25. Infralittoral rock and biogenic reef

Sensitivity Assessment

Sensitivity scores for characterising ecological groups sensu Alexander et al. (2015), were obtained from Maher et al. (2014). See case report (Appendix 10) for details of ecological groups that characterise this feature. The overall sensitivity score for each pressure comprises those scores for the ecological group(s) most sensitive to that pressure.

Table A11.25. Sensitivity assessment for infralittoral rock and biogenic reef. 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, VL = very low, N = none, NS = not sensitive. Refs = References.

Pressures		**Associated sector(s)**	**Resistance**				**Resilience**				**Sensitivity**				**Group or species associated with score**	**Refs**
Classification	**Pressure type**		**Score**	**QoE**	**AoE**	**DoC**	**Score**	**QoE**	**AoE**	**DoC**	**Score**	**QoE**	**AoE**	**DoC**		
Physical	Physical loss (to land or freshwater habitat)	O	N				N				H	H	H	H	All	1
	Physical change (to another seabed type)	O, F	N				N				H	L	H	H	All	1

Pressures		Associated sector(s)	Resistance				Resilience				Sensitivity				Group or species associated with score	Refs
Classification	Pressure type		Score	QoE	AoE	DoC	Score	QoE	AoE	DoC	Score	QoE	AoE	DoC		
	Physical change (to another sediment type)	O, F	N	M	L	NR	M	H	L	H	M	M	M	M	*Sabellaria* reef	2, 4
	Habitat structure change-removal of substratum (extraction)	O	N	H	H	H	L	H	M	M	H	H	M	M	mussel beds	3
	Abrasion/disturbance of substratum surface or seabed	O, F	L				M				M	M	H	M	6(a), 6(c), mussel beds, *Sabellaria* reef	1, 2, 3, 4
Physical	Penetration or disturbance of substratum subsurface	O, F	L	H	H	M	M	H	M	M	M	H	M	M	mussel beds, *Sabellaria* reef	2, 3, 4

Pressures		Associated sector(s)	Resistance				Resilience				Sensitivity				Group or species associated with score	Refs
Classification	Pressure type		Score	QoE	AoE	DoC	Score	QoE	AoE	DoC	Score	QoE	AoE	DoC		
	Changes in suspended solids (water clarity)	O, F	M				H				L	M	H	M	1, 3	1
	Smothering and siltation changes (light)	O	L	H	H	M	M	H	M	M	M	H	M	M	mussel beds	3
	Smothering and siltation changes (heavy)	O	N				L				H	L	H	M	6(c)	2
	Underwater noise	O, F, S	NA				NA				NA	NR	NR	NR		
	Electromagnetic energy	O	NA				NA				NA	NR	NR	NR		
	Barrier to species movement	O, F	M	L	NR	NR	H	H	H	H	L	L	L	L	mussel beds	3

Pressures		Associated sector(s)	Resistance				Resilience				Sensitivity				Group or species associated with score	Refs
Classification	**Pressure type**		**Score**	**QoE**	**AoE**	**DoC**	**Score**	**QoE**	**AoE**	**DoC**	**Score**	**QoE**	**AoE**	**DoC**		
	Death or injury by collision	O, F, S	NR				NR				NR	NR	NR	NR		
Hydrological	Water flow changes	O	M				L				M	M	H	M	6(a), 6(b), mussel beds	1, 3
Chemical	Transition elements & organo-metal contamination	O, F, S	L				L				H	M	M	M	3, mussel beds	1, 3
	Hydrocarbon & PAH contamination	O, F, S	L				L				H	M	M	M	6c, mussel beds	1, 3
Chemical	Synthetic compound contamination	O, F, S	L				L				H	M	H	L	3, mussel beds	1, 3
	Introduction of other substances	O, F, S	M				M				M	L	H	M	3, 6(a)	1

Pressures		Associated sector(s)	Resistance				Resilience				Sensitivity				Group or species associated with score	Refs
Classification	Pressure type		Score	QoE	AoE	DoC	Score	QoE	AoE	DoC	Score	QoE	AoE	DoC		
	Deoxygenation	O	M				L				M	L	H	M	6c	1
Biological	Introduction or spread of invasive non-indigenous species	O, F, S	L				L				H	M	H	M	4, mussel beds	1, 3
	Removal of target species	F	L	H	H	H	M	H	M	M	M	H	M	M	mussel beds	3
	Removal of non-target species	F	L	L	NR	NR	M	M	M	M	M	L	L	L	*Sabellaria* reef	4, 4

References for infralittoral rock and biogenic reef sensitivity assessment

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Reference for ecological groups

Alexander, D., Coates, D. A., Tillin, H. & Tyler-Walters, H. (2015). *Conceptual Ecological Modelling of Sublittoral Rock Habitats to Inform Indicator Selection*. Marine Ecological Surveys Ltd - A report for the Joint Nature Conservation Committee, JNCC Report No 560, JNCC Peterboroug