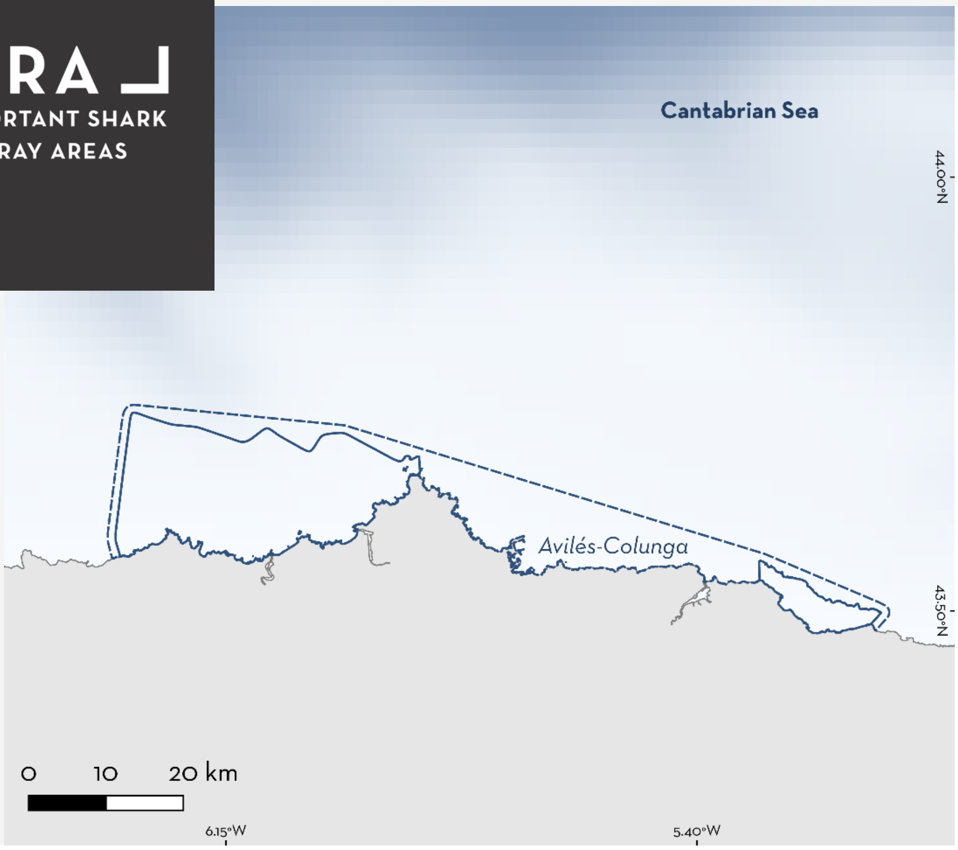
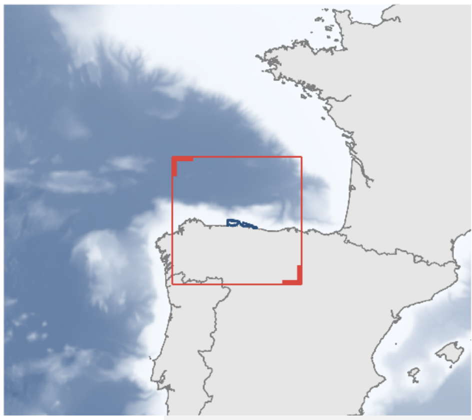
ISRA
IMPORTANT SHARK AND RAY AREAS





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

AVILÉS-COLUNGA ISRA

European Atlantic Region

SPAIN

0-200 metres

555.2 km²

SUMMARY

Avilés-Colunga is located along the Asturian coast, in the Cantabrian Sea, Spain. It encompasses rocky coasts, with cliffs and narrow beaches, several estuaries, and a narrow continental shelf. The area is characterised by rocky outcrops, sandy patches, and muddy substrates. It is influenced by the interaction of topographic features, riverine inputs, seasonal stratification, and recurrent upwelling. The area overlaps with the Cantabrian Sea (Southern Bay of Biscay) Ecologically or Biologically Significant Marine Area and the Cabo Busto - Luanco Key Biodiversity Area. Within this area there are: **threatened species** (e.g., Nursehound *Scyliorhinus stellaris*); and **reproductive areas** (e.g., Undulate Skate *Raja undulata*).

CRITERIA

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

DESCRIPTION OF HABITAT

Avilés-Colunga is located along the Asturian coast, in the Cantabrian Sea, Spain. It encompasses rocky coasts, with cliffs and narrow beaches, several estuaries, and an adjacent narrow continental shelf. Avilés-Colunga is a split area encompassing Santa Marina to Faro de Peñas in the west and Faro de Lastres to La Vega to the east. The area is characterised by mixed substrates comprising rocky outcrops, sandy patches, and occasional muddy deposits (Flor et al. 2022).

The area is influenced by the interaction of topographic features, riverine inputs, seasonal stratification, and recurrent upwelling. Dynamic mesoscale events occur seasonally as shelf-break fronts along the shelf edge that concentrates planktonic biomass and occasional slope water eddies (Albaina & Irigoien 2004). During the boreal winter, the water column is fully mixed due to storm-driven turbulence, while in summer, thermal stratification develops, often interrupted by upwelling events (Mason et al. 2006). These wind-driven upwellings, particularly prominent during summer months, inject cold, nutrient-rich waters onto the shelf, enhancing primary production and supporting diverse plankton communities (Mason et al. 2006).

This area overlaps with the Cantabrian Sea (Southern Bay of Biscay) Ecologically or Biologically Significant Marine Area (EBSA; CBD 2025); and the Cabo Busto - Luanco Key Biodiversity Area (KBA; KBA 2025).

This Important Shark and Ray Area is benthic and pelagic and is delineated from inshore and surface waters (0 m) to 200 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 the area. These are the Critically Endangered Tope (Walker et al. 2020) and the Vulnerable Nursehound (Finucci et al. 2021).

SUB-CRITERION C1 – REPRODUCTIVE AREAS

Avilés-Colunga is an important reproductive area for two shark and one ray species.

Between 2022–2025, pregnant female Tope were reported in the area from interviews with artisanal fishers (L Miralles López unpubl. data 2025). A total of 10 informal interviews were conducted with fishers using gillnets and small trawlers in the area and adjacent waters (L Miralles López unpubl. data 2025). Of these, eight fishers reported capturing pregnant Tope during January–May each year. Adult females represent most of the captures from October–January (close to the 90% of all Tope captures in the area) and from January–May, pregnant females aborted embryos of 20–25 cm total length (TL) on the boat when captured. Pregnant females represented 50% of the females during January–May, and one out of five Tope individuals (L Miralles López unpubl. data 2025). Size-at-birth for the species is 30–40 cm TL (Ebert et al. 2021), indicating that embryos were near-term. Additionally, between October 2024–January 2025, 10 random Tope were collected and sampled at Avilés landing site within the area, of which nine were pregnant females measuring 142–158 cm TL, with litters ranging from 6–30 early-stage embryos, measuring between 10–15 cm TL (L Miralles López unpubl. data 2025). Captures of the species are scarce along the north coast of Spain (Rodríguez-

Cabello et al. 2005; Fernández-Zapico et al. 2021); however, pregnant females have been reported in the area regularly and predictably over the years (L Miralles López unpubl. data 2025).

Beach-washed egg cases of Nursehound and Undulate Skate were regularly and predictably reported from this area during beach surveys between 2022–2024 (González Díaz 2024; AI García Muñoz & L Miralles López unpubl. data 2024). Egg case identification was confirmed through species-specific guides (AI García Muñoz & L Miralles López unpubl. data 2024). Between November 2022–January 2024, surveys consisted of walks along 17 beaches across Asturias Province during low tide looking for egg cases in the intertidal zone of the beach during winter and spring months (November to May). A total of 24 survey days were conducted across various beaches, which were randomly selected. These observations were supported by in situ records and opportunistic dissections of egg-carrying females.

Between 2013–2021, Nursehound neonates, young-of-the-year (YOY), and small juveniles ranging in size 16–52 cm TL were captured in the area during the Northern Spanish Shelf Groundfish Survey, using 30 min trawl surveys (Blanco et al. 2022; Ruiz-Pico et al. 2024). Size-at-birth for the species is 10–16 cm TL and size-at-maturity is reached between 70–79 cm TL (Ebert et al. 2021), indicating that all sharks were immature. This area is of particular importance because, although captures of the species along the north coast of Spain are scarce, neonates, YOY, and small juveniles have been consistently recorded in the area including the highest catches of up 8 kg of Nursehound in a 30-min haul (Blanco et al. 2022; Ruiz-Pico et al. 2024). Further, a total of 33 Nursehound egg cases (all confirmed as hatched) were collected from this area (69% of the 48 egg cases collected across Asturias Province) with observations recorded during 2022 (n = 12), 2023 (n = 6), and 2024 (n = 15) (González Díaz 2024; AI García Muñoz & L Miralles López unpubl. data 2024). Between 2020–2025, in situ records of egg with embryos inside were reported during the red algae collection season in the area in August–September and by fishers in August of 2020 (n = 2), August 2021 (n = 1), September 2023 (n = 1), and August 2025 (n = 1) at depths ranging from 10–12 m (L Miralles López unpubl. data 2025; Surfistas Vigilantes del Mar pers. comm. 2025). Additionally in the area, the presence of females carrying eggs has been confirmed by fishers when preparing the sharks for landing in Avilés fish market between 2022–2025, as well as by the dissections of two females carrying eggs out of 10 individuals examined in the area from September 2024 to January 2025 (L Miralles López unpubl. data 2025). Although Nursehound egg cases from adjacent areas have been collected, this area has the largest observations of egg cases of this species on the Cantabrian coast.

A total of 97 egg cases of Undulate Skate (all but one with a near term embryo confirmed as hatched) were collected from this area (84% of the 115 egg cases collected across Asturias Province) and these observations were recorded during 2022–2023 (n = 67) and 2024 (n = 30) (González Díaz 2024; AI García Muñoz & L Miralles López unpubl. data 2024). Additionally in the area, the presence of females carrying eggs have been confirmed by fishers when preparing the sharks for landing in Avilés fish market between 2022–2025, as well as by dissections of three out of 14 individuals examined in the area in January 2025 (L Miralles López unpubl. data 2025). Although Undulate Skate egg cases from adjacent areas have been collected, this area has the largest observations of egg cases of this species on the Cantabrian coast.

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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						
Scyliorhinus stellaris	Nursehound	VU	0-380	X		X						
RAYS												
Raja undulata	Undulate Skate	NT	0-200			X						

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
Alopias vulpinus	Common Thresher	VU
Cetorhinus maximus	Basking Shark	EN
Deania calceus	Birdbeak Dogfish	NT
Galeus melastomus	Blackmouth Catshark	LC
Isurus oxyrhinchus	Shortfin Mako	EN
Lamna nasus	Porbeagle	VU
Prionace glauca	Blue Shark	NT
Scyliorhinus canicula	Smallspotted Catshark	LC
Sphyrna zygaena	Smooth Hammerhead	VU
Squalus acanthias	Spiny Dogfish	VU
RAYS		
Dipturus batis	Common Blue Skate	CR
Leucoraja circularis	Sandy Skate	EN
Leucoraja naveus	Cuckoo Skate	NT
Pteroplatytrygon violacea	Pelagic Stingray	LC
Raja brachyura	Blonde Skate	NT
Raja clavata	Thornback Skate	NT
Raja microocellata	Small-eyed Skate	NT
Raja miraletus	Brown Skate	LC
Raja montagui	Spotted Skate	LC
Torpedo marmorata	Marbled Torpedo Ray	VU

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 Avilés-Colunga is a potential reproductive area for one ray species.

Between 1990–2024, Cuckoo Skate neonates and YOY were captured during trawling within the Northern Spanish Shelf Groundfish Survey in the Cantabrian Sea and off Galicia. During this period, a total of 345 Cuckoo Skate were caught in the area. Of these, three were neonates/YOY measuring <20 cm TL, captured between 1992–2020 (ICES 2025). The species has an estimated size-at-birth of 9–12 cm TL (Last et al. 2016). Individuals in this size range were observed in four years of the survey. The surveys in this area were undertaken in September and October, and therefore additional temporal data are required to confirm seasonality in reproductive behaviour (ICES 2025). Further information is required to understand the regularity and function of reproductive activities, and the importance of the area for rays.

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