

EAZA Position Statement on the use of cryopreserved materials and biotechnology



Approved by EAZA Council 11 October 2024

Introduction

This position statement expresses the views of the European Association of Zoos and Aquaria (EAZA) on the use of cryopreserved materials and biotechnology for population management, reproduction, species conservation and other potential purposes. Use of biotechnology also extends to the manipulation of biological systems, living organisms, or derivatives thereof, at molecular and cellular levels. Cryopreserved materials and associated biotechnology may be applied to conservation efforts to improve genetic diversity and enhance the sustainability of species populations. Considering the increasing threats to biodiversity and the accelerating rate of species extinction, EAZA recognises the potential of cryopreserved materials and biotechnology as a valuable tool in species conservation efforts. **This position statement outlines our stance on the use of cryopreserved materials and biotechnology in species conservation, highlighting both its advantages and potential drawbacks**, along with key considerations for its current and future applications.

EAZA Position

EAZA supports cryopreservation and the subsequent use of cryopreserved materials as a conservation tool for safeguarding biodiversity and ensuring species survival. The technology and methods involved are evolving rapidly, offering exciting new possibilities for complementing traditional *ex situ* conservation management and progressing conservation research. The use of cryopreserved reproductive or somatic cells, in conjunction with for example, assisted reproductive techniques, provides promising additional opportunities for species conservation and the management of *ex situ* populations. However, EAZA also recognises that more species- or taxon-specific research should be undertaken to further develop methods and techniques such as artificial insemination, *in vitro* fertilization, oocyte retrieval and preservation, and cell line development using cryopreserved materials to advance biodiversity conservation and conservation management of extant species. **EAZA therefore also supports the responsible and conservation purpose driven use of biotechnology in population management and species conservation**, whilst simultaneously stressing the need for raising awareness of the complex ethical questions and concerns regarding its application.

EAZA believes that efforts to protect and recover extant species threatened with extinction should not be hampered or obstructed by using the limited resources available for conservation to save de-facto extinct species or bringing back long-lost species, or for creating hybrids between extant and extinct species. Until we fully understand, and can adequately address, the conservation needs of extant species, resources, time and expertise should be directed towards solving current challenges in biodiversity conservation.

EAZA does not endorse the use of zoo and aquarium held organisms, or samples derived from such, to assist in de-extinction efforts, nor does EAZA support holding or displaying organisms

born from such efforts. Furthermore, EAZA does not support the use of zoo and aquarium organisms as a source for gene-editing, or to create clones that may threaten the genetic composition of a population or species. Making zoo and aquarium organisms, or any biomaterials thereof (e.g., blood, tissue, hair, gametes, mucus), available for biotechnological applications that are controversial or ethically questionable, such as de-extinction, gene engineering, or cloning that does not support species conservation is therefore strongly discouraged.

EAZA recognises the transformative potential of the use of cryopreserved materials and biotechnology in species conservation and science but emphasises the need for a cautious and responsible approach. As technology and its applications rapidly evolve, ethical, ecological, animal health and welfare, and social considerations will be imperative to successfully integrate biotechnology with traditional conservation methods and facilitate efforts to preserve global biodiversity for future generations in an equitable and inclusive manner.

Additional information

More information on cryopreservation can be found in our background documents '[Cryopreservation of Reproductive Material and Cell Lines: Background, Benefits and Challenges](#)' and [Cryopreservation Glossary of Terms](#). EAZA Members and other interested parties are encouraged to contact the EAZA Biobank (biobank@eaza.net) in case of further questions.

About EAZA

Established in 1992, EAZA (www.eaza.net) is the world's largest regional zoo and aquarium association, with over 400 Member institutions in 48 countries including 25 EU Member States. EAZA facilitates cooperation within the zoo and aquarium community in Europe and Western Asia towards the goals of education, research and conservation, centred around the animals in our Members' care. Membership in EAZA is based on strict accreditation requirements.

The EAZA Biobank is the primary resource for genetically supporting population management and conservation research as well as connecting researchers to available samples. You can find out more at the website link above.

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