8. Starry smooth-hound (*Mustelus asterias*)

Sensitivity Assessment

Table A11.8. Sensitivity assessment for starry smooth-hound (*Mustelus asterias*). 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	M	L	L	NR	M	L	L	NR	M	L	L	NR	-
	Physical change (to another seabed type)	O, F	M	M	H	NR	M	M	H	NR	M	M	H	NR	2
	Physical change (to another sediment type)	O, F	M	M	H	NR	M	M	H	NR	M	M	H	NR	11

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	M	M	H	H	M	M	H	H	M	M	H	H	2, 3, 11
	Abrasion/disturbance of substratum surface or seabed	O, F	NEv	NR	NR	NR	NEv	NR	NR	NR	NEv	NR	NR	NR	-
	Penetration or disturbance of substratum subsurface	O, F	NEv	NR	NR	NR	NEv	NR	NR	NR	NEv	NR	NR	NR	-
	Changes in suspended solids (water clarity)	O, F	NEv	NR	NR	NR	NEv	NR	NR	NR	NEv	NR	NR	NR	-

Appendix 11 Sensitivity Analyses - 8 Starry smooth-hound

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

Appendix 11 Sensitivity Analyses - 8 Starry smooth-hound

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	NEv	NR	NR	NR	NEv	NR	NR	NR	NEv	NR	NR	NR	-
Chemical	Transition elements & organo-metal contamination	O, F, S	NEv	M	L	NR	H	M	L	NR	Sensitive	NEv	M	L	-
	Hydrocarbon & PAH contamination	O, F, S	NEv	M	M	NR	H	M	M	NR	Sensitive	M	M	NR	9
	Synthetic compound contamination	O, F, S	NEv	NR	NR	NR	NEv	NR	NR	NR	NEv	NR	NR	NR	-
	Introduction of other substances	O, F, S	NEv	NR	NR	NR	NEv	NR	NR	NR	NEv	NR	NR	NR	-
	Deoxygenation	O	NEv	NR	NR	NR	NEv	NR	NR	NR	NEv	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	
Biological	Introduction or spread of invasive non-indigenous species	O, F, S	H	H	M	NR	H	H	H	NR	NS	H	M	NR	6
	Removal of target species	F	L	H	H	H	L	H	H	H	H	H	H	H	2, 3, 4, 5, 10, 12, 14
	Removal of non-target species	F	L	H	H	H	M	H	H	H	M	H	H	H	1, 2, 7, 8, 10, 13, 14

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Literature search

Web of Science search   terms

AB=("Mustelus asterias" OR "M. asterias" OR "starry smoothhound*" OR "starry smooth-hound*")
AND AB=("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

3rd March 2023 - 24 results

8th April 2024 - 26 results

Search output and screening process

Abstracts screened for relevance i.e. must describe starry smooth-hound 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: 2023 review

14 (58%) abstracts passed initial screening. Of these 14, two (14%) could not be accessed and therefore applicability could not be determined. Sensitivity assessments were therefore made based on evidence provided by the resultant 12 papers.

Outcome from screening: 2024 review

16 (61%) abstracts passed initial screening. Of these 16, two (12%) could not be accessed and therefore applicability could not be determined. Sensitivity assessments were therefore made based on evidence provided by the resultant 14 papers.