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

PRINCESS ALICE BANK ISRA

European Atlantic Region

PORTUGAL

0–600 metres

232.7 km²

SUMMARY

Princess Alice Bank is located in the Azores Archipelago, Portugal. The shallowest point of this offshore seamount is its steep summit which reaches a depth of 30 m. The area is characterised by temperate conditions as a result of the confluence of the North Atlantic Current and the Azores Current. Within this area there are: **threatened species** and **reproductive areas** (Sicklefin Devil Ray *Mobula tarapacana*).

CRITERIA

Criterion A – Vulnerability; Sub-criterion C1 – Reproductive Areas

DESCRIPTION OF HABITAT

Princess Alice Bank is located in the Azores Archipelago. The Azores are a Portuguese archipelago situated in the mid-north Atlantic Ocean. The area is found 92.6 km to the southwest of Pico Island and 83.3 km to the southwest of Faial Island. This offshore seamount extends in a northwest-southeast direction and is about 70 km long and approximately 25 km wide with its steep summit reaching a depth of 30 m.

The area is characterised by temperate conditions as a result of the confluence of the North Atlantic Current and the Azores Current. Sea surface temperatures are lower in boreal winter and higher in summer with chlorophyll-α concentrations showing the opposite pattern (Santos et al. 2013; Amorim et al. 2017).

This Important Shark and Ray Area is pelagic and is delineated from 0–600 m based on the bathymetry of the area.

ISRA CRITERIA

CRITERION A – VULNERABILITY

One Qualifying Species considered threatened with extinction according to the IUCN Red List of Threatened Species regularly occurs in the area. This is the Endangered Sicklefin Devil Ray (Marshall et al. 2022).

SUB-CRITERION C1 – REPRODUCTIVE AREAS

Princess Alice Bank is an important reproductive area for one ray species.

Pregnant female Sicklefin Devil Rays occur regularly and predictably in the area in larger numbers than in other places across the species distribution (except for Ambrósio Seamount, also located in the Azores; Sobral 2013; A Sobral unpubl. data 2025). Between 1990–2024, photo-identification data collected from underwater visual census and citizen science (on a daily basis, weather permitting) revealed Sicklefin Devil Ray aggregations in the area composed of 7–15 individuals on average with a maximum of 45 individuals recorded at any one time (Sobral 2013; Solleliet-Ferreira et al. 2020; A Sobral unpubl. data 2025). Since 2012, pregnancy has been consistently assessed and was assigned to an individual when a noticeable distended abdomen was observed in photographs. However, depending on the angle from which the picture was taken, pregnancy may be difficult to assess, suggesting that the proportion of pregnant females is likely to be underestimated (A Sobral unpubl. data 2025). Of 103 individuals identified by photo-identification in the area, 36 were females, 49 males, and 18 undetermined. Ten of these females (27%) were pregnant and occurred in the area between June–October (Sobral 2013; Sobral & Afonso 2014). The area is important for the gestation of this species as females in different stages of gestation are found in the area with extended abdomens growing noticeably bigger as the summer advances (A Sobral unpubl. data 2025). Additionally, five females have been resighted across multiple years (1–8 years between resighting) in this area with three observed during different pregnancies up to seven years apart, indicating that this location provides refuge and/or ideal conditions for gestating females (A Sobral unpubl. data 2025). One pregnant female recorded in this area in 2011 was resighted pregnant in 2017 in Ambrosio Seamount, ~450 km southeast from this area (A Sobral unpubl. data 2025). Females are also regularly observed with mating scars (healed) and recorded males are all adults or sub-adults. Courtship behaviour has also been observed in the area (A Sobral unpubl. data 2025), although it does not

seem to be a consistent behaviour (A Sobral unpubl. data 2025). There are no records of neonate, young-of-the-year, or juveniles in the area.

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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												
Mobula tarapacana	Sicklefin Devil Ray	EN	0–1,896	X		X						

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
Rhincodon typus	Whale Shark	EN
RAYS		
Mobula birostris	Oceanic Manta Ray	EN

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.

SUPPORTING INFORMATION

There are additional indications that this area is important for feeding of one ray species.

Citizen science data from 2012–2024 have recorded aggregations of Sicklefin Devil Rays in the area (Sobral 2013; A Sobral unpubl. data 2025). These groups are regularly seen preying on bait balls of Longspine Snipefish *Macrorhamphosus scolopax* (Solleliet-Ferreira et al. 2020) and Boarfish *Capros aper* (A Sobral pers. obs. 2013). Sicklefin Devil Ray aggregations composed of 7–15 individuals on average are observed in the summer, when productivity in the area is at its lowest (Visser et al. 2011; González García et al. 2023). Since this species is known to feed on small fishes, feeding on small pelagic fishes may represent an important opportunistic strategy in the area to meet energetic requirements. Additional information is needed to confirm the regularity of life history functions and the importance of the area for this species.

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