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AEWA EUROPEAN GOOSE MANAGEMENT PLATFORM

6th MEETING OF THE AEWA EUROPEAN GOOSE MANAGEMENT INTERNATIONAL WORKING GROUP

21-23 June 2021, Online conference format

REPORT AND RECOMMENDATIONS OF THE BARNACLE GOOSE TASK FORCE FOR EAST GREENLAND/SCOTLAND & IRELAND POPULATION AND THE SVALBARD/SOUTH-WEST SCOTLAND POPULATION AND DRAFT WORKPLAN FOR 2021/2022

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with contributions from the members of the Greenland-Svalbard Barnacle Goose Task Force

The 6th Meeting of the AEWA European Goose Management International Working Group is taking place remotely in an online conference format.

Introduction

According to Rule 29 of the European Goose Management International Working Group (EGM IWG) Modus Operandi, the EGM IWG may establish species and/or thematic Task Forces as necessary to deal with the preparation and coordination of decision papers and background documents, as well as to deal with other specific tasks. The EGMP Greenland-Svalbard Barnacle Goose Task Force was established in 2020 following the recommendations of the 5th Meeting of the EGM IWG in June 2020. The first meeting of the task force took place on 7 October 2020.

This document provides an overview of the work that has taken place since the EGM IWG5 and the recommendations and work plan for the implementation of the AEWA International Single Species Management Plan (ISSMP) for the Greenland Barnacle Goose for 2020/2021.

The agreed aims of the Task Force are:

1) Assist the EGM IWG in coordinating and catalysing the implementation of the ISSMP for the Barnacle Goose and its corresponding AFMPs for the respective populations under the EGMP;

2) Assist the EGM IWG in stimulating and supporting Range States in the implementation of the ISSMP for the Barnacle Goose and its corresponding AFMP for the respective population(s); and

3) Monitor and report on the implementation of these activities to the EGM IWG, as appropriate.

1. Status of the Task Force Membership

The Task Force is made up of Range State representatives and NGOs and is supported by the EGMP Secretariat and Data Centre. A full list of Task Force members is detailed in Annex 1.

2. Report of key activities and outcomes

There have been 4 meetings of the Task Force, all held online;

1st Meeting 7 October 2020

This initial meeting of the Task Force agreed the Terms of Reference, discussed the draft TF workplan, had an update from the Data Centre on monitoring and data requirements and had an update from Szabolcs Nagy on Favourable Reference Values (FRVs).

2nd Meeting 12 November 2020

The second meeting of the Task Force had a further discussion about the development of the Workplan, noted the timescales for the preparation of documents for EGM IWG6 in June 2021, were given a presentation on the Integrated Population Model (IPM) development by Aimee McIntosh of Exeter University and had an initial discussion about the development of an impact model.

3rd Meeting 7 December 2020

The third meeting of the Task Force included agreement on the Workplan. It also included discussion and agreement on the proposals presented by the Data Centre on the Impact Model and there were initial discussions on the development of a population model for the Svalbard Barnacle Goose population.

4th Meeting 25 March 2021

The 4th meeting of the Task Force included an update on Data Centre activities. The Task Force were given a presentation by Aimee McIntosh on the final draft of the IPM, Szabolcs Nagy presented a short update on the FRVs and there was a discussion about the preparation of documents and timescales for the EGM IWG6 in June 2021.

Other meetings

Rae McKenzie, along with the other Task Force Coordinators, joined a meeting of the Modelling Consortium held on 18th February 2021. At that meeting, there was an update on the development of population models and agreement on the use of the Gitlab software to store and exchange data.

Outcomes

The main outcome of the Task Force is to have completed a final Draft of the Greenland Barnacle Goose IPM. This will support the Greenland Barnacle Goose Adaptive Flyway Management Programme.

A population census was carried out in March 2020, and whilst Covid restrictions have resulted in a delay to the publication of the report, the population has increased by 1.7% since the previous census in 2018 to a total of 73,391 birds.

For the IPM, observational data included flyway population counts approximately every five years from throughout the winter range (March), annual Islay specific population counts (March), autumn juvenile counts (November) and harvest totals from Iceland and Islay. Prior distributions of natural (or intrinsic) survival were specified using capture-recapture data from the Svalbard population wintering in Scotland, and that for juvenile differential vulnerability in Iceland was specified using data from Pink-footed Geese in Norway. While the developers have strived to develop a model representative of this flyway population, the results and conclusions should be regarded in light of the limitations of the available data and methods.

Posterior estimates for all parameters fitted data-based counts well, with the majority of observed counts falling within 95% credible intervals. Posterior estimates for the flyway population show a consistent decline from 80,000 (71,000-89,000) in 2012 to 65,000 (55,000-76,000) in 2019. Similarly, population size in Islay has declined since the early 2000 from a peak of 45,000 (42,000-,48,000) in 2005 to 33,000 (29,000-36,000) in 2019.

Harvest rates in Scotland showed the greatest increase from 2011 to 2017 (2%-7% of the flyway population), whilst Iceland harvest rates have shown little variability (consistently <4%). Declines in the flyway and Islay population size coincide with increased harvest rates in Scotland. Similarly, the importance of alternative wintering sites appears to have increased with the increase in derogation shooting on Islay. This suggests that derogation shooting on Islay may not only be causing declines in the Islay wintering population, but also resulting in distributional shifts in the wintering population to alternative sites.

Estimates of juvenile survival rate were consistently lower than those of adults; this is unsurprising given the greater vulnerability of juveniles to harvest and the resulting greater juvenile harvest rate observed here. Age-specific harvest rate and survival show changes in response to increased harvest rates in Scotland, though this is more pronounced in juveniles.

The results suggest the decline in the population of Greenland barnacle geese since 2012 has been driven by poor productivity and increased harvest rates, predominantly in Scotland. The flyway-specific Adaptive

Flyway Management Programme does not provide targets for population sizes but does note that the flyway population should not fall below the Favourable Reference Population of 54,000 individuals, which at present is just below the 95% credible interval of our flyway estimate. The posterior estimates for Islay population size (mean = 33,000, CI = 29,000-36,000) are close to those set as targets to reduce grazing pressure. Scottish derogation shooting appears to have both reduced flyway population size as well as caused distributional changes in use of wintering sites. The IPM provides a sound framework from which projections under different management scenarios can be assessed. Future work to project how harvest management may influence the flyway population should consider whether derogation shooting will be implemented in wintering sites outside of Islay, as well as future adjustments to harvest rates.

3. Recommendations

The Task Force will follow the agreed Workplan set out in Section 4. The key recommendations of this report are to follow up the IPM for the Greenland Barnacle Goose population with completion of an IPM for the Svalbard Barnacle Goose population. The Task Force also needs to agree how to take forward the development of an Impact Model. There is an outline proposal for that work but there is no agreement to date on who leads the work and how it will be funded.

4. Draft Workplan 2021/2022

Table 1. Greenland-Svalbard Barnacle Goose Task Force Draft Workplan for 2021/2022

Type of action	Actions from the ISSMP	Priority	Timescale	Greenland Task Force
	4.2 Assess periodically, and report to the AEWA EGM IWG, the cumulative impact of derogations (as well as hunting in Range States in which derogation is not required) on the development of the population, the likelihood of serious damage to agriculture and risk to air safety and to other flora and fauna (including the Arctic ecosystems), and the non-lethal measures taken to prevent damage/risk, as well as the effectiveness of these. If necessary, coordinate the derogation measures between Range States to avoid risk to the population and to enhance effectiveness of the measures.	Essential	Short	Impact model description and scoping of tasks / review and preparation of documents going to EGM IWG / providing recommendations
	A.1 Produce and update periodically, spatially explicit population size estimates based on agreed international monitoring	Essential	Short / Rolling	Consultation
	A.2 Maintain an annually updated bag statistics database including geese taken by any means (whether under derogations or, in those Range States in which it is permissible, hunting)	Essential	Ongoing / Rolling	Consultation
x	A.3 Maintain a spatially explicit database on goose damage to agriculture, other fauna and flora and fauna and risk to air safety	Essential	Medium / Rolling	Consultation
National	2.2. Provide accommodation areas to reduce risks and conflicts at sensitive areas through e.g. subsidies[2]	Medium	Medium/ Rolling	Information exchange
National	2.3 Apply scaring and/or land management techniques to reduce the attractiveness of sensitive areas to geese, monitoring the implications of such local displacement for conflicts at wider scale[3]	High	Short / Rolling	Information exchange

x	3.2 Establish an internationally coordinated programme to assess agricultural damage including monitoring and assessment protocols	High	Short	Consultation
National	3.3 Liaise with farmers affected by goose damages to reduce agricultural conflicts	High	Short / Rolling	Information exchange
	4.3 Improve effectiveness of derogation measures through experimenting with different timing and methods and better understanding the relative efficacy of lethal versus non-lethal scaring techniques	High	Medium	Information exchange - Liaise with other TFs
	4.4 Promote best practices of goose population adjustment including timing to minimize damage and significant disturbance to other species	Medium	Medium / Rolling	Information exchange - Liaise with other TFs
National	4.5 Maintain low crippling rates	High	Medium / Rolling	
	4.6 Improve derogation shooting techniques to further reduce crippling	Medium	Long / Rolling	Information exchange - Liaise with other TFs
	A.4 Collect demographic (mortality, reproduction, differential migration and connectivity) data from an agreed representative sampling framework across the range	High	Short / Rolling	Consultation
x	C.1 Develop and implement a communication strategy and plan	Medium	Short / Rolling	Liaise with other TFs -

Annex 1. Members of the Greenland/Svalbard Barnacle Goose Task Force as of May 2021

Country/Organisation	Representative	Affiliation
Denmark	Iben Hove Sørensen	Danish Hunters Association
European Commission	Joseph van der Stegen	Directorate-General for Environment Nature Unit
Iceland	Sigurdur Tharinsson	Ministry for the Environment and Natural Resources
	Gudmundur A. Gudmundsson	Icelandic Institute for Natural History
	Bjarni Jonasson	Environment Agency of Iceland
Ireland	Seán Kelly	National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht
Norway	Ingunn Tombre	Norwegian Institute for Nature Research (NINA)
United Kingdom	Rae Mckenzie	Scottish Natural Heritage
	Jessica Shaw	Scottish Natural Heritage
	Colin Shedden	British Association of Shooting and Conservation (BASC)
FACE	Cy Griffin	Senior Conservation Manager
Nordic Hunters' Alliance	Johan Svalby	Senior Advisor for International Affairs
Wetlands International	Szabolcs Nagy	Senior Advisor
Wildfowl & Wetlands Trust	Richard Hearn	Policy & Advocacy Manager
EGMP Data Centre	Jesper Madsen	Aarhus University
	Gitte Høj Jensen	Aarhus University
	Henning Heldbjerg	Aarhus University

UNEP/AEWA Secretariat	Eva Meyers	EGMP Coordinator
	Shenay Huseynova	Consultant