

Silky shark makes record breaking migration in international waters of the Tropical Eastern Pacific

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Up close with a silky shark. Credit: Pelayo Salinas de León

In a recent study, researchers have documented the most extensive migration ever recorded for a silky shark (*Carcharhinus falciformis*),

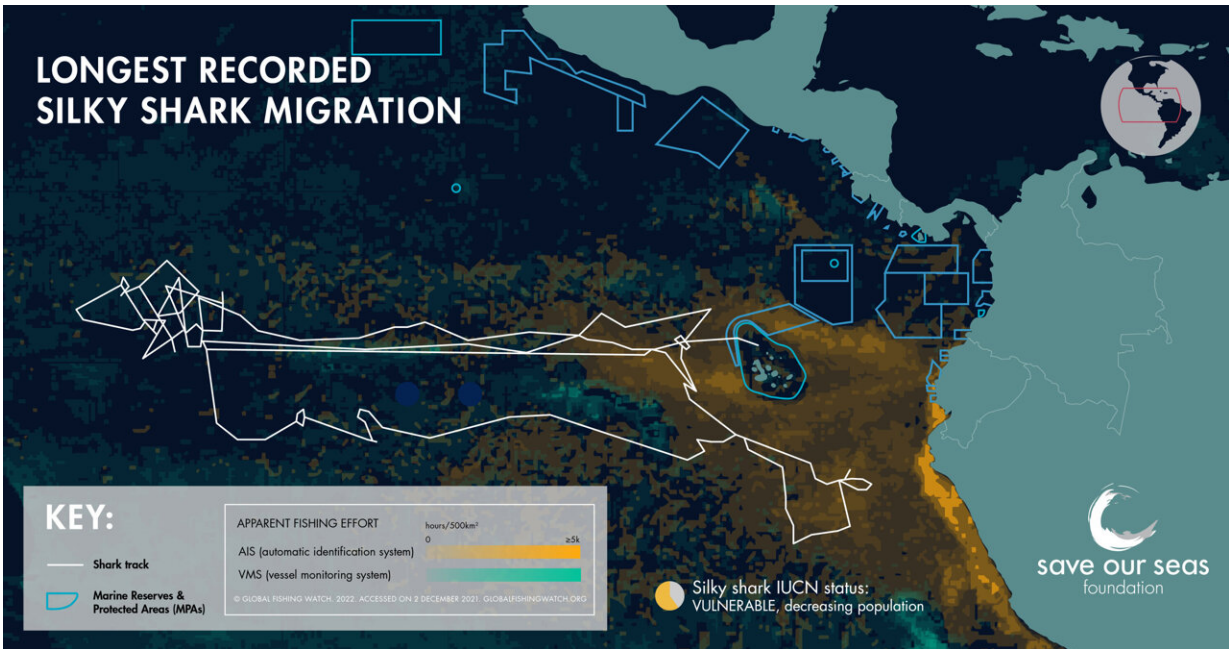
revealing critical insights into the behavior of this severely overfished species and emphasizing the urgent need for cooperative international management measures to prevent further population declines.

The study is a collaboration by researchers from the Charles Darwin Foundation (CDF), in collaboration with the Guy Harvey Research Institute (GHRI) and Save Our Seas Foundation Shark Research Center (SOSF-SRC) at Nova Southeastern University in Florida, and the Galapagos National Park Directorate (GNPD).

The adult female silky shark, nicknamed "Genie" in honor of late shark ecologist Dr. Eugenie Clark, was tagged with a fin-mount satellite transmitter near Wolf Island to the north of the Galapagos Marine Reserve on July 2021, and soon embarked on a vast journey covering more than 27,666 kilometers over 546 days.

This epic voyage, equivalent to crossing the United States from coast to coast approximately four times, included two significant westerly migrations (halfway to Hawaii) extending as far as 4,755 kilometers from the tagging site into [international waters](#)—areas of high fishing pressure and minimal regulation.

The study shattered the previous movement record by almost six-fold, illustrating the shark's extensive use of the open ocean, far beyond national jurisdictions, demonstrating the urgent need to establish regulations to conserve ocean biodiversity beyond areas of national jurisdiction.



Ocean travelers. Estimated locations for 'Genie' from her tagging location at Wolf Island, the Galapagos Marine Reserve, with a fin-mount SPOT tag and tracked for 546 days. Credit: Save Our Seas Foundation

Dr. Pelayo Salinas de León, lead author of the study and co-Principal Investigator of the shark ecology project at the Charles Darwin Foundation noted, "Understanding the migratory pathways of silky and other threatened pelagic sharks is crucial for developing effective management strategies to revert ongoing global population declines.

"Sharks have been roaming the world's oceans for hundreds of millions of years and the map boundaries we humans have established on paper mean nothing to them. Their long migrations through heavily fished international waters expose them to significant risks, highlighting the need for a coordinated global response to ensure the survival of this highly threatened group of species."

Silky sharks are particularly vulnerable to overfishing due to their slow growth, late maturity, and the high demand in the global shark fin trade. Classified as Vulnerable on the IUCN Red List of Threatened Species, they represent one of the most frequently caught sharks in both artisanal and industrial fisheries, and are a conservation priority for CDF and other organizations.



Time is the essence. Researchers deploy a fin-mounted satellite tag on a silky shark to track her movements in almost real time, a procedure that is completed in around 5 minutes. Credit: Pelayo Salinas de León



A threatened species. The tendency of silky sharks to associate with schools of tuna species and floating objects makes them especially vulnerable to industrial tuna fleets that fish around drifting fish aggregation devices. Credit: Pelayo Salinas de León



Pelagic sharks are in deep trouble. Once a common sighting around the oceanic islands of the Eastern Tropical Pacific, large shivers of silky sharks are becoming rarer due to ongoing global population declines mainly from overfishing. Credit: Pelayo Salinas de León

Remarkably, more than 99% of the time Genie was tracked occurred within international waters to the west and south, far outside the Ecuador managed Exclusive Economic Zone around the Galapagos Islands, highlighting the critical need for international cooperation in the protection of these long-distance traveling oceanic sharks.

"Obtaining shark tracks with good location resolution for over a year is

difficult at best. In this case, we were able to track Genie for 1.5 years, revealing unexpectedly consistent, repeated travel pathways of massive distances going far offshore, well beyond national management and current marine protected areas.

"This finding is a call to action for all stakeholders involved in [marine conservation](#) and fisheries management to work together to protect these iconic species and the oceanic ecosystems they inhabit," adds co-author, Dr. Mahmood Shivji of the SOSF-SRC and GHRI.

This article, [published](#) in the *Journal of Fish Biology*, serves as a crucial reminder of the interconnectedness of our global marine environments and the collective action required to safeguard ocean biodiversity.

More information: Pelayo Salinas-de-León et al, Longest recorded migration of a silky shark (*Carcharhinus falciformis*) reveals extensive use of international waters of the Tropical Eastern Pacific, *Journal of Fish Biology* (2024). [DOI: 10.1111/jfb.15788](https://doi.org/10.1111/jfb.15788)

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