

The World Wide Fund for Nature launches a new shark conservation initiative

It is widely accepted that, on a global scale, sharks and rays are facing some significant threats to their populations. In 2014, a study led by the Shark Specialist Group of the International Union for Conservation of Nature (IUCN)¹ assessed over a thousand elasmobranch species, concluding that nearly a quarter of all species are threatened with extinction and that almost half of all species are classed as 'data deficient'. The study identified over-fishing and habitat loss as the two major threats facing sharks and rays, and these are compounded by an absence of information on populations of sharks and rays within each Pacific nation's territorial waters. The Pacific region is not immune to these problems. A lack of capacity within fisheries and environment ministries, coupled with the geographic isolation of some fishing communities, means that most nations are unable to put resources towards collecting and analysing data on sharks in order to make informed decisions on their management. This has knock-on implications for designing effective conservation policies suitable for an individual country's needs.

The World Wide Fund for Nature (WWF) recognises these limitations, and is developing a rapid assessment tool-kit that can be used to collect and analyse data on sharks and rays from a wide variety of sources. On 8 April this year, Brad Moore from the Secretariat of the Pacific Community (SPC) attended the inaugural workshop to assist with the design of this project, and to ensure it complements existing SPC initiatives. The workshop was facilitated by WWF, and attended by shark and fishery experts from the Forum Fisheries Agency (FFA), the Secretariat of the Pacific Regional Environment Programme, the IUCN Shark Specialist Group, James Cook University, the Australian Institute of Marine Science, the Commonwealth Scientific and Industrial Research Organisation, and the University of the South Pacific. Expertise ranged from shark ecology to coastal fisheries to policy development. The three-day workshop also explored different areas where shark and ray data can be acquired and analysed.

The rapid assessment tool-kit is one part of WWF's broader Pacific Shark Heritage Programme, which aims to reinforce the cultural significance that sharks and rays play in the heritage of the South Pacific. WWF understands the importance of sharks to the region, and it is not just about shark fisheries. Coastal species of sharks play a vital role in keeping the oceans healthy. Recent scientific research from Canada² indicates that a loss of sharks from reefs could have a knock-on effect on other fish such as snappers and groupers, fish that many coastal communities use on a daily basis for food.

Sharks and rays are also a major draw for many tourists bound for the South Pacific. Almost every dive operator will tell you that when it comes to getting dive tourists excited, it is sharks and large mantas that do the trick. From small reef sharks to larger predators, every sighting

is another endorsement for the region as a mecca for divers. And with each tourist come the tourist dollars, helping support local businesses and economies. In Fiji, the world-renowned Beqa lagoon shark dive draws people from around the world to see large bull sharks and other species swimming on healthy reefs, with money going direct to local communities. There are also a number of unique shark-focused projects throughout the region, allowing volunteers to contribute to the understanding of these animals.

The primary objective of the rapid assessment tool-kit is to provide the governments of Pacific Island states with some rudimentary data on sharks and rays within their territorial waters, so that they can make informed policy decisions about sustainable management of these creatures. Each country in the Pacific is unique, with different requirements and there is no silver bullet to put a stop to the unsustainable harvesting of sharks and rays overnight. But once the project is under way, one of the immediate benefits will be alleviating the burden on over-stretched ministries and fisheries managers, with a longer-term goal of increasing the capacity of the region's institutions to provide informed conservation advice.

The inception phase of the project sought advice from some of the world's leading researchers in the fields of shark ecology, genetics, data poor fisheries, eco-tourism and policy development to design innovative data sampling strategies that will provide sufficient information for a country to undertake a shark assessment report. This is a set of guidelines recommended by the FAO to help countries understand the current issues facing sharks and rays within their jurisdiction. The next phase for the project is to explore how the relevant ministries can use the tool-kit to develop their conservation

¹ Dulvy, N.K. et al. 2014. Extinction risk and conservation of the world's sharks and rays. *eLife* 2014;3:e00590

² Ruppert J.L.W., Travers M.J., Smith L.L., Fortin M.-J., Meekan M.G. 2013. Caught in the middle: combined impacts of shark removal and coral loss on the fish communities of coral reefs. *PLoS ONE* 8(9); e74648. Doi:10.1371/journal.pone.0074648



Even small reef sharks, such as these whitetip reef sharks, are what many tourist divers hope to see when they visit Pacific islands. (Image: Sam Cahir)

strategies. Developing the shark assessment report is the first step to drafting national plans of action for sharks. If the reports are produced on a regular basis, they can be used to determine how effective existing policies are at reducing shark mortality, and they can then be refined or re-drafted.

The rapid assessment tool-kit is also aiming to avoid re-inventing the wheel or duplicating existing work in other organisations. SPC is already working on producing an excellent market-based survey for use in coastal fisheries, and the WWF project should be able to provide information on sharks and rays to complement that work. Similarly, FFA is assisting countries to develop sustainable fisheries policies, and the WWF project should be able to provide more information towards this initiative.

Collaboration will be the key to the success of this project, whether that is with regional academic institutions, CROP agencies or government ministries. It is not WWF's goal to try to impose set shark conservation

strategies upon countries, but to effectively reduce the mortality of threatened shark and ray species. It is only with sustainable populations of sharks and rays that a country will be able to develop long-term strategies for fisheries or shark-based eco-tourism, which will form the foundation for economic growth and food security for Pacific Island communities.

WWF has offices throughout the Pacific, and is currently seeking to work with countries that are keen to develop long-term, sustainable policies for sharks and rays, and with countries that want to evaluate and refine their existing shark conservation policies.

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