

WAZA Initiative to Engage Poorly Maintained Zoos

Introduction : Last year a CBSG Working Group convened on the topic of substandard zoos and created a statement of encouragement and appreciation to be presented to the World Association of Zoos and Aquariums. The statement was designed to assist WAZA to bring forth an initiative to address the contentious subject of bad zoos. The statement, and some points, were presented at the Welfare and Ethics Committee meeting of WAZA at which a report on successful visits to the infamous bear park pits of Japan by Ed McAlister and David Jones was given as well. Also Sally Walker gave a technical presentation at WAZA on the issue representing the South Asian Zoo Association and Zoo Outreach Organisation, members of WAZA, and adding some of the input by CBSG. WAZA set up a working group on the topic which was tasked with drafting a policy document at the Bern mid-year meeting. This is to be presented to the WAZA council after tackling a few other issues. The topic and report by the CBSG working group was taken by Walker to the CBSG/RSG South Asia meeting, the SAZARC meeting and inspired discussions which were notable by their honesty and depth on an issue that is decidedly uncomfortable for many zoos attending to confront. The issue was also raised at the PAAZAB meeting in Gonubie, South Africa with a two-session working group and technical presentation by Walker also with good results. It is very likely that this initiative will be formally adopted by WAZA. We do not want to comment on their Draft at this stage of its development as it should be left to their Council and Association members, but looking ahead to the future, it is felt that ways of bringing forth the issue and presenting it to the public without rocking the ark, so to speak, should be explored by a working group at CBSG this year. Members of last year's group have indicated interest in continuing to input.

After reviewing the work done by a CBSG working group in the 2005 Annual Meeting and its result of WAZA addressing the issue of substandard zoos as a WAZA project, the Working Group was tasked with discussing the following questions

1. Other than zoos, who can assist sub-standard zoos meaningfully, effectively and constructively ?"
2. If people are taught how to identify what a good zoo is, will this help adjust their perspective towards zoos.
3. If people are better informed about what a good zoo is, can they be involved in improving sub-standard zoos?
4. If a visitor can identify a bad zoo, can they help? If so, we need to educate visitors on how to do this without creating more problems than they help to solve.
5. Is there a potential for creating a situation in which a substandard zoo with some good programs was made to close "good" zoo with not so good programs staying open?

Sally Walker requested feedback from the group on a zoo education packet she had created for distribution during Wildlife Week in India. She had also drafted another educational packet which included a basic evaluation form designed for visitors to help them understand what is expected of a zoo, and wanted feedback on that also.

General Approach of the Working Session was to

- a) Brainstorm if public can be useful,
- b. Create pros and cons list and
- c) how do we inform them and how to say it

In the brainstorming session some ideas put forward were

- Regarding zoo legislation, over-regulation could stifle zoos. Depending on the country, legislation could be good or bad. Public involvement could also affect self-regulation by national or regional associations.
- Regarding public involvement, it is possible that the public could begin over-criticizing even good zoos unnecessarily. Causing public focus on quality of zoos could distract them from paying attention to conservation efforts and shift emphasis from conservation to welfare. Negativity with topic could push people to police zoos rather than have them support positive zoos and programs. An evaluation form could possibly be used as a weapon by anti-zoo groups against good zoos, nevertheless it was felt that public education is critical.
- Regarding regional and national associations involvement in this issue, it was felt that a zoo which is criticized could turn against relationships with the associations (e.g. WAZA) that support zoo evaluations. These could be perceived merely as a source of negative publicity and lead to isolation of the zoo from the global and regional zoo community.
- On the positive side, the public could create societies in support of zoos to help them improve and there are many good examples of that. Public could also be guided to contact regional and national zoo associations who could help mentor bad zoos to improvement. Good communications is important. It was felt that giving the public information on how to help to improve zoos and not just identify bad zoos was crucial. Tell them where to go and what to do. Give them tools for positive public engagement. Have the public join associations related to zoos that need improvement as a way to invoke change.
- We should communicate the benefits of taking a positive approach by trying to help zoos improve rather than merely condemning them. This is critical to avoid massive zoo closures that would result in the need to relocate animals, a task that could be placed on already burdened "good" zoos. If good zoos are not able to support this task, they would be inadvertently perceived by the public in a negative way. Displaced animals such as those from circuses need to be cared for such as in the creation of rescue centers as has been done in India.
- Through education the public can be taught what is good and bad, helping them realize that what may appear to be a "bad" zoo may be doing many positive things. Encourage improvement at every level. Intent of program is not to categorize zoos in black-and-white, but rather to define minimal standards which zoos cannot go below, such as traveling menageries which are not acceptable. Other criteria are good to have but not critical. All zoos will have

something not “good” with them but it must all be seen in perspective. These standards will vary from region to region.

- Public reading material may initially convey criteria in black-and-white. Need to identify how that occurs and address it in education material to avoid that tendency. Be explicit in materials that all zoos have good and bad aspects and to take that into consideration. Want to encourage the public to contact an appropriate organization to invoke change.

- Sally made the observation that in a visit to the River Banks Zoo in Columbia, her aunt indicated the zoo was bad because animals were located so far from visitors! This is despite the fact that Riverbanks is considered an excellent facility. This highlights the importance (and difficulties) of educating the public properly.

- As a zoo community we should be able to influence positive improvements in legislation. This varies from country to country. AZA is trying to avoid legislation, which may inhibit creative and constructive development, by keeping high criteria and standards for its membership. Conversely, India has very strict zoo legislation which zoos may complain about but it has drastically improved the quality of zoos, and even the zoos do not deny this.

- Involve governments in developing evaluation programs so that they can participate and can be aware of the effort. Zoo associations only represent a small portion of overall

zoos but carry the burden of taking the conservation message to the entire public. Let zoos know about evaluation campaigns before launching so they have the opportunity to improve. Such campaigns may not be seen positively in all cases. Could lessen chances of non-members becoming members (they may no longer want to join, or they may not meet established evaluation criteria).

Animal exchange and substandard zoo issue

- Overall issue of whether animal exchange approvals should be given to/from zoos which are not considered “good”, are not part of an association, or does not have a desire to belong to an association. Regional organizations should be consulted because they may be aware of such zoos and their quality.

- How stringent standards are established/adhered to will vary by region so does not necessarily guarantee association approval for animal exchanges despite overall reputation of zoo. Also depends on what type of animal is being exchanged.

- Dealers sometimes create a small zoo to obtain validation for inclusion into associations.

- Established zoos may breed animals for commercial rather than conservation purposes which cannot be readily identified.

- Need recent validation of zoos before exchanges can be approved to avoid bad zoos getting additional animals.

Pros and Cons of Zoo Evaluations		
Ref	Pros	Cons
1	Forces improvement or closure.	Can visitors identify a poor zoo?
2	Strong influencing force	Affect attendance and finance
3	Could enact positive legislation	Dangerous to over-simplify
4	Could enable self-regulation	Can over-influence legislation
5	Guard against anti-zoo publicity	Over-critical of “good” zoos
6	Creation of a support group could result	Shift conservation focus to welfare
7	Help public interact with local zoo association	Could be influenced by anti-zoo publicity
8	Public education gives tools for positive action	Could break links to formal zoo support groups
9	Improve public perception of animals in general with positive conservation impact	Focus on negative aspects of zoo’s work
10		Could place a burden on good zoo if zoos close

Positive Action(s) to Address ‘Con’ Items	
“Con” Ref #	Proposed Solution
1, 3, 4, 5, 6, 9	Identify the key points of both good and bad practices regionally that you want the public to recognize.
2, 3, 6	Clearly identify the action you want the public to take, e.g. form a support group, contact an appropriate organization; support efforts to improve; have the public write letters to the government to provide funding for government-operated zoos.
4	Depending on the region, zoo associations should work with legislative authorities.
7, 8	Campaign of positive zoo practices involving zoo associations.
10	Focus on positive support and improvement rather than closure.

WAZA Resolutions from 2006 Annual Meeting, held in Leipzig, Germany

WAZA Resolution on the Amphibian Ark

Background

Recognizing that addressing the amphibian extinction crisis represents one of the greatest species conservation challenges in the history of humanity, WAZA, at its 2005 annual meeting in New York City, passed a resolution committing itself and urging its members to address this crisis. It also pledged itself to liaise with IUCN and CBSG to facilitate the first phase of involvement. From this, WAZA and CBSG have been working in partnership with the Amphibian Specialist Group (ASG) to implement components of the IUCN Amphibian Conservation Action Plan (ACAP). This is in the context of a developing an Amphibian Survival Alliance – a broad high-level stakeholder group representing both *in situ* and *ex situ* interests.

The ACAP identified to the world that hundreds of species would become extinct without immediate *ex situ* management. This is seen as a 'stopgap' component of an integrated conservation strategy unfolding over a number of years. The IUCN considers that "All Critically Endangered and Extinct in the Wild taxa should be subject to *ex situ* management to ensure recovery of wild populations." (IUCN, 2002) Comparable calls to action are included in the Global Amphibian Assessment and other IUCN documents.

Resolution on the Amphibian Ark

AWARE that more than 120 amphibian species have likely become extinct since 1980, and that about one third of the extant 6000 species are threatened with extinction;

RECOGNIZING that addressing the amphibian extinction crisis represents one of the greatest species conservation challenges in the history of humanity;

CONSCIOUS of IUCN – The World Conservation Union's recommendation that all Critically Endangered and Extinct in the Wild taxa should be subject to *ex situ* management to ensure recovery of wild populations;

ADOPTING the values of maximum cooperation, sharing of resources and expertise, and an imperative for prompt action;

THE WORLD ASSOCIATION OF ZOOS AND AQUARIUMS:

AGREES to join with CBSG and ASG to form, support, and develop an Amphibian Ark initiative to fulfil the *ex situ* components of the IUCN Amphibian Conservation Action Plan. The Amphibian Ark mission is the management of amphibian taxa *ex situ* to ensure long-term survival in nature. There is a presumption in favour of in-country conservation activities. The remit is to encourage, facilitate and help fund practical delivery of *ex situ* programmes through partnerships, involving national governments, regulatory authorities, and other stakeholders including the private sector.

CALLS upon all of its members and partners to support and participate in this initiative in whatever way they can.

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WAZA Recommendations on Avian Influenza

Background

Highly pathogenic avian influenza (HPAI) is an extremely contagious viral disease of domestic birds that can affect all species of birds. It is also known to have infected a range of wild and domestic species of mammals (including civets, ferret, beech marten, domestic cat, clouded leopard, leopard, tiger) and humans, and has experimentally been transmitted to mice, rats, rabbits and crab-eating macaques. The disease is caused by the Influenza A virus (Family Orthomyxoviridae), which can be divided into subtypes on the basis of distinct haemagglutinin antigens (H1-H16) and neuraminidase antigens (N1-N9). It is a notifiable disease under the Terrestrial Animal Health Code of the International Organisation for Animal Health (OIE), thus notifiable by law in the 167 Member Countries of the OIE. The Code defines notifiable avian influenza as an infection of poultry (i.e. not of wild birds!) caused by any influenza A virus of the H5 or H7 subtypes or by any AI virus with an intravenous pathogenicity index (IVPI) greater than 1.2 (or as an alternative at least 75% mortality). Notifiable avian influenza can be divided into highly pathogenic and low pathogenic notifiable avian influenza. Highly pathogenic avian influenza (HPAI) may result in a mortality rate of 100% within a poultry flock. These viruses have been restricted to subtypes H5 and H7, although not all viruses of these subtypes cause HPAI. All other viruses cause a much milder low pathogenicity avian influenza (LPAI) consisting primarily of mild respiratory disease and egg production problems in laying birds, or being completely inapparent.

From 1959 to 1998, only 24 distinct outbreaks of HPAI from domestic poultry have been reported. The total number of birds involved in all outbreaks over this 40-year period was approximately 23 million. But the years 1999-2004 have witnessed six outbreaks that resulted in a considerable socio-economic impact (e.g. 1999/2000 in Italy, 2003 in the Netherlands and in Germany) and the unprecedented outbreak currently affecting several Asian countries. The USA, Canada, Chile and some African countries have also recently experienced HPAI disease outbreaks. From 1999-2004 over 200 million domestic birds have been affected by the disease. With the exception of some countries, where the disease in domestic poultry is not yet under control, a rigorous stamping out policy was applied by national authorities. This strategy included in general the rapid culling of infected poultry and those suspected of being infected together with the implementation of movement restrictions for live poultry and poultry products, increased monitoring and biosecurity measures.

HPAI is considered to have been spread between countries by a number of different known vectors, including through the movement of avian livestock and bird by-products, legal and illegal trade in birds, equipment associated with these

respective industries, movement of people, and migration of waterbirds.

The genetic pool for AI viruses is primarily in the aquatic birds responsible for the perpetuation of these viruses in nature. It still is a matter of debate whether HPAI viruses are normally present in wild bird populations, or whether they arise only as a result of mutation after H5 or H7 LPAI viruses have been introduced to poultry from wild birds. The unusual situation of endemicity which is present in some Asian countries suggests a spill over of HPAI of the H5N1 subtype to the wild bird population. This situation has never occurred in the past, and therefore the consequences of this epidemiological situation are unpredictable. Until now, the limited number of known human infections with H5N1 virus has been through close contact with, or possibly by consumption of, infected poultry and none through contact with wild birds. If however the virus were to change its characteristics and to spread between humans, the result could be a pandemic with millions of victims. However, nobody can predict whether such changes will happen.

Although, traditionally, legislation of most countries did not address avian influenza in wild birds, veterinary services, noting the pandemic potential of the H5N1 strain, have started monitoring the disease in wild birds and implementing protection measures also in the case of the presence of the virus in other species than farmed poultry. In Europe the legal basis for the new approach is Council Directive 2005/94/EC of 20 December 2005 on Community measures for the control of avian influenza, which repealed the previous Directive 92/40/EEC.

Current approaches to control the disease may refer to both HPAI and LPAI infections and include: surveillance of bird species other than domestic poultry; early detection of possible spread of avian influenza to mammals; notification of surveillance measures and outbreaks; emergency measures applicable to holdings where outbreaks are suspected; killing of all poultry and other captive birds, disposal of carcasses and eggs, and disinfection of the premises under official supervision, in holdings where outbreaks are confirmed; establishment of protection, surveillance and further restricted zones around affected holdings.

Routine vaccination, although technically possible and effective, continues to be prohibited in many countries. Such countries may, however, have provisions for emergency vaccinations, grant certain derogations, or introduce preventive vaccinations on the basis of a risk assessment.

Recognising that avian influenza has always occurred, and will continue to occur, in wild birds (although the incidence is usually very low), that WHO, FAO and OIE have concluded that attempts to eliminate HPAI in wild bird populations through lethal responses such as culling are not feasible and may exacerbate the problem by causing further dispersion of infected birds, that it is technically impossible to keep wild birds out of zoological institutions, and that zoological institutions need to keep birds of wild species in order to play their important role in conservation

communication, education and public awareness (as stressed by resolutions of the Conferences of the Parties of the Ramsar Convention and Convention on Migratory Species), legislation tends to be somewhat more flexible with regard to zoos than legislation relating to other highly contagious diseases, such as foot-and-mouth disease, African swine fever and so on. It may thus be possible for a zoo to be granted certain derogations (e.g. to be allowed to vaccinate preventively, or not have to kill the entire collection in the case of an outbreak at or near the zoo) under specified conditions. These conditions may include, among other things, restrictions of the transfer of vaccinated birds to other holdings.

References:

- Convention on Migratory Species (2005). Res. 8.27 Migratory Species and Highly Pathogenic Avian Influenza, adopted at Eighth Meeting of the Conference of the Parties to CMS (COP 8), 20 - 25 November 2005, UNEP Headquarters Gigiri, Nairobi.
- European Association of Zoo and Wildlife Veterinarians (2004) Transmissible Diseases Handbook, 2nd edition. Houten NL.
- European Food Safety Authority - AHAW (2005). Scientific Report - Animal health and welfare aspects of Avian Influenza. Annex to the EFSA Journal (2005) 266, 1-21.
- European Union (2005) Commission Decision 2005/731/EC of 17 October 2005 laying down additional requirements for the surveillance of avian influenza in wild birds. OJ L 27/93 of 20.10.2005
- European Union (2006) Council Directive 2005/94/EC of 20 December 2005 on Community measures for the control of avian influenza and repealing Directive 92/40/EEC. OJ L10/16 of 14.1.2006
- OIE (2005) Terrestrial Animal Health Code. 14th edition. Paris.

Resolution on Avian Influenza

RECOGNIZING the potential risk of transmission of Highly Pathogenic Avian Influenza (HPAI) from wild birds, in particular waterfowl, to birds kept in zoological institutions;

MINDFUL that the zoos' role in environmental education may require to exhibit birds under conditions, contact with wild birds cannot effectively be excluded;

CONCERNED about the impact an outbreak of HPAI in or near a zoological institution could have on the well-being of the birds in the collection, the functioning of conservation breeding programmes and the economy of the institution affected;

AWARE that legislation to control HPAI may provide for derogations or special conditions applicable to zoological institutions;

CONVINCED that, in spite of the limited knowledge about the efficacy and safety of current vaccines in non-domesticated species, appropriate preventive vaccination has more advantages than disadvantages, and that vaccination with an inactivated vaccine should be applied where allowed and appropriate to protect zoo birds likely to enter into contact with possibly HPAI infected wild birds;

THE WORLD ASSOCIATION OF ZOOS AND AQUARIUMS RECOMMENDS:

ASSOCIATION MEMBERS should

- ☐ maintain a regular dialogue with the national veterinary services of their respective countries with a view of providing input into the legislation process and exploring the possibility of regulations being applied to zoological institutions that will take into account the special situation under which these institutions have to operate ;
- ☐ inform their constituencies of current regulations and any existing derogations for zoological institutions;
- ☐ advise their constituencies to head for common approaches and to coordinate such approaches as appropriate.

INSTITUTION MEMBERS should

- ☐ assume that all bird species are susceptible to HPAI and not only those that may be addressed by current legislation;
- ☐ maintain a regular dialogue with the veterinary authority responsible for supervising the institution;
- ☐ implement, and have approved by the competent veterinary authority, a health surveillance plan covering the entire collection;
- ☐ apply strict quarantine measures when introducing birds into the collection, even in the event of these birds not being imported from a third country;
- ☐ explore the possibility of the institution being subdivided into different compartments for the purpose of animal health measures;
- ☐ apply biosecurity measures as appropriate within the institution;
- ☐ take special precautions to avoid the spreading of any infection from one compartment to another, in case the institution has been subdivided;
- ☐ develop and have agreed by the competent veterinary authority contingency plans to be implemented in the event of a HPAI outbreak in or in the neighbourhood of the institution;
- ☐ explore the possibility and assess the advantages and disadvantages of vaccinating those birds in their collection that are likely to come into close contact with wild birds, in particular waterfowl;
- ☐ be mindful within regions with a recognised HPAI outbreak not to use poultry or fresh poultry products of unknown origin as feed for carnivores;
- ☐ reflect that all carnivore species as well as other mammalian groups such as insectivores, suidae, primates etc. are likely to be susceptible to HPAI.

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Resolution on Global Climate Change

Background

IUCN – The World Conservation Union states that global climate change is one of the most pressing concerns of the 21st century. Warming temperatures, changing rainfall patterns, increased extreme events and sea level rise are already being observed and will have serious implications

for economies, society and the environment. Reducing greenhouse gas emissions to limit future climate change and improving the capacity of the world's biodiversity and poorest communities to adapt to its inevitable impacts are the two central challenges.

It is expected that the number of species requiring conservation help will increase dramatically as the effects of climate change are understood with greater clarity and focus. There are three distinct and focused areas of work where it is believed that the zoo and aquarium community is not currently incorporating the likely effects of climate change sufficiently into its thinking and activities:

1. Species Risk Assessment

Climate change dynamics must be more effectively incorporated into conservation risk assessment processes, including modelling tools and workshop methodology.

2. Zoo and Regional Collection Planning

Taxon advisory groups need to ensure that taxa threatened by predicted climate change impacts are given enhanced consideration in collection planning reviews at institutional and regional levels.

3. Zoo Community Commitment to Climate Change Mitigation.

The global zoo and aquarium community should assume a leadership role, through exemplary daily operational activities, in environmental sustainability, particularly in achieving a sustainable reduction in greenhouse gas emissions.

The global zoo and aquarium community should also initiate and sustain a long-term, worldwide education campaign that focuses on issues of environmental sustainability, in particular Climate Change.

Resolution on Climate Change

RECOGNIZING the severity of the threats from climate change facing species, habitats and biomes around the world;

RESPONDING to a call for action formulated by the Conservation Breeding Specialist Group of IUCN – The World Conservation Union at its Annual Meeting in Halle, 24 – 27 August 2006;

THE WORLD ASSOCIATION OF ZOOS AND AQUARIUMS:

COMMITTS significantly to increase the quantity and quality of its actions to reduce global warming;

ALSO COMMITTS to a long-term, WAZA-led campaign to reduce the global greenhouse gas emissions generated by zoo and aquarium operations, and significantly to increase awareness of the threats to biodiversity from global warming.

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Heini Hediger Award

Council has decided to grant the Heini Hediger Award to our Colleague Prof. Dr. Gunther Nogge of Cologne Zoo.

In the past 25 years Gunther Nogge was one of the thriving forces in the zoo world behind the promoting of conservation as the main goal a zoo can and has to achieve. His major merits came through being part of the founding of the EEP in 1985, and just one year later after the first EEP behind the iron wall helped to found EAZA as a truly pan-European association. In the same organisation he lead the research committee, was 1988 founding member of ISIS and serves since 1991 as member of the steering committee of CBSG. 1993-1995 Gunther Nogge was WAZA president and initiated the two important Future search workshops in Cologne which were the base for another edition of the World Zoo and Aquarium conservation strategy. Cologne Zoo is recognized as a leader in in-situ conservation and has a strong Vietnamese conservation programme. Beside his job as zoo director he has and is serving on several boards of scientific and conservation organisations.

Name: Gunther Nogge

Dates: born 10.1.1942, married, one son
Riehler Strasse 199, 50735 Cologne

Education: Abitur Rethel Gymnasium, Düsseldorf 1962
Diploma in Biology of the Rheinische Friedrich Wilhelm University 1967
Promotion 1969
Habilitation for his research with Tse-tse flies 1978

Professional Development

1967-1969 Lecturer for Biology at the Collegium Cologne
1969-1973 Lecturer for Zoology and consultant for Kabul Zoo in Afghanistan
1973-1980 scientific assistant at the Institution for applied Zoology, University of Bonn
1980-1981 Professor at the Institute of Phytopathology, University of Kiel
Since 1981 Director of Cologne Zoo

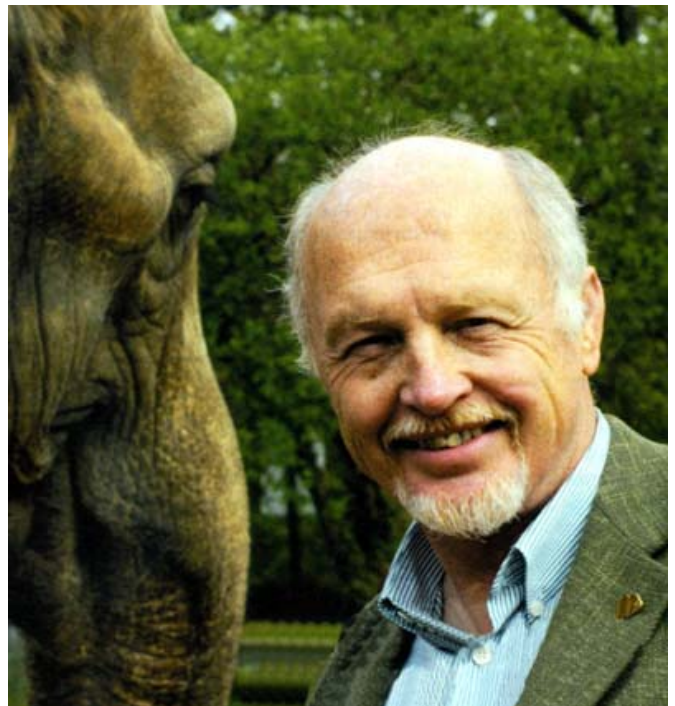
Working Fields

Parasitology
Entomology (Receiver of the Insect Physiology Prize)
Faunistik, especially Avifauna
Zoo Biology

Conservation and Zoo related activities

1990 First all German zoo directors conference in Cologne
1998 Founding member of EAZA, since then member of council
1998 – 2000 Chairman EAZA

1985 Co-founder of EEP
1987 – 1994 Chairman of the EEP Committee
since 1994 Chariman EAZA Research Committee
1993 – 1995 President WZO
Member of the Advisory Board of the World Zoo Conservation Strategy
1995 + 2000 Future Search Workshops in Cologne
1988 Founding member of ISIS, since then member of Board of Trustees
since 1991 Member of CBSG Steering Committee
1986 CBSG Annual General Meeting in Cologne
Formulation of Policy Statements on Captive Breeding
1989 Founding member and since then Chairman of German Committee Foundation King Mahendra for wildlife conservation in Nepal
since 1992 Member of International Advisory Panels of the International Zoo Year Book
1991 – 1999 Member of the scientific advising committee of IZW, Berlin
1996 – 1998 Member of scientific advising committee of WWF Germany
Since 2001 Member of advising board of the foundation of species conservation (Stiftung Artenschutz)



WAZA Guidelines on Access and Benefit Sharing

Background

The Convention on Biological Diversity

In 1992, a meeting of world leaders took place at the United Nations Conference on Environment and Development in Rio de Janeiro, Brazil. An historic set of agreements was signed at the "Earth Summit", including the Convention on Biological Diversity (CBD), the first global agreement on the conservation and sustainable use of biological diversity. Since then more than 187 countries and the European Union have ratified the agreement.

The CBD defines biological diversity as "the variability among living organisms from all sources, ... including diversity within species, between species and of ecosystems". It covers all ecosystems, species, and genetic resources. It affects all aspects of the work of zoos and aquariums. In particular it governs the way genetic resources are exchanged and used, and introduces obligations to obtain prior informed consent and share benefits arising from their use.

"Genetic resources" means genetic material of actual or potential value. "Genetic material" means any material of plant, animal, microbial or other origin containing functional units of heredity. The CBD links traditional conservation efforts to the economic goal of using biological resources sustainably. It sets principles for the fair and equitable sharing of the benefits arising from the use of genetic resources, notably those destined for commercial use. It also covers the rapidly expanding field of biotechnology, addressing technology development and transfer, benefit-sharing and biosafety. Importantly, the CBD is legally binding; countries that join it are obliged to implement its provisions. The CBD also offers decision-makers guidance based on the precautionary principle that where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat. It should be noted that all elements of the implementation of the CBD are predicated by the precautionary principle.

The CBD has three main goals:

1. The conservation of biodiversity,
2. Sustainable use of the components of biodiversity, and
3. Sharing the benefits arising from the commercial and other utilization of genetic resources in a fair and equitable way (Access and Benefit Sharing -- ABS)

The Bonn Guidelines

To provide further guidance on how to achieve the third objective of the CBD, the Conference of the Parties to the Convention adopted, in 2002, the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of Their Utilization. These guidelines aim at making available a transparent framework to facilitate access to genetic resources and ensure the fair and equitable sharing of benefits. They include two substantively different types of guidance: first to governments seeking to establish national legislation and regulatory or policy frameworks to address ABS; and, second to private users seeking access to genetic resources, and other stakeholders involved as providers of or users of genetic resources.

Management Tools and Codes of Practice

In order to assist industries and the scientific community in implementing the CBD and the Bonn Guidelines reference tools have been developed at national levels. For instance, a tool provided by the Swiss State Secretariat for Economic

Affairs is available on the web, a Code of good practice for academic research and genetic resources has been developed by the Swiss Academy of Sciences.

Voluntary approaches have also been developed by Botanic Gardens Conservation International (BGCI), to help botanical gardens implement the access and benefit-sharing aspects of the CBD. The BGCI's Principles on Access to Genetic Resources and Benefit-Sharing were particularly helpful when drafting this document, which is being provided to WAZA Members to create awareness of the requirements and implications of the CBD and makes recommendations as to address Access and Benefit Sharing issues.

How will CBD/ABS affect zoos and aquariums?

The provisions of the CBD have, to date, had little real impact on zoos and aquariums. However, this is likely to change, as the Parties to the Convention are now developing or reviewing their national legislation. WAZA members should, therefore, become prepared as each signatory country is expected and obliged to prepare national strategies to plan future biodiversity conservation.

The CBD will certainly offer WAZA Members new opportunities to play a significant role in biodiversity conservation activities in line with the World Zoo and Aquarium Conservation Strategy, such as research, in situ conservation, training, monitoring, advocacy, communication, education and public awareness, and cooperation.

The CBD affirms the sovereign rights of states over their genetic resources, a right that has not previously been recognized legally or subject to such international legislation. ABS results in new requirements for zoos and aquariums. These will apply to the collection from the wild and removal from range states of genetic resources and all derivations thereof. It should be noted that ABS requirements apply also to in situ research and the knowledge gained there from.

Article 15 of the CBD lays down the principle that access to genetic resources remains with national governments and therefore is subject to national legislation. The CBD leaves it thus up to individual national governments to decide how it is to be implemented. Based on national interpretation ABS requirements may also apply to circumstances such as genetic resources collected prior to the entry into force of CBD and to the latter transfer of such animals between institutions. It should also be noted that the term "access" has not yet been officially defined. Thus its meaning depends on national interpretation and may involve activities such as: entering a location where genetic resources are found; simple surveying activities, acquisition of genetic resources for scientific, educational, conservation breeding or other purposes.

Some of the processes to be introduced by national governments may initially seem unfamiliar and involve additional costs. However, in many cases the elements required by the ABS system will be integrated into existing formalities that must be fulfilled when exporting live animals, gametes or other genetic resources, or when carrying out research in foreign countries.

Core Commitments

Access to genetic resources by zoos and aquariums is subject to certain core commitments as enumerated in the following section.

1. Prior informed consent (PIC)

This refers to the advance solicitation of all relevant permissions pertaining to the genetic resource. Prior informed consent must be obtained in writing from the competent government authority, and from the relevant stakeholders, including local communities and indigenous peoples. All negotiations in this regard must be ethically concluded and transparent. Where access is obtained from an ex situ collection, including and through intermediaries, all documentation pertaining to transfer, including the appropriate PIC, must be available at all times. All PIC should include an unambiguous statement of intended use.

2. Mutually agreed terms (MAT)

MAT are negotiated in good faith by both users and providers, respecting the terms and understandings of prior informed consent, allowing benefits to flow to the owners, managers or custodians of the genetic resource, and facilitating access.

3. Benefit sharing

A fair and equitable sharing of the benefits arising from the utilization of genetic resources and associated traditional knowledge must be provided to support the compliance with the three objectives of the CBD. All benefits are shared fairly and equitably and are implemented in good faith with all those who have been identified as providers.

Examples of benefit sharing include:

"Access to and transfer of technology that is relevant to the conservation and sustainable use of biodiversity or makes use of genetic resources and does not cause significant damage to the environment.

"Exchange of information relevant to the conservation and sustainable use of biodiversity.

4. Conservation and sustainable use

Ex situ breeding of genetic resources must be conducted in a taxonomically discrete manner (e.g. no hybridization) that maintains the genetic variation of the population or diversity of the gene pool. Knowledge about biodiversity that arises from access to a genetic resource is shared in a manner that supports and enhances conservation management.

5. Traditional knowledge

Fair and reasonable effort must be made to preserve, respect and maintain a traditional knowledge associated with the genetic resources that are accessed. Adequate compensation and sharing of benefits are provided when traditional knowledge associated with genetic resources is accessed and used.

6. Community participation

Indigenous and local communities that are owners, managers or custodians of genetic resources, are relevant stakeholders, must be involved in decision-making on access and participate directly in benefits derived from collection and use of genetic resources.

7. Information and transparency

Information related to the genetic resources under consideration, including intended use, is shared in a transparent and open manner.

WAZA Guidelines

on Access to Genetic Resources and Benefit Sharing

WAZA Members should

"honour the letter and spirit of the CBD and national legislation relating to access and benefit-sharing, including those relating to traditional knowledge;

"ensure that all relevant personnel is familiar with the CBD and understand its provisions and implications;

"publicise the concept of access and benefit-sharing to their visitors and supporters;

"provide a full explanation of how the genetic resources will be acquired and used in order to obtain prior informed consent;

"obtain prior informed consent from the government of the country of origin and any other relevant stakeholders, according to applicable law and best practice when acquiring genetic resources from the wild or from other collections;

"evaluate available documentation and, where necessary, take appropriate steps to ensure that the genetic resources were acquired in accordance with applicable law and best practice;

"use and supply genetic resources and their derivatives on terms and conditions consistent with those under which they were acquired;

"acquire, and dispose of, genetic resources using written agreements, where required by applicable law and best practice, setting out the terms and conditions under which the genetic resources may be acquired, used and disposed of, and resulting benefits shared;

"share fairly and equitably with the country of origin and other stakeholders, the benefits arising from the use of genetic resources and their derivatives including non-monetary and monetary benefits;

"share benefits arising from the use of genetic resources acquired prior to the entry into force of the CBD, as far as possible, in the same manner as for those acquired thereafter.

In order to comply with these Guidelines, WAZA Members should:

"record the terms and conditions under which genetic resources are acquired;

"track and audit the use in the participating institution and benefits arising from that use; and

"record disposal to third parties, including the terms and conditions.

In terms of best practice, WAZA Members are encouraged to prepare, adopt and communicate an institutional policy setting out how they will implement these Principles.

WAZA Members are urged to develop and strengthen partnerships with institutions in other countries, particularly those that are rich in biodiversity but poor in resources and assist them in all ways possible to meet their challenges and obligations in implementing the CBD.

Adopted at the WAZA Administrative Session of 31 August 2006 - 61st Annual Meeting, held at Leipzig, Germany, August 27-31, 2006