

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

## KIMMERIDGE ISRA

### European Atlantic Region

#### SUMMARY

Kimmeridge is located on the south coast of England, United Kingdom of Great Britain and Northern Ireland. The area is characterised by rocky reefs (with algae), mudstone, and limestone. It is relatively sheltered with rocky ledges reducing wave action. Within this area there are: **undefined aggregations** (Undulate Skate *Raja undulata*).

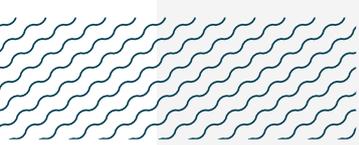
#### CRITERIA

**Sub-criterion C5 - Undefined Aggregations**

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

**0-18 metres**

**14.35 km<sup>2</sup>**  
 — —





## DESCRIPTION OF HABITAT

Kimmeridge is located on the south coast of England, United Kingdom of Great Britain and Northern Ireland. It is situated on the Isle of Purbeck, a peninsula in Dorset. The area is a relatively shallow bay that is characterised by rocky reefs (with algae), mudstone, and limestone (British Geological Survey 2025). The bay is in a relatively sheltered location, where rocky ledges reduce wave action. The area is influenced by prevailing south-westerly winds.

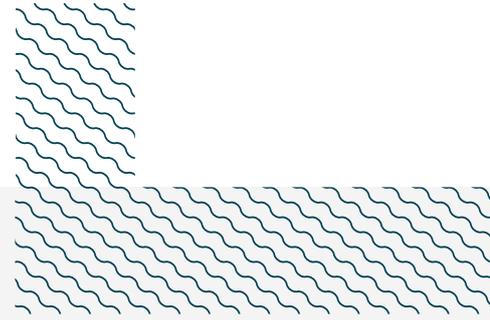
This Important Shark and Ray Area is benthic and is delineated from inshore and surface waters (0 m) to 18 m based on the bathymetry of the area.

## ISRA CRITERIA

### SUB-CRITERION C5 - UNDEFINED AGGREGATIONS

Kimmeridge is an important area for undefined aggregations of one ray species.

Between 2012-2018, scientific dive surveys were undertaken in this area to count the number of Undulate Skates through a dedicated project (Openshawe & Openshawe 2017; Hook 2019; Baldock & Dipper 2023; S Hook unpubl. data 2025). Data are available for 73 days across this period, where two dives were undertaken each survey day (45-90 minutes total effort per day). Rays were visually identified to the individual level on each dive based on their markings which avoided double counting (with a catalogue of individuals recorded via photo-identification). Aggregations of three or more Undulate Skates were recorded on 39 days across all survey years. Undulate Skates aggregate in Kimmeridge in groups of nine individuals on average, but aggregations of up to 26 individuals have been recorded. Aggregations were recorded in 2013 (n = 4), 2014 (n = 2), 2015 (n = 7), 2016 (n = 3), 2017 (n = 11), and 2018 (n = 12) (Openshawe & Openshawe 2017; Hook 2019; Baldock & Dipper 2023; S Hook unpubl. data 2025). All Undulate Skates were considered adult or sub-adult as they were visually estimated to measure >55 cm total length. Additional temporal data are required to determine the seasonality of the importance of this area. Kimmeridge is nationally important and renowned for its high observation rate compared to adjacent areas, as reported by citizen scientists to The Undulate Ray Project. This is the only location within the United Kingdom of Great Britain and Northern Ireland with regular and predictable observations of aggregations of the species. Further information is required to understand the nature and function of these aggregations.



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Samantha Hook (SEA LIFE), Chris Brown (SEA LIFE), and Ryan Charles (IUCN SSC Shark Specialist Group - ISRA Project) 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.

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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	
RAYS													
<i>Raja undulata</i>	Undulate Skate	NT	0-200								X		

## SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
RAYS		
<i>Raja clavata</i>	Thornback Skate	NT
<i>Raja montagui</i>	Spotted Skate	LC

*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.*





## REFERENCES

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**Hook SA. 2019.** The application of genetics and proteomics for the conservation of sharks and their relatives. Unpublished PhD Thesis, The University of Manchester, Manchester.

**Openshaw M, Openshaw S. 2017.** The Undulate Ray Project. *Porcupine Marine Natural History Society Bulletin* 8, 27-28.