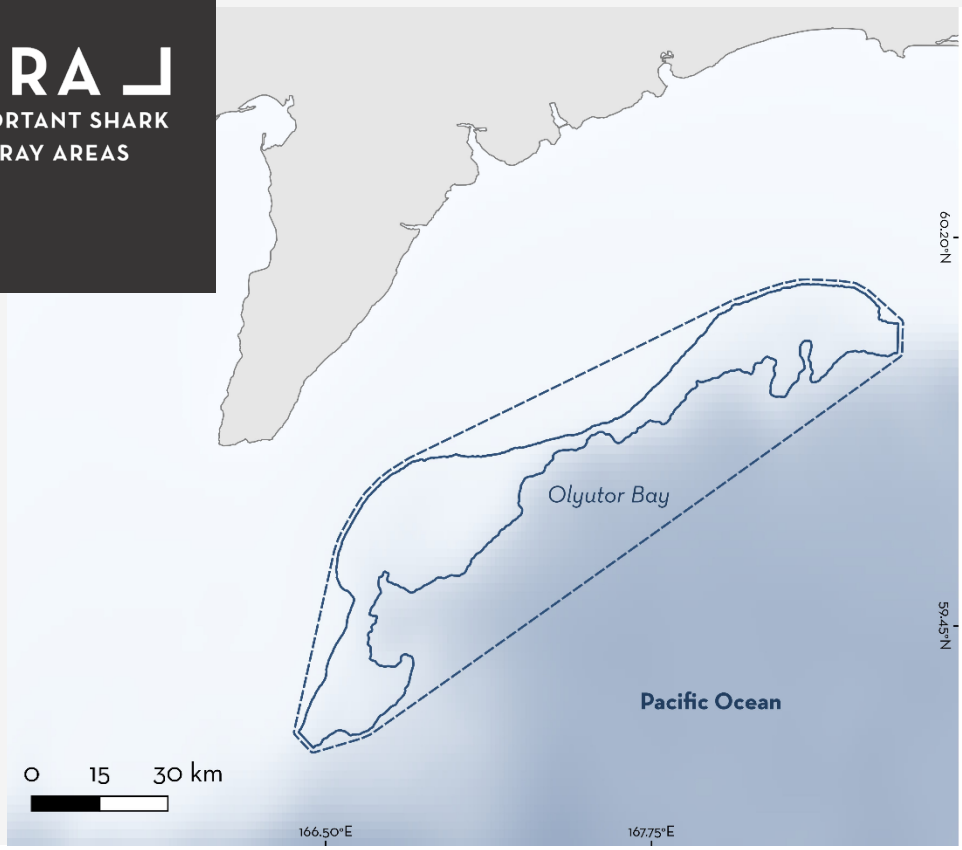
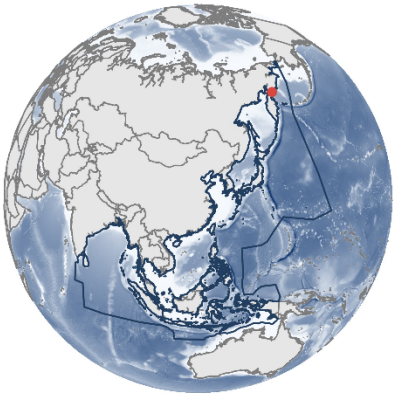
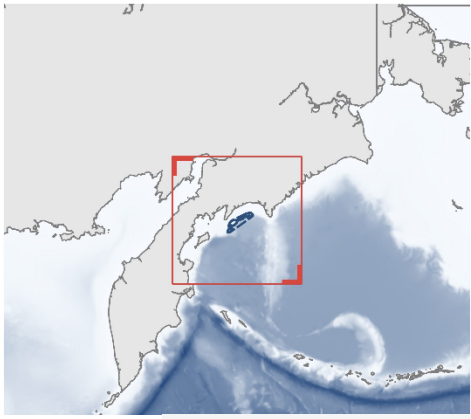
ISRA
IMPORTANT SHARK AND RAY AREAS







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

OLYUTOR BAY ISRA

Asia Region

RUSSIAN FEDERATION

75–589 metres

2,060.9 km²

SUMMARY

Olyutor Bay is located in the Bering Sea, in the waters of the Russian Federation. The area is characterised by a narrow slope and the presence of canyons with numerous rivers and streams flowing into the bay. Within the area there are: **undefined aggregations** (e.g., Aleutian Skate *Bathyraja aleutica*).

CRITERIA

Sub-criterion C5 – Undefined Aggregations

DESCRIPTION OF HABITAT

Olyutor Bay is located in the Bering Sea, on the northeast coast of Kamchatka in the Russian Federation, between the Olyutor and Goven peninsulas. It represents the ninth standard area for averaging biostatistical information during ongoing monitoring studies in the western Bering Sea (Shuntov et al. 2014). The bay has the shape of an arc turned to the south extending into the mainland for 83 km and reaches depths of 1,000 m in the southern part. It is characterised by a narrow continental shelf and the presence of canyons. Numerous rivers and streams flow into the bay. During December, fast ice appears in the bay that lasts until the end of April. In summer, sea surface temperatures rise to +10°C, but at >50 m depth they never exceed -1.7°C.

This Important Shark and Ray Area is benthopelagic and subsurface and is delineated from 75 m to 589 m based on the depth range of Qualifying Species in the area.

ISRA CRITERIA

SUB-CRITERION C5 – UNDEFINED AGGREGATIONS

Olyutor Bay is an important area for undefined aggregations of three 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). Scientific surveys using benthic trawls between 2010–2021 showed that aggregations of Aleutian Skate, Duskypurple Skate, and Whitebrow Skate regularly occur in Olyutor Bay (Orlov & Volvenko 2022; Orlov & Volvenko unpubl. data 2023). Catch-per-unit-effort (CPUE; individuals/km^2) for each species was calculated based on the area swept by survey trawls (Volvenko 2014; Orlov & Volvenko 2022).

This area holds the largest abundance of Aleutian Skate (mean: 556 individuals/km^2, max: 2,437 individuals/km^2) in Russian waters of the Northwest Pacific (Grigorov et al. 2022; Orlov & Volvenko 2022). Individuals of this species were caught in other areas of the region but in minimal numbers compared to Olyutor Bay where it was exclusively found during the month of September at depths between 248–589 m, with multiple individuals caught in a single haul (Orlov & Volvenko 2022). More information is needed to confirm the nature of these aggregations.

This area holds the largest abundance of Duskypurple Skate (mean: 387 individuals/km^2, max: 2,925 individuals/km^2) in Russian waters of the Northwest Pacific (Orlov & Volvenko 2022; Orlov & Volvenko unpubl. data 2023). Compared to other sampled areas, the largest abundances were found in Olyutor Bay between May and December at depths between 194–589 m with multiple individuals caught in a single haul. More information is needed to confirm the nature of these aggregations.

This area holds the third largest abundance of Whitebrow Skate (mean: 125 individuals/km^2, max: 471 individuals/km^2) in Russian waters of the Northwest Pacific (Orlov & Volvenko 2022; Orlov & Volvenko unpubl. data 2023). Compared to other sampled areas, the largest abundances were found in Olyutor Bay year-round except for January, at depths between 75–589 m, with multiple individuals caught in a single haul. More information is needed to confirm the nature 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 aleutica	Aleutian Skate	LC	15–1,602							X		
Bathyraja matsubarai	Duskypurple Skate	LC	120–2,000							X		
Bathyraja minispinosa	Whitebrow Skate	LC	150–1,420							X		

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
RAYS		
Bathyraja maculata	Whiteblotched Skate	LC
Bathyraja parmifera	Alaska Skate	LC
Bathyraja taranetzi	Mud Skate	LC
Bathyraja violacea	Okhotsk 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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