23. Infralittoral coarse sediment

Sensitivity Assessment

Sensitivity scores for characterising ecological groups sensu Tillin & Tyler-Walters (2013) were obtained from Tillin & Tyler-Walters (2014). See case report (Appendix 10) for details of ecological groups that characterise this feature. The resistance, resilience and sensitivity scores for each pressure comprise those scores for the ecological group(s) most sensitive to that pressure. For pressures not assessed in Tillin & Tyler-Walters (2014), scores for characterising species of each ecological group were obtained from the MarLIN website (www.marlin.ac.uk) where available. The overall scores for these pressures again comprises the scores of the most sensitive organism(s) to each pressure.

Table A11.23. Sensitivity assessment for infralittoral coarse sediment. 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. *Overall confidence score of the MarLIN sensitivity analyses for characterising species that followed the MarLIN sensitivity assessment approach used prior to MarESA.

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	H	H	H	VL	H	H	H	H	H	H	H	2, 3, 4, 5, 6, 7, 8(a)	11
	Physical change (to another seabed type)	O, F	L	M	L	NR	M	M	L	H	M	M	L	L	8(a)	11
	Physical change (to another sediment type)	O, F	L	M	L	NR	M	M	L	H	M	M	M	L	8(a)	11
	Habitat structure change-removal of substratum (extraction)	O	N	M	L	NR	M	M	L	NR	M	M	L	NR	2, 3, 4, 5, 6, 8(a)	11

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	Abrasion/disturbance of substratum surface or seabed	O, F	M	H	H	H	M	M	M	M	M	M	M	M	2,4	11
	Penetration or disturbance of substratum subsurface	O, F	M	H	H	H	M	M	M	M	M	M	M	M	2, 4, 8(a)	11
	Changes in suspended solids (water clarity)	O, F	M	H	M	M	M	M	M	M	M	M	M	M	2, 4	11
	Smothering and siltation changes (light)	O	M				H				L	*L			*Spiophanes bombyx, Lanice conchilega,* *Asterias rubens*	1, 2, 4
	Smothering and siltation changes (heavy)	O	N	H	H	H	M	L	NR	NR	M	L	L	L	2, 4, 5, 8(a)	11
	Underwater noise	O, F, S	NEv	NR	NR	NR	NEv	NR	NR	NR	NEv	NR	NR	NR	All	11
	Electromagnetic energy	O	NEv	NR	NR	NR	NEv	NR	NR	NR	NEv	NR	NR	NR	All	11

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**		
	Barrier to species movement	O, F	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR		
	Death or injury by collision	O, F, S	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR		
Hydrological	Water flow changes	O	H	M	L	NR	H	H	H	H	NS	M	L	L	All	
Chemical	Transition elements & organo-metal contamination	O, F, S	L				H				L	*H			*Spiophanes bombyx, Lanice conchilega, Abra alba, Nephtys hombergii, Ensis ensis, Echinocardium cordatum, Liocarcinus depurator, Carcinus maenas*	1, 2, 3, 5, 6, 7, 8, 9

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		
	Hydrocarbon & PAH contamination	O, F, S	N				H				M	*H			*Nephtys hombergii, Ensis ensis, Echinocardium cordatum, Carcinus maenas*	5, 6, 7, 9
	Synthetic compound contamination	O, F, S	N				H				M	*M			*Spiophanes bombyx, Lanice conchilega, Abra alba, Ensis ensis, Echinocardium cordatum*	1, 2, 3, 6, 7
Chemical	Introduction of other substances	O, F, S	NA	NR	NR	NR	NA	NR	NR	NR	NA	NR	NR	NR		
	Deoxygenation	O	N				H				M	*H			*Asterias rubens, Echinocardium cordatum, Liocarcinus depurator*	4, 7, 8

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		
Biological	Introduction or spread of invasive non-indigenous species	O, F, S	NEv	NR	NR	NR	NEv	NR	NR	NR	NEv					
	Removal of target species	F	M	H	H	H	M	M	M	M	M				2	11
	Removal of non-target species	F	H	M	L	NR	H	H	H	H	NS					

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Reference for ecological groups

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