

Fisheries in EMS Habitats Regulations Assessment for **Amber** risk categories

Site and gear/features interaction(s) assessed:

European Marine Site:	Coquet Island SPA
Qualifying feature(s):	Pursuit & Plunge Diving Birds
Gear type(s):	Gill nets
Gear/feature interaction reference(s):	CSPA - 279

Revision history

The NIFCA HRA Audit document contains a full timeline of the approach to assess the feature/fishery interaction. Work commenced in March 2013 with the matrix assessment of all feature/fishery interactions to determine no effect, tLSE, evidence gaps requiring a full HRA. This HRA is for a feature/fishery interaction which an evidence gap was identified. The dates below are a summary of the final stages of the process, when evidence was collated and determinations carried out.

Date	Revision	Editor
07/03/2016	Document created	VR
March-June	Collation of evidence which informs the HRA	VR, SSM, NW (CS)
09/06/2016	Reviewed by Natural England (CS). Updated from comments provided	VR
25/10/2016	Reviewed with Natural England (CS). Updated from comments provided	VR
24/11/2016	Reviewed with Natural England (CS) in the office with CS and IFCOs. The document was subsequently updated based on the discussions and from comments provided	VR
28/03/2017	final version sent to Natural England	VR

Has Natural England been formally consulted on this tLSE (and do they agree)?	yes
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IFCA reference
CSPA - AA 001

1. Introduction

1.1 Need for an HRA assessment

In 2012, the Department for Environment, Food and Rural Affairs (Defra) announced a revised approach to the management of commercial fisheries in European Marine Sites (EMS). The objective of this revised approach is to ensure that all existing and potential commercial fishing activities are managed in accordance with Article 6 of the Habitats Directive.

This approach is being implemented using an evidence based, risk-prioritised, and phased basis. Risk prioritisation is informed by using a matrix of the generic sensitivity of the sub-features of EMS to a suite of fishing activities as a decision making tool. These sub-feature-activity combinations have been categorised according to specific definitions, as red, amber, green or blue.

Activity/feature interactions identified within the matrix as red risk have the highest priority for implementation of management measures by the end of 2013 in order to avoid the deterioration of Annex I features in line with obligations under Article 6(2) of the Habitats Directive. Activity/feature interactions identified within the matrix as amber risk require a site-level assessment to determine whether management of an activity is required to conserve site features. Activity/feature interactions identified within the matrix as green also require a site level assessment if there are “in combination effects” with other plans or projects. All classifications of blue within the matrix, identify where activity / interactions are unfeasible and do not require any site assessments for management to be carried out.

Site level assessments are being carried out in a manner that is consistent with the provisions of Article 6(3) of the Habitats Directive. The aim of this assessment is to determine whether management measures are required in order to ensure that fishing activity or activities will have no adverse effect on the integrity of the site. If measures are required, the revised approach requires these to be implemented by 2016.

Northumberland Inshore Fisheries and Conservation Authority (NIFCA) is implementing the site-level assessment process in four phases:

1. simple screening assessment (activity is not occurring/already managed or interaction categorised as blue in the matrix (no interaction with the feature))
2. likely significant effect (LSE) type test (scale or magnitude of effect not likely/likely to be significant)
3. detailed LSE type test
4. appropriate assessment (AA) type test (ascertaining whether the activity will cause an adverse effect on site integrity)

The purpose of this site specific assessment document is to assess whether or not in the view of **Northumberland Inshore Fisheries and Conservation Authority** the fishing activity **gill netting** has a likely significant effect on the **pursuit & plunge diving birds** of the **Coquet Island SPA**, and on the basis of this assessment whether or not it can be concluded that activity of **gill netting** will not have an adverse effect on the integrity of this EMS. The other features for this site have been classified as blue in the matrix and are therefore not included in this assessment.

An in-combination assessment will be carried out and will include gears screened out from the phase 2/3 assessment¹ for this site (section 8) and other non-fishery related activities.

1.2 Documents reviewed to inform this assessment

- Defra’s risk assessment Matrix of fishing activities and European habitat features and protected species²
- NIFCA monthly shellfish permit returns data provided by shellfish permit holders as a condition of their permit. Data recorded pertaining to static netting activity identifies which vessels are actively engaged in activity and their temporal and spatial extent.
- NIFCA patrol sightings, recording GPS location of vessel and activity.
- Reference list (Annex 1)
- Sector map of NIFCA district (Annex 2)
- Site boundary map (Annex 3)
- Marine Conservation Society beach litter data (Annex 4 & 5)
- Coquet Island SPA supporting habitat map (Annex 6)

2. Information about Coquet Island SPA

Coquet Island is a small plateau island (0.07km²) situated approximately 1km off the Northumberland coastline. It has a shallow sandstone cliff face, surrounded by a 15km² rocky intertidal area, with two beaches, a sandy beach on the SW and a shingle beach on the SE.

Protection of the site was first provided in form of a Bird Sanctuary Order in 1964 (No. 1096) under the Protection of Birds Act 1954 (<http://www.publications.parliament.uk>), it was then notified as a Site of Special Scientific Interest (SSSI) in 1975, and became designated under Article 4 of the Birds Directive (2009/147/EC) in 1985 for supporting important breeding populations (March to September) of Annex I species i.e. more than 1% of the UK’s population (Table 1). Due to its island properties, the isolated environment provides greater protection for these ground nesting breeding populations from mammalian predation and the site has a higher than UK average productivity score for common, roseate and Arctic tern species and comprises of the largest breeding colonies for common and roseate tern in the UK. The Island is an RSPB reserve and the public are not allowed to access the island, only volunteers who manage and monitor the site during the breeding season are authorised to set foot on the site.

Coquet Island SPA currently has a proposed amendment as recommended in Stroud *et al.* 2001 SPA review, to include an additional feature (under Article 4.2 Birds Directive) that the site regularly supports an internationally important seabird assemblage (breeding) of over 20, 000 individuals (actual total 47, 662 individuals), with main named components, in addition to the qualifying tern species, to include the Atlantic puffin, *Fratercula arctica* and black-headed gull, *Chroicocephalus ridibundus* (Table1).

Table 1. Coquet Island SPA qualifying features³

Feature	Population Size (2010- 2014)	% of UK Population
Sandwich tern <i>Sterna sandvicensis</i>	Pairs: 1, 300 Individuals: 2, 600	11.82%
Roseate tern <i>Sterna dougalii</i>	Pairs: 80 Individuals: 160	93.02%

¹ Note: gears screened out of HRA type assessment in phase 2/3 are documented in site audit spreadsheet and are considered in-combination in section 8.

² See Fisheries in EMS matrix:

http://www.marinemangement.org.uk/protecting/conservation/documents/ems_fisheries/populated_matrix3.xls

³ Population and percentages taken from Natural England’s Departmental brief for Coquet Island SPA – site amendment 2015.

Common tern <i>Sterna hirundo</i>	Pairs: 1, 189 Individuals: 2, 378	11.89%
Arctic tern <i>Sterna paradisaea</i>	Pairs: 1, 230 Individuals: 2, 460	2.32%
Proposed Feature for Coquet Island SPA		
Internationally important seabird assemblage of over 20, 000 individuals	Individuals: 47, 662 with main components Atlantic puffin, Pairs: 31, 686 Black headed gull, Pairs: 7, 772	2.73% 2.99%

The surrounding waters of Coquet Island SPA are a supporting habitat for the breeding seabird populations, providing crucial foraging grounds. It is outside the boundary of this SPA (mean low water mark), but under Article 4.4 of the Birds Directive, conservation of this supporting habitat is vital in the adult's ability to successfully rear young and must be considered.

2.1 Overview and qualifying features

- Pursuit and plunge diving birds

This feature depicts certain bird species foraging behaviour, diving from height while in flight into water to gain depth and speed to actively pursue its prey within the water column. This feature refers principally to species which are members of the Auk seabird family, of which the Atlantic puffin, a named component of the Coquet SPA seabird assemblage belongs. This technique enables them to dive to depths up to 60m, (generally 30m) to catch large quantities of sandeel, which forms the predominant diet of their chicks (<http://datazone.birdlife.org>). To a lesser extent this feature also includes the Northern fulmar (*Fulmarus glacialis*), which mainly feeds by surface skimming but will also dive and pursue prey underwater up to depths of 3m (Hobson & Welch 1992).

Atlantic puffin, *Fratercula arctica*

Coquet Island's Atlantic puffin population belongs to the north east Atlantic biogeographic population of the subspecies *F. arctica arctica* (5, 176, 257 pairs) which consists of France, GB, Isle of Man, Channel Islands, All- Ireland, Faroes, Norway, Iceland and Russia. The UK population is estimated at about 508,700 breeding pairs (JNCC, 2016), of which 0.31%, 31, 686 breeding pairs on Coquet Island³. This is not internationally significant, but does represent 2.73% of the GB breeding population and the population is therefore of national significance.

Due to the invasive methods required to conduct an accurate survey count, census of breeding pairs are conducted every five years by the RSPB. Monitoring records for Atlantic puffins are available from 1975 and their numbers have steadily increased from 635 to its maximum count of 19, 275 in 2008 (fig 1). Since then numbers have slowly declined to an estimated 12, 000 breeding pairs in 2015. Throughout the early 2000's breeding puffin pair numbers have fluctuated dramatically. Declines experienced in 2003- 2004 were mirrored across many seabird species' breeding populations within the North Sea region and were attributed to low availability of their typical prey, namely the lesser sandeel, *Ammodytes marinus* (Frederiksen *et al.*2007). During this period a high proportion of snake pipefish, *Entelurus aequoreus* were observed in monitoring programmes around the UK, being fed to chicks, in which this alternative food source resulted in the death of many chicks, due to its low nutritional value and unsuitability to be swallowed (Harris *et al.* 2007).

At the beginning of 2014, large wrecks of NE Atlantic seabird species were caused by prolonged severe winter storms. It was estimated that more than 54, 000 birds washed up onto European beaches, of which 54% of the recorded species found dead were Atlantic Puffins (Schmitt, RSPB 2014). Post mortems carried out revealed death was caused by starvation and exhaustion from the storm conditions preventing their ability to forage.

Northern fulmar, *Fulmarus glacialis*

Northern fulmars have bred in England since the 1920s, expanding their range southward. Their population size has continued to increase with current estimates of 501, 600 breeding pairs within the UK (NE, TIN126). Coquet Island's population has followed this increasing trend since records began in 1976 and peaked in 1995 at 81 breeding pairs (fig 2). Since then the population has fluctuated greatly, displaying the same dramatic declines as the Atlantic puffin in the early 2000s. A 2015 count shows a breeding population of 54 pairs, which represents 0.01% of the UK population, which does not qualify the species to be specifically named within the designation, but does form part of the designated breeding seabird assemblage for regulatory occurring migratory birds for the SPA.

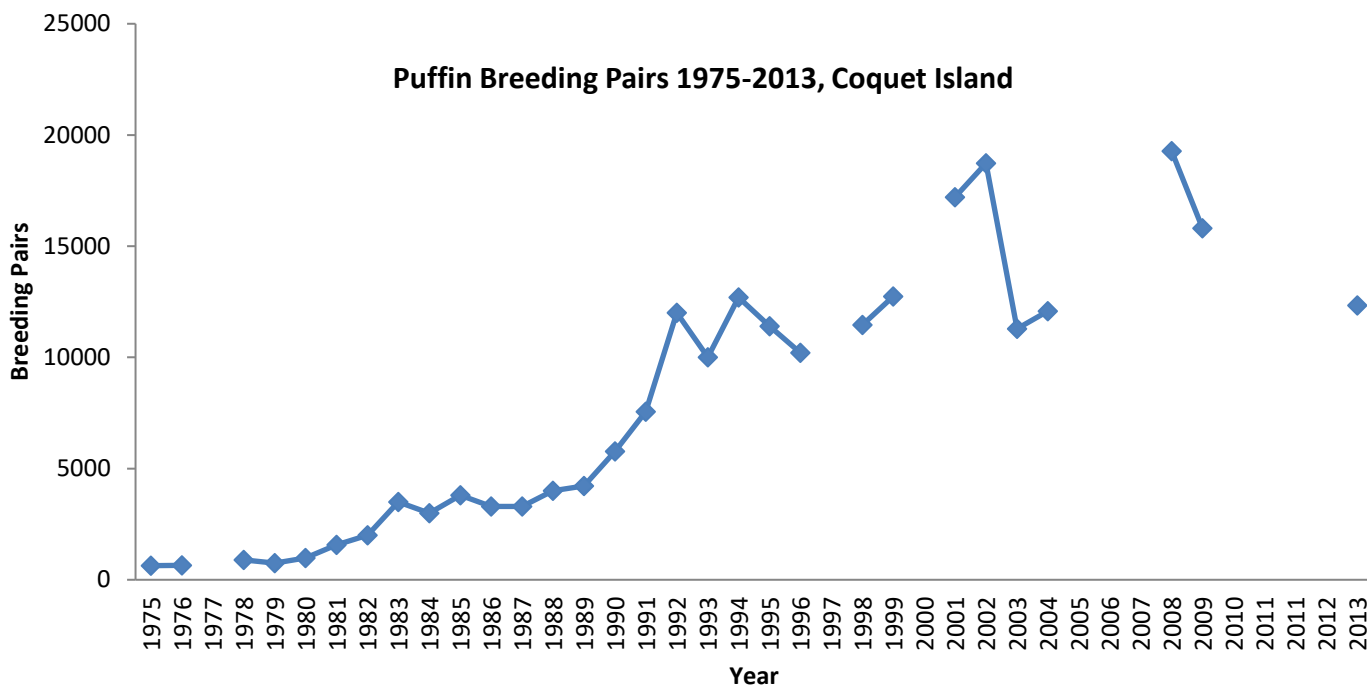


Figure 1 | Counts of breeding pairs of Atlantic puffin from 1975-2012 from RSPB monitoring programme. 2013 data from Seabird Monitoring Programme Online database⁴

⁴ <http://jncc.defra.gov.uk/smp/sitesBrowser.aspx?siteID=110186>

Northern Fulmar AOS 1976-2015, Coquet Island

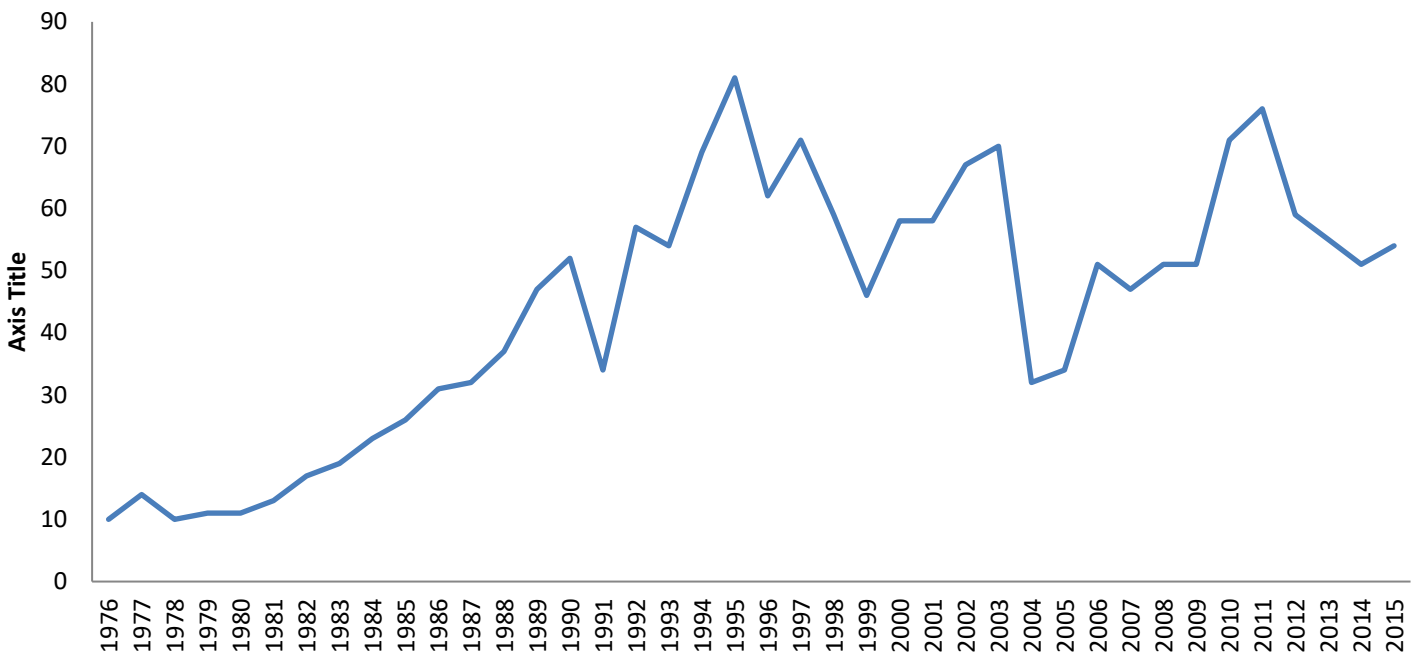


Figure 2 | Counts of breeding pairs of Northern Fulmars from 1976-2015 from RSPB monitoring programme.

2.2 Conservation Objectives

As this feature forms part of the re-classification of the site's designation, no conservation objective is available for 'Pursuit and Plunge diving birds' within the Coquet Island SPA. However, at this site and internationally, Atlantic puffins are experiencing a declining population trend and the IUCN Red List of Threatened Species upgraded its European population status to 'vulnerable'; a 'Recover' conservation objective has been inferred.

With regard to this SPA and individual species and/or assemblage of species for which the site has been and may be classified, and subject to natural change the conservation objectives are to **Recover** to favourable condition, with a medium confidence level (see section 6 of Detailed tLSE):

- the size of the population at a level which is above either the SPA Citation or an alternative baseline-population previously approved by Natural England Chief Scientist or that based on the current mean peak count or equivalent, whichever is the higher.
- the abundance and structure of the assemblage at or above its current or target level (whichever is the higher) through restoring breeding productivity and adult survival.
- the extent, distribution and availability of suitable breeding habitat which supports the feature for all necessary stages of its breeding cycle (courtship, nesting, feeding).
- water quality and quantity to a standard which provides the necessary conditions to support the SPA feature, where the supporting habitats of the feature are dependent on surface water.

3. Interest feature/fisheries interactions of the Coquet SPA categorised as 'Red' risk and overview of management measure(s)

No interest features/fisheries interaction in the Coquet Island SPA were categorised as a 'Red' risk.

4. Information about fishing activities surrounding the site

In assessing the level of static net fishing within the NIFCA district, two sources of data have been analysed; monthly shellfish permit returns (low to moderate data confidence) and Officers' patrol sighting data (high data confidence). The monthly return forms are submitted by shellfish permit holders only and providing information on netting activity/landings is not mandatory; therefore these may not be capturing total netting activity. Data from 2006 to 2010 has been excluded from the analysis as this information was captured by the Marine and Fisheries Agency, MFA (MMO predecessor) for under 10m vessels only. During this period information for over 10m vessels was captured through European log sheets, for which NIFCA do not possess the data. Data collected during this period is less defined spatially and incomplete and therefore does not provide a descriptive representation of our fleet and is excluded.

The assessment of T, J and drift nets for the migratory salmonid fishery has been omitted from this Appropriate Assessment, as this activity is regulated by the Environment Agency and who are required to carry out its assessment. This activity is however considered in Section 8 of this document within the in-combination assessments.

4.1 Static fixed and gill nets

Levels of static netting activity (gill, trammel and entangle) within the NIFCA district have declined considerably in recent years and are currently very low, with just 5 boats (NIFCA 2015) known to set nets on an infrequent basis (Jon Green, pers. comm). This is also true in the number of vessels setting static nets and the total number of days nets were set at sea from 2003- 2015. The number of vessels setting static nets in the NIFCA district as a whole has dropped from 29 in 2003 to 5 in 2015, with no vessels reporting (NIFCA 2015) setting static nets within the surrounding waters of Coquet Island SPA (Cresswell to Alnmouth sector) (fig 3). The annual sum of days in which vessels recorded setting static nets has decreased significantly since 2003 of 827 days to 2015 37 days (fig 4). This decreasing trend is mirrored in the use of gill net activity within the Cresswell to Alnmouth sector, with highest levels of activity recorded in 2003, 75 days at sea to 0 days in 2015.

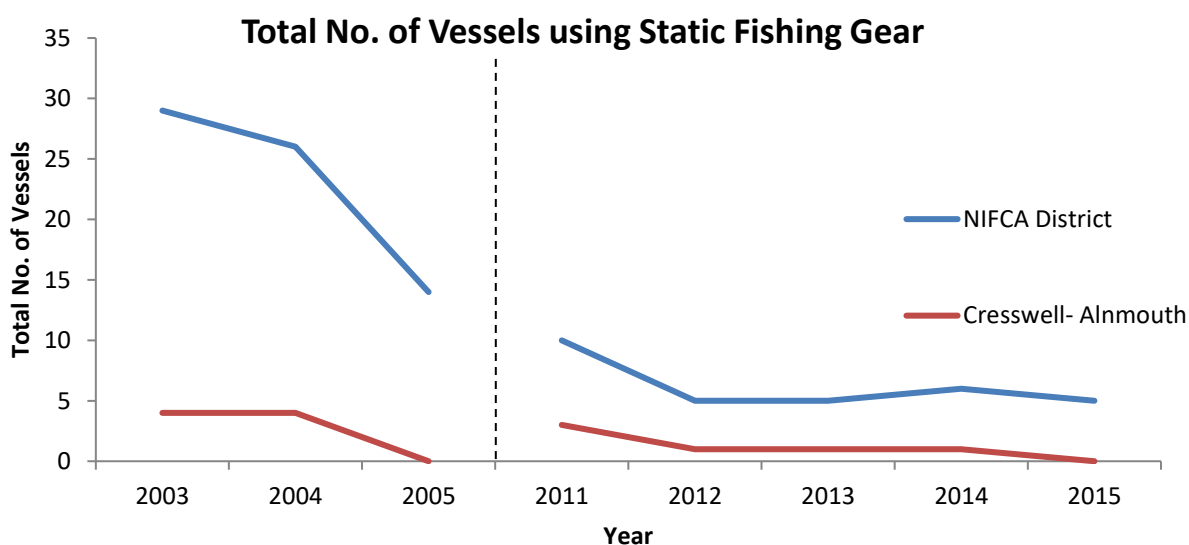


Figure 3 I Total number of vessels reported in shellfish returns using static nets (gill, entangling and trammel nets) throughout the NIFCA district and total within the Cresswell to Alnmouth district (surrounding waters of Coquet Island SPA) from 2003 to 2015.

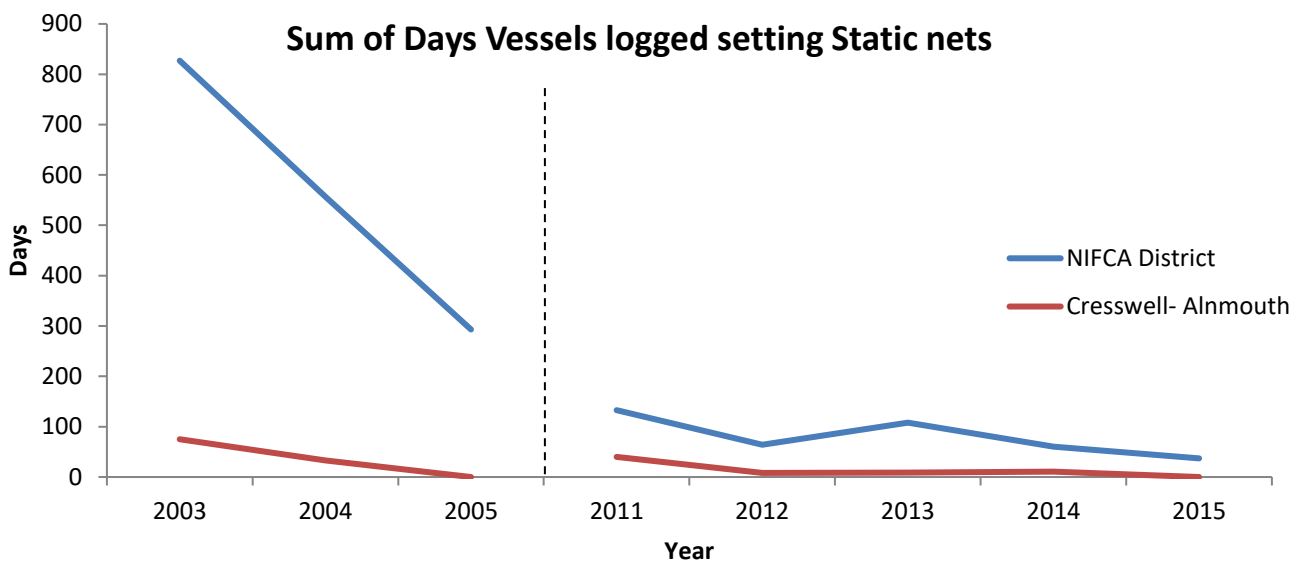


Figure 4 I Total number of days static nets reported in shellfish returns to be set throughout the NIFCA district and those set in the sector Cresswell to Alnmouth (surrounding waters of Coquet SPA) form 2003 to 2015.

Coquet Island SPA, designated for its breeding populations of seabirds are only present on site from April through to September. No netting activity was reported during 2015 within the vicinity of Coquet Island SPA. The last logged activity during 2014 was recorded by one vessel operating static nets a total of 11 days during August, which coincided with the SPAs features breeding season (Figure 5).

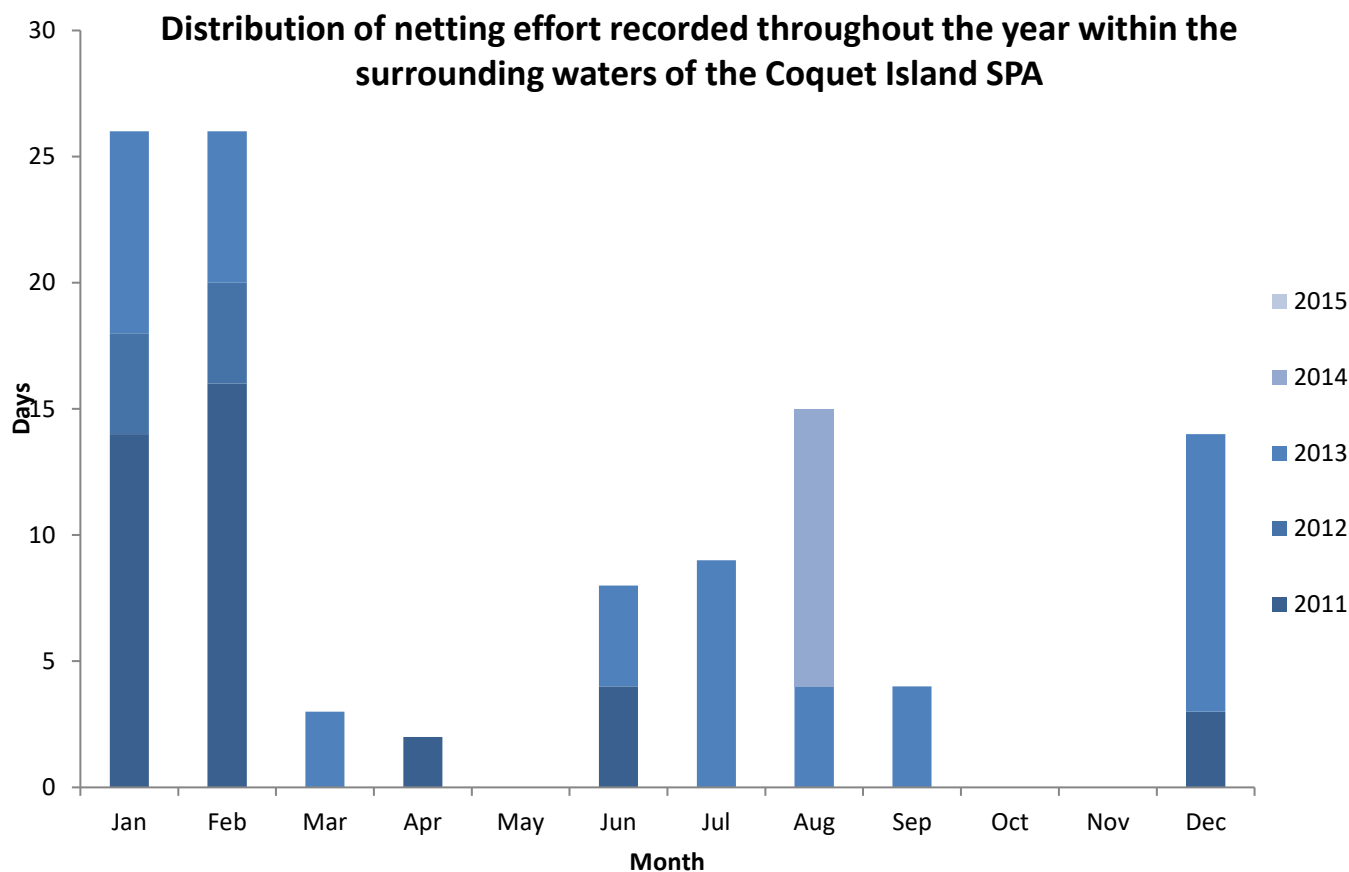


Figure 5 | Frequency in which vessels reported setting nets in the Cresswell to Alnmouth sector (surrounding waters of Coquet SPA) from 2011 to 2015.

No vessels without a shellfish entitlement are known to NIFCA officers to be setting gill nets within the district and the declining trend in netting is apparent from the monthly returns forms also correlates with sightings of netting activity from regular NIFCA patrols (Figs. 6 & 7), with only 1 sighting in 2014 and 2015. The sightings also show that static netting activity is concentrated in the southern part of the NIFCA district, which is attributed to harsher tidal and sea conditions north of Amble (CIFCO Al Browne pers. comm. 2016). Local expert knowledge combined with permit returns with patrol sightings provides a high confidence level to the data.

Patrol effort (figure 7) increased significantly during 2010 and 2011 with the employment of two more enforcement officers. This sharply changed from 2011 to 2012 due to diversification of the regulatory authority's role from purely enforcement as the Sea Fisheries Committee to responsibilities towards conservation as IFCA's under the Marine Coastal Access Act 2010. This effort remained at a lower level during 2014 and 2015 with decommissioning of the St Oswald and the commissioning of a new patrol vessel, St Aidan.

15-20 years ago, static fixed netting was an important fishery off Northumberland, targeting predominantly cod in the winter and turbot in the summer. Mesh sizes of these nets are dependent on their target species, as specified under Council Regulation (EC) No 850/98 of 30 March 1998 for the conservation of fishery resources through technical measures for the protection of juveniles of marine organisms. Annex VI states the minimum mesh sizes for fixed gears, applicable to our district, with 140mm being used for Cod and 90- 99mm for Bass. Generally effort was highest during the winter (fig 5), while fishermen turned to their pots in the summer.

Anecdotal evidence indicates that the decline in the use of any type of static fixed nets (gill, trammel and entanglement) within the NIFCA district is due to a variety of factors, but predominantly the introduction of Total Allowable Catches and quotas in 1983 which drove many towards potting for shellfish. Locally, the cessation of dumping sewage sludge at sea around 15 years ago, particularly off the River Tyne and Blyth, is indirectly attributed

to a decline in local cod stocks, which used the dumping grounds for feeding. Furthermore increases in the population of grey seals off the Northumberland coast, particularly the Farne Islands which is home to one of England’s largest colonies with over 1000 pups born annually, has also led to a decline in fixed netting within the district as fishermen hold the seals responsible for eating/damaging fish caught within the nets. These interactions have also been witnessed by NIFCA enforcement officers during routine inspections, as fishermen hauled their nets, evidence of predation of the caught fish was clearly visible in addition to seals observed feeding directly from the nets as they were being hauled (NIFCO Stewart- Moore 2016 pers. comm)

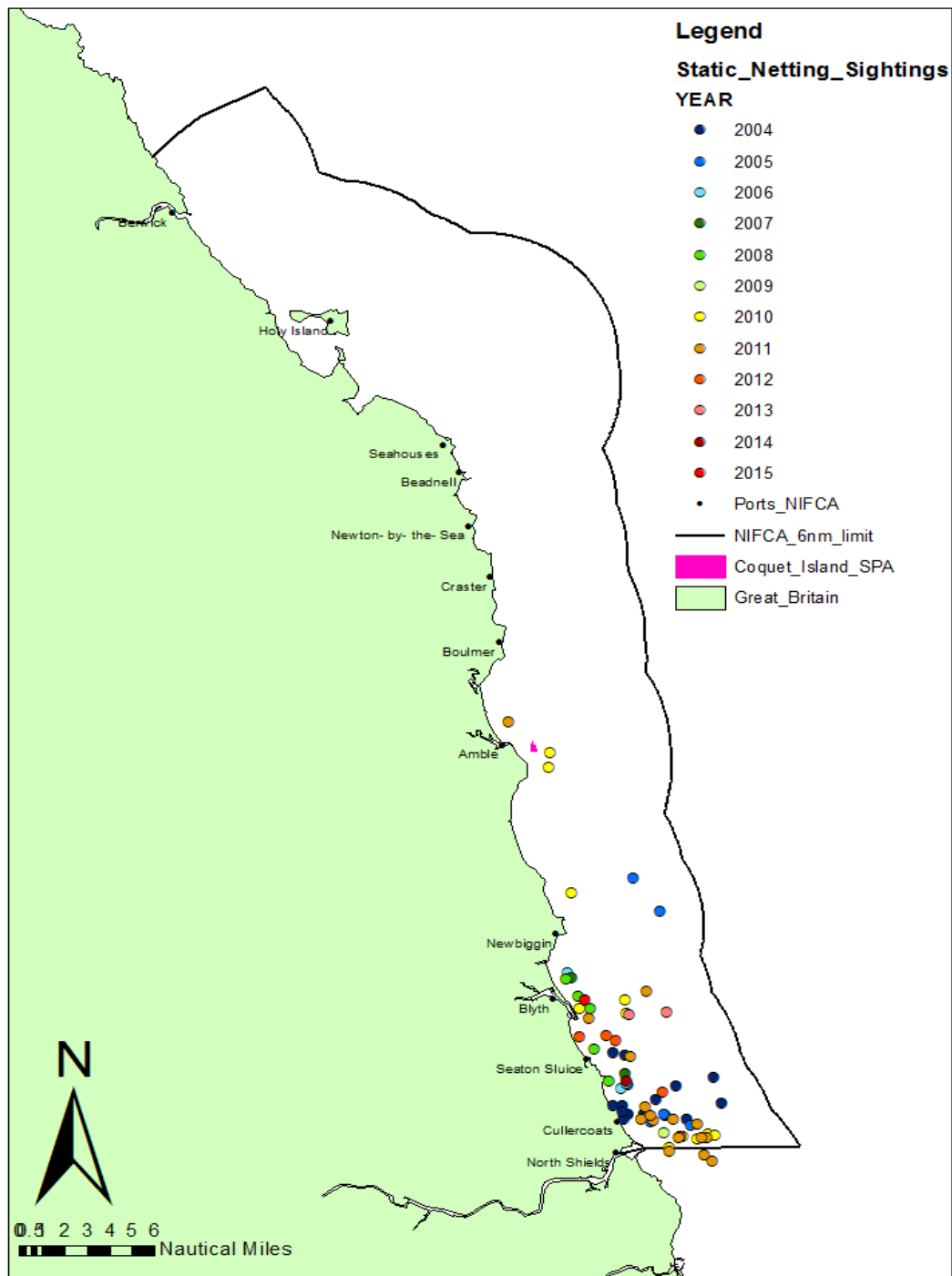


Figure 6 I Map of sightings of fishing vessels deploying/hauling bottom-set static nets from the NIFCA Patrol Vessel St. Oswald during routine patrols from 2003 – 2015. Each point represents an individual sighting.

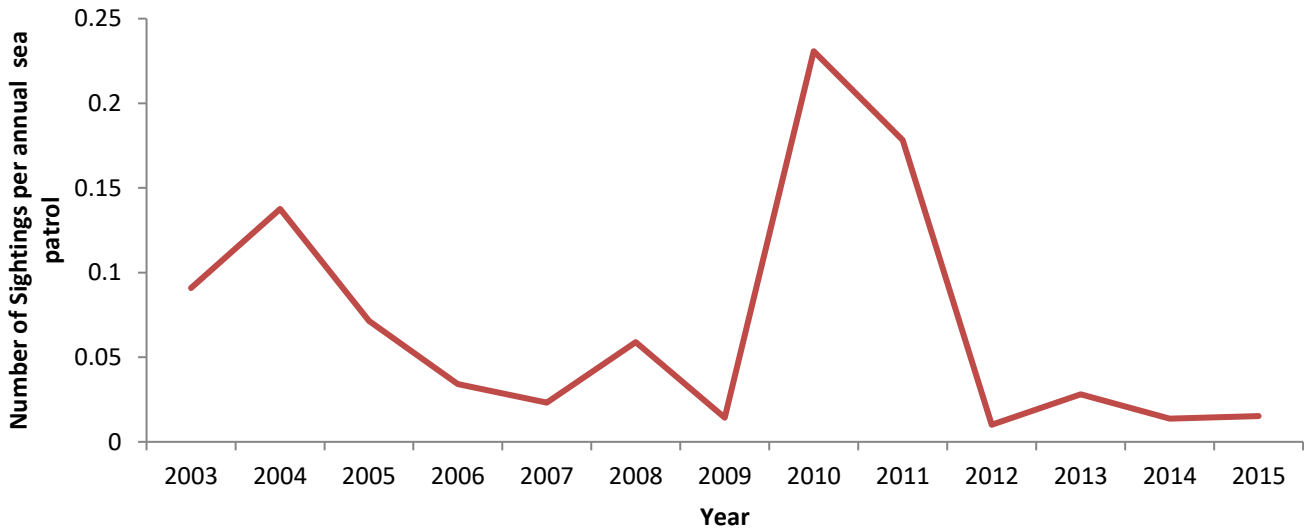


Figure 7 I Number of sightings recorded per sea patrol annually (per unit effort) of static netting activity within the Northumberland Inshore Fisheries and Conservation Authority district 2003 – 2015.

4.2 Management (Static fixed nets)

There are various existing management measures in place within the NIFCA district that affect static fixed netting:

NIFCA Byelaw 6 Fixed Engines:

Prohibition 4. A person must not use a fixed engine to fish for or take sea fish at any time during the period 26th March to 31st October inclusive;

- (a) in waters that are less than 7 metres in depth, unless those waters are separated from the shore by waters deeper than 7 metres at any state of the tide;
- (b) where the headline of the fixed engine is less than 4 metres below the surface of the water at any state of the tide.

Prohibition 5. A person must not use a fixed engine to fish for or take sea fish at any time during the period 1st November to 25th March inclusive in the restricted areas⁵ where the headline of the fixed engine is less than 4 metres below the surface of the water at any state of tide. (Appendix 4).

NIFCA Byelaw 5 Marking of Fishing Gear and Keep Boxes:

Prohibition 2. A person must not fish for or store sea fish using a pot, keep box or passive gear unless:

- (a) the marker buoy or dahn is clearly visible on the surface of the water; and
- (b) where a string of no more than 5 pots is used, a marker buoy or dahn is attached to one end of the string; or
- (c) where subparagraph 2(b) does not apply, a marker buoy or dahn is fixed to both ends of the pot, keep box or passive gear.

Prohibition 3. A marker buoy or dahn used in accordance with paragraph 2 must display the following information:

⁵ Interpretation 1.(h) 'restricted areas' mean "Coquet Playground", "Tyne Playground" and Wansbeck Playground" as defined in the schedule.

- (a) where the marker buoy or dahn is placed from a relevant fishing vessel, the name, port letters and numbers of that relevant fishing vessel;
- (b) where the marker buoy or dahn is not placed from a relevant fishing vessel, the owner's name and telephone number.

NIFCA Byelaw 6 Fixed Engines

Prohibition 3. A person must not use a fixed engine to fish for or take sea fish at any time during the period 26th March to 31st October inclusive within:

- (c) the area of the District west of an imaginary line drawn from Hauxley Point and Coquet Island Light House, thence on a bearing 355° to a point 3 nautical miles and 622 metres distant and thence due north- west to Seaton.

Prohibition 5. A person must not use a fixed engine to fish for or take sea fish at any time during the period 1st November to 25th March inclusive in the restricted areas where the headline of the fixed engine is less than 4 metres below the surface of the water at any state of the tide.

4.3 Other fishing activity within the Coquet SPA

Potting for European lobster *Homarus gammarus* and brown crab *Cancer pagurus* is the principle fishery within the Northumberland IFCA district, with 115 commercial shellfish permit holders in 2015 and approximately 38,000 [commercial] pots fished within the district (2015). Fishers record which section of the district their pots have been set in on their monthly returns forms which enable NIFCA to monitor fishing activity within the site. Commercial shellfish permit holders are limited to 800 pots and permitted vessels must not exceed 12 metres in length (Byelaw 4 Crustacea and Molluscs permitting and Pot Limitation). Recreational shellfish permit holders are limited to 5 pots and must not take more than one lobster, five edible or velvet crabs, 20 whelks or five prawns in any one day. Under NIFCA's new permitting scheme (January 2016), recreational fishing must pay £10 for a permit which when received permit holders were requested on a voluntary basis to record catch information.

5. Test for Likely Significant Effect (tLSE)

The Habitats Regulations assessment (HRA) is a step-wise process and is first subject to a coarse test of whether a plan or project will cause a likely significant effect on an EMS.

<p>1. Is the activity/activities directly connected with or necessary to the management of the site for nature conservation?</p>	<p>No</p>
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<p>2. What pressures (such as abrasion, disturbance) are potentially exerted by the gear type(s)?</p> <p>*Sensitivities as listed are based on DRAFT Interim conservation advice. No Regulation 33 or 35 Advice is available for Coquet Island SPA and best judgement has been used to determine which of these pressures are truly exerted by the gear type(s).</p>	<p>Above water noise (Sensitive)¹</p> <p>Collision ABOVE and BELOW water with static or moving objects not naturally found in the marine environment (e.g., boats, machinery, and structures)(Sensitive)²</p> <p>Introduction or spread of non-indigenous species (Sensitive)⁷</p> <p>Litter i.e. Ghostfishing (Sensitive)⁸</p> <p>Removal of non- target species (bycatch) (Sensitive)¹⁰</p> <p>Removal of non-target species (prey species)</p> <p>Visual disturbance (Sensitive)¹³</p>
<p>3. Is the feature potentially exposed to the pressure(s)?</p>	<p>Yes</p>
<p>4. What are the conservation objectives for the feature?</p> <p>*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 current knowledge of the status, and the pressures, affecting designated features (see sections 4 &5).</p> <p>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'.</p>	<p>Conservation objective for pursuit & plunge diving birds:</p> <p>Recover*:</p> <ul style="list-style-type: none"> - <u>the size of the population at a level which is above either the SPA Citation or an alternative baseline-population previously approved by Natural England Chief Scientist or that based on the current mean peak count or equivalent, whichever is the higher.</u> - <u>the abundance and structure of the assemblage at or above its current or target level (whichever is the higher) through restoring breeding productivity and adult survival.</u> - <u>the extent, distribution and availability of suitable breeding habitat which supports the feature for all necessary stages of its breeding cycle (courtship, nesting, feeding).</u> - water quality and quantity to a standard which provides the necessary conditions to support the SPA feature, where the supporting habitats of the feature are dependent on surface water. <p>Those conservation objectives that might be affected by gill netting activity are underlined.</p> <p>*Confidence level for interim, inferred Conservation Objective: MEDIUM (see section 6 for detail).</p>

<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 surrounding waters of the Coquet Island SPA are currently very low, with just one or two boats known to set nets on an infrequent basis (Jon Green, ers. comms.). Observations from RSPB staff working on site during the summer breeding months have reported no sightings of nets being set, SPA bird species being caught or disturbed in close proximity of the SPA. Anecdotal advice from the RSPB warden, states that puffins have been caught in salmon nets at Druridge Bay (Paul Morrison, Coquet Island RSPB warden pers. comms. 24/04/2014), however these nets target migratory fish and are therefore regulated by the Environment Agency.</p> <p>Puffins (Pursuit and Plunge diving seabirds) <i>Fratercula arctica</i> are a qualifying feature for the Coquet Island SPA, with 11,400 breeding pairs representing 1.3% of the UK breeding population (1995)¹⁴. A puffin census is carried out every 5 years on Coquet Island. Since records began in 1975, the number of breeding pairs using the site has increased steadily and in 2009 15,812 breeding pairs were recorded¹⁵. Puffin numbers on Coquet Island SPA have however declined since the 2009 census to an estimated 12,000 breeding pairs (Paul Morrison, Coquet Island RSPB warden, pers. comms. 13/11/2015). This local decline is attributed to a reduction in sandeel stocks and the crushing of burrows by seals, however it reflects the decline of puffins reported at other breeding sites around Europe, as a result of which puffins are now listed as ‘Vulnerable’ on the IUCN Red List of Threatened Species.</p> <p>NIFCA Byelaw 6 (Fixed Engines) includes a number of technical, spatial and temporal restrictions designed to minimise the potential of accidental bycatch of birds and the low levels of activity are unlikely to be having a significant adverse impact on puffin numbers locally. However, given the status of puffins as a vulnerable species, more information is needed to confirm this.</p>
<p>6. Condition and Conservation Objective Inferences</p>	<p>No conservation objective is provided for the feature of ‘Pursuit and Plunge diving birds’ within the Coquet Island SPA. Since the 2009 census the population numbers of Atlantic puffins have declined (as mirrored at other breeding sites) from 15, 812 to current estimate of 12,000. Therefore NIFCA infer a ‘Recover’ CO for this site’s feature, with a ‘Medium’ confidence assigned.</p>

<p>7. Is the potential scale or magnitude of any effect likely to be significant?</p>	<p>Alone:</p> <p>No</p> <p>* However as the inferred conservation objective for this site is to 'recover' and there are uncertainties in the level of netting activity, a full Appropriate Assessment is required to confirm this.</p>	<p>OR In-combination</p> <p>No</p>
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6. Appropriate Assessment

If a 'Test of Likely Significant Effect (Section 5) identified the potential for a significant effect on the EMS feature/sub-feature as a result of the gear-type under consideration, or if there is a lack of information regarding the impact of the gear type on the feature, it has been carried forward for a full Appropriate Assessment to assess whether or not the potential LSE is likely to have an adverse effect on the conservation objectives given for the designated features of the site in question. The full appropriate assessment for the gear/feature interaction of gear netting/ pursuit & plunge diving birds within the Coquet Island SPA is given below.

6.1 Potential risks to features

The potential pressures, ecological impacts, levels of exposure and mitigation measures for gill netting activity in regards to the classified pursuit & plunge diving bird species within the Coquet Island SPA are summarised in Table 2.

Table 2: Summary of Impacts

Feature/ Sub feature(s)	Conservation Objective	Potential pressure (such as abrasion, disturbance) exerted by gear type(s)	Potential ecological impacts of pressure exerted by the activity/activities on the feature	Level of exposure of feature to pressure	Mitigation measures
<p>Pursuit & Plunge Diving Birds</p>	<p>Recover the size of the population at a level which is above either the SPA Citation or an alternative baseline-population previously approved by Natural England Chief Scientist or that based on the current mean peak count or equivalent, whichever is the higher.</p> <p>Current SPA citation for Atlantic puffin is 31, 686 breeding pairs, an average taken from the last 3 census (2008, 2009, 2013).</p>	<p>Above water noise</p>	<p>'Whilst activity would cause pressure, impact considered better captured by 'visual disturbance'⁸</p>	<p>N/a</p>	<p>N/a</p>
		<p>Collision ABOVE & BELOW water with static or moving objects not naturally found in the marine environment (e.g., boats, machinery, and structures)</p>	<p>'Collision can occur as a result of this activity in instances where a vessel is used.'⁹</p>	<p>Vessel activity around the Coquet SPA attributed to gill net fishing vessels has always been low, with the highest number of vessels operating in 2003 & 2004 as four (NIFCA permit returns). Influencing factors such as, low TAC and increasing seal population, continue to maintain low levels of this activity.</p> <p>No vessels have been recorded of setting nets during 2015, the last recorded by one vessel attributing 11 days to gill netting during August. This vessel is an under 10m inshore boat. No incidences have been reported of vessel disturbance by RSPB staff members on site (Paul Morrison pers. comm. SPA site manager, 2014). The extremely low level of gill netting activity and lack of collision/disturbances recorded mean there is unlikely to be an adverse impact on the recovery of the feature's</p>	<p>None required, except implementation of Monitoring and Control Plan for Static Netting, which outlines the parameters to be assessed for the fixed net fishery and the conservation status of sites' features. Annual assessments of fishing effort and communications with RSPB will ensure any management requirements are met and remain 'fit for purpose'.</p>

		population size.	
Litter i.e. Ghostfishing	<p>'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.'¹¹</p> <p>Activity of SPA feature foraging behaviour places risk of interaction (entanglement) resulting in injury or mortality.</p>	<p>The Marine Conservation Society conduct marine litter surveys along the UK coastline, which record incidences of dead birds. From 2005-2015 217 surveys have been conducted within the NIFCA district, of which 34 recorded incidences of dead birds. From these, 4 surveys identified (4-7 individuals) of the classified feature Atlantic puffins, 2 in 2007, 1-4* in 2011 and 1 in 2013. No attribution was given to their deaths. None were identified as the northern fulmar. Fishing net is also recorded in the surveys and the frequency of netting found from 2005 to 2012 has generally decreased from one piece every 54m to every 201m, retrospectively. The highest frequency was recorded in 2013, every 36m, which has since declined to every 107m in 2015. (Annex 6).</p>	<p>None required, except implementation of Monitoring and Control Plan for Static Netting, which outlines the parameters to be assessed for the fishery and the conservation status of sites' features.</p> <p>Annual assessments of gear losses, marine litter surveys from MCS, NWT and entanglement stranding from the BDMLR will ensure any management requirements are met and remain 'fit for purpose'.</p>
Removal of non- target species (bycatch)	<p>'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.'¹²</p> <p>Activity of SPA feature foraging behaviour places risk of interaction (entanglement) resulting in injury or mortality.</p>	<p>In 2015 static nets were set for a total of 37 days (NIFCA permit forms) with no vessels reporting netting activity within the sector containing Coquet Island SPA. No nets were observed in close proximity to the site and there have been no bycatch reports of SPA species (Paul Morrison pers. comm. RSPB site manager, 2014). Low levels of gill netting activity and lack of bycatch reports pose a low exposure</p>	<p>None required, except implementation of Monitoring and Control Plan for Static Netting, which outlines the parameters to be assessed for the fishery and the conservation status of sites' features.</p> <p>Annual assessments of</p>

			risk to the feature's population recovery.	fishing effort and bycatch levels from RSPB and NEBBS survey will ensure any management requirements are met and remain 'fit for purpose'.
	Removal of non-target species i.e. features preferred prey species	The availability of an abundant food supply is critically important for successful breeding, adult fitness and survival and the overall sustainability of the population. Removal of target and non-target prey species has the potential to impact bird populations.	The preferred prey of the classified SPA species consists primarily of sandeels and clupeids. Smaller individuals of the same species are used to feed their chicks. EU legislation regulates mesh sizes of static nets, which are determined by the target species. This fishery targets much larger species e.g. Cod (140mm) and turbot (70mm). Consequently the preferred prey species are too small to be retained in nets i.e. Static nets for clupeids require a minimum mesh of 10mm. Therefore the current static net fishery is highly unlikely to cause an adverse effect on the classified SPA species available prey. Furthermore no mobile gear vessels are targeting sandeels within the NIFCA district.	None required, except implementation of Monitoring and Control Plan for Static Netting, which outlines the parameters to be assessed for the fishery and the conservation status of sites' features. Annual assessments of any emergences of new fishery or changes in target species through landing data from MMO and enforcement data will ensure any management requirements are met and remain 'fit for purpose'.

	Visual disturbance	'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.' ¹³ Potential for displacement from foraging grounds with boat traffic of vessels gillnetting in vicinity.	Boating activity around the Coquet SPA attributed to gill net fishing has declined from four vessels (2003) to zero vessels (NIFCA 2015) .The last reported activity was August 2014 by one vessel for 11 days, which does coincide with the SPA feature's breeding season. This extremely low level of gill netting poses a low exposure risk to the feature for its potential to cause disturbance and displacement from foraging grounds.	None required, except implementation of Monitoring and Control Plan for Static Netting, which outlines the parameters to be assessed for the fishery and the conservation status of sites' features. Annual assessments of fishing effort and communications from RSPB will ensure any management requirements are met and remain 'fit for purpose'.
Recover the abundance and structure of the assemblage at or above its current or target level (whichever is the higher) through restoring breeding productivity and adult survival.	Above water noise	'Whilst activity would cause pressure, impact considered better captured by 'visual disturbance' ⁸	N/a	N/a
	Collision ABOVE & BELOW water with static or moving objects not naturally found in the marine environment (e.g., boats, machinery, and structures)	'Collision can occur as a result of this activity in instances where a vessel in used.' ⁹	Vessel activity around the Coquet SPA attributed to gill net fishing vessels has always been low, with the highest number of vessels operating in 2003 & 2004 as four (NIFCA permit returns 2003-15). Influencing factors such as, low TAC and the increasing seal population continue to maintain low levels of this activity. No vessels have been recorded setting nets during 2015, the last recorded by one vessel attributing 11 days to gill	None required, except implementation of Monitoring and Control Plan for Static Netting, which outlines the parameters to be assessed for the fishery and the conservation status of sites' features. Annual assessments of fishing effort and

		<p>netting during August. This vessel is a small inshore boat measuring under 10m in length.</p> <p>No incidences have been reported of vessel disturbance by RSPB staff members on site (Paul Morrison pers. comm. RSPB reserve site manager, 2014).</p> <p>The extremely low level activity of this pressure exerted by gear type and lack of collision/ disturbances recorded mean there is unlikely to be an adverse impact of adult survival or productivity at a population level.</p>	<p>communications from RSPB will ensure any management requirements are met and remain 'fit for purpose'.</p>
Litter i.e. Ghostfishing	<p>'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.'¹¹</p> <p>Activity of SPA feature foraging behaviour places risk of interaction (entanglement) resulting in injury or mortality.</p>	<p>The Marine Conservation Society conduct marine litter surveys along the UK coastline, which record incidences of dead birds. From 2005-2015 217 surveys have been conducted within the NIFCA district, of which 34 recorded incidences of dead birds. From these, 4 surveys identified (4-7 individuals) Atlantic puffins, 2 in 2007, 1-4* in 2011 and 1 in 2013. No attribution was given to their deaths. None were identified as the northern fulmar. Fishing net is also recorded in the surveys and the frequency of netting found from 2005 to 2012 has generally decreased from one piece every 54m to every 201m, retrospectively. The highest frequency was recorded in 2013, every 36m, which has since declined to every 107m in 2015. (Annex 6).</p>	<p>None required, except implementation of Monitoring and Control Plan for Static Netting, which outlines the parameters to be assessed for the fishery and the conservation status of sites' features.</p> <p>Annual assessments of gear losses, marine litter surveys from MCS, NWT and entanglement stranding from the BDMLR will ensure any management requirements are met and remain 'fit for purpose'.</p>

<p>Removal of non-target species (by-catch)</p>	<p>'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.'¹² Activity of SPA feature foraging behaviour places risk of interaction (entanglement) resulting in injury or mortality</p>	<p>In 2015 static nets were set for a total of 37 days (NIFCA permit forms) with no vessels reporting netting activity within the sector containing Coquet Island SPA. No nets were observed in close proximity to the site and there have been no bycatch reports of SPA species (Paul Morrison pers. comm. RSPB site manager). Low levels of gill netting activity and lack of bycatch reports pose a low exposure risk to feature's survivability.</p>	<p>None required, except implementation of Monitoring and Control Plan for Static Netting, which outlines the parameters to be assessed for the fishery and the conservation status of sites' features.</p> <p>Annual assessments of fishing effort and bycatch levels from RSPB and NEBBS survey will ensure any management requirements are met and remain 'fit for purpose'.</p>
<p>Removal of non-target species i.e. features preferred prey species</p>	<p>The availability of an abundant food supply is critically important for successful breeding, adult fitness and survival and the overall sustainability of the population. Removal of target and non-target prey species has the potential to impact bird populations.</p>	<p>The preferred prey of the SPA features consists primarily of sandeels and clupeids. Smaller individuals of the same species are used to feed their chicks. EU legislation regulates mesh sizes of static nets, which are determined by the target species. This fishery targets much larger species e.g. Cod (140mm) and turbot (70mm). Consequently the preferred prey species are too small to be retained in nets and therefore the current static net fishery is highly unlikely to cause an adverse effect on the features survival.</p>	<p>None required, except implementation of Monitoring and Control Plan for Static Netting, which outlines the parameters to be assessed for the fishery and the conservation status of sites' features.</p> <p>Annual assessments of any emergences of new fishery or changes in target species through landing data from MMO</p>

				and enforcement data will ensure any management requirements are met and remain 'fit for purpose'.
	Visual disturbance	'May result from installation of the infrastructure and/or spat collection; pressure magnitude will depend on methods used and spatial scale of activity.' ¹³	Boating activity around the Coquet SPA attributed to gill net fishing has declined from four vessels (2003) to zero vessels (NIFCA permit returns 2015) .The last reported activity was August 2014 by one vessel for 11 days, which does coincide with the SPA feature's breeding season. This extremely low level of gill netting poses a low exposure risk to the feature for its potential to cause disturbance and displacement from foraging grounds. This low level of gill netting poses a low exposure risk of disturbance, impeding adult survival to the feature.	None required, except implementation of Monitoring and Control Plan for Static Netting, which outlines the parameters to be assessed for the fishery and the conservation status of sites' features. Annual assessments of fishing effort and communications from RSPB will ensure any management requirements are met and remain 'fit for purpose'.
Recover the extent, distribution and availability of suitable breeding habitat which supports the feature for all necessary stages of its breeding	Above water noise	'Whilst activity would cause pressure, impact considered better captured by 'visual disturbance' ⁸	N/a	N/a
	Collision ABOVE & BELOW water with static or moving objects not naturally found in the marine environment (e.g., boats, machinery,	'Collision can occur as a result of this activity in instances where a vessel in used.' ⁹	Vessel activity around the Coquet SPA attributed to gill net fishing vessels has always been low, with the highest number of vessels operating in 2003 &2004 as four (NIFCA permit returns	None required, except implementation of Monitoring and Control Plan for Static Netting, which outlines the

<p>cycle (courtship, nesting, feeding).</p>	<p>and structures)</p>		<p>2003-15). Influencing factors such as, low TAC and the increasing seal population continues to maintain low levels of this activity.</p> <p>No vessels were recorded setting nets during 2015, the last recorded was one vessel attributing 11 days to gill netting during August. This vessel is a small inshore boat measuring 9.98m in length.</p> <p>No incidences have been reported of vessel disturbance by RSPB staff members on site (Paul Morrison pers. comm. RSPB reserve site manager, 2014).</p> <p>The low level activity of this pressure exerted by gear type and lack of collision/ disturbances recorded mean that attributed vessel activity is unlikely to be an adverse impact on feature's supporting habitat.</p>	<p>parameters to be assessed for the fishery and the conservation status of sites' features.</p> <p>Annual assessments of fishing effort and communications from RSPB will ensure any management requirements are met and remain 'fit for purpose'.</p>
	<p>Removal of non-target species (by-catch)</p>	<p>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.¹²</p> <p>Activity of SPA feature foraging behaviour places risk of interaction (entanglement) resulting in injury or mortality</p>	<p>In 2015 static nets were set for a total of 37 days (NIFCA permit forms) with no vessels reporting netting activity within the sector containing Coquet Island SPA. No nets were observed in close proximity to the site and there have been no bycatch reports of SPA species (Paul Morrison pers. comm. RSPB site manager). Low levels of gill netting activity and lack of bycatch reports pose a low exposure risk of feature/ gear interaction.</p>	<p>None required, except implementation of Monitoring and Control Plan for Static Netting, which outlines the parameters to be assessed for the fishery and the conservation status of sites' features.</p> <p>Annual assessments of fishing effort and bycatch levels from RSPB and NEBBS survey will ensure</p>

				any management requirements are met and remain 'fit for purpose'.
	Removal of non-target species i.e. features preferred prey species	The availability of an abundant food supply is critically important for successful breeding, adult fitness and survival and the overall sustainability of the population. Removal of target and non-target prey species has the potential to impact bird populations.	The preferred prey of the SPA features consists primarily of sandeels and clupeids. Smaller individuals of the same species are used to feed their chicks. EU legislation regulates mesh sizes of static nets, which are determined by the target species. This fishery targets much larger species e.g. Cod (140mm) and turbot (70mm). Consequently the preferred prey species are too small to be retained in nets and therefore the current static net fishery is highly unlikely to cause an adverse effect on the features available prey.	None required, except implementation of Monitoring and Control Plan for Static Netting, which outlines the parameters to be assessed for the fishery and the conservation status of sites' features. Annual assessments of any emergences of new fishery or changes in target species through landing data from MMO and enforcement data will ensure any management requirements are met and remain 'fit for purpose'.

	Visual disturbance	'May result from installation of the infrastructure and/or spat collection; pressure magnitude will depend on methods used and spatial scale of activity.' ¹³	Boating activity around the Coquet SPA attributed to gill net fishing has declined from four vessels (2003) to zero vessels (NIFCA permit returns 2015). The last reported activity was August 2014 by one vessel for 11 days, which does coincide with the SPA feature's breeding season. This extremely low level of gill netting poses a low exposure risk to the feature for its potential to cause disturbance and displacement from foraging grounds. This extremely low level of gill netting activity poses a low exposure risk to the feature for its potential to cause disturbance and displacement from foraging grounds. No incidences have been reported of vessel disturbance by RSPB staff members on site (Paul Morrison pers. comm. RSPB reserve manager, 2014).	None required, except implementation of Monitoring and Control Plan for Static Netting, which outlines the parameters to be assessed for the fishery and the conservation status of sites' features. Annual assessments of fishing effort and communications from RSPB will ensure any management requirements are met and remain 'fit for purpose'.
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The following conservation objectives for pursuit and plunge diving birds are not deemed to be at risk from pressures associated with static netting activity within the Coquet Island SPA:

- water quality and quantity to a standard which provides the necessary conditions to support the SPA feature, where the supporting habitats of the feature are dependent on surface water.

This is outside the remit of Northumberland IFCA

*Different species of dead birds were found on MCS survey, which only recorded total dead birds found. Atlantic puffin was a named species but no figure provided solely for this species, therefore the figure of 1- 4 dead birds was used in this assessment.

7. Conclusion

Current levels of gill netting are infrequent and low within the NIFCA district, predominantly occurring in the most southerly sectors. Within the surrounding waters of Coquet Island SPA (Cresswell to Alnmouth sector), netting activity has always been low, with a maximum number of four boats reporting the use of static nets in 2003 and 2004 for a total of 75 and 33 days, retrospectively. No vessel reported setting nets within the Cresswell to Alnmouth sector, throughout 2015. The last record of this gear activity for this sector was for a total period of 11 days in August during 2014. The decline of this fishery is due to various factors, namely low quotas and, anecdotally, seal predation from an increasing population at a local breeding colony in the northern part of the district. These factors continue to exert influence on maintaining an extremely low activity level which is concentrated at the southern part of the NIFCA district. Furthermore effort is concentrated south of Amble as there appears to be a higher abundance of whitefish (Jon Green pers comm 2016).

Coquet Island SPA is of international and national importance to breeding populations of seabirds, of which the Atlantic puffin (2.73% of GB breeding population) is a significant component of the proposed designated seabird assemblage, which includes the Northern Fulmar. In order to successfully breed, these birds must have unimpeded access and sufficient prey availability within their foraging grounds; the surrounding waters of Coquet SPA. The feature 'Pursuit and plunge diving birds' refers primarily to the feeding behaviour of auk species, the Atlantic puffin, but this behaviour can also be exhibited by the Northern Fulmar. The main potential pressure identified is the accidental bycatch of Atlantic puffins and Northern Fulmars in the gill nets as they pursue their prey and this risk to the Coquet Island SPA populations is considered within this Appropriate Assessment.

Coquet SPA is managed by the RSPB, whose staff and volunteers are the only people permitted to set foot on the site to conduct daily monitoring and wardening duties during the breeding season. No reports have been issued during performing these duties of disturbance or bycatch events involving these plunge and pursuit diving birds species and gill netters in the surrounding waters of Coquet SPA (Paul Morrison pers. comm. 2014 RSPB site manager).

A count is conducted every year for the breeding populations, with the exception of the Atlantic puffins, counted every five years due to the invasive nature of inspecting breeding pair burrows for the survey. Since 1975 the breeding population steadily increased until 2002 (18,729[†]) and has since fluctuated between 11, 292[†] (2003) to a record high of 19, 275[†] (2008), with the last census conducted in 2013, counting 12, 344⁵, placing current population estimate at circa 12, 000[†]. The northern fulmar population general trend shows a gradual increase since counts began in 1976, with a peak count observed in 1995 of 81 breeding pairs (occupied sites). Since then the Coquet SPA breeding population has fluctuated greatly, between 32 (2004) to 76 (2011) breeding pairs, with the last census recording 54 pairs (2015).

Due to the current declining trend of the Atlantic puffin the conservation objective 'Recover' has been inferred. Population lows of 2003 and 2004 resulted from a decline in sandeel stocks and an increase abundance of snake pipefish (*Entelurus aequoreus*), which was used as an alternative food source (Frederiksen *et al.* 2007, Harris *et al.* 2007). Due to its low nutritional value and bony shape this was highly unsuitable for both adults and chicks, resulting in high failings to breed (Harris *et al.* 2007). The gill nets set by fishermen target whitefish and flatfish (cod and plaice) and not sandeels. The average mesh size for a gill net targeting these species is 120mm (Jon Green pers.comm.), too large to entangle sandeels and therefore will have minimal impact on local sandeel stock levels and hence food availability for the Coquet SPA classified species. Research into why the sandeel stocks failed during 2003/2004 attribute low recruitment driven by various factors, climate change (high sea temperatures) and increased predation (by herring *Clupea harengus*) as probable causes (Frederiksen *et al.* 2007).

The conclusion of this appropriate assessment is that static netting within the NIFCA district at **current levels⁶, alone is NOT having an** adverse effect on the 'Pursuit and plunge diving' birds (namely Atlantic puffin and Northern Fulmar), within the Coquet SPA.

⁶ Potential activities will be monitored within the relevant NIFCA static netting monitoring and control plan.

[†] breeding pairs

The Monitoring and Control Plan for static netting outlines the methodology and parameters NIFCA will use to collect data for the continual monitoring of static netting activity and its interaction with this feature. All data (except NE site condition monitoring) will be collated and analysed on an annual basis to assess if further management is required, unless a trigger is initiated to prompt an automatic assessment. This will ensure any risks to the site features will be addressed and management measures will remain appropriate and adaptive. Monitoring and Control Plans for Static Netting can be found on NIFCA's website (www.nifca.gov.uk) at the beginning of 2017.

8. In-combination assessment

Although no vessels currently operate static nets within the surrounding waters of Coquet Island SPA (NIFCA sector 4), potential risks of in combination effects have been considered in Table 3 for current and possible plans and projects and other activities within the vicinity of Coquet Island SPA.

As no vessels are operating static netting gear within the vicinity of the Coquet Island SPA, it can be concluded that there will be no adverse effect, alone or in combination with other plans, projects or activities on the feature plunge and pursuit diving birds.

Table 3 | In- combination assessments of Static netting with other plans and projects within the vicinity of Coquet Island SPA.

Plans and Projects		
Activity	Description	Potential Pressure
Windfarm (MCZ)	Platform build/infrastructure, Cables laying /infrastructure Cable repair	Appropriate licence conditions/monitoring has been incorporated to mitigate any impacts. Low risk of physical loss, damage or biological disturbance.
Harbour dredging [vicinity of SPA]	Harbour dredging	Small scale Appropriate licence conditions/monitoring has been incorporated to mitigate any impacts
Fishing X fishing	Shellfish potting Trawling Dredging	No adverse effect at current levels, but potential for increase vessel activity and disturbance levels within vicinity of SPA. Fishing effort to be continually monitored and assessed with implementation of Monitoring and Control Plans for Static Netting and Potting. Furthermore, assessments of fishing will be completed for Tranche 2 MCZ Coquet to St. Mary's Island during 2017, for which Coquet Island SPA boundary sits wholly within. Fisheries permitted by NIFCA, potting is the main fishery throughout the district with 115 commercial permit holders 2015, of which 29 operate within vicinity of SPA. All vessels known to use static nets are shellfish permit holders and are therefore part of the same potting fleet. RSPB staff and volunteers monitor the site daily during the breeding season and at current vessel activity levels have not recorded any observations of disturbance

	T & J Nets	This fishery operates from March through to the end of August and targets migratory species, primarily Salmon. All fishermen must gain a license to fish from the Environment Agency, who are responsible for regulating this fishery. Currently there are 21 T and J nets licensees (2 combined) and 8 drift net licensees across our district and the EA are in the process of rolling out a phasing out scheme. Low risk to pressure at current levels.
Coastal Infrastructure	Outflow pipes Maintenance	Small scale and the majority are inshore discharging within the intertidal or just below mean low water. Appropriate licence conditions/monitoring has been incorporated to mitigate any impacts
Anchorage and Mooring	Anchorage and Mooring	Only mooring occurring on Island is from transporting RSPB volunteers. No other vessels are allowed to moor at Island. No Anchorage currently occurs in the surrounding waters of Coquet Island. Authorised industrial anchorage sites occur south of the SPA and are managed by Blyth and Tyne Ports.
Coastal management scheme	Flood and erosion risk management	Northumberland and North Tyneside Shoreline Management Plan 2 (05/2009) covers the coastline from the Scottish border to the river Tyne. As stated in Section (2) of the document projects and plans within the SMP are subjected to its own Appropriate Assessment for proposed work, which assesses any impacts to Coquet Island SPA.
Other activities with potential to occur within vicinity		
Activity	Description	Potential Pressure
Aggregate dredging	Aggregates dredge	No dredging in vicinity
Other activities being considered (which are not plans or projects by definition)		
Activity	Description	Potential Pressure
Recreational angling	Activity levels unknown. NIFCA participating in MMO MCSS MPA activity monitoring trial begin 09/16.	Potential low risk of bycatch and increase of vessel activity and disturbance levels within vicinity of SPA.
Yachting, sailing, motor cruises and wildlife cruises.	Currently activity levels unknown. NIFCA participating in MMO MCSS MPA activity monitoring trial begin 09/16.	Increase of vessel activity and disturbance levels within vicinity of SPA. RSPB staff and volunteers monitor the site daily during the breeding season and at current vessel activity levels have not recorded any observations of disturbance.

9. Summary of consultation with Natural England

Monthly meetings have been held with Natural England's Lead Advisor for the Northumberland East region from the outset of this process. The creation of this document was supported by ongoing consultation with Natural England and they agree with the conclusions of this assessment. Formal advice was received on 30th March 2017.

10. Integrity test

NIFCA conclude that gill netting activities, either alone or in-combination in the surrounding waters of the Coquet Island SPA do not adversely affect the pursuit and plunge diving bird populations of the site.

11. Adaptive risk management

Assessments will be periodically reviewed should activity levels change above existing levels or if new evidence (such as through the Coquet to St Mary's Island MCZ assessments) relating to this gear/feature interaction emerges. To monitor activity levels and gear /feature interactions Monitoring and Control Plan documents have been produced; one of which outlines the continual assessment of static netting activity which incorporates the monitoring of the feature condition of SPA bird species, within the NIFCA district. These documents describe the parameters which are to be monitored and the mechanisms in which the data is to be collected. Clear triggers/ thresholds are defined within section 3 of the document, which if reached will initiate action to either mitigate or modify the trigger. Section 4 outlines all possible management tools, which are to be assessed on their ecological and socio-economic outcomes for both the fishery and the feature. These options will be subject to scrutiny through NIFCA's Technical and Scientific sub-committee. Any management options decided through this process would be subject to public consultation.

Annex 1: Reference list

Coquet Island, Bird Sanctuary Order

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Schmitt Sabine. 2014 'The UK Beached Bird Survey ', RSPB Annual Survey Report

For Detailed tLSE

(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 (UK9006031_Coquet_Island_SPA_Advice_on_Operations)**

(2). Davenport and Davenport, 2006. 'Collision can occur as a result of this activity in instances where a vessel is used.' **150 (UK9006031_Coquet_Island_SPA_Advice_on_Operations)**

(7). ICES (International Council for Exploration of the Sea), 2009. 'The introduction and movement of invasive non-indigenous species may occur as a result of vessel movements, hull fouling and fishing activities.' **619 (UK9006031_Coquet_Island_SPA_Advice_on_Operations)**

(8). 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 (UK9006031_Coquet_Island_SPA_Advice_on_Operations)**

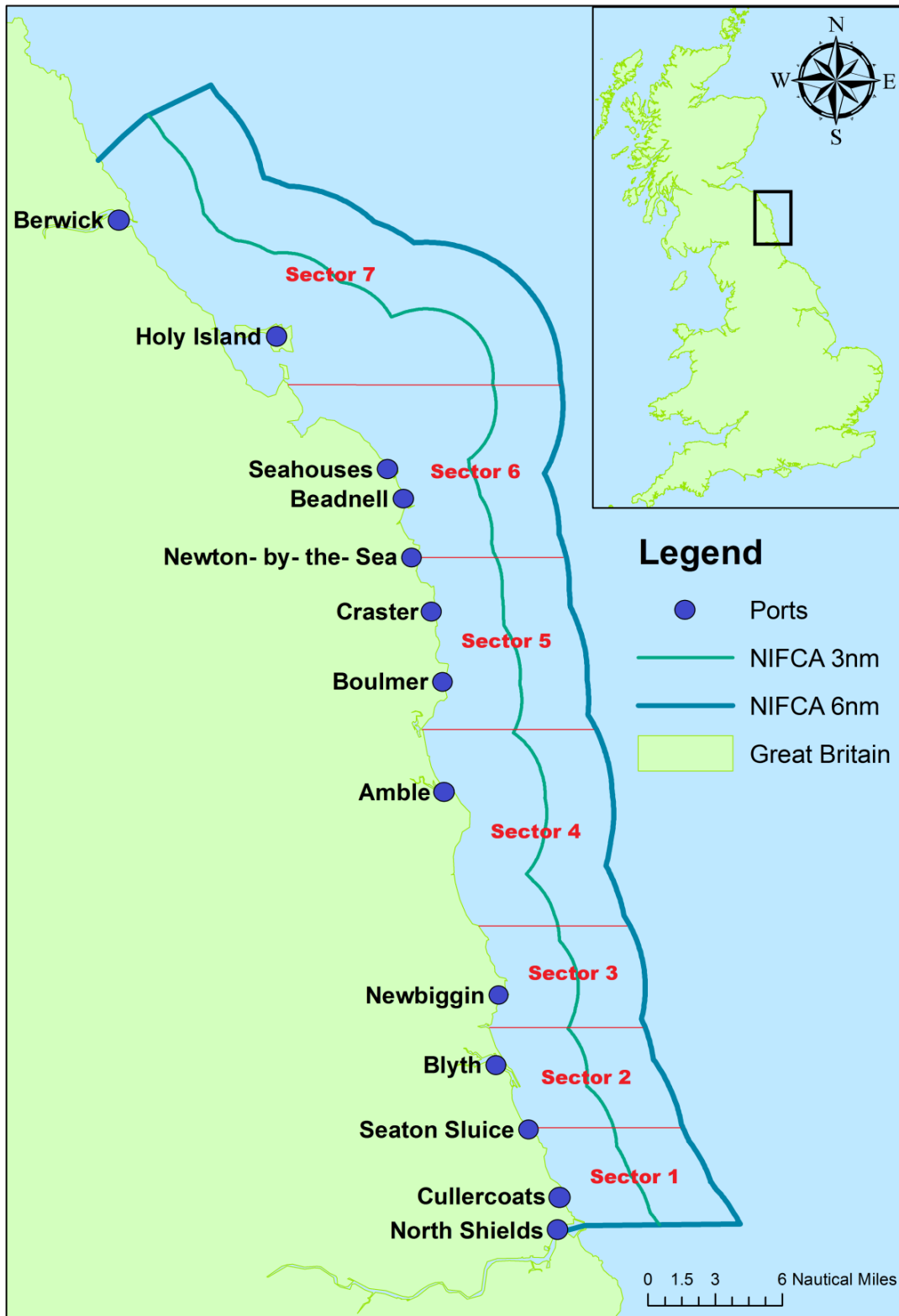
(10). Gubbay and Knapman, 1999; ICES (International Council for Exploration of the Sea), 2013; Kaiser et al., 2001; Sewell and Hiscock, 2005; Wildfowl and Wetlands Trust (WWT) Consulting, 2012. 'Pressure may be exerted by by-catch associated with fixed nets and lines. However, vulnerability of feature to pressure will need to be considered on a case-by-case basis.' **543 (UK9006031_Coquet_Island_SPA_Advice_on_Operations)**

(13). 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 (UK9006031_Coquet_Island_SPA_Advice_on_Operations)**

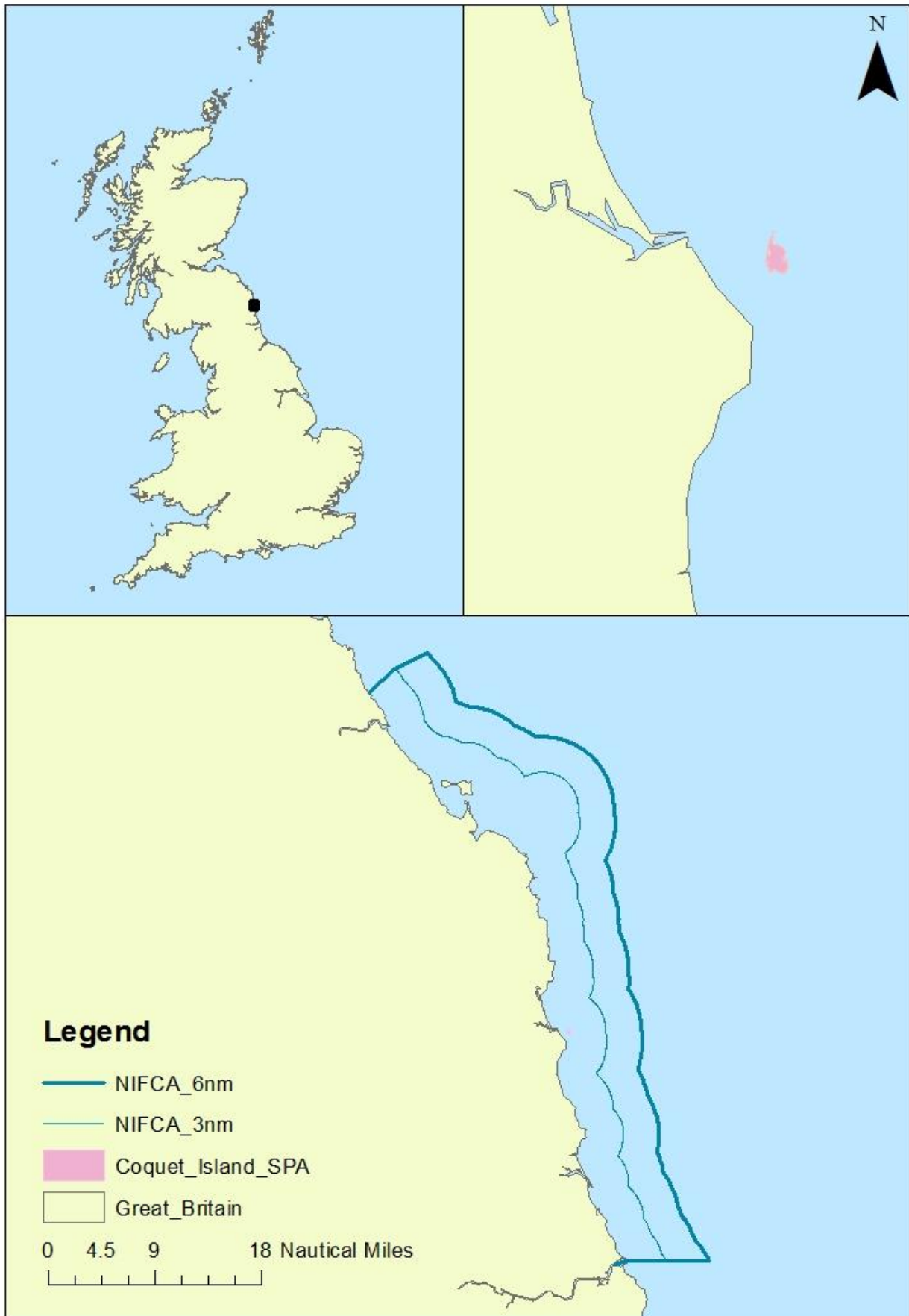
(14). Joint Nature Conservation Committee (JNCC), 2001. Coquet Island SPA Site Summary. Available online: <http://jncc.defra.gov.uk/page-1991>

(15). RSPB species count data for Coquet Island 1975 – 2010. Provided by RSPB warden Paul Morrison 05/02/2016.

Annex 2: Map showing sectors of NIFCA district as defined in shellfish monthly permit returns.



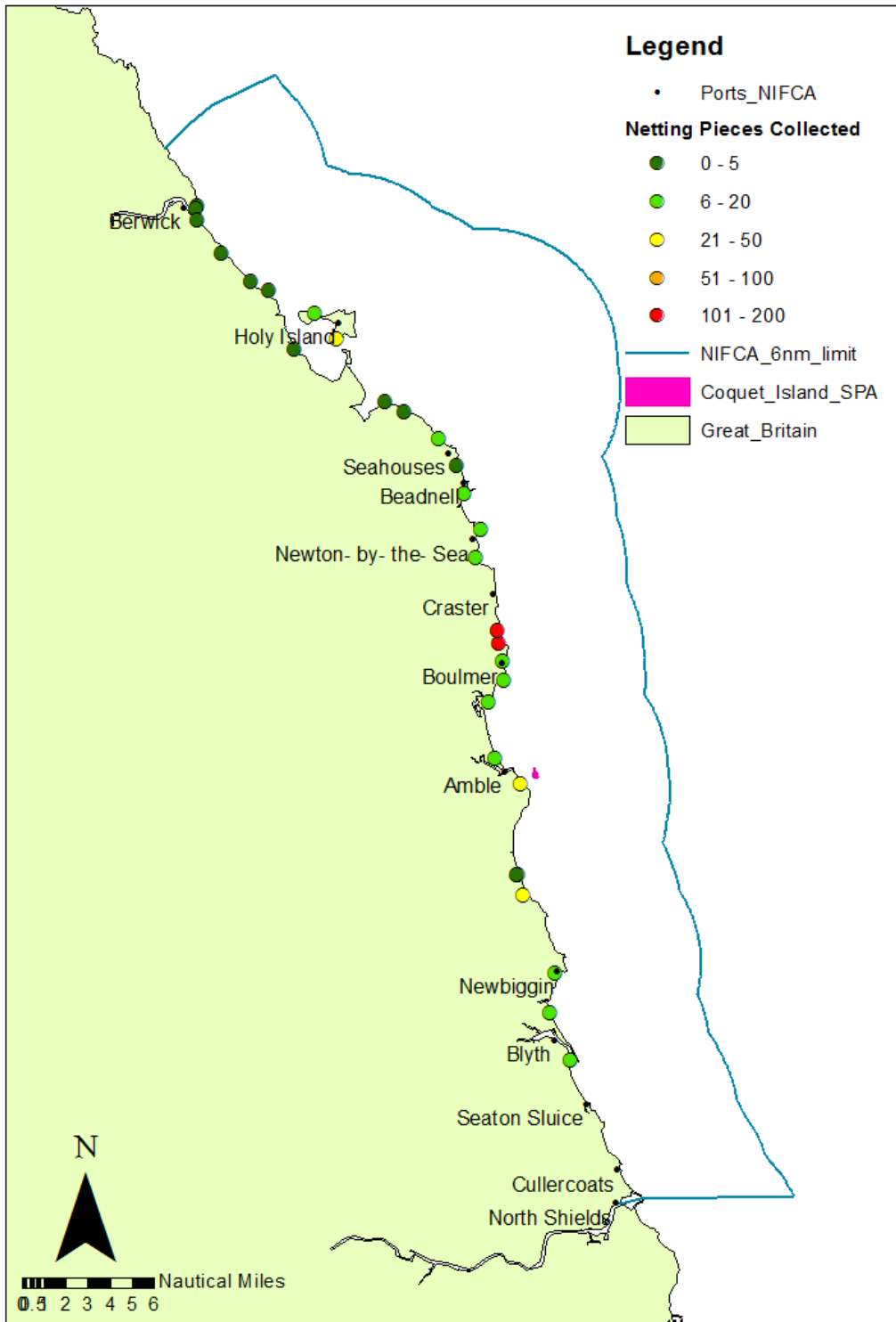
Annex 3: Site boundary map



Annex 4: Graph showing the frequency a piece of fish netting (per meter) was collected during beach litter surveys conducted by the Marine Conservation Society across the NIFCA district. Surveying effort was standardised in the analysis of this data to account for varying number of surveys conducted and length of beach.



Annex 5: Map displaying levels of fishing net recorded in Marine Conservation Society beach litter surveys along NIFCA district coastline over 10 year period. Size of pieces of netting found is classed as small (<50cm) or large (>50cm) and have been grouped together for the purposes of this map.



Annex 6: Extent of supporting habitats for classified birds of Coquet Island SPA. Arc GIS data files provided by Natural England, projected Dec 2016.

