



Barnacle Goose Session

*Adaptive Flyway Management Programme for the Russia/Germany & Netherlands Population of the Barnacle Goose: **Indicators***

Adaptive Flyway Management Programme for the Russia/Germany & Netherlands Population of the Barnacle Goose
Doc. AEWA/EGMIWG/5.18

Monitoring indicators and programmes: general principles

Indicators to be used in the assessment of the ISSMP and the AFMP

- Annual data collection in most cases, but reporting only in Dec. 2025 in most cases
- Same indicators for the same species
- We need indication of trends (increasing or decreasing) not necessarily absolute values
- Indicators should be robust but relatively inexpensive, building on existing data collection
- Use of relative annual indices at national level combined into multinational indices at flyway level

Indicator fact sheets (Annex 5)

Monitoring indicators and programmes: proposed indicators

- I. Maintain the population at a satisfactory level
 1. Population size compared to the Favourable Reference Population (FRP)
 2. Range extent compared to Favourable Reference Range (FRR)
- II. Minimize agricultural damage and conflicts
 1. Relative change in damage payments
- III. Minimize the risk to public health and air safety
 1. Risk of zoonotic influenza transmission to the general public
 2. Number of bird strikes caused by Barnacle Goose
 3. Number of Barnacle Geese passing over the commercial airports
- IV. Minimize the risk to other flora and fauna
 1. Area of natural habitat or habitat of threatened species negatively affected by Barnacle Goose
- V. Maximise ecosystem services
 1. Number of people enjoying watching geese
- VI. Minimise costs of goose management
 1. Relative change in cost of goose management



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*Adaptive Flyway Management Programme for the Russia/Germany & Netherlands Population of the Barnacle Goose: **Iterative phase***

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Protocols for the iterative phase

A 10/12 year cycle of the ISSMP;

- **Two 6-year cycles** of the AFMP, and within the AFMP:
- **Two 3-year cycles** of monitoring of the total population size and assessing if the actual size of the population and its MUs are below the 200% threshold and approaching the FRP;
- 1-year cycles of monitoring (population sizes mid-winter and summer, age ratios, harvest and derogation); update of work plans.



ISSMP

12 year cycle of evaluation and adaptation related to:

- Goals
- Objectives (Fundamental, Means and Process)
- Alternative actions related to objectives

AFMP

6 year cycle of evaluation and adaptation related to:

- Management Units
- FRVs
- Box 1
- Population models
- Impact models
- Cumulative impact of derogation and legal hunting
- Protocol for the iterative phases
- The range of and methods for indicators and programs
- The state of indicators and evaluation towards achieving objectives

3-year cycle of assessment related to:

- Monitoring of the total population size
- Evaluating progress toward achieving objectives
- Assessing if the population size and its MUs are below the 200% threshold and approaching the FRP.
- Coordination of offtake under derogation and hunting if the population and its MUs is below the 200% threshold and approaching the FRP.
- Taking conservation measures, if necessary.
- Increase understanding of population dynamics
- Refine models of population dynamics

1 year cycle of:

- Monitoring indicators used in population models (Action 4.2 in the ISSMP)
- Update work plans for the Task Force, Data Centre and Range States

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Two 3-year cycle within the AFMP

- Evaluating progress toward achieving objectives;
- Assessing whether the population size and its MUs are below the 200% threshold and approaching the FRP;
- Coordination of offtake under derogation and hunting if the population and any of its MUs is below the 200% threshold and approaching the FRP;
- Taking coordinated conservation measures, if necessary;
- Increase understanding of population dynamics;
- Refine models of population dynamics.

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1-year cycles within the AFMP of data collection and update of work plans

- An evaluation of potential bias in reported offtake in each range state (between 2020-2022).
- Development and implementation of a coordinated and systematic monitoring program including development of detailed monitoring protocols for the long-term data need (between 2020-2022)
- Monitoring of:
 - Midwinter counts for each Range State (January 2021-)
 - Summer counts per range state + proportions of young and older birds (July 2020, 2021-) + development of protocol to convert summer counts to breeding pairs (2020-2022)
 - Offtake (harvest + derogation) per Range State (season 2020/21-) and for derogation per month (season 2022/23-)
 - Crippling rate for the same periods as offtake (season 2020/21-)
- Monitoring data is to be submitted to the EGMP Data Centre on an annual basis, and no later than 30 April each year.