

The Park is a key nesting area for the Critically Endangered hawksbill turtle *Eretmochelys imbricata*. This new facility will support ongoing efforts to conserve and restore the nesting beach population of hawksbill turtles that formerly existed along this coast. This population and others in Panama were nearly extirpated by the tortoiseshell trade that resulted in the loss of hundreds of thousands of hawksbill turtles (mostly nesting females) before Panama became a CITES signatory in 1978. The field station will serve as headquarters for beach monitors, mostly members of the Indigenous Ngäbe-Buglé community of Salt Creek, to continue daytime and night-time patrols that document nesting and productivity. The presence of monitors along with MiAmbiente (the environmental ministry of Panama) Park personnel has minimized the take of hawksbill females and nests from the Park and has led to a 10-fold increase in the number of nests deposited since 2003. Construction of the new field station was made possible by the cooperation of MiAmbiente, which has jurisdiction over protected areas and has played a key role in protecting the Park's resources, especially sea turtles. Bastimentos Island National Marine Park was one of the first national marine parks with sea turtle protection as one of its primary goals. The new station was funded by the U.S. Fish & Wildlife Service, the Coastal Wildlife Club of Florida, the Lemmon Foundation, and Only One. The building was dedicated to Chencho Castillo, a former Bocas turtle fisherman, who along with multiple family members has worked diligently to protect sea turtles in the Bocas region since 1987. The station was built on the site of his former camp on the Small Zapatilla Cay.

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### The Critically Endangered dragonfly *Libellula angelina* is losing its habitat to urbanization in East Asia

The Critically Endangered dragonfly *Libellula angelina*, known as the bekko tombo, of central and northern China, Japan, western South Korea, and North Korea, was common before 1970 but has declined dramatically as a result of habitat loss caused by urbanization. In China, natural ponds and wetland parks have facilitated the survival of this species in megacities such as Beijing and Tianjin, but habitat degeneration in some cities appears to be resulting in further decline of the species.

The natural ponds around the Chentai Bridge in Beichen district, Tianjin, one of the historical habitats of the bekko tombo, suffered a severe drought from excessive pumping for irrigation in spring 2020, followed by excessive water

supplementation that increased the original water level in autumn 2020. In Tianjin Water Park, another habitat of the bekko tombo, sediment was dredged and reeds mowed, destroying habitat for the species' nymphs and imagoes, respectively, in 2020. During 15 April–15 May 2021, we surveyed for the bekko tombo in these two habitats on 18 occasions, concentrating on their preferred microhabitats in reeds and open grassland, but failed to find the species. Prior to this, the bekko tombo was commonly seen in these two areas in spring.

The prime habitat for the bekko tombo is unmodified, stable and organic-rich ponds with open water and moderate growth of emergent plants. Urbanization and habitat degradation, accompanied by reclamation, drought, contamination, sediment dredging, mowing of reeds and shrinkage of wetlands, are driving the collapse of the remaining populations of the bekko tombo. Measures are required to maintain the integrity of the species' habitat by protecting wetlands from urbanization and anthropogenic modification, with a halt to inappropriate dredging and mowing.

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### First records of the West African torpedo in Cabo Verde Archipelago, eastern Atlantic

Torpedo rays are small to large electric rays with a depressed circular disc, short snout, and tail with two dorsal fins. Most are benthic species living on soft sand and mud. They occur worldwide, from cool temperate to tropical waters, in the Atlantic, Indian and Pacific Oceans. The family Torpedinidae comprises two genera and 20 known species, of which two have been recorded in the waters of the Cabo Verde archipelago in the eastern central Atlantic: *Torpedo marmorata* and *Torpedo torpedo*.

The West African torpedo *Torpedo mackayana* is a small ray (maximum total length c. 50 cm) that lives at depths of 15–50 m, distinguished by a greyish brown dorsal coloration with white blotches irregularly scattered on its disc and tail. Its population is decreasing, and it is categorized as Endangered on the IUCN Red List. In the eastern central Atlantic, *T. mackayana* is known from Mauritania to Angola, including São Tomé and Príncipe, but has never previously been recorded in the Cabo Verde archipelago.

Here we report the first records of *T. mackayana* off Maio Island, east of Cabo Verde (Fig. 1). The first sighting was on 2 March 2019 whilst snorkelling off Bitxe Rotxa beach, Porto Inglês. Three individuals of < 60 cm total length were observed during 15.24–16.00, at different locations along the beach at 5–8 m depth, by SSR and CMS. The second



The West African torpedo *Torpedo mackayana* photographed off Bitxe Rotxa beach, Porto Inglês, Maio Island, in March 2019 (left; Photo: Claire M. Sydemán), April 2021 (middle; frame snapshot from a video: Péricles Neves Silva) and in January 2022 (right; frame snapshot from a video: Jair Rocha).

sighting, an individual of c. 50 cm total length, was on 16 April 2021 under the pier on Bitxe Rotxa beach, at 11.00 at a depth of 7–8 m, by PNS. The third sighting was of an individual of < 50 cm total length, at c. 12.00 on 13 January 2022, also at Bitxe Rotxa beach. The individual was found alive on the sand and was returned to the water by local people and tourists.

This benthic coastal species, with no known pelagic phase in its life cycle, would have had to cross the ocean to reach Cabo Verde, which is c. 600 km from Senegal. We suspect this species can undertake long pelagic migrations, similarly to that of the great torpedo *Tetronarce nobiliana*. The conservation status of elasmobranchs in the waters of Cabo Verde is poorly known, and little attention has been devoted to electric rays because they are discarded as bycatch, with no commercial value. Research is required, including tagging, to improve knowledge of their status and distribution, and of any threats. We recommend an examination of a *T. mackayana* specimen from Cabo Verde, and surveys for this species around Sal and Boavista Islands as they share the same continental shelf as Maio, and similar habitat conditions and distance to the African continent.

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### Multidisciplinary team highlights the importance of Indigenous and local communities for jaguar conservation

On 28–29 October 2021, IUCN Netherlands convened the panel The Power of the Jaguar at the Royal Anthropological

Institute's Anthropology and Conservation conference, bringing together anthropologists, biologists, filmmakers and conservationists from across the range of the jaguar *Panthera onca* to enhance understanding of the role this species plays in human consciousness and existence. In this unique collaboration, nine speakers shared their approaches for understanding and improving relationships between people and jaguars, based on field experiences with cattle ranching in the Brazilian Pantanal, illegal trafficking in Bolivia, human–jaguar conflict and ecotourism in Guyana and Suriname, cultural meanings and cosmologies of Indigenous groups in Amazonia, and approaches for systemic transformations benefiting jaguars and people in Venezuela and Mexico. The speakers illustrated the ways in which Indigenous and local communities are already engaged in jaguar protection, and emphasized the importance of strengthening such collaborations. They also examined how conservation strategies should do more to promote knowledge exchange between the social and natural sciences. The panel discussed two fundamental questions: what are the barriers to effective collaboration, and how have practitioners overcome these to make jaguar research and conservation an interdisciplinary/transdisciplinary pursuit?

The panel noted that jaguar conservationists must be open to alternative approaches beyond traditional conservation science, especially where local forms of environmental knowledge prevail, and that jaguars are threatened by habitat loss and retaliatory killing motivated by fear, material losses, economic motivations and religion. This panel is the beginning of a wider process of exchange and engagement among scholars and practitioners. Practitioners working to protect jaguars must learn from each other as well as from Indigenous and local peoples, whose imagination, stories, knowledge and experiences reflect important lessons this species has taught humanity. This paradigm shift will benefit the jaguar and the diverse peoples with whom it shares its habitat.

Recordings of the Panel's proceedings are available at [youtube.com/watch?v=EFFGggFTOXY](https://youtube.com/watch?v=EFFGggFTOXY) and [youtube.com/watch?v=jUAeeknMKjU](https://youtube.com/watch?v=jUAeeknMKjU).