

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

## ISLES OF SCILLY ARCHIPELAGO ISRA

### European Atlantic Region

#### SUMMARY

Isles of Scilly Archipelago is located ~40 km off the southwestern corner of the British Isles in the United Kingdom of Great Britain and Northern Ireland. This archipelago lies within a biogeographic transition zone between the warm and cold temperate waters of the Northeast Atlantic Ocean. It is strongly influenced by coastal processes and oceanic currents, including the Gulf Stream. The habitat encompasses both warm and cool temperate species, including seagrass beds, kelp forests, subtidal sediments, and extensive circalittoral reefs. The area overlaps with the Isles of Scilly Ramsar Site. Within this area there are: **reproductive areas** and **resting areas** (Smallspotted Catshark *Scyliorhinus canicula*).

#### CRITERIA

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

— —  
**UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND**  
 — —

**0-50 metres**

**169.0 km<sup>2</sup>**  
 — —





## DESCRIPTION OF HABITAT

Isles of Scilly Archipelago is located ~40 km from the western tip of Cornwall in the United Kingdom of Great Britain and Northern Ireland, in the Northeast Atlantic Ocean. The archipelago consists of over 300 islands and rocky outcrops, only five of which are inhabited. The area is on the continental shelf and is surrounded by relatively shallow waters (<150 m in depth) that are exposed to strong North Atlantic Ocean pelagic currents, including the Gulf Stream, which provides consistent nutrient-rich upwelled waters supporting high primary productivity (Exeter et al. 2024).

The archipelago is situated in a biogeographic transition zone between warm and cold temperate waters and is ecologically distinct regionally. It supports warm temperate water habitats and habitat-forming species at the northerly extent of their distribution that are rarely found in the wider British Isles, as well as cold-water habitat and habitat-forming species that are uncommon on mainland western Europe. The habitat includes one of the largest seagrass beds (Common Eelgrass *Zostera marina*) in the United Kingdom, kelp forests, subtidal sediments, and extensive circalittoral reefs supporting cold-water coral and sponge communities. The influence of pelagic currents additionally means that pelagic habitats and associated plankton communities occur within proximity to the islands and in relatively shallow depths (Exeter et al. 2024).

This area overlaps with the Isles of Scilly Ramsar Site (Wetland of International Importance; Ramsar 2001).

This Important Shark and Ray Area is benthic and pelagic and is delineated from inshore and surface waters (0 m) to 50 m based on the bathymetry of the area.

## ISRA CRITERIA

### SUB-CRITERION C1 – REPRODUCTIVE AREAS

Isles of Scilly Archipelago is an important reproductive area for one shark species.

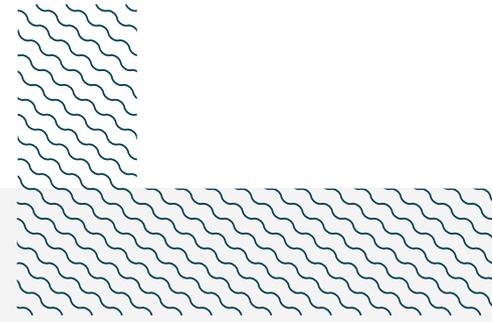
A stereo Baited Remote Underwater Video Station (BRUVS) study selected 32 of 280 deployments made in this area between May–September in 2022 and 2023 for behavioural analyses (Vickers 2024; Exeter et al. in press). Eight samples were from each of four habitat types: infralittoral rock, seagrass, circalittoral rock, and subtidal sediment. Evidence of courtship behaviour was observed for Smallspotted Catsharks. Courtship was defined by sequences of males repetitively biting and escorting avoidant females and these events had a mean duration of 00:17 ± 00:18 (standard deviation). While courtship accounted for just 1.7% (n = 54) of all behavioural observations, it contributed mean proportions of 3.4 ± 11.7% and 8.1 ± 17.1% to their time budgets in infralittoral rock and subtidal sediments, respectively (Vickers 2024). These are likely to be the first recorded observations of Smallspotted Catshark courtship behaviour globally (Vickers 2024), highlighting the importance of this area for the reproduction of Smallspotted Catsharks. Additionally, the 280 BRUVS deployments made in this area recorded aggregations of two or more individuals in 74 instances (49.3% of deployments with a Smallspotted Catshark record). Aggregations were based on MaxN, which is the maximum number of individuals within any one frame per deployment, with a maximum aggregation of eight individuals in this area. The mean aggregation size recorded was 2.7 ± 1.0 individuals. The species is well known to aggregate (Jacoby et al. 2012) and most of the measured individuals (n = 169 of 182) were adults, based on a size-at-maturity for the species of >52 cm TL (Ebert et al. 2021; O Exeter et al. unpubl. data 2025). Aggregations are more frequent and contain more individuals in this area compared to other regional and national studies that also used baited cameras (Griffin et al. 2016; Clark et al. 2024; Exeter et al. in press; C Laing & P Doherty unpubl. data 2025).

Of all national or regional BRUVS studies that reported abundance and/or aggregation data, the largest aggregation of Smallspotted Catsharks was just two (highest MaxN), compared to eight in this area. Similarly, the frequency of aggregations was lower elsewhere, for example just 13% in mainland Cornwall ~80 km east of this area (C Laing & P Doherty unpubl. data 2025). The comparatively larger and more frequent aggregations of adults in this area show that there is a high potential for courtship and mating in Isles of Scilly Archipelago, highlighting its importance.

### SUB-CRITERION C3 - RESTING AREAS

Isles of Scilly Archipelago is an important resting area for two shark species.

A BRUVS study selected 32 of 280 deployments made in this area between May-September in 2022 and 2023 for behavioural analyses (Vickers 2024; O Exeter et al. unpubl. data 2025). While the main behaviours for Smallspotted Catsharks were parading, swimming, or feeding, there was also evidence of resting behaviour, observed for 25 of an estimated 82 individuals (~30%). The main habitat associated with resting in the species was infralittoral rock areas, in which 9.6% of behavioural observations were for resting (Vickers 2024). This habitat is concentrated in Isles of Scilly Archipelago, with deeper water surrounding it and extending to the nearest coast ~40 km east in Cornwall.



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### **Suggested citation**

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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	
<b>SHARKS</b>													
<i>Scyliorhinus canicula</i>	Smallspotted Catshark	LC	0-800			X		X					

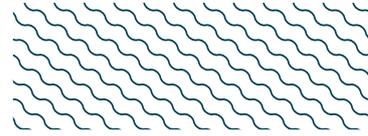
## SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
<b>SHARKS</b>		
<i>Lamna nasus</i>	Porbeagle	VU
<i>Prionace glauca</i>	Blue Shark	NT
<i>Scyliorhinus stellaris</i>	Nursehound	VU

*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 this area may be important for undefined aggregations of Nursehounds. The species was recorded in 18% of BRUVS deployments ( $n = 49$ ), with a total of 69 individuals counted (i.e., the sum of the MaxN per deployment) (Exeter et al. in press). The overall mean MaxN was  $0.25 \pm 0.61$  individuals. Aggregations of two or more individuals were recorded in 15 deployments (30.0% of deployments with a Nursehound record), with a maximum aggregation of four individuals recorded. The mean aggregation size recorded was  $2.30 \pm 0.61$  individuals. Most of the measured individuals ( $n = 28$  of 31) were adults, based on a size-at-maturity for the species of  $>70$  cm TL (Ebert et al. 2021), and only three individuals were juveniles ranging between 50–70 cm TL (Exeter et al. in press). The majority of Nursehounds were recorded on rocky reefs ( $n = 58$ ), with 10 individuals recorded on soft sediment/seagrass. The mean MaxN increased to  $0.32 \pm 0.70$  individuals within reef habitats. All except one aggregation ( $n = 14$ ) were recorded in reef habitats (Exeter et al. in press). Additionally, aggregations are more frequent and contain more individuals in this area compared to other regional and national studies that also rely on baited cameras (Griffin et al. 2016; C Laing & P Doherty unpubl. data 2025). Only one observation of two Nursehounds was reported from the Irish Sea (Griffin et al. 2016), and aggregations were recorded in only 14% of deployments in a study in mainland Cornwall ~80 km east of this area (C Laing & P Doherty unpubl. data 2025).



## REFERENCES

- Clark AJ, Atkinson SR, Scarponi V, Cane T, Geraldi NR, Hendy IW, Shipway JR, Peck M. 2024. Cost-effort analysis of Baited Remote Underwater Video (BRUV) and environmental DNA (eDNA) in monitoring marine ecological communities. *PeerJ* 12: e17091. <https://doi.org/10.7717/peerj.17091>
- Ebert DA, Dando M, Fowler S. 2021. *Sharks of the world: A complete guide*. Princeton: Princeton University Press.
- Exeter OM, Axelsson M, Branscombe J, Broderick A, Hooper T, Morcom S, Russell T, Somerfield PJ, Sugar K, Webber J, et al. 2024. A synthesis of the current state of marine biodiversity knowledge in the Isles of Scilly, UK. *Journal of the Marine Biological Association of the United Kingdom* 104: e84. <https://dx.doi.org/10.1017/S0025315424000699>
- Exeter OM, Broderick AC, Harrison XA, Garzon F, Morcom S, Pender R, Russell T, Saunders I, Somerfield PJ, Sugar K, et al. In press. Application of spatially robust stereo-BRUV sampling for quantifying fish assemblages in UK marine protected areas. *Ecological Applications*.
- Griffin RA, Robinson GJ, West A, Gloyne-Phillips IT, Unsworth RKF. 2016. Assessing fish and motile fauna around offshore windfarms using Stereo Baited Video. *PLoS ONE* 11: e0149701. <https://doi.org/10.1371/journal.pone.0149701>
- Jacoby DMB, Sims DW, Croft DP. 2012. The effect of familiarity on aggregation and social behaviour in juvenile small spotted catsharks *Scyliorhinus canicula*. *Journal of Fish Biology* 81: 1596-1610. <https://doi.org/10.1111/j.1095-8649.2012.03420.x>
- Ramsar Convention on Wetlands of International Importance (Ramsar). 2001. Ramsar site: Isles of Scilly. Available at: <https://rsis.ramsar.org/ris/1095> Accessed May 2025.
- Vickers T. 2024. Spatial and behavioural ecology of benthic catsharks (*Scyliorhinus spp.*) in the Isles of Scilly Marine Protected Network. Unpublished MSc Thesis, University of Exeter, Exeter.