

Blue lines indicate the area meeting the ISRA Criteria; dashed lines indicate the suggested buffer for use in the development of appropriate place-based conservation measures

BIKINI ATOLL CHANNEL ISRA

New Zealand & Pacific Islands Region

SUMMARY

Bikini Atoll Channel is located on the west side of the Bikini Atoll in the Republic of Marshall Islands in the central Pacific Ocean. This area is in a channel that connects the inner atoll lagoon to the open ocean and is characterised by strong tidal currents. Within this area there are: **threatened species** and **undefined aggregations** (Grey Reef Shark *Carcharhinus amblyrhynchos*).

CRITERIA

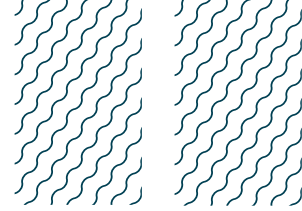
Criterion A - Vulnerability; Sub-criterion C5 - Undefined Aggregations

MARSHALL ISLANDS

0-50 metres

1.98 km²





DESCRIPTION OF HABITAT

Bikini Atoll Channel is located on the west side of the Bikini Atoll in the Republic of the Marshall Islands in the central Pacific Ocean. Bikini Atoll is a remote area that consists of 23 islands and is encircled by a large lagoon (~2,200 km²). The surrounding waters drop steeply to deep oceanic trenches, with depths reaching over 3,000 m a few kilometers from this area (~9 km). This steep bathymetry influences local currents. Ocean currents around Bikini Atoll are primarily influenced by the North Equatorial Current and the trade winds. The area is in a channel, between two small islets, that connects the inner atoll lagoon to the open ocean and is characterised by strong tidal currents. The walls and drop offs along the channel are covered with coral reefs. The area has a maximum depth of 25 m on the western side and 50 m on the eastern side of the channel.

This Important Shark and Ray Area is benthopelagic and is delineated from inshore and surface waters (0 m) to 50 m based on the bathymetry of the area.

ISRA CRITERIA

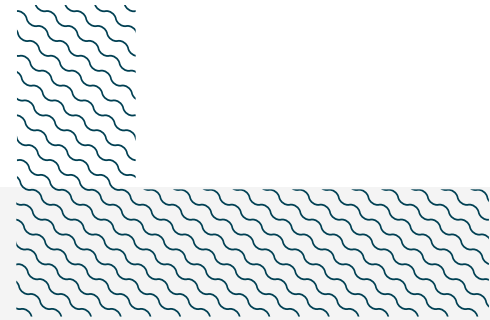
CRITERION A - VULNERABILITY

One Qualifying Species considered threatened with extinction according to the IUCN Red List of Threatened Species regularly occurs in the area. This is the Endangered Grey Reef Shark (Simpfendorfer et al. 2020).

SUB-CRITERION C₅ - UNDEFINED AGGREGATIONS

Bikini Atoll Channel is an important area for undefined aggregation of one shark species.

This area is a remote dive site, known as 'Shark Pass', visited by recreational divers. It is reputed for the opportunity to regularly and predictably interact with Grey Reef Sharks forming large aggregations of up to 100 individuals (Justgottadive 2016; Dive Booker 2017; Dive and Cruise 2024). Between 2012-2016, a recreational diver visited the site four times between June-August, observing large aggregations of 50-100 sharks during each dive (P Mesley pers. obs. 2024). Grey Reef Sharks were actively swimming along the forereef (P Mesley pers. obs. 2024). The sharks were visually estimated to have an average size of 150 cm total length (TL). Considering the size-at-maturity (120-142 cm TL for females, 130-145 cm TL for males; Ebert et al. 2021), most individuals in this area were adults. On various social media channels, divers have posted photos and videos (n = 7), between July-October of Grey Reef Shark aggregations, with an average group size of 12 individuals (range = 8-20), recorded in the area. Between September-October 2023, one underwater visual survey was conducted between 8-9 m depth in this area in which divers counted all sharks encountered along a fixed-length (25 m) corridor transect (Pristine Seas unpubl. data 2023). A total of 67 individuals per 0.01 km² were recorded suggesting that animals sighted were also in aggregations. Further information is required to confirm the nature and function of these aggregations.



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Pete Mesley (Lust4Rust), Alan M Friedlander (National Geographic Society; University of Hawaii), and Adriana Gonzalez Pestana (IUCN SSC Shark Specialist Group - ISRA Project) contributed and consolidated information included in this factsheet. We thank all participants of the 2024 ISRA Region 10 - New Zealand and Pacific Islands workshop for their contributions to this process.

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Suggested citation

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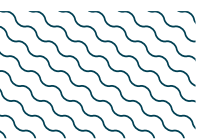
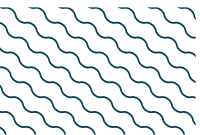
QUALIFYING SPECIES

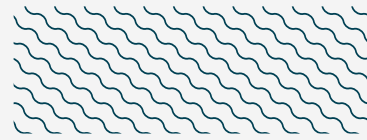
| Scientific Name | Common Name | IUCN Red List Category | Global Depth Range (m) | ISRA Criteria/Sub-criteria Met | | | | | | | | | |
|-----------------------------------|-----------------|------------------------|------------------------|--------------------------------|---|----|----|----|----|----|----|----|--|
| | | | | A | B | C1 | C2 | C3 | C4 | C5 | D1 | D2 | |
| SHARKS | | | | | | | | | | | | | |
| <i>Carcharhinus amblyrhynchos</i> | Grey Reef Shark | EN | 0-280 | X | | | | | | | X | | |

SUPPORTING SPECIES

| Scientific Name | Common Name | IUCN Red List Category |
|------------------------------------|---------------------|------------------------|
| SHARKS | | |
| <i>Carcharhinus albimarginatus</i> | Silvertip Shark | VU |
| <i>Carcharhinus melanopterus</i> | Blacktip Reef Shark | VU |

IUCN Red List of Threatened Species Categories are available by searching species names at www.iucnredlist.org Abbreviations refer to: CR, Critically Endangered; EN, Endangered; VU, Vulnerable; NT, Near Threatened; LC, Least Concern; DD, Data Deficient.





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Dive and Cruise. 2024. Bikini Atoll. Available at: <https://www.diveandcruise.fr/destination/bikini-atoll> Accessed September 2024.

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Ebert DA, Dando M, Fowler S. 2021. *Sharks of the world: A complete guide*. Princeton: Princeton University Press.

Justgottadive. 2016. Diving Marshall Island's Bikini Atoll: Shark Pass. Available at: https://www.justgottadive.com/dive_resources/travel_articles/diving-marshall-islands-bikini-atoll-shark-pass#:~:text=The%20Sharks,area%20on%20a%20single%20dive Accessed September 2024.

Simpfendorfer C, Fahmi, Bin Ali A, Dharmadi, Utzurrum JAT, Seyha L, Maung A, Bineesh KK, Yuneni RR, Sianipar A, et al. 2020. *Carcharhinus amblyrhynchos*. *The IUCN Red List of Threatened Species* 2020: e.T39365A173433550. <https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T39365A173433550.en>