

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

## WELLINGTON HARBOUR ISRA

### New Zealand & Pacific Islands Region

#### SUMMARY

Wellington Harbour is located on the southern tip of the North Island of New Zealand. The area is a subtidal estuary with multiple bays, creeks, small islands, and rivers flowing into it. It is characterised by muddy substrates with benthic communities dominated by bivalves, polychaetes, and crustaceans. The area overlaps with the Cook Strait Key Biodiversity Area. Within this area there are: **reproductive areas** (Elephant Fish *Callorhynchus milii*) and **resting areas** (Southern Eagle Ray *Myliobatis tenuicaudatus*).

#### CRITERIA

**Sub-criterion C1 - Reproductive Areas; Sub-criterion C3 - Resting Areas**

NEW ZEALAND

0-30 metres

89.94 km<sup>2</sup>





## DESCRIPTION OF HABITAT

Wellington Harbour is located on the southern tip of the North Island of New Zealand. It is a subtidal estuary with a maximum length of ~11 km and a width of 9 km. The area has multiple bays (e.g., Evans Bay, Lambton Harbour, Balaena Bay, Days Bay, and Lyall Bay), creeks, small islands (Somes Island, Ward Island, and Mokopuna Island) and rivers flowing into it (e.g., Hutt River, Kaiwharawhara Stream, Korokoro Stream, and Waiwhetū Stream). Wellington Harbour is characterised by muddy substrates with benthic communities dominated by bivalves, polychaetes, and crustaceans (Cummings et al. 2022). Circulation in the area is largely dominated by tidal dynamics. Lower sea surface temperatures are reported in austral winter (~11°C) while higher temperatures occur in summer (~17°C; Tam 2012).

The area overlaps with the Cook Strait Key Biodiversity Area (KBA 2024).

This Important Shark and Ray Area is benthic and pelagic and is delineated from inshore and surface waters (0 m) to 30 m based on the bathymetry of the area.

## ISRA CRITERIA

### SUB-CRITERION C<sub>1</sub> – REPRODUCTIVE AREAS

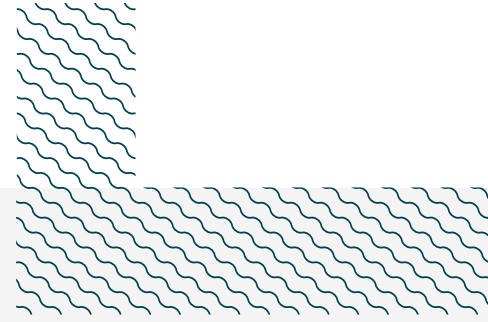
Wellington Harbour is an important reproductive area for one chimaera species.

Elephant Fish egg cases (identified by the egg morphology; Lyon et al. 2011), juveniles, and adults are regularly reported by recreational fishers, swimmers, and from washed up egg cases around Wellington Harbour, particularly in late summer (February and March; Jones & Hadfield 1985; B Finucci pers. obs. 2024). Contemporary records since 2021 (>97 egg cases) show Elephant Fish egg cases observed by divers and snorkelers at depths <6 m and washing up every month on multiple beaches in the area, including Oriental Parade, Balaena Bay, Breaker Bay, Robinson Bay, Scorching Bay, Hataitai Beach, Days Bay, and Lyall Bay (B Finucci pers. obs. 2024; iNaturalist 2024a). Egg cases are observed year-round; they are likely deposited by females in the summer and remain on the seafloor for 6-8 months before hatching like in other places in New Zealand (Francis et al. 1997; Lyon et al. 2011). Juveniles and adult Elephant Fish are more abundant in the area during late austral spring and summer, when they are caught each week by recreational fishers nearshore, but they can be found in the harbour year-round, particularly in deeper waters off Ward Island to Seatoun (<https://www.petelambfishing.co.nz>; B Finucci unpubl. data 2024).

### SUB-CRITERION C<sub>3</sub> – RESTING AREAS

Wellington Harbour is an important resting area for one ray species.

Since 2015, Southern Eagle Rays have been frequently observed during summer months (December–February) but are present in the area from ~October–April. Southern Eagle Rays are regularly and predictably observed in the area ~two times per week in pairs or in larger aggregations of up to 12 individuals, particularly in Whairepo Lagoon. While in some locations in the area, Southern Eagle Rays are observed swimming in the surface, most of the observed individuals are often found resting in shallow (and presumably warm) waters on soft substrates or in human-made submerged platforms during high tide (B Finucci pers. obs. 2024; iNaturalist 2024b). This behavior has not been previously reported for this species (Araujo et al. 2024) highlighting the importance of the area.



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## **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.** Wellington Harbour ISRA Factsheet. Dubai: IUCN SSC Shark Specialist Group.

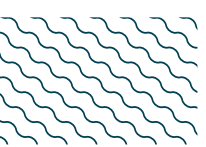
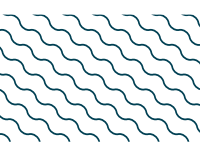
## QUALIFYING SPECIES

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
<b>RAYS</b>											
<i>Myliobatis tenuicaudatus</i>	Southern Eagle Ray	LC	0-422					X			
<b>CHIMAERAS</b>											
<i>Callorhinchus milii</i>	Elephant Fish	LC	0-200			X					

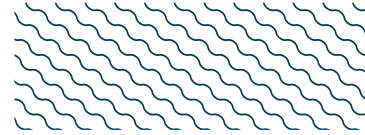
## SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
<b>SHARKS</b>		
<i>Cephaloscyllium isabellum</i>	Carpet Shark	LC
<i>Galeorhinus galeus</i>	Tope	CR
<i>Mustelus lenticulatus</i>	Rig	LC
<i>Prionance glauca</i>	Blue Shark	NT
<i>Squalus acanthias</i>	Spiny Dogfish	VU
<b>RAYS</b>		
<i>Bathytoshia brevicaudata</i>	Smooth Stingray	LC
<i>Tetronarce nobiliana</i>	Great Torpedo Ray	LC
<i>Zearaja nasuta</i>	Rough Skate	LC

IUCN Red List of Threatened Species Categories are available by searching species names at [www.iucnredlist.org](http://www.iucnredlist.org) Abbreviations refer to: CR, Critically Endangered; EN, Endangered; VU, Vulnerable; NT, Near Threatened; LC, Least Concern; DD, Data Deficient.

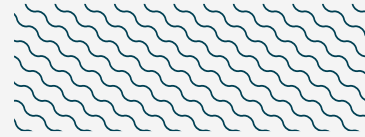


## SUPPORTING INFORMATION



There are additional indications that the area may be important for a range-restricted shark.

Rig is commonly observed by swimmers and snorkelers and is caught by recreational anglers in Wellington Harbour, particularly around Oriental Bay, during the summer (December–February; B Finucci unpubl. data 2024). In summer, there are multiple reports of observations per week (B Finucci unpubl. data 2024). Individuals are mostly observed in shallow waters (<5 m) with some individuals feeding on benthic invertebrates (e.g., pagurid and brachyuran crustaceans; B. Finucci, pers. obs. 2024). Most of the individuals are adults based on their reported sizes of >1 m total length (TL; iNaturalist 2024b). The known size at maturity for this species is ~78–113 cm TL (Ebert et al. 2021). In addition, aggregations of up to 30 individuals are commonly observed in the area by swimmers and snorkelers (B Finucci pers. obs. 2024). More information is needed to confirm the importance of the area compared to others in the region.



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