

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

NORTHWEST CAMPBELL PLATEAU ISRA

New Zealand & Pacific Islands Region

SUMMARY

Northwest Campbell Plateau is located in southern New Zealand. It is part of the Campbell Plateau, a submarine plateau characterised by a steep continental slope that quickly descends into deep waters. The area is characterised by sandy, rocky, and muddy substrates. The area is influenced by the Subantarctic Surface Water and by warmer and more saline Subtropical Surface Waters. Within this area there are: **range-restricted species** (e.g., Smooth Deepsea Skate *Brochiraja asperula*) and **reproductive areas** (Pale Ghostshark *Hydrolagus bemisi*).

CRITERIA

Criterion B - Range Restricted; Sub-criterion C1 - Reproductive Areas

NEW ZEALAND

32-825 metres

6,984.6 km²



DESCRIPTION OF HABITAT

Northwest Campbell Plateau is located in southern New Zealand and ~150 km north of Auckland Islands. It is part of the Campbell Plateau, a submarine plateau in the south and southeast of New Zealand's South Island that is mostly bathyal (600–1,000 m) but rises up to 250 m in some areas. The area is characterised by a steep continental slope that quickly descends into waters >1,000 m with sandy and rocky substrates in shallower areas and muddy substrates in deeper areas (Hayward et al. 2007; Forcén-Vázquez et al. 2021). The area is mostly influenced by the Subantarctic Surface Water that brings cool and nutrient rich waters and by warmer and more saline Subtropical Surface Waters (Hayward et al. 2007; Stephenson et al. 2021).

This Important Shark and Ray Area is benthic and subsurface and is delineated from 32–825 m based on the bathymetry of the area.

ISRA CRITERIA

CRITERION B – RANGE RESTRICTED

This area holds the regular presence of the Smooth Deepsea Skate and Pale Ghostshark as resident range-restricted species. These species were regularly encountered in independent research surveys using demersal trawls conducted in the area during austral summer (November–December) in 1991–1993, 2000–2009, 2011, 2012, 2014, 2016, 2018, 2020, and 2022 (Bagley et al. 2014, 2017; O'Driscoll et al. 2018; MacGibbon et al. 2019; Stevens et al. 2022, 2024; B Finucci unpubl. data 2024).

For Smooth Deepsea Skate, 17 individuals were recorded in the area in 2007, 2011, 2012, 2016, 2018, 2019, and 2020 at depths of 538–743 m (B Finucci unpubl. data 2024). Northwest Campbell Plateau held the second largest catch for the species in all New Zealand after Chatham Rise. This species is assessed as Data Deficient (Finucci & Kyne 2018) making this area of global relevance. The Smooth Deepsea Skate is endemic to the New Zealand Shelf Large Marine Ecosystem (LME).

For Pale Ghostshark, 2,565 individuals were recorded at depths of 447–749 m (B Finucci unpubl. data 2024). Northwest Campbell Plateau held the second largest catch for the species in all New Zealand after Chatham Rise and individuals were recorded in all sampling years. The Pale Ghostshark is endemic to the New Zealand Shelf Large Marine Ecosystem (LME).

SUB-CRITERION C₁ – REPRODUCTIVE AREAS

Northwest Campbell Plateau is an important reproductive area for one chimaera species.

Independent research surveys using demersal trawls (200–1300 m depths) were conducted in the area during summer (November–December) in 1991 – 1993, 2000 – 2009, 2011, 2012, 2014, 2016, 2018, 2020, and 2022 (Bagley et al. 2014, 2017; O'Driscoll et al. 2018; MacGibbon et al. 2019; Stevens et al. 2022; Stevens et al. 2024). Contemporary data (since 2009) from these surveys recorded late-stage pregnant females (with egg cases ready to be deposited) of Pale Ghostshark that are regularly found in the area (B Finucci unpubl. data 2024). Of the 2,565 Pale Ghostshark recorded in the area, 170 (6.6%) were late-stage pregnant females caught at depths of 447–749 m (B Finucci unpubl. data 2024). Northwest Campbell Plateau held the second largest number of pregnant females caught in research surveys along all New Zealand in the surveyed years after the Chatham Rise (Bagley et al. 2014, 2017; O'Driscoll et al. 2018; MacGibbon et al. 2019; Stevens et al. 2022; Stevens et al. 2024; B Finucci unpubl. data 2024).



Acknowledgments

Brittany Finucci (National Institute of Water and Atmospheric Research), Clinton AJ Duffy (Auckland War Memorial Museum), Malcolm P Francis (National Institute of Water and Atmospheric Research), 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 2024 ISRA Region 10 – New Zealand and Pacific Islands 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. 2024. Northwest Campbell Plateau ISRA Factsheet. Dubai: IUCN SSC Shark Specialist Group.

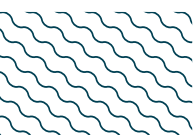
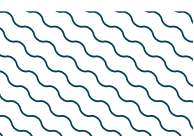
QUALIFYING SPECIES

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>Brochiraja asperula</i>	Smooth Deepsea Skate	DD	57-1,150		X							
CHIMAERAS												
<i>Hydrolagus bemisi</i>	Pale Ghostshark	LC	400-1,100		X	X						

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
<i>Bythaelurus dawsoni</i>	Dawson's Catshark	LC
<i>Centrophorus squamosus</i>	Leafscale Gulper Shark	EN
<i>Cetorhinus maximus</i>	Basking Shark	EN
<i>Dalatias licha</i>	Kitefin Shark	VU
<i>Deania calcea</i>	Birdbeak Dogfish	NT
<i>Etmopterus granulosus</i>	Southern Lanternshark	LC
<i>Etmopterus lucifer</i>	Blackbelly Lanternshark	LC
<i>Galeorhinus galeus</i>	Tope	CR
<i>Oxynotus bruniensis</i>	Prickly Dogfish	NT
<i>Scymnodon macracanthus</i>	Largespine Velvet Dogfish	VU
<i>Squalus acanthias</i>	Spiny Dogfish	VU
RAYS		
<i>Bathyraja shuntovi</i>	Longnose Deepsea Skate	DD
<i>Brochiraja spinifera</i>	Prickly Deepsea Skate	DD
<i>Dipturus innominatus</i>	Smooth Skate	LC
<i>Zearaja nasuta</i>	Rough Skate	LC
CHIMAERAS		
<i>Chimaera lignaria</i>	Giant Chimaera	LC
<i>Harriotta avia</i>	Australasia Narrow-nosed Spookfish	LC
<i>Hydrolagus novaezealandiae</i>	Dark Ghostshark	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

- Bagley NW, Ladroit Y, O'Driscoll RL. 2017.** Trawl survey of hoki and middle-depth species in the Southland and Sub-Antarctic areas, November–December 2014 (TAN1412). New Zealand Fisheries Assessment Report 2017/58. Wellington: Fisheries New Zealand.
- Bagley NW, O'Driscoll RL, Oeffner J. 2014.** Trawl survey of hoki and middle-depth species in the Southland and Sub-Antarctic areas, November–December 2012 (TAN1215). New Zealand Fisheries Assessment Report 2014/12. Wellington: Fisheries New Zealand.
- Finucci B, Kyne PM. 2018.** *Hydrolagus bemisi*. *The IUCN Red List of Threatened Species* 2018: e.T41826A116737232. <https://dx.doi.org/10.2305/IUCN.UK.2018-2.RLTS.T41826A116737232.en>
- Forcén-Vázquez A, Williams MJM, Bowen M, Bostock H, Williams MJM, Bowen M. 2021.** Frontal dynamics and water mass variability on the Campbell Plateau. *New Zealand Journal of Marine and Freshwater Research* 55: 199–222. <https://doi.org/10.1080/00288330.2021.1875490>
- Hayward BW, Grenfell HR, Sabaa AT, Neil HL. 2007.** Factors influencing the distribution of Subantarctic deep-sea benthic foraminifera, Campbell and Bounty Plateaux, New Zealand. *Marine Micropaleontology* 62: 141–166. <https://doi.org/10.1016/j.marmicro.2006.08.001>
- MacGibbon DJ, Ballara SL, Schimel ACG, O'Driscoll RL. 2019.** Trawl survey of hoki and middle-depth species in the Southland and Sub-Antarctic areas, November–December 2018 (TAN1811). New Zealand Fisheries Assessment Report 2019/71. Wellington: Fisheries New Zealand.
- O'Driscoll RL, Ballara SL, MacGibbon DJ, Schimel ACG. 2018.** Trawl survey of hoki and middle depth species in the Southland and Sub-Antarctic, November–December 2016 (TAN1614). New Zealand Fisheries Assessment Report 2018/39. Wellington: Fisheries New Zealand.
- Stephenson F, Bowden D, Finucci B, Anderson O, Rowden AA. 2021.** *Developing updated predictive models for benthic taxa and communities across Chatham Rise and Campbell Plateau using photographic survey data*. Wellington: Fisheries New Zealand/Ministry for Primary Industries.
- Stevens DW, MacGibbon DJ, Ballara SL, Escobar-Flores PC, O'Driscoll RL. 2022.** Trawl survey of hoki and middle depth species in the Southland and Sub-Antarctic, November– December 2020 (TAN2014). New Zealand Fisheries Assessment Report 2022/08. Wellington: Fisheries New Zealand.
- Stevens DW, MacGibbon DJ, Ballara SL, Wieczorek AM, Barnes TC. 2024.** Trawl survey of hoki and middle-depth species in the Southland and Sub-Antarctic areas, November–December 2022 (TAN2215). New Zealand Fisheries Assessment Report 2024/15. Wellington: Fisheries New Zealand.