

AEWA EUROPEAN GOOSE MANAGEMENT PLATFORM



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**AN OVERVIEW OF THE MANAGEMENT MEASURES FOR GEESE
IN RANGE STATES OF THE
EUROPEAN GOOSE MANAGEMEN PLATFORM**



An overview of the Management Measures for Geese in Range States of the European Goose Management Platform

AEWA European Goose Management Platform

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AEWA European Goose Management Platform

**An overview of the Management Measures for Geese
in Range States of
the European Goose Management Platform**

EGMP Publication No. 10

Prepared by the EGMP Agriculture Task Force

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1. Introduction

Most of the European goose populations are increasing, and geese foraging on cropland leads to challenges for many farmers (Fox et al. 2017; Fox & Madsen 2017). Correspondingly, farmers use different tools in order to protect their crop, and at the national, county or province levels many countries have different management measures to prevent damage and reduce conflicts between geese and agriculture (e.g. Tombre et al. 2013; Bainbridge 2017; Baveco et al. 2017).

Under the framework of the African-Eurasian Migratory Waterbird Agreement (AEWA), the European Goose Management Platform (EGMP) (<http://egmp.aewa.info/>), was established with the aim to provide a mechanism for a structured, coordinated and inclusive decision-making process for the sustainable use and management of goose populations in Europe.

The members of the European Goose Management International Working Group (EGM IWG) subsequently established an Agriculture Task Force to assist the EGM IWG in coordinating and catalysing the implementation of activities related to goose management and agriculture under the EGMP. The members of the Agriculture Task Force, who have been designated by the state authorities, have agreed on the need to create an overview of the different compensation and subsidy schemes and other tools to alleviate goose-agriculture conflicts and damage in each of the EGMP Range States. The present report therefore provides an overview of possible management tools, with the overall aim to exchange knowledge and experiences between the EGMP Range States.

Extra funding (for I. Tombre) for finishing the report was received from The Fram Centre in Tromsø (Terrestrial Flagship), Norway.

1.1. Data sources

For each country a summary of the current arrangements is collated in separate chapters that are based on information from several sources that include:

- Data from a questionnaire developed by the EGMP Data Centre for EGMP Range States in March 2017. Twelve countries responded to this and provided relevant information; Belgium, Denmark, Finland, France, Germany, Iceland, Latvia, Lithuania, Netherlands, Norway, Sweden and UK.
- Data from a web-based questionnaire developed by the Wildlife Damage Centre, SLU, in Sweden (autumn 2017) for 25 experts in 11 countries; Belgium, Denmark, Finland, France, Germany, Iceland, Lithuania, Netherlands, Norway, Spain and UK (Scotland). The aim was to gather an overview of the management of cranes, geese and swans in Europe, the acceptance levels of agricultural damages, subsidy schemes and conflict alleviating initiatives. Responding experts, with relevant knowledge and experiences, were from responsible authorities, universities and research institutions (results from this specific survey are summarized in a separate report; Nilsson et al. 2018).
- Within the EGMP process, Range States report annually on the level of agricultural conflict with geese in their country, as well as the management measures that are applied to alleviate conflict and reduce damage. Relevant information from these reports in 2018¹ and 2019 are also included in the present document.
- Input from members of the EGMP Agriculture Task Force.

¹Analysis of EGMP National Reports for 2017-2018 https://egmp.aewa.info/sites/default/files/meeting_files/documents/AEWA_EGM_IWG_3_6_analysis%20national%20reporting_final.pdf

- Supplementary information has also been provided by relevant stakeholders, and some information was extracted from the literature.

1.2. Definitions of management tools commonly used in the goose-agriculture conflict

When managing geese at the interface between agriculture and goose impacts, there are several tools in order to reduce and/or minimize damages and conflicts. Below are the most commonly used tools today, and we present their current practices in each Range State in subsequent sections.

Compensation

Several Range States have a compensation system for crop damages caused by geese, under which farmers eligible for compensation receive money to counterbalance for the lost crop. The system needs a competent administration, as, in most cases, damages are inspected before being compensated.

Subsidies

Subsidy schemes do not necessarily fully compensate the crop loss caused by geese. In most cases, subsidy payments to farmers involve farmers receiving funding in order to allow goose grazing on their properties. For EU-farmers, this may be a part of a Special Protection Area (SPA). Subsidies are usually paid in advance and may hence not directly reflect the level of damage.

Other measures

Other measures involve, as included in this report, goose scaring by all kinds of visual and acoustical scaring devices. In some Range States, alternative foraging areas are provided for geese, also categorised here.

Derogation and derogation shooting

Derogation refers to the collection of geese causing damage on farmland in the non-hunting season. The practice varies among Range States, also dependent on whether the country is a EU-member bound by the European Birds Directive or not. Article 5 of this Directive (Directive 2009/147/EC) requires Member States to establish a general system of protection for all species of bird referred to in Article 1 of the same Directive. This includes a requirement to prohibit the deliberate killing of birds, and the deliberate disturbance of birds, particularly during the period of breeding and rearing. However, derogations from these prohibitions may be granted under Article 9, in cases where there is no other satisfactory solution for the prevention of serious damage to crops. This is often practiced by catching and gassing of moulting geese (culling). Range States that are not EU-members have solutions rooted in their own national laws. These are specifically listed for each Range State in the subsequent sections. More details about the derogation under Article 9 can be found in Appendix 1.

Derogation shooting is hunting outside the hunting season on cultivated fields to prevent agricultural damages. Derogation shooting is often conducted by designated staff.

Hunting

In this report hunting refers to recreational hunting in the autumns and winter by hunters with a hunting licence. The hunting periods differ between countries and goose species and are specifically listed for each species in each Range State in the subsequent sections. Recreational hunting is a population regulating tool to reduce goose-agriculture conflicts in some Range States.



Different scaring devices are used to prevent geese from foraging on farmland, often with varying success (Photo: Ingunn M. Tombre ©)

1.3. An overview of management tools used in EGMP Range States

Table 1 gives an overview of the EGMP Range States and the current management tools for geese (as per May 2019). There are no economic compensation or subsidies for crop damages caused by geese in Belarus, France, Iceland or Ukraine, but the remaining countries (nine out of 14) use various forms of monetary tools in order to reduce economic losses due to goose foraging. Other measures are different scaring methods, providing alternative foraging areas for geese, etc. Such measures are practiced in twelve countries.

Eight countries practice derogation and derogation shooting. All the Range States, except the Netherlands, have open seasons for goose hunting, although hunting periods and species varies (see subsequent chapters for each country).

Table 1. The 14 Range States of the EGMP and their management tools for agriculture goose conflicts/damages

<i>Range state</i>	<i>Compensation</i>	<i>Subsidies</i>	<i>Other measure ¹⁾</i>	<i>Derogation and derogation shooting</i>	<i>Hunting</i>
Belarus					X ²⁾
Belgium	x		x	x	x
Denmark			x	x	x
Estonia	x		x	x	x
Finland	x		x		x
France				x	X ²⁾
Germany	x	x	x	x	x
Iceland	³⁾		x		x
Latvia	x		x		x
The Netherlands	x		x	x	
Norway		x	x	X ⁴⁾	x
Sweden	x	x	x	x	x
United Kingdom	x	x	x	x	x
Ukraine			x		x

¹⁾ Other measures are e.g. different scaring methods, providing alternative foraging areas for geese, etc.

²⁾ In France, geese are hunted for recreational use only, and hunting is at present not related to agricultural conflicts

³⁾ A compensation scheme is under development/negotiation

⁴⁾ Norway, not a member of the European Union, has a specific regulation rooted in the national game law

2. Management measures in each Range States

2.1. Belarus

Management measures

In Belarus there are currently no reported agricultural conflicts or damages caused by geese. Hence, most of the management tools are not relevant for this country.

Compensation (premisses and assessments)

There is no compensation for goose damages in Belarus.

Subsidies

There are no subsidy schemes for goose damages in Belarus.

Other measures

At present, there is no overview of other preventive measures for goose damages in Belarus.

Derogation and derogation shooting

No derogation of geese is practiced in Belarus.

Hunting

In Belarus, the following goose species have an open season (see specifications below):

- Greater White-fronted Goose (*Anser albifrons*)
- Bean Goose (*Anser fabalis*)
- Greylag Goose (*Anser anser*)
- Canada Goose (*Branta canadensis*)

During daytime, they can be hunted from the third Saturday of September until the second Sunday of December. There is also a spring hunt on these species over a 28-day period from the second Saturday of March until the second Sunday of May, designated for a hunting club.

Other information and relevant links

Currently there is no information available on hunting bag statistics of the different species.

2.2. Belgium

Management measures

In Belgium, geese only winter in the northern parts, in the region of Flanders. Here, agricultural damage and conflicts are sought to be reduced through compensation payment, scaring practises and derogation. There is also hunting of Greylag Geese and Canada Geese.

Compensation (premisses and assessments)

A compensation system has been put in place by the Flemish government since 1 September 2009. The compensation must be applied for within 12 working days after the damage has been registered by completing an application form and submitting it to the *Agentschap voor Natuur en Bos*.

For damage caused by goose species protected in Belgium, like the Barnacle Goose (*Branta leucopsis*) and Pink-footed Goose (*Anser brachyrhynchus*), a Belgian farmer is eligible for compensation if

- Damages caused by geese involves more than 300 EUR. For damage less than 300 EUR, also called “own risk”, the deductible or the deductible for an administrative file for the application for compensation for damage caused by species is set at 5%, with a minimum of 250 EUR per claimant per year. Fees lower than 50 EUR are not paid;
- The necessary basic measures to prevent damage has been taken. It should be noted that the official must take into account the actual or probable cost of the measures that could reasonably be taken in the given circumstances and with the obligations that apply to the area concerned on the basis of the nature decree or hunting decree. Furthermore, the Minister issued a code of good practice for actions that help prevent certain types of damage.

For huntable species (see below), damages normally should be compensated by the hunters as they are ought to control the population. Hence, the hunters have the ultimate responsibility for preventing damage and for payment of compensation. According to a questionnaire, controlling the populations motivates the hunters. If the hunters fail to limit the populations in the area and harvest losses occur, this may result in a court proceeding in which a court decides on the level of compensation. However, such trials are unusual, as hunters and farmers usually manage to resolve the conflicts.

Under certain circumstances, on the other hand, damage caused by a huntable species can be compensated if:

- It involves damage of more than 300 EUR;
- The necessary basic measures to prevent the damage has been taken;
- Hunting of the species in question was not opened in the previous year and control was not allowed on the plots where the damage occurs; or if
- The species in question originates from a nature area managed by the Flemish government or an accredited terrain management association, in which the hunt was not opened in the previous year and where control on the species in question was not allowed.

In general, damage by huntable species is not very well known, hence often dealt with on a local basis.

Subsidies

There are no subsidy schemes in Belgium.

Other measures

Several other methods are practiced in Belgium to reduce damages caused by geese, either implemented by individual farmers or arranged at county level:

- Scaring, by using either propane cannons, scare crows, pennants, etc.;
- Fencing around vulnerable crop in the geese's moulting or breeding season;
- Designation of specific accommodation areas, i.e. foraging areas for geese.

Derogation and derogation shooting

For breeding Barnacle Geese in Belgium, the *Flemish Decree on Species Protection* regulates the population controlling adults by culling adults or reducing the egg production (egg shaking and oiling/pricking). This is done to prevent serious damage on professionally cultivated crops, also protecting natural habitats and wild fauna and flora from increasing goose numbers. This is conducted from 1 May - 30 September. Greylag Geese and Canada Geese can also be collected during the moulting period with nets in order to reduce the local breeding populations. When this is practiced, data on species and numbers collected are reported to the *Agency for Nature and Forest*.

Derogation shooting can be granted from 1 October to 31 January for Greylag Geese. Shooting must be conducted from one hour before sunrise until one hour after sunset. This must be reported to the *Agency for Nature and Forest* and can only be practiced if other measures like e.g. scaring activities have not proven effective to prevent damage.

Hunting

The Flemish Government's *Decree on hunting* also contains an exception for Greylag Geese, with a specific article allowing the hunt on individuals that are still flightless. Another article in this decree also allows killing Greylag Geese for nature management with firearms or by catching them with nets in the period from 1 June - 14 July after notifying the *Agency for Nature and Forest*. The same article also allows for the shaking, collecting or destroying of Greylag Goose eggs for nature management and after notifying the *Agency for Nature and Forest*.

In Belgium, the following goose species have an open season for hunting (15 August – 30 September):

- Greylag Goose
- Canada Goose

Hunting can only take place during daytime hours.

Other information and relevant links

More information from Belgium can be found online:

- Procedure for compensation
<https://www.natuurenbos.be/beleid-wetgeving/natuurgebruik/jacht/wat-bij-schade/schadevergoeding>
- Procedure for damage assessment <https://codex.vlaanderen.be/PrintDocument.ashx?id=1018264&datum=&geannoteerd=false&print=false>
- Derogation; at the Birds Directive and Habitats Directive
<http://cdr.eionet.europa.eu/be/eu/habides/>

2.3. Denmark

Management measures

In principle, damages caused by wildlife are not compensated in Denmark. Hence, there are no compensation or subsidy schemes for damages caused by geese. However, if damage occurs, derogation can be granted by the *Danish Environmental and Nature Agency*. Since there are no schemes for subsidies or compensation for goose damage in Denmark, and there is no monitoring of goose damage. The *Environmental Protection Agency* registers all applications for derogation shooting, and the number of applications is used as an indicator for the level of conflict. This applies especially for Barnacle Geese and less for Greylag Geese and Pink-footed Geese, as conflicts with these species during the open season are managed by hunting. Therefore, there are no applications for derogation shooting during this period and consequently no possibility of measuring the level of conflict.

Compensation (premisses and assessments)

There is no compensation for goose damages in Denmark.

Subsidies

There are no subsidy schemes for goose damages in Denmark.

Other measures

Several other methods are practiced in Denmark to reduce damages caused by geese:

- Scaring, using either propane cannons, scare crows, pennants, etc;
- Fencing around vulnerable crops in the geese's moulting or breeding season.

Derogation and derogation shooting

No derogation of geese is practiced in Denmark, but derogation shooting is an option. In principle, derogation shooting can only be used when there is extensive damage to crops. However, the Danish system has a flexible approach to damage and the tolerance level is individually assessed. Accordingly, no standardized methodology or guideline is available for assessing damages. The *Danish Nature Agency* wildlife consultancies inspect cases of claims for serious damages prior to allowing derogation shooting.

After the derogation, the extent of the derogation must be reported to the *Danish Nature Agency* within four weeks after the expiry of the approved derogation period.

Derogation shooting is granted by the *Danish Environmental and Nature Agency* if goose foraging causes crop damage. On agricultural fields derogation shooting can be granted for several species in the period 1 – 29 February:

- Canada Goose
- Greater White-fronted Goose
- Greylag Goose
- Pink-footed Goose
- Barnacle Goose (but maximum for one month)
(also in 1 March – 31 May & 1 September – 31 December)

On unharvested fields derogation shooting can be granted for Greylag Geese (1 July – 31 August).

Application for prior derogation authorization has to be submitted online to the *Danish Nature Agency*, including information about the applicant, the species for which derogation shall be granted for, previous alleviating methods implemented before the application and the area, period and reason for the application.

The application works as a *Sworn statement*, meaning that the applicant can be held liable if the information is not correct. Only derogation authorisations in *Natura2000 areas* are assessed manually.

Hunting

In Denmark, the following goose species have an open season (1 September – 31 January):

- Bean Goose
- Canada Goose
- Greater White-fronted Goose
- Greylag Goose (also 1–31 August on agricultural fields more than 300 meters from wetland areas)
- Pink-footed Goose

The two Bean Goose subspecies, the *Taiga Bean Goose* (*Anser f. fabalis*) and the *Tundra Bean Goose* (*Anser f. rossicus*) look very similar and also appear in mixed flocks in the field. The two sub-species are listed as *Least Concern* in the IUCN Red List, although the Tundra Bean Goose is considered stable and much more abundant than the Taiga Bean Goose that consists of four small populations (management units) that either are small and relatively stable (not increasing) or small and declining (Marjakangas et al. 2015; Johnson et al. 2018). To avoid unintentional hunting of Taiga Bean Geese, Bean Geese can only be hunted 1 September – 30 November in areas assumed to have few Taiga Bean Geese in this period (the municipalities of Vordingborg, Guldborgsund and Lolland).

Other information and relevant links

More information for Denmark can be found online:

- Derogation granting
<http://mst.dk/friluftsliv/jagt/skadevoldende-vildt/>
- Wildlife damage legislation issues
<https://www.retsinformation.dk/Forms/R0710.aspx?id=183664>
- Hunting season
https://mst.dk/media/152203/2018-08-30-jagttabel_generelle_jagttider_18-19_redigering.pdf
- Hunting bag statistics
<http://fauna.au.dk/jagt-og-vildtforvaltning/vildtudbytte/udbyttet-online-siden-1941/>
- Derogation; at the Birds Directive and Habitat Directive
<http://cdr.eionet.europa.eu/dk/eu/habides/>

2.4. Estonia

Management measures

Crop damage caused by geese, as well as preventive measures (by 50%), are compensated in Estonia. There is an open season on Barnacle Geese in regions where they cause crop damages.

Compensation (premisses and assessments)

There is a compensation system in Estonia, where farmers are compensated for the harvest lost due to foraging geese. There is currently a limit in the scheme, as the *Nature Conservation Act* limits compensations to 3,200 € per year per farmer.

Before being qualified for compensation, the farmers must have practiced a reasonable extent of goose scaring on the affected fields. The farmers must fill in a form and report the damages in order to receive compensation.

The level of damage is estimated in the field by *Environmental Board Officers*. Thereafter, yield loss is estimated based on expected and actual yield loss, also considering the size of the damaged area. Estimates are based on the average purchase prices in the given season. The schemes are species-specific.

Derogation shooting can be granted for Canada Geese and Greylag Geese.

Subsidies

There are no subsidy schemes for goose damages in Estonia.

Other measures

Costs for the investment in tools for prevention measures like bird scares and acoustic scares, are compensated with 50% by a governmental scheme.

Derogation and derogation shooting

No derogation of geese is practiced in Estonia, but the Estonian Government regularly reports to the EU about *Article 7* of the Birds Directive with derogations granted to hunt Barnacle Geese.

Hunting

In Estonia, the following goose species have an open season (20 September – 30 November):

- Barnacle Goose (only for damage-preventing purposes)
- Bean Goose
- Canada Goose
- Greater White-fronted Goose
- Greylag Goose

Hunting is forbidden in designated areas with species listed as conservation objectives.

Other information and relevant links

The effectiveness of the compensation scheme has not been evaluated yet, but among farmers it is widely agreed that this is an effective method to prevent at least some of the potential conflicts although the upper limit of the compensation per farmer has been discussed.

More information for Estonia can be found online:

- Hunting bag statistics
<https://www.keskkonnaamet.ee/en/node/2666>
- Derogation, at the Birds Directive and Habitat Directive
<http://cdr.eionet.europa.eu/ee/eu/habides/>



Goose hunting is a popular recreational activity in many Range States and also an important measure for conflict reduction with agriculture. In Norway, hunters are often out before the sunrise (Photo: Camilla Brattland ©)

2.5. Finland

Management measures

In Finland, agricultural damage and conflicts are sought to be reduced through compensation payments and scaring practices.

Compensation (premisses and assessments)

Finland has a system with compensation paid if animals other than game animals cause crop damage. If geese cause crop damages the farmer can contact the *Environmental Ministry* and an inspector will visit the farm. The agricultural authorities estimate the monetary value of the crop loss by assessing the crop and the damaged area. The final compensation is set using a list of set unit prices for crops and vegetables. Online information is available here: <http://www.finlex.fi/sv/viranomaiset/normi/440001/43145>.

Subsidies

There are no subsidy schemes for goose damages in Finland.

Other measures

Other methods are also practiced in Finland to reduce damages caused by geese. Scaring is practiced by many farmers using either propane cannons, scare crows, pennants, etc. Studies at Helsinki University of Agriculture have tested the effects of scaring on Barnacle Geese by the use of dogs, and fences have also been tested as a tool to protect recreation areas in Helsinki.

Derogation and derogation shooting

No derogation of geese or derogation shooting is practiced in Finland.

Hunting

In Finland, the following goose species have an open season (20 August – 31 December):

- Canada Goose
- Greylag Goose

In 2017 hunting on Bean Geese reopened in a Tundra Bean Goose zone in south-east Finland after a 3-year total moratorium. Hunting is restricted to October-November and there is a mandatory requirement to report the harvest bag at the sub-species level.

Other information and relevant links

The protection of endangered species differs from the protection of game animals in Finland. Species may be protected on the basis of the *Hunting Act* (615/1993) or the *Nature Conservation Act* (1096/1996). State compensations for damages caused by game animals are regulated under the *Game Animal Damages Act* (105/2009).

The coverage of monitoring of agricultural damage and conflicts is poor in Finland. Information is merely based on annual compensations applied and paid to farmers.

More information for Finland can be found online:

- Unit prices for crop damage
<http://www.finlex.fi/sv/viranomaiset/normi/440001/43145>
- Hunting season
<https://riista.fi/en/hunting/open-seasons/>
- Hunting bag statistics
<http://stat.luke.fi/en/hunting>



Geese foraging on spilt grain on harvested cereal fields do not cause any damages for the farmers (Photo: Kjell Heggelund ©)

2.6. France

Management measures

Very few damages caused by geese have been recorded in France (from *National Reports 2018*). The limited damages reported are mainly caused by alien invasive species like Canada and Egyptian (*Alopochen aegyptiaca*) Geese. No Greylag Goose damages have been reported so far. Hence, until now, there has been no need for management measures to alleviate agriculture damage or conflicts in France.

Compensation (premisses and assessments)

There is no compensation for goose damages in France.

Subsidies

There are no subsidy schemes for goose damages in France.

Other measures

Other preventive measures like scaring and providing alternative goose foraging areas are not practiced in France. Local scaring by farmers may occur, but at present there is no overview of this activity.

Derogation and derogation shooting

No derogation of geese is practiced in France, but derogation shooting is possible and granted by the *Ministry for the Ecological and Inclusive Transition*. As an invasive species (*L 411-3 III code de l'environnement*) Egyptian Geese can be legally shot at department level pursuant an annual prefectural order. Generally, these orders provide that specifically authorised personnel conduct the shooting (all year long), although in some departments also recreational hunters are allowed during the hunting season (21 August – 31 January). The species is also subject to egg sterilisation measures.

Hunting

In France, the following goose species have an open season from the first Saturday of August, (earlier opening dates for the maritime public domain), the first day of the third decade of August (earlier opening dates for other wetlands) or September (rest of the territory) until 31 January:

- Bean Goose
- Greater White-fronted Goose
- Greylag Goose
- Canada Goose (also at department level from 31 January – 31 March, according to a prefectural order)

Goose hunting in France is at present a recreational activity not specifically defined as a management measure for geese.

The Canada Goose is also subject to egg sterilisation measures (mainly for health issues in urban and peri-urban wetlands).

Other information and relevant links

More information for France can be found online:

- <http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000000456442>
- http://www.legifrance.gouv.fr/affichTexte.do;jsessionid=3BC046EC71811E7F35173849982EEE65.tpdjo03v_3?cidTexte=JORFTEXT000020128976&dateTexte=20141120
- https://www.legifrance.gouv.fr/affichTexteArticle.do;jsessionid=D4191B198EBCF052CE5055C5E7DBD60A.tplgfr42s_1?idArticle=LEGIARTI000033118159&cidTexte=LEGITEXT000033118151&dateTexte=20190221
- https://www.legifrance.gouv.fr/affichTexteArticle.do;jsessionid=D4191B198EBCF052CE5055C5E7DBD60A.tplgfr42s_1?idArticle=LEGIARTI000033118161&cidTexte=LEGITEXT000033118151&dateTexte=20190221
- <https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000033117600&dateTexte=&categorieLien=id>



*Roosting Greylag
Geese (Anser anser)
(Photo: Kjell
Heggelund ©)*

2.7. Germany

Management measures

In addition to the *Federal Nature Conservation Act* and the *Federal Hunting Act*, each of the 16 *German Bundesländer* have their own nature conservation and hunting laws. The most important and relevant *Goose-Länder* are *Lower Saxony*, *Mecklenburg-Vorpommern*, *North Rhine-Westphalia* and *Schleswig-Holstein*. Laws specific to each region are presented in Appendix 2.

In Germany, agricultural damages and conflicts are sought to be reduced using several management tools, but practices and measures vary between the *Länder*. Details are presented in Appendix 2, and an overview is given below.

Compensation (premisses and assessments)

In Germany, a compensation system is in place in Mecklenburg-Vorpommern and North Rhine-Westphalia for some species (Barnacle Geese, Tundra Bean Geese, White-fronted Geese). There are no compensations in Schleswig-Holstein or Lower Saxony, but a special system for extraordinary high damages in Lower Saxony is in planning.

Subsidies

There are no subsidies in Mecklenburg-Vorpommern or North Rhine-Westphalia. Lower Saxony and Schleswig-Holstein have SPA for arctic goose species under the *Birds Directive*, acting as accommodation areas. Here, affected farmers may receive a subsidy via EU agri-environment schemes to compensate for some of the crop loss in Lower Saxony. In Schleswig-Holstein these subsidies are offered in a larger defined area with high densities of arctic geese.

Other measures

In all the relevant *Länder* scaring of all kinds with visual and acoustical scaring devices is used by farmers in order to reduce crop damages caused by geese. In Mecklenburg-Vorpommern in some areas employed staff is also engaged to assist in the goose scaring. In North Rhine-Westphalia, alternative goose foraging areas are established.

Derogation and derogation shooting

No derogation of geese is practiced in Lower Saxony or Mecklenburg-Vorpommern, but in North Rhine-Westphalia and Schleswig-Holstein culling of adult geese (North Rhine-Westphalia only) and egg collection from the breeding populations are practiced.

Derogation shooting is practiced in North Rhine-Westphalia from 16 July onwards for the following species:

- Canada Goose
- Egyptian Goose
- Greylag Goose

In Mecklenburg-Vorpommern, derogation shooting on Greylag Geese is permitted from 1 – 31 August. In Schleswig-Holstein, derogation shooting on Greylag Geese is permitted from 16 - 31 January and from 1 September to 31 October. Derogation shooting can also be practiced on Barnacle Geese outside the SPAs in the period 1 October - 15 January in Schleswig-Holstein. Severe damage must be proven by an independent expert to get permission for derogation shooting.

Hunting

There is goose hunting in all the four Goose-Länder in Germany. The following breeding species have an open season ranging from 1 August – 15 January with some “länder-specific” exceptions (see information in brackets):

- Canada Goose (from 1 November in Mecklenburg-Vorpommern, in North Rhine-Westphalia until 31 January)
- Egyptian Goose (in North Rhine-Westphalia until 31 January)
- Greylag Goose (in Mecklenburg-Vorpommern from 1 November, in North Rhine-Westphalia until 31 January)

In some of the bird sanctuaries of Lower Saxony hunting of the aforementioned species ends at 30 November.

In Mecklenburg-Vorpommern, the migratory species of White-fronted Goose and Bean Goose have an open hunting season from 1 November until 15 January.

In all the *Länder* hunting bags are reported species-specifically.

Other information and relevant links

More information for Germany can be found online:

- Federal Hunting Legislation (in German)
BJagdG (Federal Hunting Act) of 29 September 1976 (last amended on 29 May 2013)
<http://www.gesetze-im-internet.de/bjagd/index.html>
JagdzeitV 1977 (Ordinance on the hunting season [in the Federation]) of 2 April 1977)
http://www.gesetze-im-internet.de/jagdzeitv_1977/index.html
- Hunting laws and hunting regulations (in German)
LJagdG MV (State Hunting Act) of 22 March 2000 (last amended on 20 May 2011)
www.landesrecht-mv.de/LJagdG_M-V
JagdZVO MV (Jagdzeitenverordnung) of 14 November 2008 (last amended on 6 March 2014)
www.landesrecht-mv.de/JagdZVO_M-V
Specifically for Schleswig-Holstein
<http://www.gesetze-rechtsprechung.sh.juris.de/jportal/?quelle=jlink&query=JagdG+SH&psml=bsshoprod.psml&max=true>
<http://www.gesetze-rechtsprechung.sh.juris.de/jportal/?quelle=jlink&query=JagdZV+SH&psml=bsshoprod.psml&max=true&aiz=true>

- Hunting season (in German)

Lower Saxony

<http://schonzeiten.de/jagdzeiten-niedersachsen-jagd/>

Mecklenburg-Vorpommern

<http://www.landesrecht-mv.de/jportal/portal/page/bsmvprod.psml?showdoccase=1&st=lr&doc.id=jlr-JagdzeitVMV2009rahmen&doc.part=X&doc.origin=bs>

Schleswig-Holstein

<http://www.gesetze-rechtsprechung.sh.juris.de/jportal/?quelle=jlink&query=JagdZV+SH&psml=bsshoprod.psml&max=true&aiz=true>



Barnacle Geese have in recent years established temperate breeding colonies in several Range States (Photo: Gørli E. B. Andersen ©)

2.8. Iceland

Management measures

In the past, there has been no need for management measures to alleviate agriculture damage or conflicts with Geese in Iceland. However, the situation has changed in recent years. The feral Greylag Goose population has increased, and a delayed migration departure for the migratory population has been observed. Hence, several thousand Greylag Geese spend the winter in agricultural areas on the south coast of Iceland. The arctic populations have also increased in numbers and farmers also experience challenges with Barnacle Geese and Pink-footed Geese. On Iceland, agricultural damages caused by geese are sought to be reduced by local scaring and hunting.

Compensation (premisses and assessments)

There is no compensation for goose damages on Iceland, but a scheme is in the negotiation/planning phase.

Subsidies

There are no subsidy schemes for goose damages on Iceland.

Other measures

At present, there is no overview of other preventive measures for goose damages in Iceland, but local scaring by farmers where geese forage on crop is practiced.

Derogation and derogation shooting

There is no goose derogation or derogation shooting in Iceland.

Hunting

In Iceland, the following goose species have an open season (20 August – 15 March):

- Barnacle Goose (starting 1 September)
- Greylag Goose
- Pink-footed Goose

In the breeding areas for Barnacle Geese, in East- and West-Skaftafellssýsla, the open season is from 25 September to 31 March.

Other information and relevant links

More information for Iceland can be found online:

- Hunting season (in Icelandic, with English version)
<http://www.ust.is/einstaklingar/veidi/veiditimabil/>
- Hunting bag statistics (in Icelandic, with English version)
https://px.hagstofa.is/pxen/pxweb/en/Atvinnuvegir/Atvinnuvegir_landbunadur_landveidi/SJA10303.px/?rxid=725463d0-c3b6-4bf8-965a-8ce4733180da

2.9. Latvia

Management measures

In Latvia, the agricultural damages and conflicts caused by geese are sought to be reduced through compensation payments as well as other measures such as scaring.

Compensation (premisses and assessments)

A compensation scheme has been in place since 2016. The farmers themselves determine the extent of crop loss caused by geese. In order to receive any compensation, the landowner/current farmer must have tried at least one protection measure not to contradict environmental protection and nature conservation requirements (in accordance with *Cabinet of Ministers Regulations No. 353*).

The level of damage or conflicts is not monitored.

Subsidies

There are no subsidy schemes for goose damages in Latvia.

Other measures

Other measures used in Latvia are visual scanners, repellents etc.

Derogation and derogation shooting

There is no goose derogation or derogation shooting in Latvia.

Hunting

In Latvia, the following species have an open season (15 September – 30 November):

- Bean Goose
- Canada Goose
- Greater White-fronted Goose
- Greylag Goose

Other information and relevant links

More information from Latvia can be found online:

- Hunting regulations
<http://www.vmd.gov.lv/valsts-meza-dienests/statiskas-lapas/medibas?nid=1487#jump>
- Hunting bag statistics
<http://www.vmd.gov.lv/valsts-meza-dienests/statiskas-lapas/medibas/valsts-meza-dienests/statiskas-lapas/skaitli-un-fakti?id=766#jump>

2.10. The Netherlands

Management measures

In the Netherlands agricultural damage and conflicts caused by geese is sought to be reduced through compensation payments, derogation, as well as other measures such as scaring.

Compensation (premisses and assessments)

The Netherlands has a compensation system for agricultural damages caused by geese. According to the *Nature Conservation Law* the provincial governments are responsible for the development of provincial policies in which the compensation for crop damage due to protected fauna species (e.g. geese, widgeon, wild boar, badger, beaver etc.) is arranged. In general, the provincial rules and regulations are quite similar, but the exact conditions in which a compensation can be given in each of the twelve provinces can differ. The execution of the crop damage compensation is delegated to *BIJ12-Faunafund*, which is responsible for applying these provincial rules and regulations.

The landowner (or the agricultural land user) must file a damage compensation request online which is processed by *BIJ12-Faunafund*. This governmental organization investigates the validity of the request prior to sending it to a selected assessing company. This company is responsible for the taxation of the damaged fields. Just before harvest the inspector will do the final taxation and when completed, the assessing company creates a report for *BIJ12-Faunafund*. *BIJ12-Faunafund* test if the compensation request can be approved by the provincial policy and if so, financially compensates the land user. If there are still damages caused by geese despite preventive measures, the farmer can submit an application to qualify for a compensation for the damage.

In principle, an inspector visits the damaged parcel within seven days after receiving the assessing assignment. The inspector determines the cause of the damage and makes an initial estimate of the species that cause(d) the damage. Shortly before harvest the assessor determines the final damage. The method of determining the damage (yield loss) is dependent on the crop type (see Appendix 3 for details).

The *BIJ12-Faunafund* organisation from the provinces acts as central unit for monitoring, assessment and payment of agricultural damage (www.bij12.nl). The main goose-species concerned are Barnacle Geese, Greylag Geese and White-fronted Geese. To a lesser extent Brent Geese, Pink-footed Geese and Tundra Bean Geese also cause damage, of which the last two in the northern parts of the country. These species often occur in mixed flocks leading to difficulties relating damages to species.

Subsidies

In most Dutch provinces there is an additional subsidy scheme for goose damages in defined (wintering) goose forage areas. In the province of Fryslân a subsidy of 16.66 EUR per valued damage hectare is granted for the parcels defined as species-specific goose forage areas for each month or months that the area is bounded after 1 April. A prerequisite for this is that the assessed damage is at least 600 EUR per hectare (2018).

In the provinces of Groningen, Drenthe, Gelderland, Utrecht, Noord-Holland, Zuid-Holland, Zeeland and Noord-Brabant this subsidy is set at 50 EUR per damaged hectare; whereby the subsidy in the province of Utrecht can be increased by 16.67 EUR in a species-specific goose foraging area.

Other measures

Goose scaring is performed using propane cannons, scare crows and pennants, and employed staff helps with scaring. In most provinces, goose forage areas are established. In these areas the geese are not disturbed during the winter period. In the moulting and breeding period fences are also installed at some locations.

Derogation and derogation shooting

Derogation of geese is controlled by the *Wildlife Management Units* in the Netherlands, one for each of the provinces. Both egg destruction (local population control) and culling are methods to reduce crop damage and conflicts.

Shooting on some wintering goose species is allowed in order to chase them from the so-called no-go areas on farmland (with special permission, issued by the local government in the provinces). This derogation shooting is primarily carried out outside specifically designated goose feeding areas, nature reserves and *Natura 2000* sites, but the requirements and practices vary from one province to another.

Hunting

There is no open season for any goose species in the Netherlands.

Other information and relevant links

More information for the Netherlands can be found online (in Dutch):

- The compensations
<https://www.bij12.nl/onderwerpen/faunazaken/tegemoetkoming-faunaschade/beleidsregels-tegemoetkoming-faunaschade/>
- Request for compensation for faunas damage <https://www.bij12.nl/onderwerpen/faunazaken/tegemoetkoming-faunaschade/aanvraag-tegemoetkoming-faunaschade/>
- Description of damage assessment
<https://www.bij12.nl/onderwerpen/faunazaken/taxaties-en-schadecijfers/taxatierichtlijnen-faunaschade/>
- Assessment of damage and evaluation process in the compensation scheme
<https://www.bij12.nl/onderwerpen/faunazaken/>
- A description of the subsidy
<https://www.bij12.nl/onderwerpen/faunazaken/bijzondere-regelingen/vergoeding-ganzenrust-en-foerageergebieden/>
- A description of different preventive measures <https://www.bij12.nl/onderwerpen/faunazaken/faunaschade-preventiekit-fpk/module-ganzen/>
- Wildlife management in the Netherlands (information on derogation permission):
<https://www.faunabeheereenheid.nl/>
<https://www.bij12.nl/onderwerpen/faunazaken/ontheffing-en-faunabeheereenheid/>
- Data on derogation
<http://cdr.eionet.europa.eu/nl/eu/habides/>

2.11. Norway

Management measures

In Norway, agricultural damage and conflicts caused by geese is sought to be reduced through a subsidy scheme, derogation shooting, as well as other measures such as scaring. Recreational autumn hunting is also used as tool to alleviate conflicts between geese and agriculture. Available measures differ between species.

Compensation (premisses and assessments)

There is no compensation for goose damages in Norway.

Subsidies

The only subsidy for goose damages in Norway is for the Svalbard-breeding (arctic) populations of Barnacle Geese and Pink-footed Geese at their stopover sites in spring in the counties of Trøndelag (Mid-Norway) and Nordland (north Norway). The scheme is funded by the agricultural authorities as a means for farmers to allow goose foraging with a preposition of their agricultural fields. The subsidy is normally separated in three levels based on the density of previous goose and/or dropping counts conducted by research teams. In Trøndelag, municipality officers have in recent years also inspected the fields when the geese have departed and estimate approximate damage levels and the corresponding subsidy category. A description of the subsidy system, processes and results are published in two scientific papers available online (Tombre et al. 2013; Eythórsson et al. 2017).

Other measures

There are no organised scaring regimes, diversionary or supplementary feeding fields established for the geese in Norway. In general, however, geese gain from roosting in bird protection areas along the coast and the fjords of Norway, where human disturbance is limited (no hunting performed in these areas in the open season). Individual farmers may chase the geese off their fields, either manually by various scaring devices or using automatic propane cannons, scare crows or pennants. In some locations, farmers set up fences in order to protect vulnerable crops during the moulting period.

Derogation and derogation shooting

Destruction of eggs (Greylag Goose) is a possible management measure, but in general not a common practice. Puncturing of eggs of Canada Goose have previously been practiced in the Oslofjord area.

The municipalities can permit derogation shooting before the open season for Greylag Geese, which can only be performed on agricultural fields. Other preventive measures must have been tried before the application can be submitted. This is primarily meant as a scaring tool and cannot be a population controlling measure.

Hunting

The following goose species have an open season in Norway:

- Greylag Goose: 10 August – 23 December
Some exceptions:
- Finnmark County: 21 August – 23 December
(with some geographic limitations due to potential mixing with the endangered Lesser White-fronted Goose)
- Troms County: 15 August – 23 December
- Nordland County: 15 August – 23 December
- At sea: 10 September – 23 December

The *County Governors* can open for hunting start 15 days earlier if there is an approved local management plan for the municipality (for Greylag Goose and Canada Goose).

- Pink-footed Goose: 10 August – 23 December
- Some exceptions:
- Finnmark County: Fully protected due to potential mixing with the endangered Lesser White-fronted Goose.
- Troms County: 21 August – 23 December
- Nordland County: 21 August – 23 December
- At sea: 10 September – 23 December

Hunting seasons for all species are reviewed and amended every five years.

As a part of the *AEWA International Species Management Plan for the Pink-footed Goose*, the County of Trøndelag, where 80 % of the Pink-footed Geese are harvested in Norway in the autumn (*Statistics Norway*: <https://www.ssb.no/en/> www.statistics) can also shorten the hunting season to 15 October – 23 December if required based on the populations size and agreements in the international management plan.

The Bar-headed Goose (*Anser indicus*) and the Canada Goose are assessed as foreign and introduced species in Norway but have the same hunting periods and practices as Greylag Goose and Pink-footed Goose.

Other information and relevant links

In Norway, Greylag Goose eggs may also be collected for human consumption. Landowners may collect eggs up to and including 15 April.

More information for Norway can be found online (in Norwegian):

- The laws for hunting and harvest of wildlife species
<https://lovdata.no/dokument/NL/lov/1981-05-29-38>
- Hunting regulations
http://www.miljodirektoratet.no/Global/dokumenter/Tjenester%20og%20verktøy/Jakttider_smavilt.pdf
- Hunting bag statistics
<https://www.ssb.no/en/jord-skog-jakt-og-fiskeri/statistikker/srjakt>.
- Derogation shooting
<https://lovdata.no/dokument/SF/forskrift/1997-09-01-1000>

2.12. Sweden

Management measures

Barnacle Geese and Greylag Geese, but also Bean Geese and Greater White-fronted Geese, constitute large challenges for many farmers in Sweden due to foraging and trampling of crops. A compensation- and subsidy scheme is in place to alleviate damage and conflicts. Conditional hunting and derogation shooting is practiced in order to protect crops from damage caused by all species. For Canada Geese and Greylag Geese in all counties and for Bean Geese and Greater White-fronted Geese in some counties, there is also an open season with traditional (recreational) autumn and winter hunting.

Compensation (premisses and assessments)

Farmers report damages to the county administrative boards (CAB) who has specially trained officers for inspection and valuation of the damage (i.e. estimation of biomass and income loss). Full compensation is paid for damages caused by Barnacle Geese, but in some counties and under some conditions (e.g. close to protected areas) full or partial compensation is paid also for Bean Geese, Greater White-fronted Geese and Greylag Geese. Compensation is not paid for damage caused by Canada Geese. The CABs are responsible for the compensation scheme, which is funded by *Wildlife Damage Fund*, a specific governmental fund (“*Viltskadeanslaget*”).

Subsidies

Subsidies of up to 80% of the costs are paid to farmers for damage preventive measures. Subsidies are paid from the same governmental fund used for the compensation scheme. The fund also fully subsidises the provision of goose foraging areas like sacrificial crops or accommodation fields and employs consultants to help farmers with scaring.

Other measures

Several other measures are practiced in Sweden to prevent and reduce crop damages caused by geese:

- The establishment of multiple local and one national working groups including stakeholders and interest groups, aiming to discuss preventive strategies and alleviate conflicts (see Tuvendal & Elmberg 2015);
- The establishment of goose foraging areas;
- Fencing to prevent flightless birds to reach agricultural fields (i.e. during moulting and/or breeding);
- The alternation of cultivation strategies to lower the risk of crop damage; and
- Scaring activities, also including employed consultants to help out with scaring.

Derogation and derogation shooting

Pricking of eggs of Barnacle Geese and Greylag Geese is conducted occasionally.

Derogation and conditional hunting to scare geese off agricultural land on local scale is conducted mostly for Barnacle Geese, Canada Geese and Greylag Geese, but regionally also for Bean Geese and Greater White-fronted Geese. See Appendix 4 for details of derogations shooting and hunting without any special permits from the authorities.

Hunting

In Sweden, the following goose species have an open season, with some variations between the different counties:

- Bean Goose
In Skåne and Blekinge (1 October – 31 December)

- Canada Goose (introduced species)
All counties (11 August – 31 December) except in:
Dalarna, Gävleborg, Västernorrland, Jämtland, Västerbotten (21 August – 31 December).
Norrbotten (21 August – 30 September)
- Greater White-fronted Goose
In Skåne (1 October – 31 December)
- Greylag Goose (11 August – 31 December)
Except in
Gotland (20 July - 31 December, but only on main island and on Fårö)
Norrbotten (21 August – 30 September)

Other information and relevant links

More information for Sweden can be found online:

- Wildlife Damage Centre (SLU):
<https://www.slu.se/en/Collaborative-Centres-and-Projects/wildlife-damage-centre/>
- Facts for managers (geese and swans):
<http://www.naturvardsverket.se/Om-Naturvardsverket/Publikationer/ISBN/8700/978-91-620-8793-7/>
- Management directives to the CABs:
<https://www.slu.se/globalassets/ew/org/centrb/vsc/vsc-dokument/vsc-publikationer/rapporter/2015/riktlinjer-forvaltning-stora-faglar-i-odlingslandskapet-web.pdf>
- Assessment of agricultural damage (book):
<https://www.slu.se/globalassets/ew/org/centrb/vsc/vsc-dokument/vsc-publikationer/besiktning-av-viltskador-pa-groda-2018-low.pdf>
- Hunting season information:
<https://jagareforbundet.se/jakt/jakttider/#Stockholms%20l%C3%A4n,-1,2018-01-01,2018-12-31>
- Damage assessment form (assessor):
<https://www.slu.se/globalassets/ew/org/centrb/vsc/vsc-dokument/vsc-blanketter-rekommendationer-vissammanualer/besiktningssintyg-viltskada-groda.pdf>
- Compensation form for agricultural damage (farmer):
<https://www.slu.se/globalassets/ew/org/centrb/vsc/vsc-dokument/vsc-blanketter-rekommendationer-vissammanualer/ansokan-om-ersattning-groda.pdf>
- Subsidy form for support of preventive measures (farmer):
<https://www.slu.se/globalassets/ew/org/centrb/vsc/vsc-dokument/vsc-blanketter-rekommendationer-vissammanualer/skrivbar-ansokan-om-bidrag-for-forebyggande-av-viltskada.pdf>

- Stakeholder working groups:

[http://birdlife.se/wp-content/uploads/ornis_svecica/cms_20-s1_Vol%2020\(3-4\),%20225-233,%20Hake%20et%20al%20Working%20model.pdf](http://birdlife.se/wp-content/uploads/ornis_svecica/cms_20-s1_Vol%2020(3-4),%20225-233,%20Hake%20et%20al%20Working%20model.pdf)

- Compensation:

<https://www.slu.se/centrumbildningar-och-projekt/viltskadecenter/skador/viltskadestatistik/>

- Derogation at the Birds Directive and Habitat Directive:

<http://cdr.eionet.europa.eu/se/eu/colqg2zug/>

- Hunting bag statistics:

<https://rapport.viltdata.se/statistik/>



“Scare crow” in southern part of Norway aiming to keep Barnacle Geese and Greylag Geese away from the cultivated fields (Photo: Ingunn M. Tombre ©)

2.13. Ukraine

Management measures

Compensation

There is no compensation for goose damages in Ukraine.

Subsidies

There are no subsidy schemes for goose damages in Ukraine.

Other measures

Private farmers chase foraging geese away from vulnerable crop using scarecrows and simple mechanical noises and sometimes the farmers scare geese with shots.

Derogation

No derogation of geese is practiced in Ukraine.

Hunting

In Ukraine the following species have an open season (August to end of December):

- Bean Goose
- Greater White-fronted Goose
- Greylag Goose

Barnacle Geese, Lesser White-fronted Geese and red-breasted Geese (*Branta ruficollis*) are protected.

Other information and relevant links

More information for Ukraine can be found online:

- Hunting legislations:
<http://zakon4.rada.gov.ua/laws/show/1478-14>
- Red Data Book of Ukraine
<https://zakon.rada.gov.ua/laws/show/3055-14>

2.14. United Kingdom

Management measures

In the UK, agricultural damage and conflict caused by geese is sought to be reduced through compensation payment, derogation, as well as other measures such as scaring.

Compensation and subsidies (premisses and assessments)

In the UK, there is a mixture of both compensations and subsidies. Payments are calculated based on losses incurred, but farmers also carry out management measures such as leaving undisturbed areas for geese, which hence can be considered as a subsidy. Several local goose management schemes operate within the framework of the national goose policy. In Scotland, where most of the goose challenges for the agriculture are located, the *Scottish Natural Heritage* provides funding and administrative support to the schemes. Goose schemes can be found on:

- Islay (Barnacle Goose and White-fronted Goose, both from the Greenland-breeding populations). See also McKenzie & Shaw 2017 for detailed description;
- Kintyre (Greenland White-fronted Goose);
- Solway (Svalbard Barnacle Goose);
- South Walls, Orkney (Greenland Barnacle Goose);
- The Loch of Strathbeg Aberdeenshire (Pink-footed Goose).

Agricultural land is eligible to enter the goose management schemes. However, the management requirement varies between goose schemes (for more information see the different schemes found in the link under *Other information and relevant links* below).

Scottish Natural Heritage logs the complaints from farmers and local schemes and reviews them through discussion and consultation with stakeholders.

Other measures

Geese are chased away from vulnerable crop by e.g. propane cannons, scare crows and pennants. Employed staff help with the scaring at some locations, although experience shows that it is impossible to scare 100% effectively, therefore it does not prevent damage completely. Alternative goose foraging areas (reserves) are also established.

Derogation and derogation shooting

Egg destruction is used for local population control, as well as culling of adults and young.

Derogation shooting is practiced in Scotland. For a detailed description of relevant aspects for derogation shooting and goose management in the *European Birds Directive*, see Appendix 1.

Hunting

In UK there are different hunting periods for the different species and regions, but the general open season is from 1 September – 20 February:

I) England, Wales & Scotland:

- Canada Goose
- Greater White-fronted Goose (England and Wales only)
- Greylag Goose
- Pink-footed Goose

II) in Northern Ireland:

- Canada Goose
- Greylag Goose
- Pink-footed Goose

There are special periods for hunting *inland* and below the *high-water line*:

Inland

- England and Wales: 1 September – 31 January
- Scotland: 1 September – 31 January
- Northern Ireland: 1 September – 31 January

Below high-water line

- England, Wales and Scotland: Any area below high-water mark of ordinary spring tides.
- Northern Ireland: The limit of where the living seaweed is attached to the stones of the foreshore.
- England and Wales: 1 September – 20 February
- Scotland: 1 September – 20 February
- Northern Ireland: 1 September – 31 January

Canada Goose (introduced species): This species can be shot throughout the year in England, Wales and Scotland only under specific general licenses.

Other information and relevant links

More information for United Kingdom can be found online:

- A description of goose management schemes in Scotland:
<https://www.nature.scot/professional-advice/land-and-sea-management/managing-wildlife/managing-geese>.
- Goose management schemes offered by SNH:
<https://www.nature.scot/professional-advice/land-and-sea-management/managing-wildlife/managing-geese/payments-goose-management-schemes>
- Derogation; at the Birds Directive and Habitat Directive:
<http://cdr.eionet.europa.eu/gb/eu/habides/>
- Hunting bag statistics:

The UK lacks a system of licensing for hunting, with no statutory limits applied to hunting bags or statutory requirement to submit returns.

3. Concluding remarks

There are fourteen countries involved in the EGMP. When it comes to the management of wild geese there will hence be different country-based regulations, cultures and norms. Not all the Range States are EU-members and therefore have separate legislations and are not obligated to the European Birds Directive, where regulations for derogation shooting and other management measures are described (http://ec.europa.eu/environment/nature/legislation/birdsdirective/index_en.htm). This is also obvious from the present overview, as there are strikingly different practices for managing geese in European countries. One species may have an open season in one Range State, whereas it is protected in another. Moreover, the number of geese and crop damage caused by geese, as well as the distribution of the different species also varies considerably.

All this taken into consideration, a coordinated and inclusive decision-making process for goose management in Europe, the aim of the EGMP, is challenging. With this overview, we have responded to the need of information of the platform, describing available methods applied to prevent crop damage caused by geese and to reduce conflicts with agriculture. This overview may be used as a reference for future work. Our collation of information demonstrates the need for common practices, as well as the need for an agreement on best-practice tools and metrics for measurements, standard methods and benchmarks. The Agriculture Task Force of the EGMP will focus on this in the future.

An up-to-date evaluation of the effectiveness of the different measures is beyond the scope of this report (but see the review evaluating scientific papers and reports at the goose-agriculture interface up to February 2014; Fox et al. 2017). We suggest that this should be a prioritised task when implementing common management tools in European goose management in the future. Several studies are ongoing in the Range States with results relevant for coordinated actions in the future.



*Geese are usually together in large flocks in the non-breeding season, here Pink-footed Geese (*Anser brachyrhynchus*) in Norway (Photo: Kjell Heggelund ©)*

4. References

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Appendix

1. Relevant Goose Management Aspects of the European Birds Directive; the Scottish case

Article 5 of the European Birds Directive (Directive 2009/147/EC) requires Member States to establish a general system of protection for all species of birds referred to in Article 1 of that Directive (i.e. all species of naturally occurring birds in the wild state in the European territory of the Member States). This includes a requirement to prohibit the deliberate killing of birds, and the deliberate disturbance of birds particularly during the period of breeding and rearing (in so far as disturbance would be significant with regard to the objectives of that Directive). Derogations from these prohibitions may be granted under Article 9 where there is no other satisfactory solution for, amongst other things, the prevention of serious damage to crops. These prohibitions and Article 9 are transposed in Scottish law by sections 1 and 16 of the Wildlife and Countryside Act 1981 respectively, and (following delegation of licensing functions under section 16) *Scottish Natural Heritage* (SNH) is now the licensing body. In addition, Barnacle Geese are listed on Annex I to the Directive, and as a result, a number of Special Protection Areas have been classified for both the Greenland² and Svalbard³ populations in Scotland under Article 4(1) of the Directive.

The effect of Article 6(3) of the Habitats Directive (Directive 92/43/EEC) which is applied to Special Protection Areas (classified under the Birds Directive) is that an Appropriate Assessment must be carried out for any plan or project which is likely to have a significant effect on a Special Protection Area, but which is not directly connected with or necessary to the management of that site. All the aspects of the plan or project which can, by themselves or in combination with other plans or projects, affect the site's conservation objectives must be identified in the light of the best scientific knowledge in the field.

The issuing of licences under Article 9/section 16 is considered to be a *plan or project* for these purposes. *Regulations 1994* transposes Article 6(3) of the Habitats Directive in relation to devolved matters in Scotland. Before any licence is granted, it must be assessed in accordance with that provision, and (on the assumption that an Appropriate Assessment will be required) will only be issued if it can be ascertained that the actions to be licenced will not adversely affect the integrity of the site concerned. In the case of the *Islay Sustainable Goose Management Strategy*⁴, that Appropriate Assessment considers possible impacts on all Scottish and Irish SPAs, as geese are known to use Islay as an autumn staging area before moving on to other areas⁵. The Appropriate Assessment is applied to all licences on Islay, even those out with SPA sites, as the majority of the geese roost within SPAs.

Derogations under Article 9/section 16 are interpreted narrowly and licences are issued by SNH only if they have satisfied the relevant tests (including those in Article 6(3) of the Habitats Directive / Regulation 48 of the 1994 Regulations) are met in the circumstances prevailing at the time the licence applications are determined. Additionally, it is important to ensure that, where the derogation is applied to reduce damage, that the numbers of geese are reduced only in proportion with the damage alleviation needed and that the proposed use of the derogations will not be incompatible with the overall requirements of the Directive (not just in relation to geese but also in relation to other species that may be affected). Prior to issuing licences, assessments are made in the field of the quality of the crop and the likelihood of serious damage being done due to goose numbers.

² http://jncc.defra.gov.uk/pdf/UKSPA3_GreenlandBarnacleGooseBrantaleucopsis.pdf

³ http://jncc.defra.gov.uk/pdf/UKSPA3_Svalbard%20Barnacle%20Goose%20Branta%20leucopsis.pdf

⁴ <https://tinyurl.com/ycuzvrtx>

⁵ Easterbee, N., Stroud, D.A., Bignal, E.M. & Dick, T.D. (1987). The arrival of Greenland Barnacle Geese at Loch Gruinart, Islay. *Scottish Birds* 14: 175-179.

Goose counts are carried out on a regular basis to monitor the size and distribution of the population and the data collected is used to inform decision-making on licences and adaptive management. Licences to shoot are issued on the basis that alternative methods of reducing damage have been tried over a long period of time on Islay and in other parts of Scotland but have failed to prevent serious agricultural impacts. A summary of the historical context was published in the journal *Ambio* in 2017⁶.

2. Management Measures in Germany; an Overview of the Most Relevant *Goose-Länder*

2.1. Lower Saxony (Niedersachsen)

Compensation (premisses and assessments)

At present, there is no crop compensation for geese in Lower Saxony, but since the extent of crop damage varies enormously between fields, a directive to compensate for extraordinary high crop damages is planned. These extraordinary high damages exceed the existing subsidy payments of the agri-environment schemes by far. Several farmers with extraordinary high crop damages already signalled to leave the agri-environment program, if there is no additional payment.

Subsidies

In Lower Saxony the SPA for arctic goose species under the Birds Directive act as accommodation areas. In these SPAs farmers tolerate wintering geese on their fields in the period 1 November – 31 March by joining the implemented agri-environmental schemes. For the resulting loss of income they receive a compensatory payment. The payment is based on study results that detected an average loss of biomass by geese of ca. 30%. At the moment (2018), ca. 25.000 ha of grassland and arable land are farmed with agri-environment schemes. Co-financed by the EU, Lower Saxony spent 7.0 Mio. EUR per year for creating undisturbed areas for geese in the SPAs.

There is evidence that due to the increase of wintering geese over the last decades several SPAs protected under the Birds Directive have reached their carrying capacity. Today, the increasing populations of wintering geese result in high numbers of these geese even outside the SPAs. Especially White-fronted Geese and Barnacle Geese cause conflicts with farmers, because farmers outside the SPA do not receive any subsidy payment for goose damages. Scaring the birds away, which is often practiced outside the SPAs, seems to be no effective tool. Birds often habituate, and flight activities of the geese additionally result in high energy demands. Moreover, if carrying capacity of the SPAs is already achieved, there is no chance for picking up more geese. Anyhow, subsidy payment for wintering arctic geese in the SPAs have reached a level without further scope for such payments outside the SPAs. Thus, current problems with arctic geese outside the SPAs have to be solved in different ways.

For other measures, see main text.

Derogation and derogation shooting

In the SPAs for wintering arctic geese, Lower Saxony have implemented an adaptive hunting management. Canada Geese, Egyptian Geese and Greylag Geese can be hunted in the period 1 August – 1 December.

Lower Saxony has completely stopped the Tundra Bean Goose and White-fronted Goose hunting, because these species are difficult to discriminate from the endangered Lesser White-fronted Goose (*Anser erythropus*) and the Taiga Bean Goose in the field.

⁶ McKenzie R, Shaw JM. Reconciling competing values placed upon goose populations: The evolution of and experiences from the Islay Sustainable Goose Management Strategy. *Ambio*. 2017 Mar;46(Suppl 2):198-209

Hunting

In Lower Saxony there is an open season (1 August – 15 January) for

- Canada Goose
- Greylag Goose (hunting is permitted in the bird sanctuaries mentioned in column 3 of the DVO-NJagdG Annex only from 1 August to 30 November. (Section 2 (1) sentence 13 and Annex DVO-NJagdG)
- Egyptian Goose

2.2. Mecklenburg-Vorpommern

Compensation (premisses and assessments)

In Mecklenburg-Vorpommern there is a compensation system for some goose species.

Subsidies

There are no subsidy schemes for goose damages in Mecklenburg-Vorpommern.

For other measures, see main text.

Derogation and derogation shooting

At present, there is no overview of any derogation activity in Mecklenburg-Vorpommern.

Hunting

Greylag Geese can be hunted from 1 – 31 August and later there is an open season for several goose species:

- Bean Goose 1 November – 15 January
- Canada Goose 1 November – 15 January
- Egyptian Goose 1 August – 15 January
- Greylag Goose 1 November – 15 January
- White-fronted Goose 1 November – 15 January

A permission is needed for hunting on agricultural crops, on which horticultural crops, winter cereals or rapeseed have been reared from 15 September to 31 October (up to a distance of 100 meters from the cultivated area, § 1 Abs. 3 JagdZVO MV). Hunting on the lakes in Mecklenburg-Vorpommern is not permitted (§ 4 Abs. 2 JagdZVO MV).

2.3. North Rhine-Westphalia

Compensation (premisses and assessments)

In North Rhine-Westphalia, there is a compensation scheme for arctic geese (Barnacle Geese, Tundra Bean Geese, White-fronted Geese). SPAs have been established and farmers are compensated for crop damages in a payment scheme in which agricultural experts determine the level of damage.

Subsidies

There are no subsidy schemes for goose damages in North Rhine-Westphalia.

For other measures, see main text.

Derogation and derogation shooting

In North Rhine-Westphalia both culling of adult geese and egg collection (from the breeding populations) are practiced in order to reduce crop damages and conflicts with agriculture (Canada Geese, Egyptian Geese, Greylag Geese). Derogation shooting is practiced in North Rhine-Westphalia (see below).

Hunting

The hunting period including derogations shooting is 16 July - 31 January for the following species:

- Greylag Goose
- Canada Goose
- Egyptian Goose

In two SPAs in North Rhine-Westphalia, there are limited hunting possibilities for Greylag Geese, Canada Geese and Egyptian Geese, due to the protection of arctic geese. At the SPAs *Unterer Niederrhein* (Lower Rhine) and *Weseraue*, hunting is closed from 15 October to 31 January (exact area definition can be found in § 2 (2) of the LJZeitVO).

2.4. Schleswig-Holstein

Compensation (premisses and assessments)

There is no compensation for goose damages in Schleswig-Holstein.

Subsidies

Schleswig-Holstein offers different EU agro-environment subsidy schemes that either provide a top-up for geese toleration or are specifically designed for offering feeding areas for geese. These are:

- Feeding areas for geese and swans on arable fields;
- Pasture management lowland marsh (top-up for goose toleration);
- Permanent pasture" (top-up for goose toleration); and
- "Halligprogramm" (top-up for goose toleration).

In Schleswig-Holstein the loss of grass biomass on public grassland on both sides of the dykes at the Wadden Sea coast and at the Halligen is estimated in three classes by sight estimations every year and lease costs are lowered in relation to the damage. The subsidy schemes for fields in Schleswig-Holstein mainly consist of providing forage for geese during winter months. In April summer crops are grown on the fields and therefore the subsidy schemes for tolerating geese do not replace agricultural use.

Other measures

Other methods are also practiced in Schleswig-Holstein in order to reduce conflicts caused by geese. Scaring by all kinds of visual and acoustic scaring devices is used by farmers and alternative goose foraging areas (reserves) have been established. Grassland for grazing husbandry is provided in selected areas where the first cut is lost due to goose grazing. Several other measures are established, like so-called "goose field-pools" ("Gänseflächenpool"), a reduction in lease payment ("Pachtnachlass") and the improvement of grassland in nature conservation-polders for geese.

Derogation and derogation shooting

Egg collection is practiced in Schleswig-Holstein in order to reduce crop damages and conflicts with agriculture.

Hunting

In Schleswig-Holstein there is derogation shooting of Barnacle Geese to prevent the considerable damage to crops and grassland in selected districts on the Wadden Sea coast and along the river Elbe (counties of Nordfriesland, Dithmarschen and Steinburg). Derogation must be practiced outside the SPAs in the period 1 October-15 January. Severe damage on grassland must be proven by an independent expert to get permission for derogation shooting.

There is an open season for several goose species (1 August – 31 January):

- Canada goose
- Egyptian Goose
- Greylag Goose

From 16 January to 31 January and from 1 September to 31 October hunting is also permitted for Greylag Goose, but only for damage prevention on vulnerable grassland and arable crops.

3. Crop Type Dependent Yield Loss Assessments in the Netherlands

The method of determining the damage (yield loss) in the Netherlands depends on the crop type:

Grassland

The inspector measures the length of the damaged (grazed) grass with a *grass height meter* and compares it with measurements taken at an undamaged reference. The reference is taken preferably at the same parcel, if not possible (grazed all over the parcel) then at a nearby parcel with the same grassland management of the same farmer is registered. The dry matter content per centimetre grass is based on research and is set at 150 kilograms of dry matter for the spring cut and 120 kilograms for summer cuts. The price per kilogram dry matter is determined annually for spring and summer cuts separately.

Arable crops and vegetables, cultivation traded in kilograms or by piece

The inspector determines the damage based on visual perception or on measurements and counts of damaged and undamaged plots. The potential yield per hectare and prices are based on published data of average yields from previous years, or, if not available, based on actual market prices.

4. Sweden - Derogation Shooting and Conditional Hunting without any Special Permits from the Authorities

For the following species:

- Barnacle Geese
- Bean Geese
- Greylag Geese

The hunting legislation gives landowners possibilities to hunt these species in Sweden if:

- 1) They are expected to cause damage on unharvested fields; or if
- 2) They are a sanitary inconvenience.

The legislation gives landowners the possibilities to do this damage control without any special permits from the county administrative boards (CABs).

Canada Geese and Greylag Goose can be shot in accordance with derogation or conditional hunting all-year round in all regions, the other species are regulated in time and region:

- Barnacle Goose 15 August – 15 November
in Skåne, Blekinge, Kalmar, Gotland, Östergötland, Södermanland, Stockholm and Uppsala.
- Bean Goose: 1 January – 15 March
in the counties of Skåne and Blekinge

1 September – 31 October
in Östergötland, Västra Götaland (in some areas only) and Örebro.

For other species, regions or times, CAB can decide on conditional hunting to prevent damage.



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