

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

LIRA GUYOT ISRA

North American Pacific Region

SUMMARY

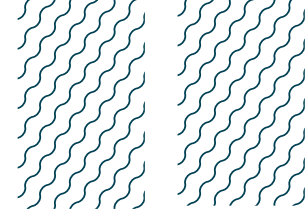
Lira Guyot is located in Areas Beyond National Jurisdiction (ABNJ) in the North Pacific. This ancient underwater volcano is a small seamount with a flat top on the Emperor Seamount Chain. It is situated towards the southern end of the seamount chain. Seamounts/guyots of the southern Emperor Seamount Chain are characterised by deepwater coral reefs. The area is influenced by the southern boundary of the Subarctic Frontal Zone with an eastward water transport direction in the Kuroshio Extension Current. This area overlaps with two Ecologically or Biologically Significant Marine Areas. Within this area there are: **range-restricted species** (Highfin Dogfish *Centroscyllium excelsum*).

CRITERIA

Criterion B - Range Restricted

—	—
ABNJ	—
—	—
450-1,200 metres	—
—	—
80.47 km²	—
—	—





DESCRIPTION OF HABITAT

Lira Guyot is located in Areas Beyond National Jurisdiction (ABNJ) in the North Pacific. This ancient underwater volcano is a small seamount with a flat top on the Emperor Seamount Chain. It is situated towards the southern end of the seamount chain and is located between Ojin Seamount to the north and Koko Guyot to the south. Seamounts/guyots of the Emperor Seamount Chain rise about 2,100–5,200 m from the abyssal plain (e.g., Ojin rises 4,500 m and Koko rises 4,700 m; Calgue et al. 1980). The depth at the top of Lira Guyot is ~500 m (Orlov & Tuponogov 2026). Seamounts/guyots of the southern Emperor Seamount Chain are characterised by deepwater coral reefs (Dautova 2025).

The area is influenced by the southern boundary of the Subarctic Frontal Zone with an eastward water transport direction in the Kuroshio Extension Current (Zuenko & Kurnosova 2025). The Subarctic Frontal Zone separates cold, fresher, subarctic water to the north from warmer, more saline, subtropical water to the south (Yuan & Talley 1996). Seamounts on the Emperor Seamount Chain have heightened biological productivity relative to surrounding oceanic zones (Zuenko & Kurnosova 2025).

This area overlaps with the Emperor Seamount Chain and Northern Hawaiian Ridge Ecologically or Biologically Significant Marine Area (EBSA) and the North Pacific Transition Zone EBSA (CBD 2026a, 2026b).

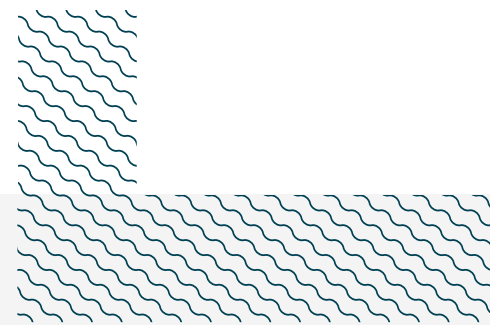
This Important Shark and Ray Area is benthic, pelagic, and subsurface and is delineated from 450–1,200 m based on the depth range of Qualifying Species in the area.

ISRA CRITERIA

CRITERION B – RANGE RESTRICTED

This area holds the regular presence of Highfin Dogfish as a resident range-restricted species. Between 1979–2023, fishing surveys (n = 1,789) were conducted across the Emperor Seamount Chain (Volvenko 2014, 2015; IV Volvenko & AM Orlov unpubl. data 2025). Surveys were conducted every year except for the periods 1989–1992, 1994–2005, and 2007–2008 (surveys were conducted in different months across years). Fishing gear consisted of midwater trawls and benthic trawls at depths between 0–1,200 m and 160–1,340 m, respectively. Trawl parameters were variable with haul time ranging <1–12 hours (mean = 1 hour); haul speed ranging 1.5–6.5 knots (mean = 3 knots); and horizontal trawl opening ranging 11–100 m (mean = 28 m). In addition to these trawl surveys, between 2014–2018, catch data from scientific observers on longliners were recorded (215–1,840 m depth; each line was 900 m long with 640 hooks, with 1–12 lines deployed and retrieved per day; IV Volvenko & AM Orlov unpubl. data 2025). Biological data on sharks and rays (length, number of individuals, and sex) were collected between 2009–2018.

During these surveys, 450 Highfin Dogfish were recorded in 19 tows/sets between 1971–2019, with 25 records (5.5%) originating from contemporary years (2019). This is the only area across the whole seamount chain where the species was recorded in contemporary years. Historical data also indicates that the second highest abundance of Highfin Dogfish was recorded in this area (average catch-per-unit-effort [CPUE] = 181.7 individuals/km²; max = 403.6 individuals/km²) after Jingu Guyot (CPUE outside the area = 71.1 individuals/km²; max = 232.9 individuals/km²). The species was recorded at depths of 450–1,200 m. Highfin Dogfish is endemic to the Emperor Seamount Chain and its distribution falls outside any Large Marine Ecosystem.



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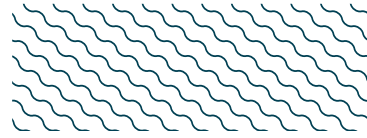
Suggested citation

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QUALIFYING SPECIES

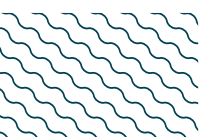
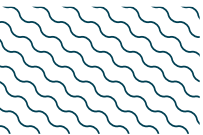
Scientific Name	Common Name	IUCN Red List Category	Global Depth Range (m)	ISRA Criteria/Sub-criteria Met								
				A	B	C1	C2	C3	C4	C5	D1	D2
SHARKS												
<i>Centroscyllium excelsum</i>	Highfin Dogfish	NT	269-1,200		X							

SUPPORTING SPECIES



Scientific Name	Common Name	IUCN Red List Category
SHARKS		
<i>Etmopterus lailae</i>	Laila's Lanternshark	DD
<i>Etmopterus pusillus</i>	Smooth Lanternshark	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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