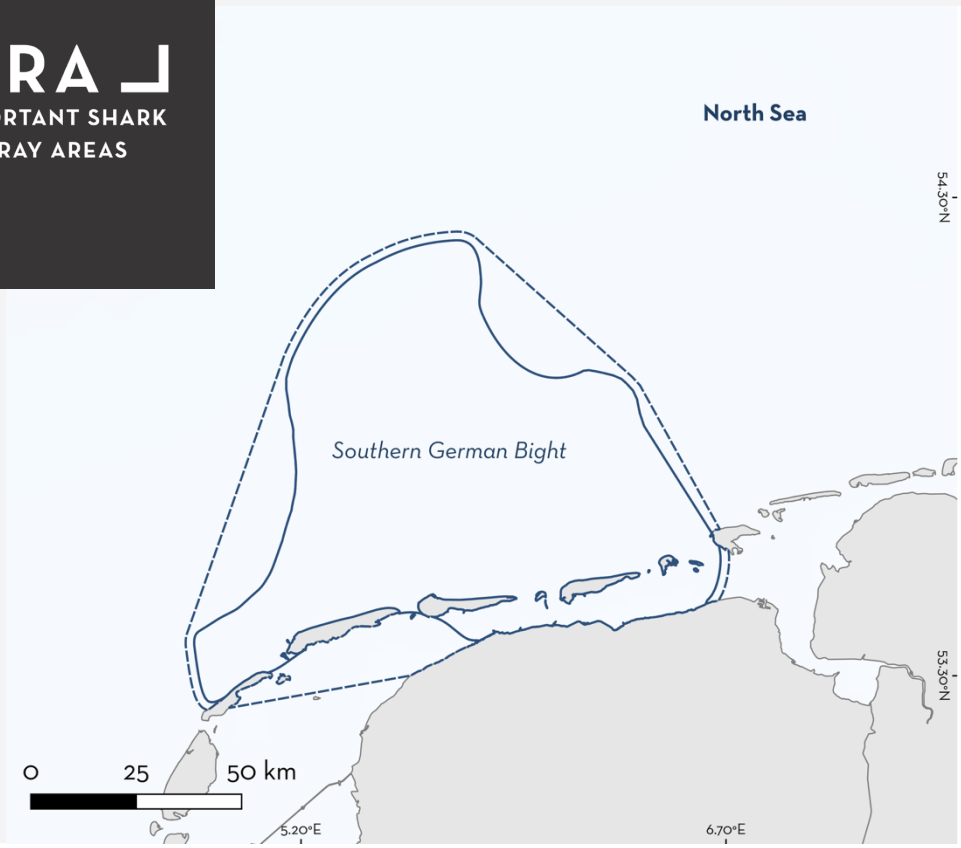
ISRA
IMPORTANT SHARK AND RAY AREAS



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

SOUTHERN GERMAN BIGHT ISRA

European Atlantic Region

GERMANY
NETHERLANDS

0–40 metres

6,705.2 km²

SUMMARY

Southern German Bight is located in the waters of Germany and the Netherlands. It is a shallow, highly productive, nearshore shelf area with barrier islands and strong daily tidal changes. The seafloor in the area consists of sandbanks and rocky reefs. It overlaps with five Ramsar Sites. Within this area there are: **threatened species** and **reproductive areas** (Tope *Galeorhinus galeus*).

CRITERIA

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

DESCRIPTION OF HABITAT

Southern German Bight is located in the waters of Germany and the Netherlands. This highly productive shelf area includes shallow waters in the southern North Sea and coastal waters of the Wadden Sea, which has the largest tidal flats in the world (EEA 2025). The barrier islands of the West and East Frisian Islands, in combination with strong daily tidal changes over vast areas, add to the mixing of nutrients and the areas' high productivity. The seafloor consists of sandbanks and rocky reefs with pronounced structures and high benthic biodiversity, that provide shelter and reliable food sources. At low tide, ~60% of the Wadden Sea consists of flats and the rest of the area consists of gullies (EEA 2025).

The area overlaps with five Ramsar Sites (Wetlands of International Importance): Duinen Ameland, Duinen Schiermonnikoog, Duinen Terschelling, Duninen Vlieland, and North Sea Coastal Area (Ramsar 2025a, b, c, d, e).

This Important Shark and Ray Area is benthic and pelagic and is delineated from inshore and surface waters (0 m) to 40 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 Critically Endangered Tope (Walker et al. 2020).

SUB-CRITERION C1 – REPRODUCTIVE AREAS

Southern German Bight is an important reproductive area for one shark species.

Neonate and young-of-the-year (YOY) Tope are regularly found in this area. The data to support the importance of this area for reproduction originates from catch databases from commercial, recreational, and independent fisheries surveys (J Edwards et al. unpubl. data 2025), the International Council for the Exploration of the Sea trawl surveys (ICES 2025), local ecological knowledge (LEK) (Noorlander et al. 2018), and mark-and-recapture data (Thorburn et al. 2019).

First, catch databases (1902–2022) from commercial and recreational fisheries, as well as fisheries-independent surveys, were used to assess the presence of pupping grounds in Dutch coastal waters (J Edwards et al. unpubl. data 2025). Records include historical data from the early 1900s, incidental captures from various surveys using several different gear types (from 1971 onward), and recent reports from recreational fishers (2016–2022). Data collated include species, capture location, total length (TL), and the presence of umbilical scars. Databases did not always distinguish between males and females, and pregnancies were not recorded, therefore only a subset of records were utilised to assess reproductive activity. Based on size data, Tope in the area were classified into three age classes: (1) neonates and YOY, <45 cm TL; (2) juveniles, 45–130 cm TL; and (3) adults, >130 cm TL (J Edwards et al. unpubl. data 2025). Size-at-birth for this species is 30–40 cm TL (Ebert et al. 2021). In Dutch coastal waters, measured females (n = 92) ranged in size between 28–165 cm TL, of which 40% were neonates and YOYs (measuring 28–45 cm TL), 54% were juveniles, and 6% were adults (J Edwards et al. unpubl. data 2025).

Second, data from the ICES International Bottom Trawl Survey in the North Sea (NS-IBTS) between 2010–2024 were used to examine reproductive areas for the species in the southern North Sea (ICES 2025). These data grouped Tope as neonates (<41 cm TL), YOY (41–51 cm TL), or larger juveniles and adults (>51 cm TL) (Dureuil & Worm 2015). Data were available as catch-per-unit-effort (CPUE; individuals per hour). The NS-IBTS data showed that Tope are almost exclusively captured in the southern North Sea (south of 55°N), where the species was captured in 73 of 2,725 hauls (2.7%; ICES 2025) with a CPUE of 1–2 individuals. Neonates and YOYs were only captured in the eastern part of the southern North Sea, mostly within this area, while larger juveniles and adults were almost exclusively captured in the western part, outside this area. A total of 17 neonates and 11 YOY were captured in this area, with just four other neonates captured outside of the area during the survey. Neonates and YOY were recorded in nine of the 15 survey years. The catchability of the fast-swimming and benthopelagic Tope in IBTS bottom trawl gear is limited, resulting in low numbers overall. However, anglers around Helgoland Island, just east of this area, also catch adult Tope (M Schaber pers. obs. 2025), highlighting the presence of adults in the region presumably before or after giving birth. Large juveniles and adults were captured in January–February and July–August in the area, but neonates and YOYs were only captured in July–August (ICES 2025), supporting boreal summer seasonality in reproduction.

In addition to these databases, LEK from interviews with fishers in Dutch coastal waters stated that neonate and YOY Tope (estimated at <50 cm TL) are more common in summer months in the area, supporting the seasonality presented from the NS-IBTS data (Noorlander et al. 2018). The modelled distribution of immature Tope based on mark-and-recapture data and the IBTS datasets confirm that this area constitutes an important habitat for the smallest size classes of Tope (Thorburn et al. 2019).

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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												
Galeorhinus galeus	Tope	CR	0–826	X		X						

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
Mustelus asterias	Starry Smoothhound	NT
Scyliorhinus canicula	Smallspotted Catshark	LC
Scyliorhinus stellaris	Nursehound	VU
RAYS		
Raja clavata	Thornback Skate	NT

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 may be important for reproductive purposes of Starry Smoothhound. Neonates and YOY Starry Smoothhound have been recorded in this area (P Walker unpubl. data 2025). In addition, records from nearshore coastal angling in and close to the Wadden Sea reveal adult and seemingly pregnant females, as well as neonates. However, more information is required to determine the regular and predictable occurrence of this life-history stage.

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