1. Basking shark (*Cetorhinus maximus*)

Sensitivity Assessment

This sensitivity assessment was sourced directly from Wilson, C.M., Tyler-Walters, H., & Wilding, C.M. 2020. *Cetorhinus maximus* Basking shark. In Tyler-Walters H. *Marine Life Information Network: Biology and Sensitivity Key Information Reviews*, [on-line]. Plymouth: Marine Biological Association of the United Kingdom. [cited 08-05-2024]. Available from: https://www.marlin.ac.uk/species/detail/1438

Table A11.1. Sensitivity assessment for basking shark (*Cetorhinus maximus*). Associated sectors include activities related to offshore renewable energy (O), Fishing (F), or shipping (S). NR = not relevant, NA = not assessed, NEv = no evidence, H = high, M = medium, L = low, NS = not sensitive.

Pressures		**Associated sector(s)**	**Resistance**				**Resilience**				**Sensitivity**				**References**
Classification	**Pressure type**		**Score**	**QoE**	**AoE**	**DoC**	**Score**	**QoE**	**AoE**	**DoC**	**Score**	**QoE**	**AoE**	**DoC**	
Physical	Physical loss (to land or freshwater habitat)	O	H	L	NR	NR	H	H	H	H	NS	L	L	L	
	Physical change (to another seabed type)	O, F	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
	Physical change (to another sediment type)	O, F	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	

Pressures		Associated sector(s)	Resistance				Resilience				Sensitivity				References
Classification	**Pressure type**		**Score**	**QoE**	**AoE**	**DoC**	**Score**	**QoE**	**AoE**	**DoC**	**Score**	**QoE**	**AoE**	**DoC**	
	Habitat structure change-removal of substratum (extraction)	O	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
	Abrasion/disturbance of substratum surface or seabed	O, F	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	-
	Penetration or disturbance of substratum subsurface	O, F	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	-
Physical	Changes in suspended solids (water clarity)	O, F	H	M	M	M	H	H	H	H	NS	M	M	M	-

Pressures		Associated sector(s)	Resistance				Resilience				Sensitivity				References
Classification	**Pressure type**		**Score**	**QoE**	**AoE**	**DoC**	**Score**	**QoE**	**AoE**	**DoC**	**Score**	**QoE**	**AoE**	**DoC**	
	Smothering and siltation changes (light)	O	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	-
	Smothering and siltation changes (heavy)	O	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	-
	Underwater noise	O, F, S	H	L	NR	NR	H	H	H	H	NS	L	L	L	-
	Electromagnetic energy	O	H	L	NR	NR	H	H	H	H	NS	L	L	L	-
	Barrier to species movement	O, F	H	L	NR	NR	H	H	H	H	NS	L	L	L	-
	Death or injury by collision	O, F, S	M	L	NR	NR	M	L	NR	NR	M	L	L	L	-

Pressures		Associated sector(s)	Resistance				Resilience				Sensitivity				References
Classification	**Pressure type**		**Score**	**QoE**	**AoE**	**DoC**	**Score**	**QoE**	**AoE**	**DoC**	**Score**	**QoE**	**AoE**	**DoC**	
Hydrological	Water flow changes	O	H	L	NR	NR	H	H	H	H	NS	L	L	L	
Chemical	Transition elements & organo-metal contamination	O, F, S	NA	NR	NR	NR	NA	NR	NR	NR	NA	NR	NR	NR	-
	Hydrocarbon & PAH contamination	O, F, S	NA	NR	NR	NR	NA	NR	NR	NR	NA	NR	NR	NR	-
	Synthetic compound contamination	O, F, S	NA	NR	NR	NR	NA	NR	NR	NR	NA	NR	NR	NR	-
	Introduction of other substances	O, F, S	NA	NR	NR	NR	NA	NR	NR	NR	NA	NR	NR	NR	-
	Deoxygenation	O	H	L	NR	NR	H	H	H	H	NS	L	L	L	-

Pressures		Associated sector(s)	Resistance				Resilience				Sensitivity				References
Classification	**Pressure type**		**Score**	**QoE**	**AoE**	**DoC**	**Score**	**QoE**	**AoE**	**DoC**	**Score**	**QoE**	**AoE**	**DoC**	
Biological	Introduction or spread of invasive non-indigenous species	O, F, S	NEv	NR	NR	NR	NEv	NR	NR	NR	NEv	NR	NR	NR	-
	Removal of target species	F	L	H	H	M	L	L	NR	NR	H	L	L	L	
	Removal of non-target species	F	M	M	M	M	M	L	NR	NR	M	L	L	L	

Literature search

Web of Science search terms

AB=("basking shark" OR "bone shark" OR "Cetorhinus maximus" OR "C. maximus" OR "elephant shark" OR "hoe-mother") AND ("angl*" OR “beam” OR "bottom trawl*" OR "by-catch" OR "dredge*" OR "fish*" OR “gear” OR "gillnet*" OR "hook*" OR “injury” OR "net*" OR "otter trawl*" OR “remov*” OR "aggregate*" OR "anchor*" OR "ballast" OR "barrier*"OR "beach*" OR "launch*" OR "moor*" OR "noise" OR “ship*” OR "steaming" OR "collision*" OR "construction" OR "electro*" OR "turbine*"OR "renewable*" OR "wave" OR "wind" OR "wind farm*" OR "anoxia" OR "copper" OR "current*" OR "disease*" OR "disturbance" OR "endocrine disru*" OR "eutrophication" OR “exposure” OR "heavy metals" OR "hydrocarbon" OR "hypoxia" OR "litter" OR "nitrate*" OR "nitrite*" OR "noise" OR “radionuclide” OR "nutrient*" OR "oil" OR “oil” OR "PAH*" OR "pathogen*" OR "PCB*" OR "plastic*" OR “regime” OR “salinity” OR "sedimentation" OR "silt*" OR “temperatur*” OR “translocation” OR "tributyltin" OR “turbid*” OR “visual” OR "warm*")

Database

ISI Web of Science

Search date

8th April 2024 (for research published in 2023 - 2024) - 6 results

https://www.webofscience.com/wos/woscc/summary/f118beae-929f-4835-b0d5-3df77b270282-dcee02d8/relevance/1

Search output and screening process

Abstracts screened for relevance i.e. must describe basking sharks and mention of one of the listed sectors and/or pressures from MARESA. Workflow follows the Rapid Evidence Assessment approach. The title and all auxiliary information (including abstract) were downloaded from ISI Web of Science in a .ris and excel format. In Excel, abstracts were read and listed to either pass or fail the initial screening process with a reason provided

Outcome from screening

One (17%) abstract passed initial screening. Of this one, zero passed secondary screening (i.e., on further reading was determined as not relevant). Therefore, sensitivity assessments remained unchanged from MarLIN assessments that were used in the Irish Sea report from 2023.