

Habitats Regulations Assessment document: BNNCSAC-tLSE 016

European Marine Site:	Berwickshire and North Northumberland Coast SAC
Generic sub-feature(s):	Grey seals
Gear type(s):	Gill nets
NIFCA tLSE type:	Detailed
Gear/feature interaction reference(s):	BNNCSAC-453

Revision history		
<i>Date</i>	<i>Revision</i>	<i>Editor</i>
03/09/2015	Document created	SM
03/02/2016	Document revised following consultation with Natural England (26/01/16)	SM
13/06/2016	Document revised following consultation with Natural England (10/06/16)	VR

Has Natural England been formally consulted on this tLSE (and do they agree)?	YES
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Date of document completion/'sign-off':	21/09/2016
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Test for Likely Significant Effect (LSE)

<p>1. Is the activity/activities directly connected with or necessary to the management of the site for nature conservation?</p>	No
<p>2. What pressures (such as abrasion, disturbance) are potentially exerted by the gear type(s)?</p> <p><i>*Sensitivities as listed are based on DRAFT Interim conservation advice. Reference to Regulation 33 advice for the BNNC SAC and best judgement has been used to determine which of these pressures are truly exerted by the gear type(s).</i></p>	<p>Above water noise (Sensitive)¹</p> <p>Collision below water (Sensitive)²</p> <p>Litter i.e. Ghost fishing (Sensitive)³</p> <p>Removal of non-target species i.e. bycatch (Sensitive)⁴</p> <p>Underwater noise changes (Sensitive)⁵</p> <p>Visual disturbance (Sensitive)⁶</p> <p>Selective extraction of species (i.e. removal of target species)^{7,8,9}</p>
<p>3. Is the feature potentially exposed to the pressure(s)?</p>	Yes

4. What are the conservation objectives for the feature?

*DRAFT interim conservation advice does not give definitive conservation objectives. However, completing an HRA without COs is difficult. The CO as listed in this document is based on Regulation 33 advice (June 2000), interim Regulation 35 advice, current knowledge of the status, and the pressures affecting designated features (see sections 4 & 5).

Expert judgement has been used to determine which features may be exposed to the pressure(s) resulting in inferred COs. These COs are assigned a degree of uncertainty i.e. a subjective confidence level based on evidence 'High', 'Medium,' 'Low', and 'Unknown'.

Conservation objective for grey seals: **Maintain***

- the population size within the site to a level which is at or above a specified level (not given);
- the extent and spatial distribution of the following supporting habitats; foraging and haulout sites;
- the cover/ abundance of preferred food items required by the species;
- the reproductive and recruitment capability of the species;
- all hydrodynamic and physical conditions such that natural water flow and sediment movement is not significantly altered or constrained;
- the natural water quality and specifically winter dissolved inorganic nitrogen (DIN) [at / to] a concentration equating to (Good / High) Ecological Status, avoiding deterioration from existing levels;
- the presence and spatial distribution of the species and their ability to undertake key life cycle stages and behaviours;
- the introduction and spread of non-native species and pathogens, and their impacts;
- the natural physico-chemical properties of the water;
- connectivity of the habitat within sites and the wider environment to ensure recruitment, and / or to allow movement of migratory species;
- natural levels of turbidity (e.g. concentrations of suspended sediment, plankton and other material) in areas where this species is, or could be present;
- **Restrict OR Reduce** aqueous contaminants to levels equating to (High / Good) Status (according to Annex VIII and X of the Water Framework Directive), avoiding deterioration from existing levels;
- **Restrict OR Reduce** the introduction and spread of non-native species and pathogens, and their impacts.

Those conservation objectives that might be affected by gill netting are underlined.

*Confidence level for interim, inferred Conservation Objective: **HIGH** (see section 6 for detail).

<p>5. What are the potential effects/impacts of the pressure(s) on the feature, taking into account the exposure level?</p>	<p>Levels of netting activity within the BNNC SAC have declined considerably in recent years and are currently very low, with just one or two boats known to set gill nets on an infrequent basis (Jon Green, pers. comms.). Levels of seal depredation of fish from gill nets, has increased correspondingly with the increase in the population size of grey seals off the Northumberland coast and there is a potential impact from accidental by-catch of seals in gill nets. Apart from occasional (3/4 times a year) reports of grey seals being entangled in parts of torn nets (ghost fishing in various types of nets), usually around Longstone (John Walton, Coastal & Marine Officer, National Trust. Pers. comms. April 2014) and on the Farne Islands (Ed Tooth, Farne Islands Ranger, National Trust. Pers. comms. February 2016), these incidents are generally not fatal and there is no indication that there is a problem off the Northumberland coast in relation to bycatch of seals in gill nets (particularly as the mesh size of the majority of bottom-set gill nets is too small to entangle a large grey seal). . No seal injuries/fatalities resulting from entanglement in netting or propeller strikes have been reported by British Diver Marine Life Rescue volunteers within the district (Jane Lancaster, BDMLR. Pers. comms. March 2016). Furthermore, no obvious impacts have been observed at a population level (see section 6).</p>
<p>6. Condition and Conservation Objective Inferences</p>	<p>Within the BNNC SAC there are two major grey seal breeding populations: the Farne Islands and Fast Castle. The Farne Islands encompasses approximately 3% of the British annual pup production of grey seals, producing 1876 pups in 2015¹⁰. Since the 1980s, pup production at the Farne Islands has gradually increased at just under 2% per year¹¹. From 2005 – 2015, the number of pups born annually on the Farne Islands has increased by over 700¹⁰ and pup production at Fast Castle is growing at an average rate of approximately 16.6% per year¹¹. Therefore NIFCA infers the feature condition at this site as 'Good'.</p> <p>The conservation objective for grey seals within the BNNC SAC is to 'maintain' the population size and 'presence and spatial distribution of the species and their ability to undertake key life cycle stages and behaviours'. Currently the grey seal population is expanding (above baseline levels) off the Northumberland coast¹⁰, and levels of accidental bycatch from bottom set static nets are not deemed to have any significant adverse impact on this feature. More information, however, is needed to confirm this.</p>

<p>7. Is the potential scale or magnitude of any effect likely to be significant?</p>	<p>Alone:</p> <p>YES</p> <p>NIFCA officer observations and anecdotal evidence from fishermen indicates that grey seals do forage on fish in static nets and therefore there is an interaction, however more information is needed to assess the results of these interactions and the potential impacts on the local seal population, given the low levels of netting activity. An AA is therefore required to fully assess levels of gill netting within the BNNC SAC and the impacts on seals.</p>	<p>OR In-combination</p> <p>No</p>
<p>8. Have NE been consulted on this LSE test? If yes, what was NE's advice?</p>	<p>Yes</p> <p>Synthesis of evidence and local knowledge informing this decision occurred between January 2014 and the date of this document's creation with stakeholders (where appropriate) and other statutory authorities. Natural England (CS) was involved with this formal process.</p>	

Conclusion

Is the proposal likely to have a significant effect 'alone or in combination' on the Berwickshire and North Northumberland Coast SAC?

No, however a full Appropriate Assessment is required to confirm this.

References

1. ICES (International Council for Exploration of the Sea), 2013; Stillman et al., 2007; Wildfowl and Wetlands Trust (WWT) Consulting, 2012. "Whilst activity would cause pressure, impact considered better captured by 'visual disturbance". **706**
(UK0017072_Berwickshire_and_North_Northumberland_Coast_SAC_Advice_on_Operations)
2. Davenport and Davenport, 2006. "Collision can occur as a result of this activity in instances where a vessel in used". **150**
(UK0017072_Berwickshire_and_North_Northumberland_Coast_SAC_Advice_on_Operations)
3. Wildfowl and Wetlands Trust (WWT) Consulting, 2012. "Discarded/lost lines, hooks and nets which could be problematic for mobile species. Other types of litter generated by activity generally not considered to occur at level that would cause concern.". **190**
(UK0017072_Berwickshire_and_North_Northumberland_Coast_SAC_Advice_on_Operations)
4. Gubbay and Knapman, 1999; ICES (International Council for Exploration of the Sea), 2013; Kaiser et al., 2001; Sewell and Hiscock, 2005; Wildfowl and Wetlands Trust (WWT) Consulting, 2012. "Pressure may be exerted by by-catch associated with fixed nets and lines. However, vulnerability of feature to pressure will need to be considered on a case-by-case basis." **543**
(UK0017072_Berwickshire_and_North_Northumberland_Coast_SAC_Advice_on_Operations)
5. Thomsen and Intersessional correspondence group on underwater noise (2007 - 2009), 2009. "Pressure (e.g. increase in noise above ambient level) would be exerted via vessel movement, gear deployment/towing/hauling and the use of fish finding sonars." **536**
(UK0017072_Berwickshire_and_North_Northumberland_Coast_SAC_Advice_on_Operations)
6. Stillman et al., 2007; Wildfowl and Wetlands Trust (WWT) Consulting, 2012. "May result from the presence/movement of the vessel and potentially also the presence/movement of the gear. Magnitude of pressure would depend on nature and scale/intensity of activity." **362**
(UK0017072_Berwickshire_and_North_Northumberland_Coast_SAC_Advice_on_Operations)
7. Evans, P.G.H. and Baines, M.E. 2013. A methodology to assess the sensitivity of marine mammals to different fishing activities and intensities. CCW Policy Research Report No 12/6. 83pp.
8. Sewell, J., & Hiscock, K. 2005. Effects of fishing within UK European Marine Sites: guidance for nature conservation agencies. Report to the Countryside Council for Wales, English Nature and Scottish Natural Heritage from the Marine Biological Association.
9. Gubbay, S. & Knapman, P.A. 1999. A review of the effects of fishing within UK European marine sites. English Nature (UK Marine SACs Project) 134.
10. Blakely L. & Tooth E. 2015. Grey Seals on the Farne Islands in 2015. National Trust Report [draft].
11. Thompson D. & Duck C. 2010. Berwickshire and North Northumberland Coast European Marine Site: grey seal population status. Report to Natural England : 20100902-RFQ.