

Conservation news

Two Centers for Species Survival launch collaborative conservation programmes

In March 2023, Morton Arboretum (Lisle, USA) and Shedd Aquarium (Chicago, USA) partnered with the IUCN Species Survival Commission (SSC) to become Centers for Species Survival. The two Centers provide opportunities to work within the SSC Assess–Plan–Act framework and collaborate on conservation projects that highlight the importance of terrestrial and aquatic linkages.

Within the IUCN SSC Center for Species Survival: Trees, the Morton Arboretum, in collaboration with the SSC Global Tree Specialist Group and 24 partner institutions in five countries, will assess priority tree species, complete conservation gap analyses for Southeast Asian and Mesoamerican threatened oaks (*Quercus* spp.), and develop conservation action plans for priority species. Under the Center umbrella, Morton will work with in-country partners on integrated conservation projects that include restoring threatened tree species, promoting sustainable livelihoods in biodiversity hotspots, and building capacity for tree conservation. Being the first Center hosted at an arboretum, it will leverage the botanic garden network to promote and support ex situ conservation collections that offer a last safeguard against extinction and ensure genetically diverse and representative plant material is available for research and restoration.

Within the IUCN SSC Center for Species Survival: Freshwater, Shedd will work with the SSC to assess the extinction risk of selected freshwater taxa, assist with identifying Key Biodiversity Areas (KBA) in freshwater hotspots in Central America, and ensure international conservation efforts target these important sites. Work will also include identifying the highest conservation priorities across Red List species and KBAs while bringing various stakeholders together to create unified strategic plans. Under the Center umbrella, Shedd will work with partners to describe new freshwater taxa and clarify species boundaries in Central America, which will inform species assessments and conservation planning within and beyond the Center. Shedd will also leverage its husbandry expertise to identify appropriate opportunities for ex situ interventions.

The paired Center partnerships between these two Chicago-based institutions is accelerating collaborative efforts and advancing community-based watershed conservation programmes that underscore the links between terrestrial and aquatic health. This approach is intended to open pathways for further cross-disciplinary collaboration, while diversifying capacity-building expertise and opportunities. This initiative will also deepen partnerships with other Chicago area institutions and expand collective field-work opportunities and holistic training approaches to

strengthen conservation efforts in biodiversity-rich regions. Together, Shedd and Morton welcome over three million guests each year, providing an exceptional opportunity for the new Centres to raise awareness about the importance of trees, freshwater ecosystems, and the services they provide regionally and globally, and ensure that forest and freshwater conservation issues are included in both local and global policy discussions.

The new Centers for Species Survival receive significant support through the Walder Foundation, a private family foundation based in Skokie, Illinois, whose interests include environmental sustainability.

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Ten-year update of IUCN Red List assessments for tunas, mackerels, and billfishes

The first comprehensive extinction risk assessments for the 61 species of tunas, mackerels and billfishes for the IUCN Red List (Collette et al., 2011, *Science*, 333, 291–292) have recently been updated. The IUCN recommends re-evaluation every 10 years to determine if a species' status has changed.

As a result of the Covid-19 pandemic we were unable to hold in-person meetings, and therefore met online with specialists to review data and population trends for species of commercial or recreational importance. Updated drafts were reviewed by participants in the 2011 assessments, many of whom are members of the IUCN Species Survival Commission Tuna and Billfish Specialist Group, and then submitted to the IUCN Red List. Assessments for seven commercial tunas (six species of *Thunnus* and *Katsuwonus pelamis*) were published in 2021, and for 10 billfishes and two small *Thunnus* species in 2022.

The remaining species were reassessed using information from *Tunas and Billfishes of the World* (Collette & Graves, 2019, Johns Hopkins University Press) and recent literature

reviews. Draft species reassessments were sent to specialists for final review. As of May 2023, all 61 species assessments have now been submitted for publication on the IUCN Red List. A summary of the findings was presented at the Joint Meeting of Ichthyologists and Herpetologists in Norfolk, Virginia, in July 2023. This summary emphasized that the Red List focuses on species, not populations. One population of a species may be severely overfished while other populations of the same species may be healthy, so the species might still be assessed globally as Least Concern. For example, the Atlantic bluefin tuna *Thunnus thynnus* was originally categorized as Endangered in 2011 but is now Least Concern. However, the Western Atlantic population has been slower to recover and is still overfished.

Overall, 17 of the 61 species changed Red List category, 10 to a category of lesser extinction risk and seven to a category of greater extinction risk. The status of several species of commercially important tunas has improved (Juan-Jorda et al., 2022, *Science*, 378, 6620). This is partly a result of more sustainable fishing methods (Murua et al., 2023, *Frontiers in Marine Science*, 10, 1074340), better regulations, better enforcement of existing regulations by the Regional Tuna Fishery Management Agencies, and the conservation efforts of organizations such as the International Seafood Sustainable Fisheries Foundation. However, the conservation status of several smaller scombrids that are under the control of individual countries, such as the three species of Indian mackerels of the genus *Rastrelliger*, appears to have worsened as a result of overfishing and the use of gill nets with a mesh size so small they catch fish before they are old enough to reproduce. Seven species remain Data Deficient because of a lack of data on population trends.

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Sustainable Use and Livelihoods Specialist Group launches its Species Use Database

The Species Use Database (speciesusedatabase.com) is a new online resource collecting (and, in future, synthesizing) information on the utilization of wild species globally, and specifically on the sustainability of that use. Developed by the IUCN Sustainable Use and Livelihoods Specialist Group, and funded by Jamma International, the database

has been created to enhance awareness of, and build a strong and robust evidence base on, the contribution of the use of wild species to supporting livelihoods and economies and to conserving biodiversity.

The 2022 IPBES Sustainable Use Assessment estimated that 50,000 species are regularly used by, and contribute to the livelihoods of, people globally. The database is designed to reflect this diversity of species use, and is expected to eventually cover all taxonomic groups and the various types of use involved.

Information is being captured on how wild species are used, where the use takes place, the impacts of the use (positive or negative), and whether the use has been recorded as sustainable or unsustainable against one or more of five dimensions of sustainability (ecological, economic, social, human health, and animal health and welfare). Practices of wild species use may be lethal or non-lethal, and extractive or non-extractive. Extractive practices include harvesting, gathering, collecting, hunting, fishing and ranching; non-extractive practices encompass practices based on the observation of, or interaction with, wild species such as bird watching, wildlife safaris, snorkelling, and cultural and spiritual rituals.

The Species Use Database has not been designed to make formal assessments of sustainability. However, as the number of case studies grows, periodic syntheses will present summaries of the evidence on the sustainability of use to help guide wildlife management practices that are legal, sustainable, equitable and to draw attention to those that are illegal, unsustainable and inequitable.

The design has focused on collecting and presenting information to appeal to a broad spectrum of users, from those in policy and decision-making, to academia and educators, conservation practitioners, civil society and NGOs, and any individuals interested to learn more about the use of wild species. Data is also pulled, where relevant, from the IUCN Red List.

The Sustainable Use and Livelihoods Specialist Group invites users to explore this new resource, to contribute records (by registering and logging in), and to share the news of its launch across their networks. Please contact suli.iucn@gmail.com to share any sources of records that will help build content, particularly those that cover species use that has been less well documented. We also welcome any feedback on the database, including its utility, linking to other relevant databases, its ease of use and suggestions for further improvements and enhancements.

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