

IG4-7 v1 INTERTIDAL CHALK REEF Audit trail to The Matrix

Gear and feature/subfeature combination:		All towed demersal gears (dredges and trawls) and intertidal chalk reef	
Matrix risk category – RED		Explanation for categorisation: Scientific literature describing impacts of towed gears on intertidal chalk reefs is sparse, likely due to the avoidance of this habitat because of risk of gear damage. Although still relatively uncommon, empirical studies on the effects of mobile fishing gear on rock/reef habitats more generally are available, but are mainly restricted to non-UK habitats. These studies generally assess impacts as a consequence of experimental trawling. Despite this limitation in the evidence base, it is considered that the risk of significant impact to this relatively soft and easily damaged reef habitat is sufficient to require a categorisation of RED in the Matrix.	
Impacts			
There is a paucity of scientific literature describing impacts of towed gears on intertidal chalk reefs specifically. However, chalk can be soft, friable and easily eroded (BRIG 2008) and therefore heavy or intrusive mobile fishing gears may physically damage the substrate and reduce structural complexity; potentially leading to the loss of supporting habitat for associated dependent species, and reduced biodiversity (Sewell and Hiscock 2005, Devon Wildlife Trust 2007, Roberts et al 2010). In general, encrusting and sessile epifauna are also known to be vulnerable to direct removal and damage by towed gears (e.g. Engel and Kvitek 1998, McConnaughey et al 2000). Chalk reef supports species of this type.			
Evidence Engel and Kvitek (1998), McConnaughey et al (2000), Sewell and Hiscock (2005), Devon Wildlife Trust (2007), BRIG 2008, Roberts et al (2010).			
All literature is from the UK.			
Directly relevant peer reviewed literature	Directly relevant grey literature	Inference from studies on comparable habitats, gears or geographical areas.	Expert judgement
		x	x
Confidence			
Medium			
There is no direct available evidence. It has been necessary to make an analogy with other similar habitats in a similar environment for which evidence exists. There is good reason to believe that the analogy is justified (e.g. occurrence of species with similar characteristics and inhabiting a similar environment).			

Bibliography

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