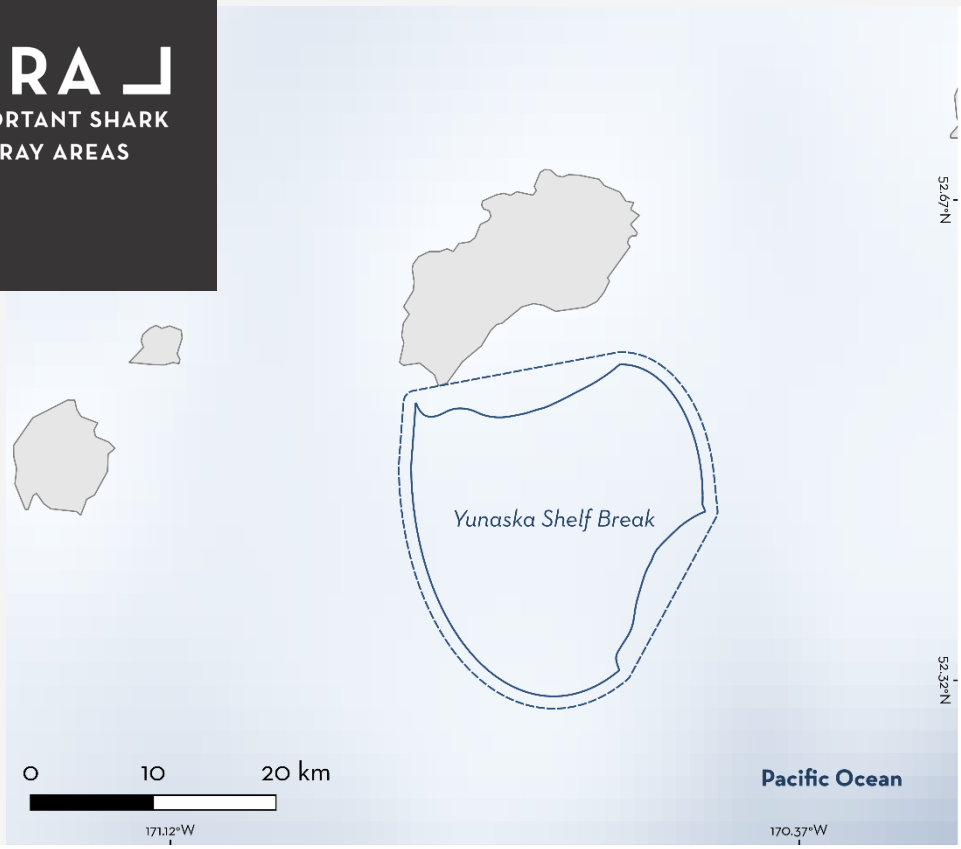
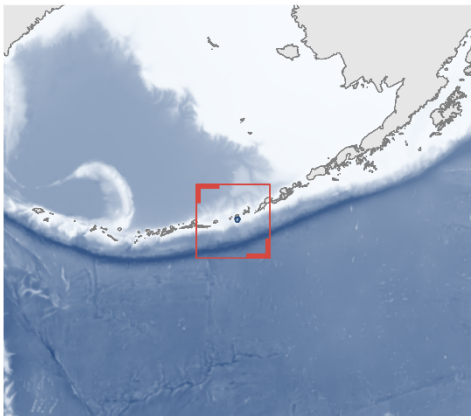
ISRA
IMPORTANT SHARK AND RAY AREAS





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

YUNASKA SHELF BREAK ISRA

North American Pacific Region

UNITED STATES OF AMERICA

130–410 metres

439.8 km²

SUMMARY

Yunaska Shelf Break is located in Alaskan waters of the United States of America. It sits south of Yinaska Island, between Samalga Pass and Amutka Pass, in the eastern part of the Aleutian Archipelago. The area is characterised by sandy and rocky substrates with coral and sponge communities, and strong eddy activity that promotes primary productivity. Within this area there are: **undefined aggregations** (Mud Skate *Bathyraja taranetzi*).

CRITERIA

Sub-criterion C5 – Undefined Aggregations

DESCRIPTION OF HABITAT

Yunaska Shelf Break is located in Alaskan waters of the United States of America. It is situated south of Yinaska Island (the largest of the eight Islands of Four Mountains), and between Samalga Pass and Amutka Pass (the third largest pass in the Aleutian region), in the eastern part of the Aleutian Archipelago (Zimmermann & Prescott 2020). These passes separate the Aleutian Trench (Pacific Ocean) and the Bering Sea (Hunt & Stabeno 2005; Khudyakova et al. 2025). The area is characterised by sandy and rocky substrates with sponge and coral communities (Rooper et al. 2014; NOAA-AFSC 2026).

This area is influenced by the Alaska Stream, an intense boundary current flowing westward along the shelf break and the Aleutian Trench (Budyansky et al. 2022). This current enters the Bering Sea through the deepest straits of the Aleutian Archipelago, including Near Strait (Khudyakova et al. 2025). It has a strong eddy activity that transport relatively warm, salty, and nutrient-rich waters promoting primary production and defining the water flow through all the straits in the Aleutian Islands (Rogachev & Shlyk 2018; Mordy et al. 2023). Bottom water temperature ranges ~4–4.5°C (NOAA-AFSC 2026)

This Important Shark and Ray Area is benthic, subsurface, and is delineated from 130–410 m based on the depth range of Qualifying Species in the area.

ISRA CRITERIA

SUB-CRITERION C5 – UNDEFINED AGGREGATIONS

Yunaska Shelf Break is an important area for undefined aggregations of one ray species.

Skates are known to aggregate, with temporal changes in aggregations related to sex and life-stage segregations (Swain & Benoît 2006; Frisk 2010; Hoff 2010). Skate aggregations are usually related to high density areas where large catch quantities occur (Bizzarro et al. 2014). Between 1982–2025, the Alaska Fisheries Science Center (AFSC) - National Oceanic and Atmospheric Administration (NOAA) conducted trawl surveys during the late spring and summer in the Bering Sea, the Aleutian Islands, and the Gulf of Alaska (NOAA-AFSC 2026). Temporal coverage of the surveys varied per region with most surveys conducted annually (e.g., continental shelf surveys in the Bering Sea), or biennially (e.g., Gulf of Alaska) since 1999 (Hoff 2016; Siple et al. 2024; Markowitz et al. 2025; Dowlin et al. 2026). The continental slope survey in the Bering Sea stopped in 2016 (Markowitz et al. 2025). Surveys are conducted at fixed stations or following a stratified random survey design and covering depths from 0–1,000 m divided in multiple depth strata across 300–500 stations per region. In general, otter trawls of ~25 m headrope and ~34 m footrope were used and tows lasted between 15–30 minutes at a speed of ~3 knots. Catch-per-unit-effort (CPUE) was estimated as the number of individuals/number of egg cases per square kilometre (no/km^2) and the area swept (km^2) as the linear distance towed, multiplied by the mean net width (Hoff 2016; Siple et al. 2024; Markowitz et al. 2025; Dowlin et al. 2026).

Between 1999–2025, aggregations of Mud Skates were regularly recorded in this area. During this period, Mud Skates were recorded in 1,048 tows during trawl surveys across the whole region, of which 27 tows (2.6%) were recorded inside this area in June–July of all surveyed years between 2000–2018 at depths of 130–408 m (NOAA-AFSC 2026). The highest CPUE of Mud Skates was reported from this area (35.3–3,356.2 individuals/km^2; average = 555.4) compared to the whole region surveyed (CPUE outside the area = 18.4–2,638.9 individuals/km^2; average = 125.1). Multiple individuals (>5) were recorded in 11 tows (40.7% of the tows with the species captured inside this area) with 82

being the maximum number of individuals recorded in a single tow. Additional information is required to understand 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
RAYS												
Bathyraja taranetzi	Mud Skate	LC	15–1,630							X		

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
RAYS		
Bathyraja mariposa	Butterfly Skate	LC
Bathyraja maculata	Whiteblotched Skate	LC

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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