

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

SEGUAM PASS ISRA

North American Pacific Region

SUMMARY

Seguam Pass is located in Alaskan waters of the United States of America. It is situated between Amlia and Seguam islands, in the central 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** (e.g., Mud Skate *Bathyraja taranetzi*).

CRITERIA

Sub-criterion C5 - Undefined Aggregations

—	—
UNITED STATES OF AMERICA	
—	—
100-460 metres	
—	—
984.9 km²	
—	—





DESCRIPTION OF HABITAT

Seguam Pass is located in Alaskan waters of the United States of America. It is situated between Amlia and Seguam islands, in the central part of the Aleutian Archipelago (Zimmermann & Prescott 2020). This is one of multiple small passes (~30 km long) that 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).

The 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 ~3.5-4.5°C (NOAA-AFSC 2026).

This Important Shark and Ray Area is benthic, subsurface, and is delineated from 100-460 m based on the depth range of Qualifying Species in the area.

ISRA CRITERIA

SUB-CRITERION C5 - UNDEFINED AGGREGATIONS

Seguam Pass is an important area for undefined aggregations of two ray species.

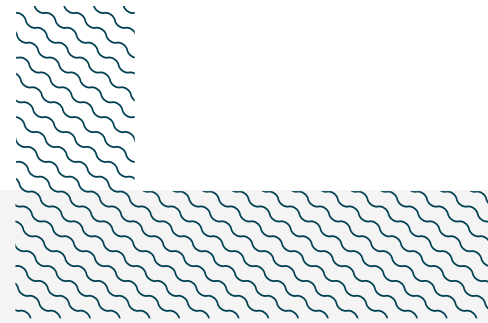
Skates are known to aggregate, with temporal changes in aggregations related to sex and life-stage segregations (Swain & Benoît 2006; Frisk 2010; Hoff 2010). Skate aggregations are usually related to high density areas where large catch quantities occur (Bizzarro et al. 2014). Between 1982-2025, the Alaska Fisheries Science Center (AFSC) - National Oceanic and Atmospheric Administration (NOAA) conducted trawl surveys during the late boreal 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/km²) and the area swept (km²) 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 1991-2025, aggregations of Whiteblotched Skates were regularly recorded in this area. During this period, Whiteblotched Skates were recorded in 1,402 tows during trawl surveys across the whole region, 162 (11.5%) of which were recorded inside this area in June-July of all surveyed years and at depths of 100-459 m (NOAA-AFSC 2026). The highest CPUE of Whiteblotched Skates in the region was reported from this area (20.6-4,956.8 individuals/km²; average = 613.9) compared to the whole region surveyed (CPUE outside the area = 15.3-4,697.8 individuals/km²; average = 201.7). Multiple individuals (>5) were recorded in 87 tows (53.7% of the tows with Whiteblotched Skates captured inside this area) with 127 Whiteblotched Skates being the maximum number of individuals

recorded in a single tow. Most individuals caught in the area were between 65–105 cm TL (Dowlin et al. 2026) with many near or above the reported size-at-maturity (94–101 cm total length [TL] for females and 89–96 cm TL for males; Last et al. 2016), indicating that aggregations are primarily composed of mature individuals.

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, 59 (5.6%) of which were recorded inside this area in June–July of all surveyed years and at depths of 106–459 m (NOAA-AFSC 2026). The second highest CPUE of Mud Skates across the whole region surveyed (CPUE outside the area = 18.4–1,812.5 individuals/km²; average = 126.1) was reported from this area (38.4–2,638.9 individuals/km²; average = 218.8) after the area between Amukta and Samalga passes (CPUE = 32.3–3,356.2 individuals/km²; average = 237.4). Multiple individuals (>5) were recorded in 14 tows (23.71% of the tows with the species captured inside this area) with 60 Mud Skates being the maximum number of individuals recorded in a single tow.

Additional information is required to understand the nature and function of these aggregations.



Acknowledgments

Thomas J Farrugia (Alaska Ocean Observing System), Cindy Tribuzio (Independent Researcher), Bruce Wright (Knik Tribe), and Emiliano García-Rodríguez (IUCN SSC Shark Specialist Group - ISRA Project) contributed and consolidated information included in this factsheet. We thank all participants of the 2026 ISRA Region 11 - North American Pacific region workshop for their contributions to this process.

This factsheet has undergone review by the ISRA Independent Review Panel prior to its publication.

This project was funded by the Shark Conservation Fund, a philanthropic collaborative pooling expertise and resources to meet the threats facing the world's sharks and rays. The Shark Conservation Fund is a project of Rockefeller Philanthropy Advisors.

Suggested citation

IUCN SSC Shark Specialist Group. 2026. Seguam Pass ISRA Factsheet. Dubai: IUCN SSC Shark Specialist Group.

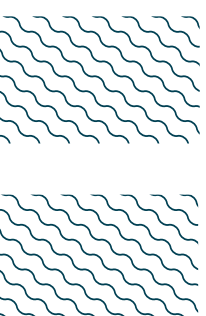
QUALIFYING SPECIES

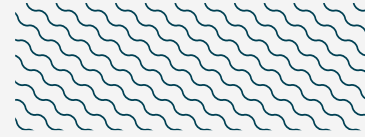
Scientific Name	Common Name	IUCN Red List Category	Global Depth Range (m)	ISRA Criteria/Sub-criteria Met									
				A	B	C1	C2	C3	C4	C5	D1	D2	
RAYS													
<i>Bathyraja maculata</i>	Whiteblotched Skate	LC	73-1,200								X		
<i>Bathyraja taranetzi</i>	Mud Skate	LC	15-1,630								X		

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
RAYS		
<i>Bathyraja mariposa</i>	Butterfly 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.





REFERENCES

- Bizzarro JJ, Broms KM, Logsdon MG, Ebert DA, Yoklavich MM, Kuhnz LA, Summers AP. 2014.** Spatial segregation in Eastern North Pacific skate assemblages. *PLoS ONE* 9: e109907. <https://doi.org/10.1371/journal.pone.0109907>
- Budyansky MV, Prants SV, Uleysky MY. 2022.** Odyssey of Aleutian eddies. *Ocean Dynamics* 72: 455–476. <https://doi.org/10.1007/s10236-022-01508-w>
- Dowlin AN, Siple MC, von Szalay PG. 2026.** Data Report: 2024 Aleutian Islands bottom trawl survey. AFSC Processed Rep. 2026-03. Seattle: NOAA-NMFS Alaska Fisheries Science Center.
- Frisk MG. 2010.** Life history strategies of batoids. In: Carrier JC, Musick JA, Heithaus MR, eds. *The biology of sharks and their relatives II*. Boca Raton: CRC Press, 283–316.
- Hoff GR. 2010.** Identification of skate nursery habitat in the eastern Bering Sea. *Marine Ecology Progress Series* 403: 243–254. <https://doi.org/10.3354/meps08424>
- Hoff GR. 2016.** Results of the 2016 Eastern Bering Sea upper continental slope survey of groundfish and invertebrate resources. NOAA Technical Memorandum NMFS-AFSC: 339. Seattle: NOAA-NMFS Alaska Fisheries Science Center.
- Hunt Jr GL, Stabeno PJ. 2005.** Oceanography and ecology of the Aleutian Archipelago: Spatial and temporal variation. *Fisheries Oceanography* 14: 292–306. <https://doi.org/10.1111/j.1365-2419.2005.00378.x>
- Khudyakova SP, Belonenko TV, Budyansky MV, Uleysky MY. 2025.** Investigation of the volume transport variability through the Near Strait (Aleutian Islands) based on global ocean reanalyses. *Physical Oceanography* 32: 771–787.
- Last PR, White WT, de Carvalho MR, Séret B, Stehmann MFW, Naylor GJP. 2016.** *Rays of the world*. Clayton South: CSIRO Publishing.
- Markowitz EH, Rohan SK, Wasserman S, Charriere NE, Anderson CB, Stevenson DE. 2025.** Results of the 2010 Eastern and Northern Bering Sea Continental Shelf Bottom Trawl Survey of Groundfish and Invertebrate Fauna. NOAA Technical Memorandum NMFS-AFSC-499. Seattle: NOAA-NMFS Alaska Fisheries Science Center.
- Mordy C, Bond N, Coker E, Deary A, Lemagie E, Proctor P, Stabeno P, Tabisola H, Van Pelt T, Wisegarver E. 2023.** Progress of fisheries-oceanography coordinated investigations in the Gulf of Alaska and Aleutian Passes. *Oceanography* 36: 94–100. <https://doi.org/10.5670/oceanog.2023.218>
- NOAA Fisheries Alaska Fisheries Science Center (NOAA-AFSC). 2026.** Fisheries One Stop Shop Public Data: RACE Division Bottom Trawl Survey Data Query. Available at: <https://www.fisheries.noaa.gov/foss> Accessed March 2026.
- Rogachev KA, Shlyk NV. 2018.** The role of the Aleutian eddies in the Kamchatka Current warming. *Russian Meteorology and Hydrology* 43: 43–48. <https://doi.org/10.3103/S1068373918010065>
- Rooper CN, Zimmermann M, Prescott MM, Hermann AJ. 2014.** Predictive models of coral and sponge distribution, abundance and diversity in bottom trawl surveys of the Aleutian Islands, Alaska. *Marine Ecology Progress Series* 503: 157–176. <https://doi.org/10.3354/meps10710>
- Siple MC, von Szalay PG, Raring NW, Dowlin AN, Riggall BC. 2024.** Data Report: 2023 Gulf of Alaska bottom trawl survey. AFSC Processed Rep. 2024-09. Seattle: NOAA-NMFS Alaska Fisheries Science Center.
- Swain DP, Benoît HP. 2006.** Change in habitat associations and geographic distribution of thorny skate (*Amblyraja radiata*) in the southern Gulf of St Lawrence: Density-dependent habitat selection or response to environmental change? *Fisheries Oceanography* 15: 166–182. <https://doi.org/10.1111/j.1365-2419.2006.00357.x>
- Zimmermann M, Prescott MM. 2021.** Passes of the Aleutian Islands: First detailed description. *Fisheries Oceanography* 30: 280–299. <https://doi.org/10.1111/fog.12519>