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ISRA
IMPORTANT SHARK
AND RAY AREAS
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The IUCN Species Survival Commission Shark Specialist Group, with support from the IUCN Ocean Team and the IUCN Task Force on Marine Mammal Protected Areas, is engaged in an effort to develop an expert-driven innovative approach to ensure that discrete portions of habitats, critical to shark species — Important Shark and Ray Areas (ISRA) — are delineated and used in various place-based conservation and management initiatives across the world's ocean.

VISION

ENHANCED CONSERVATION OF ALL SHARK, RAY, AND CHIMAERA SPECIES THROUGH THE IMPLEMENTATION OF A SYSTEMATIC PLACE-BASED APPROACH, SUPPORTED BY THE IDENTIFICATION OF ISRAS THROUGHOUT THESE SPECIES' RANGES.

The term 'sharks' refers to Class Chondrichthyes comprising all species of sharks, rays, and chimaeras.

MISSION

TO MOBILIZE SCIENTISTS AND CONSERVATIONISTS TO ENSURE THE RANGES OF ALL KNOWN SHARK, RAY, AND CHIMAERA SPECIES ARE GLOBALLY INVESTIGATED, SO THAT ISRAS ARE IDENTIFIED WITHIN SUCH RANGES AND MAPPED, AND PROVIDE DECISION-MAKERS AND OTHER RELEVANT STAKEHOLDERS WITH ACTIONABLE KNOWLEDGE NECESSARY FOR THE IMPLEMENTATION OF ADEQUATE SYSTEMATIC PLACE-BASED CONSERVATION.

ISRA IMPORTANT SHARK AND RAY AREAS

Recent innovations and developments in animal tracking, data collection, and reporting have enabled the recognition of discrete areas of the ocean that are significant for various groups of endemic or highly mobile animals such as Important Marine Mammal Areas (IMMAs), Important Bird Areas (IBAs), and Key Biodiversity Areas (KBAs). The same approach can now be applied to shark conservation. In addition to pointing to locations where Marine Protected Areas (MPA) or MPA networks can be envisaged to specifically protect shark species, ISRAs can support environmental impact assessments of activities specifically affecting shark conservation, marine spatial planning exercises, and in international, regional, national and local conservation contexts. Given the rapid degradation of the conservation status of a very high proportion of shark species, along with the limited place-based protection these species have been benefiting from until now, implementing an ISRA approach at the global level is considered a matter of urgency.

ISRA IMPORTANT SHARK AND RAY AREAS



WHAT ARE ISRAS?

ISRAS ARE ‘DISCRETE, TRI-DIMENSIONAL PORTIONS OF HABITAT, IMPORTANT FOR ONE OR MORE SHARK SPECIES, THAT HAVE THE POTENTIAL TO BE DELINEATED AND MANAGED FOR CONSERVATION.’

The identification of ISRAs is an evidence-driven, purely biocentric process based on the application of ad hoc scientific criteria supported by the best available science. This makes the ISRA identification process completely independent from political pressure. Any relevant management implication can only be subsequent to, and detached from, the ISRA identification process.

Most importantly, ISRAs are not MPAs. Protected areas are delimited spaces where specific regulations are enforced to ensure that human behaviour is controlled so that the negative effects of such behaviour on the conservation of the target species can be avoided or mitigated.

Conversely, ISRAs are only identified based on scientific criteria that describe their importance for the survival and well-being of one or more shark species found there. The ISRAs’ main purpose is to attract the attention of policy- and decision-makers on the need of maintaining the favourable conservation status of sharks in that specific area through the implementation of the most appropriate management measures, and this can include an MPA designation.

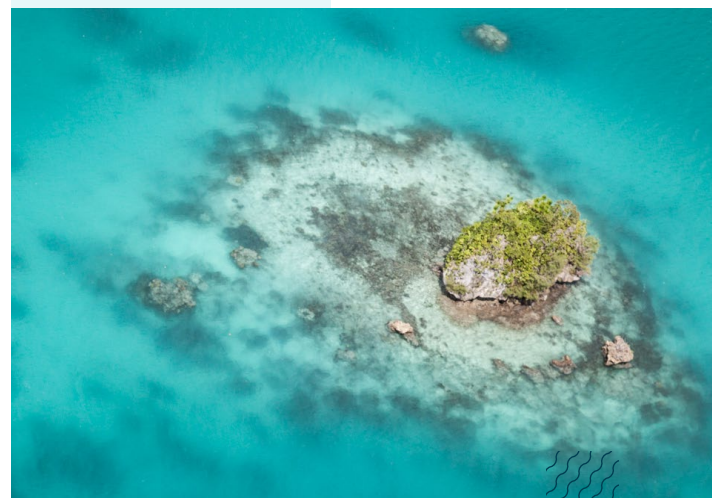
[...]

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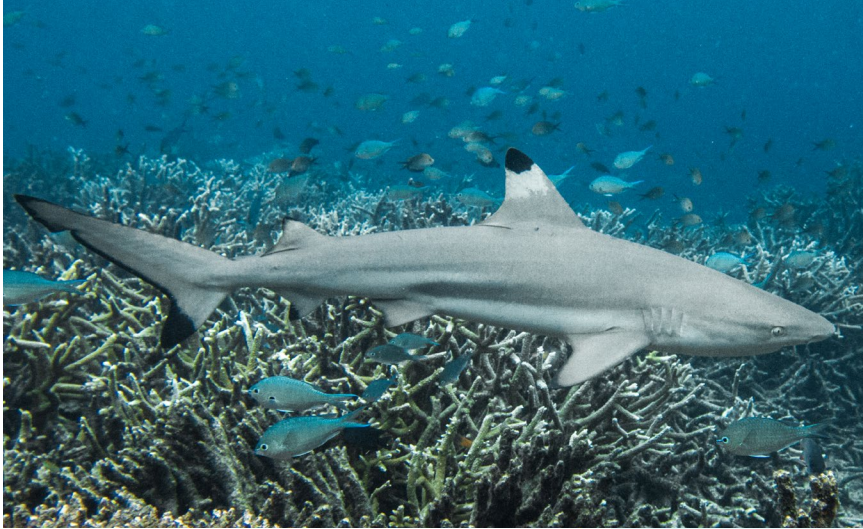
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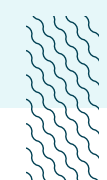
ISRA
IMPORTANT SHARK AND RAY AREAS

The identification of ISRAs is achieved through the application of scientifically based criteria. The definition of these ISRA criteria is of fundamental importance for the effectiveness of the tool in terms of its application, standardization and consistency across identified sites, as well as comparability between ISRAs at national, regional, and international scales. Criteria are designed to capture important aspects of shark biology (e.g., age, growth, and reproduction), ecology and population structure and to encompass multiple aspects of species vulnerability, distribution and movement patterns, abundance, specific habitat requirements, and key life cycle activities, as well as areas of high diversity and endemism.



WHY ISRAS ?

Chondrichthyans (sharks, rays, and chimaeras — hereafter referred to as ‘sharks’) are facing a global extinction crisis. According to the IUCN Red List of Threatened Species, it is now estimated that over one-third of sharks are threatened with extinction. Over the last century, fisheries have had a significant cumulative impact on sharks and this threat has been compounded by habitat loss and climate change. Threat levels are highest in coastal areas where 75% of threatened species occur. This makes sharks one of the most threatened taxon in the marine environment, second only to Amphibians at the global scale.



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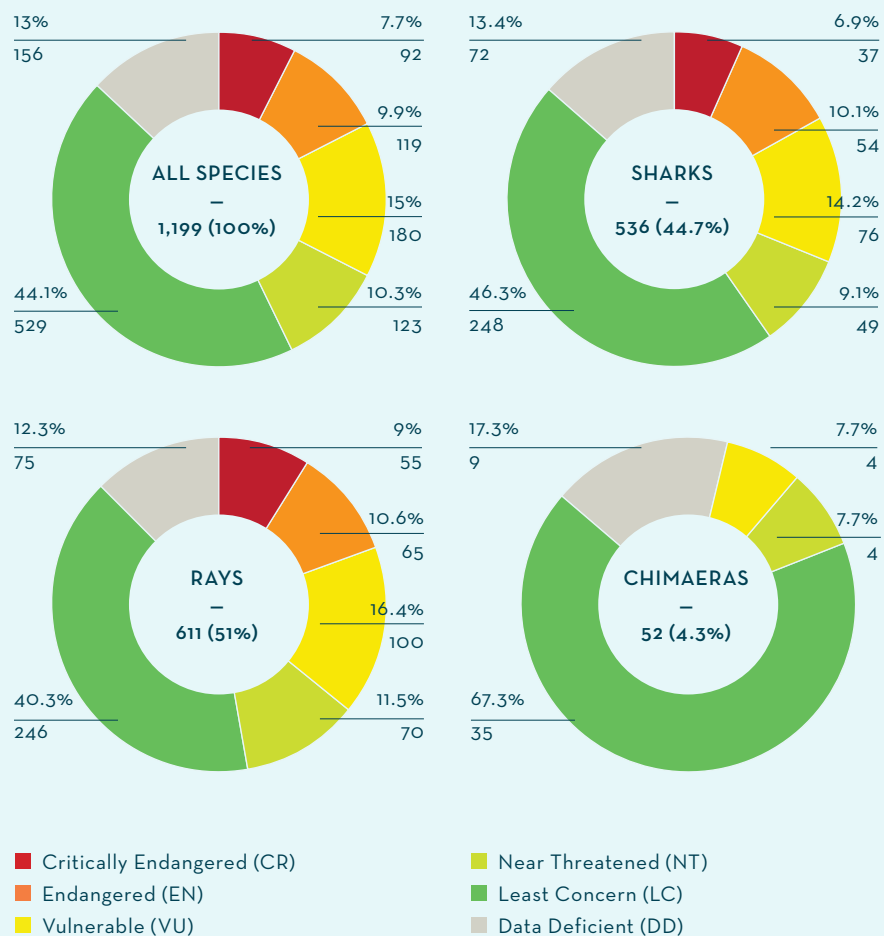
OVER ONE-THIRD OF SHARKS ARE
THREATENED WITH EXTINCTION [...]

75%

IN COASTAL HABITATS... 75% OF
SPECIES ARE CONSIDERED UNDER
THREAT [...]

EXTINCTION RISK OF SHARKS, RAYS, AND CHIMAERAS

Number and proportion of species (%)



5%

OVERALL, LESS THAN 5% OF SHARK
SPECIES ARE CURRENTLY LISTED ON
INTERNATIONAL TREATIES [...]

Considering that many shark species are long-lived, often with naturally low abundances, and particularly susceptible to fishing pressure, species are increasingly being affected. Despite substantial efforts to conserve species at the international, regional, and national levels through improved fisheries governance and trade regulations, most populations continue to decrease at alarming rates. Overall, less than 5% of shark species are currently listed on international treaties (e.g., Convention on the International Trade in Endangered Species of Flora and Fauna (CITES) or Convention on the Conservation of Migratory Species of Wild Animals (CMS)) or receive any type of protection. Fisheries and trade management measures alone are not enough to reverse population declines. However, a place-based conservation approach can play a critical role in halting these declines by sheltering populations from fishing pressure as well as habitat changes.



IMPORTANT SHARK
AND RAY AREAS

POPULATION DECLINES ARE
HAPPENING AT AN ACCELERATED
AND ALARMING RATE

THE NUMBER OF THREATENED
SPECIES HAS MORE THAN
DOUBLED SINCE 2014

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