



# Position Statement

on research involving species at risk  
of extinction





# POSITION STATEMENT ON RESEARCH INVOLVING SPECIES AT RISK OF EXTINCTION

## Prologue

IUCN holds that all research on or affecting a threatened species carries a moral responsibility for the preservation or enhancement of the survival of that species. Conservation of the research resource is clearly in the interest of the researchers.

IUCN recognises that the taking and trading of specimens of threatened species are covered by international agreements and are normally included in national legislation which provides authorised exemptions for the purpose of scientific research.

Basic and applied research is critically needed on many aspects of the biology of animal and plant species at risk of extinction (e.g. those listed by IUCN as Vulnerable, Rare, Endangered, or Indeterminate) to provide knowledge vital to their conservation.

Other scientific interests may involve the use of threatened species in a wide variety of studies. Taking into account the importance of many kinds of research, as well as potential threats such species could be subject to in such activities, IUCN, after careful consideration, adopts the following statements as policy.

## Position

IUCN encourages basic and applied research on threatened species that contributes to the likelihood of survival of those species.

When a choice is available among captive-bred or propagated, wild-caught or taken, or free-living stock for research not detrimental to the survival of a threatened species, IUCN recommends the option contributing most positively to sustaining wild populations of the species.

IUCN recommends that research programmes on threatened species that do not directly contribute to conservation of the species should acknowledge an obligation to the species by devoting monetary or other substantial resources to their conservation, preferably to sustaining populations in the natural environment.

Whether animals involved are captive-bred, wild-caught, or free living, or whether

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plants involved are propagated, taken from the wild, or in their natural habitat, IUCN opposes research that directly or indirectly impairs the survival of threatened species and urges that such research not be undertaken.

## Protocols

In this context IUCN urges researchers to accept a personal obligation to satisfy themselves that the processes by which research specimens are acquired (including transportation) conform scrupulously to procedures and regulations adopted under international legal agreements. Further, researchers should adopt applicable professional standards for humane treatment of animal specimens, including their capture and use in research.

IUCN urges that any research on threatened species be conducted in conformity with all applicable laws, regulations and veterinary professional standards governing animal acquisition, health and welfare, and with all applicable agricultural and genetic resource laws and regulations governing acquisition, transport, and management of plants.



# **Guidelines on the Implementation of the “IUCN Position Statement on Research Involving Species at Risk of Extinction”, with special reference to Scientific Collecting of Threatened Species**

Version 1.0

This is Annex 1 of the “IUCN Position Statement on Research Involving Species at Risk of Extinction” as APPROVED BY THE 27TH MEETING OF IUCN COUNCIL, GLAND, SWITZERLAND, 14 JUNE 1989

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## **Guidelines on the Implementation of the “IUCN Position Statement on Research Involving Species at Risk of Extinction”<sup>1</sup>, with special reference to Scientific Collecting of Threatened Species (Version 1.0)**

*The IUCN Position Statement on Research Involving Species at Risk of Extinction<sup>2</sup> was approved at the 27<sup>th</sup> Meeting of IUCN Council, June 1989, and encourages basic and applied research on threatened species that contributes to the likelihood of their survival.*

*The current guidelines were called for in Resolution 3.013 "The Uses of the IUCN Red List of Threatened Species" of the 3rd World Conservation Congress in Bangkok in 2004, and Resolution 4.015 "Guidelines regarding research and scientific collecting of threatened species" of the 4<sup>th</sup> World Conservation Congress in Barcelona in 2008. These motions were tabled in response to an awareness that a) some governments are prohibiting the scientific collection of species included in the IUCN Red List and which may, in turn, be detrimental to the conservation of those particular species; and b) that many scientists are increasingly reluctant to provide data to the Red List process, due to the risk that the listing of a species in one of the threat categories will, in some cases, lead to government restrictions on scientific collecting or a requirement for expensive research permits. The current guidelines are, therefore, intended to better guide the development and implementation of legislation in response to the listing of a species by IUCN in a threatened category. They are also intended to promote responsible collecting of threatened species by researchers. These guidelines do not address the specific issue of taking live individuals (both whole organisms and 'living tissues') from the wild for maintenance in ex-situ collections<sup>3</sup>.*

*The guidelines focus solely on scientific collecting of threatened species (recognizing that such collecting is seldom the cause of the species becoming threatened in the first instance), and are not intended to represent comprehensive IUCN guidelines on the complex topic of collecting in general. These guidelines are developed mindful of the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity, adopted by the Conference of the Parties to the Convention on Biological Diversity at its tenth meeting on 29 October 2010 in Nagoya, Japan<sup>4</sup>. All scientific collecting should take place in accordance with the provisions of the Nagoya Protocol.*

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<sup>1</sup> [http://intranet.iucn.org/webfiles/doc/SSC/SSCwebsite/Policy\\_statements/IUCN\\_Policy\\_Statement\\_on\\_Research\\_Involving\\_Species\\_at\\_Risk\\_of\\_Extinction.pdf](http://intranet.iucn.org/webfiles/doc/SSC/SSCwebsite/Policy_statements/IUCN_Policy_Statement_on_Research_Involving_Species_at_Risk_of_Extinction.pdf)

<sup>2</sup> [http://intranet.iucn.org/webfiles/doc/SSC/SSCwebsite/Policy\\_statements/IUCN\\_Policy\\_Statement\\_on\\_Research\\_Involving\\_Species\\_at\\_Risk\\_of\\_Extinction.pdf](http://intranet.iucn.org/webfiles/doc/SSC/SSCwebsite/Policy_statements/IUCN_Policy_Statement_on_Research_Involving_Species_at_Risk_of_Extinction.pdf)

<sup>3</sup> A process is currently underway to revise the current IUCN Technical guidelines on the management of ex situ populations for conservation ([http://intranet.iucn.org/webfiles/doc/SSC/SSCwebsite/Policy\\_statements/IUCN\\_Technical\\_Guidelines\\_on\\_the\\_Management\\_of\\_Ex\\_situ\\_populations\\_for\\_Conservation.pdf](http://intranet.iucn.org/webfiles/doc/SSC/SSCwebsite/Policy_statements/IUCN_Technical_Guidelines_on_the_Management_of_Ex_situ_populations_for_Conservation.pdf))

<sup>4</sup> <http://www.cbd.int/abs/>

The IUCN Species Survival Commission recommends that:

**1. Research and threatened species.** In the spirit of the *IUCN Position Statement on Research Involving Species at Risk of Extinction* (IUCN, 1989), governments and research institutions should encourage and facilitate research on globally threatened species by competent scientists to enhance understanding of the natural history and conservation needs of these species. Successful conservation programmes focusing on globally threatened species will normally need to be fully integrated with dedicated research programmes on these species, ideally led by scientists from the country or countries where the species occurs. In some cases, such research may require the collection of scientific specimens.

**2. Legislative procedures.** Blanket prohibitions on research and the collection (including lethal collection) of scientific specimens of globally threatened species can hinder conservation efforts, and it is recommended that governments should avoid imposing them unless essential. Although careful review of any scientific research application is important, complex or time-consuming procedures for issuing research, collecting and (in the case of specimens moving across international borders) export / import<sup>5</sup> permits may discourage the implementation of such research. Permit-issuing agencies should attach high priority to the timely review of applications related to threatened species. Where appropriate, SSC encourages involving the national conservation community in an advisory role for permit decisions. Conversely, scientists should be aware that many permit-issuing agencies have very limited capacity and resources, and so applicants should understand the process for issuing permits and apply in a timely manner.

**3. Non-lethal collecting.** Much modern research involves analysis of material collected non-lethally from animals, plants and fungi, including body fluids, faeces, hair, feathers, scales, seeds, roots, and leaves. Governments are encouraged to minimize the administrative burden involved in the issuing of permits for non-lethal samples of species that IUCN has listed as threatened.

**4. Responsible collecting.** Scientists working on globally threatened species should act responsibly to ensure that their research is either directed towards enhancing the conservation status of the species that they are studying, or providing important information that will assist in the conservation of the species. They should ensure that:

(a) the material they need is not already available in museum or other institutional collections;

(b) they do not collect more than the minimum number of specimens necessary for the accomplishment of their research;

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<sup>5</sup> Including export, re-export, import and introduction from the sea

(c) they use non-lethal sampling methods instead of lethal collecting when the research objectives allow this, and employ preferential collection of post-reproductive individuals (or the life stage with the least reproductive value) when lethal collection is essential for enhancing the survival prospects of the species;

(d) they place all specimens collected in institutions where they can be preserved in perpetuity and be made available to other scientists, thus limiting the need for further collections; and

(e) they submit copies of reports and publications based on their research in a timely manner to permit-issuing agencies.

Several professional societies produce and regularly update guidelines regarding the use and treatment of wild species in research<sup>6</sup>, including scientific collecting, and scientists should consult and comply with these guidelines (and, obviously, any collecting must be in full accordance with the laws and regulations of the country, state, or province where the collecting is being conducted).

**5. Small populations.** In the case of species listed as Vulnerable under criterion D1 (less than 1,000 mature individuals and stable), or Endangered under criterion C (less than 2,500 mature individuals and declining), scientists should provide evidence to permit-issuing agencies that the number of specimens that they wish to collect lethally is very unlikely to increase the risk of extinction of the species in question, and that the research proposed is essential for assisting in the conservation of the species.

**6. Very small populations.** In the case of species listed as Critically Endangered under criteria C or D, and as Endangered under criterion D (in all these cases there are less than 250 mature individuals), the lethal collection of scientific specimens (i.e. collections that involve killing of wild individuals within the population) should not normally take place, and should only be permitted when it is clear that the research proposed is demonstrably essential for enhancing the survival prospects of the species.

**7. Considerations for species with small populations.** In issuing permits for the lethal scientific collection of species listed as Vulnerable under criterion D1, or as Endangered and / or Critically Endangered under criteria C or D, permit-issuing agencies should take into account the cumulative effects of scientific collecting within a generation of the species in question. If a permit has been granted for the lethal collection of scientific material from a threatened species, the results from that study should preferably be considered before issuing further collection permits for that species.

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<sup>6</sup> For example, the "Guidelines of the American Society of Mammalogists for the use of wild mammals in research" (<http://www.mammalsociety.org/uploads/Sikes%20et%20al%202011.pdf>), the "Guidelines for use of live amphibians and reptiles in field and laboratory research" (<http://www.asih.org/files/hacc-final.pdf>) of the American Society of Ichthyologists and Herpetologists, and the Marine Mammal Society's "Guidelines for the treatment of marine mammals in field research" (<http://onlinelibrary.wiley.com/doi/10.1111/j.1748-7692.2008.00279.x/pdf>)

8. **CITES.** Finally, in instances where scientific collecting of threatened species involves the movement of specimens across international borders, IUCN State members and others are encouraged to make full use of the provisions agreed by CITES Parties to regulate and, where appropriate, facilitate the movement of specimens used in scientific research<sup>7</sup>.

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<sup>7</sup> Most cross-border movements of CITES-listed specimens will be for purposes which are not primarily commercial in nature. The purpose codes 'G' - Botanical gardens or 'S' - Scientific are likely to be used on CITES permits. Therefore, provided that the specimens have been legally acquired and that the Scientific Authority of the State of export has advised that their export will not be detrimental to the survival of the species, even Appendix I listed species can be imported and exported for scientific purposes. In addition, in the case of the non-commercial loan, donation or exchange of herbarium specimens, other preserved, dried or embedded museum specimens, and live plant material, the text of CITES provides a specific exemption from the CITES standard permitting requirements. Such specimens must be transferred between scientists or scientific institutions registered by a CITES Management Authority of their State and carry a label issued or approved by that Management Authority to be able to benefit from this exemption. The CITES Parties have adopted a resolution on this issue [Resolution Conf. 11.15 (Rev. CoP12)], which encourages scientific research on wild fauna and flora, where it may be of use in conserving species that are threatened with extinction or that may become so, but considers that museum needs for research specimens can also have an adverse impact on small populations of rare animals and plants. The Resolution also contains some standards for scientific institutions which may qualify for registration.

In other Resolutions, CITES Parties have also recommended that, even where entry into trade might otherwise have been considered detrimental to the survival of the species in the wild, international trade in salvaged specimens of Appendix-I and Appendix-II plants be permitted where all of the following conditions are met:

- i) such trade would clearly enhance the survival of the species, albeit not in the wild;
- ii) import is for the purposes of care and propagation of the species; and
- iii) import is by bona fide botanic garden or scientific institution.

Furthermore, the CITES Parties have agreed on the expedited processing of permits and certificates for trade in certain biological samples, where such trade will have a negligible impact, or none, on the conservation of the species concerned, and, the purpose of the transaction is, inter alia, in the interest of the conservation of the species concerned or other species listed in the Appendices. Full details of this provision can be found in Section XII and Annex 4 of Resolution Conf. 12.3 (Rev. CoP13) on Permits and certificates.