



15th MEETING OF THE TECHNICAL COMMITTEE
09–11 April 2019, Bonn, Germany

**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 1 at 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).

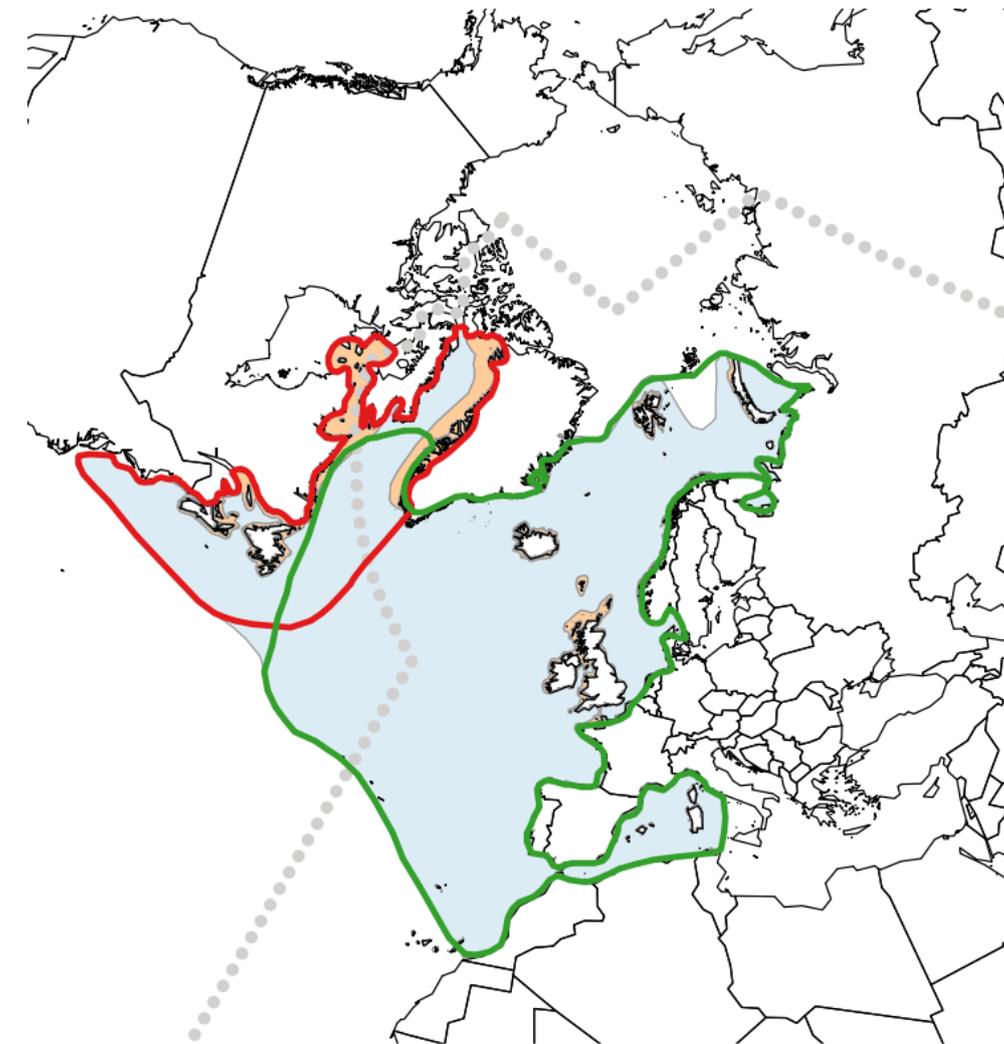
What are the implications of the proposal including any changes in status on AEWA Table 1?

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% or 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*



Legend

- | | | | |
|---|----------------------------|---|------------------|
| Fratercula arctica | | Seasonal ranges | |
|  | F. a., West Atlantic (bre) |  | Resident |
|  | F. a., East Atlantic (bre) |  | Breeding visitor |
|  | AEWA Agreement Area |  | Winter visitor |
|  | Countries | | |

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](#)).

