



## Impact models for Barnacle Goose and Greylag Goose

*Jesper Madsen, EGMP Data Centre*

# AEWA European Goose Management Platform

21-23 June 2022  
EGM IWG7  
Helsinki, Finland



TECHNICAL SERIES No.70



International Single Species Management Plan for the Barnacle Goose  
(Russia/Germany & Netherlands Population  
East Greenland/Scotland & Ireland Population  
Svalbard/South-west Scotland Population)  
*Branta leucopsis*



Ministry of Environment and Food of Denmark  
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## ***Box 1. Information needed in each AFMP concerning damage and site protection***

Care must be taken to ensure that the management actions recommended by AFMPs are not inconsistent with the legal obligations prescribed by relevant international instruments. The AFMPs have the potential to, *inter alia*, assist Range States in assessing the need for derogations from the provisions of Article 5 of the Birds Directive (and, to the extent that they are relevant, the protections prescribed by the Bern Convention and AEWA) and in coordinating the implementation of their derogation schemes. Each AFMP should therefore contain information that is relevant for assessing the need for derogations at Range State level. This should include:


- i. Characterization of the spatial and temporal extent and trends of damage to agriculture and of risks to air safety as well as to other flora and fauna that can be attributed to the population/MU in question, including predicted future changes in these;
- ii. Description of the methods applied in the past assessments for each country and recommendations for the development of future guidelines for assessments;
- iii. Description of the methods applied or tested to prevent damages and to reduce risks, their

## **iv. Understanding of the link between population level and damages or risk.**

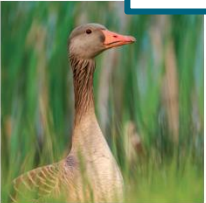
Each AFMP shall also contain information on habitat conservation measures, including designation of Special Protection Areas (SPAs) under Article 4 of the Birds Directive:

- i. List of SPAs and other protected areas designated for the Barnacle Goose;
- ii. Management of the species and the damage inside and outside SPAs;
- iii. Tackling damage prevention inside and outside SPAs (accommodation areas, derogations, etc.).

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International Single Species Management Plan for the  
(Northwest/S...  
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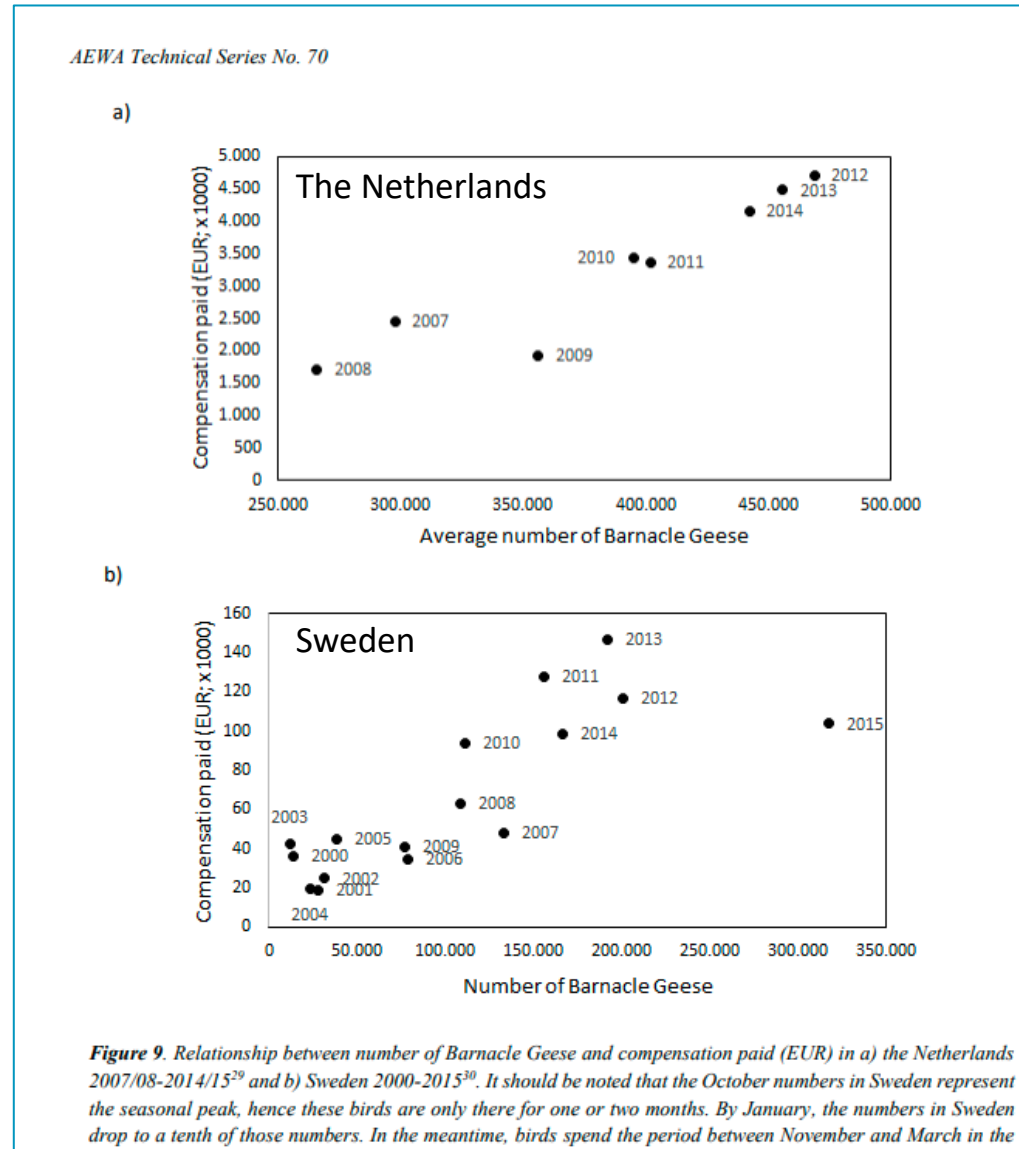
International Single Species Management Plan for the Barnacle Goose  
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## Status

| Country                | Species | Approach                                                             | Habitat                             | Status           | Note                       |
|------------------------|---------|----------------------------------------------------------------------|-------------------------------------|------------------|----------------------------|
| Sweden                 | BG, GG  | Observational;<br>Time series; compensation costs vs abundances      | All agricultural                    | Published (2019) | Can potentially be updated |
| Denmark                | BG      | Observational; spatial; derogations permits vs abundances            | All agricultural                    | Published (2022) |                            |
| Denmark                | BG, GG  | Predictive;<br>Agent-based model                                     | All agricultural but focus on grass | In prep          |                            |
| The Netherlands        | BG      | Observational; time series; compensation costs vs abundances         | Grass                               | In prep          |                            |
| The Netherlands        | BG      | Predictive; individual-based model                                   | Grass                               | In prep          |                            |
| Scotland (Islay)       | BG      | Observational; exclusions with time series                           | Grass                               | In prep          |                            |
| Norway (Vesterålen)    | BG      | Observational; time series of sward height vs abundances; exclusions | Grass                               | In prep          |                            |
| Germany (Lower Saxony) | BG      | Observational; exclusions with time series                           | Grass                               | In review        |                            |

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## RESEARCH ARTICLE

Journal of Applied Ecology 

# Relating national levels of crop damage to the abundance of large grazing birds: Implications for management

Teresa Montràs-Janer<sup>1</sup>  | Jonas Knape<sup>2</sup>  | Lovisa Nilsson<sup>1</sup>  | Ingunn Tombre<sup>3</sup>  |  
Tomas Pärt<sup>2</sup>  | Johan Månsson<sup>1</sup> 



ELSEVIER

Agriculture, Ecosystems & Environment

Volume 325, 28 February 2022, 107746



## Barnacle goose *Branta leucopsis* derogation shooting effort in relation to abundance and vulnerable crops

Henning Heldbjerg<sup>a</sup>  , Kevin K. Clausen<sup>a</sup>, Thorsten J.S. Balsby<sup>a</sup>, Preben Clausen<sup>a</sup>, Rasmus D. Nielsen<sup>a</sup>, Flemming Skov<sup>a</sup>, Timme Nyegaard<sup>b</sup>, Jesper Madsen<sup>a</sup>

## What is lacking?

- Finalisation of case studies before 1 March 2023
- Synthesis of the work (approximately 1 month of work by the Data Centre in collaboration with the case study teams)
- Submission of report to the IWG 8 (June 2023)

## Decision points

- Take note of the progress report
- Decide: Shall impact models solely be developed for agricultural damage?
- Discuss and decide on funding of synthesis