

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

NECKER SLOPE ISRA

New Zealand & Pacific Islands Region

SUMMARY

Necker Slope is located around Necker Island and is part of the Northwestern Hawaiian Islands in the United States of America. It is situated ~740 km from Honolulu and ~287 km northwest of Nihoa, its nearest neighbouring island. The area is characterised by steep slopes with sandy and low-rugosity hard substrates. The area overlaps with the Northwestern Hawaiian Islands Key Biodiversity Area and with the Papahānaumokuākea Marine National Monument. Within this area there are: **range-restricted species** (Hawaiian Spurdog *Squalus hawaiiensis*).

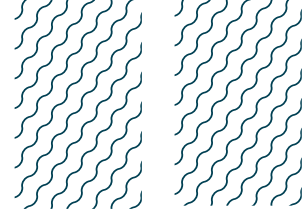
CRITERIA

Criterion B - Range Restricted

HAWAII

216–595 metres

809.2 km²



DESCRIPTION OF HABITAT

Necker Slope is located around Necker Island and is part of the Northwestern Hawaiian Islands in the United States of America. It is situated ~740 km from Honolulu and ~287 km northwest of Nihoa, its nearest neighbouring island. Necker Island is a small, fishhook-shaped volcanic island measuring ~150 m wide and less than 1,200 m long (Macdonald et al. 1970; Evenhuis & Eldredge 2004). While shallow water ecosystems around Necker Island have been documented (Parrish & Polovina 1994; Weiss et al. 2009), the deeper shelves below the euphotic zone remain largely unexplored. Necker Slope is characterised by steep slopes with sandy and low-rugosity hard substrates (Mejía-Mercado et al. 2019). Sea temperatures in the area average ~4.5°C (Mejía-Mercado et al. 2019).

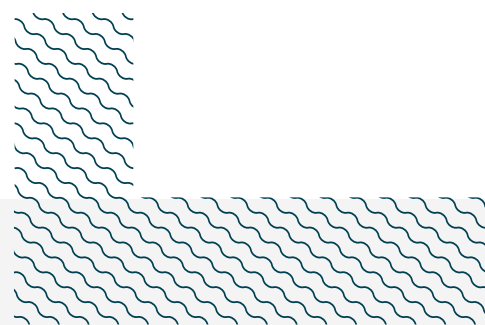
The area overlaps with the Northwestern Hawaiian Islands Key Biodiversity Area (KBA 2024) and with the Papahānaumokuākea Marine National Monument (UNEP-WCMC & IUCN 2024).

This Important Shark and Ray Area is benthic and subsurface and is delineated from 216 m to 595 m based on the distribution of the Qualifying Species in the area.

ISRA CRITERIA

CRITERION B – RANGE RESTRICTED

This area holds the regular presence of the Hawaiian Spurdog as a resident range-restricted species. Autonomous Underwater Vehicle (AUV) surveys in 2015 around Necker Island, covering depths from 200–700 m with 2–3 transects of 1,000 m at each depth, recorded the Hawaiian Spurdog at 216–595 m (Mejía-Mercado et al. 2019). Further studies in 2016 showed its highest abundance at depths below 300 m, particularly on sandy substrates, distributed almost equally between the western and southern seamount regions (Mejía-Mercado & Baco 2022). Seventy-one individuals were recorded in these surveys, which is a higher number than that recorded for other seamounts in the region (Mejía-Mercado et al. 2019; Mejía-Mercado & Baco 2023). This species occurs only in the Insular Pacific-Hawaiian Large Marine Ecosystem.



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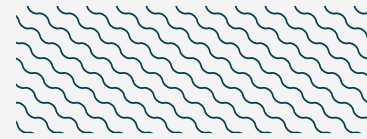
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QUALIFYING SPECIES

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>Squalus hawaiiensis</i>	Hawaiian Spurdog	LC	100–595		X							

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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