

Departmental brief:

Coquet Island Special Protection Area (SPA) – site amendment

Natural England

October 2015

Contents

| | |
|--|-------------------------------------|
| Summary..... | 3 |
| 1. Assessment against SPA selection guidelines..... | 4 |
| 1.1. Stage 1..... | 4 |
| 1.2. Stage 2..... | 5 |
| 2. Rationale and data underpinning site classification..... | 6 |
| 2.1. Data collection..... | 6 |
| 3. Site status and boundary..... | 6 |
| 4. Location and habitats..... | 7 |
| 5. Assessment of ornithological interest..... | 7 |
| 5.1. Annex 1 species..... | 7 |
| 5.1.1. Common tern <i>Sterna hirundo</i> | 7 |
| 5.1.2. Arctic tern <i>Sterna paradisaea</i> | 8 |
| 5.1.3. Roseate tern <i>Sterna dougallii</i> | 8 |
| 5.1.4. Sandwich tern <i>Sterna sandvicensis</i> | 9 |
| 5.2. Seabird assemblage..... | 9 |
| 6. Comparison with other sites in the UK..... | 9 |
| 7. Conclusion..... | 12 |
| 8. References..... | 12 |
| Annex 1 Location of Coquet Island SPA..... | Error! Bookmark not defined. |
| Annex 2 Special Protection Area (SPA) Citation..... | 14 |
| Annex 3 Sources of bird data..... | 16 |
| Annex 4 Implementation of Evidence Standard within decision process..... | 17 |

Summary

Coquet Island Special Protection Area (SPA) was classified in 1985. The Register Entry in the Register of European Sites consists of a copy of the Coquet Island SSSI citation, last amended in 1983, and does not specify which of the avian SSSI features are considered to be features of the SPA. The citation states the following information regarding the avian interest features of the SSSI: *'The island is noted for its breeding seabirds. Several species occur at nationally important levels in excess of 1% of the British breeding population. Thus some 500 pairs of eider breed here at their most southerly colony on the east coast. Of particular note are the significant populations of various tern species: 1,100 pairs of common tern, 700 pairs of Arctic tern, 1,500 pairs of Sandwich tern and 29 pairs of roseate tern. There is also a large population of black-headed gulls, some 2,400 pairs.'* (Available from: <http://publications.naturalengland.org.uk/publication/5446040786305024?category=4698884316069888>).

The proposed amendment to Coquet Island SPA aims to implement the recommendations of the 2001 SPA review (Stroud *et al.* 2001) where applicable and the addition of any additional qualifying features of the site. No alterations to the boundary of the SPA are proposed. As the existing citation is very old and not fit for purpose (as it is a copy of the SSSI citation that does not specify the features of the SPA), Natural England has used the latest data to update the citation into the standard template.

This Departmental Brief sets out the scientific case for the proposed amendment to Coquet Island SPA. Coquet Island SPA qualifies under Article 4 of the Birds Directive (2009/147/EC) for the following reasons (summarised in Table 1):

- The site regularly supports more than 1% of the GB populations of four species listed in Annex I of the EC Birds Directive. Therefore, the site qualifies for SPA Classification in accordance with the UK SPA selection guidelines (stage 1.1).
- The site regularly supports an assemblage of more than 20,000 individual seabirds. Therefore the site qualifies for SPA designation in accordance with the UK SPA selection guidelines (stage 1.3).

Table 1 Summary of qualifying ornithological interest in Coquet Island SPA

| Feature | Count (period) | % of subspecies or population | Interest type | Selection criteria |
|---|--|--------------------------------------|---------------|--------------------|
| Common tern <i>Sterna hirundo</i> | 1,189 pairs 2,378 individuals (2010-2014) ¹ | 11.89% of GB population ³ | Annex 1 | Stage 1.1 |
| Arctic tern <i>Sterna paradisaea</i> | 1,230 pairs 2,460 individuals (2010-2014) ¹ | 2.32% of GB population ³ | Annex 1 | Stage 1.1 |
| Roseate tern <i>Sterna dougallii</i> | 80 pairs 160 individuals (2010-2014) ² | 93.02% of GB population ³ | Annex 1 | Stage 1.1 |
| Sandwich tern <i>Sterna sandvicensis</i> | 1,300 pairs 2,600 individuals (2010-2014) ¹ | 11.82% of GB population ³ | Annex 1 | Stage 1.1 |

| Feature | Count (period) | Selection criteria |
|--|--|--------------------|
| Internationally important seabird assemblage | 47,662 individuals 2010-2014 for all species except Atlantic puffin for which the average of censuses in 2008, 2009 and 2013 are used ⁴ . Including the 4 qualifying species listed above plus: Atlantic puffin | Stage 1.3 |

| Feature | Count (period) | Selection criteria |
|----------------------------|---|--------------------|
| of over 20,000 individuals | <i>Fratercula arctica</i> and black-headed gull <i>Chroicocephalus ridibundus</i> as main components of the assemblage. | |

¹ Data from: Seabird Monitoring Programme (SMP) and colony managers (pairs multiplied by 2 to arrive at breeding adults; this rule applies to all species listed within the table).

² Data from: directly from colony managers (pairs multiplied by 2 to arrive at breeding adults; this rule applies to all species listed within the table).

³ GB breeding populations derived from Musgrove *et al.* (2013).

⁴ Due to the complexity and costs of Atlantic puffin burrow surveys these are not carried out yearly by all colony managers, but are surveyed as a minimum on a 5-yearly basis as part of a UK-wide puffin census. Given this constraint to the availability of population estimates for puffins, the most recent of these censuses at Coquet Island in 2008, 2009 and 2013 have been used in our assessment.

1. Assessment against SPA selection guidelines

The UK SPA Selection Guidelines set out two stages to assist the identification of potential SPAs (Stroud *et al.* 2001). The first stage is intended to identify areas that are likely to qualify for SPA status on the basis of the numbers of birds regularly using them. The second stage further considers these areas using one or more of the judgements in Stage 2 to select the most suitable areas in number and size for SPA classification (Stroud *et al.* 2001).

1.1. Stage 1

Under stage 1 of the SPA selection guidelines (JNCC 1999), sites eligible for selection as a potential SPA must demonstrate one or more of the following:

- Stage 1.1 an area is used regularly by 1% or more of the Great Britain (or in Northern Ireland, the all-Ireland) population of a species listed in Annex I of the Birds Directive (2009/147/EC) in any season;
- Stage 1.2 an area is used regularly by 1% or more of the biogeographical population of a regularly occurring migratory species (other than those listed in Annex I) in any season;
- Stage 1.3 an area is used regularly by over 20,000 waterbirds (waterbirds as defined by the Ramsar Convention) or 20,000 seabirds in any season;
- Stage 1.4 An area which meets the requirements of one or more of the Stage 2 guidelines in any season, where the application of Stage 1 guidelines 1, 2 or 3 for a species does not identify an adequate suite of most suitable sites for the conservation of that species.

The Conference of the Contracting Parties to the Ramsar Convention has defined the term 'regularly' as used in the Ramsar site selection criteria, and this definition also applies to the SPA selection guidelines (JNCC 1999). A wetland regularly supports a population of a given size if:

- the requisite number of birds is known to have occurred in two-thirds of the seasons for which adequate data are available, the total number of seasons being not less than three; or,
- the mean of the maxima of those seasons in which the site is internationally important, taken over at least five years, amounts to the required level (means based on three or four years may be based on provisional assessments only).

Coquet Island SPA qualifies under stage 1 (1) because it regularly supports greater than 1% of the GB population of four species listed in Annex I: common tern (11.89%), Arctic tern (2.32%), roseate tern (93.02%) and Sandwich tern (11.82%). In addition the site also qualifies under stage 1 (3) by regularly supporting an assemblage of over 20,000 seabirds, including Atlantic puffin and black-headed gull as named components. The site has not been selected for any species under stage 1(4).

1.2. Stage 2

Coquet Island SPA is assessed against Stage 2 of the SPA selection guidelines in Table 2. It should be noted that in applying the SPA selection guidelines, Stroud *et al.* (2001) note that a site which meets only one of these Stage 2 judgments is not considered any less preferable than a site which meets several of them, as the factors operate independently as indicators of the various different kinds of importance that a site may have. In fact, the SPA meets most of the Stage 2 criteria indicating the high value of the site.

Table 2 Assessment of the bird interest of Coquet Island SPA against stage 2 of the SPA selection guidelines

| Feature | Qualification | Assessment |
|------------------------------|---------------|---|
| 1. Population size & density | ✓ | Largest breeding common tern colony in the UK ¹ 4 th largest breeding Arctic tern colony in the UK ¹ Largest breeding roseate tern colony in the UK ¹ 3 rd largest breeding Sandwich tern colony in the UK ¹ |
| 2. Species range | ✓ | Lies within the southernmost limits of Arctic tern breeding range. Roseate tern has one of the most restricted ranges of any seabird around the British Isles, with most of the population breeding in just a few colonies, including Coquet Island. |
| 3. Breeding success | ✓ | Between 2010 and 2014, average common tern productivity at Coquet Island was high at 1.26 fledglings per nest (SMP website) compared to the national average (range c0.3-0.5) since 2008 which has declined from a range of 0.35-0.75 between 1986 and 2008 (JNCC 2014). Between 2010 and 2014, average Arctic tern productivity at Coquet Island was high at 0.97 fledglings per nest (SMP website) compared to the UK population as a whole, where between 1986 and 2013, annual average productivity has only risen above 0.40 once, in 2000, and in most years is below 0.30 (JNCC 2014). The number of roseate tern chicks fledged in UK colonies has generally been moderate to high since 1986 (JNCC 2014). Between 2010 and 2014 average roseate tern productivity at Coquet Island was high at 1.04 fledglings per nest (SMP website/site manager). Limited data are available for Sandwich tern productivity at Coquet Island and the most recently available data are from 2011 and 2012. In 2011 productivity at the colony was 0.60 fledglings per nest and in 2012 was 0.23 fledglings per nest (SMP website). The long term (1986-2008) UK average is 0.66 (Cook & Robinson 2010). |
| 4. History of occupancy | ✓ | Has held larger tern species since 19 th century (Day <i>et al.</i> 1995). |
| 5. Multi-species area | ✓ | Four qualifying Annex 1 species and breeding seabird assemblage of which a further two species occur in nationally important numbers. |
| 6. | n/a | No longer applicable, following ruling from the SPA and |

| | | |
|--------------------------|-----|----------------------------------|
| Naturalness | | Ramsar site Working Group |
| 7. Severe weather refuge | n/a | Not relevant to breeding species |

[†] Note that these rankings should only be considered indicative of the relative importance of the SPA as it is based on comparison of the sum of the most recent 5 year mean populations of each species at the SPA (as listed in Table 1) with the historical populations of each species at each SPA in the UK as listed in Stroud *et al.* (2001).

2. Rationale and data underpinning site classification

2.1. Data collection

Coquet Island SPA was classified in 1985. However, the Register Entry in the Register of European Sites for the SPA consists of a copy of the Coquet Island SSSI citation, last amended in 1983, and does not specify which of the avian SSSI features are considered to be features of the SPA.

The amendment to Coquet Island SPA aims to implement the recommendations of the 2001 SPA review (Stroud *et al.* 2001) where applicable and recommend the addition of any additional qualifying features of the site. No alterations to the boundary of the SPA are proposed. As the existing citation is very old and not fit for purpose (as it is a copy of the SSSI citation that does not specify the qualifying features of the SPA), Natural England has used the latest data to update the citation into the standard template.

All of the qualifying features of Coquet Island SPA are breeding seabirds. Therefore, the size of each of the populations of the qualifying features of the site have been taken to be the most recently available from the Seabird Monitoring Programme (SMP) website (<http://jncc.defra.gov.uk/smp/>) i.e. within the last 5 years, unless otherwise indicated. Where possible, the dataset from the SMP has been augmented by information requested directly from colony managers.

3. Site status and boundary

Coquet Island SPA was classified in 1985 for its populations of breeding seabirds. The Natura 2000 Standard Data Form submitted to the European Commission (JNCC 2006) defines an area of 22.28 hectares. The entirety of the existing SPA is within the Coquet Island Site of Special Scientific Interest (SSSI).

The Register Entry in the Register of European Sites consists of a copy of the Coquet Island SSSI citation, last amended in 1983. The citation states the following information regarding the avian interest features of the SSSI:

'The island is noted for its breeding seabirds. Several species occur at nationally important levels in excess of 1% of the British breeding population. Thus some 500 pairs of eider breed here at their most southerly colony on the east coast. Of particular note are the significant populations of various tern species: 1,100 pairs of common tern, 700 pairs of Arctic tern, 1,500 pairs of Sandwich tern and 29 pairs of roseate tern. There is also a large population of black-headed gulls, some 2,400 pairs.' (Available from:

<http://publications.naturalengland.org.uk/publication/5446040786305024?category=4698884316069888>).

The original Natura 2000 Standard Data Form submitted to the European Commission (JNCC 2006) cites internationally important breeding populations of four species listed in Annex 1 of the Birds Directive i.e. common tern, Arctic tern, roseate tern and Sandwich tern. As they are named both on the SSSI citation (appropriated as the SPA citation at the time) and the later submitted Natura 2000 Standard Data Form it is clear that the four Annex I species of tern are the original

classified features of the site.

The subsequent SPA review (Stroud *et al.* 2001) lists: internationally important breeding populations of common tern, Arctic tern, roseate tern, Sandwich tern, Atlantic puffin and an assemblage of seabirds of international importance. Therefore citing Atlantic puffin and an assemblage of seabirds as additional qualifiers of the site at the time of the Review.

More recent count data confirm that the site does not support an internationally important breeding population of Atlantic puffin due to changes in the biogeographic reference population used to assess importance. Stroud *et al.* (2001) used the total population of the subspecies *Fratricula arctica grabae* as the relevant biogeographic population to which puffins in the UK belong. However, Mitchell *et al.* (2004) note that this subspecies is now considered to be indistinct from the nominate subspecies *F.a.arctica* and present a total population for *F.a.arctica* which includes populations of both of these previously recognised subspecies. UK SPA and Ramsar Scientific Working Group (2014) presents a figure of 5,176,257 pairs for this population which is derived in line with the figures in Mitchell *et al.* (2004) by summing birds breeding in: France, Great Britain, Isle of Man and Channel Islands, All-Ireland, Faroes, all of Norway, Iceland and Russia (although excluding birds listed as *F.a.arctica* in Mitchell *et al.* (2004) and breeding in Canada, USA and Greenland). On the basis of this, the biogeographic population of Atlantic puffin used in this Departmental Brief to assess the importance of the Coquet Island SPA for this species is the north east Atlantic biogeographic population of the subspecies *F. arctica arctica* (5,176,257 pairs). The most recent puffin count data (average of 2008, 2009 and 2013 censuses) of 15,843 pairs (31,686 breeding adults) at Coquet Island represents 0.31% of this biogeographic population. This most recent count does represent nationally important numbers, i.e. exceeding 1% of the national population (2.73% of the GB breeding population of Atlantic puffin). It is therefore proposed that Atlantic puffin is identified as a main component of the SPA assemblage as set out in the 2001 SPA Review in line with Stage 1.3 of the SPA Selection guidelines (Stroud *et al.* 2001).

This Departmental Brief does not propose any extensions or modifications to the boundary of Coquet Island SPA. The boundary and description of Coquet Island SPA can be found on: <http://www.magic.gov.uk/MagicMap.aspx>

4. Location and habitats

Coquet Island is located 1 km off the coast of Northumberland in north-east England. It is a small, flat-topped island with a plateau extent of approximately 7 hectares. The island consists of sandy soil and peat over a soft sandstone base. Low cliffs of approx. 2.4-3.7m high result from earlier quarrying. Surrounding the island is a rocky upper shore and intertidal covering 15 ha when fully exposed. There is a sandy beach on the south west of the island and the southeast corner is shingle and rock. A small, shallow, man-made well lies in the centre of the plateau, which is fed by non-potable surface water.

The peaty soil of the plateau supports short fescue grassland (mainly *Festuca rubra* but with some *F. ovira*), with docks (*Rumex spp.*) and ragwort (*Senecio jacobea*). Maritime species such as sea campion (*Silene maritime*) and thrift (*Armeria maritima*) are scarce. Where nutrient input from seabird colonies is greatest, there are dense stands of taller species, including nettles *Urtica spp.* These provide cover for some of the nesting terns (Stroud *et al.* 2001).

5. Assessment of ornithological interest

5.1. Annex 1 species

5.1.1. Common tern *Sterna hirundo*

The breeding population of common terns in Great Britain is estimated to be 10,000 pairs (Musgrove *et al.* 2013), representing at least 2% of the Northern & Eastern European breeding

population (50,000 pairs derived by division by 3 of the upper estimate of 1,500,000 individuals: AEWA 2012). A significant proportion of the British population breeds in Scotland. Coastal colonies in England are concentrated in the north-east, East Anglia, at a few localities along the south coast, and in the north-west (Mitchell *et al.* 2004). Common terns breed not only around coasts but, unlike the other tern species which breed in the UK, also breed frequently beside inland freshwater bodies.

The current Coquet Island SPA (copy of the amended 1983 SSSI citation) lists 1,100 pairs of common tern. The Natura 2000 Standard Data Form (JNCC 2006) states 740 pairs as a 5-year mean (1993-1997) at the time representing 6% of the GB breeding population. The number of pairs of common terns nesting during a recent 5-year period (2010-2014) were – **1,358** (2010), **1,193** (2011), **1,158** (2012), **1,041** (2013), **1,196** (2014). This provides a recent 5-year mean of **1,189** breeding pairs (counted as occupied nests) representing 2,378 breeding adults (1 occupied nest = 1 pair *i.e.* no correction factor applied to counts of nests). This represents **11.89%** of the GB breeding population.

5.1.2. Arctic tern *Sterna paradisaea*

The breeding population of Arctic terns in Great Britain is estimated to be 53,000 pairs (Musgrove *et al.* 2013), representing at least 2.9% of the European & North Atlantic breeding population (1,800,000 pairs being the maximum estimate given in Mitchell *et al.* (2004): AEWA (2012) only give an estimate of in excess of 1,000,000 individuals for the Western Eurasian breeding population – from which a % value cannot be derived). Arctic terns have a strongly northerly distribution in the UK, with the breeding population concentrated on Shetland, Orkney and north and west Scotland (Mitchell *et al.* 2004). Apart from three large colonies in Northumberland (Coquet Island, the Farne Islands and Newton Links/Long Nanny), they are a rare breeding bird in England.

The current Coquet Island SPA citation (copy of the amended 1983 SSSI citation) lists 700 pairs of Arctic terns. The Natura 2000 Standard Data Form (JNCC 2006) states 700 pairs as a 4-year mean (1993 & 1995-1997) at the time representing 1.6% of the GB breeding population. The number of pairs of Arctic terns nesting during a recent 5-year period (2010-2014) were – **1,046** (2010), **1,140** (2011), **1,275** (2012), **1,224** (2013), **1,464** (2014). This provides a recent 5-year mean of **1,230** breeding pairs (counted as occupied nests) representing 2,460 breeding adults (1 occupied nest = 1 pair *i.e.* no correction factor applied to counts of nests). This represents **2.32%** of the GB breeding population.

5.1.3. Roseate tern *Sterna dougallii*

The breeding population of roseate terns in Great Britain is estimated to be 86 pairs (Musgrove *et al.* 2013), representing at least 4.5% of the European breeding population (1,900 pairs derived by division by 3 of the upper estimate of 5,700 individuals: AEWA 2012). The roseate tern is the UK's rarest regularly-breeding seabird, and it is restricted to a very small number of colonies (Mitchell *et al.* 2004). The Seabird 2000 census recorded 56 apparently occupied nests in the UK, with 36 of these being in England (Mitchell *et al.* 2004). However, the population has increased since then: a recent maximum of 92 pairs bred in England in 2009, of those 90 pairs were on Coquet Island. Elsewhere only single pairs breed in the UK and then only sporadically.

The current Coquet Island SPA citation (copy of the amended 1983 SSSI citation) lists 29 pairs of roseate terns. The Natura 2000 Standard Data Form (JNCC 2006) states 31 pairs as a 5-year mean (1993-1997) at the time representing 48.4% of the GB breeding population. The number of pairs of roseate terns nesting during a recent 5-year period (2010-2014) were – **80** (2010), **78** (2011), **71** (2012), **78** (2013), **93** (2014). This provides a recent 5-year mean of **80** breeding pairs (counted as occupied nests) representing 160 breeding adults (1 occupied nest = 1 pair *i.e.* no correction factor applied to counts of nests). This represents **93.02%** of the GB breeding population.

5.1.4. Sandwich tern *Sterna sandvicensis*

The breeding population of Sandwich terns in Great Britain is estimated to be 11,000 pairs (Musgrove *et al.* 2013), representing about 19.3% of the Western Europe/West Africa breeding population (57,000 pairs derived by division by 3 of the upper estimate of 171,000 individuals: AEW 2012). In the UK, the species is restricted to relatively few large colonies, most of which are on the east coast of Britain with a few smaller ones on the south and north-west coasts of England and in Northern Ireland. Colonies are mostly confined to coastal shingle beaches, sand dunes and offshore islets (Mitchell *et al.* 2004).

The current Coquet Island SPA citation (copy of the amended 1983 SSSI citation) lists 1,500 pairs of Sandwich tern. The Natura 2000 Standard Data Form (JNCC 2006) states 1,590 pairs as a 5-year mean (1993-1997) at the time representing 11.4% of the GB breeding population. The number of pairs of Sandwich terns nesting during a recent 5-year period (2010-2014) were – **1,069** (2010), **1,717** (2011), **1,289** (2012), **670** (2013), **1,754** (2014). This provides a recent 5-year mean of **1,300** breeding pairs (counted as occupied nests) representing 2,600 breeding adults (1 occupied nest = 1 pair *i.e.* no correction factor applied to counts of nests). This represents **11.82%** of the GB breeding population.

5.2. Seabird assemblage

Summing the most recent population estimates for each species (*i.e.* the 5 year mean population figure from 2010-2014 for all species except Atlantic puffin for which the average of censuses in 2008, 2009 and 2013 are used) yields a total of **47,662** individual breeding seabirds supported by Coquet Island SPA. This qualifies as an internationally important assemblage of over 20,000 seabirds. This seabird assemblage includes: Arctic tern, common tern, roseate tern and Sandwich tern *i.e.* the species described above which qualify as features in their own right. In addition, the breeding seabird assemblage includes: Atlantic puffin (31,686 breeding adults), and black-headed gull (7,772 breeding adults) which are present in nationally important numbers *i.e.* exceeding 1% of the national population (2.73% and 2.99% of the GB breeding population respectively). It is therefore proposed that these species are identified as main components of the SPA assemblage as set out in the 2001 SPA Review in line with Stage 1.3 of the SPA Selection guidelines (Stroud *et al.* 2001).

The assemblage also includes the following species: northern fulmar *Fulmarus glacialis* (125 breeding adults), herring gull *Larus argentatus* (4 breeding adults), lesser black-backed gull *Larus fuscus* (52 breeding adults) and black-legged kittiwake *Rissa tridactyla* (426 breeding adults). Although these species do not occur in numbers that meet the qualifying criteria for them to be listed as main components of the assemblage, these migratory species are still considered part of the assemblage feature.

6. Comparison with other sites in the UK

A comparison is presented in Table 3 of the populations of each qualifying feature of Coquet Island SPA with the largest breeding populations supported by individual SPAs across Great Britain. In the case of all of these features the figures for Coquet Island SPA are based on the most recent 5 year mean.

Unless otherwise stated, for the purposes of this comparison exercise, the populations from each of the other individual SPAs are those presented in the SPA review (Stroud *et al.* 2001), which in all cases are of course many years out of date. It is acknowledged that the rankings are therefore not based on like-for-like directly comparable information and instead merely indicates Coquet Island SPA's general level of relative importance in a national context.

Table 3 Comparison of the numbers of individuals (and pairs) of each of the existing qualifying features of Coquet Island SPA with numbers at other SPAs for which figures are provided in Stroud *et al.* (2001)¹.

| Species | Site | Individuals (pairs) ¹ | Rank ^{2,3} | Comments |
|---|--|----------------------------------|------------------------|--|
| Common tern <i>Sterna hirundo</i> (breeding) | Coquet Island | 2,378 (1,189) ⁴ | 1 st of 22 | At the time of classification, Coquet Island supported 1,100 pairs of common tern. Coquet Island ranked as the 2 nd most important site for the species in the UK (Stroud <i>et al.</i> 2001). The most recent 5 year mean of 1,189 pairs represents 11.89% of the GB breeding population, and in comparison with historical populations at the other sites, results in Coquet Island becoming the most important site for the species in the UK. |
| | Firth of Forth Islands | 1,600 (800) | 2 nd of 22 | |
| | Strangford Lough | 1,206 (603) | 3 rd of 22 | |
| | Glas Eileanan | 1,060 (530) | 4 th of 22 | |
| | North Norfolk Coast | 920 (460) | 5 th of 22 | |
| Arctic tern <i>Sterna paradisaea</i> (breeding) | Farne Islands | 5,680 (2,840) | 1 st of 17 | At the time of classification, Coquet Island supported 700 pairs of Arctic tern. Coquet Island ranked as =11 th most important site for the species in the UK (Stroud <i>et al.</i> 2001). The most recent 5 year mean of 1,230 pairs represents 2.32% of the GB breeding population, and in comparison with historical populations at the other sites, results in the Coquet Island becoming the 4 th most important site for the species in the UK. |
| | Papa Westray (North Hill and Holm) | 3,900 (1,950) | 2 nd of 17 | |
| | Ynys Feurig, Cemlyn Bay and The Skerries | 2,580 (1,290) | 3 rd of 17 | |
| | Coquet Island | 2,460 (1,230) ⁴ | 4 th of 17 | |
| | Pentland Firth Islands | 2,400 (1,200) | =5 th of 17 | |
| | West Westray | 2,400 (1,200) | =5 th of 17 | |
| Roseate tern <i>Sterna dougallii</i> (breeding) | Coquet Island | 160 (80) ⁴ | 1 st of 7 | At the time of classification, Coquet Island supported 29 pairs of roseate tern. Coquet Island ranked as the most important site for the species in the UK (Stroud <i>et al.</i> 2001). The most recent 5 year mean of 80 pairs represents 93.02% of the GB breeding population, and in comparison with historical populations at the other sites, results in Coquet Island remaining the most important site for the species in the UK. |
| | Firth of Forth Islands | 18 (9) | 2 nd of 7 | |
| | Larne Lough | 12 (6) | 3 rd of 7 | |
| | Farne Islands | 6 (3) | =4 th of 7 | |
| | Ynys Feurig, Cemlyn Bay and The Skerries | 6 (3) | =4 th of 7 | |
| Sandwich tern <i>Sterna sandvicensis</i> (breeding) | North Norfolk Coast | 6,914 (3,457) | 1 st of 16 | At the time of classification, the Coquet Island supported 1,500 pairs of Sandwich tern. Coquet Island ranked as the 3 rd most important site for the species in the UK (Stroud <i>et al.</i> 2001). The most recent 5 year mean of 1,300 pairs represents 11.82% of the GB breeding population, and in comparison with historical populations at the other sites, results in Coquet Island remaining the 3 rd most important site for the species in the UK. |
| | Farne Islands | 4,140 (2,070) | 2 nd of 16 | |
| | Coquet Island | 2,600 (1,300) ⁴ | 3 rd of 16 | |
| | Ythan Estuary, Sands of Forvie and Meikle Loch | 1,200 (600) | 4 th of 16 | |
| | Strangford Lough | 1,186 (593) | 5 th of 16 | |

¹ Stroud *et al.* (2001) notes: Data from the JNCC/RSPB/ Seabird Group's Seabird Colony Register have been used. These comprised the best available, whole colony counts for the period 1993-1997 or earlier. These data have been supplemented with additional census data for some sites provided by country agencies (especially in Scotland) and/or as a result of more recent surveys of particular species.

² Note that for all species these rankings should only be considered indicative of the relative importance of Coquet Island SPA as they are based on a comparison of the sum of the most recent 5 year mean populations of each species at the SPA (as listed in Table 1) with the historical populations of each species at each SPA in the UK as listed in Stroud *et al.* (2001). The number of sites ranked is based on the number of sites listed for each species in Stroud *et al.* (2001). For brevity, only

the top 5 ranked sites are tabulated for each species, except where the Coquet Island SPA position in the rank order is lower than this – in which case all sites down to that rank position are tabulated.

³ These rank orders do not take account of numbers currently being considered in the context of other pSPAs in the United Kingdom.

⁴ Based on the most recent 5 year mean peak population: 2010-2014.

7. Conclusion

It can be seen from the evidence presented above that Coquet Island is an important site. In addition to the existing qualifiers - four Annex I species of breeding terns, Coquet Island also supports a seabird assemblage of international importance.

8. References

AEWA – African-Eurasian Waterbird Agreement (2012): Report on the Conservation Status of Migratory Waterbirds in the Agreement Area. Fifth Edition. AEWA, Bonn.

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Annex 2 Special Protection Area (SPA) Citation

EC Directive 2009/147/EC on the Conservation of Wild Birds potential Special Protection Area (SPA)

Name: Coquet Island

Counties/Unitary Authorities: Northumberland, Alnwick District Council

Boundary of the SPA:

The SPA includes all land above the Mean Low Water Mark.

Size of SPA: The SPA covers an area of 19.92 ha

Site description:

Coquet Island is located 1 km off the coast of Northumberland in north-east England. It is a small, flat-topped island with a plateau extent of approximately 7 hectares. The island consists of sandy soil and peat over a soft sandstone base. Low cliffs of approx. 2.4-3.7m high result from earlier quarrying. Surrounding the island is a rocky upper shore and intertidal covering 15 ha when fully exposed. There is a sandy beach on the south west of the island and the southeast corner is shingle and rock. A small, shallow, man-made well lies in the centre of the plateau, which is fed by non-potable surface water. The peaty soil of the plateau supports short fescue grassland (mainly *Festuca rubra* but with some *F. ovina*), with docks (*Rumex spp.*) and ragwort (*Senecio jacobea*). Maritime species such as sea campion (*Silene maritima*) and thrift (*Armeria maritima*) are scarce. Where nutrient input from seabird colonies is greatest, there are dense stands of taller species, including nettles *Urtica spp.* These provide cover for some of the nesting terns (Stroud *et al.* 2001).

Qualifying species:

The site qualifies under **Article 4** of the Birds Directive (2009/147/EC) for the following reasons (summarised in Table 1):

- The site regularly supports more than 1% of the GB populations of four species listed in Annex I of the EC Birds Directive. Therefore, the site qualifies for SPA classification in accordance with the UK SPA selection guidelines (stage 1.1).

Table 1 Summary of qualifying ornithological interest in Coquet Island SPA

| Feature | Count (period) | % of subspecies or population | Interest type |
|---|--|--------------------------------------|---------------|
| Common tern <i>Sterna hirundo</i> | 1,189 pairs 2,378 individuals (2010-2014) ¹ | 11.89% of GB population ³ | Annex 1 |
| Arctic tern <i>Sterna paradisaea</i> | 1,230 pairs 2,460 individuals (2010-2014) ¹ | 2.32% of GB population ³ | Annex 1 |
| Roseate tern <i>Sterna dougallii</i> | 80 pairs 160 individuals (2010-2014) ² | 93.02% of GB population ³ | Annex 1 |
| Sandwich tern <i>Sterna sandvicensis</i> | 1,300 pairs 2,600 individuals (2010-2014) ¹ | 11.82% of GB population ³ | Annex 1 |

¹ Data from: Seabird Monitoring Programme (SMP) and colony managers (pairs multiplied by 2 to arrive at

breeding adults; this rule applies to all species listed within the table).

² Data from: directly from colony managers (pairs multiplied by 2 to arrive at breeding adults; this rule applies to all species listed within the table).

³ GB breeding populations derived from Musgrove *et al.* (2013).

Assemblage qualification:

The site qualifies under **article 4.2** of the Directive (2009/147/EC) as it used regularly by over 20,000 seabirds in any season:

During the breeding season (2010-2014)¹, the site supports 47,662 individual seabirds including the 4 qualifying species listed above plus: Atlantic puffin (31,686 breeding adults) and black-headed gull (7,772 breeding adults), which are present in nationally important numbers (2.73% and 2.99% respectively) and therefore are named as key assemblage components.

¹ With exception of Atlantic Puffin for which censuses in 2008, 2009 and 2013 have been used. Due to the complexity and costs of Atlantic puffin burrow surveys these are not carried out yearly by all colony managers, but are surveyed as a minimum on a 5-yearly basis as part of a UK-wide puffin census. Given this constraint to the availability of population estimates for puffins, the most recent of these censuses at Coquet Island in 2008, 2009 and 2013 have been used in our assessment.

Principal bird data sources

Colony counts from JNCC Seabird Monitoring Programme contributed by colony managers: RSPB, supplemented by most up to date counts in some instances from those colony managers.

Annex 3 Sources of bird data

| Source of Data | Data provider | Subject | Date produced | Method of data collection | Verification |
|------------------------------|-----------------------|-------------------------------------|---------------|---------------------------|-----------------------------------|
| Seabird Monitoring Programme | JNCC and site manager | Coquet Island breeding seabird data | 2008-2014 | Standard methodology | Verified by site manager and JNCC |

Annex 4 Implementation of Evidence Standard within decision process

Decision-making processes within Natural England are evidence driven and the Natural England strategic evidence standard, and supporting guidance were followed. In particular, the four principles for the analysis of evidence set out in the Natural England Standard *Analysis of Evidence* have been adhered to. These two standards documents can be downloaded from the following web-links:

Strategic Evidence Standard:

<http://publications.naturalengland.org.uk/publication/7699291?category=3769710>

Analysis of Evidence Standard:

<http://publications.naturalengland.org.uk/publication/7850003?category=3769710>

An explanation follows as to how the principles within the *Analysis of Evidence* standard have been applied in defining the set of qualifying features of the amended Coquet Island SPA.

1.) The evidence used is of a quality and relevance appropriate to the research question or issue requiring advice or decision

Quantification of Coquet Island SPA interest feature population sizes.

This is an amendment to Coquet Island SPA. This amendment aims to implement the recommendations of the 2001 SPA review (Stroud *et al.* 2001) where applicable and propose the addition of any additional qualifying features to the site. No alterations to the boundary of the SPA are proposed. As the existing citation is very old and not fit for purpose (as it is a copy of the SSSI citation that does not specify the features of the SPA), Natural England has used the latest data to update the citation into the standard template.

The evidence base underpinning the population sizes of the interest features of the site is provided by bird count data from two main sources. These data sources are as follows:

1. Data from JNCC's Seabird Monitoring Programme (SMP) (<http://jncc.defra.gov.uk/smp/>): 2010-2014 for all species, plus results of 2008, 2009 and 2013 puffin census. All of these counts are assessed as "accurate".
2. Data from colony managers supplemented the SMP data where this was not available, in the following instances: roseate tern data which were not accessible via the SMP webpages. These data were made available by the RSPB.

The count data taken from the SMP database is the best available information. In addition, the 2013 SMP data has been checked by JNCC. The count data which were obtained directly from the colony managers is source information that will in due course become part of the SMP database. As such, it too is the best available information.

2.) The Analysis carried out is appropriate to the evidence available and the question or issue under consideration

The population counts produced from the latest data were compared to established site selection criteria (JNCC 1999), meaning the analysis is entirely appropriate to the evidence available.

3.) Conclusions are drawn which clearly relate to the evidence and analysis

All recommendations for the SPA features are based on application of selection guidelines issued by JNCC (JNCC 1999), and conclusions are based on application of these guidelines to relevant data (SMP data and RSPB survey data). As such the conclusions in this respect clearly relate to

the best available evidence.

4.) Uncertainty arising due to the nature of the evidence and analysis is clearly identified and explained

The UK SMP is an internationally recognised monitoring scheme coordinated by JNCC in partnership with others (e.g. statutory nature conservation bodies, the RSPB and other colony managers as data providers, etc.). It collects data according to standardised field methods (Walsh *et al.* 1995). SMP data are verified by the JNCC seabird team. Therefore, there is high confidence in SMP data. The majority of the data which has been used in determining the size of the populations for the SPA features is based on counts which are on the SMP database and so justify high confidence.

RSPB survey data are verified and quality assured by the RSPB count coordinator. The RSPB is a professional organisation with long-standing experience of seabird monitoring, and surveys are conducted by trained surveyors. There is therefore high confidence in RSPB survey data. Accordingly, even the most recent count data referred to in this Departmental Brief can be considered to justify high confidence.

One particular issue with the count data requires further consideration, namely the lack of consecutive counts of Atlantic puffin. Due to the complexity and costs of Atlantic puffin burrow surveys these are not carried out yearly by all colony managers, but are surveyed as a minimum on a 5-yearly basis as part of a UK-wide puffin census. Given this constraint to the availability of population estimates for puffins, the most recent of these censuses at Coquet Island in 2008, 2009 and 2013 have been used in our assessment. This is the best available evidence.

5.) Independent expert review and internal quality assurance processes

Natural England's standard in quality assurance of use of evidence, including peer review; (http://www.naturalengland.org.uk/images/operationalstandardsforevidence_tcm6-28588.pdf) has been followed in determining the level of independent expert review and internal quality assurance required in relation to Natural England's analysis of the evidence for this site. Independent expert review is to be adopted where there is a high novelty or technical difficulty to the analysis.

The amendment aims to implement the recommendations of the 2001 SPA review (Stroud *et al.* 2001) where applicable and propose the addition of any additional qualifying features to the site. No alterations to the boundary of the existing SPA are proposed. As the existing citation is very old and not fit for purpose (as it is a copy of the SSSI citation that does not specify the features of the SPA), Natural England has used the latest data to update the citation into the standard template. The proposal to amend the Coquet Island SPA has been made on the basis of an assessment of standard breeding bird i.e. the SMP database, supplemented by data from colony managers (RSPB). The count data have been assessed against and conform with the SPA selection guidelines (JNCC 1999). Natural England believes these amendments not to be contentious and therefore independent review of how it has applied the evidence in making these amendments is not being sought.

Internal quality assurance of the Departmental Brief has been carried out as follows:

The first version of this Departmental Brief was drawn up by Tim Dixon and Martin Kerby with support from Katie Finkill-Coombs of Natural England. This was edited by Allan Drewitt and Helen Rowell to produce this version of the Departmental Brief.

Departmental Briefs are drafted by an ornithologist with support from the site lead who provides the local site specific detail. This document is then quality assured by the marine N2K National Project Management team as well as Natural England staff including Ben Fraser, Sarah Anthony, Angela Moffat and Phil Eckersley. The amended briefs are then reviewed and approved by the relevant Area Manager and subsequently by the Natural England Chief Scientist in accordance with our

Quality Management Standard. The brief is then signed off as required by our Non-Financial Scheme of Delegation by a representative of the Senior Leadership Team with delegated authority before being submitted to Defra.

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