

EAZA Research Standards



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Introduction

The European Association of Zoos and Aquaria (EAZA) is the largest professional zoo and aquarium association in the world. With over 400 Members in 47 countries, EAZA is the Membership organisation that sets the standard for progressive zoos and aquariums and other partners across Europe, Western Asia and beyond. EAZA and its Members continuously strive to define and demonstrate excellence in integrated species conservation through a transparent and collaborative approach to population management, wild animal care and welfare, representation with international organisations, conservation education, and scientific research. EAZA believes relevant and successful scientific research and training underpins EAZA Member activities in animal husbandry, population management programmes, animal welfare, education, wildlife conservation, and many other areas. The EAZA Research Committee aims to encourage every EAZA Member to engage in and contribute to high quality research in zoos and aquariums, and to promote their facilities as a venue for applied and academic research.

The EAZA membership is made up of lots of different physical sites of living collections. These include zoos, aquariums, safari parks, bird parks and wildlife centres. Within this standards document, the term “zoo” is used henceforth to indicate any EAZA Member institution.

Purpose

The EAZA Research Committee has developed the EAZA Research Standards to outline what is expected from EAZA Members in relation to research and to help guide, inform and provide a coordinated approach to research in zoos. This document is an update from the EAZA Research Standards 2003 and it will be reviewed by the EAZA Research Committee on a regular basis.

The importance of research in zoos and aquariums

Zoos are uniquely positioned to carry out research on a wide range of topics, including biological sciences, conservation, animal welfare, social sciences, education and environmental sustainability. Through research we can, for example, identify problems

or knowledge gaps and develop and implement efficient solutions. Research can be particularly valuable in terms of prioritisation and decision-making, for example for zoo management, animal husbandry, animal welfare and conservation. Zoos which actively participate in creating, communicating and employing scientific knowledge and evidence-based practice are integral to the understanding and conservation of animals, plants and their habitats. Through their visitors, zoos can measure the reach of their programmes, improve practice and contribute to a wider understanding of the role and value of both professional and informal science education.

Within the legal framework, the EU Zoos Directive encourages zoos to participate in research, particularly where conservation benefits accrue to a species. The Directive also endorses training in the relevant research skills and the exchange of information pertinent to species conservation, including breeding and reintroduction to the wild. EAZA encourages the integration of research as a component of management decisions across all fields within the institution to inform and facilitate evidence-based practice.

EAZA Research Standards

To ensure that EAZA Members are constantly improving animal welfare and husbandry, education, research and conservation, a shared set of Standards and documents will help the Members to work together and to fulfil the mission of EAZA and its Members. The EAZA Research Standards aim to increase the involvement and the output of EAZA Members in their research activities and set out what is minimally expected from the Members. EAZA Members are obliged to comply with the provisions set out in these Standards. EAZA acknowledges the diversity of zoos within its membership and recognises that the scale of research activities in each EAZA Member should be proportional to the size of its operations.

The EAZA Research Standards are listed below, each followed by a brief elaboration to help guide EAZA Members in achieving each of the Standards.

1. Zoos must identify and document research policies and priorities.

EAZA understands that research policies will vary between institutions and formats will differ; however, each institution must have a formal document encompassing the plans for the zoo's contribution to research. The document should include what the institution is hoping to achieve overall (mission), particular taxa or areas that the institution wants to focus on which may be based on expertise or interest (priority research areas) and who will conduct the research, internal or external and how the institution will develop those relationships (staff/collaborations). Examples include; research between zoo staff and external researchers, hosting students, provision of biological samples (e.g.

to the EAZA Biobank) or independent projects carried out at the zoo to answer specific questions related to for example animal husbandry and welfare, visitor experience and education.

2. Zoos must support the implementation of their research policy and create an expenditure plan for research purposes.

EAZA understands that funding will vary by institution and in some cases, this will not be a specific budget but may take the form of making available resources of staff time for the collection of samples, transport of samples etc., or to carry out behavioural observations. EAZA does not require a specific monetary contribution but does require that collections discuss and have a formal plan in place for how they will support research activities.

3. Zoos must have at least one member of staff with the necessary experience and qualification that is responsible for leading and implementing the zoo's research plan.

Scientifically trained staff are needed to develop and deliver good quality research. This can be achieved either by allocating staff time for research and related activities, e.g. animal care staff with a science background, or by employing a person trained in research skills (project design, methodology, analysis and scientific writing) as an established member of staff to realise the zoo's research policy.

4. Zoos should also contribute to the professional development of staff responsible for the implementation of research activities.

This may include supporting staff to attend or be actively involved in local, national, and international conferences and other meetings, to participate in courses, training sessions or workshops, or support self-guided learning by providing time and access to appropriate materials (e.g. books, peer-reviewed journals, internet access).

5. Zoos must make resources available to internal and external researchers to conduct effective research and to develop a thriving scientific culture.

Facilities in zoos which can be used for research will vary by institution; they may include but are not limited to providing access to animal enclosures, access to records and samples (e.g. through ZIMS or the EAZA Biobank), staff time allocated to sample or data collection, student (co-)supervision, laboratory space, library space, classrooms, meeting areas and offices provision of cameras, data loggers, computers, software for data analysis etc.

6. Zoos must provide opportunities for staff to keep informed about recent scientific developments in its broadest context, and use this to inform and improve zoo animal husbandry, population management programmes, education, conservation, and related activities, and guide future directions.

Institutions should develop a virtual or physical in-house library comprising relevant books, and scientific journals and/or publications, and should increase the library collection on an annual basis. It should be noted that this can take the form of a digital or print library but access to the library should be achievable for all relevant staff members. Zoos have access to the Journal of Zoo and Aquarium Research as a fully open access publication. EAZA also provides links to Best-Practice Guidelines for a variety of taxa as do other member organisations (AZA, BIAZA, etc.). Staff members should be made aware of all free resources available, e.g. relevant Open Access scientific journals, and institutions should consider purchasing necessary resources as applicable. In addition, regular zoos staff meetings should be used to provide staff with updates and useful information reported in scientific literature.

7. Zoos must perform and/or participate in scientific research and should contribute to peer-reviewed scientific publications.

While many kinds of scientific reports at different levels can be of considerable value, peer-reviewed publication is regarded by scientists as conclusive of rigorous research. Pursuing publication not only but also enables the dissemination of evidence-based practice, and whether a small-scale study or a multi-institutional project, this work may increase welfare and husbandry practices or increase knowledge of wildlife biology. If we fail to pursue publication, we risk the duplication of projects, inhibit the access of evidence-based best practice to the greater zoo and aquarium community and hinder our ability to showcase the value of zoo research to our own community, stakeholders, and to society.

8. Zoos must share research results and contribute to education, training and wider communications exercises.

Zoos across Europe and Western Asia need to develop communication networks for discussing research and sharing of research output. This can be achieved in a myriad of ways a few examples include; dissemination to staff members through talks and presentations at your institution, presentations at EAZA conferences and other national member organisations, collaborations with universities to

share research communications with staff and students, using social media platforms and institution website and newsletters to share findings. This can also be accomplished by contributing to Best Practice Guidelines or making student reports available. Students may conduct very useful research in zoos, and even unpublished student reports should be considered valuable and made available to the zoo and aquarium community. Zoos can also contribute to building research capacity generally by acting as training grounds for students. Most environmental, biological, veterinary and social science degree courses require students to undertake project work and zoos are attractive places to study and provide research training exercises.

9. Zoos should engage in collaborative partnerships within the zoo and aquarium community, and with academic and other science-based institutions and organisations.

Zoos can significantly increase their research potential by developing partnerships and acquire sufficient critical mass to undertake studies with representative sample sizes. EAZA encourages its members to develop partnerships with other zoological facilities, academic institutions, as well as other organisations with research resources/facilities. Developing external relationships can foster a collaborative approach to facilitating internal and external research within the zoo's collection. EAZA Members will need to invest in the development of the relationship and provide staff with the opportunity to visit and meet with collaborating organisations. Zoos are uniquely suited to provide a forum for research training at the undergraduate level and later build on that relationship to work with the university or research institute to carry out both basic and applied research studies. Zoos provide a unique opportunity for many types of studies not directly linked with the institution's own needs, e.g. studies on animal communication, cognitive abilities etc., which cannot be conducted or are difficult to conduct in the wild.

The importance of research to the zoo and aquarium community and the potential significance of zoos as a research resource for academics is well recognised and has clearly been summarised in the EAZA Research Strategy. The EAZA Research Strategy sets out a clear and purposeful research vision and mission and establishes primary objectives and detailed action plan for moving zoo research forward. The EAZA Research Strategy is an integral part of, and should, therefore, be read in conjunction with the EAZA Research Standards.