Hanssen (AfriCat)
Hugh Berry (Wildlife Specialist, Namibia)
Flip Stander (Carnivore Researcher, Namibia)
Arthur Baggot-Smith (Farmer and veterinarian, Namibia)
Zimbabwe Parks Director
Jack Mortenson (Veterinarian, Botswana)
Kathy Alexander (Veterinarian, Botswana)
Algerian representative
Richard Kock (Veterinarian)
Annie Beckhelling

Northeast Africa/mideast/India:
Iranian representative, Sean McKeown, Karl Ammann, (India* -- contact Sally Walker for suggestion), Egyptian representative, Chad representative, Stacey van Syckle (working in Niger)

Australasia:
John Lemmon, Dubbo
Jonathan Wilken, ARAZPA

Japan:
Teruaki Hayasi

Thailand:
Contact Pisit Patalung

China:
Xie Zhong (Chinese Association of Zoological Gardens)

Great Britain and Ireland:
Sean McKeown, Nick Lyndsay, Neil Stronach, Sean Callahan, Peter Stevens, John Knowles, John Lewis, David Macdonald, Liam Guerin

Europe:
Jan Louwmann, Christian Walzer, Wim Verborkmous
Chair, Cat Specialist Group

North America:
Steve O'Brien, Linda Munson, John Carnio, Jack Grisham, JoGayle Howard, Jill Mellen, Dusty Lombardi, Mary Jo Stern, Susan Millard, Mitch Bush, Scott Citino, Kelly Snodgrass, Steve Birchard, Laurie Bingham, Phil Miller (or Jon Ballou), Stu Wells, Sanjayan, Richard Jeo

Participants of Working Group:
Susie Ellis, Facilitator
Dave Wildt, RecorderKarin Schwartz (kschwartz74@aol.com); Susie Ellis (SusieEllis@compuserve.com); Pavel Moucha (pavel.moucha@zoodk.cz); Kelly Snodgrass (Kellys@fossilrim.org); Jack Grisham (jmgcheta@okczoo.com); Laurie Marker (cheeta@iafrica.com.na); Charles Hoessle (choessle@stlzoo.org); Linda Munson (lmunson@ucdavis.edu); Peter Stevens (director@paigntonzoo.org.uk); Mary Jo Sterns (mjostear@hcnews.com); Susan Millard (smillard@sandiegozoo.org); Dusty Lombardi (dlombard@colszoo.org) Nick Lindsay (nick.lindsay@zsl.org); Amy Dickman (cheeta@iafrica.com.na); Dave Wildt (dewildt@shentel.net)

CBSG Meeting --Special Report -- Species Survival Commission - 2001

SSC Vision -- A world that values and conserves present levels of biodiversity

SSC Goal -- The extinction crisis and massive loss in biodiversity are universally adopted as a shared responsibility, resulting in action to reduce this loss of diversity within species, among species and of ecosystems

SSC Mission -- To conserve biological diversity by developing and executing programmes to study, save, restore and manage wisely species and their habitats

SSC Strategic Plan 2001-2010

Objective 1: Decisions and policies affecting biodiversity influenced by sound interdisciplinary scientific information
- Status of biodiversity assessed – at regional and national levels – key taxonomic groups –Impacts of key threats
- Key techniques and policies for the conservation of biodiversity developed and disseminated
- Integrated spatial information leading to Problem-oriented, interdisciplinary Action Plans

Objective 2: Modes of production and consumption that promote the conservation of biodiversity adopted by users of natural resources
- Positive and negative factors influencing sustainability of use effectively analysed
- Tools developed to assist decision makers in managing natural resources sustainably

Objective 3: Capacity increased to provide timely, innovative and practical solutions to conservation problems
- Expertise of the SSC network evolved to meet the needs of the programme
- Species Information Service fully operational and data added on an ongoing basis
- Key operational measures in place enabling the SSC Secretariat to implement effectively the annual programme, and coordinate, support and facilitate the required Contributions from other parts of the Commission

Activities for 2001
Objective 1: Decisions and policies affecting biodiversity influenced by sound interdisciplinary scientific information
- 2001 IUCN Red List including assessment of status of all amphibian species
- Phase 2 of the Global Invasive Species Programme
- Criteria for Important Plant Areas
- Scientific and technical assistance to CITES, CBD/SBSTTA6, CCAMLR, Ramsar, FAO, CMS, IWC, Bern Convention, national agencies
- Publication of SSC Action Plans and Occasional Papers; Specialist Group newsletters

Objective 2: Modes of production and consumption that promote the conservation of biodiversity adopted by users of natural resources
- Examine the effects of commercial captive breeding
- The ecological impact of trade in medicinal species,
- Trade Programme field projects in Indonesia and Mozambique
- OTHER ASPECTS BEING IMPLEMENTED
- Publication of the non-detriment guidelines

Objective 3: Capacity increased to provide timely, innovative and practical solutions to conservation problems
- SSC expertise evaluation and gap analysis
- Training programmes for Red List and SIS
- Technical assistance to Specialist Groups, meetings
- Targeted fund-raising to implement SSC Strategic Plan
- Targeted communications including Species, web site and SSC Members listserv

SSC 2000 Geography
- 7,000 members
- 125 Specialist Groups
- 2 Task Forces

SSC Secretariat
- Gland - Flora/Fauna programmes, Communication
- 5 professional staff, 2.6 support staff
- Cambridge – Red List & Wildlife Trade Programme
- 4 professional staff
- Ottawa - SSC Chairman's Office
- 1 professional staff
- Specialist Group Offices
- 6+ professional staff

SSC Core Programme Supported by
- Our network of volunteers
- IUCN - The World Conservation Union
- Canadian Wildlife Service
- Centre for Marine Conservation
- CI/ Center for Applied Biodiversity Sciences
- Kew Gardens/ Scottish Natural Heritage
- Taiwan Council of Agriculture
- UK Dept. of Environment, Transport and the Regions
- US State Dept/ US Fish and Wildlife Service
- World Wide Fund for Nature

Invertebrate Working Group report of the Palm Springs 2000 meeting

Paul Pearce-Kelly, Chair

Regional Working groups
The ongoing efforts to develop a comprehensive regional working group support network remain a priority over the coming year. For regions where invertebrate TAG groups (or their equivalents) already exist (eg ARAZPA, EAZA, AZA and Japan) it has been a relativity easy task to mesh into these existing structures. Where no such invertebrate groups currently exist the challenge is that much greater. Therefore, efforts need to be concentrated on the regions that do not currently have well-developed invertebrate TAGs. There have been some very positive progress in South Asia. The task of realising an active and cohesive global network of invertebrate colleagues (where ever they may be) will be made much easier with the completion of the Web-enabled invertebrate database.

Invertebrate conservation database
Given the outstanding need for assisting the development of the regional group network, the completion of the Web-enabled database remains the most useful action over the coming year. After further discussions with ISIS and EAZA it was agreed to reduce the detailed taxa logging elements to a more basic level and focus on the contact directory, species guideline materials and newsletter elements. This strategy would also allow more time to be devoted to the upgraded *Partula* studbook and related group-management and analysis work (below).

Partula Snail Programme developments

1. Upgrading the studbook database.
The international studbook is currently being upgraded to the more familiar Windows operating system and will have a more intuitive and efficient method of data entry. There will also be an extensive reporting tool allowing collections to efficiently access data and conduct detailed analysis across the various collections. Data will be easily downloadable with a single menu selection. The data archive system will be included in the software that will, at the start of each month, upload the database to the central server. The data archived centrally will be analysed on a regular basis and the results reported back to the collections via the Internet. There will also be relevant contact and husbandry guideline elements. This upgrade is being developed in close collaboration with ISIS colleagues.

2. Revision of husbandry guidelines. The husbandry guidelines are in the process of being revised. This will involve an analysis of enhanced survivorship results for all the taxa across the holding collections in US and Europe.

3. New holding collections. One new collection has been established in the UK and starter groups are in the process of being allocated for Parc Zoololque de Thoiry (France), Plzen Zoo (Czech Republic) and Shinshu University (Japan).

4. Establishing formal Memorandum of Understanding with range area authorities. It was agreed that we need to seek further advice from IUCN as to how we might best realise this important objective.

Potential new programme candidates:
Fregate Island beetles *(Polposipus herculeanus).*
This beetle (the world's largest tenibrionid species) is endemic to the Seychelles island of Fregate and has a *Critical* IUCN red list status. The principle threat is introduced rats that arrived on the island in 1995. In partnership with Birdlife Seychelles, field collected specimens were collected for the establishment of a breeding and research programme at the London Zoo. The species has turned out to be technically easy to culture with the F3 generation being recently achieved. Numbers have grown to a degree where it has been possible to send starter groups out to three other institutions in UK and Poland. The breeding groups are providing a lot of life history, related biology and health data of direct relevance to field conservation efforts. These beetles make excellent exhibit animals that can tell a powerful educational story. The current programme also includes the Fregate Endemic Enlid Snail (*Pachnodus fregatensis*) and the world's largest millipede (*Sechelleptus seychellarum*) both of which have proved equally feasible species to maintain in culture, requiring little keeper time.

In view of the high level of species threat, together with the fact that there is a well-established *in situ* programme partner (providing regular field assessments etc) this programme would be a strong candidate for elevating to programme status. Given that the species is now being cultured in several collections it is important that all current holding collections continue to manage their populations along separate generation lines so as to retain maximum conservation value. To this end it may be useful to establish a formal programme for this species. Another pressing requirement is the creation of Husbandry guidelines.

Theraphosid spiders (mixed spp)
Further clarification is needed on the *in situ* status of any potential programme taxa before we can make any informed comments or recommendations. However, these spiders are a high profile group and a significant trade issue. Because of the extensive number of spiders in collections there is a pressing need to better understand the composition of these captive populations. This may require a questionnaire to holding institutions, as well as gathering a better understanding of the impact that trade may be having on the *in situ* populations (see reference to CITES issues below).

Invertebrate nutrition research needs
Extending our understanding of the nutritional requirements of invertebrates and making resultant refinements to existing diets is recognised as a pressing research need. Pulling together what data is currently available on invertebrate dietary needs is an important first action requirement. Target groups to initially focus on are the Mollusca, Coleoptera, and Orthoptera as these are the most represented groups in current programme work. Any contributions would be greatly appreciated in our efforts to make headway in this key welfare area.

Furthering input on related SSC groups.
We reviewed progress of last year's SSC related objectives and again took advantage of Susan Mainka's presence to discuss the main issues over the coming year as regards how we might best assist the SSC Specialist Groups. The identification of focal individuals in all the regions is a major progress point that requires follow up. The next six months will be a key period for becoming involved in the SSC reconstitution phase in line with the four-year Triennium. This reconstitution period provides invertebrate colleagues with an opportunity to examine the potential for involvement with all the Specialist Groups. Other relevant opportunities include the following:

* Participating in the current review process of the effectiveness of existing Species Action Plans.

* Providing much needed data to CITES invertebrate case reviews, including related trade data and the potential of developing ex situ culture options. Each species proposed for inclusion on the CITES list ideally requires the input of 10 experts on that species. In the case of invertebrates, it is often hard to identify such expertise for this evaluation process. It was also stressed that we should be sure to collaborate with Traffic as fully as possible when attempting to address illegal trade issues (e.g. Theraphosids). The Invasive Species Group was seen as good model for us to examine in terms of how it provides valuable, and swift, information.

CBSG Working Group Report : THE WORLD ZOO ORGANISATION'S COMMITTEE ON INTER-REGIONAL CONSERVATION COOPERATION -- CIRCC

CIRCC MISSION
(adopted at Denver, 1996)

The mission of The World Zoo Organization 's Committee on Inter-Regional Conservation Cooperation (CIRCC) is to facilitate. promote and support the important work of its member regional associations and institutions in wildlife and habitat conservation from a global perspective. This mission will be accomplished through the following activities:

Organizing regular meetings and mailings that promote inter-regional communication and cooperation in conservation and science.

Making recommendations regarding the standardization of certain animal record keeping and population management procedures across member regions and institutions. Assisting in the implementation of these recommendations as appropriate and necessary.

Encouraging members to manage their captive animal populations scientifically (i.e., genetically and demographically) and in cooperation with others both regionally and globally, as appropriate and necessary.

Encouraging members to plan their animal collections carefully, so that each species and individual has a well-defined conservation function.

Encouraging members to contribute directly to the conservation of endangered and threatened species and their habitats in nature.

Facilitating inter-regional training and technology transfer by helping to communicate needs and encouraging cooperation and exchange of relevant information and skills between developed and developing regions.

Providing technical advice on various aspects of zoo and aquarium-based conservation and science to members and the WZO Council.

Making recommendations to the WZO Council and appropriate regional governing bodies for possible action.

CIRCC Working Group
20 October 2000-Day 1

Chairperson: Bernard Harrison (SEAZA), Facilitator: Dr Onnie Byers (CBSG). Participants: *Dr Ferdi Schoeman, Yolanda Matamoros, Jonathan Wilcken, Sally Walker, Nate Flesness, Dr M Shahidullah, Koen Brouwer, Hori Hiroshi, Ichikawa Noriyoshi, Kabasawa Hiroshi, Jansen Manansang, Michael Hutchins*

The working group decided to discuss the future of CIRCC, its place in the conservation arena and determine its successes and unfulfilled expectations. The group established the following criteria:

Successes:
1. Regions communicating with each other and share an understanding of each other
2. Regional sharing of studbooks and rationalising of the studbook structure
3. Training grants
4. Acknowledgement of other zoo associations
5. Newsletter exchange
6. Contribution to WZO Code of Ethics

Unfulfilled expectations:
1. Deal with animal exchange problems between regions
2. Did not rationalise regional studbook numbering and standards of data recording
3. Animal surplus lists/ global
4. Should be receiving International studbooks
5. Animals still moved – no disclosure (CIRCC was intended to avoid this)
6. Forum for organisations to lay complaints
7. Equalise regions
8. Include all regions
9. Add studbook guidelines to WZO website
10. Inter-meeting communication (list serve)
11. Change over of CIRCC members
12. Should be encouraging careful animal collection planning
13. Production of a globally-endorsed studbook manuals
14. Training people as potential trainers
15. Basic zoo-biology training
16. West should be mentoring the other regions
17. Overcome language barriers
18. Making conservation documents available to all
19. Partnerships between institutions (associations or zoos)
20. List of information needs (documents needed to be produced)
21. Motivate zoos to become ISIS members
22. Potential adoption of two rates for ISIS memberships

The group suggested the following proposal:

Proposal:
1. Current objectives are too broad; set small, obtainable goals for the year and require report-back at annual CIRCC meeting with inter-meeting communication via list serve

The group determined that the future of the organization lies in the following suggestions:
1. No formal committee
2. Association representatives interact opportunistically

Other alternatives:
1. Regional representatives committee of WZO (administrative issues)
2. Conservation committee

CIRCC Working Group
21 October 2000 --Day 2

Co-ordinator: Sally Walker. Participants: Dr Ferdi Schoeman, Dr M Shahidullah, Dr Onnie Byers

The focus of the group was the problems experienced by non-Western countries in the pursuit of information, ie records keeping systems. The following problems were identified:

1. Ethics in record keeping not standardized
2. Technology in record keeping, ie computers
3. ISIS is not an inexpensive option. Some wealthier zoos suggested that they would sponsor less wealthy zoos in the obtaining of the ISIS software. However, this has not been realized as there is a lack of motivation from the wealthier zoos
4. In South Africa, game merchants are registering as zoos and they do not maintain a good records keeping programme
5. Many regions have to submit monthly or annual reports to their governments – this is a mammoth task without ISIS
6. A major problem is that zoo staff often do the zoo associations'

work

New expectations were also identified, namely:
1.Funding and co-ordination of courses for studbook and species co-ordination, preferably in the USA. Someone with a relevant background is the best to attend these courses and can them pass their learnt skills on to others
2. Have training sessions attached to annual conferences (this could be a recommendation to PAAZAB) and could be presented to the second representatives
3. Dual meetings of CIRCC to deal with separate issues concentrating on the "West" and the "Rest"
4. Make inter-regional exchange between animals easier. This is an expectation as this exchange does not always take place between regions. A case study is the one concerning a South Asian zoo obtaining gorillas directly from a dealer as it could not obtain gorillas from fellow zoos
5. Two sub-committees for CIRCC to meet on one specific day. The two groups will announce their agendas, break into two groups, and report-back as a whole group
6. Inter-meeting communication is essential
7. Investigate the use of translators from universities for various non-English speakers

Proposal for reinventing CIRCC
A proposal was heard to bring back a full-day meeting for CIRCC and that this day would be divided between two working groups consisting of the developing regions and the other regions.

The working groups will meet for half the day and then regroup to share their discussions with each other, exchange requests for information and formulate recommendations to pass on to the WZO.

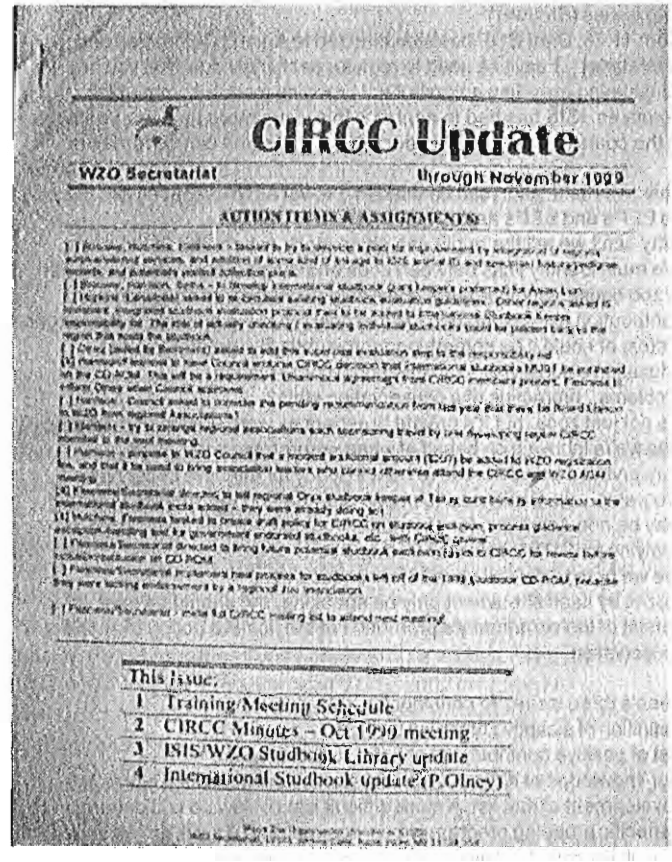
Actions:
1. Develop a structured agenda for each working group. This should be sent out well before the meeting.
2. Get commitment from the WZO to support the regional representatives to support CIRCC.
3. Provide a translation for CIRCC meetings for non-English speakers. This will be done at the 2001 meeting.
4. The CIRCC focus will be "Co-operative Species Management".
5. Recommend to WZO that conservation directors, or their equivalents, should sit on, or advise, the Conservation Committee.
6. Have CIRCC members serve as Chairpersons rather than a WZO representative. Jonathan Wilcken was subsequently elected as the Chairperson.
7. Communicate between meetings via a moderated closed system and a list serve (to develop a code of conduct). Sally and Jonathan will complete this action.

CIRCC Working Group
22 October 2000 -- Day 3
Chairperson: Jonathan Wilcken. Facilitator: Dr Onnie Byers. Participants: Dr Ferdi Schoeman, Jansen Manansang, Hiroshi Hori, Dr M Shahidullah, Kabasawa Hiroshi, Sally Walker, Michael Hutchins, Koen Brouwer

The group brainstormed the needs for "Co-operative Species Management". The following needs/topics were identified:

1. Encourage ISIS membership for all zoos. This will solve government reporting problems. The aim is to try to convince the governments to adopt the ISIS format and thus get government support for this. Other alternative: convince regional associations to push for their members to subscribe to ISIS (All regions and Koen to share report of EAZA experience), or regional associations to provide ISIS software – pay regional membership and then distribute from the association.
2. Propose a potential tiered-membership services arrangement for ISIS membership in order to make it more affordable for all. (Ferdi)
3. Develop a policy on inter-regional transfers. (Koen to distribute current policy documents)
4. A single studbook standards manual should be made available. (EAZA/ARAZPA – AZA (be sure all members have both))
5. Guidelines for inter-regional species programmes. (Jonathan to distribute current guidelines) and these should be brought to 2001 meeting (all)
6. A list of documents needed – these should be made available to all (Jonathan and Ferdi)
7. Animal acquisitions and dispositions policies required.
8. Animal anomalies (single animal issue/unethical and inappropriate transactions) - there is a need to flag specific situations via list serve.
9. Guidelines for interaction between regional and international studbooks (consider Bemment proposal - discuss on list serve)

Recommendations to WZO:
1. Get commitment from WZO to support regional representatives to attend CIRCC meetings. South American, Chinese and South Asian representatives should be contacted (absent regions to attend CIRCC in the future). Yolanda to contact South America, Jansen to contact China and Sally to contact South Asia.


CIRCC Update

WZO Secretariat — through November 1999

ACTION ITEMS & ASSIGNMENTS:

This issue:
1 Training/Meeting Schedule
2 CIRCC Minutes – Oct 1999 meeting
3 ISIS/WZO Studbook Library update
4 International Studbook update (P.Olney)

CBSG India has been circulating the CIRCC newsletter to all Large Zoos. Now CBSG South Asia will circulate CIRCC news to all major zoos in South Asia.

CBSG Regional Networks

Join a Regional/National CBSG or Taxon Based Network in this region : for South Asia, India, Nepal, Sri Lanka / Invertebrates, Amphibians, Reptiles, Bats or Rats, Education. Form enclosed.

CBSG Working Group Report : CITES Captive Breeding Policy (Animal Committee)

CITES has 152 members
IUCN has an official MOU with CITES; CBSG has been officiallly invited by CITES to comment on the developing captive breeding policy.
Member states have a vote, but NGOs do not have a vote. There are too many NGOs in attendance so there is a move afoot to limit the number of NGOs participating in COPs; additionally, many recognize that greater zoo participation would be highly beneficial. Currently, AZA and EAZA are among the more active regional organizations that participate in the COPs.
US links with CITES through the Fish & Wildlife Service's Office of Management Authority (Teiko Saito) and the Office of Scientific Authority (Sue Lieberman).

Animal and Plant Committee meetings are less well attended by the NGOs, etc. than the COPs.

Two issues (Brouwer):
Com 11.28: Draft COP decision directed to Animal Committee and Secretariat – Facilities need to register each individual that you are considering exporting animals if not breeding for non-commercial purposes. ISIS has had to deal with this issue more than two years ago in the context of the CBD...a document exists and can be retrieved.

This communication can be used to answer such questions like "How do EEPs and SSPs assist in-situ conservation?"
Why can't we tell the origin of a given stock (where this is the case).
We must identify links between zoos and range states...develop a list of zoo conservation projects. How do you define a zoo's positive contribution to conservation? Is it simply returning animals to the range states, or could it be something more subtle like greater level of education of local visitors of the global conservation problems...promotion of a conservation ethic?
It's not just zoos, but it's private breeders as well...we need to know who we're lobbying on behalf of when we promote zoo-based conservation activities. We're here to lobby for effective conservation programs...we don't need to necessarily defend the smaller zoos that may be non-scientific, for example. Are zoos like this going to be applying for CITES permits? Perhaps so...
Are we here to defend zoos? Not necessarily...
CBSG by itself should not only be speaking, but should be seen as a benefit of the community's promotion of the positive action of zoos in conservation.

Koen's three issues to consider CBSG's activities:
Definition of a captive breeding program
List of positive contributions of zoos in conservation
Our knowledge of difficult-to-breed species in the context of the development of that list. A more difficult issue: How do you determine if a specific breeding program is non-commercial? This is an extremely difficult issue that many organizations are working on very hard.

Take pandas...if Atlanta and San Diego exchange animals, that's not commercial...but is the sale of animals from China to the US a commercial transaction? It appears to be so...this points out the difficulties associated with this issue.

Most organizations see zoos as commercial...CITES sees the negative implications of this commercial designation and is asking groups like CBSG for help in modifying the current procedures. This can be done most immediately by specifying the most relevant characteristics of a conservation breeding program.

Do we have to accept the terms "commercial" and "non-commercial" as a means to characterize programs? What about discussing programs in terms of their conservation value? CITES documents have terminology that largely cannot be modified.

Can the larger CBSG body work to register programs to conform to conservation breeding protocols? Not sure we want to get into the registration business...perhaps focus on the development of characteristics of a successful conservation breeding program...develop a checklist.

Perhaps we could use these stipulations as a sort of "stick" to force zoos to engage only in conservation breeding programs? May be a positive CBSG action...

Characteristics of a successful conservation breeding program

Real discomfort with the "animals difficult to breed / manage" list...the current list is seen as static and unchanging, with very negative consequences. As an alternative, perhaps we could develop a dynamic, historic list of:
a) Species that breed regularly: 50% of population is result of breeding to F2 or further (details subject to modification)...based on analysis of Appendix I species from EAZA Office
b) Species that breed occasionally: not under a) or c)
c) Species that have never been bred to date but are in collections
d) Species that have never been kept in captivity
(Closely related species should be considered to have similar breeding characteristics)

The information could focus on those criteria that define a successful breeder...a user could then apply those criteria to whatever set of species are under consideration.

What about an *ex-situ* module for SIS? This will be an Internet database to which information from the Specialist Groups can be uploaded.

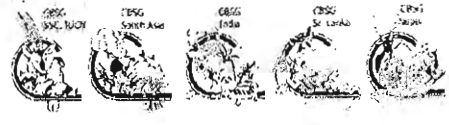
All information on development and application of criteria must have appropriate citation of information as a gauge on its reliability.

Need to look critically at the HSUS / SSN definitions of "difficult to keep" / "difficult to breed". Can these be considered to be in accord with our new definitions proposed above?
Revised categories:
a) Species that are breeding regularly or can be bred at will given level of interest and current state of technology
"Regularly" = >50% of individuals in population captive bred to F2 or further
If current data are not available, historical breeding records can be utilized to make a judgement
b) Species that are breeding occasionally: < 50% captive population bred to F2 or further, but population is being bred.

Criteria: Percentage of population captive bred
Percentage of population captive bred to F2 or further

Members : Holst, Brouwer, Wilcken, Simmons, Mainka, Schmidt, Matamoros, Flesness, Miller, Munson, Jackson

CBSG Regional Networks
Join a Regional/National CBSG or Taxon Based Network in this region ; for South Asia, India, Nepal, Sri Lanka / Invertebrates, Amphibians, Reptiles, Bats or Rats, Education. Form enclosed.



CBSG Working Group Report : THE DEVELOPMENT OF A CODE OF CONDUCT TO AID IN THE PREVENTION OF THE INTRODUCTION OF ALIEN AND INVASIVE SPECIES

Background

The introduction of alien and/or invasive species throughout the world is a well-documented and scientifically researched phenomenon occurring in ever increasing numbers. Whether accidental or intentional, these destructive introductions are almost exclusively the result of human activities and practices. It therefore follows that, being the result of our activities, the individuals engaging in each of those respective activities can also control the introduction of alien and invasive species.

While there is doubt that many of the historical introductions of alien and invasive species can be reversed easily with any degree of certainty, there is obvious benefit to be had for the ecosystems of the world if current and future introductions can be significantly curtailed or even eliminated whenever and wherever possible. It is therefore important to identify activities where such introductions are or could be taking place with the goal to minimise, if not altogether eliminate, such introductions by making appropriate alterations in how such activities are conducted.

Alien and Invasive Species Workshop

In recognition of the existing roles, responsibilities and expertise of the participating members of the CBSG, the SSC has asked the CBSG to convene a workshop on the problem of alien and invasive species introductions in non-native habitats. The essential purpose of this workshop will be to generate a recommended "Code of Conduct" for various species user groups. Through the adoption and adherence to this Code by groups that currently contribute to this problem, it is hoped that they will minimise or otherwise eliminate alien and invasive introductions throughout the world.

In convening this workshop, it will be important to recognise that the groups who are involved in the transportation and movement of plant and animal species throughout the world represent a broad section of human culture and activity. Therefore, it will also be important to provide for the representation of the groups involved and to be able to identify the relative contribution they will make in solving this major conservation problem.

Despite the fact that exotic species are easily the most evident in zoos and aquariums, accredited zoological institutions actually hold and import very few animals. In addition, accredited zoos and aquariums have in place procedures and practices that are typically included in the institutional animal acquisition and disposition policy that help prevent the introduction of alien and invasive species. The acquisition and disposition policy of an accredited institution will strictly govern the disposition of animals to the wild and will include such management practices as contraception and euthanasia to help ensure that such introductions do not take place. Furthermore, these policies also direct the adherence to local, national and international wildlife laws. Lastly, institutions also adhere to other policies of organisations like the IUCN's (i.e. the Alien Invasive Species Group; the Disposition of Confiscated Species policy; and the Reintroduction Guidelines).

While policies are in place that help ensure that accredited zoos and aquariums have minimal or no contribution to this problem, there are many other institutions that do not meet accreditation standards and therefore may not adhere to the practices and procedures that prevent undesired introductions. In addition, there are numerous other user groups that may be contributors as well. A partial listing of such groups would include:

- Non-accredited zoos, aquariums and botanical gardens
- Government agencies
- Local agricultural entities
- Research facilities
- Commercial breeders and growers
- Private breeders and growers
- Pet traders
- Animal and plant dealers
- General public

These contributors to the alien and invasive introduction problem could lessen or even eliminate their impact by adopting many of the standards and procedures that are already in use by accredited institutions.

Additional areas that could contribute to this problem but are less known to the CBSG membership include but are not limited to, the following categories.

- Purveyors of illegal trade
- Inadvertent or accidental introductions
- Importers for human use (food, bait, etc.)
- Aquaculture and other exotic food farms
- Cultural practices

Proposed Workshop

Recognising that a meeting encompassing the entire subject of alien and invasive species would be enormous and undoubtedly unwieldy, it is proposed that the subject be broken into manageable components, hence a series of workshops. It is therefore proposed that the first of such a series be focused on the issue of introductions that are of an aquatic nature or involve aquatic species. This will be particularly timely as several international organisations comprising a wide array of interests in captive aquatic organisms are presently engaged in discussions focused on developing procedures and practices that support and otherwise enhance conservation.

The details of this first workshop, which is tentatively set for the summer of 2001, are still in the development stages. We are currently engaged in creating a potential list of participating organisations and individuals, a location for the workshop, and funding sources.

Brad Andrews & Bob Jenkins

CBSG Working Group Report : CONSERVATION HANDBOOK FOR ZOOS

Conservation Handbook for Zoos

The debate about the conservation obligations of zoos have been intensifying lately, particularly since the 1999 CBSG and WZO Conferences in South Africa where the spotlight was firmly fixed on a conservation strategy for zoos and the requirement, in the face of increasing environmental degradation, to intensify the community's contribution to the international conservation effort. Also, there has been a great deal of debate within the WZO and beyond about whether zoos may or may not require guidance from other zoos about how to undertake conservation and, if so, what form that guidance might take.

Moreover, beyond the accepted reasons about why zoos should undertake in-situ conservation, there is now an additional, legal requirement for Member States to comply with conservation obligations in the European Region when the EC Zoos Directive is fully implemented in 2002. In fact, the UK have revised their Zoo Standards, which form the core of the Zoo Licensing Act (1981), to ensure compliance with the Zoos Directive and, following a comprehensive and lengthy review of the Standards, including a round of Public Consultation, have enshrined new Standards for Conservation, Education and Research that exceed the legal requirements of the Directive and which become enforceable in April 2001.

In the context of these debates in the world-wide Zoo Community, when I was invited to lead a workshop at the 2000 CBSG Conference, I suggested that the participants should discuss and propose a framework for the production of a Conservation Handbook for Zoos.

In my introductory presentation at the CBSG Conference, I requested that the working group should comprise as many regional representatives as possible, thereby reflecting the diverse cultural approaches of each region, and I am happy to report that the composition of the core working group (detailed below) reflected the views of six geographical regions.

It would have been over-ambitious and unrealistic to expect to write 'the book' in two-and-a-half-days and we were determined, therefore, to agree on the framework and inclusions for the project, with the intention of undertaking the necessary research and attempting first drafts of the principal chapters in time for the 2001 CBSG Conference in Perth, Australia.

All participants acknowledge there is much work to be done, but all of them appear to be eager and willing to undertake the tasks they have been set.

Following two-and-a half-days of intense discussions, the Working Group made the following proposal to the CBSG Conference:

It was acknowledged that the Guidance Handbook must be:

* a tool to assist zoos/aquaria to effectively become involved in conservation;
* provide guidance, not be prescriptive and, wherever possible, illustrate with case studies and practical and theoretical models;
* accessible to those who may be in need of advice and encouragement;
* the major sections of the Guidance Handbook have been identified and agreed by the Working Group (table of contents);
* the next step will involve undertaking a literature search and collation of existing, relevant information, such as national, regional and global guidelines, publications, case histories and other examples. These tasks have been delegated to the Working Group participants and is being coordinated by the facilitator, Mary Talbot-Rosevear.
* during the course of the year, information will be disseminated to members of the Working Group and others who register an interest;
* publication of the Guidance Handbook is likely to be a collaborative effort by the Regional Associations;
* at the next CBSG Meeting in Perth, Australia in 2001 the Working Group will refine and revise the material, based on the work done during the intervening 12-months.
* the Guidance Handbook will be produced in several formats: electronic, CD-ROM and hardcopy to ensure its widest possible distribution and application; and lastly,
* it is intended to seek assistance and funds to have the Guidance Handbook translated into the major languages.

Here is a summary of the outcome of the Working Group's discussions:

* ***It was agreed*** that a definition of conservation was needed and, following much discussion, the ***the survival of species and habitats"***

Fundraising

* ***It was agreed*** that fundraising alone is not an acceptable level of conservation activity

* ***It was also agreed*** that:
· a definition of fundraising was required; · funds must go to an evaluated project.; ·Evaluation criteria of projects was urgently required; and; · Grant provision was considered an acceptable conservation action

The draft Table of Contents was agreed and includes:

1. An Introduction - That will define conservation; - Identify why this book is being written; - Identify its audience

2. Why Should Zoos do Conservation?

Three reasons were suggested and accepted, as the basis of zoos undertaking in-situ conservation, and more may be identified.

a) Conservation is the accepted, principal role of zoos as stated by the World Zoo Conservation Strategy (WZCS); Working Group *agreed and defined* ***'Conservation' as "an action that effectively enhances***
b) As custodians of the earth, we all have a moral obligation to ensure its continued survival in all its complexities; and
c) In some regions, zoos have a legal/statutory obligation to undertake conservation.

3. What Zoos can contribute to conservation

The contents of this section of the Guidance Handbook will be developed by October 2001. However, the Working Groups has agreed that zoos' contributions should be recorded under the following headings: biological, financial, educational, PR, advocacy, research and training.

4. How zoos can benefit from conservation involvement

5. How to do it?

This section will also include criteria for the selection of projects; project development, management, evaluation, financing and documentation.

6. Bibliography

Lastly, the Guidance Handbook will include a bibliography, useful references/reading and hyperlinks

Working Group Participants : Mary Talbot – Rosevear, Paul Pearce-Kelly, Gary Slater*, Christian Schmidt, Hugh Quinn*, Alex Rubel, Gloria Svampa, Ed Spevak, Carole Lewis, M. Nael, Bengt Holst*, Jerry Millhoun, Pat Quillen, Yolanda Matamoros**

Names and email addresses for Regional Coordinators

Appointed from the working group, who have agreed to conduct a search within their own regions for existing guidelines and other relevant material and forward to the facilitator

Mary Talbot-Rosevear (Facilitator) <<director.fedzoo@zsl.org>>
Dr Hugh Quinn (North America)<<hrq@clevelandmetroparks.com>>
Bengt Holst (Europe) <<beh-zoo@inet.uni2.dk>>
Gary Slater (Australia) <<gslater@zoo.org.au>>
Yolanda Matamoros (C&S America)<<fundazoo@sol.racsa.co.cr>>
Sally Walker (S. & S.E. Asia) <<zooreach@vsnl.com>>

We would welcome your comments and contributions that can be forwarded to Mary Talbot-Rosevear director.fedzoo@zsl.org and the above-mentioned Regional Coordinators. Carole Lewis of Wildlife on Easy Street has kindly set-up a listserve to enable material to be easily collated and to facilitate communication.

Mary G. Talbot-Rosevear, Facilitator, CBSG Working Group, Conservation Handbook for Zoos, 22nd October 2000

CBSG Working Group Report : **Elephant Working Group**

***Facilitator** : Michael Hutchins. **Group Members:** Brad Andrews, Suzanne Boardman, Michael Fouraker, Bengt Holst, Noriyoshi Ichikawa, Jansen Manansang, Mary Talbot-Rosevear, Jonathon Wilcken.*

Regional Association Updates on Elephants

1. EAZA – Bengt Holst

EAZA has been continuing to develop elephant population management plans. The EEP s now recognised by government bodies to advise on the placement of confiscated elephants. Guidelines are under preparation for elephant care. A first draft was prepared several years ago but still useful as a basis for new guidelines. The keeping guidelines are being rewritten gradually and the publication of a Husbandry Manual is planned for 2001. EAZA office is planning a meeting to bring together SSC Specialist Groups and Regional Programme Representatives to discuss international policy on elephant management. EAZA recommendations for elephant movement are leaning to the movement of groups of cows, and trying in the long run to move the bulls rather than the cows. This is slowly happening, the first stage being to identify institutions that can take bulls and also to identify disease risks. These will be written into the protocols.

2. JAZGA - Noriyoshi Ichikawa (Yokohama Zoo)

Japan has guidelines that have been developed through the zoo association. Elephant managers meet once a year. The biggest issue at present is that the Asian elephants are not breeding. Consideration is being given to exchanging female elephants although there are big problems associated with the transfer of elephants and training of keepers. There are also issues associated with ownership –" who owns the elephants". The number of elephants is 51 Asian elephants and 63 African elephants. Handling techniques are approximately 50% free contact, 50% protective contact. Keepers do have accidents and there have been some deaths. Consideration is being given to how keepers are trained. Currently each zoo has a different way of training keepers and there are a wide variety of training systems.

3. AZA – Michael Hutchins

The AZA Board have made series of decisions regarding elephant management and are now working on an implementation plan. There is a fast track plan for new guidelines and a preliminary draft will be sent to all members for their comments, hopefully within the next few weeks. There is still discussion on the length of document required and the degree of detail that would be appropriate. The aim is to gain the provisional approval of the AZA Board by December, so guidelines can be incorporated into the AZA accreditation guidelines sooner rather than later. The AZA Board have now developed full participation in the SSP process and have also developed a conflict resolution process to deal with problems that may arise over short-term needs of institutions and long term needs of populations. Institutions can state at what level they wish to be involved with SSPs – as institutions holding elephants, supporting the programme, or actively breeding elephants.

AZA has given SSP funding to develop an action plan – a set of projects designed to address critical husbandry issues and establish a stronger line between zoos and *in situ* conservation.

4. Indonesia Zoological Parks Association – Jansen Manansang

In Sumatra there are approximately 400 elephants held in 6 training centres, usually taken in due to human / elephant conflict. The major problem is that these animals are trained but there is not enough work to keep them occupied. Health and husbandry care is minimal.

In 7 years the number of elephants in wild have decreased by approximately one third. In 1993 a PHVA estimated that there were 3,600 – 4,500 elephants, and a recent report indicated that the numbers had dropped to 2, 400 - 3,500.

There are approximately 120 elephants in Indonesian Zoos, with 50 maintained at Taman Safari Indonesia.

Indonesian political control has become decentralised to the regions and there is still serious unrest in some regions. This has led to confusion regarding the administration of international funds and support for elephant programmes. As a result the Elephant 2000 Workshop was held in April 2000 in Cisaru-Bogor. Over 100 participants attended this workshop from eight Countries. They represented central and local Government, the six Elephant Training Centers, local and international NGO's and the zoo community. One of the recommendations was to establish an Elephant Fund that will be a NGO. The role of this Elephant Fund will be to encourage coordination and collaboration between international programmes to prevent potential overlap of activities.

5. Federation of Zoological Gardens of Great Britain and Ireland – Mary Talbot-Rosevear.

In January 2000 the Federation of Zoos called a meeting of institutions holding elephants. 17 collections were represented and 25 individuals attended at both managerial and keeper level. There was a review of the last 10 years of elephant keeping and of the progress from a policy developed in 1991 as to the "whys" of keeping elephants.

There were two areas identified where clarification and protocols/policy statements were needed. Chris West of Chester Zoo was tasked to develop two documents:

1. **The political issue of why and how elephants are kept.** The Council of the Federation of Zoos has now approved a policy document. This deals with details of handling techniques, use of goads, ankus etc. and also how elephants are used for education purposes
2. **The development of detailed husbandry guidelines.** This documents is now in draft form and the aim is that it should be finished by the end of February / March. The original group will then meet again to ratify the document.

Attached to the political document is also a status report of the UK breeding population as it relates to the EEP. More cows do appear to be cycling within the UK and transfer of animals between zoos is being considered.

6. ARAZPA – Jonathon Wilcken

Peter Stroud at Melbourne is the coordinator of the elephant programme. The development of a properly integrated elephant management programme is ongoing. The space available to hold elephants in Australasia is small with places for only 15 – 20 animals in 4 institutions. As a result, it is recognised that breeding elephants might lead to a surplus problem – particularly of bulls – and this issue still needs to be resolved.

The aim now is to keep a small breeding population of Asiatic elephants that would integrate with breeding programmes underway on other continents. There was no suggestion of need to breed elephants for reintroduction programmes and so issues of which subspecies to manage is not an issue, and it has been resolved that elephants will be managed at a species level in Australasia.

A central keeping training facility is being developed to encourage common standards. Currently recommended management techniques are "free contact" as the regional approach for managing cows and "protective contact" for bulls.

Originally there was a commitment from all zoos with elephants that they would be able to hold bulls. However, this may prove difficult for some zoos. As a result, the issue of managing surplus bulls may be more difficult.

There are specific attempts to link institutions holding elephants with elephant conservation projects in Indonesia to support *in situ* conservation and welfare programmes.

There will be a need to import elephants to set up a breeding programme. Initially it was assumed that there was a need to relieve pressure on elephant orphanages and that was considered as a useful source of animals, but now this is being questioned and the situation is under review.

Actions:

- Continue to share information between institutions and regional programmes
- Continue to encourage collaboration between regional zoo associations and their cooperative breeding programmes.
- With the number of manuals currently being developed the group felt that it would be useful to bring together the editors of the manuals while the documents are still in draft form, so that there could be information exchange before documents are finalised

CBSG Meeting -- CBSG Regional Zoo Association Report -- South East Asia SEAZA

SEAZA is made up of about 90 zoos in the following countries: Singapore, Malaysia, Indonesia, Thailand, Philippines, Cambodia, Vietnam, Laos, Brunei, Burma, Honk Kong and Taiwan.

Last year's annual conference was held in Saigon, Vietnam, in September 1999. The next conference will be held in Philippines from 7-10 January 2001, followed by a conference in Malaysia in November 2001 and then a joint ARAZPA/SEAZA conference in June 2002.

I have always maintained that the most fundamental building block of ex-situ conservation is record keeping. The second is animal husbandry. In other words you have got to know what you have and how to display it. Without these basic skills, the messages that come down from the World Zoo Organization - that of ensuring that our visitors are imparted environmental conservation messages - are meaningless.

Thus over the years our main thrust has been training. With four generous annual grants from the World Zoo Organization amounting to US$35,500 and utilizing some SEAZA funds we have conducted six courses and trained a total of 117 participants.

These courses thus revolve around *Zoo Biology and Management Course and* Animal *Record, Identification and Restraint Course* held in Singapore, Malaysia, Thailand and Indonesia. We shall shortly be holding a 10-day Animal Enrichment course in Thailand.

We are most grateful to ARAZPA and the RSPCA for donations towards the SEAZA Relief Fund and Animal Welfare Funds. Our long stand friends Ed McAlester, President of ARAZPA and Suzanne Boardman, CEO of Wildlife Information Network respectively were instrumental in these donations. Donations were used to purchase veterinary medicine for the PKBSI (Indonesian Zoo Association) and conduct accreditation checks on member zoos by our Ethics and Welfare Committee.

We are looking forward to a South Asian *Educators Training Course* being organized by Sally Walker and to be held in Singapore early next year. Funding has come from the Singapore Government for this.

Our contributions to conservation awareness have been fairly high, launching two campaigns this year on Discovery Channel and Animal Planet to help Save the Sumatra Rhino (with SOS Rhino and the Asian Rhinoceros Specialist Group) and with Asian Conservation Awareness Program (ACAP) to save the Sharks. The latter was a fascinating campaign, trying to get the Chinese to stop eating sharks fin soup. Jackie Chan has been a mentor to these ACAP programs.

We sent a team to help with the rescue of the Jackass Penguins affected by the oil slick off the coast of South Africa, earlier this year. At last year's WZO conference the keynote address delivered by the *zoo world's spiritual leader and voice of our collective consciences*, Bill Conway. In an extremely eloquent and thought-provoking speech entitled *'The Changing Role of Zoos in the 21st Century'*, Bill noted that with ever increasing habitat destruction and the accompanying and alarming rate of species loss there is a need for the zoo world to be far more proactive about environmental conservation.

He pointed out that there is a need to expand existing Species Survival Plans (SSPs and EEPs) and develop new ones so that the existing species kept in zoos can be managed at a regional and eventually global level - thus more efficiently. However, to think that we can address this major habitat and species loss merely at the ex-situ level in our zoos just scratches the surface of a huge problem. For if we do not address the need to conserve habitats - concentrating only on captive breeding - we will do little more than create instant orphans with no parents.

The plan of action as set out by Bill is threefold as follows:

1. To refocus our interpretation and environmental messages - not at children, as is often the case in zoos - but direct them at adults and especially advise decision-makers about the impending environmental catastrophes and specific conservation issues.

2. Directly help to sustain wildlife in nature in the years ahead by helping sustain wildlands, reserves and species.

3. In future we must ensure that every new animal exhibit built in our zoos must contribute to conservation: either financially, educationally or through propagation. Which ever way - it cannot ignore the extinction crisis.

Bill ended by stating that the developed world pays to little attention to the developing countries, most of which are on the front lines of the Earth's most biodiverse habitats. Thus the zoo world's vision for the 21st century should be to become proactive in working with and giving aid and support to national parks and reserves where there is the greatest biodiversity and to sustain animals which have lost their habitats and conduct campaigns to restore them.

To select relevant in-situ projects that WZO would get more involved in; it was decided that CBSG would assist by conducting a series of workshops to establish such in-situ projects. These workshops would focus on the three regions with the current greatest biodiversity – Asia, South America and Africa.

The regional zoo organisations in each of these areas of great biodiversity would be supported by regional zoo organisation from the developed world. Thus ARAZPA and JAZPA would support Asia, the AZA would support South America and EAZA would support Africa.

The African Workshop was completed in July 2000 and the South American Workshop will be held in February 2001.

The Asian zoo world is represented, at the WZO level at least, by the following Organisations: South East Asian Zoo Association -- SEAZA; South Asian Zoo Association for Regional Cooperation -- SAZARC, Japanese Association of Zoological Parks and Aquaria -- JAZPA and Chinese Association of Zoological Gardens CAZG.

We shall also be conducting an Asian in-situ conservation project identification workshop, conducted by CBSG in Thailand in June 2001. The term *support* means both financial and personnel resources.

Bernard Harrison
President
SEAZA, South East Asian Zoo Association

CBSG Meeting -- CBSG Regional Zoo Association Report -- The Federation of Zoological Gardens of Great Britain and Ireland -- ZOOFED

The Federation of Zoological Gardens of Great Britain and Ireland (Federation of Zoos), a registered wildlife charity, is the professional body representing 60 zoological institutions in Britain and Ireland.

The past year (1999/2000) has been exciting and progressive, encompassing such diverse activities such as Conservation, Education, Research, Publications, Administration, Partnership Development, Ethical Issues, Public Relations and Legislation.

Partnership Development

Bushmeat
Through the appointments in 1998 of Dr Bryan Carroll (Chair of the Federation's Conservation & Animal Management Committee (CAMC), and the Director, Mary Talbot-Rosevear, to the Tropical Forest Forum (TFF), a UK Government advisory body, the Federation has contributed to the Bushmeat debate. At the 1999 EAZA Annual Conference in Basel, Switzerland, a Bushmeat Working Group was established, with Dr Bryan Carroll (Chair of the Federation's Conservation & Animal Management Committee) as its Chair. During the intervening 12-months, the Federation has contributed to the work of this group via the director's participation as the UK Nation Coordinator for the EAZA Bushmeat Campaign and media advisor for the Pan-European Campaign.

English Nature
English Nature is one of four UK Statutory Advisory Bodies funded by the Government that is responsible for the conservation of native species and habitat in England. The Federation has been working since 1996 with English Nature and other such bodies on the conservation of native species through a range of ex-situ programmes which are part of the UK Biodiversity Strategy.

The relationship with English Nature was strengthened this year through a new partnership agreement relating to the UK Biodiversity Action Plans (BAPS) and a joint Conservation Education initiative involving zoos, English Nature and schools. The Federation's partnership with English Nature will help to maximise the benefits for all concerned, with the Federation acting as a coordinator for the dissemination of information and the identification of zoos willing to participate in the BAPS initiative. Furthermore, the Partnership encompasses a Biodiversity Grant Scheme, which will help to support initiatives financially and encourage more Federation Collections to engage in this process. It is anticipated that by mid 2001, the Federation and English Nature will have produced an interactive CDROM for schools about native species and habitat, with a fully-fledged zoo-based programme to support school visits, and other awareness creation initiatives in zoos for the general public.

Legislation
As in 1999, a significant focus of the Federation's work related to legislative issues, which are of fundamental importance to the future of the Zoo Community in the UK and in Europe.

The EC Zoos Directive [Council Directive/1999/22/EC]
The European Union's *Zoos Directive* entered into European Law on 9th April 1999, requiring Member States to establish national systems for the licensing and inspection of zoos. The purpose of the Directive is to assist the European Union to meet its conservation obligations under the Convention on Biodiversity (CBD) and to strengthen the existing conservation and educational role of zoos.

In partnership with EAZA, the Federation of Zoos has been keen to assist the Commission in the implementation of the Directive and, therefore, suggested one of the most practical ways this process could be facilitated was to organise a seminar, which would provide a forum for the exchange of information across the Union and promote the role of EAZA and of zoos. On 15th March 2000, senior representatives from 12 of the 15 EU Member States, responsible for drafting zoo legislation, attended a seminar at the offices of the Commission in Brussels. The seminar focused on the role of EAZA and of zoos in conservation, education and research, with contributions by key EAZA and Federation representatives.

All participants agreed the seminar had been very worthwhile and the beginning of a process that created new opportunities for dialogue and exchange of information. The Federation is encouraging the Commission to organise a second seminar to progress the implementation process. From a Zoo Community perspective, the seminar provided an excellent platform to create awareness of the objectives and work of zoos.

The Zoo Licensing Act (1981) & the review of the Secretary of State's Standards of Modern Zoo Practice (SSSMZP)

On the domestic front, the Federation has been busily contributing to the review and revision to *The Secretary of State's Standards of Modern Zoo Practice (SSSMZP)* that form the core of the *Zoo Licensing Act (1981)*, the legislation that governs the UK zoo inspection and licensing system. In the context of the EC Zoos Directive coming into force and the requirement to review the SSSMZP periodically, the UK Government commissioned a review of the Standards in 1999.

The revised SSSMZP take the statutory requirements of the EC Zoos Directive into account, particularly the new Conservation, Education and Research Standards, which will impose mandatory conservation obligations on zoos across the European Union.

Further contributions by the Federation to legislative issues included the appointment of the Federation's Chairman and Director to the Zoos Forum (in a personal capacity), which was established in March 1999 by the UK Environment Minster. The Zoos Forum is a new, independent body appointed to give impartial advice to the Government on zoo-related issues.

Conservation
The Federation's conservation work is overseen by the Conservation and Animal Management Committee (CAMC), one of its four Standing Committees. CAMC provides encouragement to, and monitors the conservation and research work of Members to ensure the fullest participation in cooperatively managed species programmes. Furthermore, the committee encourages high standards in Member Collections through the production of husbandry guidelines and provision of advice and, lastly, liases with and advises groups external to the Federation of Zoos on matters of conservation, research and animal care.

Nick Lindsay retired as Chair in March 2000, having served for over six years in that capacity, and was succeeded by Dr Bryan Carroll.

Work of the Committee: It was a busy year for CAM and its sub-groups; the Research Group, Guidelines Editorial Group, the newly formed Veterinary Working Group and consideration is being given to the establishment of a Conservation Working Group. The major issues addressed by the committee and the sub-groups included:

Animal Transaction Policy: The 12-month trial was successfully completed and the document was issued after some further modifications. Policy and guideline elements were clarified for the membership. An annual review will be undertaken by the end of 2000 to ensure it is up-to-date and relevant.

Federation Policy and Guideline Documents: The Falconiformes Animal Husbandry Guidelines, Guenon and Birds of Prey Flying Demonstrations Guidelines were published in 2000. The Transponder Guidelines were reviewed and updated, following a resolution by CITES at the Conference of Parties meeting in April 2000; a Transmissible Spongiform Encephalopathy Guidelines document was completed; and documents on the Keeping of Great Apes, Contact Animals and Elephant Management were initiated.

Guidelines Editorial Group: This group continues to supervise the production of Management Guidelines through the TAGs to ensure consistency of standards.

Research Group: Since its revitalisation in 1999, this groups has convened two Research Symposia (proceedings available) and produces a quarterly email research newsletter, as well as identifying appropriate research projects for Federation Members to undertake. Furthermore, a survey has been conducted to collate historical and ongoing research projects within Federation Member Collections, the findings of which will be published by the Federation in 2001. Lastly, the group has drafted Guidelines for Sampling, which are scheduled for circulation in 2001.

EEP Committee: Strong liaison continued and the Chairs of CAM (Dr Bryan Carroll) and JMSC Neil Bemment) attended the EEP Committee meetings during the year, providing an important extension to our work.

Annual Conference 2000: The Federation's Annual Conference and General Meeting 2000 was hosted by Thrigby Hall Wildlife Gardens in Norfolk, and focused on the theme of nutrition in zoo animals. The keynote presentation, entitled *'Nutrition for Conservation'*, was given by Dr Ellen Dierenfeld of Wildlife Conservation Society (WCS). Other presentations included: *A New Partnership (Dr David Stone, English Nature), Update on the Bushmeat Crisis (Dr Bryan Carroll), Nutrition-based Studies ands the Role of TAGs (Dr Mauvis Gore) and the Development of Web-assisted Databases (Dr Jo Gipps))*.

Conservation Co-ordinator: Mairéad Farrell commenced in post on 2nd October. This appointment brings the Federation office back up to full strength and will provide greater support to the TAG chairs and JMSC.

TAG/JMSP Development: All of the TAGs are fully integrated with their European counterparts with some B&I TAG chairs also having the more onerous task of running both operations. With much of the collection planning process now being tackled at this higher level, the B&I TAGs are now addressing more fundamental husbandry issues whilst remaining a forum for communication information about the "bigger picture".

Training Programmes: ARKS4 Training Courses are planned for spring 2001. Institutional Collection Planning Workshops are also being planned to assist Federation Members to comply with collection planning requirements at national and regional level.

Collection Planning & REGASP-LINK: The Federation was represented at the REGASP and REGASP-LINK Planning Workshop in Minnesota in August 2000 by Dr Miranda Stevenson, who is currently employed as a consultant by the Federation, and Duncan Bolton of Bristol Zoo Gardens. Both Miranda and Duncan have identified action points for the Federation and EAZA for the implementation of REGASP and 'The Link' in the European Region and will progress these at a meeting scheduled to take place at the EAZA office in November 2000. Bart Hiddinga attended the meeting representing EAZA.

Liaison with EEP Programmes: As the two nominated Federation representatives, Bryan Carroll and Neil Bemment attended the EEP Committee meetings held in Stuttgart in June and Aalborg in September, at which the Working Procedures for EEP co-ordinators were discussed among other pertinent issues. Many British and Irish Co-ordinators were present at the 2000 EEP Conference, which this year was hosted by Aalborg Zoo, reflecting the B&I region's continuing support for the development of EEPs.

For a detailed list of current British & Irish (B&I) Taxon Advisory Group (TAG) Chairs, please refer to the CBSG Briefing Book 2000.

Education

In September 2000, Simon Garrett succeeded Stephen McKeown as Chair of the Education Committee. Under the guidance of the Education Committee, the following areas of activities ensued:

Regional Workshops: The successful revival of the Regional Co-ordinators' network gathered momentum in 2000 a series of workshops and discussion groups convening across the country to generate ideas for the annual Federation campaign and discuss and further develop themes from the annual Education Conference, the British and Irish Zoo Educators Conference (BIZE).

1999 BIZE Conference: This year's conference was held at Fota Wildlife Park in Ireland.

Guidelines for Education Standards: The Guidelines for Education Standards in Member Collection of The Federation of Zoological Gardens of Great Britain & Ireland were ratified at The Federation's AGM in May 1999 and implemented during 2000. These standards should help collections define a series of measurable educational objectives and ensure compliance with the revised SSSMZP.

Education Show: The Federation stand at the Education Show at the National Exhibition Centre in March 2000 attracted a lot of interest from visitors.

Zoo Animal Management Course: It was agreed that, although education is covered already in the ZAMC as a core function of zoos, it merited a section of its own and a chapter on education was therefore included in the revised Zoo Animal Management Course.

BIZE Newsletter: Bristol Zoo Gardens financed the production and distribution of the educators' newsletter, which, together with the regional meetings, ensures that all educators are kept in touch with current affairs in the zoo education world.

Marketing & PR

1999 was a productive year for the Marketing & PR Committee, whose activities included: organising a seminar *'Managing Your Image Seminar* at Marwell Zoological Park which attracted marketers, PR officers, curators and directors. The purpose of the seminar was to address topical and controversial issues those PROs have to deal with on a daily basis and to provide advice and updates to assist them in their work. It is hoped to make this an annual event.

Annual Awareness Campaign: This Primate Campaign was successful in raising public awareness about the plight of Great Apes and funds raised will be donated to the Cameroon Wildlife Aid Foundation (CWAF) and the Lion Tamarins of Brazil Fund (LTBF).

NATIONAL, REGIONAL & INTERNATIONAL ORGANISATIONS

The Federation continues to be a member of the following organisations: *The European Association of Zoos & Aquaria, The World Zoo Organisation, The Conservation Breeding Specialist Group (IUCN SSC-CBSG), The World Conservation Union (IUCN)* and the IUCN-*UK Committee.*

The Federation is represented on the International Zoos Seminar (facilitated by the RSPCA) and at meetings of the Wildlife Information Network's "Wildlife Welfare Advisory Support Programme" (WWASP). Frequent interaction with welfare organisations has improved relations generally and has increased The Federation's ability to learn about and counteract any new anti-zoo initiatives.

Finally, the Federation was engaged in public debate on a number of issues including: *Rights for Great Apes, Elephant Management Practices at some Member Zoos* and *FSE in Big Cats*. Awareness of the Federation, its objectives and activities, was maintained through a series of public statements and press releases notably relating to the UK Zoo Licensing Act, the review of the Secretary of State's Standards of Modern Zoo Practice, the regulation of circuses, cruelty to animals, and the EC Zoos Directive.

Mary G. Talbot-Rosevear, Director, The Federation of Zoological Gardens of Great Britain and Ireland, October 2000

CBSG South Asia - Special Report for CBSG Annual Meeting a

SPECIAL REPORT ON CBSG SOUTH ASIA

Many people (even those who live there) do not know that South Asia and South East Asia are very different regions. South East Asia refers to Singapore, Malaysia, Indonesia and all the countries in that area. South Asia consists of Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka. As you can imagine, there is a vast amount of biodiversity in this region, with two recognized "hot spots" and a score of other biologically wealthy areas.

For almost 15 years Zoo Outreach Organisation, which hosts CBSG, India since 1991 has been working in India with occasional contacts with the other countries of South Asia. With the last two years, a CBSG, Sri Lanka was convened and there was great interest from Nepal and Pakistan in having their own network. Last year we decided to create a larger network for South Asia to help these countries form their networks and the coordinate and integrate the activities. CBSG, South Asia

In this rich area there are more than 300 zoos of various sizes and descriptions, e.g.

Bangladesh	6 (one large zoo; 5 medium to small zoos)
Bhutan	1 (breeding centre .. maybe)
India	304
Maldives	0
Nepal	5
Pakistan	40 (many of them "breeding centres")
Sri Lanka	3 (one elephant orphanage and one new)

Of these zoos those in India operate under a system of legislation, standards, inspection, and have training, coordination, and other facilities. India has Central Zoo Authority, a Zoo Act, a National Zoo Policy, an Indian Zoo Directors Association, an zoo NGO – Zoo Outreach Organisation. Although obstacles are many, Indian zoos have made some progress and have contacts in the international zoo community, but the zoos in the surrounding countries, with the exception of two or three from time to time, have been completely isolated. In no way was this region able to function as some others, such as the South East Asian Zoo Association (SEAZA), or the Australian ARAZPA, etc.

One of the very real problems of attempting to coordinate the region was money for communications and travel. Although these countries seem near one another, the cost of air travel and communications from one country to another is as costly as travelling to other regions of the world !

Therefore, a special effort has to be made to coordinate this region So one of the reasons for establishing CBSG, South Asia was to provide a mechanism for zoo personnel of the region to meet one another and – perhaps – establish a regional zoo association.

CBSG, South Asia – with its experience with CBSG, India can also catalyze and coordinate workshops and training for South Asian zoo and wildlife people, establish a newsletter, etc. In PHVA and CAMP Workshops, information about trans-national boundaries can be coordinated more easily.

The link between zoo and field based conservation activities, promoting holistic,m intensive, interactive conservation management, can be more easily highlighted by CBSG, South Asia and a regional conservation identity established.

This year then CBSG, South Asia organized a series of meet-ings so that these and other objectives could be carried out.

The Central Zoo, Kathmandu was selected due to the neutrality of the country, the fact of its evolution as a modern zoo, the cooperative and interested management (King Mahendra Trust for Nature Conservation) and the fact that this zoo would not be threatening or discouraging to any of the small zoos which might attend the meeting.

On 3-4 August 22 zoo personnel from five countries attended azoo meeting — to discuss the problems and potential of South Asian zoos and the possibility of having an Association for South Asia. An association was formed called the South Asian Zoo Association for Regional Cooperation (SAZARC).

On 5-6 August, a gala function was held with the Prince of Nepal and Dr. U. S. Seal in attendance to inaugurate the First Regional South Asian CBSG meeting and the inauguration of CBSG, Nepal. Dr. Seal led a lively CBSG meeting with wildlife experts from several countries along with the zoo personnel isolating problems of the region and committing to actions they themselves could carry out.

On 7 – 12 August all of the attending zoo personnel, including several directors, vets and zoo educators participated in a Zoo Education Training Workshop initiated by the Asian Regional Network of International Zoo Educators (ARNIZE) and staffed by ARNIZE, ZOO, Central Zoo Education Department, Nepali and Indian resource persons as well as the shared experience of the participants themselves.

The core committee of SAZARC met and gratefully accepted Mr. S. Gunasena's invitation to hold the meetings of the South Asian Zoo Association for Regional Cooperation and the CBSG, South Asia meeting as well as another training in Colombo and (probably) Periydenia, Sri Lanka.

South Asian CBSG national network news

CBSG, India

Sanjay Molur, Zoo Outreach Organisation Programme Officer, is now the coordinator of CBSG, India. During the year the CBSG, India taxon networks organized the following exercises

An Orchid CAMP which assessed 102 species of Orchids of the Western Ghats sponsored by Paignton Zoological and Botanical Gardens and held at the Institute for Forest Genetics and Tree Breeding,

A Training Workshop on Field Techniques, Taxonomy, and Conservation of Chiroptera spp. Sponsored by Chester Zoo at the Madurai Kamaraj University, School of Biological Sciences,

A Training Workshop on Captive Husbandry and field techniques for Amphibians at the Arignar Anna Zoological Park sponsored by the AAZK Chapter of Minnesota Zoo and the Melbourne Zoo.

A PHVA for Giant Grizzled Squirrel is planned for later in the year or early in 2001.

CBSG, Sri Lanka

Anslem De Silva and Jayantha Jawardene will be organizing a PHVA for Asian Elephant in Sri Lanka in June 2001.

CBSG, Pakistan

Dr. A. A. Chaudhery, Pakistan Wildlife Department and Dr. Arshad Toosey, Director, Lahore Zoo are the likely Convenors for CBSG, Pakistan and will organize a PHVA for Urial in March 2001.

CBSG, Nepal

Mr. Ang Phuri Sherpa has been appointed the Coordinator for CBSG, Nepal by Convenor R. K. Shreshta. A PHVA for Wild Buffalo is planned for June.

Sally Walker, Convenor
CBSG, South Asia
c/o Zoo Outreach Organisation, Coimbatore, India

CBSG Meeting -- Central Zoo Authority Report

Report for India — Central Zoo Authority, Ministry of Environment, Government of India

Central Zoo Authority (CZA) is the nodal authority for all zoos in India. CZA was set up by an Act of Parliament in 1991 in the Zoo Act

CZA is guided by the Zoo Act, legal norms and standards and a National Zoo Policy

Central Zoo Authority

- inspects all zoos
- gives direction for improvement
- gives funds for improvement
- reviews progress
- accords recognition or de-recognition
- decides policy
- organises training
- and many other things

This year the zoo community has taken many hits. Much of the energy of Central Zoo Authority and the major zoos has been taken up in responding to crises, the frequency and depth of which have made high government agencies question the feasibility of maintaining good zoos in India at all. Nonetheless, activities have continued and methods sought to prevent or quickly resolve such tragic events as have occurred in the last three months. Needless to say, the time and energy and loss of morale involved in responding to such crises seriously depletes positive and constructive resources. Many of you have written offering help and this was much appreciated.

Activities

Central Zoo Authority sponsored a Strategic Futures Workshop led by Frances Westley and Harri in November of last year. Senior officials, zoo directors, veterinarians, educators, welfare activists, and conservation officials participated.

Central Zoo Authority provides a two-week training annually to Directors and Curatorial level zoo personnal alternatively. This year the training for Curators was held in the Calcutta Zoo. Lectures were held in the very old Calcutta Zoo Library in the presence of a painting of Ram Brahma Sanyal who wrote the first Zoo Management book in the world in 1892, A Handbook of the Management of Wild Animals in Captivity in Lower Bengal.

C.Z.A. also funded a national conference of zoo directors in support of the 125th Anniversary of the Calcutta Zoo. Mr. A.K. Das, President, IZDA is speaking. Minister for Environment, West Bengal released the third volume of the Indian Zoo Yearbook brought out by IZDA. There was also a meeting of the Indian Zoo Directors' Association. President A. K. Das and Secretary B. R. Singh presided,

TIGER DEATHS

On the subject of the tiger deaths earlier this year, the Central Zoo Authority arranged an expert consultancy with Zoo & wildlife vets and experienced directors from all over India External experts also called. Dr. Francis Vercammen of Antwerp Zoo also participated. A document brought out. Now, the Supreme Court has ordered a mega-investigation into the major zoos husbandry and veterinary facilities with a group of experts are inspecting the Large, Medium and Small zoos to prepare a report. CZA thanks all who wrote with concern and offers for help.

Studbooks and Breeding Programmes

CZA is funding the Wildlife Institute to undertake 5 studbooks on "important" species, Asiatic lion, Llon-tailed macaque, Bengal Tiger, Indian rhino, Golden Langur. Another CZA sponsored programme targets highly threatened species, and provides very generous funding for one zoo to undertake a breeding programme, e.g. Arignar Anna Zoo has been selected for Lion-tailed macaque and they plan a population of 300 animals in the next few years.

Zoo Design Training

This year for the first time, Central Zoo Authority collaborates with the prestigeous New Delhi School of Architecture to run a 6 day course in zoo design for architects and engineers. The course will consist of didactic lectures, working sessions and field visits. This is scheduled for November-December.

Prepared and presented on behalf of Central Zoo Authority by Sally Walker