

# African network protects key turtle sites

March 31 2022

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A tagged green turtle. Credit: Miguel Varela

A network of West African Marine Protected Areas (MPAs) covers key sites used by green turtles, new research shows.

The RAMPAO [network](#) runs along the coast of seven countries, from Cape Verde to Sierra Leone, protecting vital habitats for many species.

The new study tracked 45 female green turtles from Poilão Island, in Guinea-Bissau's Bijagós Archipelago, which hosts the largest population in the Eastern Atlantic.

The tracked turtles were found to spend most of their time during nesting and foraging periods inside the MPA network.

However, just 21% of key "[migration corridors](#)" are protected.

The study was carried out by a team including the University of Exeter (UK), MARE—ISPA, Instituto Universitário (Portugal), the Institute of Biodiversity and Protected Areas (Guinea Bissau) and the Banc d'Arguin National Park (Mauritania). Additionally, youngsters of local Bijagós villages were engaged in fieldwork activities.

"RAMPAO is a great example of an MPA network, with good connections between the MPAs and strong links between the organizations that oversee them," said Dr. Rita Patrício, of the Center for Ecology and Conservation on Exeter's Penryn Campus in Cornwall, and MARE.



Dr Rita Patrício and Fernando Madeira, PhD student at the Universidade de Lisboa, attaching a satellite tag. Credit: French Connection Films

"West Africa has very rich marine ecosystems. Conservation efforts initially focussed on key habitats, such as seagrass, mangroves, estuaries and intertidal flats, which are used by populations of global importance of coastal and seabirds, and by charismatic species such as humpback dolphins, West African manatees and green turtles.

"Our study is part of wider efforts to discover where species are distributed in the region, to ultimately find the most effective ways of protecting them.

"Green turtles have complex life-cycles, involving large-scale migrations between breeding and feeding sites.

"It is essential to understand the connectivity between these areas, to estimate the level of protection, and to ensure that [conservation efforts](#) on breeding sites are not canceled out by lack of protection at feeding sites, and vice-versa.

"In the case of [green turtles](#), our study shows the MPA network in the region covers almost all marine areas used during the nesting period and most feeding areas too. This is hugely encouraging.

"Our finding that most key corridors used by the turtles currently fall outside the MPA network suggests there is an opportunity to increase protection even further."

During the nesting period, turtles spent an average of 95% of their time within the limits of the MPA network, and among the 35 turtles successfully tracked into the foraging period, 28 of them used waters within MPAs.



The research team preparing to tag a green turtle. Credit: Miguel Varela

Key migration corridors were mostly located close to the shore, where regionally important fisheries activities can make effective marine protection more challenging.

Dr. Patrício said green turtle populations in this region "look stable"—but this is "conservation-dependent".

"If you remove the conservation effort, the population could drop very quickly," she said.

The United Nations global target to protect 10% of the world's ocean by 2020 was not achieved, but the coverage of protected areas is

increasing—and there are now calls to protect 30% of the ocean by 2030.

Balancing marine protection with the needs of human coastal communities is vital, and Dr. Patricio said a key goal is to bring all parties together to improve conservation in a way that works for people and ecosystems.

The paper, published in the journal *Frontiers in Marine Science*, is entitled: "Green turtles highlight connectivity across a regional marine protected area network in West Africa."

**More information:** Green turtles highlight connectivity across a regional marine protected area network in West Africa, *Frontiers in Marine Science* (2022). [DOI: 10.3389/fmars.2022.812144](https://doi.org/10.3389/fmars.2022.812144)

Provided by University of Exeter

Citation: African network protects key turtle sites (2022, March 31) retrieved 25 April 2024 from <https://phys.org/news/2022-03-african-network-key-turtle-sites.html>

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