

When travelling to another region, executive personnel of WAZA and association members are encouraged to liaise with the local association member executive office.

Members of the WAZA Network are encouraged to use the relevant association members' executive offices for due diligence and *bona fide* checking of institutions.

Partnership Agreements

Association members should consider entering into formalized partnership agreements with one another and should encourage their institution members to do the same with institutions from other regions. WAZA in collaboration with the association members will develop a template for partnerships between institutions..

In concluding partnership agreements association members should always prioritize capacity building initiatives and, in particular, should take consideration of the following:

- Access to information

- Transfer of skills and knowledge
- Reciprocal training of zoo and aquarium staff
- Staff exchange
- Cooperative *ex situ* management programmes
- Animal transfers between their constituencies
- Cooperative *in situ* conservation projects and programmes
- Collaborative marketing and fundraising efforts
- Joint meetings
- Reciprocal membership benefits
- Sponsorship

The sustainability and effectiveness of such partnership agreements is essential to their success. Therefore, a process for a regular evaluation of the relationship is recommended.

Adopted at the WAZA Administrative Session of 6 October 2005 – 60th Annual Meeting, held at New York City, USA, 2005

Ethical Guidelines for the Conduct of Research on Animals by Zoos and Aquariums

Background

Research in zoos encompasses a wide range of disciplines including: Behaviour, nutrition, ecology, reproductive biology, genetics, veterinary medicine.

Different forms of research carried out in the zoo/aquarium or by associated workers in the field, can be broadly categorised as **invasive** or **non-invasive**. Non-invasive examples include behavioural observations and the use of waste products for hormonal monitoring. Invasive research includes all that alters an animals' direct environment, either in captivity or the wild, or which requires the handling of the study animal(s).

Zoo biology has often been viewed as the 'poor cousin' of conservation biology, however, its potential to elucidate complex biological questions is now being recognised, as demonstrated by the increase of zoo and aquarium related studies in peer-reviewed journals and increasing requests for partnerships by universities. Zoos and aquariums should not lose out on this opportunity to participate in high quality research, published in peer-reviewed journals. By establishing clear standards for the ethical use of animals in research zoos and aquariums can provide the foundations for these aims.

Guidelines

Introduction

WAZA believes that conservation cannot take place in ignorance. If wild animals and places are to be preserved for future generations then systematic knowledge of individuals, groups and ecosystems is essential to those aims. This document offers guidelines by which individual zoos and aquariums can develop an ethical approach that best reflects the aims of WAZA and individual institutions. These guidelines provide a code of practice for the use of

animals in research in captivity and in the wild by zoos and aquariums and/or associated institutions.

Basic Principle

Zoos and aquariums must balance the welfare of Individuals against the conservation of species or ecosystems when assessing potential projects. The primary aim of the modern zoo and aquarium is one of conservation, and whilst this may be perceived as a 'greater good' and acknowledged as such, it does not imply that ethical considerations can be ignored.

Assessment of the Ethics of Research

To assess the ethics of research, zoos and aquariums may find it helpful to develop ethical review committees to evaluate proposed research, either undertaken in the organisation, by staff in the field or by staff of other associated institutions. The ethical review process must be open and transparent to all concerned. Consequently it is in the best interests of individual organisations that as wide a variety of disciplines as possible should be represented on this committee. There may also be times when the decision-making process must be open to public scrutiny. Local and regional associations may be able to provide documents to aid in this process such as that produced by the UK Zoos' Forum.

Legality

A pre-requisite of any proposed research is that it must comply with and adhere to all applicable legislation regarding animal welfare, research and the environment, including official codes of practice and international conventions.



Appropriate Research

Research carried out in or by Zoos and Aquariums must be

- valid,
- humane,
- justifiable, and
- considerate.

In the event of research causing pain, injury or distress, research is considered appropriate only if all options have been considered. The “the three R’s” of replacement (use of non-sentient alternatives), reduction (use of fewer animals) and refinement (use of less invasive techniques) should be applied.

Any research involving unreasonable pain must have a clear conservation benefit, whether conducted by staff/ associated researchers in the captive setting or in the field. Researchers must have a good working knowledge of their subject area, and thereby know whether the research proposed has been carried out elsewhere, and therefore not required (replacement). They should strive to ensure that the most appropriate methodology and statistical tests are used, which may result in fewer animals being required in the project (reduction), and they must also ensure that they apply the ‘precautionary principle’ in any such research, where if the procedure would cause pain to a human it should be assumed that it will cause pain to an animal (refinement).

As zoo/aquarium animals are generally on-show to the visiting public researchers must also give due consideration to the perceptions of the visiting public. There may aspects of project methodology which do not cause undue stress to animals that however, may appear inappropriate to the public, for example obvious identification markings. Well drafted public interpretation may mitigate some of this concern, however the public perception of research should be carefully considered before it is implemented.

Not Appropriate Research

The following points are applicable to all studies regardless of discipline and should inform the ethical review process at all times.

Unacceptable research includes;

- any study which causes lasting pain, injury or distress, either physical or psychological,
- any study which causes unreasonable pain with no clear conservation benefits (brief, painful events may be appropriate in some cases),
- erroneous research with no clear aims or benefits,
- research that is undertaken for human benefit only e.g. commercial or medicinal aims.

Monitoring

Once a research project has been approved it must be monitored throughout its course. This dynamic approach allows for modifications to the project, either to ensure the welfare of individuals or to counter difficulties of research methodology in practice. For research to be of benefit to the welfare and conservation community, accurate and

appropriate reporting of findings in appropriate publications is essential.

Euthanasia

Euthanasia may be an integral part of the management of animal populations. Research undertaken in conjunction with such action is acceptable. The highest standards, both legal and ethical, must be maintained when euthanasing any individual to ensure its welfare is not jeopardised.

Deceased Animals

Zoos and aquariums shall strive to ensure that biological material, whenever possible, is passed to the relevant researchers. In addition, researchers should liaise with zoo and aquarium veterinarians to ensure that opportunities to collect biological materials from living animals during routine procedures are not lost.

Research in Zoos and Aquariums by Third parties

Visiting scientists must be bound by the principles set forth in this document in addition to any other ethical guidelines approved by the zoo/aquarium. Whilst a number of zoos/ aquariums now employ their own research staff, most research carried out in zoos/aquariums is by third parties from universities, colleges and other academic organisations. This has a number of implications in that the captive facility may have a duty of care to that individual whilst in the facility (different legal standpoints will apply country by country). In addition much of this form of research is undertaken by relatively young students who may have had little contact with potentially dangerous animals. Therefore all visiting researchers must be briefed on the appropriate standards of behaviour required, both in relation to the animals and the zoo/aquarium staff, particularly when in off-show areas. This should also include clear guidelines as to where the responsibilities of the staff and the invited researcher lie. It must also be clear, and agreed by all parties, as to how any information generated by the research is disseminated.

In situ Research

Zoos and aquariums carrying out *in situ* research, should strive to prevent any detrimental effects to conservation areas, other environmentally sensitive areas, or wildlife. They should pay due attention to the **IUCN Policy Statement on Research Involving Species at Risk of Extinction**, approved by the 27th Meeting of IUCN Council, Gland Switzerland, 14 June 1989 (*Annex*).

Cooperation with Standard-setting Organisations

With a view to adjusting and improving the present Guidelines, the WAZA Executive Office shall liaise with the International Council for Laboratory Animal Science (ICLAS), The International Organisation for animal Health (OIE) and IUCN – The World Conservation Union.

Adopted at the WAZA Administrative Session of 6 October 2005 – 60th Annual Meeting, held at New York City, USA, 2005