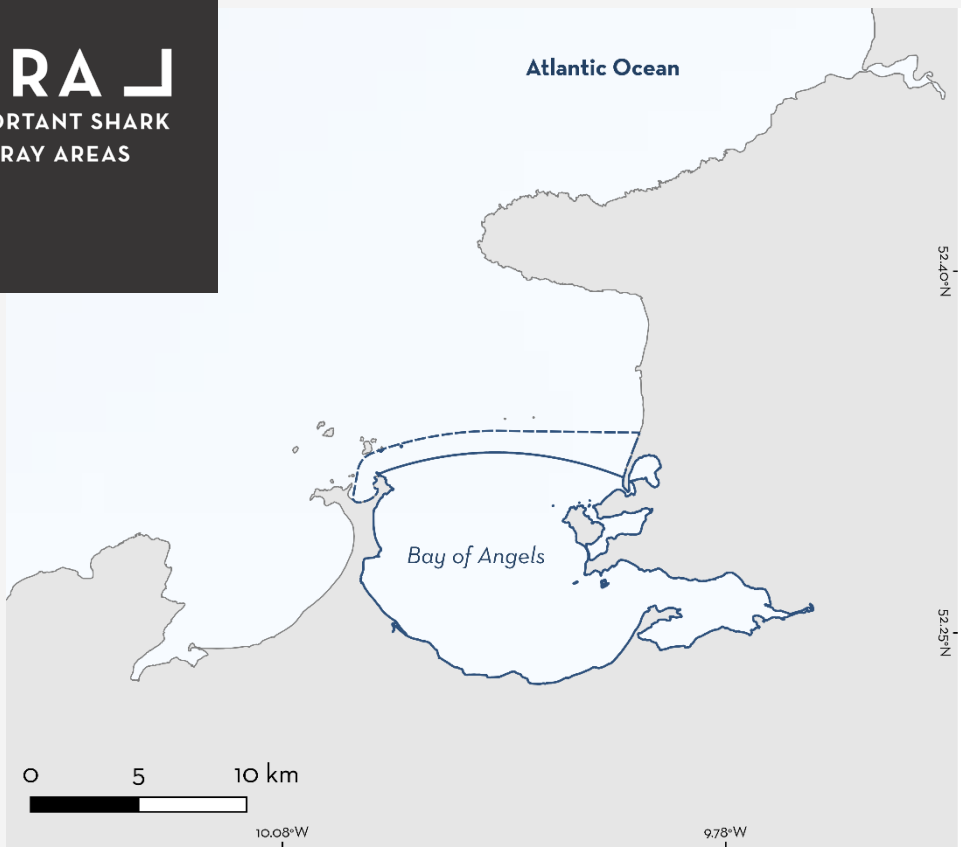
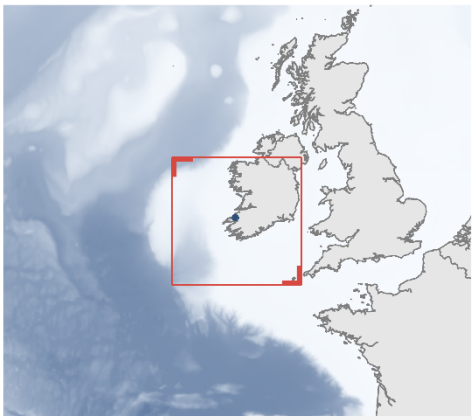
ISRA
IMPORTANT SHARK AND RAY AREAS





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

BAY OF ANGELS ISRA

European Atlantic Region

IRELAND

0–30 metres

122.2 km²

SUMMARY

Bay of Angels is located on the coast of west Ireland. The area encompasses two bays and three headlands. It is a shallow estuarine bay fed by the River Lee with depths ranging from 1–10 m in the inner bay to 30 m offshore. The area encompasses highly productive shallow estuarine areas and diverse benthic habitats, influenced by strong riverine inputs and productive coastal waters. The area overlaps with one Key Biodiversity Area and one Ramsar Site. Within this area there are: **threatened species** (e.g., Common Stingray *Dasyatis pastinaca*); **reproductive areas** (Angelshark *Squatina squatina*); and **undefined aggregations** (e.g., Undulate Skate *Raja undulata*).

CRITERIA

Criterion A – Vulnerability; Sub-criterion C1 – Reproductive Areas; Sub-criterion C5 – Undefined Aggregations

DESCRIPTION OF HABITAT

Bay of Angels is located on the coast of Ireland. It is situated on the west coast of County Kerry, encompassing Tralee Bay. The area lies on a gently sloping continental shelf with a coastline featuring sheltered estuarine waters, sandy and rocky bays, and prominent headlands. Bay of Angels is a shallow estuarine bay fed by the River Lee, bordered by the Maharees tombolo and islands to the west, and Kerry Head to the east. Depths range from 1–10 m in the inner bay to 30 m offshore. The bay supports diverse benthic habitats, including native oyster beds, *Zostera* seagrass meadows, biogenic reefs, maerl beds, and mixed sediments (NPWS 2013). The bay hosts subtidal and intertidal seagrass beds, which enhance primary productivity and support rich benthic communities (NPWS 2013).

The area overlaps with the Tralee Bay and Barrow Harbour Key Biodiversity Area (KBA; KBA 2025) and the Tralee Bay Ramsar Site (Wetland of International Importance; Ramsar 2025).

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

ISRA CRITERIA

CRITERION A – VULNERABILITY

Two Qualifying Species considered threatened with extinction according to the IUCN Red List of Threatened Species regularly occur in this area. These are the Critically Endangered Angelshark (Morey et al. 2019) and the Vulnerable Common Stingray (Jabado et al. 2021).

SUB-CRITERION C1 – REPRODUCTIVE AREAS

Bay of Angels is an important reproductive area for one shark species.

This area has historically been known for the regular and predictable occurrence of Angelshark. There are 532 historic angling records of Angelsharks in the area between 1953–2003, predominantly caught between the months of June–September (Irish Elasmobranch Group unpubl. data 2025). This timing coincides with documented pupping periods in the United Kingdom, which is believed to be between June–July (Norman & Fraser 1948). Three young-of-the-year (YOY) Angelsharks (<40cm TL) were recorded in this area, one in 2018 and two in 2024. These individuals were classified as neonate/YOY as their size is close to their reported size-at-birth (26–30 cm TL; Ebert et al. 2021). A visibly pregnant Angelshark with a swollen abdomen was also recorded in the area in 2023 (Irish Elasmobranch Group unpubl. data. 2025). While these numbers are low, these are the only encounters with YOY or pregnant Angelsharks around the island of Ireland since the 2000s. Populations of Angelshark have been drastically impacted by overfishing and their distributional range extensively contracted (Shepherd et al. 2019). The species is now considered Extinct in the North Sea with several records from Ireland over the last decade suggesting that this is one of their last known northerly refugia and thus highlighting the importance of this area (Bom et al. 2020; Barker et al. 2022).

SUB-CRITERION C5 – UNDEFINED AGGREGATIONS

Bay of Angels is important for undefined aggregations of three ray species.

Bay of Angels is well known amongst sportfishers as a hotspot for rays, with an annual 'Tag a Ray' angling competition in which sportfishers have targeted rays on rod-and-line over two days every May since 2014. Between 2010–2024, captured rays were tagged with unique conventional tags, released, and reported to the Inland Fisheries Ireland's (IFI) Marine Sportfish Tagging Programme (IFI 2023; IFI unpubl. data 2025). Trips were either from shore or from a boat and ranged from 2–8 hours per day. Reports are limited to successful trips (i.e., when one or more rays were caught and tagged). Catch was reported as the number of individuals of a species per angling trip per day. The angling season spans April–October. All tagging data below originate from this source. Additional data come from a monthly scientific set netting survey which was carried out from April 2018 to March 2019 in and around the Bay of Angels (Tully & Palma Pedraza 2022). The survey undertook 88 tangle net deployments in the Bay of Angels. Although the same general area was surveyed each month, survey stations were not fixed and were adjusted according to the knowledge of skippers involved and to increase the overall spatial coverage and possibility of recording all species that may have been present.

This area is the only known hotspot for Common Stingray around the Irish coast. As part of IFI's tagging programme, a total of 51 Common Stingrays were recorded around the Irish coast between 2010–2024, with 100% recorded in this area. Common Stingray were recorded on 17 days in total. High catch rates were recorded on four days (two in May 2016 and two in May 2017) with a mean catch rate of six individuals (maximum = 12) per trip. Only one recapture has been reported of a Common Stingray in Ireland since 2010 and it was within the Bay of Angels in June 2016 (IFI 2023). The Marine Institute of Ireland's scientific netting survey encountered 140 Common Stingrays from 17 of 88 net hauls (19.3%) within the shallow, inshore waters of Bay of Angels. Relatively small numbers of individuals were also reported in August 2018 (n = 32), September 2018 (n = 5), December 2018 (n = 2), and February 2019 (n = 5), with 69% (n = 96) of all Common Stingray encountered in April 2018 (n = 6 per net haul). Furthermore, large groups of >20 Common Stingrays have been recorded on video in July 2022 and encounters of 3–7 rays have been regularly reported by a variety of water users (swimmers, paddleboarders, snorkelers) throughout July and August each year between 2022–2025 (Irish Elasmobranch Group unpubl. data 2025). Common Stingray feeding has been observed via snorkelling in July–September 2022–2023 and on ~10 other occasions since 2020, with areas of >30 Common Stingray aggregating together (Irish Elasmobranch Group unpubl. data 2025). Furthermore, Common Stingray feeding pits can be observed at low tide (Irish Elasmobranch Group unpubl. data 2025). Anecdotal reports suggest that large pregnant female Common Stingray come to the Bay of Angels between March-May to pup (Irish Elasmobranch Group unpubl. data 2025), suggesting that this area may be used for reproductive purposes.

As part of IFI's tagging programme, a total of 670 Thornback Skates were recorded around the Irish coast between 2010–2024, with 11% (n = 70) recorded in this area. Thornback Skate were recorded on 29 dates in total. One recapture was recorded in June 2011. High catch rates were recorded on seven dates with a mean of 4.4 individuals (maximum = 9) per trip, all between May–September. In the Marine Institute of Ireland's scientific set net survey, 536 Thornback Skates were encountered in 88 hauls (Tully & Palma Pedraza 2022). Thornback Skates were the most abundant ray species reported from the set net survey. A catch of three or more individuals per haul were reported from May–July 2018, December 2018, and February and March 2019 (mean average haul per month with aggregations = 7.25; maximum average haul per net = 9). There is evidence of anglers catching multiple Thornback Skates back-to-back in a small timeframe, with records of an angler fishing from shore

with two rods in the water capturing two Thornback Skates at the same time. These data highlight that this species is aggregating in the area but further information is required to understand the nature and function of these aggregations.

Bay of Angels is the only known hotspot for Undulate Skate around the Irish coast. As part of IFI's tagging programme, a total of 128 Undulate Skates were tagged around the Irish coast between 2010–2024, with 98% (n = 128) recorded in this area. Undulate Skates were recorded on 32 dates in total. High catch rates were recorded on 13 dates with a mean of 7.2 individuals (maximum = 23) per trip, all between May–July. In the Marine Institute of Ireland's scientific set net survey, 47 Undulate Skates were encountered in 13 of 88 net hauls (Tully & Palma Pedraza 2022). No Undulate Skate were reported from hauls outside the area. There is evidence of anglers catching multiple Undulate Skates back-to-back in a short timeframe within the area, suggesting that they are likely aggregating here. There is also some evidence that Undulate Skate may be reproducing in the area. A pair of mating Undulate Skates were encountered by an angler in April 2024, a YOY Undulate Skate was recorded in March 2024, and one angler fishing from shore in the area captured a small animal. This suggests that this area may be used for reproductive purposes. However, information is needed to understand the nature and function of these aggregations.

Acknowledgments

Louise Overy (Irish Elasmobranch Group; Munster Technological University; University College Cork), Ciara Wögerbauer (Inland Fisheries Ireland), William K Roche (Inland Fisheries Ireland), Gary Hannon (Irish Elasmobranch Group), Declan Quigley (Irish Elasmobranch Group), and Bríd O'Connor (IUCN SSC Shark Specialist Group – ISRA Project; Marine Dimensions; University College Cork) contributed and consolidated information included in this factsheet. We thank all participants of the 2025 ISRA Region 02 – European Atlantic 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. 2025. Bay of Angels 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
SHARKS												
Squatina squatina	Angelshark	CR	0–150	X		X						
RAYS												
Dasyatis pastinaca	Common Stingray	VU	0–200	X						X		
Raja clavata	Thornback Skate	NT	0–1,020							X		
Raja undulata	Undulate Skate	NT	0–200							X		

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
Cetorhinus maximus	Basking Shark	EN
Galeorhinus galeus	Tope	CR
Hexanchus griseus	Bluntnose Sixgill Shark	NT
Lamna nasus	Porbeagle	VU
Mustelus asterias	Starry Smoothhound	NT
Prionace glauca	Blue Shark	NT
Scyliorhinus canicula	Smallspotted Catshark	LC
Scyliorhinus stellaris	Nursehound	VU
Squalus acanthias	Spiny Dogfish	VU
RAYS		
Raja brachyura	Blonde Skate	NT
Raja microocellata	Small-eyed Skate	NT
Raja montagui	Spotted Skate	LC
Rostroraja alba	White Skate	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 is an important reproductive area for one ray species.

Local ecological knowledge from fishers describes historic catches of large White Skate in the area (Irish Elasmobranch Group unpubl. data 2025), with one contemporary report from 2018 (Tully et al. 2022). Furthermore, 23 White Skates were tagged and released as part of the Inland Fishery Ireland's Marine Sportfish Tagging Programme between 1970–2024 and 18 of these were caught within the Bay of Angels. One live White Skate egg case was reported by a trawl fisher in March 2018 (Irish Elasmobranch Group unpubl. data 2025). From 2017 to 2025 there were 32 egg cases reported in a narrow geographic stretch of beach within the area (Irish Elasmobranch Group unpubl. data 2025). This is the area with the most consistent beached egg cases reported to Purse Search Ireland, Ireland's national elasmobranch egg case sighting project (B O'Connor unpubl. data. 2025). While these numbers are low, given the rarity of White Skate, this area does appear to be a nationally significant site for this species.

REFERENCES

Barker J, Davies J, Goralczyk M, Patel S, O'Connor J, Evans J, Sharp R, Gollock M, Wood FR, Rosindell J, et al. *2022.* The distribution, ecology and predicted habitat use of the Critically Endangered angelshark (*Squatina squatina*) in coastal waters of Wales and the central Irish Sea. *Journal of Fish Biology* 101: 640–658. https://doi.org/10.1111/jfb.15133

Bom RA, van de Water M, Camphuysen KCJ, van der Veer HW, van Leeuwen A. 2020. The historical ecology and demise of the iconic angelshark *Squatina squatina* in the southern North Sea. Marine Biology 167: 91. https://doi.org/10.1007/s00227-020-03702-0

Ebert DA, Dando M, Fowler S. 2021. *Sharks of the world: A complete guide.* Princeton: Princeton University Press.

Inland Fisheries Ireland (IFI). 2023. Marine sportfish tagging programme open data portal 1970–2018 dataset. Irish Marine Sports Fish Tagging Programme Dataset | IFI Open Data Portal. Available at: https://data.gov.ie/dataset/irish-marine-sports-fish-tagging-programme-dataset Accessed April 2025.

Jabado RW, Chartrain E, De Bruyne G, Derrick D, Dia M, Diop M, Doherty P, Leurs GHL, Metcalfe K, Pacoureau N, et al. 2021. *Dasyatis pastinaca. The IUCN Red List of Threatened Species* 2021: e.T161453A124488102. https://dx.doi.org/10.2305/IUCN.UK.2021-2.RLTS.T161453A124488102.en

Key Biodiversity Areas (KBA). 2025. Tralee Bay and Barrow Harbour. Available at: https://www.keybiodiversityareas.org/site/factsheet/591 Accessed July 2025.

Morey G, Barker J, Hood A, Gordon C, Bartolí A, Meyers EKM, Ellis JR, Sharp R, Jiménez-Alvarado D, Pollom R. 2019. *Squatina squatina. The IUCN Red List of Threatened Species* 2019: e.T39332A117498371. https://dx.doi.org/10.2305/IUCN.UK.2019-1.RLTS.T39332A117498371.en

National Parks and Wildlife Service (NPWS). 2013. Conservation objectives for Tralee Bay and Brandon Bay SAC. National Parks and Wildlife Service, Ireland.

Norman JR, Fraser FC. 1948. *Giant fishers, whales and dolphins.* London: Putnam, London.

Ramsar. 2025. Ramsar Sites Information Service. Tralee Bay. Available at: https://rsis.ramsar.org/ris/440 Accessed July 2025.

Shephard S, Wögerbauer C, Green P, Ellis JR, Roche WK. *2019.* Angling records track the near extirpation of angel shark *Squatina squatina* from two Irish hotspots. *Endangered Species Research* 38: 153–158. https://doi.org/10.3354/esr00943

Tully O, Palma Pedraza SP. 2022. Catch and bycatch in the tangle net fishery for crayfish (*Palinurus elephas*) off the south west coast of Ireland. European Maritime and Fisheries Fund (EMFF) Operational Programme 2024–2020. Marine Biodiversity Scheme. Marine Institute.

Tully O, Palma Pedraza S, Clark M, Keane J. 2022. The distribution and abundance of elasmobranch fish in Tralee, Brandon and Dingle Bays. European Maritime and Fisheries Fund (EMFF) Operational Programme 2014–2020 Report.