Conservation Breeding Specialist Group,SSC, IUCN 1999 Annual Meeting

Warmbaths, South Africa, October 1999

Pretoria Zoo

Every year the Conservation Breeding Specialist Group (CBSG) meets in some part of the world to report on the past year's activities, announce upcoming projects, generate interest in and spread around new scientific advances for conservation, renew acquaintences and make new contacts.

CBSG is the Specialist Group of the Species Survival Commission, IUCN which represents the science of small population management both *in situ* and *ex situ*. The membership of CBSG consists of many professionals other than zoo professionals, although this comes as a surprise to some people -- there are a variety of academics, field biologists, population biologists, taxonomists, sociologists, wildlife authorities, educators, veterinarians, and others who make up the vast mix of people required to take conservation programmes the whole distance. Of zoo personnel, members of CBSG include zookeepers, zoo registrars, zoo vets, zoo directors, zoo curators, zoo educators and zoo as well as zoo association administrators.

CBSG has 900 odd members all over the world, not counting the members of its regional networks. Aside from the United States, India has many full CBSG members with about 60 listed.

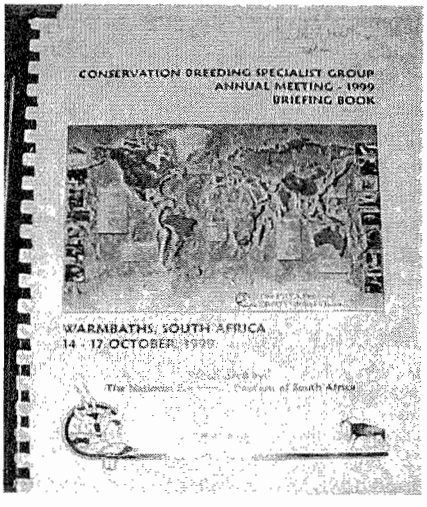
India has been represented in CBSG meetings since 1990 when this writer attended the Annual Meeting in Copenhagen and was asked to give a report on Indian activities. There was much to report in fact -- training, Zoo Policy and Zoo Act on the anvil, education, etc. -- and people were absolutely surprised to hear that so much was going on in the zoo community of India. The following year, since the CBSG meeting was in Singapore (relatively near to India and inexpensive, comparatively speaking), it was possible for 6 Indians to attend : Jacob V. Cheeran, Pushp Kumar, J. H. Desai, B. M. Arora and an adopted Indian, Sally Walker. At this meeting Dr. U. S. Seal, Chairman was delighted at the number of Asian who could attend the meeting. Seal called for more regional activity so that people from countries that found it difficult to travel far could still meet and interact with other conservation biologists. It was in response to this call that CBSG, India was started and shortly thereafter CBSG networks in Indonesia, MesoAmerica, and other countries.

Since 1994, the Central Zoo Authority has attended the CBSG meeting, the first time in Antwerp and almost every year since. This year, Mr. P. R. Sinha, Member Secretary, attended the CBSG and WZO meeting.

This year the meeting was in South Africa so that zoo directors could attend easily, having a World Zoo Organisation meeting nearby and immediately following the meeting. Every year CBSG meets at the same time and very near the same venue as WZO for the convenience of delegates to both. Next year, in October, the meeting of CBSG and WZO will be held on 20-22 October in Palm Desert, California followed by the World Zoo Organisation Meeting 23-26 October.

There was a special reason for the South African invitation for this year and that is that the Pretoria Zoo celebrated their 100 years anniversary this year. This sometimes happens that zoos will invite these important meetings for a meaningful year in their own history. The Pretoria Zoo team did a wonderful job of coordinating the two events.

A CBSG meeting is made up of :
- Reports from zoo associations representing different countries and regions of the world,
- Reports from regional networks of CBSG itself from around the world,
- Reports from selected scientific and technical subjects or projects related to conservation action with a captive component. This year a very interesting report was given by the team which visited China to help them with their Giant panda programme and other zoo projects,
- Reports from different SSC Specialist Groups relevant to zoo conservation and interactive management,
- Reports from working groups which meet at the CBSG meeting itself and which comprise most of the time at the meeting.
- A Briefing Book which consists of all manner of excellent articles, some of which are still in press, reports, announcements, and correspondence.



CBSG Briefing Book 1999

In this Report on the CBSG meeting, only one Working Group Report will be printed in full, that is the Report on the group which drafted a first cut at a new IUCN Policy Statement on Captive Breeding. This is not to be used now as policy because it has to go through many iterations and reviews before being accepted by the IUCN General Assembly. If anyone of our readers has

comments on this Draft, CBSG would be happy to hear your opinions. You can send them by email either to CBSG, India / South Asia at ZOO HQ at <<zooreach@vsnl.com>> or directly to CBSG at <<office@cbsg.org>> or by snail mail to ZOO address and we will forward it for you. We hope you enjoy these reports and that more people from India can attend CBSG next year.

CBSG Annual Meeting Reports -- Summary

[The IUCN Policy Statement on Captive Breeding was approved by IUCN in 1987 and has not been revised since. In these 13 intervening years, much has changed about captive breeding, including what it is called. The Policy Statement should reflect the current philosophy of the Conservation Breeding Specialist Group as well as conservation conscious zoos and wildlife managers. The Draft below will have to be reviewed several times before approval, but here is an advance look. CBSG welcomes comments. This Report is given in full unlike the remainder.]

Minutes of Working Group to Revise IUCN Policy Statement on Captive Breeding, CBSG Annual Meeting, Pretoria, 1999

IUCN DRAFT POLICY ON THE MANAGEMENT OF CAPTIVE POPULATIONS FOR CONSERVATION

Participants: Nate Flesness, Koen Brouwer, Suzanne Gendron, Bengt Holst, Sue Mainka, Brad Andrews, Pisit na Patalung, Priya Sinha, Susie Ellis, Mabel Lam, Marc Stanley-Price, Jo Gipps, Nick Lindsay, Lee Simmons, Ed Asper

PREAMBLE : Viable populations of wild species of animals and plants should exist in their natural habitats.

With the accelerating growth of the world's human population and the concomitant loss and fragmentation of habitats, many plant and animal species and their corresponding ecosystems are being greatly reduced and eventually may be lost. It is likely that no single solution will resolve the magnitude of the crisis ahead of us; many different solutions will be needed to address these problems.

The World Zoo Conservation Strategy clearly defines the conditions that captive propagation facilities and their cooperative networks must satisfy in order to realize their full potential in conservation.

VISION: Our vision is that there will be no further human-induced extinctions of species and that present biodiversity levels will be maintained through all available means.

GOAL: Those responsible for captive populations will strive to use all the resources and means at their disposal to maximize their conservation impacts for the world's plant and animal species.

POLICY STATEMENT

The basis for responsible captive population management in support of conservation is founded on the following principles, which can be divided into direct and indirect effects on the species itself.

a) Direct Effects

§ The primary objective of captive propagation is for the benefit of the species and its community.
§ Captive and wild populations must be managed within an integrated, multi-disciplinary metapopulation management plan developed with range state participation.
§ Metapopulations must be distributed adequately to reduce risk of loss through catastrophe.
§ Other conservation priorities and resources, including available space for such programs, must influence captive population management for any species.
§ Inter-sector communication and information regarding species whose conservation status is precarious must be improved.
§ For captive populations to contribute most effectively to species management in the wild, captive propagation must be initiated before that species is critically endangered.
§ For those critically endangered species for which husbandry protocols do not exist, it must be recognized that surrogate species can serve important, multiple functions (e.g., development of husbandry protocols and staff training).
§ Captive populations must be managed to their maximum advantage, as resources for future conservation initiatives, including (but not limited to) reintroduction and genome resource banking.
§ Long-range planning for captive populations must minimize the effect of artificial selection in the interest of returning genes or individuals to the wild.
§ Captive populations must be used as a resource for basic and applied research to provide information on biology and to contribute knowledge to assist conservation in the wild.
§ Locations of captive propagation programs must optimize benefits to the species, with a balance between in-country and out-of-country activities.

b) Indirect Effects

§ Captive populations should be used to generate funding to support *in situ* conservation.
§ Captive populations should be used as a conservation education and training resource to develop public awareness and involvement at in-country and out-of-country sites.
§ Where there is captive propagation out-of-country, benefits should return to the country-of-origin.
§ Captive propagation of species leads to saving ecosystem components.
§ Species in captivity should be used to enhance conservation of their own natural ecosystems and communities.

UNRESOLVED ISSUES:

§ Multi-sector communication and information regarding species whose situation is precarious is critical to achieve this goal.
§ CBD interpretation and operations
§ Politics of national and international legislation need to be considered; urge governments to look at these issues.
§ How forceful should wording be? (must, will,should, etc.)
§ Inclusion of the term "ambassador species"

Elephant Working Group Summary

Group Members: Michael Hutchins (Convenor and Facilitator) Neil Bemment, Suzanne Boardman, Gerry Borin, Charles Hoessle, Bengt Holst, Chris Larcombe, Pisit Patalung, Miklos Persanyi, Kees Rookmaker, Christian Schmidt, Priya Sinha, Lee Stewart

Regional Association Updates from the Australian Association (ARAZPA), the European Association (EAZA), and the American Association (AZA). Problems with maintaining a sustainable population within the region, "hands off" handling policy, welfare issues were reported. **Range State Reports are given in full below.**

1 India

There are 3.2 African elephants and 28.56 Asian elephants currently held in Indian Zoos. Total 89 elephants. Project Elephant targets the conservation of elephants in situ. The main issues are improving habitat, developing corridors and limiting elephant-human conflict.

- New regulations state that in captivity no elephant can be kept tethered. Zoos should have open-moated enclosures for housing elephants - this is expensive. Central Zoo Authority is implementing these regulations. Breeding is incidental and there is no policy on surplus animals at government level.
- Elephant rides in zoos have been banned and elephants are only used for logging in the Andaman Islands and parts of southern India. A few elephants are used for tourism in National Parts and also sometimes used for Wildlife Patrols.
- In the wild fragmentation of the habitat is the main problem. There are major problems dealing with roving wild elephants in poor quality habitat. Elephant-human conflict results in more than 200 human deaths per year. Translocations have had a lot of criticism on welfare grounds and so have stopped for now. There is a general fire-fighting approach. In "Project Tiger" areas - (delineated on ground together with National Parks etc.) financial help (government funded) is provided as compensation for loss of crops and human life. Other control measuresused include electric fencing. Northeastern India is "not protected". Northwestern India is the most likely to have sustainable wild populations - good groups are still maintained.
- The capture of wild elephants is not encouraged - unless it is needed for the welfare/management of individual / rogue animals.
- Culling, although legal is certain cases, is not a viable option due to cultural and religious reasons.
- There are a large number of unemployed elephants - forest departments must give them the opportunity for retirement (free-roaming?).
- Temple Elephants are a problem.

Guidelines have been produced with regard to compensation for losses. These are available on request.

A Mahout Training Handbook has also been published by Zoo Outreach Organisation and the Asian Elephant Research Center is preparing a Manual on limiting Human-Elephant Conflict.

2 Thailand

There are estimated less than 2,000 elephants in the wild. Largest number in one group is approximately 200 elephants. 2,000+ elephants held in captivity. There are approximately 100 NPs and 50 Wildlife Sanctuaries.

- Poaching is a problem. Tusked males do not survive in the wild - only tusk-less males are found free-ranging. There is also a demand in Burma / Thailand for very young elephants for tourism in hotels etc. These are often taken from the wild. Problems occur as the animals get bigger.
- Illegal logging is starting again. There are problems with the use of amphetamines in order to make them work harder: the animals sometimes "going berserk". These animals may then need to be shot.
- In towns there may be 250 - 300 elephants roving in cities. Some locals (especially those of Cambodian descent) have elephants they use to make money in cities. Tourists pay to feed the elephants and in some districts this may be very lucrative. Trade now in renting elephants to take on streets - mahouts do not know elephant. Problems occur due to the heat / concrete roads and animals sometimes go crazy and need to be destroyed. Legally elephants are classed as "transport" and are allowed anywhere. In Bangkok recently, elephants have been banned from the streets. The mahout and elephant are arrested. However, the mahouts tend to abandon the elephant at the police station thus causing huge problems leading to unwillingness of the authorities to implement the regulations. Bangkok Zoo has 6 people helping elephants out in city for free. Animals are worth 2 - 300,000 Baht each.
- Elephants are frequently used in tourist trekking. This can sometimes be very cruel in the height of tourism season work all time - don't get enough food, also on drugs.
- There have been some attempts at rehabilitation but a number of animals have been killed by snakes due to lack of behavioural preparation and training.
- In Zoos elephants are used for "trekking in the Zoo" / rides / mock battles etc. in which the management of the animal itself gives great cause for concern.

There are big problems but no clear solutions are suggested at present. Lots of meetings have occurred but decisions taken never put into action. There are no regulations. The Forest Industry Organisation (FIO) now called Elephant Conservation Center has taken lots of elephants and a centre has been built to accommodate about 80 elephants and they do take rescued elephants. There is a current move by government to create a well-funded Elephant Department to take confiscated elephants under their care, assess options (e.g. soft release). This is currently under discussion. Culling is not considered an option due to cultural and religious sensitivities.

Summary of General Concerns to global zoo community

1) Zoo-based conservation objectives *in situ* and *ex situ*; 2) Perceptions of animal protection community; 3) Reasons / Justification for keeping elephants in captivity - conservation role must be explained; 4) Management regimens for animals' 5) Free contact versus protective contact' 6) Staff training and safety' 7) Sub-speciation; 8) Demographic / genetic modelling / population sizes' 9) Transportation - where, when and how 10) Needs of the different regions; 11) Culling / Contraception as a management tool; 12) Surplus animals in host countries; 13) Surplus animals in Zoos (Males); 14) Importation from the wild; 15) Education of public / animal rights / welfare groups about realities of elephant conservation; 16) Education of Zoo Community on the differences between "Animal Welfare" bodies and "Animal Rights" groups 17) Working with circuses and private owners

Action Plans were also suggested. See CBSG Annual Report for full working group account.

Lion Working Group Report

Lions are emblematic of the carnivores and predators of Africa. A Lion Working Group was convened to discuss issues relevant to conserving this keystone species into the new millenium. Working group members identified more than 30 issues facing lion conservation today. These were collapsed under general topics and then discussed.

Lion surveys and estimated lion status
Current IUCN categories of threat were used to estimate lion status in countries where the participants had at least some experience.

1. South Africa. There are about 2,000 lions in Kruger National Park, 1,000 in private areas adjacent to the Park, 120 in the Kalahari Gemsbok National Park and 500 in captivity. Lions probably are at 'low risk' (conservation dependent). However, certain areas are likely to be 'geographic-specific' and require more attention (i.e., Natal).

2. Namibia. There are about 340 lions, including 170 in the Etosha National Park. As a country, lions range from being at 'low risk' (conservation dependent) to 'vulnerable'.

3. Botswana. There are about 1,200-1,600 lions in the Okavango Delta, 50 in Makgadigadi, and many individuals outside of protected areas. For the country, lions are 'low risk' (conservation dependent). However, certain areas are likely to be 'geographic-specific' and require more attention (i.e., 'vulnerable' in Central Botswana).

4. Uganda. There are less than 250 lions for the entire country; therefore, the lion is 'endangered'. Certain areas are highly 'geographic-specific' (e.g., 'critically endangered' in Murchinson Falls and Kidepo Valley).

5. Zimbabwe. There was insufficient expertise to give an estimate. For the country, lions are likely to be 'low risk' (conservation dependent). Exceptions for geographic-specificity include the Zambesi Valley and Hwange areas.

6. Tanzania. There was too little experience to estimate lion numbers, but information is available, especially for the Serengeti, Selous and all national parks. For the country, lions are likely to be 'low risk' (conservation dependent), but 'vulnerable' in hunting concession areas.

7. Kenya. There was too little experience to estimate lion numbers, but in this country, the species is likely to be 'low risk' (conservation dependent). :

8. Nigeria. There are about 200 lions restricted to game reserves, with few individuals living outside protected areas. Prey availability is low, so the killing of cattle is a problem. There is a loss of lions from Nigeria to the Cameroon where there is better protection.

Thus, there are definite gaps in status data for the lions of Africa, especially in western and central Africa and parts of southern Africa (especially, Mozambique, south of the Zambezi, Central Kalahari in Botswana and the Zambezi Valley in Zimbabwe, specifically lower Zambezi Valley from Kariba to the sea).:

Other topics were also discussed such as Survey techniques, Reproduction and pride structure, Trophy hunting, Lion subspeciation, Genetic diversity and genetic analyses of prides, Captive lion management, Complacency by the public on status of lions in nature. A series of action steps were identified to address some of the problems brought up and persons to take them up. For the full report please refer CBSG Newsletter, January 2000.

Wildlife Nutrition Database Report

Working Group : *Ellen Dierenfeld, Convenor and Reporter, Peter Stevens, Sally Walker, Verity Bowman, Paul Pearce-Kelly, Sanjay Molur, Sabine Hilsberg, Tim Woodfine*

Proper nutritional status is crucial to maintaining and propagating animals in captivity as well as in their natural habitats. In captivity and in the wild, animals can be affected by a number of nutritionally-associated diseases which can not only cause morbidity and mortality of the individual, but also depletion of a fragmented population. Since data for evaluating nutritional status are not easily available, information remains under-developed and under-utilized. There is a great need for sharing nutritional information collected from both free-ranging and captive populations which can, in turn, be utilized to assess nutritional status of both individuals and populations, locally and globally.

Goals of the Wildlife Nutritional Database are similar to those of any large database structuring project: 1) to gather information from diverse sources, not all of which are local (nor published in open literature); 2) to deliver information to a wide range of users, many with much less than state-of-the-art computers; 3) to maintain the information over time in the face of changing technology.

The short-term goal is to provide an on-line, easily accessible database of nutritional information on composition of foodstuffs utilized by wildlife. Initially, this will be accomplished by designing a functional framework and infrastructure through CBSG, as a tool to facilitate assessment of the health of animal populations and their nutritional environment.

Recommendations:
Enhance recognition of the scientific discipline of Nutrition as a conservation priority
- Activate CBSG Nutrition Specialist subgroup.
- Convene workshop on development of Wildlife Nutrition Database
- Integrate nutritional aspects as a component of species conservation programs - links with Vet Specialty Groups, Reintro Groups, etc.?

Incorporate existing priority species' data into Wildlife Nutrition Database
- Integrate data already collected through the CBSG CAMP, PHVA, and other processes whenever possible.
- Future CBSG Taxon Data Sheets should be designed to ensure collection of all existing nutrient data on native foods for automated incorporation into the Wildlife Nutrition Database(s) (WND).
- Request nutrient summary data from SSP/EEP Husbandry Manuals as inputs to WND.

Amphibian Working group

Sanjay Molur (Convenor and Facilitator) Chris Larcombe, Sue Mainka, Paul Pearce-Kelly, Charlie Hoessle, Sally Walker

Objective:
To create a network of zoos and like institutions, research institutes and individuals with potential for keeping and breeding amphibians in captivity for conservation. To link *ex situ* potential with *in situ* needs according to the conservation status of amphibians around the world.

Network tasks:
—> Link up with regional efforts around the world such as ARAZPA, AZA, EAZA, SEAZA, other regional zoo associations, DAPTF, regional DAPTF networks, etc.

—> Identify more individuals/ institutes around the world involved in captive propagation of amphibians.

—> Assemble guidelines for effective captive management and recovery based on the experience of successful facilities and programmes.

—> Disseminate these guidelines as well as success stories demonstrating the potental of captive propagation in recovery of declining amphibian populations.

—> Compile techniques from around the world on keeping and breeding amphibians.

—> Encourage the undertaking of capacity building in under developed zoos.

—> Initiate a few model captive breeding programmes in areas where they do not exist, with the help of experts in the field in the next 3 to 5 years.

—> Promote awareness in the *in situ* community of the potential and advantages of captive propagation in the recovery of declining amphibian populations.

Invertebrate Working Group report

Paul Pearce Kelly (Convenor and Facilitator) Charles Hoessle, Chris Larcombe, Susan Mainka, Sanjay Molur, Miklos Persany, Priya Sinha, Sally Walker.

The group agreed that it'f founding remit remains both valid and pressing and went on to discuss associated action areas:

Development of regional invertebrate groups
* Well developed invertebrate groups are now up and running for South Asia, Europe, North America and, most recently, the ARAZPA region. This last group (the ARAZPA Invertebrate TAG) has positively burst onto the scene with a number of initiatives already realised, including a newsletter called "The Invertebrator", a husbandry workshop and an embryonic recovery programme for the Golden Sun Moth.

* South East Asia and Central/South America are two major regions requiring pressing attention. In the case of South East Asia, it is recognised that Singapore Zoo's new invertebrate resource is ideally placed to play a leading role in this regard! It was acknowledged that the further development of, and networking between, the regional groups remains a prerequisite to realising our shared conservation objectives.

CBSG Chairman U. S. Seal with Indian delegates from Chamarajendra Zoological Gardens, Central Zoo Authority and Zoo Outreach Organisation. Photo by Mary Rosevear

Web-enabled invertebrate conservation database
We discussed the progress and composition of the above database which is now in the final stages of construction. It is hoped that colleagues in the zoo, university and museum communities will be able to trial it before the end of the current year.

Current breeding programmes
In addition to the international programme for Partula, we discussed the growing number of regional programme initiatives (currently most advanced in the AZA and EAZA regions). The value of compiling a set of case studies on these programmes was agreed. It was also agreed that such a review should include reference to the educational and cultural aspects of such programmes.

Education and awareness issues
We agreed that there remains a fundamental need for invertebrate taxa to be effectively incorporated into educational programme initiatives as are undertaken by the WZO Zoo Educators Group. It was also agreed that we need to continue efforts to pull together guideline information on exhibit and programme species care. The realisation of our database should greatly facilitate the compilation and distribution of such data.

Potential relevance to SSC invertebrate Specialist Groups
We took advantage of Susan Mainka's participation to discuss how this conservation-breeding focused group might best assist and relate to the SSC in general and the SSC invertebrate Specialist Groups in particular (see full group list below). The following areas were considered as having the most relevance:

* Helping SSC compile the Red List 2000.
* Contributing to the Red List criteria review process.
* Contributing to the rejuvenation of the Invertebrate Conservation Task Force.

* Where available, providing field data to the Specialist Groups and assisting in the development of new species programmes.
* Participating in the current review process of the effectiveness of existing Species Action Plans.
* Contribute to the forthcoming Pollinator Specialist Group.
* 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.

* We should examine the potential for linking into an SSC list server.

CBSG Africa Regional Network Working Group

Working Group Members: Dr. Onnie Byers (Facilitator), Paul I. Ishaya, Verity J. Bowman, Lee Stewart, Yolan Friedmann, Dr. Paul Bartels, Dr. Sabine Hilsberg, Dr. Nan Schaeffer, Sanjay Molur, & Sally Walker (Convenor and Recorder)

The CBSG Regional Network for Africa Working Group convened after several individuals from four African countries expressed an interest in learning more about CBSG national and regional networks. These included zoo personnel, breeding centre personnnel, researchers and field biologists.

The group members related the specific reasons they wanted to attend the group. During the introduction period itself several technical questions came up from one member to another indicating a genuine need for information exchange among zoo conservation biologists from Africa. Many of the participants said they had been members of CBSG for some time and were interested in establishing a grassroots link of some kind with CBSG in order to carry out the workshops and spread the information.

Onnie Byers gave an overview of the CBSG Regional Network history and asked Sally Walker from India, which was the first network, to relate her experience. Sally Walker described how she entered zoo and wildlife work and the way events unfolded to lead her to start CBSG, India. She emphasized the importance of Ulie Seal having given both a free hand and full endorsement. She described how CBSG, India worked in India with both successes and failures. She reiterated that it is crucial to write to Ulie Seal and describe the method to be employed and the objectives and obtain permission before going too far in the process.

There seems to be a strong potential framework and interest in setting up a network in South Africa and this will be explored. Walker commented that it would be very good if all the people in this group could remain in touch and have a loose communications network at least and if any event occurred in any country, CBSG members from anywhere in Africa should be invited.

A complete address list and also information on how to start CBSG networks was proavided the following day when members met both individually and as a group. During the Group Meetin personal commitments were made:

Paul Bartels and Yolan committed to investigate the subject of forming a CBSG South Africa or Southern Africa by taking it through a process of presenting and discussing it with Endangered Wildlife Trust which ostensibly would be the umbrella organisation.

Paul of Nigeria will speak with forest and wildlife officials in his region and communicate information about CBSG and the need for dynamic conservation action in his state and country.

Lee has decided to organise a workshop on conservation and zoo education in Zambia in which he would invite all the conservation activers of Zambia and during that exercise determine their needs.Verity will contact other wildlife groups in Zimbabwe to see if they are interested and would support an initiative for a regional network.Sabine will contact research institutes in Africa and determine their interest in the kind of tools and processes CBSG has developed. Next week is the last week of classes at her University and she will try and speak to students before they leave.Sally and Sanjay will stay in touch with everyone individually through email and share their experience in running a CBSG network and also supply materials for distribution.Onnie will provide CBSG literature, a CAMP Manual, the CBSG Video and Slide Show and other printed material as required.

In conclusion, this initiative to investigate the possibility of initiating CBSG Regional or National networks for Africa will result in a list of taxa and subject areas which require the kind of attention CBSG and its tools and processes can provide. We can expect a series of workshops – perhaps throughout Africa – in future.

Disease Risk -- Management in Conservation Programs

Working Group members : Sue Mainka, Bill Conway, Sanjay Molur, Paul Ishaya, Paul Pearce-Kelly, Sabine Hilsberg, Phil Miller.

The group readily recognized the need for the development of systems for delivering and exchanging information on wildlife disease risks.

The need to step back a level or two and think about a larger scale, geographic approach to the disease / risk issue was recognised. Perhaps it would be valuable to construct a map in which the world's "disease hotspots" are identified and marked so that linkage relating the distributions of wildlife populations and their associated diseases can begin to emerge. This approach is similar to Norm Myers' original "biodiversity hotspot" approach and can benefit greatly from the prudent application of GIS data to the general effort. Of course, these maps would have to subdivided in some way to make the information more useful and relevant; this subdivision could be on the bases of species taxonomy, geographic distribution, etc. Such an approach appears, at least initially, to have considerable flexibility in the way data are tabulated and presented.

This idea brings to mind the difficulties in defining a "disease hotspot": does one define a "hotspot" based solely on the number of diseases affecting a particular taxonomic group, the types of diseases encountered, or should it be based on the characteristics of the diseases, such as their infectivity and pathogenicity? These are questions that must be addressed in a broader forum with greater direct expertise.

Moreover, this type of analysis appear to be better suited for in-situ considerations. How do we deal with diseases and their associated risks in the ex-situ world? While there are tools such as MedARKS available (through ISIS) for captive population analysis, this broad issue is clearly complex and requires additional thought.

The group discussed whether an ecosystem approach to this problem should be adopted. For example, how do different diseases affect a given group of taxa in different environments? This context must be explicitly considered when discussing disease risks in reintroduction and translocation programs.

Can we adequately define the "health" of a given population, species, or ecosystem? Moreover, are sufficient resources being routinely directed towards these types of assessments? (It would be wise to bring people into a discussion like this from Conservation International as they are gaining considerable experience in the rapid assessments of many ecosystems around the world.)

Based on these discussions, the group agreed to develop an overall goal statement for the broad field of wildlife disease management:
To monitor species and ecosystem health as a means to evaluate conservation actions
In order for this to be achieved, a step-by-step process should be employed whereby:
1. An awareness is created of the need for species/ ecosystem health monitoring;
2. Data on diseases and their associated risks are collected;
3. These data are then synthesized and analyzed to obtain useful information;
4. The resulting information is presented to the larger conservation community; and
5. Tools and the protocols under which they are to be used are developed and improved in an iterative process involving the earlier steps.

Bush Meat Crisis Working Group

John M Knowles (Convenor and Facilitator), Michael Ole Jorgensen, Frands Hjordt-Carlsen, Paul Ishaya, Peter Clark, Chris de Beer, Mary Talbot-Rosevear

At the 1999 Annual CBSG Meeting in Warmbaths, Pretoria, a Working Group convened to address the growing problem of global, unsustainable exploitation of Bushmeat. The growing demand for, and unsustainable utilisation of wild populations of animals for protein and/or for profit.

This is caused by :
Growth of human population including Urbanisation, Increased polarisation - increased affluence and poverty, Changes of lifestyles and consumptive expectations, Modern hunting techniques, Immigration/transient populations of people

Commercial exploitation including Commercialisation of the forest, Development of infrastructures/transport giving easy access to natural resources, Poor business ethics because of the failure of logging and other commercial companies to provide sustenance for employees, causing them to live off local bushmeat provided by the companies' hunters or the employees themselves, Failure of logging and other commercial companies to supervise and prevent their transport being used to carry Bushmeat.

Legislative and governmental including Lack of effective national, regional and international legislation and implementation, Ineffective enforcement of legislation, Corruption

Cultural including Changes in cultural and religious practices, breakdown of cultural taboos as they affect dietary habits, Loss of traditional respect for nature not yet replaced by nature ethics

Public awareness and education including Lack of environmental education and public awareness and Sparsity of alternative sources of protein and income.

GOALS for change include:
- Reduce pressure on target ecosystems and Bush Meat species
- Change environmental attitude of commercial exploiters of natural resources
- Reduce commercial market for unsustainable hunted Bush Meat species
- Enhance awareness of the human population in target countries of the plight of unsustainable hunted Bush Meat species.

ACTIONS for change include:
- Encourage end-consumers and consumer country

CBSG South Asia

This year at the Annual CBSG meeting the formation of CBSG South Asia was announced during the time allocated to CBSG India and CBSG Sri Lanka. The difference between South Asia and South East Asia was explained in detail and some basic facts about the zoos of South Asia were given as well as a brief review of the activities of CBSG, India and CBSG Sri Lanka. These reports will be given in full in the CBSG Newsletter, January 2000. It is hoped that the South Asian countries can eventually start functioning as a region of all the countries that have zoos just like the South East Asian region, the North American region, the Meso American region, etc.

governments to put pressure on product suppliers to reduce harmful impact on ecosystems.
- Improve forestry management and involve resource exploiting companies in environmentally sound planning.
- Develop Fair Trade policies between "south and north".
- Increase awareness in consumer nations of the environmental damage caused by the use of natural products from Bush Meat areas.
- Establish in country education programs to promote the sustainable use of Bush Meat.
- Enforce existing wildlife protection legislation on targeted urban Bush Meat markets to reduce commercialisation.
- Establish Community ownership of Bush Meat Resource.
- Educate hunters in sustainable hunting practices and promoting sustainable harvest of wild populations of animals.
- Develop alternative sources of income such as ecotourism; local craft industries, farming of endemic species, and other marketable species e.g. butterflies, beetles, fungi, medicinal plants and fruits.
- Farm selected Bush Meat species or alternative sources of protein.
- Encourage intensive management of endemic species

Encourage links between:
- IUCN initiatives relating to Bushmeat, including the Regional Sustainable Use Specialists Group, the IUCN Forest Programme and the IUCN Regional Office for Central Africa.
- Bush Meat Crisis Task Force (next meeting in Washington DC, November 1999).
- EAZA Bush Meat Interest Group
- UK Government's Tropical Forest Forum's sub group on Bush Meat.
- National and regional accredited zoological associations and their members
- The Ape Alliance
- Encourage participation of CBSG in the Bush Meat Work Shop under the auspices of the Centre of Applied Biodiversity Science in Ghana, December 1999 and a future CBSG Work Shop on Bush Meat in West - or Central Africa in the year 2000.

CBSG Steering Committee Notes

The CBSG Steering Committee met on 14 October 1999 just before the Annual Meeting in Warmbaths, South Africa. Attending were Brad Andrews, Gerald Borin, Koen Brouwer, William Conway, Nate Flesness, Suzanne Gendron, Jo Gipps, Bernard Harrison, Charles Hoessle, Bengt Holst, John Knowles, Chris Larcombe, Jeremy Mallinson, Susan Mainka, Gus Mills, Sanjay Molur, Pisit na Patalung, Christian Schmidt, Lee Simmons, P.R. Sinha, Harrie Vredenburg, Sally Walker, Onnie Byers, Susie Ellis, Phil Miller, Ulie Seal, Dave Wildt.

The glossy magazine which was originally intended to become a zoo magazine representing the global zoo community has changed its name from *Sanctuary Magazine* to *Endangered Species Magazine*. *It* will feature CBSG and the recent giant panda workshop conducted by CBSG in the next issue.

A video tape has been made of a PHVA conducted by CBSG in Australia. Its impact has been substantial among people who want to learn more about the CBSG process, both inside and outside the zoo community. Can be obtained from CBSG.

Zoo Conservation Planning Workshops
These workshops represent a new area of CBSG core competency and will become a very active realm for CBSG which is deepening the sophistication of the process so that they can help institutions develop a zoo-wide conservation culture. Charles Hoessle of St. Louis zoo and Chris Larcombe of Melborne zoo spoke about the effectiveness of these processes in getting their zoos on track. Sue Maienka, representing SSC commented on how helpful CBSG facilitation was in their own planning workshop.

Working groups were formed to discuss Agenda items :

IUCN POLICY ON CAPTIVE PROPAGATION
Process Needed To Meet IUCN Criterion: CBSG would develop/revise a policy, approved by the SC. Then submit it to the IUCN for approval by the Council. Outside review needed, CBSG responsible for coordinating the entire consultation process for the entire IUCN membership Also can make a position statement on this as an issue. This could be presented as a statement, not necessarily for approval.

FUNDING PRIORITIES WORKING GROUP
Five new and ongoing initiatives were identified which add significantly to CBSG processes and services to our zoo and aquarium community:
- Development of four new CBSG regional networks
- A new Program Officer for CBSG
- Completely redesigned CBSG Web site;
- Futures Search Workshop
- Annual Meeting participation for selected members of SC

REGIONAL NETWORK WORKING GROUP
Regional networks funded through CBSG ought to build on an established successful network. Two CBSG networks are currently at advanced stages and are ready to undertake expansion of their activity. These two programs can serve as approximate templates for future regional network development, recognizing that there will be regional differences.

WZO/CBSG/ISIS RELATIONSHIP WORKING GROUP
World Zoo Organisation, realising the difficulties of administering a global office is considering alternatives to the current arrangement. Currently the ISIS office (International Species Information System) is acting as W.Z.O.'s administrative office, maintaining member roster, distributing CIRCC minutes, invitations, etc. This arrangement is not entirely satisfactory either to ISIS which has a full load of its own work or to WZO which needs to be more proactive in coordinating conservation activities of zoos. Several alternatives were discussed, including having CBSG assist WZO with their conservation activities, having a Secretariat at London Zoo, etc. or to have the Secretariat/Directorate in London dealing with administration with the conservation issues focused from CBSG office, using CBSG for conservation and training.