

Conservation news

Restricted access zone declared in Greece to protect monk seals (perhaps)

Despite showing signs of recovery, the Mediterranean monk seal *Monachus monachus* remains one of the most threatened marine mammals, with numbers surviving in the Mediterranean Sea estimated to be < 600 individuals. The uninhabited c. 500 m wide islet of Formicula in Greece contains key monk seal habitat, with > 40 individuals identified along its shores. Formicula is included in a Special Area of Conservation established to protect marine habitats and species of European importance. Because of the presence of the seals it is also part of the IUCN's Ionian Archipelago Important Marine Mammal Area.

Despite the formal conservation designation, the monk seals of Formicula are not adequately protected. The potential for close encounters with the seals has resulted in the waters around the islet becoming a popular tourist destination. Chartered and privately owned boats are free to go anywhere along the island's coast, at any time and for any length of time. On a single day in August 2024, we counted > 50 boats simultaneously in the waters around the islet. We observed visitors searching for seals, chasing them in kayaks and paddle boards, swimming with them, and entering the caves where the seals breed. On two occasions we witnessed tourists entering caves sheltering newborn seal pups. In both cases, the pups were not seen again.

Concern that excessive tourist pressure could lead the seals to abandon the area prompted us to recommend the inclusion of a special protection regime for Formicula in the Special Area of Conservation draft management plan, currently under consideration. Our proposed actions include the delimitation of a 200 m wide no-entry zone along the



Tourists on board a rental boat near Formicula, motoring at high speed close to two Mediterranean monk seals *Monachus monachus*. Photo: Joan Gonzalvo/Tethys.

islet's coast, with the exception of a corridor to allow access to a single mooring, under condition of compliance with a code of conduct and a time limitation.

As a result of pressure and lobbying by civil society, including initiatives by iSea, Tethys and Blue Marine Foundation, a decision by the Minister of the environment was adopted on 31 December 2024, establishing a strict protection regime around Formicula, including a no-entry zone (decision ΥΠΕΝ/ΔΔΦΠΒ/123711/3066). However, such protection does not exclude vaguely-defined fishing within the no-entry zone, a loophole that opens the door to indiscriminate access and undermines the measure's effectiveness.

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Laukahi Network completes ex situ gap analysis of Hawaiian plants

The flora of the Hawaiian Islands has a high rate of endemism and yet a high number of recorded extinctions, with over half of all taxa at risk. Laukahi: The Hawai'i Plant Conservation Network coordinates conservation efforts through the Hawai'i Strategy for Plant Conservation (laukahi.org/hawaii-strategy-for-plant-conservation), which is adapted from the Global Strategy for Plant Conservation.

In April 2024, Laukahi completed an ex situ gap analysis of 868 species of conservation importance by examining the inventories of seed banks, nurseries, a micropropagation laboratory and living collections from 50 government agencies, nonprofits, community groups and private individuals. Species present in at least one inventory were considered secured, and those not present in any inventory as unsecured. Each facility received a score for each species based on the representativeness of its extant wild plant collection, on a scale of 1–5 (Weisenberger & Keir, 2014, *Pacific Science*, 68, 525–536).

Ex situ collections secure 85% of species of conservation importance, exceeding previous assessments and the global target of 75%, although only 68% of species are duplicated, slightly short of the global target of 75%. Of the 129 unsecured species, 46 are categorized as threatened on the IUCN Red List, and 33 species have ≤ 50 individuals in the wild and are protected by Hawai'i's Plant Extinction Prevention Program. Since 2020, only

5% of species decreased in score, yet 45% are held in fewer facilities. Of the taxa that decreased in score, 14 are now absent from collections. Of the 386 species that are now held in fewer facilities, 152 are protected by the Plant Extinction Prevention Program and six are cultivated only at a single facility. However, 24 species protected by the Program have improved in score and are now held in more facilities. Since 2020, seed banks have secured an additional 138 species of conservation importance.

Ex situ conservation prevents extinction and supports recovery, and continued support is needed to secure 129 taxa. Recommended actions include prioritizing resources for the Plant Extinction Prevention Program, collecting, germinating aging seed collections, expanding greenhouse capacity, duplicating collections across facilities, reviewing best practices and sharing information between facilities. If you are interested in more detailed information, or manage Hawaiian collections missed in this assessment, please contact the Laukahi Network Coordinator (coordinator@laukahi.org).

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IUCN Species Survival Commission Sponge Specialist Group

In June 2024, the IUCN Species Survival Commission (SSC) launched the new Sponge Specialist Group, which will focus on both marine and freshwater sponges and their habitats. Sponges (phylum Porifera) have shaped benthic ecosystems for > 600 million years and are widely distributed across marine, freshwater and transitional systems. In the marine realm in particular, sponges form highly structured habitats (sponge grounds, gardens, reefs and animal forests) that play key functional roles and deliver numerous ecosystem goods and services. They serve as habitat and nurseries for various species, including commercially exploited fish, and bath sponges have been harvested for centuries for their spongin skeleton, supporting the livelihoods of local communities. Sponges are also recognized as prolific sources of bioactive compounds with pharmacological potential and as biomimetic inspiration for tissue engineering, with

promising applications for human health. However, sponges and their habitats are increasingly threatened by human activities (e.g. damage caused by fisheries, habitat degradation, climate change and deep-sea mining) in areas both within and beyond national jurisdictions (Xavier et al., 2023, *Frontiers in Marine Science*, 10, 1132451). There are currently c. 9,660 recognized species of sponges, in four classes, but actual diversity is estimated to be > 25,000 species. The majority are demosponges (Demospongiae, c. 8,010 species), followed by calcareous sponges (Calcarea, c. 820 species), glass sponges (Hexactinellida, c. 705 species) and Homoscleromorpha (c. 135 species). Although most species are marine, there are c. 190 species of freshwater demosponges (de Voogd et al., 2024, *World Porifera Database*, marinespecies.org/porifera).

The new Specialist Group will bring together scientists and conservation practitioners to protect sponge biodiversity and the ecosystem services they provide, and will collaborate with the IUCN SSC Marine and Freshwater Conservation Committees and the IUCN SSC Marine Invertebrates Red List Authority network. It will liaise with several key SSC groups, particularly those focusing on other habitat-forming taxa (e.g. corals, seaweeds, seagrasses and mangroves), to exchange knowledge, coordinate efforts and enhance conservation impact. The group is also closely linked with SponBIODIV (sponbiodiv.org), a project that delivers knowledge and tools for the sustainable management and conservation of marine sponge diversity, funded by Biodiversa+, the European Biodiversity Partnership under the 2021–2022 BiodivProtect joint call for research proposals, co-funded by the European Commission (GA No. 101052342). Follow us as we advance sponge conservation from local initiatives to a global movement.

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