

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

MOLOKAI ISRA

New Zealand & Pacific Islands Region

SUMMARY

Molokai is located between the islands of O'ahu and Maui in the Hawaiian Islands of the United States of America. The area encompasses the islet of Mokuho'Oniki Rock and Kanahā Rock which are ~1.6 km off the northeastern coast of Molokai Island, overlapping with the Pailolo Channel. This area overlaps with the Molokai Island Marine Key Biodiversity Area. It is influenced by two flows creating a front that creates eddies and swells. Within this area there are: **threatened species** and **undefined aggregations** (Scalloped Hammerhead *Sphyrna lewini*).

CRITERIA

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

HAWAII

0-40 metres

1.14 km²



DESCRIPTION OF HABITAT

Molokai is located between the islands of O'ahu and Maui in the Hawaiian Islands of the United States of America. The area encompasses the islet of Mokuho'Oniki Rock and Kanahā Rock which are ~1.6 km off the northeastern coast of Molokai Island, overlapping with the Pailolo Channel. The area is influenced by a front created by the cross-shore shear of two flows: one which is turbid with lower salinity flow and a second with higher salinity water offshore of the front (Storlazzi et al. 2006). The convergence of these two flows results in eddies and swell which may collectively influence the coral reef and level of suspended sediment (Storlazzi et al. 2006).

This area overlaps with the Molokai Island marine Key Biodiversity Area (KBA 2024).

This Important Shark and Ray Area is benthopelagic and is delineated from inshore and surface waters (0 m) to 40 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 Critically Endangered Scalloped Hammerhead (Rigby et al. 2019).

SUB-CRITERION C5 – UNDEFINED AGGREGATIONS

Molokai is an important area for undefined aggregations of one shark species.

Scalloped Hammerheads aggregate in groups of up to 200 individuals in this area (M Rudenko pers. obs. 2024). The area is a popular dive site due to the longstanding regular and predictable presence of Scalloped Hammerhead aggregations. Between 2014–2015, at least 200 recreational dives were undertaken in this area (3–4 dives per week) by a single diver (M Rudenko pers. obs. 2024). Scalloped Hammerheads were observed on ~50% of these dives. Aggregations of up to 200 individuals were observed (mean = 10 individuals). Animals were observed year-round, with the largest aggregations being recorded in July. Additionally, recreational divers share their observations of Scalloped Hammerhead aggregations in the area online. Between 2009–2023, citizen science records show an average of ~15 Scalloped Hammerheads aggregating in the area (range 3–50 individuals) on 15 instances. There are at least 11 citizen science reports with photo/video evidence of Scalloped Hammerhead aggregations of up to 35 individuals in this area. These aggregations were reported from 2009 (n = 10 individuals), 2010 (n = 9 individuals), before 2012 (n = 50), 2012 (n = 35), 2013 (n = 4), 2015 (n = 3; 25), 2017 (n = 5), 2021 (n = 7), 2022 (n = 9), and 2023 (n = 4). There are also at least three reports of aggregations without photo/video evidence, from 2013 (n = 3 and 20 individuals; Daimarsadventures 2013), 2015 (n = 8; Scubaboard 2013), and 2023 (n = 30). The month of observation was available for 12 of these reports, recording Scalloped Hammerhead aggregations in June (n = 3 reports), July (n = 4), August (n = 3), and September (n = 1; Tripadvisor 2023). Further information is required to determine the nature and function of these aggregations.



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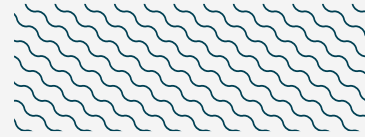
QUALIFYING SPECIES

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>Sphyrna lewini</i>	Scalloped Hammerhead	CR	0-1,043	X						X		

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
<i>Carcharhinus amblyrhynchos</i>	Grey Reef Shark	EN
<i>Carcharhinus galapagensis</i>	Galapagos Shark	LC
<i>Rhincodon typus</i>	Whale Shark	EN
<i>Sphyrna mokarran</i>	Great Hammerhead	CR
<i>Triaenodon obesus</i>	Whitetip Reef Shark	VU
RAYS		
<i>Aetobatus ocellatus</i>	Spotted Eagle Ray	EN
<i>Mobula alfredi</i>	Reef Manta Ray	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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