15th MEETING OF THE STANDING COMMITTEE

11 – 13 December 2019, Bristol, United Kingdom

AEWA TECHNICAL COMMITTEE RECOMMENDATIONS FOR THE DELINEATION OF SELECTED AEWA POPULATIONS ON TABLE 1 OF THE ACTION PLAN

Introduction

As part of the AEWA Technical Committee work plan for the inter-sessional period 2019-2021, which was approved by the 7th Session of the Meeting of the Parties in December 2018 (Resolution 7.11), the Committee was tasked with considering evidence supporting the delineation of current population boundaries for the following species and to make any recommendations, as appropriate, to the 15th Meeting of the AEWA Standing Committee for interim approval so that any changes can be taken into account in work to develop proposals for MOP8 (CSR 8 and proposed changes to Table 1 of AEWA's Action Plan).

The list as included in the TC work plan covers the following species:

- Common Eider (*Somateria mollissima*);
- Goosander (*Mergus merganser*);
- Atlantic Puffin (*Fratercula arctica*);
- Black Guillemot (*Cepphus grylle*);
- Razorbill (*Alca torda*);
- Little Auk (*Alle alle*);
- Thick-billed Murre (*Uria lomvia*);
- Common Murre (*Uria aalge*).

All proposed population delineations of these species as presented in documents TC 15.7 Rev.1 to 15.14 Rev.1 were subsequently discussed and approved by the Technical Committee for submission to the Standing Committee at its 15th Meeting in April 2019.

In addition, the UNEP/AEWA Secretariat issued an open call for the submission of additional proposals to change delineations of waterbird populations listed on Table 1 of Annex 3 to AEWA on behalf of the Technical Committee. By the deadline (30 June 2019) one such proposal was submitted to the Secretariat by the AEWA Eurasian Spoonbill International Expert Group regarding suggested changes to the delineations of the Eurasian Spoonbill (*Platalea leucorodia*). Following a request for additional information to the proponents of the proposal, it was accepted by the Technical Committee by written procedure via the TC workspace in September 2019.

The attached document subsequently includes all recommendations adopted by the Technical Committee for the nine species mentioned above as follows:

Species	Proposed action
Common Eider (*Somateria mollissima*)	Merge Britain and Ireland population (which is currently not listed on AEWA Table 1) with the Baltic, Denmark and Netherlands population. Will not result in change of status (or obligations) in the Range States to the Baltic, Denmark and Netherlands population, but will require the UK and Ireland to comply with provisions for Column A category 4 listed populations with respect to the Common Eider.
Goosander (*Mergus merganser*)	There is no proposal to change the current AEWA Action Plan listing for Goosander as there appears to be no evidence on which to suggest a change.
Atlantic Puffin (*Fratercula arctica*)	List only the E Atlantic population of *F. arctica* (bre) on AEWA Table 1 in Category 1b in Column A, i.e. no change on AEWA Table 1.
Black Guillemot *(Cepphus grylle)*	Proposed to recognise two biogeographical populations of *C. g. mandtii* and two biogeographical populations of *C. g. arcticus* for management purposes based on their separate breeding grounds: [1a] *Cepphus grylle mandtii*, E Canadian Arctic & W Greenland (bre): Category 1 of Column C in Table 1 of the AEWA Action Plan (i.e. no change); [1b] *Cepphus grylle mandtii*, E Greenland to E Laptev Sea (bre): proposed to be classified in Category 1 of Column B; [2a] *Cepphus grylle arcticus*, NE America and S Greenland (bre): no change on AEWA Table 1; [2b] *Cepphus grylle arcticus*, British Isles and N Europe: no change on AEWA Table 1.
Razorbill (*Alca torda*)	Proposed to recognise two populations of the nominate subspecies *Alca torda*: East Atlantic and a West Atlantic. There is no implication of the split because *A. torda* is a Near-Threatened species and as such both new populations should be listed in Category 4 of Column A.
Little Auk (*Alle alle*)	*Alle alle alle* is proposed to be split into two populations: [1a] East Atlantic (bre): Novaya Zemlya, Svalbard, Jan Mayen and East Greenland listed on Category 1 of Column C; [1b] West Atlantic: Baffin Island and in NW Greenland (bre), listed on Category 1 of Column C. As *Alle alle alle* was listed in Category 1 of Column C, the split will not lead to a change in status on AEWA Table 1. It is proposed to list *Alle alle polaris* on AEWA Table 1 because the entire breeding population does occur within the AEWA Agreement area. The population should be listed in Category 1 of Column C.
Thick-Billed Murre (*Uria lomvia*)	It is proposed to split *Uria lomvia* into two populations.

	[1] *U. lomvia lomvia*, W Atlantic: proposed to list the population in Category 2c in Column B. This represents no change compared to the current listing. [2] *U. lomvia lomvia*, E Atlantic: proposed to list population in Category 2c in Column B. This represents no change compared to the current listing.
Common Murre *(Uria aalge*)	Proposed to define two biogeographic populations of *U. a. aalge*: [1a] *Uria aalge aalge*, East Atlantic: Iceland, Jan Mayen, Faeroes, Scotland, S Norway: to be listed in Category 2e of Column B. This change from Category 2c of Column B represents no legal implications because the population remains listed in the same column. It simply reflects the revised definition of the criteria for long-term and short-term declines adopted in the AEWA MOP Resolution 7.4. [1b] *Uria aalge aalge*, Baltic: to be listed in Category 3 in Column A. In addition, it is proposed to correct the definition of *Uria aalge albionis* to include birds breeding on Helgoland, France, Portugal and Spain. This has no consequences for the classification of the population on Table 1. It should remain in Category 1 of Column C.
Eurasian Spoonbill *(Platalea leucorodia)*	It is proposed to split the C & SE European population of *Platalea leucorodia leucorodia* into the [1a] C Europe/ Central Mediterranean & Tropical Africa population and the [1b] SE Europe/Mediterranean, SW Asia & East Africa population, classifying both populations in Category 1c of Column A.

Action Requested from the Standing Committee

The Standing Committee is requested to review the delineations of selected AEWA populations in the table above as recommended by the Technical Committee and to approve them for further use.

DELINEATION OF BIGEOGRAPHIC POPULATIONS OF THE COMMON EIDER (*SOMATERIA MOLLISSIMA*)

PROPOSAL TO CHANGE POPULATION DELINEATIONS

(Compiled by David Stroud, UK permanent observer to the Technical Committee)

Name of population(s):

Common Eider *Somateria mollissima mollissima* (Baltic, Denmark & Netherlands)

Current status on AEWA Table 1:

A4

What is the issue?

Scott & Rose (1996) in their mapping of populations of African and Western Eurasian migratory Anatidae indicated populations of European Eider within three races as follows:

S. m. borealis (islandica)
- Greenland
- Iceland
- **Svalbard and Franz Joseph Land**

S. m. faroeensis
- Faroe Islands
- Shetland and Orkney Islands

S. m. mollissima
- Britain [and Ireland] excluding Orkney and Shetland
- **Baltic, Denmark and Netherlands**
- **Norway and Russia**
- White Sea

Some of these populations are sedentary. Those listed by AEWA are given in bold and underlined.

The issue is whether there is actually good evidence to separate 'British [and Irish]' Eiders from those in the 'Baltic, Denmark and Netherlands' population (as proposed by Scott & Rose 1996) and followed by AEWA subsequently.

Figure 1. Delineation of European Common Eider populations by Scott & Rose (1996).

What is the evidence supporting the proposal?

The UK's SPA and Ramsar Scientific Working Group have previously reviewed population delineation of European Eiders and have found little evidence for Wetlands International' original suggestion that British and Irish birds form a separate group discrete from those elsewhere in NW Europe.

The evidence to that end is summarised in Appendix 1 (based on unpublished SWG papers).

Definitions of the term 'biogeographical population' adopted by the Ramsar Convention and followed by AEWA are given in Appendix 2.

The evidence of inter-change with continental Europe suggests that British and Irish Eiders do not fall within any of these definitions. In particular, they are not:

iii. *a discrete migratory population of a species or subspecies, i.e., a population which rarely if ever mixes with other populations of the same species or subspecies;*

nor are they

v. *a regional group of sedentary, nomadic or dispersive birds with an apparently rather continuous distribution and no major gaps between breeding units sufficient to prohibit interchange of individuals during their normal nomadic wanderings and/or post-breeding dispersal.*

Accordingly, the UK SPAR SWG concluded that:

> *"The Northwest European Eider population (i.e. the sum of the three Somateria m. mollissima populations in this region[1], [2]) should, until more information becomes available, be used as the relevant biogeographical population for the UK, and this population be considered migratory.* (Stroud *et al.* 2016)

Based on such (lack of) evidence for clear separation of populations, UK practice has been to treat British and Irish Eider as part of a combined British/Irish population with the Baltic/Denmark/Netherlands population (Stroud *et al.* 2016; http://jncc.defra.gov.uk/pdf/UKSPA3_EiderSomateriam.mollissima(non-breeding).pdf).

What are the implications of the proposal including any changes in status on AEWA Table 1?

Currently Baltic, Denmark and Netherlands Eider population of the nominate race is listed as A4 by the AEWA Action Plan (*i.e.* "Species, which are listed as Near Threatened on the IUCN Red List of Threatened species, as reported in the most recent summary by BirdLife International, but do not fulfil the conditions in respect of Category 1, 2 or 3, as described above, and which are pertinent for international action.")

Change to the delineation of this population by merging it with the Britain and Ireland population would thus not result in change of status (or obligations) in the Range States to the Baltic, Denmark and Netherlands population, but for the Britain and Ireland population, as a newly "listed", will require the UK and Ireland to comply with provisions for Column A category 4 listed populations with respect to the Common Eider. At the same time, the population size and 1% threshold for a larger defined population would increase. However, the estimate in WPE 5 is out-dated and should be revised based on the latest data. Frost et al. (2019) has estimated 77,000 individuals for Great Britain and a further 470 is estimated for the Republic of Ireland (Crowe & Holt, 2013). This results in a combined population estimate of 1,007,470 wintering birds for the North Sea & Baltic population without the birds of the Norway & Russia population.

Population	**Population size**	**1% threshold**
Baltic, Denmark & Netherlands (CSR7)	930,000	9,800
Britain and Ireland (WPE 5)	57,800 - 57,900	580

Combined North Sea & Baltic population	1,007,470	10,000

As any such change has a bearing on selection thresholds used by other Parties, it would be appropriate for the TC to consult with those Parties to ensure that any proposal is soundly based.

References

Scott, D.A. & Rose, P.M. 1996. *Atlas of Anatidae Populations in Africa and Western Eurasia.* Wetlands International Publication 41, Wageningen, The Netherlands.

[1] UK/Ireland (excluding Shetland and Orkney); Norway/Russia; and the Baltic, Denmark and the Netherlands
[2] However, the subsequent UK practice has been to combine British/Irish population with the Baltic/Denmark/Netherlands population retaining a separate Norway/Russia population

Stroud, D.A., Bainbridge, I.P., Maddock, A., Anthony, S., Baker, H., Buxton, N., Chambers, D., Enlander, I., Hearn, R.D., Jennings, K.R, Mavor, R., Whitehead, S. & Wilson, J.D. - on behalf of the UK SPA & Ramsar Scientific Working Group (eds.) 2016. *The status of UK SPAs in the 2000s: the third network review*. 1,108 pp. JNCC, Peterborough. http://jncc.defra.gov.uk/page-7309

Appendix 1. Treatment of *Somateria m. mollissima*

Five populations of *S. m. mollissima* are identified by Rose & Scott (1996):

- Britain and Ireland (population 73,000 individuals and 1% threshold of 750);
- Baltic, Denmark and the Netherlands (population 850,000-1,200,000 and 1% threshold of 10,300);
- Norway & NW Russia (population 300,000-550,000 and 1% threshold of 4,250);
- White Sea (population 20,000-30,000 and 1% threshold of 250); and
- Black Sea (population 5,400 and 1% threshold of 55).

Birds occurring in Britain and Ireland are separated from those occurring elsewhere in NW Europe on the basis of "little mixing".

The BTO *Migration Atlas* (Wernham *et al.* 2002) indicates that there have been recoveries in Denmark and the Baltic of Eiders ringed in Britain, although the overall picture is that there are few long-distance movements for the species.

Known movements relate almost entirely to abmigration into the Baltic population consisting almost exclusively of males. With the females being philopatric it is the males that leave their natal breeding grounds. Some birds ringed in the breeding season at Forvie (mostly males) were recovered abroad presumably reflecting the movement of British/Irish males to the Baltic/Denmark where they remain to breed with Baltic/ Danish females. There have also been five males (probably British) ringed in winter at Forvie and found breeding in the Baltic. Also, three females ringed at Forvie in winter were found in continental Europe implying some winter visitors in this population.

The second UK SPA Review (Stroud *et al.* 2001) considered Eiders in Britain to be non-migratory in the breeding season but migratory in the non-breeding season (thus there is only a SPA suite identified in the non-breeding season). Analyses in the BTO *Migration Atlas* (Baillie 2002) however suggest the reverse to be the case and the species is categorised as a short-distance migrant in the breeding season but sedentary in the non-breeding season.

This categorisation may be a product of the definitions used in the *Atlas* which needs careful interpretation.

Expert opinion from Denmark (S. Pihl pers. comm.) is that Continental Eiders (probably mainly from Norway and the Wadden Sea) can be found wintering in UK and as such may potentially interbreed with UK breeding birds. Some Eider breeding colonies, however, seem to be discrete in their choice of winter quarters, so exchange patterns are probably site-specific to an extent. Certainly, the simple national totals from WeBS show a marked increase in numbers in the first half of the winter (Figure 1), although these data are not corrected for survey coverage, and of course an element of the apparent 'decline' in summer will reflect movement to British breeding colonies (and reduced count coverage then). It is possible that a more detailed analysis of these data would show more marked mid-winter increases in eastern Britain, reflecting known exchange patterns across the North Sea (Baillie 2002).

In previous centuries it seems possible that Continental Eiders wintered in UK waters in larger numbers (S. Pihl pers comm.). It can be anticipated that with the continuing amelioration of winter climate, numbers of Continental Eiders wintering in UK will probably decrease further. Thus, current range and distribution is probably quite dynamic, as with some wintering waders.

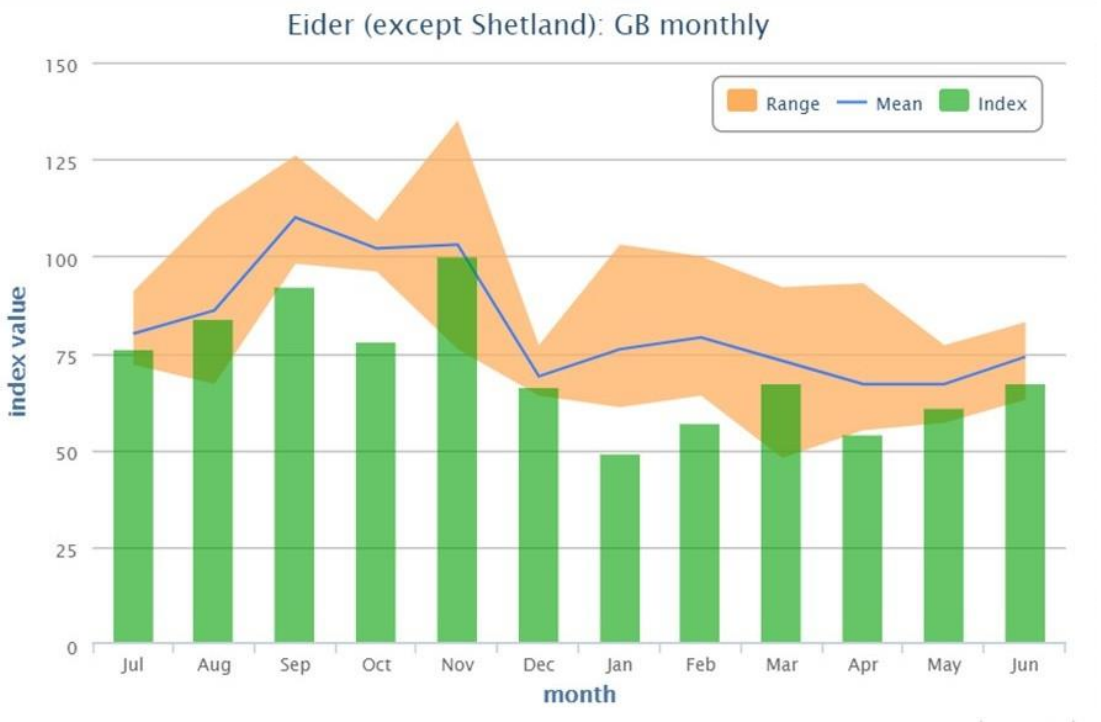


Figure 1. Monthly British totals of Common Eiders counted by the UK Wetland Bird Survey (uncorrected for coverage). Source: https://app.bto.org/webs-reporting/

References

Baillie, S. 2002. Common Eider (Eider) *Somateria mollissima*. Pp. 214-216. In: Wernham, C.V., Toms, M.P., Marchant, J.H., Clark, J.A., Siriwardena, G.M. & Baillie, S.R. 2002. *The Migration Atlas: Movements of the Birds of Britain and Ireland.* London, T. & A.D. Poyser.

Crowe, O. & Holt, C. (2013) Estimates of waterbird numbers wintering in Ireland, 2006/07 – 2010/11. Irish Birds 9:4

Frost, T, Austin, G. Hearn, R., McAvoy, Robinson, A., Stroud, D., Woodward, I. & Wotton, S. (2019) Population estimates of wintering waterbirds in Great Britain. British Birds 112: 130-145.

Stroud, D.A., Chambers, D., Cook, S., Buxton, N., Fraser, B., Clement, P., Lewis, P., McLean, I., Baker, H. & Whitehead, S. (eds.) 2001. *The UK SPA network: its scope and content*. JNCC, Peterborough. Three volumes. (90 pp; 438 pp; 392 pp.)

Wernham, C.V., Toms, M.P., Marchant, J.H., Clark, J.A., Siriwardena, G.M. & Baillie, S.R. 2002. *The Migration Atlas: Movements of the Birds of Britain and Ireland.* London, T. & A.D. Poyser.

Appendix 2. Definition of the term biogeographical population

AEWA[3] uses the following definition (drawn directly from the definition used by Scott & Rose 1996):

biogeographical population *- several types of 'populations' are recognized:*

i. *the entire population of a monotypic species;*

ii. *the entire population of a recognized subspecies;*

iii. *a discrete migratory population of a species or subspecies, i.e., a population which rarely if ever mixes with other populations of the same species or subspecies;*

iv. *that 'population' of birds from one hemisphere which spend the non-breeding season in a relatively discrete portion of another hemisphere or region. In many cases, these 'populations' may mix extensively with other populations on the breeding grounds, or mix with sedentary populations of the same species during the migration seasons and/or on the non-breeding grounds;*

v. *a regional group of sedentary, nomadic or dispersive birds with an apparently rather continuous distribution and no major gaps between breeding units sufficient to prohibit interchange of individuals during their normal nomadic wanderings and/or post-breeding dispersal.*

[3] https://www.unep-aewa.org/sites/default/files/document/mop3_12_guidance_biographical_population_waterbird_0.pdf

DELINEATION OF BIOGEOGRAPHIC POPULATIONS OF THE GOOSANDER (*MERGUS MERGANSER*)

PROPOSAL TO CHANGE POPULATION DELINEATIONS

(Compiled by Richard Hearn and James Robinson, Wildfowl & Wetlands Trust, and David Stroud, JNCC – UK permanent observer to the Technical Committee)

Name of population(s):

Goosander *Mergus merganser* (North-west & Central Europe (win))

Current status on AEWA Table 1:

B1

What is the issue?

Scott & Rose (1996) in their mapping of populations of African and Western Eurasian migratory Anatidae indicated a separate status for British breeding Goosander and this led to a separate listing in the second edition of *Waterbird Population Estimates*.

Figure 1. Population delineation of the Goosander (*Mergus merganser*) according to Scot & Rose (1996).

AEWA currently lists a single "North-west and Central European" population in its Action Plan. The issue has arisen as to whether there is any evidence for a separate status for British breeding Goosanders: in population terms – can they be considered distinct from other birds breeding in NW Europe?

This paper is drawn from a previous consideration of this issue prepared by James Robinson and Richard Hearn (WWT) for the UK's SPA and Ramsar Scientific Working Group (SPAR SWG)[4].

Two questions were posed:

1. *Should the British-breeding population of Goosanders be considered discrete from that in the rest of Northwest and central Europe, and what scientific evidence can be used to justify a change to the delimitation recommended by Wetlands International?*

2. *If the British population is deemed to be discrete, is there a need to treat the wintering population as one or a mixture, using different thresholds for different parts of the country, e.g. British 1% threshold for sites above the Humber-Severn line and Northwest and Central Europe 1% threshold for sites below this line, following the proposals by JNCC for other waterbirds?*

What is the evidence supporting the proposal?

Subsequent review by the UK's SPAR SWG found little evidence for Wetlands International's original suggestion that British breeding Goosanders formed a separate group discrete from those elsewhere in NW Europe. The evidence to that end is summarised in Appendices 1 and 2.

The SPAR SWG concluded that:

> *"It was agreed that birds breeding in the UK can be considered migratory as a large proportion of the population regularly moves to moulting areas in Norway. In addition, there are regular influxes of continental birds into parts of the UK in winter, where they mix with UK birds. However, there is relatively little ringing information and so the degree of exchange between UK and continental birds remains uncertain."*

AEWA's Action Plan currently does not list a separate British 'population' (contra Scott & Rose 1996).

What are the implications of the proposal including any changes in status on AEWA Table 1?

There is no proposal to change the current AEWA Action Plan listing for Goosander as there appears to be no evidence on which to suggest a change.

[4] http://jncc.defra.gov.uk/docs/The%20status%20of%20Goosanders%20in%20the%20UK%20-%20final%20version%20for%20SPAR%20SWG%20(16Feb15).doc

Appendix 1: Original paper to SPAR SWG (September 2004)

Treatment of Goosander populations in the UK

Background

In 1996, an atlas of Anatidae populations in Eurasia was published by Wetlands International (Scott & Rose 1996). This presented best available information on biogeographic limits for wildfowl populations and informed the second edition of *Waterfowl Population Estimates* (Rose & Scott 1997) which adopted the population proposed.

Although the Goosander *Mergus merganser* population in Britain was not considered separate from the Northwest and central Europe population in Scott & Rose (1996), it was adopted as separate by Rose & Scott (1997) [in the second edition of *Waterbird Population Estimates*]. Scott & Rose (1996) suggested that there is some justification for treating the British breeding population and central European population as separate populations. The decision by Rose & Scott (1997) appears to have been based on this statement. At that time, the proposed population split (as it affected the UK) was not accepted by the UK [statutory conservation agencies'] Inter-agency Ornithology Liaison Group as it was considered unsupportable on the basis of the information presented.

The proposed population was again used in the recently published third edition of *Waterfowl Population Estimates* (Wetlands International 2002). As an instance where UK statutory use differs from this international standard reference, it is timely that the SPA Scientific Working Group review the previous decision, especially in the light of more recently available information sources such as the BTO's recently published *Migration Atlas*.

Definition of biogeographic population

The UK SPA Review[5] uses the following definition of biogeographic population:

"A biogeographical population is a group of birds which breed in a particular location (or group of locations), interbreed freely within the group, and rarely breed or exchange individuals with other groups."

The Ramsar Convention uses the following definition (drawn directly from the definition used by Scott & Rose 1996):

biogeographical population *- several types of 'populations' are recognized:*

i. *the entire population of a monotypic species;*

ii. *the entire population of a recognized subspecies;*

iii. *a discrete migratory population of a species or subspecies, i.e., a population which rarely if ever mixes with other populations of the same species or subspecies;*

iv. *that 'population' of birds from one hemisphere which spend the non-breeding season in a relatively discrete portion of another hemisphere or region. In many cases, these 'populations' may mix*

[5] Stroud, D.A., Chambers, D., Cook, S., Buxton, N., Fraser, B., Clement, P., Lewis, P., McLean, I., Baker, H. & Whitehead, S. (eds.) (2001). *The UK SPA network: its scope and content*. JNCC, Peterborough. Three volumes. (90 pp; 438 pp; 392 pp)

extensively with other populations on the breeding grounds, or mix with sedentary populations of the same species during the migration seasons and/or on the non-breeding grounds;

v. *a regional group of sedentary, nomadic or dispersive birds with an apparently rather continuous distribution and no major gaps between breeding units sufficient to prohibit interchange of individuals during their normal nomadic wanderings and/or post-breeding dispersal.*

Guidance on waterbird biogeographical populations (and, where data is available, suggested 1% thresholds for each population) is provided by Wetlands International, most recently in Rose & Scott (1997), with more detail for Anatidae populations in Africa and western Eurasia given in Scott & Rose (1996).

Mergus merganser merganser: international population estimates and 1% thresholds

The Goosander is present in temperate and boreal zones throughout almost the entire Holarctic (Scott & Rose 1996). The nominate race *merganser* breeds across northern Eurasia and Iceland and Britain to the Bering Sea, with around 1,000 pairs in the Alps and small numbers in southern Europe. Wetlands International (2002) currently identifies seven biogeographic populations of this race:

Population	*Population estimate*
NW & C Europe (non-br)	250,000
Iceland	900
Scotland, N England, Wales	16,100
Central west Europe (br)	2,670-3,400
Balkans (br)	50-100
Black Sea (non-br)	10,000
Caspian Sea (non-br)	20,000

In the past, the UK statutory agencies have adopted the Northwest and Central European 1% threshold to select sites of international importance in the UK. According to Wetlands International (2002), the threshold for the Northwest and Central European population is 2,500. The threshold for Scotland, Northern England and Wales population is 160.

Given that the UK's statutory bodies adopted the use of the Northwest and Central European threshold for site selection in the UK, any changes to this decision could have implications for the SPA suite for this species. Five-year count means presented in the most recent edition of *Wildfowl & Wader Counts* indicate that, if the British threshold was adopted, three WeBS sites in northern Britain would qualify as internationally important: Tay Estuary, Hirsel Lake and Lower Derwent Valley (Pollitt et al. 2003). Of these, only Hirsel Lake is not within an existing SPA boundary. The current SPA suite comprises two sites: Firth of Tay and Eden Estuary and Inner Moray Firth, both selected at Stage 1.3, *i.e.* within an assemblage of 20,000 birds or more (Stroud *et al.* 2002).

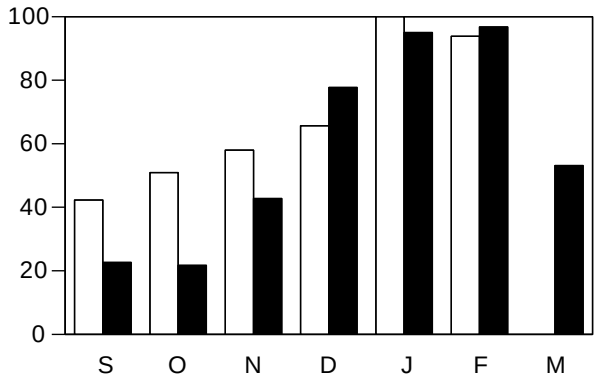
Seasonal phenology

The Wetland Bird Survey (WeBS) counts Goosanders at sites throughout the UK on priority dates throughout the year, but primarily between September and March (Pollitt *et al.* 2003). It is worth noting

that peak numbers of Goosanders counted in the winter are almost three times higher than the estimated number of breeding birds in the UK (Gregory et al. 1997). WeBS, however, counts only around a third of the total number of wintering birds in the UK (Kershaw & Cranswick 2003).

Differences in site coverage between months mean that phenological changes through the winter cannot be reliably detected using count totals alone. Consequently, an index is calculated for each month to reflect changes in relative abundance during the season. Monthly WeBS indices for Goosander indicate that there is an increase in the numbers of birds present in Britain during the winter, numbers peaking in January and February (Fig. 1).

Fig. 1. Monthly indices for Goosander in Britain (white bars 1999-2000; black bars 1994-95 to 1998-99). From Pollitt et al. *(2003)*



Although WeBS does not currently produce regional trends, it is apparent from the tables of nationally important sites in *Wildfowl & Wader Counts* that peak counts at sites in northern England and Scotland generally occur much earlier in the winter, suggesting the late winter peaks at a national level are driven by increases at less important sites in the south of England or from influxes of birds from sites and habitats not counted by WeBS, e.g. rivers, to those surveyed by WeBS. It has been suggested that between 500 and 1,000 Goosanders move to the UK from the continent during the winter months (Kershaw & Hughes 1997).

Movements

The ringing of Goosanders in the UK and abroad has been limited. A total of 1,292 birds have been ringed, 160 of those being recovered subsequently (Little & Marchant 2002). There have been six recoveries of foreign-ringed birds in the UK. Unfledged ducklings and attendant females can be caught on natal rivers using mist nets stretched across the width of the waterway (e.g. Meek & Little 1977) and some breeding females have been ringed at the nest, in boxes or natural sites, during late incubation. During the breeding season, most metal ringing has occurred in Northumberland or in the Borders. Some birds marked at this time have been fitted with plastic wing-tags that allow observations of movements without the need to recover the bird in the hand. During the winter months, birds are most regularly caught in large duck-traps in the southeast of England.

British breeding birds are almost entirely resident, although males move to Norway to moult before returning to the UK for the winter (Little & Furness 1985). Like most duck species, recoveries indicate that most Goosanders (males and females) spend the winter within 150 km of their natal or breeding sites, although dispersal ranges vary markedly between individuals. Birds wing-tagged as ducklings in Northumberland, and those tagged as fully-grown adults in the Borders, spread southwards into southern

Scotland and south to the English Midlands during the winter. The degree of penetration into southern England appears to have increased at the same time as the breeding range has extended south. Sightings of wing-tagged individuals suggest that some British breeding females are even site faithful. Recoveries of British-bred birds on the continent during the breeding season indicate that there is possibly some abmigration of males (i.e. permanent movement from the British population to the Northwest & Central European population). There are, however, no records of foreign-ringed Goosanders recovered as breeding birds in the UK, so the degree of mixing remains unknown.

Only one ring recovery has shown a British-bred bird penetrating as far south as the areas where the species is purely a non-breeding visitor, i.e. in Southeast England. No wing-tagged birds from Northern Britain have been observed this far south. Ringing recoveries indicate that the majority of Goosanders of both sexes in lowland England are winter visitors from the Northwest and Central European population, especially from those breeding grounds in northern Fennoscandia and western Russia. The single recovery of a foreign-ringed bird away from Southeast England (a bird ringed as a duckling in Norway and recovered in Lancashire in December) indicates that there may be a small amount of mixing of continental and British-bred birds in the winter. This mixing may be particularly marked during periods of harsh weather on the continent when many continental-bred birds may move to the UK (Chandler 1981). However, it is not known whether birds from the continent stay to breed in the UK.

Caution should be urged when interpreting the evidence from ringing and wing-tagging studies involving so few recoveries and such limited geographical scope. However, these are the best available data on which to make decisions about population delimitation at this time. An investigation of the numbers of Goosanders ringed and subsequently recovered in countries through Northwest Europe may provide further information of the magnitude of movements of birds between Britain and Northwest Europe. However, this analysis would not determine whether there is any interbreeding between birds in the British and Northwest/Central European populations.

To assess the integrity of proposed populations more directly, it will be necessary to determine the genetic structure of potentially separate groups. This should be a priority for future research on population delimitation in this species.

Issues to be resolved

1. Should the British-breeding population of Goosanders be considered discrete from that in the rest of Northwest and central Europe, and what scientific evidence can be used to justify a change to the delimitation currently recommended by Wetlands International?

2. If the British population is deemed to be discrete by this group, is there a need to treat the wintering population as one or a mixture, using different thresholds for different parts of the country, e.g. British 1% threshold for sites above the Humber-Severn line and Northwest and Central Europe 1% threshold for sites below this line, following the proposals by JNCC for other waterbirds?

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James Robinson, WWT & David Stroud, JNCC

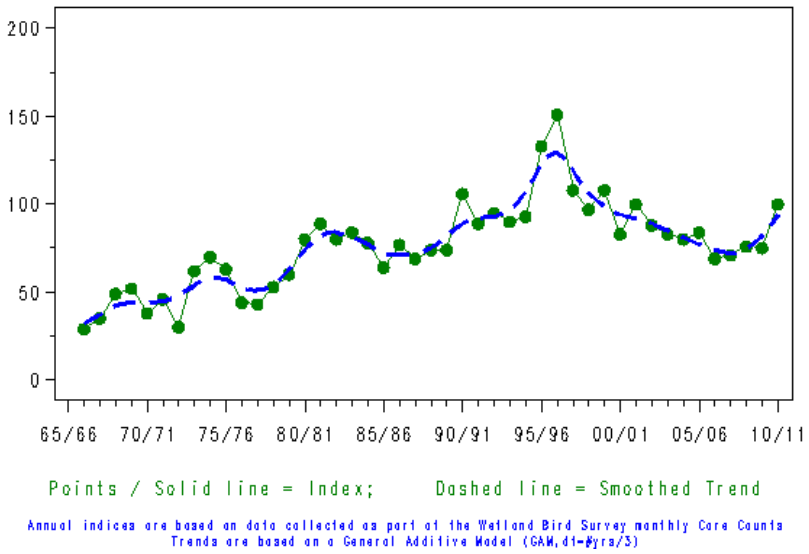
Appendix 2. Updated assessment of evidence for the delineation of British Goosanders (2015)

More recent editions of *Waterbird Population Estimates* (WPE), Wetlands International now include Britain within the Northwest and Central Europe population. In WPE5[6], this population is estimated to have a size of 266,000 and a 1% threshold of 2,700. Thus, no sites in the UK meet the qualifying threshold for international importance. However, the inclusion of the UK within the Northwest and Central Europe population of Goosander means that this species should be included in the 2010 SPA Review as a migratory waterbird.

Nevertheless, the evidence for this treatment remains somewhat weak and similar to that outlined in the original paper to SPAR SWG, but on balance this is still the most appropriate treatment. Although there remains a lack of ring recovery information for this species, new analyses of national and international count data provide some additional support to the inclusion of British Goosanders in the Northwest and Central Europe population.

These count data show that the trend in the UK has declined since the mid-1990s, in line with trends elsewhere in western Europe and a shift towards the north and east, where there have been large increases (Lehikoinen *et al*. 2013). This suggests that migratory Goosander certainly wintered in the UK, and this is further supported by the rapid increase in numbers that has occurred in recent winters when significantly colder than average weather presumably led to an increase in the number of migrant Goosander visiting the UK (Figure 1). This also suggests that migratory Goosander still winter in the UK, even if this has probably become less regular.

Figure 1. Index of Goosander trend in the UK based on WeBS data (Holt et al. 2012).



Furthermore, new national trends for England, Scotland and Wales[7] show that the trend for England is very similar to the overall UK trend, whereas in Scotland numbers are largely stable, and in Wales Goosander is increasing. This is in line with the increasing British-breeding population being largely sedentary and that significant numbers of migratory Goosander do not winter in Scotland and Wales.

[6] Published online at http://wpe.wetlands.org
[7] Available at http://blx1.bto.org/webs-reporting

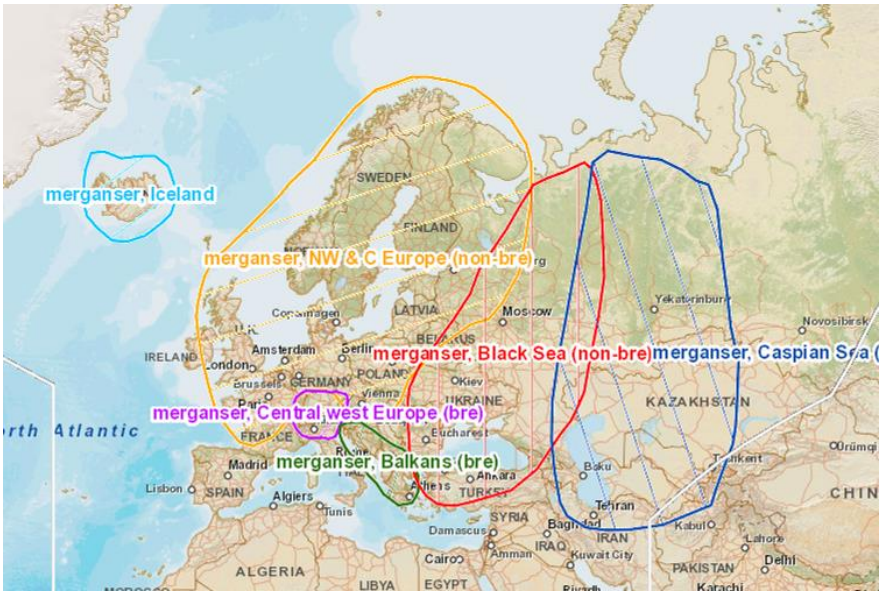
Thus, the original assertion [of Scott & Rose 1996] seems to hold true, *i.e.* that British-breeding Goosander, found predominantly in Scotland and Wales, disperse locally during the non-breeding season (with some moving to England) and migratory Goosander from continental Europe are found predominantly in England during winter (Little & Marchant 2002). Further, it is this English-wintering migratory component of the UK winter population that is driving the overall UK trend (a decline of 31% during 1998/99 – 2008/09; Eaton *et al*. 2012).

The consequences of shifting distribution

As highlighted above, a recent analysis of international count data held by the International Waterbird Census (Lehikoinen *et al*. 2013) found that Goosander has shifted its winter range to the north and west, with a large decrease having occurred in the Netherlands and a large increase in Finland. Although the UK was not included in that analysis because of the relatively small numbers of Goosander thought to be wintering that far west and the confounding issue of the largely sedentary British-breeding population, as outlined above, this analysis and WeBS trends support the fact that migratory Goosander still winter in the UK.

However, the population sizes of the breeding and wintering populations have recently been estimated as 3,500 pairs and 12,000 individuals, respectively (Musgrove *et al*. 2013), which are rather similar[8], suggesting that there may now not be many migratory Goosander in the UK during winter. Thus, given this shift in winter distribution and the decreasing and now apparently small number of migratory Goosander wintering in the UK, the delineation of this species may require reassessment in the future as it would seem that the British-breeding population could be moving closer to a status more comparable to outlying populations currently treated as discrete, namely the Iceland, Central west Europe and Balkans populations (Figure 2).

Figure 2. Current delineation of European Goosander populations (from Wetlands International).



[8] Using the standard calculation of three times the number of pairs to calculate population size, *i.e.* 3,500 x 3 = 10,500 birds

This may mean that if current trends continue, the continued treatment of the UK population as part of the Northwest and Central Europe population may be increasingly difficult to justify. It is recommended that this issue is reviewed again as part of the next UK SPA Review.

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Richard Hearn, WWT

DELINEATION OF BIOGEOGRAPHIC POPULATIONS OF THE ATLANTIC PUFFIN (*FRATERCULA ARCTICA*)

PROPOSAL TO CHANGE POPULATION DELINEATIONS

Compiled by Szabolcs Nagy (representative of Wetlands International to the Technical Committee)

Name of population(s):

Fratercula arctica (Atlantic Puffin), Hudson Bay & Maine E to S Greenland, Iceland, Bear Is, Norway to S Novaya Zemlya
Fratercula arctica (Atlantic Puffin), NE Canada, N Greenland, to Jan Mayen, Svalbard, N Novaya Zemlya
Fratercula arctica (Atlantic Puffin), Faeroes, S Norway & Sweden, Britain, Ireland, NW France

Current status on AEWA Table 1:

All populations are listed in Category 1b of Column A.

What is the issue?

Three populations of *F. arctica* were listed on AEWA's Table 1at MOP4 in 2008 following the contemporary subspecies taxonomy. In the meantime, the validity of these subspecies was brought into question because morphological differences are small and clinal. The Handbook of the Birds of the World (HBW) and BirdLife International Illustrated Checklist of the Birds of the World as well as the HBW Alive, AEWA's taxonomic references, treated it as a monotypic species and this view is widely shared by the species specialists.

The Technical Committee has already discussed a proposal during the previous triennium to merge the three populations to reflect the monotypic taxonomic treatment of the species. However, similar to other auk species, populations in the East and West Atlantic seem to be separated during the breeding season.

Therefore, the definition of the following biogeographic populations is suggested:
[1] *Fratercula arctica*, West Atlantic (bre): including N America and W Greenland – the breeding range of this population is only partly (W Greenland) situated within the Agreement Area
[2] *Fratercula arctica*, East Atlantic (bre): including the populations breeding on E Greenland, Jan Mayen, Iceland, Faroes, British Isles, France, Northern Europe, Svalbard.

What is the evidence supporting the proposal?

No individuals ringed at colonies in North America or W Greenland were recovered in European colonies according to the EURING data, which supports the separation of W Atlantic birds from the E Atlantic ones.

Possibly the proposed biogeographic populations could be further divided because Puffins show a high degree of breeding site fidelity. Most movements happen between nearby colonies (<100 km and < 250km) in the UK and the Gulf of Maine (Harris 1983, Breton et al. 2006). Although, 62% of surviving young from the Isle of May, UK, had emigrated, majority of them moved to other colonies in the UK and Ireland. Only one emigrated to other colonies in Norway and another one on the Faroe Islands (Harris & Wanless 2011). During the consultation with the CAFF cBird Group, it was proposed to define the following management units: Iceland, Norway, Faroes, British Isles and Canada, but others considered that further analysis is needed before reaching such conclusions.

The proposed flyway delineations (Figure 1) are based on the SEATRACK data (Figure 2), Fayet et al. (2017), Lyngs (2003).

What are the implications of the proposal including any changes in status on AEWA Table 1?

As the species is listed as Vulnerable on the global IUCN Red List, the populations should be listed in Category 1b in Column A, i.e. no change on AEWA Table 1.

However, the population breeding within the Agreement area in Arctic Canada (c. 300 pairs) and Greenland (c. 3000-5000 pairs) is insignificant compared to the North American breeding population: 350,000 – 400,000 breeding pairs in the 1990s (BNA) or 500,000 pairs at an unspecified time (HBW). In North America the bulk of the population concentrates on Newfoundland and winters from Labrador, Newfoundland, the Gulf of St. Lawrence and Nova Scotia to Massachusetts (see Supplemental Information to Fayet 2017). Therefore, the W Atlantic population would not satisfy Criterion 1 for listing seabird populations in Table 1 established by the AEWA Technical Committee in AEWA/MOP 3.16, namely that the species should breed within the Agreement Area and its range should overlap with Agreement area by 75% of more. Therefore, it is suggested to list only the E Atlantic population of *F. arctica* on AEWA Table 1.

Figure 1. Delineation of the proposed flyways of *F. arctica*

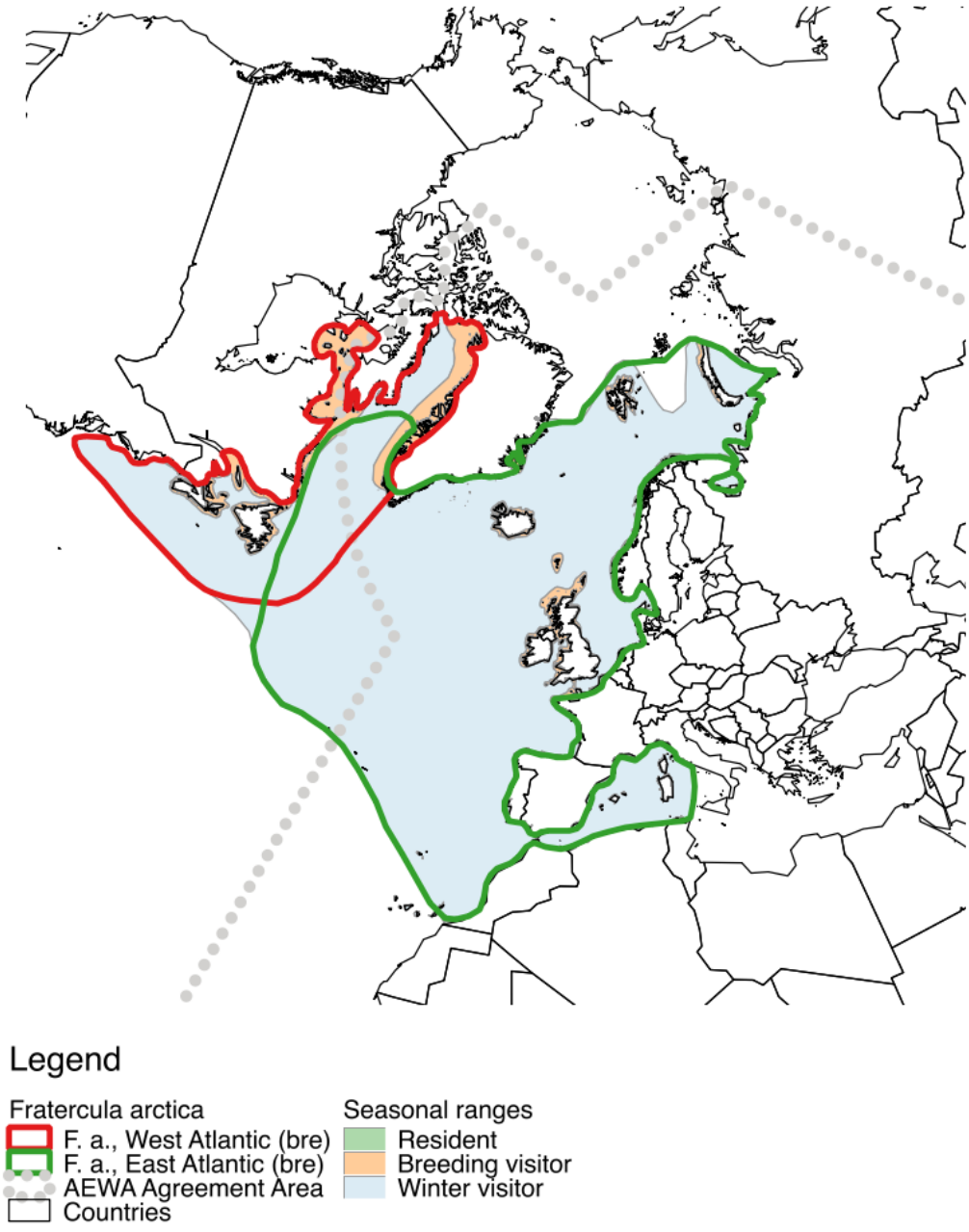
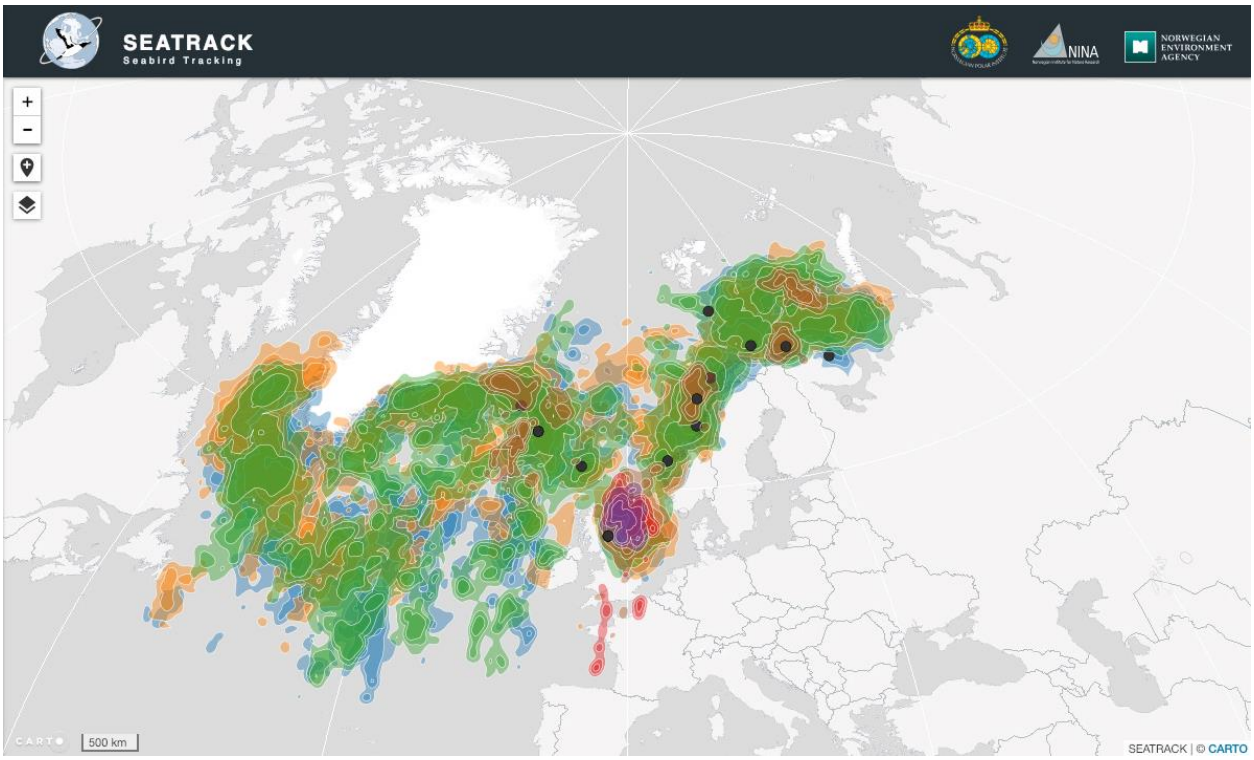


Figure 2. Non-breeding distribution of *F. arctica* breeding at colonies in the E Atlantic based on geolocator data between 2011 and 2017. Colours indicate different years. Black dots indicate the colonies where birds were captured (Source: SEATRACK).



DELINEATION OF BIOGEOGRAPHIC POPULATIONS OF THE BLACK GUILLEMOT (*CEPPHUS GRYLLE*)

PROPOSAL TO CHANGE POPULATION DELINEATIONS

Compiled by Szabolcs Nagy (representative of Wetlands International to the Technical Committee)

Name of population(s):

[1] *Cepphus grylle mandtii* (Black Guillemot), Arctic E North America to Greenland, Jan Mayen & Svalbard E through Siberia to Alaska
[2] *Cepphus grylle arcticus* (Black Guillemot), N America, S Greenland, Britain, Ireland, Scandinavia, White Sea

Current status on AEWA Table 1:

[1] Category 1 of Column C
[2] Category 1 of Column C

What is the issue?

In general, the species is not truly migratory, but it was listed on AEWA Annex 2 because fledglings undertake poorly known long-distance dispersal (AEWA/MOP3.16). The subspecies *C. g. mandtii* and *arcticus* both have discontinuous range separated by the ranges of other subspecies. According to the existing AEWA guidelines (AEWA/MOP 3.12), it is only possible to recognise populations of individuals that belong to the same subspecies. Therefore, it is suggested to recognise two biogeographical populations of *C. g. mandtii* and two biogeographical populations of *C. g. arcticus* for management purposes based on their separate breeding grounds:

[1a] *Cepphus grylle mandtii*, E Canadian Arctic & W Greenland (bre): Canadian Arctic, Hudson Bay, and James Bay east to Labrador (south to about 58°N), N Newfoundland, and W Greenland (south to about 72°N),
[1b] *Cepphus grylle mandtii*, E Greenland to E Laptev Sea (bre): E Greenland (south to and 69°N), Jan Mayen, Barents & Kara Seas and eastern part of Laptev Sea,
[2a] *Cepphus grylle arcticus*, NE America and S Greenland (bre): S Newfoundland, Labrador, Nova Scotia and S Greenland,
[2b] *Cepphus grylle arcticus*, British Isles and N Europe: Norway, Russia east to White Sea.

What is the evidence supporting the proposal?

Resident and mostly sedentary except in N regions, where movement to adjacent ice-free waters occurs according to the Handbook of the Birds of the World (HBW) and the Birds of North America (BNA). In general, the winter distribution of adults is essentially as during the breeding season near to the colony. The EURING database does not contain any recoveries in Europe from North America. Fledglings often move considerable distances from natal sites, usually in direction of prevailing sea currents. Inter-colony movement of immatures was found to be important but involves relatively short distances and would not justify treating distant and separated segments of the same subspecies as one biogeographic population. E

North American and Greenland birds intergrade with *C. g. arcticus* along the coast of Labrador and W Greenland (BNA) and this uncertainty is reflected in the population delineation presented in Figure 1.

What are the implications of the proposal including any changes in status on AEWA Table 1?

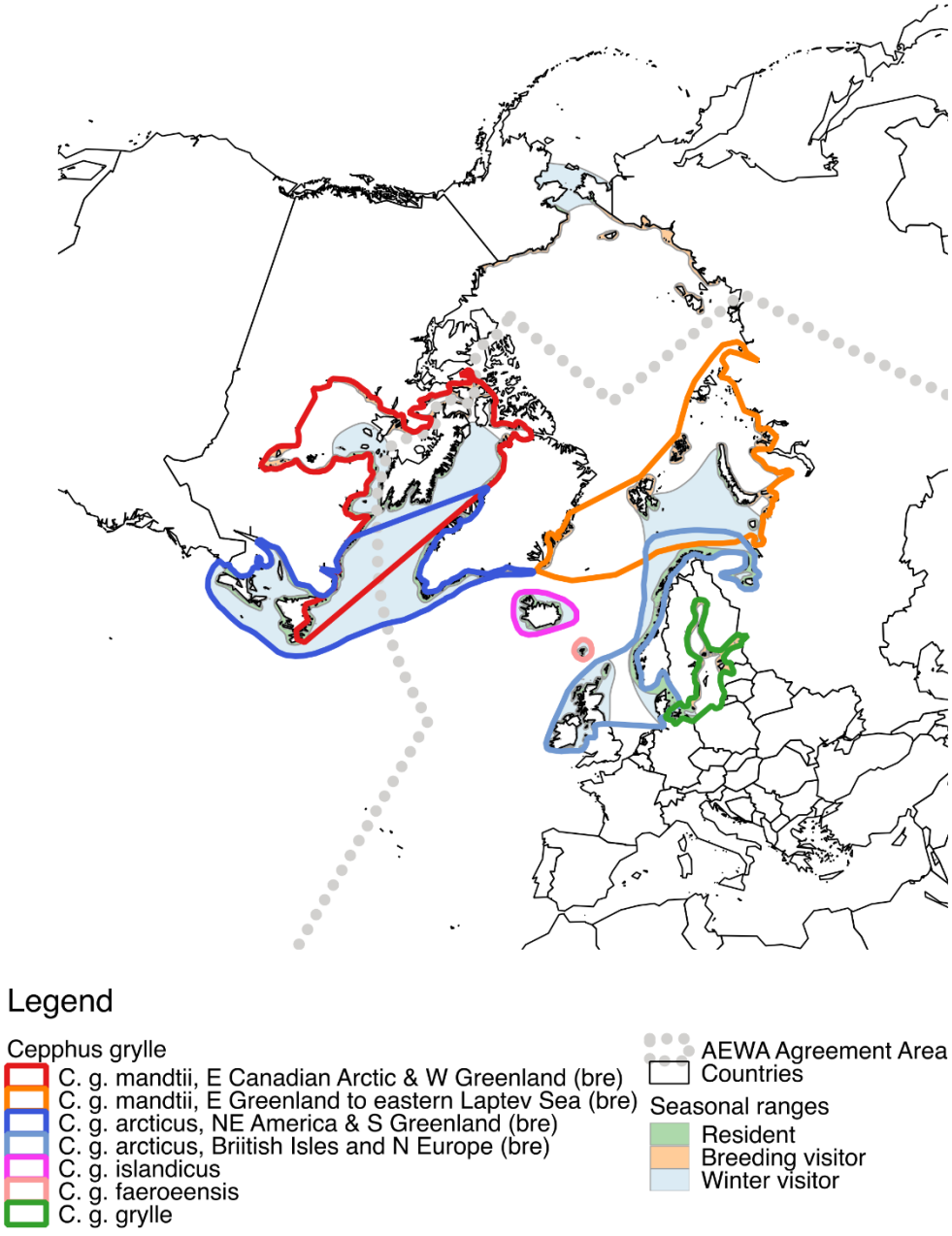
[1a] *Cepphus grylle mandtii*, E Canadian Arctic & W Greenland (bre): the Canadian population in the Canadian Arctic alone exceeds 250,000 individuals. The entire Greenland population is estimated at 30,000 – 60,000 individuals including E Greenland. Proper trend information is lacking for this population (Berglund & Hentati-Sundberg 2014). BirdLife International (2015) has estimated 100,000 – 500,000 individuals for Greenland as a whole (including the subspecies *mandtii* both E and W and the subspecies *arcticus* in the S) and a stable population. Based on even this uncertain data, the new population can be classified in Category 1 of Column C in Table 1 of the AEWA Action Plan (i.e. no change compared to the current classification of the population of *mandtii* subspecies).

[1b] *Cepphus grylle mandtii*, E Greenland to eastern Laptev Sea (bre): The population is estimated around 20,000 pairs, i.e. 60,000 individuals in Svalbard and 9,000 – 11,000 pairs in European Russia, Jan Mayen is small, c. 100 pairs (Berglund & Hentati-Sundberg 2014, Strom et al. 2016). As mentioned above, there are uncertainties concerning the population size in Greenland and its division between W and E Greenland although the E one can be considered to be the smaller one. Boertmann et al. (2009) was able to control only 4 colonies and reported the observation of only 68 individuals during their July-August surveys. Thus, it is likely that the size of the E Greenland population is less than 10,000 individuals. This means that the population is exceeds 25,000 individuals but probably below 100,000 individuals. The population trend is unknown. Therefore, this population is proposed to be classified in Category 1 of Column B.

[2a] *Cepphus grylle arcticus*, S Newfoundland, Labrador, Nova Scotia and S Greenland (bre): S Greenland population is estimated at 180,000-190,000 pairs (i.e. 540,000-570,000 individuals). This means that this population should be classified in Category 1 of Column C even without taking into account of the birds breeding in Eastern Canada that were estimated at around 70,000 in the 1980s (Nettleship & Evans 1985). Thus, this population retains the same classification on Table 1 as the current population covering the entire *C. g. arcticus* subspecies.

[2b] *Cepphus grylle arcticus*, British Isles and N Europe east to White Sea (bre): Berglund & Hentati-Sundberg (2014) estimated the total population at around 180,700 – 238,200 individuals without Greenland, but including nearly 8,000 pairs at the Murman coast and the White Sea in Russia (Strom et al. 2016). As the population trend is thought to be largely stable, it can be classified in Category 1 of Column C. Thus, this population also retains the same classification on Table 1 as the current population covering the entire *C. g. arcticus* subspecies.

Figure 3. Delineation of the proposed biogeographic populations of *C. g. mandtii* and *C. g. arcticus* together with the delineations of the populations not proposed for change. (Note: the range map produced by BirdLife International is only to provide a backdrop for the flyway delineation. It will require update at a later stage to incorporate the correction proposed by experts during the consultation process).



DELINEATION OF BIGEOGRAPHIC POPULATIONS OF THE RAZORBILL (*ALCA TORDA*)

PROPOSAL TO CHANGE POPULATION DELINEATIONS

Compiled by Szabolcs Nagy (representative of Wetlands International to the Technical Committee)

Name of population(s):

Alca torda torda (Razorbill), E North America, Greenland, E to Baltic & White Seas

Current status on AEWA Table 1:

Category 4 of Column A

What is the issue?

A. torda currently has two recognised subspecies under AEWA – nominate *Alca torda torda* and *A. t. islandica*.

The range of the nominate subspecies (*Alca torda torda)* is defined as E North America (Digges Sound and SE Baffin I S to Gulf of Maine), Greenland and E to Bear I, Norway, Denmark, Baltic Sea region, Murmansk and White Sea by the Handbook of the Birds of the World (HBW), AEWA's taxonomic reference.

HBW defines the range of the *A. t. islandica* subspecies as Iceland, Faeroes, Britain, Ireland E to Heligoland, and S to Channel Is and NW France (Brittany).

The range of *A. t. islandica* separates the ranges of *A. t. torda* breeding in W Greenland and N America from the ones breeding around Scandinavia and it does not confirm with the AEWA guidelines (AEWA/MOP 3.12) on defining biogeographic populations. Therefore, it is proposed to recognise two populations of the nominate subspecies: an East Atlantic and a West Atlantic one in Table 1 of AEWA.

What is the evidence supporting the proposal?

There is a fairly clear separation in the wintering grounds between birds which winter in Greenland and Labrador to offshore East Newfoundland and South-West to the Gulf of Maine and farther South, and those birds which winter from the Barents and White Seas to Skagerrak, like Baltic breeders (HBW).

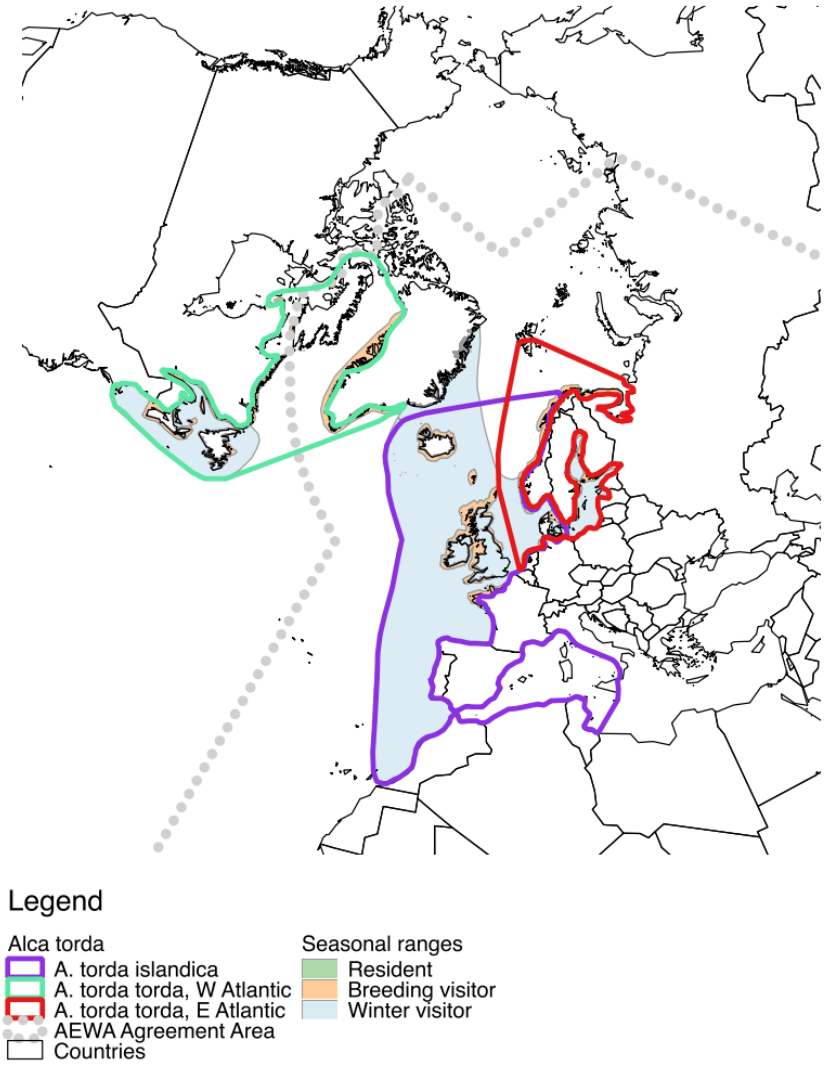
Ringing and tracking data provide no evidence of regular exchanges between the breeding birds of North America & Greenland with the birds breeding in Europe. There are only single birds recovered in Greenland from Russia and Ireland (i.e. from both subspecies), but these records are considered incidental (Lyngs 2003). There is also no evidence of birds from North America or Greenland migrating to Europe according to the EURING database. Nucleotide divergence estimates indicate that Icelandic birds are slightly more differentiated from West Atlantic and Baltic birds than birds from these more distant populations at either side of the Atlantic Ocean are from each other and this is consistent with the subspecies level taxonomic treatment (Moum & Arnason 2001). Although, this is consistent with the subspecies level taxonomy of the species, the authors also raise the question whether genetic data reflect historical effects to a greater extent than contemporary conditions and the proposed treatment would be consistent with the biogeographic

population concept of AEWA adopted in in Resolution 3.2 and in document AEWA/MOP 3.12 because they are geographically discrete throughout the year.

What are the implications of the proposal including any changes in status on AEWA Table 1?

There is no implication of the split because *A. torda* is a Near-Threatened species and as such both new populations should be listed in Category 4 of Column A.

Figure 4. Proposed delineation of the biogeographic populations of *A. torda*.



DELINEATION OF BIGEOGRAPHIC POPULATIONS OF THE LITTLE AUK (*ALLE ALLE*)

PROPOSAL TO CHANGE POPULATION DELINEATIONS

Compiled by Szabolcs Nagy (representative of Wetlands International to the Technical Committee)

Name of population(s):

Alle alle alle (Little Auk), High Arctic, Baffin Is – Novaya Zemlya
Alle alle polaris (Little Auk), Franz Josef Land & Severnaya Zemlya

Current status on AEWA Table 1:

Alle alle alle: Category 1 of Column C,
Alle alle polaris: not yet listed on Table 1.

What is the issue?

[1] *Alle alle alle* is proposed to be split into two (possibly even more) populations:
[1a] East Atlantic (bre): Novaya Zemlya, Svalbard, Jan Mayen and East Greenland and;
[1b] West Atlantic: Baffin Island and in NW Greenland (bre).

The wintering ranges of these populations would overlap.

[2] *A. a. polaris* was not listed on AEWA Table 1 because only 20% of its range was thought to be in the Agreement area (see AEWA/MOP 3.16). However, this seems to be an erroneous assumption in the light of the latest treatment of the subspecies (see below).

What is the evidence supporting the proposal?

[1] According to the Handbook of the Birds of the World (HBW) "Two principal migratory patterns are known: NW Greenland birds winter off Newfoundland; many from European Arctic winter off SW & (less frequently) SE Greenland, with a massive westerly movement past NW Russia in October and return in April, presumably of birds from Novaya Zemlya, possibly from Severnaya Zemlya". These two migratory routes are also confirmed by geolocator studies (Fort et al. 2013, SEATRACK). There is no evidence of exchange of individuals between the breeding colonies of W Greenland and the birds of E Greenland and further east (EURING).

[2] According to the HBW the breeding range includes Franz Josef Land and possibly this race occurs also in the region from Severnaya Zemlya to the Bering Sea with a clear gap in the Laptev Sea and further east that separates western and eastern birds. According to the Birds of North America (BNA), however, the breeding range of this subspecies is restricted to Franz Jozef Land and perhaps Severnaya Zemlya and all birds in the Bering Strait are now thought to belong to the nominate race and numbers in the Bering Sea are tiny in comparison to Greenland and Europe. All breeding colonies of *A. a. polaris* are situated in the Agreement Area (see map in Wojczulanis-Jakubas et al. 2014). In addition, birds equipped with geolocators on Franz Josef Land, i.e. representing individuals that are assigned to *A. a. polaris*, also turned up in the Greenland Sea based on SEATRACK, where the distribution of *A. a. polaris* has overlapped with *A. a. alle* from Bjornoya, Hornsund, Kongsfjorden and Isfjorden.

What are the implications of the proposal including any changes in status on AEWA Table 1?

[1a] *A. a. alle*, East Atlantic (bre): The population size on Svalbard is estimated at around 1,000,000 individuals (BirdLife International 2015). There might be 3.5 million (possibly exceeding 10 million) pairs in E Greenland (Kampp et al 1987), c. 50,000 pairs on Jan Mayen and c. 50,000 pairs on Novaya Zemlya (HBW). Trends are unknown (BirdLife International 2015). Therefore, the population should be listed in Category 1 of Column C.

[1b] *A. a. alle*, Baffin Island, NW Greenland (bre): This population is estimated at 8,000,000 – 80,000,000 individuals (BirdLife International 2015) . From this about 1,000 pairs are estimated to breed in North America and 15-20 million pairs in NW Greenland (BNA). The population trend is unknown (BNA). Therefore, the population should be listed in Category 1 of Column C. As *Alle alle alle* was listed in Category 1 of Column C, the split will not lead to a change in status on AEWA Table 1.

[2] *A. a. polaris*, Franz Josef Land & Severnaya Zemlya (bre) – As outlined above, the entire breeding population does occur within the AEWA Agreement area, which warrants listing this population on Table 1 of the Agreement.

The population breeding on Franz Josef Land is estimated over 500,000 pairs (Strom et al. 2016) and 10,000 – 80,000 pairs on Severnaya Zemlya (de Korte et al. 1995). Thus, the population size exceeds the threshold of 100,000 individuals. The population trend is unknown. Therefore, the population should be listed in Category 1 of Column C.

Figure 5. Proposed delineation of the populations of *A. alle* in the Agreement area. (Note: the range map produced by BirdLife International is only to provide a backdrop for the flyway delineation. It will require update at a later stage to incorporate the correction proposed by experts during the consultation process).

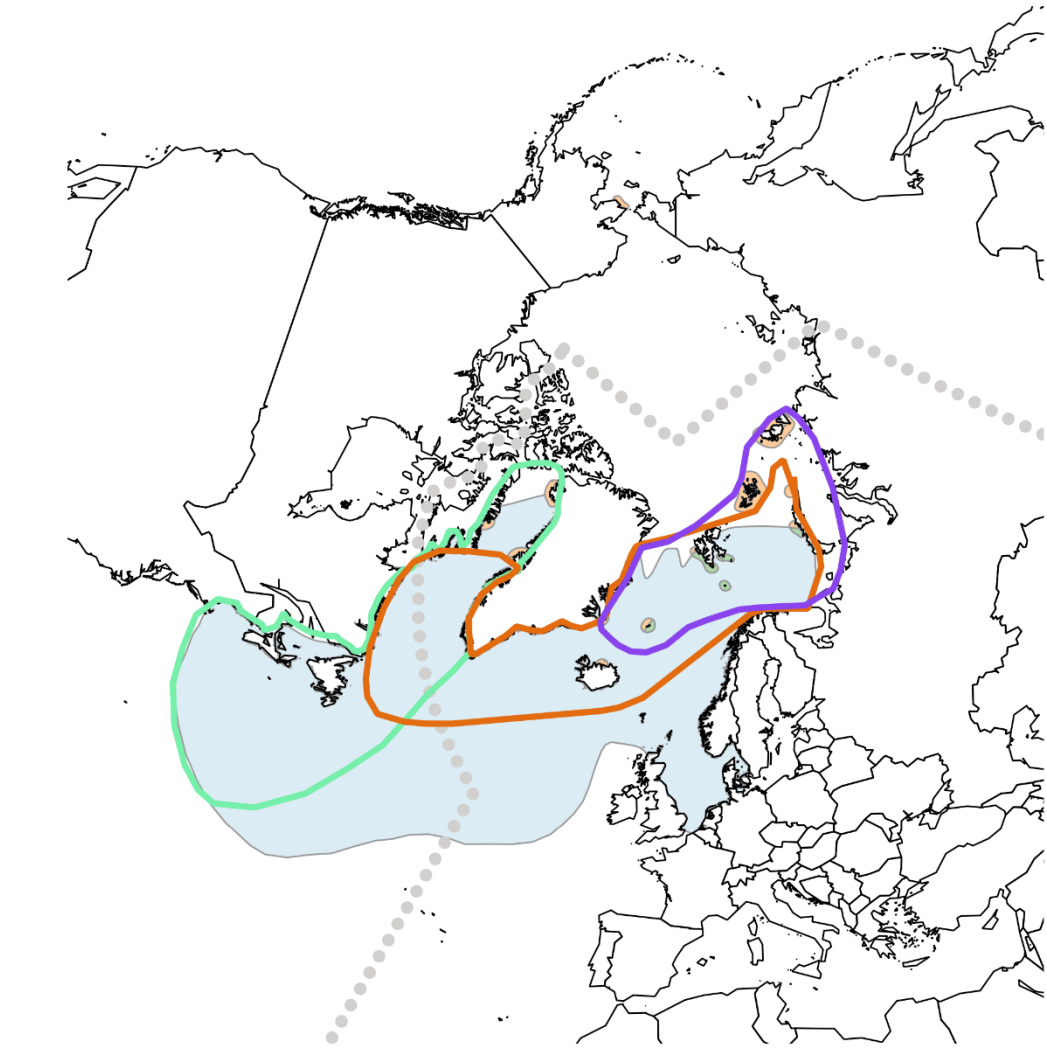
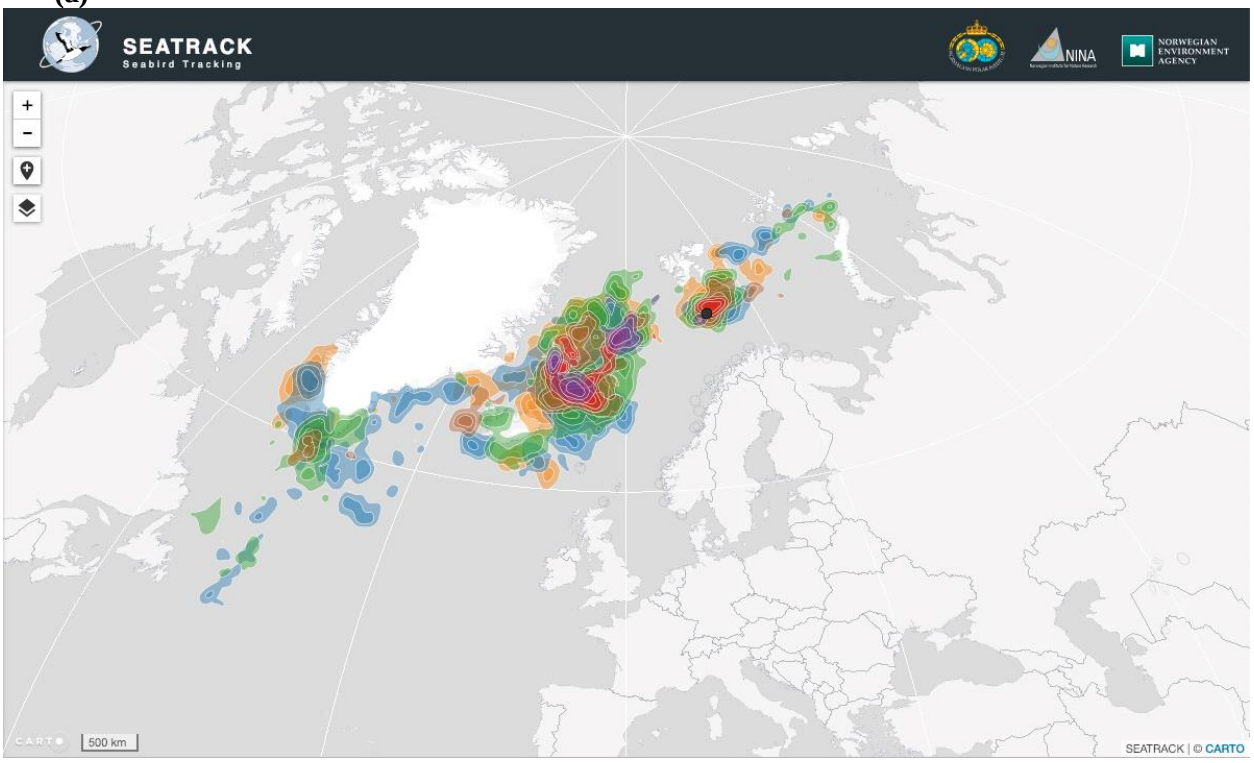
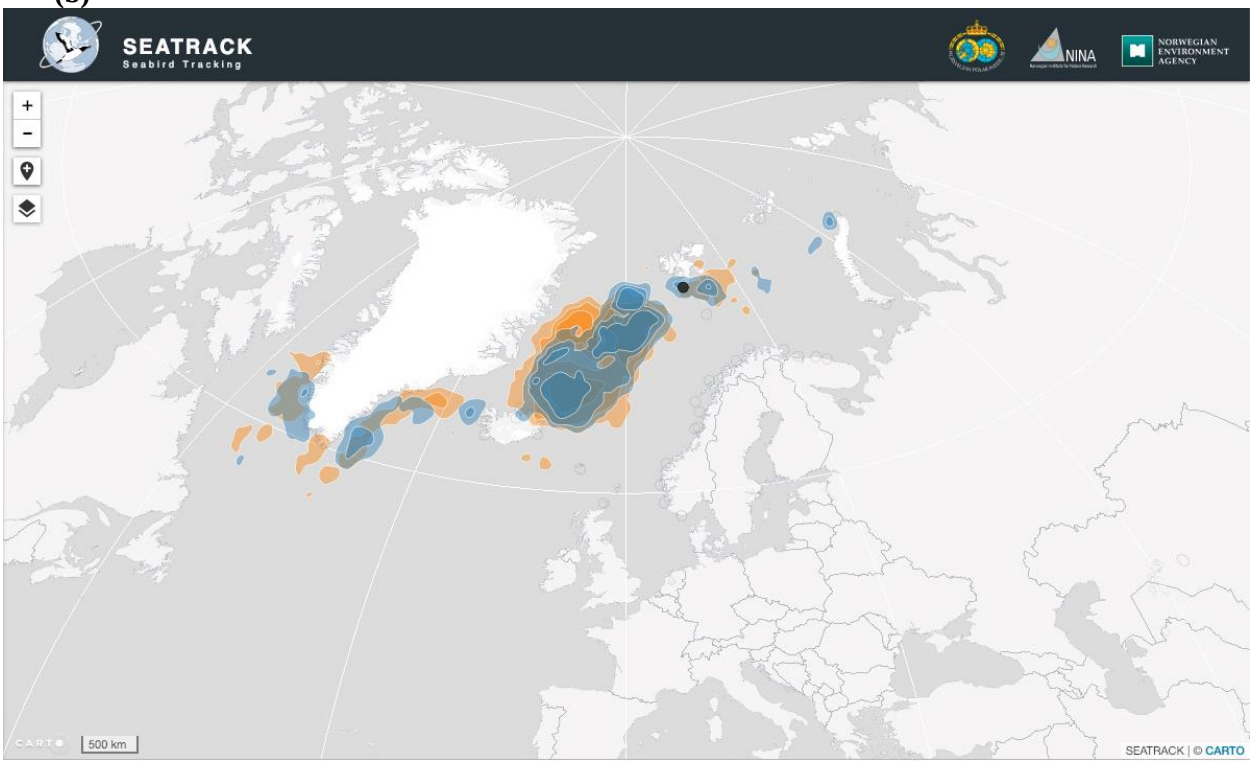


Figure 6. Distribution of *A. a. alle* based on geolocator data from birds caught on Bjornoya (a) and Svalbard (b – d) and *A. a. polaris* caught on Franz Josef Land (e). (Source: SEATRACK)

(a)



(b)



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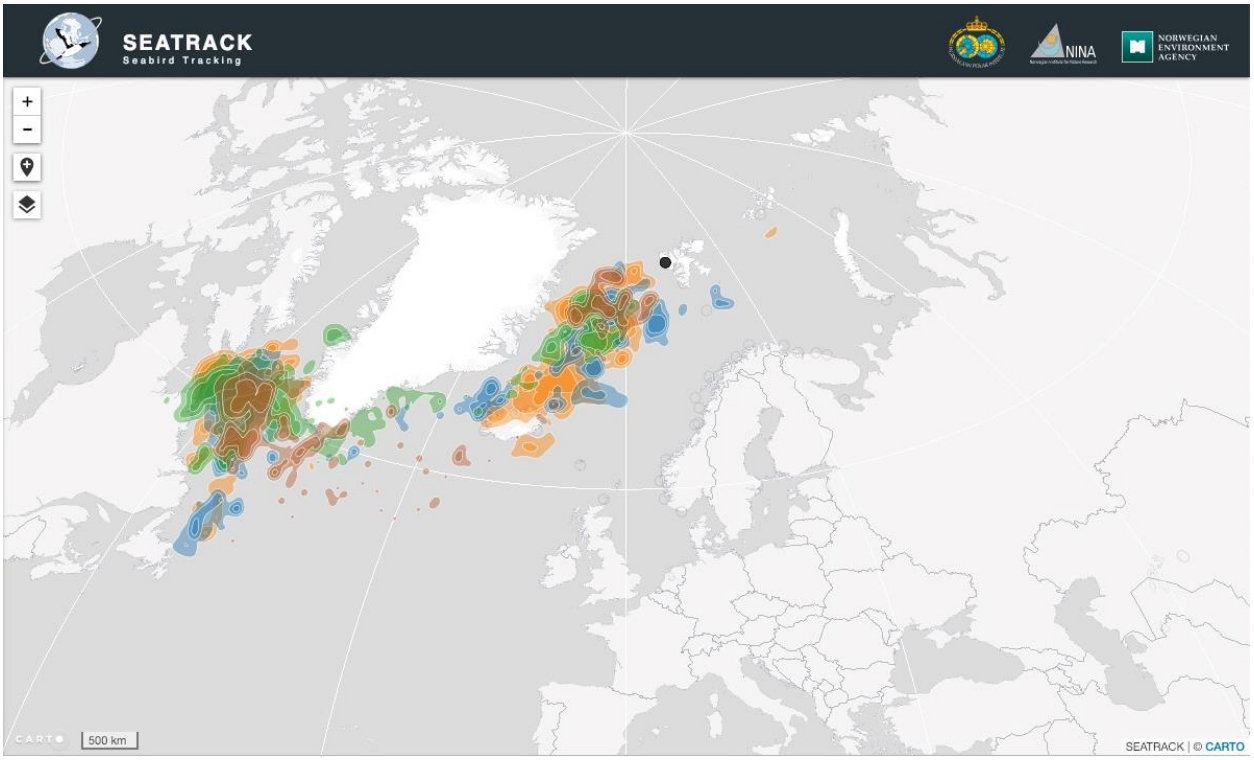
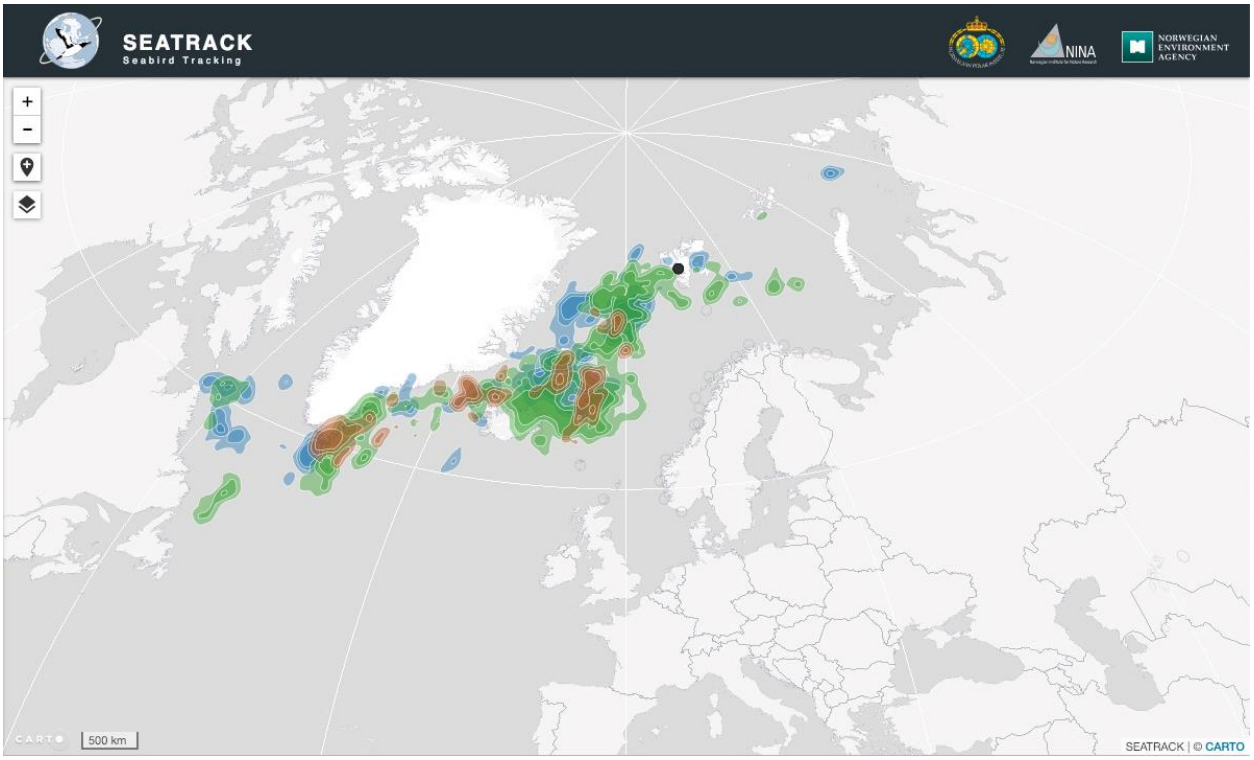

SEATRACK
Seabird Tracking
NINA
NORWEGIAN ENVIRONMENT AGENCY
500 km
SEATRACK | © CARTO

(d)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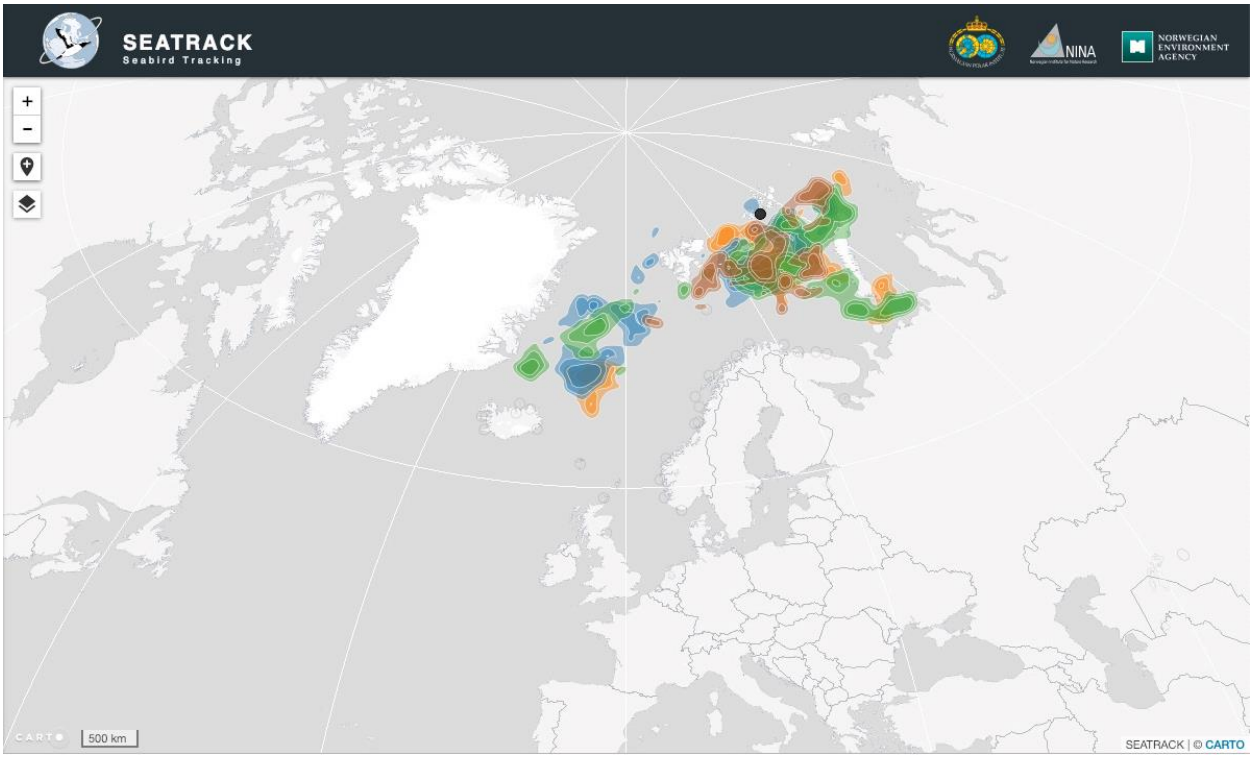
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DELENIATION OF BIOGEOGRAPHIC POPULATIONS OF THE THICK-BILLED MURRE (*URIA LOMVIA*)

PROPOSAL TO CHANGE POPULATION DELINEATIONS

Compiled by Szabolcs Nagy (representative of Wetlands International to the Technical Committee)

Name of population(s):

Uria lomvia lomvia (Thick-billed Murre), E North America, Greenland, E to Severnaya Zemlya[9]

Current status on AEWA Table 1:

Category 2c of Column B

What is the issue?

The entire range of the *U. l. lomvia* subspecies in the Agreement is treated as a single population, but there are two migratory pathways identified in the Atlantic associated with the Labrador and the Greenland Currents. Birds from Arctic Canada and W Greenland move south to E Newfoundland (shelf and Grand Banks) and Nova Scotia; those from the European Arctic move SW towards W Greenland, these include Spitsbergen birds that reach both SW Greenland and Newfoundland waters (HBW). Therefore, it is proposed to define [1] a W Atlantic and [2] an E Atlantic biogeographic population (Figure 1). Both the breeding and the wintering grounds of the W Atlantic population are situated partly outside of the Agreement area.

AEWA's taxonomic reference also recognises *U. l. eleonorae* and defines its breeding distribution area from E Taymyr Peninsula E to New Siberian Island but does not clarify its wintering area. This subspecies was not considered in document AEWA/MOP 3.16 although its breeding range falls partly within the agreement area. According to Gavrilo (pers. com. 2019), only one breeding colony of this subspecies is within the Agreement area. Therefore, no listing on AEWA Table 1 is justified.

What is the evidence supporting the proposal?

This is basically consistent with McFarlane-Tranquilla et al. (2014) and with the SEATRACK data (Figure 2). Frederiksen et al. (2016) provides an overview of the estimated wintering numbers by origin of breeding areas.

Lyngs (2003) note that the few eastern "birds recovered in May-Sep either have dubious recovery dates or may be of wounded birds; perhaps a few imm. birds remain to summer", which suggest that overlap between the western (N America - W Greenland) and eastern (Iceland, Svalbard, Russia to Severnaya Zemlya) populations occur only in the winter, but no indication of exchange during the breeding season.

[9] Maria Gavrilo noted that no *U. lomvia* is breeding on Severnaya Zemlya. Therefore, the current AEWA name of the population is incorrect.

There is also no ringing (EURING) or geolocator (see above) evidence that birds breeding in the W Atlantic would reach the E Atlantic.

It is estimated that less than 75% of the entire range of the W Atlantic population would be situated within the Agreement area. However, birds from the Canadian Arctic winter mainly off of E Newfoundland and Labrador along with birds from Iceland and Svalbard and smaller numbers winter off W Greenland, Gulf of St Lawrence, Bay of Fundy and further south (BNA, Frederiksen et al. 2016). Gaston et al. (2012) estimated the breeding population of *U. lomvia* at 1,540,000 pairs. From this, c. 590,000 pairs would be in the Agreement area. There are also 342,000 pairs estimated for Greenland, including only 1% of this in the east (Merkel et al. 2014). This means that nearly 50% of the proposed W Atlantic biogeographic population breeds within the Agreement area. High natal and breeding site fidelity (BNA) as well as colony specific core wintering areas (McFarlane et al. 2013, SEATRACK) suggest that both proposed populations could be even further divided. E.g. Figure 3 indicates that colony specific core wintering areas may also exist in case of the E Atlantic. However, this requires further analysis. Nevertheless, these considerations may justify listing the W Atlantic population also on Table 1 of AEWA.

What are the implications of the proposal including any changes in status on AEWA Table 1?

[1] *U. lomvia lomvia,* W Atlantic: The populations size exceeds 100,000 individuals. The larger Canadian population is increasing by 1% per year (Gaston pers. com. to Hentati-Sundberg 2011), but it has declined by 20-40% from the mid-1950s to the late 1970s. W Greenland 35-50% decline 1930-1990 and continuing (HBW, BirdLife International 2015, Merkel et al. 2014). Therefore, it is proposed to list the population in Category 2c in Column B. This represents no change compared to the current listing of the *U. l. lomvia* subspecies.

[2] *U. lomvia lomvia,* E Atlantic: The population is estimated around 1,067,000 – 1,367,000 pairs (5)). Hence, it exceeds 100,000 individuals and is declining (BirdLife International 2015, Fauchald et al. 2015). Therefore, the population could be listed in Category 2c in Column B. This represents no change compared to the current listing of the *U. l. lomvia* subspecies.

Figure 7. Proposed delineation of the Atlantic populations of *U. lomvia*. (Note: the range map produced by BirdLife International is only to provide a backdrop for the flyway delineation. It will require update at a later stage to incorporate the correction proposed by experts during the consultation process).

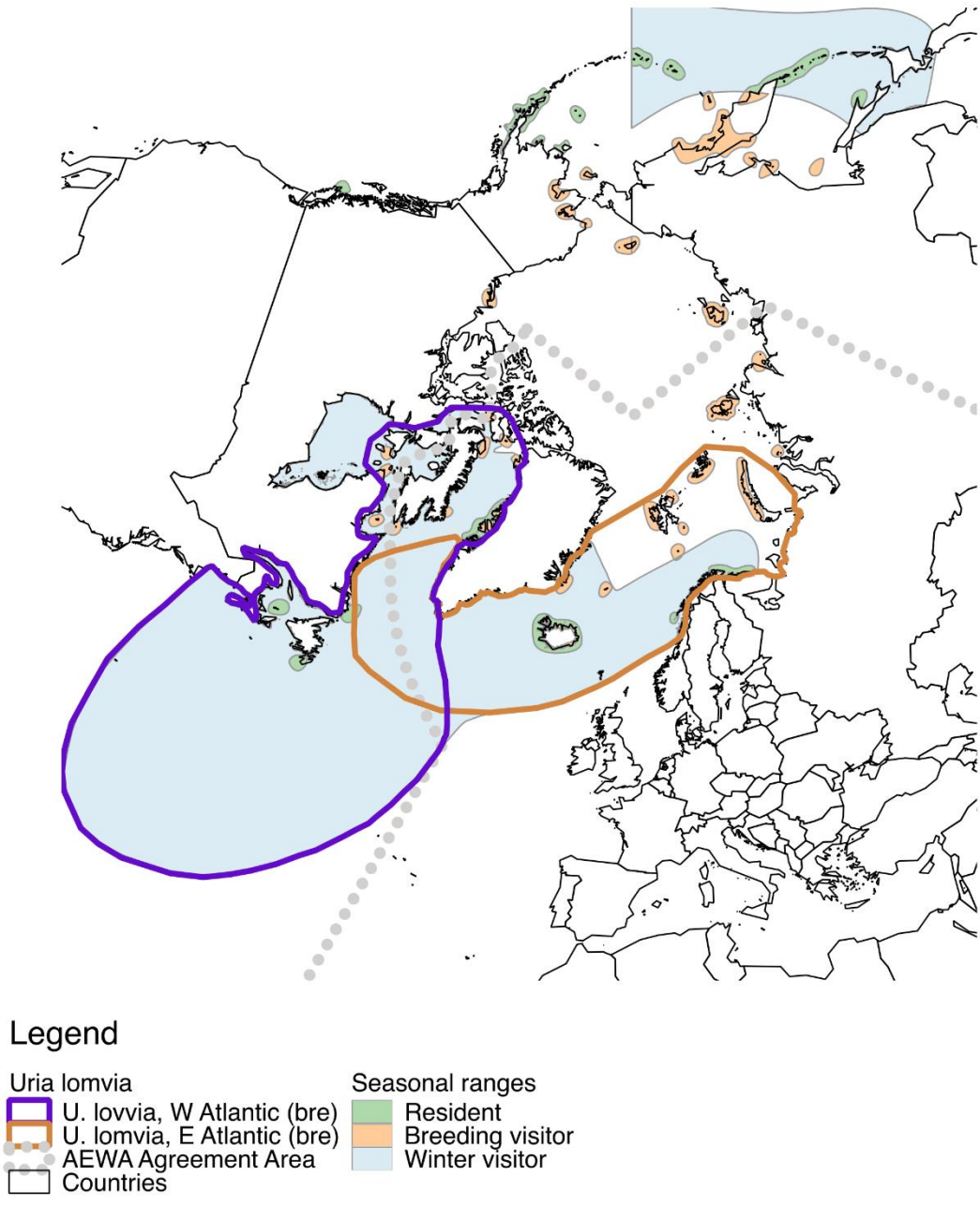


Figure 8. Non-breeding distribution of *U. lomvia* breeding at colonies in the E Atlantic based on geolocator data between 2012 and 2017. Colours indicate different years. Black dots indicate the colonies where birds were captured (Source: SEATRACK).

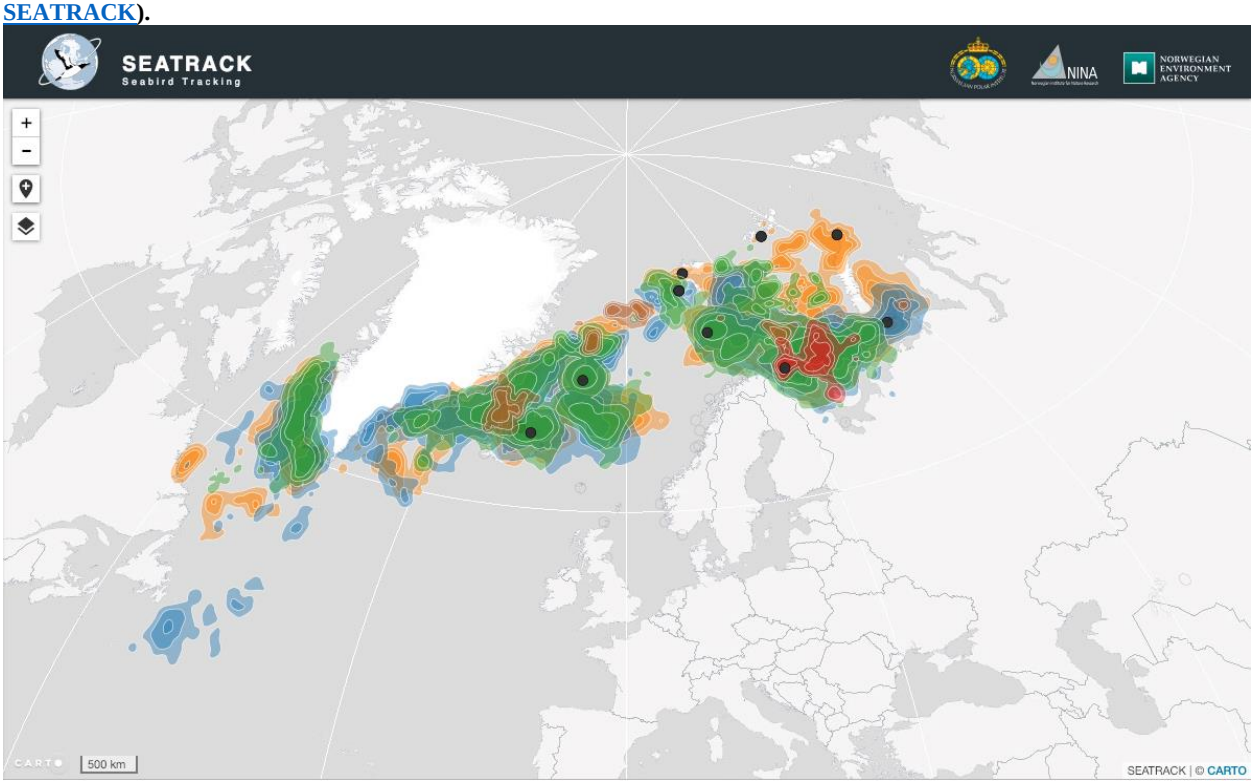
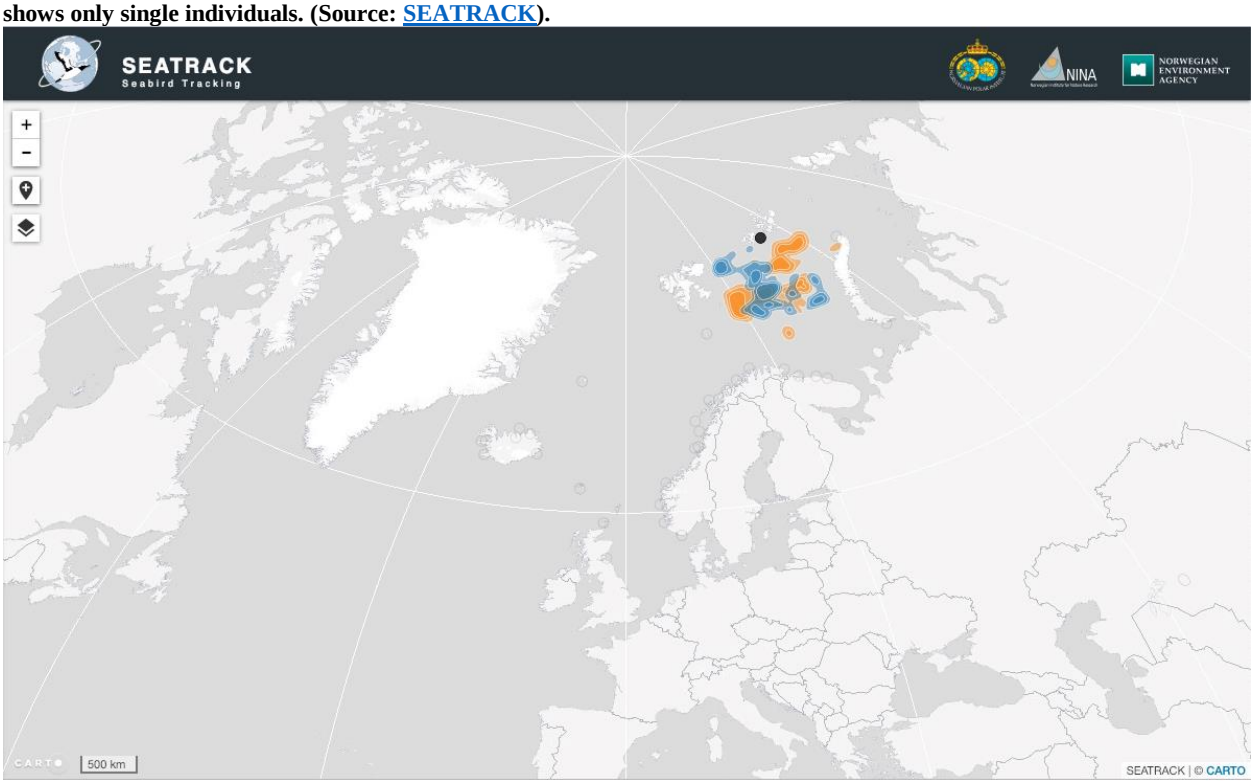
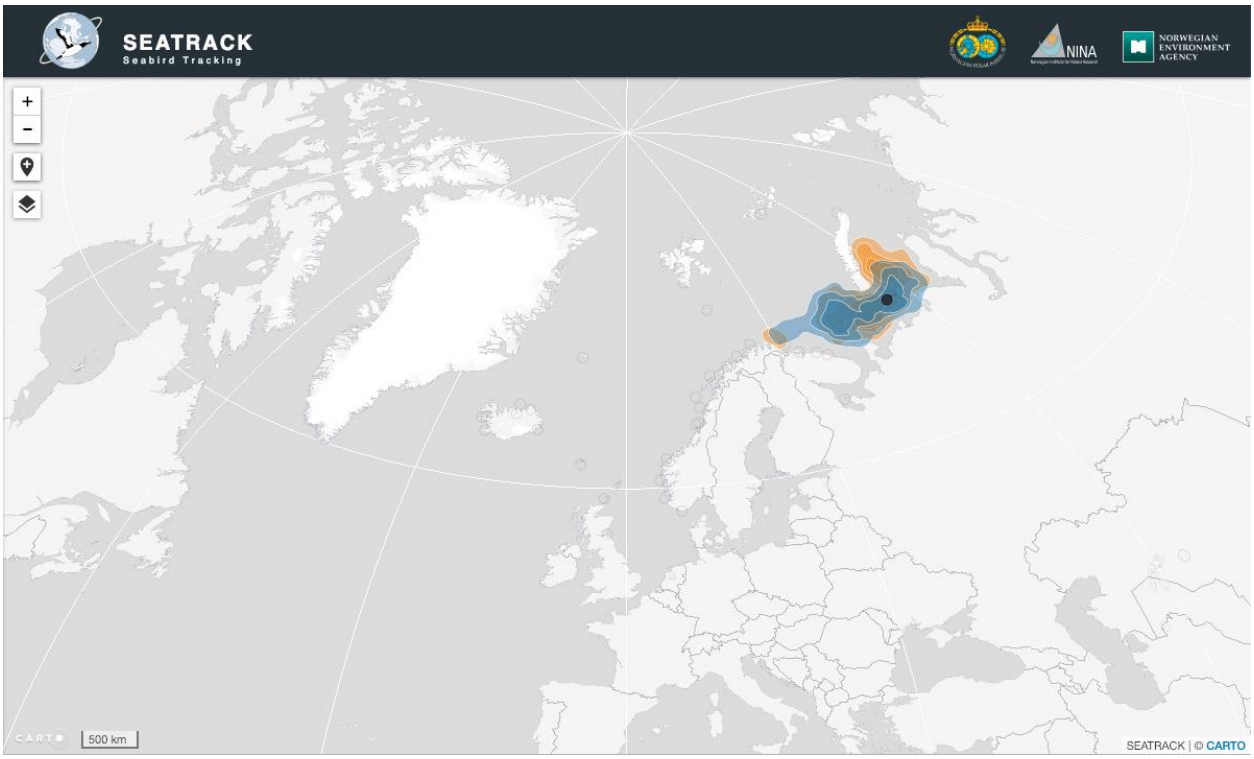


Figure 9. Non-breeding distribution of *U. lomvia* breeding at colonies in the E Atlantic based on geolocator data between 2012 and 2017. Colours indicate different years. Black dots indicate the colonies where birds were captured. Sometimes, it shows only single individuals. (Source: SEATRACK).

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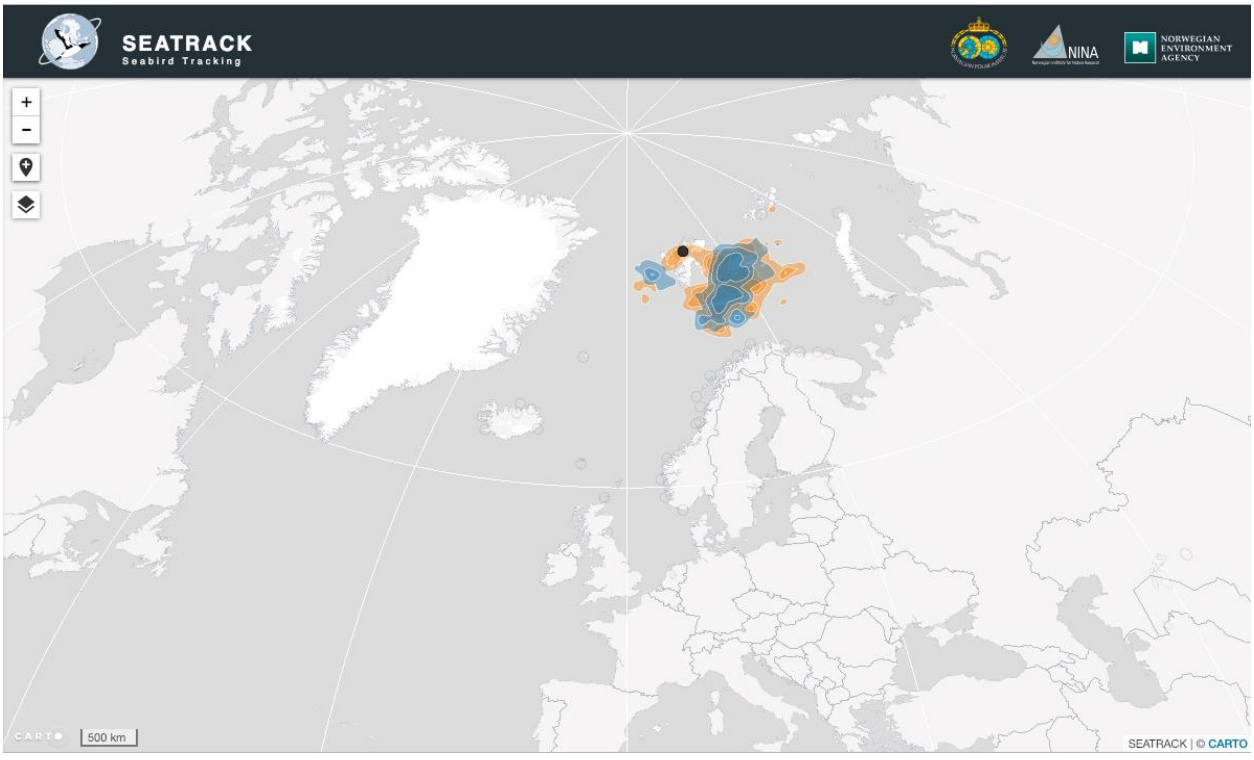
SEATRACK | © CARTO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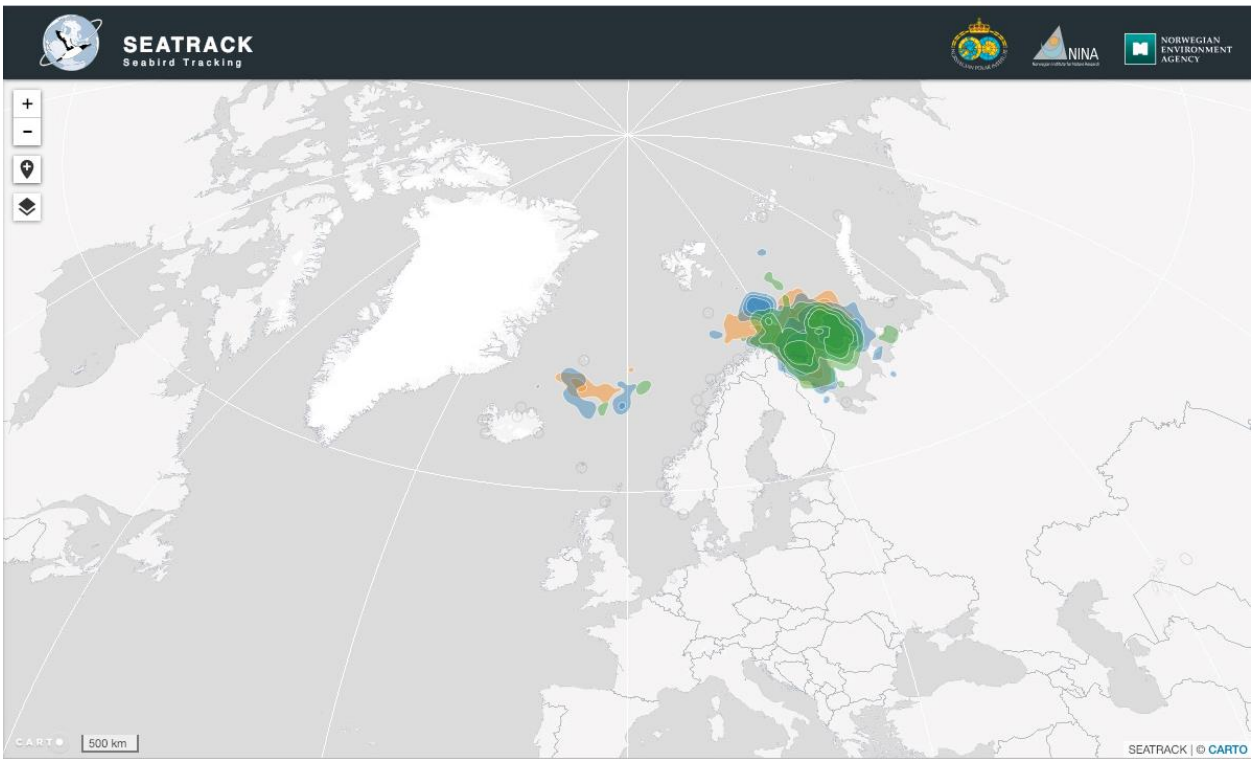
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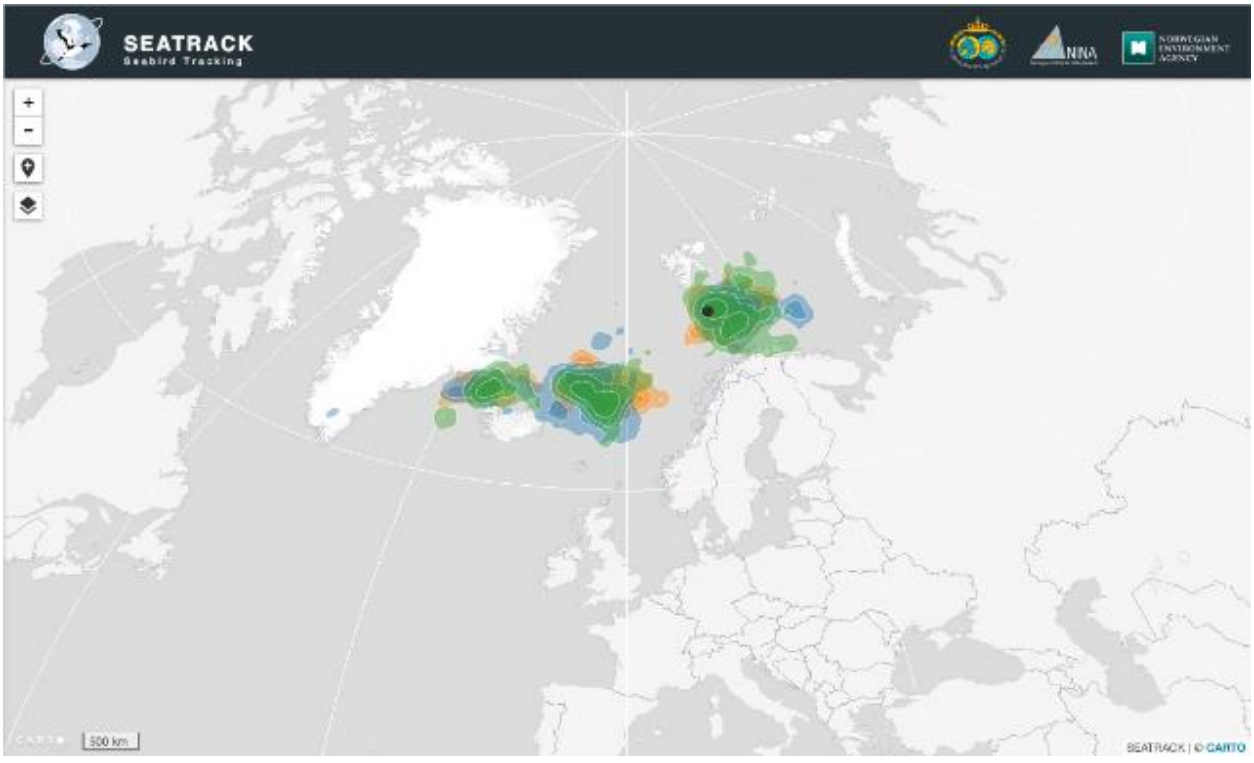
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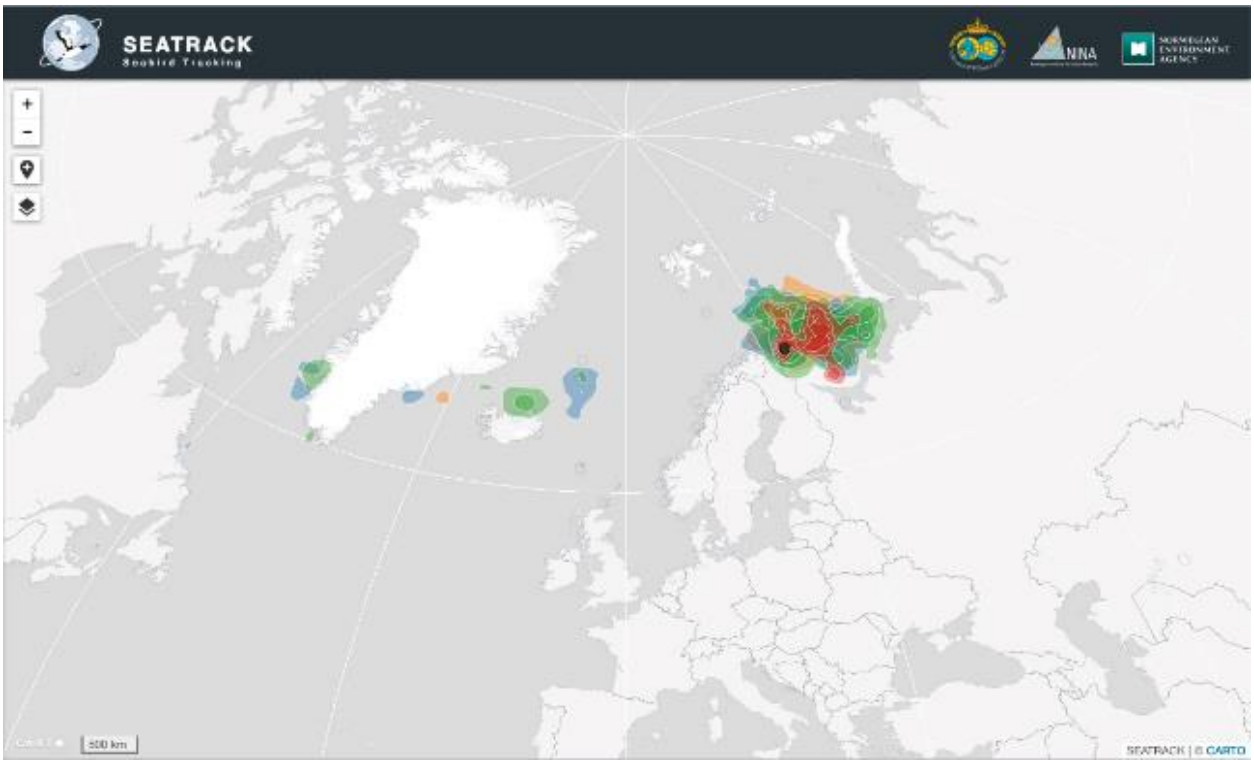
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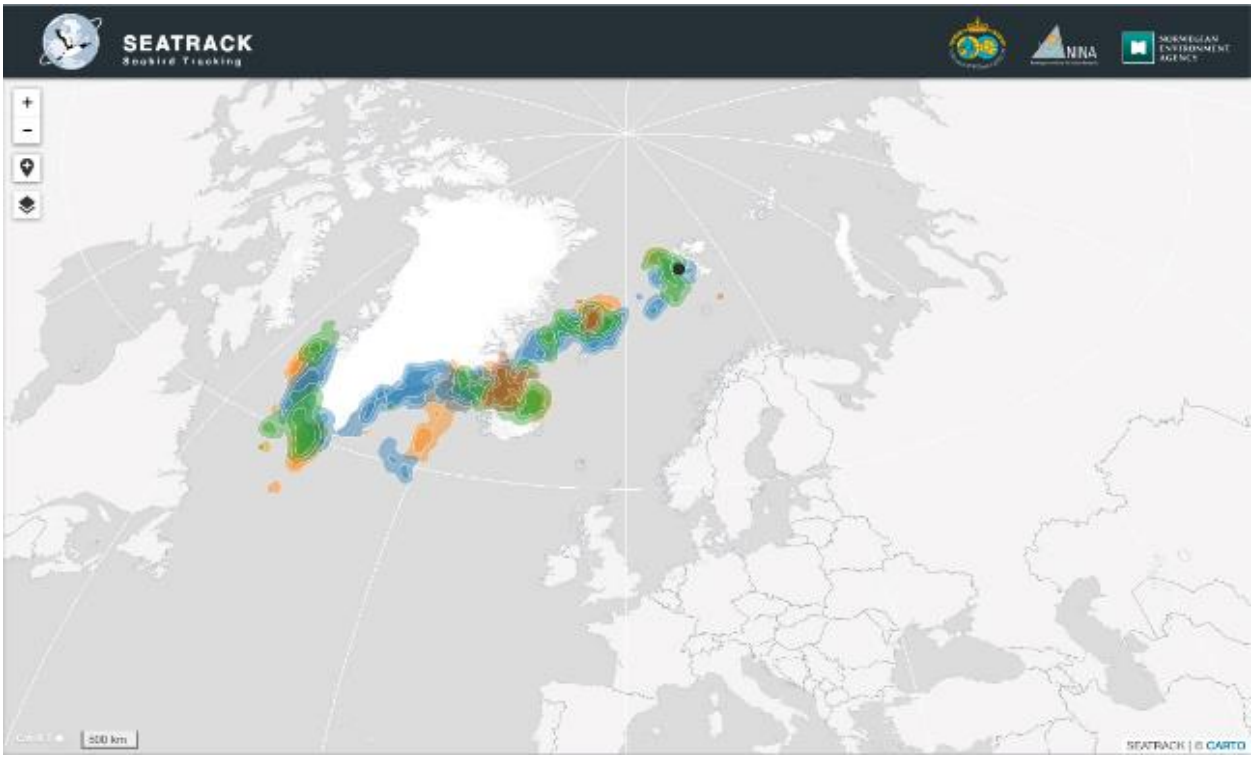
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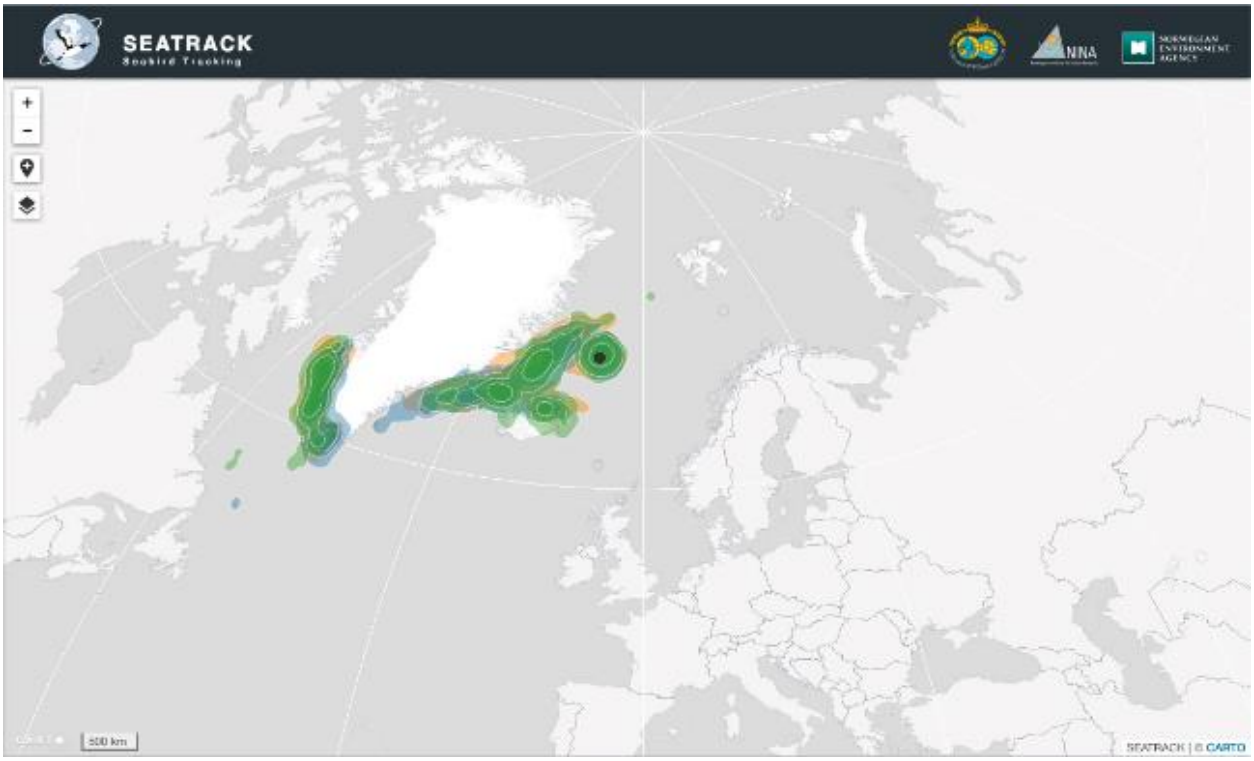
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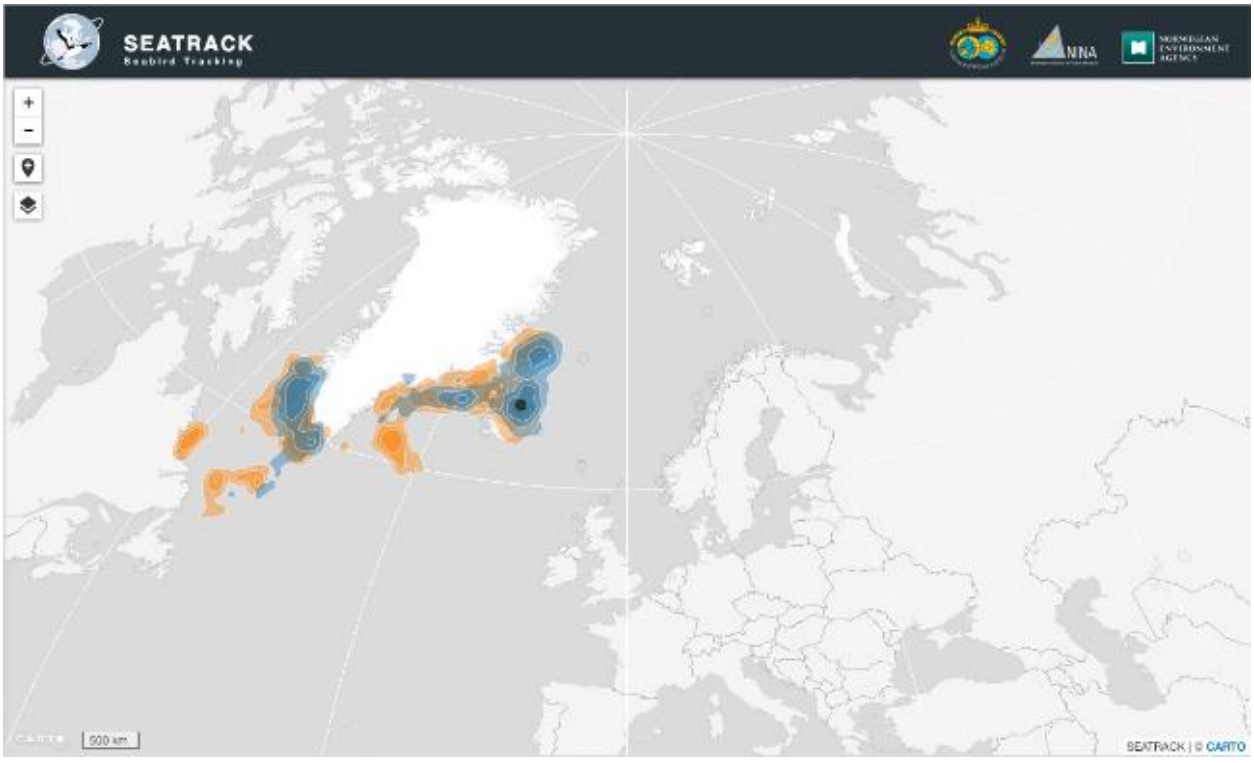
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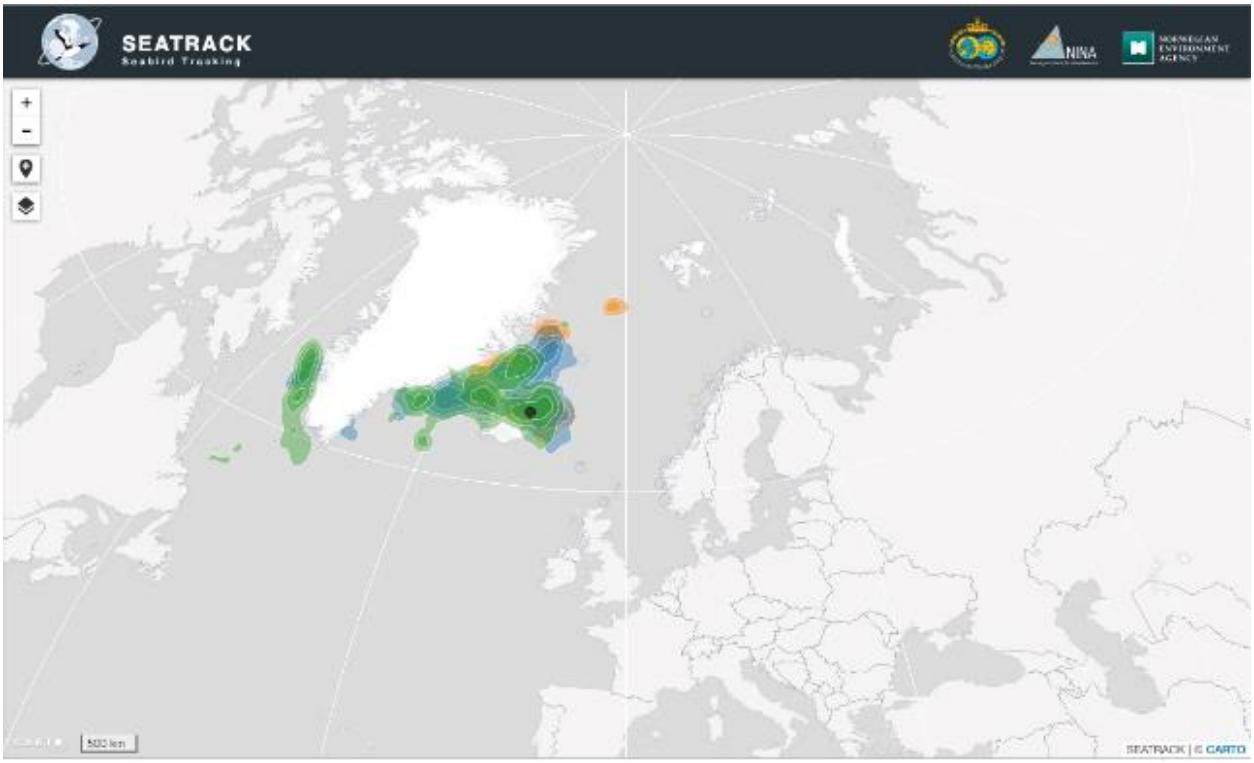
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DELENIATION OF BIOGEOGRAPHIC POPULATIONS OF THE COMMON MURRE (*URIA AALGE*)

PROPOSAL TO CHANGE POPULATION DELINEATIONS

Compiled by Szabolcs Nagy (representative of Wetlands International to the Technical Committee)

Name of population(s):

[1] *Uria aalge aalge* (Common Murre), Iceland, Faeroes, Scotland, S Norway, Baltic
[2] *Uria aalge albionis* (Common Murre), Ireland, S Britain, France, Iberia, Helgoland

Current status on AEWA Table 1:

[1] Category 2c of Column B
[2] Category 1 of Column C

What is the issue?

[1] Based on AEWA/StC/12.12/Rev.1, the 12th meeting of the Standing Committee and subsequently MOP7 has accepted the removal of the N American and Greenland segment of the *U. a. aalge* subspecies. However, during the revision of the flyway definitions for the CSN Tool it has emerged that the Baltic breeding birds mainly remain within the Baltic and are largely separated from the East Atlantic segment of the subspecies throughout the year. Therefore, it is proposed to define two biogeographic populations of *U. a. aalge* (Figure 1) noting that further subdivisions might be possible later:

[1a] *Uria aalge aalge*, East Atlantic: Iceland, Jan Mayen, Faeroes, Scotland, S Norway,
[1b] *Uria aalge aalge*, Baltic.

[2] Although this has not been reflected in the name of the population, Table 1 on page 16 of the document AEWA/StC/12.12/Rev.1 has erroneously allocated the breeding populations of France, Germany (Helgoland), Portugal and Spain to *U.a. aalge* instead of *U. a. albionis*.

What is the evidence supporting the proposal?

[1] Lyngs & Kampp (1996) showed that Baltic Guillemots are largely sedentary, and few are recovered outside the Baltic. Only some immatures venture further and have been recovered as far away as Britain and northern Norway; also, the small colony on Hallands Väderö, W Sweden, was probably founded by birds from the Baltic. Ringing data of birds breeding in Finland also confirm this (Mia Rönkä pers. com., Figure 2). According to Peterz & Blomqvist (2010) morphological differences are minimal, but ringing recoveries indicate intermittent exchange between Baltic and North Sea birds. Lyngs & Kampp (1996) shows also that birds from the North Atlantic colonies only occur occasionally in the Baltic proper.

Considering the strong natal philopatry and high breeding site fidelity as well as that specific colonies may have specific wintering areas, the East Atlantic biogeographic population might be further subdivided in the future. Colony specific geolocator data from 2013 – 2017(SEATRACK, Figure 3) indicates that Icelandic birds remain mainly around Iceland but may range as far as E Greenland and the Shetland Islands. The non-breeding range of birds from Jan Mayen seem to be much bigger and partly overlapping with the Icelandic birds. Birds from the Isle of May, UK, seem to be confined to the North Sea based on the

SEATRACK data, but Harris et al. (2015) indicated some moult movements to the Barents Sea, similar to Lorentsen & May (2012) from S Norway.

[2] *U. aalge* breeding on Helgoland (Germany), France, Spain and Portugal belong to the *U. a. albionis* subspecies according to the HBW and BirdLife International Illustrated Checklist and HBW Alive, AEWA's taxonomic references. The Supplementary Material to the European Red List for the species has treated the breeding birds in France and Germany as *U. a. albionis*, while the birds breeding in Spain and France were reported as *U. a. ibericus*. However, the latter form is not recognised by HBW and it is included into *albionis*. Table 1 in the document AEWA/StC/12.12/Rev.1 was compiled based on Harris & Wanless (2007)[10] and probably followed the position of Knox (2012) who argue that *U. a. hyperborea* should be merged with *U. a. aalge*. However, this view has not been taken up by AEWA's taxonomic reference although the species account has been updated three times since 2012. Harris & Wanless (2007) have defined the ranges of the various subspecies as follows on page 845: "Nominate *aalge* breeds along the coasts of North America, Greenland, Iceland, Faroes, Scotland north of 55o 38'N, southern Norway and the Baltic Sea; *albionis* in Ireland, Britain north to 55o 38'N, from Brittany to west Iberia and Helgoland; and *hyperborea* from Svalbard and northern Norway, east to Novaya Zemlya …". This definition is consistent with the one in the HBW. Therefore, the Table 1 to document AEWA/StC/12.12/Rev.1 is updated to be consistent with AEWA's taxonomic reference:

	aalge	***albionis***	***hyperborea***
UK: Scotland (N, W & E)	*aalge*		
UK: Scotland (S)		*albionis*	
UK: England (Northumbria)	*aalge*		
UK: England (minus Northumbria)		*albionis*	
UK: Wales		*albionis*	
UK: Northern Ireland		*albionis*	
Ireland		*albionis*	
France	*aalge*	*albionis*	
Germany (Helgoland)	*aalge*	*albionis*	
Spain	*aalge*	*albionis*	
Portugal	*aalge*	*albionis*	
Sweden	*aalge*		
Denmark	*aalge*		
Finland	*aalge*		
Faroes	*aalge*		
Iceland	*aalge*		
Norway (N)			*hyperborea*
Norway (S)	*aalge*		
Bear Island	*aalge*		*hyperborea*
Jan Mayen	*aalge*		
Spitzbergen Svalbard	*aalge*		*hyperborea*
Russia (Baltic)	*aalge*		
Russia (Arctic)			*hyperborea*

[10] Harris, M. & Wanless, S. 2007. Common Guillemot Uria aalge. Pp. 845-849. In: The Birds of Scotland. eds. Forrester, R.W. & Andrews, I.J. Scottish Ornithologists' Club, Aberlady.

What are the implications of the proposal including any changes in status on AEWA Table 1?

[1a] *Uria aalge aalge*, E Atlantic: more than 4.7 million individuals in Iceland, the Faroes, S Norway and Scotland (Berglund & Hentati-Sundberg 2014). It is rapidly declining in Iceland, Scotland and Norway at least in the short-term (BirdLife International 2015, Fauchald 2015). Therefore, it should be classified in Category 2e of Column B. This change from Category 2c of Column B represents now legal implications because the population remains listed in the same column. It simply reflects the revised definition of the criteria for long-term and short-term declines adopted in the AEWA MOP Resolution 7.4.

[1c] *Uria aalge aalge*, Baltic: The population size in Sweden (58,000 individuals), Denmark (8400 individuals) and Finland (105-210 individuals) is more than 25,000 but less than 100,000 individuals (Berglund & Hentati-Sundberg 2014). As the population has increased in the long-term and stable in the short-term (BirdLife International 2015, it should be classified in Category 3 in Column A.

[2] *Uria aalge albionis*: the current population estimate includes birds breeding on Helgoland, France, Portugal and Spain. Hence, the correction of the definition has no consequences for the classification of the population on Table 1. It should remain in Category 1 of Column C.

Figure 10. Delineation of the proposed biogeographic populations of *U. a. aalge* and the delineation of the ranges of the other populations of *U. aalge* recognised in Table 1 of the AEWA Action Plan. (Note: the range map produced by BirdLife International is only to provide a backdrop for the flyway delineation. It will require update at a later stage to incorporate the correction proposed by experts during the consultation process).

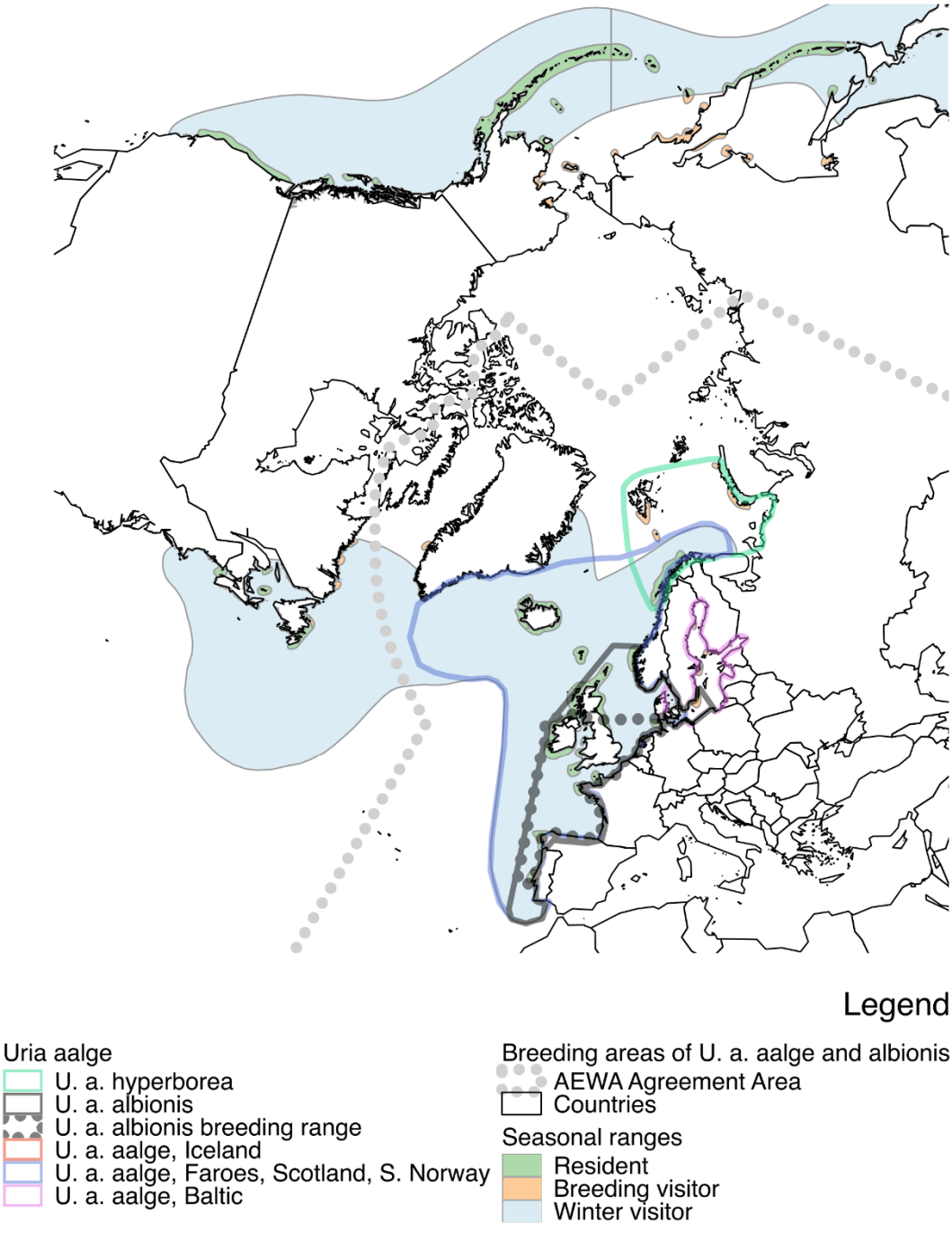


Figure 11. Ringing (blue) and recovery (red) locations of birds ringed in Finland (Source: Mia Rönkä pers. com.).

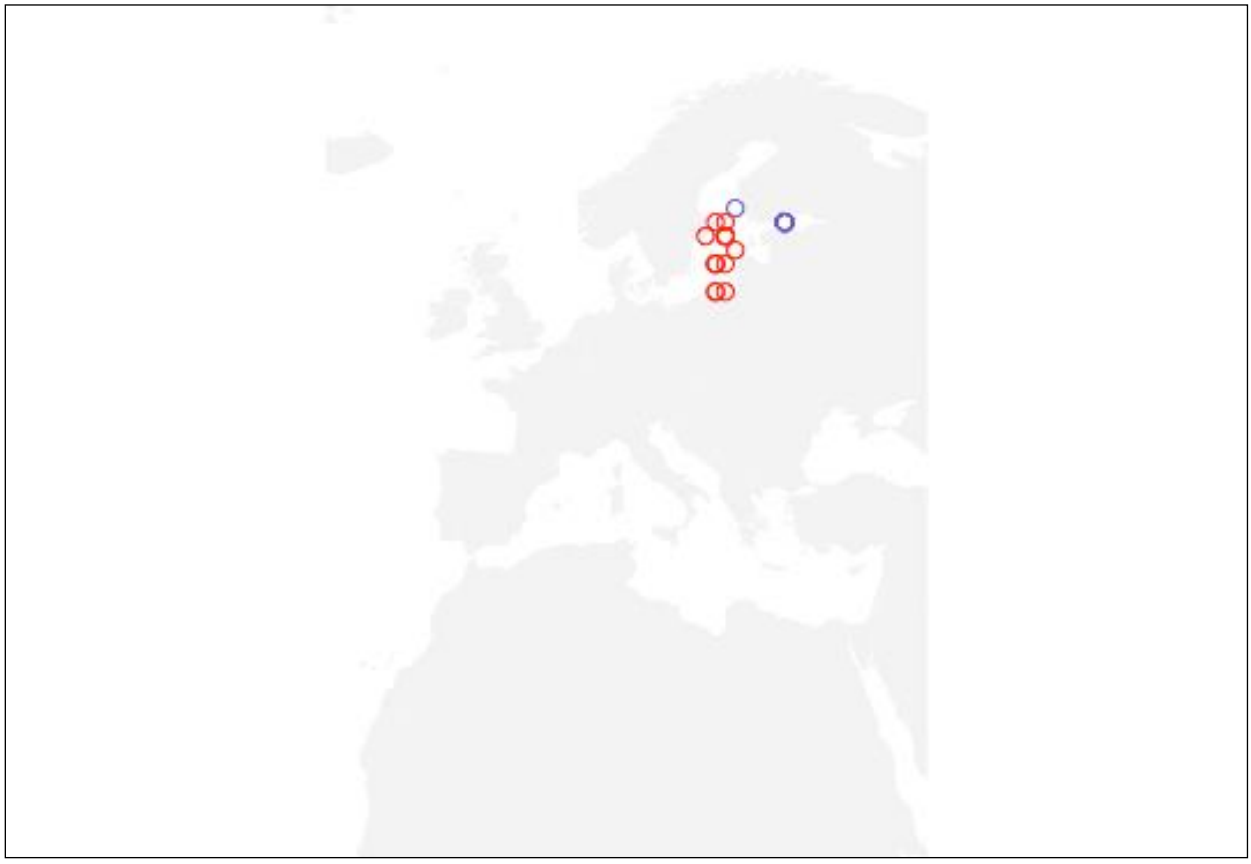
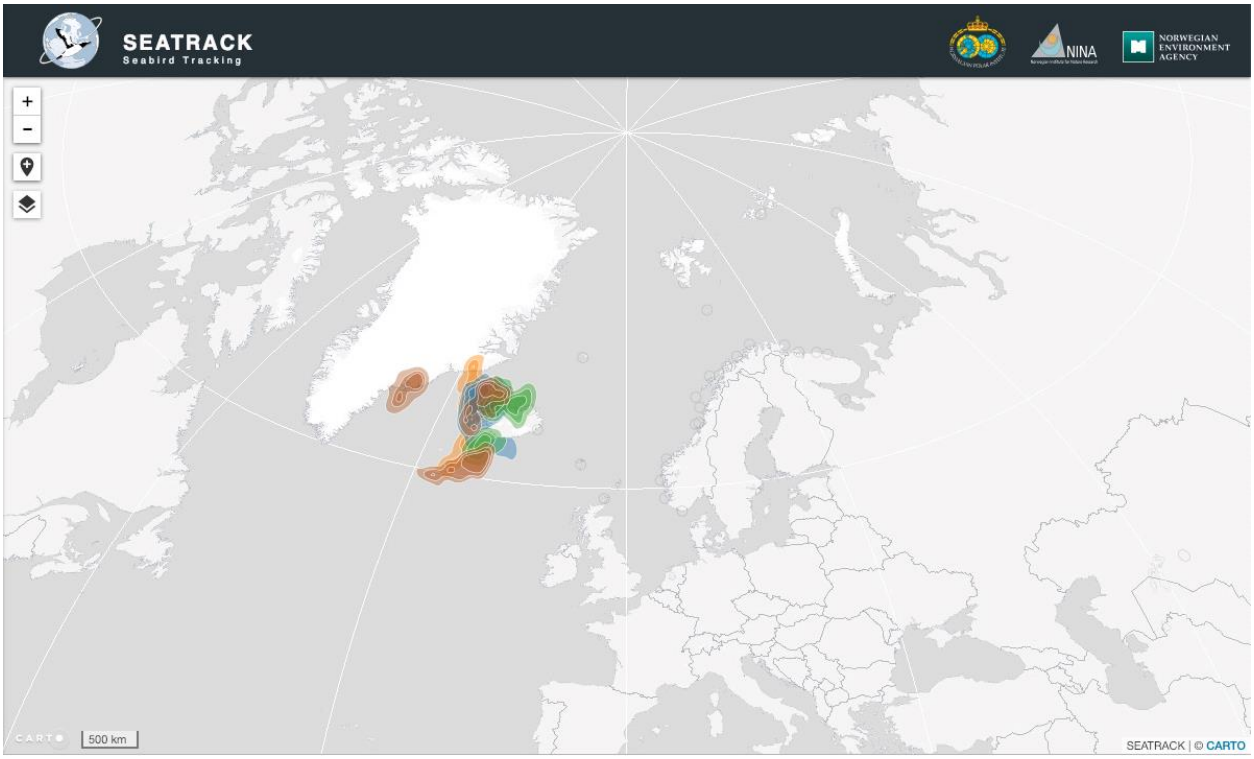
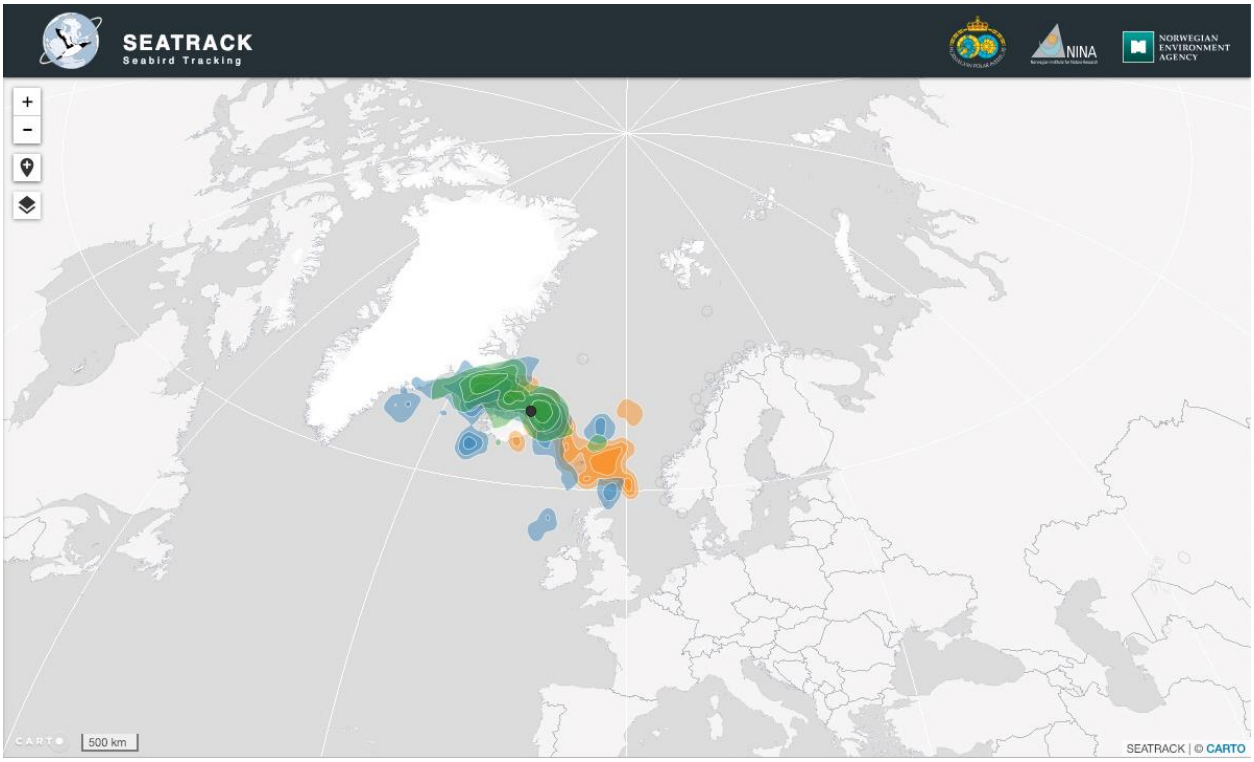


Figure 12. Non-breeding distribution of *U. a. aalge* breeding at colonies in the E Atlantic based on geolocator data between 2013 and 2017. Colours indicate different years. Black dots indicate the colonies where birds were captured. Sometimes it shows only single individuals. (Source: SEATRACK).

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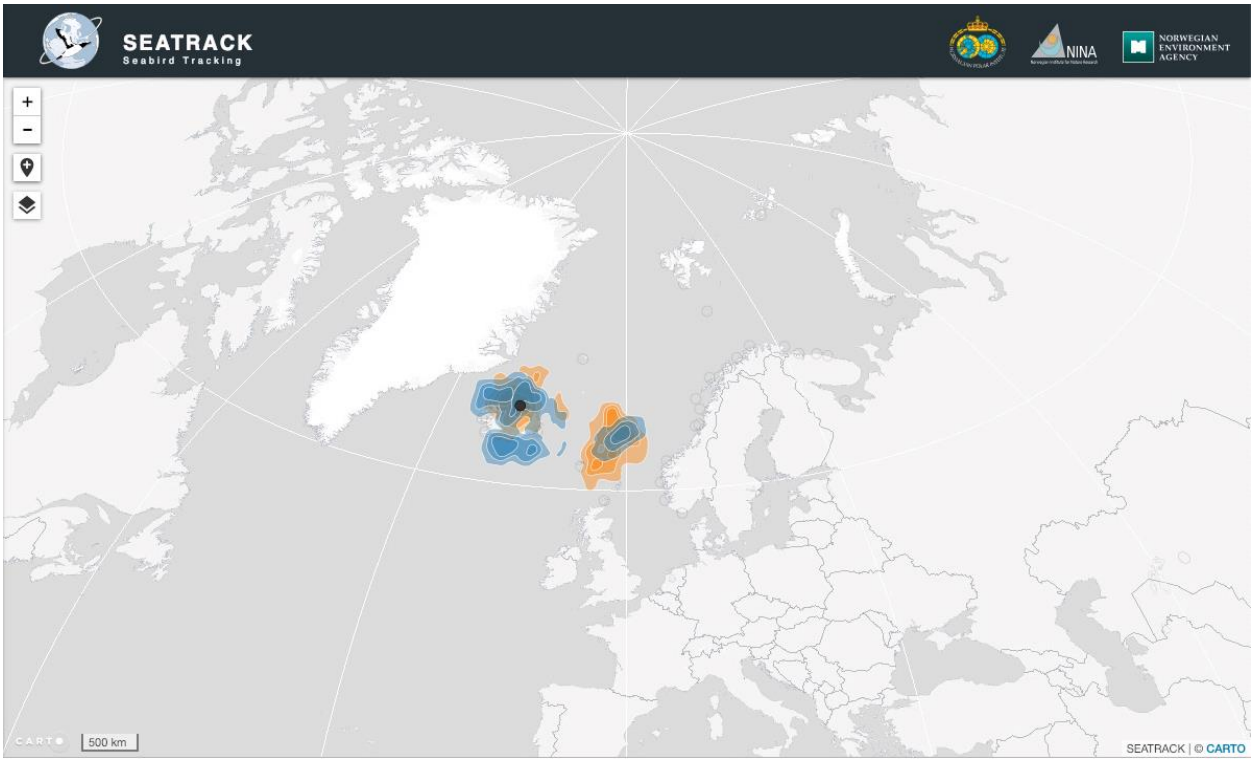
NORWEGIAN ENVIRONMENT AGENCY
500 km
SEATRACK | © CARTO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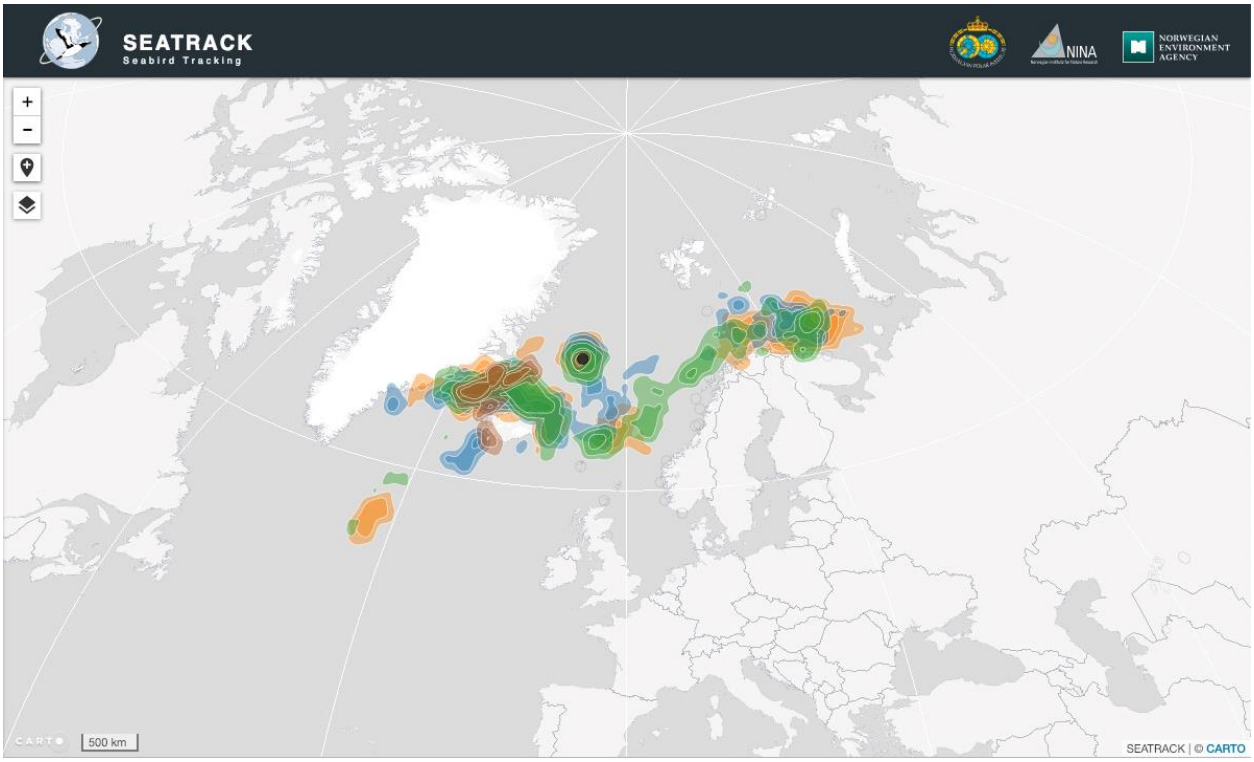
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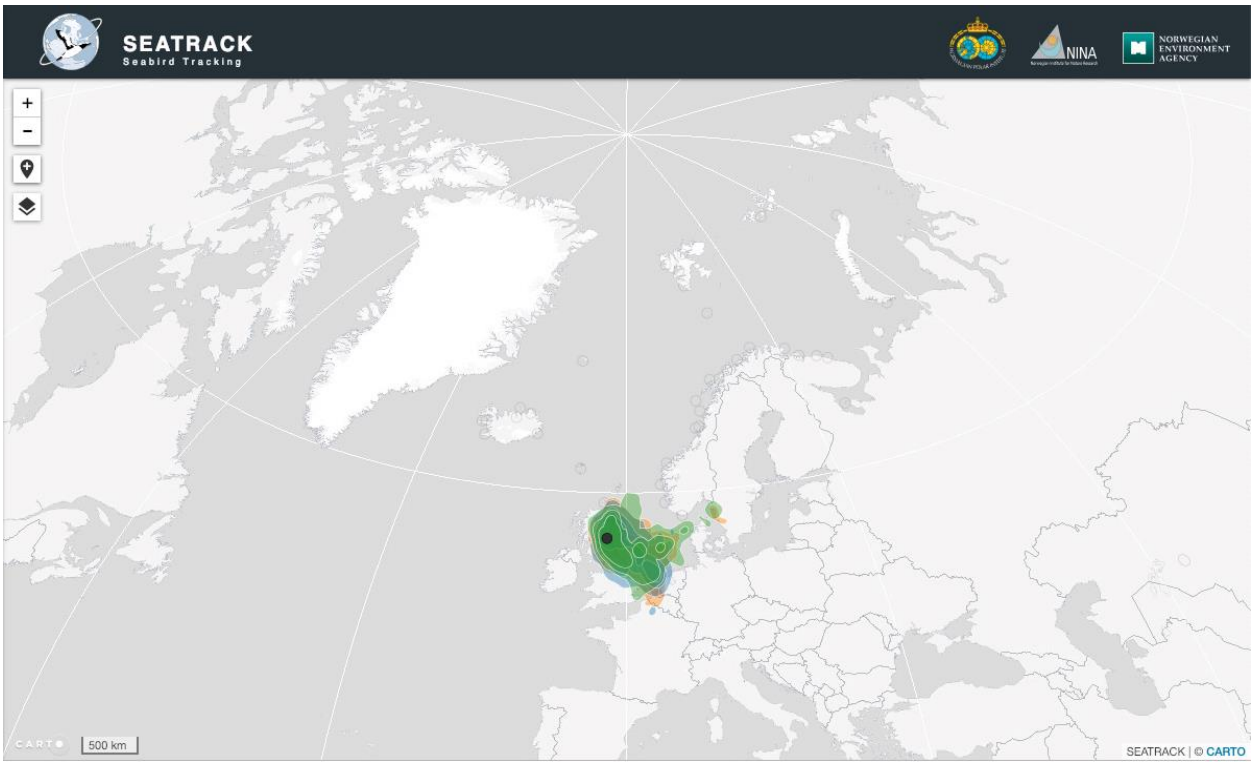
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PROFORMA ON PROPOSAL TO CHANGE DELINEATIONS OF WATERBIRD POPULATIONS LISTED ON TABLE 1 OF ANNEX 3 TO AEWA

Compiled and submitted by:
The proposal was compiled and submitted by the AEWA-Eurasian Spoonbill International Expert Group.
Coordinator: Dr. Jelena Kralj, Institute of Ornithology, Croatian Academy of Sciences and Arts, Gundulićeva 24, HR-10000 Zagreb, Croatia. jkralj@hazu.hr.
Chair: Dr. Jocelyn Champagnon, Tour du Valat, Le Sambuc, 13200 Arles, France.
champagnon@tourduvalat.org.

Date of submission: 28 June 2019

Name of population:
Platalea leucorodia leucorodia (Eurasian Spoonbill)
C & SE Europe/Mediterranean & Tropical Africa

Current status on AEWA Table 1: Category 2 of Column A

What is the issue?

AEWA recognised three populations of the nominate subspecies, one of which is C & SE Europe/Mediterranean & Tropical Africa. International Single Species Action Plan (ISSAP) for the Conservation of the Eurasian Spoonbill (Triplet et al. 2008) describes the Central and South-eastern European population as one population breeding in the Danube basin, Northern Italy, Greece, the Black Sea region and Anatolia. However, the distinct wintering areas of birds from western and eastern colonies already suggested two separate populations and it was pointed out that the information was lacking. Triplet et al. (2008) quoted: "*Further studies may reveal whether two separate populations are involved*".

An increasing number of data and published results since 2008 based on colour-ring resightings and remote bird tracking clearly confirmed different migration routes and wintering areas for populations from Central Europe and South-eastern Europe.

Based on the fact that breeders from Central Europe (Hungary, Croatia, Serbia, Czechia, Slovakia, Austria, Western Romania, Italy, Montenegro and South-eastern France) and South-eastern Europe (Bulgaria, Eastern Romania, Greece, Ukraine, Turkey, Moldavia) use different migration routes and wintering areas, splitting of the C & SE European population into the Central European population and the South-eastern European population is proposed (Fig 1).

What is the evidence supporting the proposal?

Central European Spoonbills use mostly the Adriatic/Central Mediterranean flyway and winter in Italy, Northern Africa (mostly Tunisia) and the Niger Basin (Pigniczki 2010, EGA–RAC/SPA 2012, Kralj et al. 2012, Pigniczki and Karcza 2013, Pigniczki et al. 2016). Movement analyses showed that 95.8 % of birds from Carpathian basin (Hungary, Croatia and Serbia) with known stopover sites used the Adriatic/Central Mediterranean flyway while 3.4% used East Mediterranean flyway (Pigniczki et al. 2016). Current analysis of known wintering areas of the same population showed that around 98% of birds used the Adriatic/Central Mediterranean flyway (Pigniczki et al. unpublished data). These results indicate that the East Mediterranean flyway is used by Central European population at much lower rate than in the early and mid-20th century (Müller 1984, Pigniczki 2010). From 303 Italian Spoonbills with known wintering sites located outside Europe, 95.7% wintered in North and Central Africa (using the Central Mediterranean flyway) and 4.3 %

in West Africa. The use of the Eastern flyway is indicated by only one bird born in 2004 and observed at Lake Manyas, Turkey in mid-May 2007 (S. Volponi, unpublished data).

Seven spoonbills (six Hungarian and 1 Italian) were GPS-tracked during their autumn migration from the Carpathian Basin, and all flew along the Adriatic FW to Tunisia (Fig 2, Pigniczki et al. 2016). In addition, 13 spoonbills from the River Po Delta were GPS-tracked during their first autumn migration and they all used the Central Mediterranean flyway (Fig 3, Volponi et al. 2015).

Ringing effort in **South-eastern Europe** is much lower, compared to Central Europe. Most birds from the Danube Delta use the East Mediterranean flyway, while 6.3% of 143 birds ringed in 2003 were migrating towards SW (Kiss et al. 2019). It should be noted that the detection rate is higher along the Adriatic flyway compared to the East Mediterranean flyway. Spoonbills from the Danube Delta overwinter in Eastern Mediterranean, East Africa and Arabian Peninsula (Oman) (Kiss et al. 2019). Along the East Mediterranean & East African Flyway the ring reading is very intensive in Israel where 300-500 birds were counted in winter (http://iwc.wetlands.org/index.php/nattotals). From 32 resightings reported in Israel since the year 2000, 91% belong to South-eastern European population (Eastern Romania, Greece and Turkey) and only 9% from the Central European population (Hungary and Serbia) (Y. Kiat, pers. comm.)

From breeding colonies, there is only small **connectivity** between the Danube Delta and the Carpathian Basin. Based on data registered during the last 80 years, one adult individual from Hungary was recovered in May 1931 in the Danube Delta (Romania) (Pigniczki 2010), and a young adult (5cy) from the Danube Delta was observed in Hungary in 2007 during the breeding season (Pigniczki 2017), however that individual was observed in the Danube Delta during the following years (Kiss et al. 2019). Thus, genetic flow between populations does probably exist, but in a similar degree of a current genetic connection between the population in the Carpathian Basin and Western European population (Pigniczki 2017).

Also, some level of interchange between populations is well documented in the Eurasian Spoonbill: a few individuals from the East Atlantic population, namely from Denmark and the Netherlands were observed in Hungary (Pigniczki 2017) and several wintering Dutch birds were observed in Tunisia (Smart et al 2007). It was estimated that 4.3% of the Italian birds have been wintering along the East Atlantic Flyway (S. Volponi, pers. com.). This information reflects similar connectivity between current population delineations between the West European and C & SE European population on the Critical Site Network Tool

What are the implications of the proposal including any changes in status on AEWA Table 1?

Population size of the Central European population is regularly monitored and currently estimated to 1,657 breeding pairs (bp), from which the majority (869 bp) breeds in Hungary (AEWA-ESIEG in preparation). Inversely, population estimates for the South-eastern European population are lacking but is probably around 2000bp (AEWA-ESIEG in preparation). As a consequence, both new populations qualify category 1 for Column A because both populations are numbering less than around 10,000 individuals.

Populations	**A**	**B**	**C**
Platalea leucorodia leucorodia (*Eurasian Spoonbill*)			
- West Europe/West Mediterranean & West Africa	2		
- C Europe/ Central Mediterranean & Tropical Africa	1c		
- SE Europe/ East Mediterranean, SW Asia & East Africa	1c		
- Western Asia/South-west & South Asia	2		

Based on this proposal, ISSAP for Eurasian Spoonbill may be revised and updated with the new populations.

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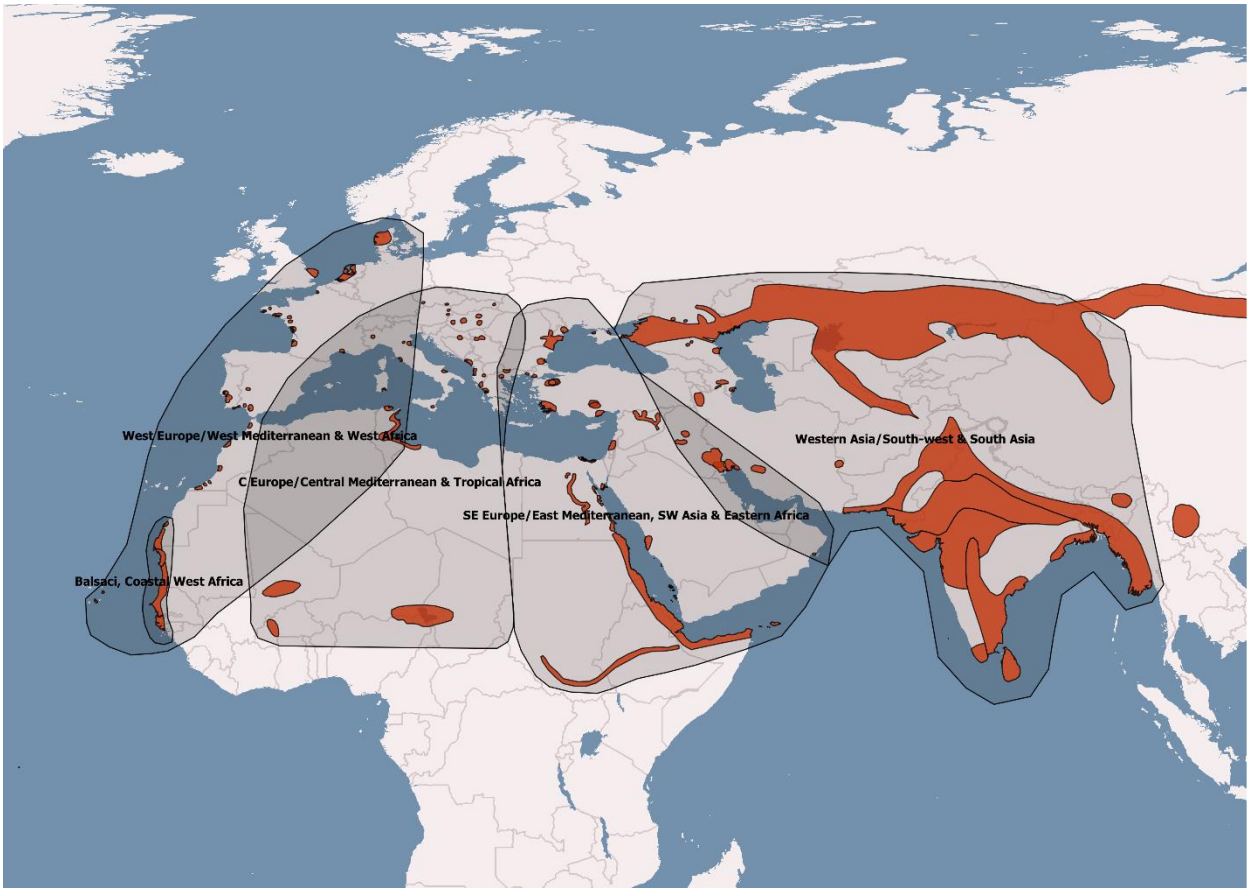

Figure 1: Proposed population delineations and flyways used by Eurasian spoonbill (*Platalea leucorodia leucorodia*). C Europe and SE Europe flyways have been split and SE Europe extended on its East range. Modified from http://criticalsites.wetlands.org/en/species/22697555?zoom=2&lat=46.437856895024204&lng=-31.289062500000004&view=map .

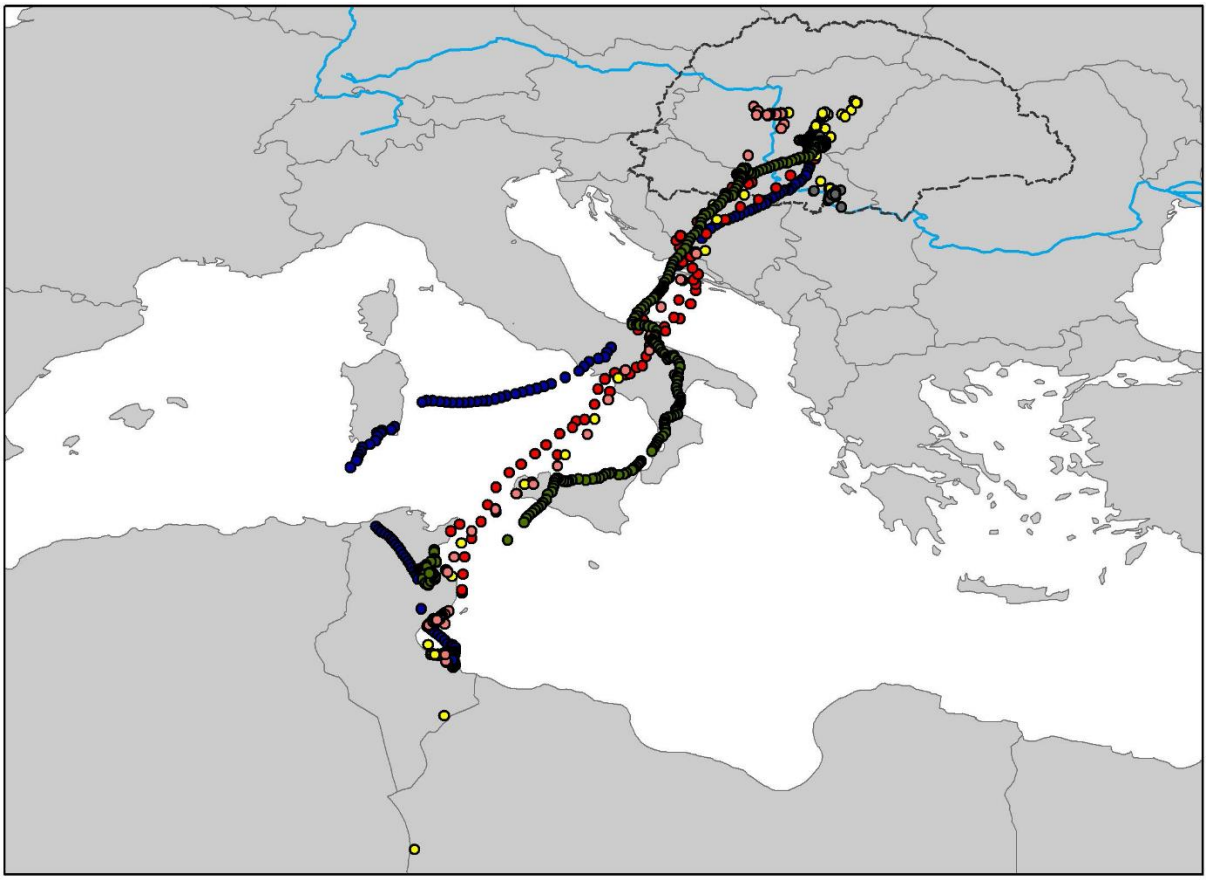

Figure 2. Movement of Spoonbills equipped with GPS-GSM loggers in Hungary (2017-2018) /Data source: Kiskunság National Park Directorate.

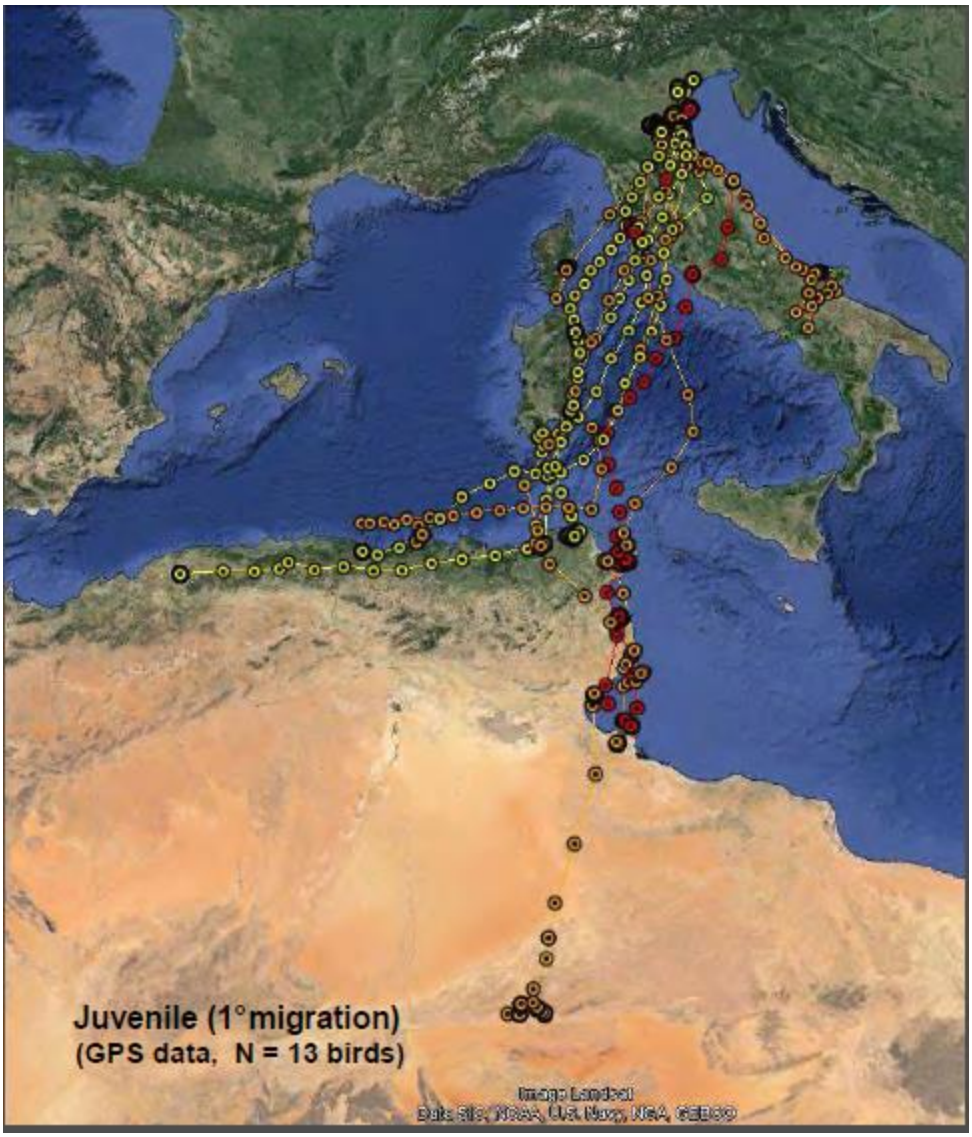

Figure 3. Movement of Spoonbills equipped with GPS-GSM loggers in Italy (N = 13)