4. Bull huss (*Scyliorhinus stellaris*)

Sensitivity Assessment

Table A11.4. Sensitivity assessment for bull huss (*Scyliorhinus stellaris*). 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	H	H	NR	M	L	L	NR	M	L	L	NR	-
	Physical change (to another sediment type)	O, F	NEv	NR	NR	NR	NEv	NR	NR	NR	NEv	NR	NR	NR	4, 5

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	H	M	L	NR	M	L	L	NR	L	L	L	NR	-
	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	-

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	L	L	L	L	L	-
	Death or injury by collision	O, F, S	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**	
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	H	NR	H	H	H	NR	Sensitive	M	H	NR	6
	Hydrocarbon & PAH contamination	O, F, S	NEv	M	H	NR	H	H	H	NR	Sensitive	M	H	NR	-
	Synthetic compound contamination	O, F, S	NEv	L	NR	NR	H	L	NR	NR	Sensitive	L	NR	NR	-
	Introduction of other substances	O, F, S	NEv	NR	NR	NR	NEv	NR	NR	NR	NEv	NR	NR	NR	-
	Deoxygenation	O	NR	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	NEv	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	-
	Removal of target species	F	L	NR	NR	NR	L	NR	NR	NR	H	NR	NR	NR	1, 2, 3,5, 6, 7, 8, 9
	Removal of non-target species	F	L	H	H	H	M	H	H	H	M	H	H	H	1, 2, 3, 5, 6, 7, 8, 9

References for sensitivity assessment

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Literature search

Web of Science search terms

AB=(“Bull huss” OR "Nursehound” OR “large-spotted dogfish” OR “greater spotted dogfish” OR “Scyliorhinus stellaris” OR “S. stellaris”) 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 “deoxy*” OR "disease*" OR "disturbance" OR "endocrine disru*" OR "eutrophication" OR “exposure” OR "heavy metals" OR "hydrocarbon" OR "hypoxia" OR “litter*” OR “non-native*” OR "nitrate*" OR "nitrite*" OR "noise" OR “radionuclide” OR "nutrient*" OR "oil" OR "PAH*" OR "PCB*" OR “regime” OR "sedimentation" OR "silt*" OR "tributyltin" OR “turbid*”)

Search date

3rd February 2023 - 25 results

6th April 2024 - 27 results

Search output and screening process

Abstracts screened for relevance i.e. must describe bull huss 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

Of the 25 papers retrieved in the Web of Science search, seven (28%) passed initial screening for relevance and four (58%) were accessible. The most recent ICES advice (2021) was subsequently added to the list of available literature. One related publication using productivity susceptibility analyses added as a result of broader reading (McCully Phillips, 2015). In total this report was generated based on six available sources and expert judgement.

Outcome from screening: 2024 review

Of the 27 papers retrieved in the Web of Science search, eight (30%) passed initial screening for relevance and five (63%) were accessible. Recent ICES advice (2021, 2023) were subsequently added to the list of available literature. Two related publications, one using productivity susceptibility analyses (McCully Phillips, 2015) and one assessing pot bycatch risk (Ondes et al. 2017) were added as a result of broader reading. In total this report was generated based on nine available sources and expert judgement.