

## Historic shark census catches predators on camera

July 7 2015, by Joann C. Adkins



A screen capture of a baited remote underwater video camera recently deployed as part of the global FinPrint project. Credit: Florida International University

Researchers are embarking on the largest-ever attempt to survey the world's shark populations.



Predators are disappearing from the oceans in alarming numbers with nearly a quarter of shark, ray and skate species threatened with extinction. The lack of comprehensive and up-to-date data on species abundance and distribution is hindering efforts to protect and replenish these ecologically important marine animals.

Deploying baited underwater video equipment, researchers hope to catch the ocean's top predators on camera in their <u>natural habitats</u>. More than 400 reef locations will be surveyed during the three-year project dubbed <u>Global FinPrint</u>. The project is focusing on three key geographic regions where data gaps exist—Indo-Pacific, tropical western Atlantic, and southern and eastern Africa and Indian Ocean islands. <u>Mike</u> <u>Heithaus</u>, <u>marine biologist</u> at Florida International University and dean of the College of Arts & Sciences at FIU, is part of the international team of researchers led by Demian Chapman of Stony Brook University in New York.

"Recent estimates suggest around <u>100 million sharks are taken from the</u> <u>oceans every year</u> for their fins and meat. This is resulting in severe population declines for some species, and many of the species that are in trouble live in coastal habitats like <u>coral reefs</u>," Heithaus said. "This could be a big problem for these ecosystems because sharks and rays, which are also in trouble in many places, may be important for keeping the oceans healthy. This global survey will fill in data gaps that could help governments, fisheries and others better understand and conserve these important predators."

The new data will be consolidated with thousands of hours of existing video data to form a single dataset for analysis, producing the first global standardized survey of shark, ray and skates in coral reef environments.

With funding from Paul G. Allen, Global FinPrint is one of several initiatives within Paul G. Allen's portfolio of ocean health programs.



"A recent International Union for Conservation of Nature report indicated that we don't have the data we need to accurately assess the current population status for almost half of shark and ray species," said Dune Ives, senior director of philanthropy at Paul G. Allen's Vulcan Inc. "Results from Global FinPrint will provide critical trend analyses and establish baselines in places that have never before been systematically assessed. This information will help inform more effective conservation efforts."

Chapman and Heithaus are joined by Colin Simpfendorfer of James Cook University along with Michelle Heupel, Aaron MacNeil and Mark Meekan of the Australian Institute of Marine Science.

"Global FinPrint will help us better understand one of the ocean's great mysteries: What is happening with fragile marine ecosystems when sharks are removed?" Chapman said. "Are coral reefs healthier or faster to recover from disturbances like coral bleaching or hurricanes because they have sharks? These are hugely important questions. Many countries rely on healthy coral reefs for food security, tourism and coastal protection."

Survey data will be made available through an open-access database platform created by Vulcan's technology development team and will include information on species density, habitats and diversity trends. Researchers, policymakers, governments and others will be able use this database to help inform conservation priorities, such as identifying and protecting areas with large or important <u>shark populations</u>, and to better understand the ecological importance of sharks as apex predators.

Survey results will be made available in summer 2018. For more information on the initiative, visit the <u>Global FinPrint website</u> and follow it on <u>Facebook</u>, <u>Twitter</u> and <u>Instagram</u>.



## Provided by Florida International University

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