Review of illegal killing and taking of birds in Northern and Central Europe and the Caucasus
Overview of main outputs of the project

The information collated and analysed during this project has been summarised in a variety of outputs:

1. This full report
   Presenting all the aspects of the project at regional and national levels
   http://www.birdlife.org/illegal-killing

2. Scientific paper
   Presenting results of the regional assessment of scope and scale of illegal killing and taking of birds in Northern and Central Europe and the Caucasus¹
   https://www.cambridge.org/core/journals/bird-conservation-international

3. Legislation country factsheets
   Presenting a review of national legislation on hunting, trapping and trading of birds in each assessed country
   http://www.birdlife.org/datazone/country (under ‘resources’ tab)

4. ‘The Killing 2.0’ Layman’s report
   Short communications publication for publicity purposes with some key headlines of the results of the project and the previous one focussing on the Mediterranean region
   http://www.birdlife.org/illegal-killing

Credits of front cover pictures

1 Hen harrier Circus cyaneus © RSPB
2 Illegal trapping of Hen Harrier in the UK © RSPB
3 Common Coot (Fulica atra) © MISIK
4 Illegal trade of waterbirds illegally killed in Azerbaijan © AOS

Citation of the report


¹ Paper in revision process for publication in Bird Conservation International in October 2017 when this report is released
Executive Summary

The illegal killing and taking of wild birds remains a major threat on a global scale. However, there are few quantitative data on the species and countries involved. In order to build a more complete understanding of the issue in the whole African-Eurasian flyway, we extend the geographic scope of the previous review of the illegal killing and taking of birds in the Mediterranean\(^2\) to Northern and Central Europe and the Caucasus. We quantified the approximate scale and scope of this issue using a diverse range of data sources and incorporating expert knowledge. We estimated that 0.4 – 2.1 million individual birds per year may be killed or taken illegally in this region. The highest estimate of illegal killing and taking of birds in the region was for Azerbaijan (0.2-1.0 million birds per year). For Mallard and Common Coot, more than 100,000 individuals of each species were estimated to be illegally killed or taken on average every year. Several species of global conservation concern were also reported to be illegally killed or taken in substantial numbers, e.g. Common Pochard and Little Bustard. Birds were reported to illegally killed/taken primarily for sport and food in the Caucasus and for sport and predator/pest control in both Northern and Central Europe.

Our study also highlighted the paucity of data on illegal killing and taking of birds in the region. It is therefore a priority to implement systematic monitoring of illegal killing and taking of birds and to collate robust data, allowing stakeholders to set priorities, track trends and monitor the effectiveness of responses. Markedly increased effort is required to ensure that existing legislation is adequately implemented and complied with/enforced on the ground. Our data, for example, showed that illegal killing and taking of birds is still occurring in Northern and Central European and Caucasian countries despite existing legislation and is not restricted to Mediterranean European countries.

Combination of the results with those from the Mediterranean provide a wider picture for the northern part of the African-Eurasian flyway and showed that illegal killing and taking of birds is still a serious global issue. Similar data are now needed for sub-Saharan Africa, Central Asia and Russia to deliver a complete flyway-scale picture. This will also provide and useful information for priority-setting both across the geographic region and within single-species conservation efforts.

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Abbreviations

**AEWA:** African-Eurasian Migratory Waterbird Agreement

**CMS:** Convention on the Conservation of Migratory Species of Wild Animals

**EC:** European Commission

**EU:** European Union

**FACE:** European Federation of Associations for Hunting and Conservation

**IBA:** Important Bird and Biodiversity Area

**MIKT:** Intergovernmental Task Force on Illegal Killing, Taking and Trade of Migratory Birds in the Mediterranean

**NGO:** Non-Governmental Organisation

**Raptors MOU:** Memorandum of Understanding on the Conservation of Migratory Birds of Prey in Africa and Eurasia

**UAE:** United Arab Emirates

**UK:** United Kingdom
Contents

1. Introduction ......................................................................................................................... 9
   1.1. Background information ................................................................................................. 9
   1.2. Project description ......................................................................................................... 11
       1.2.1. Geographic scope ................................................................................................. 11
       1.2.2. Objectives ........................................................................................................... 12
       1.2.3. General principles ............................................................................................... 12
2. Review of the illegal killing and taking of birds ................................................................. 13
   2.1. Review of the national hunting, trapping and trading legislation ................................... 13
   2.2. Scope and scale of illegal killing and taking of birds ...................................................... 14
   2.3. Monitoring of illegal killing and taking of birds ............................................................ 15
3. Roadmap for addressing the illegal killing and taking of birds ........................................... 17
4. Conclusion .......................................................................................................................... 18
5. References ........................................................................................................................... 19

Annex. National reviews of the illegal killing and taking of birds ........................................... 20
   A.1. Armenia ............................................................................................................................ 21
   A.2. Austria ............................................................................................................................. 23
   A.3. Azerbaijan ....................................................................................................................... 25
   A.4. Belarus ............................................................................................................................ 27
   A.5. Belgium ........................................................................................................................... 29
   A.6. Bulgaria .......................................................................................................................... 31
   A.7. Czechia ............................................................................................................................ 33
   A.8. Denmark .......................................................................................................................... 35
   A.9. Estonia ............................................................................................................................. 37
   A.10. Faroe Island .................................................................................................................... 39
   A.11. Finland ............................................................................................................................. 41
   A.12. Georgia .......................................................................................................................... 43
   A.13. Germany .......................................................................................................................... 45
   A.14. Hungary ........................................................................................................................... 47
   A.15. Iceland ............................................................................................................................. 49
   A.16. Ireland ............................................................................................................................. 51
   A.17. Latvia ............................................................................................................................... 53
   A.18. Lithuania .......................................................................................................................... 55
   A.19. Netherlands .................................................................................................................... 57
A.20. Norway.................................................................59
A.21. Poland......................................................................61
A.22. Romania ..................................................................63
A.23. Slovakia ....................................................................65
A.24. Sweden .....................................................................67
A.25. Ukraine .....................................................................69
A.26. United Kingdom ..........................................................71
A.27. Countries for which illegal killing and taking of birds is not an important conservation
      issue: Andorra, Liechtenstein, Luxembourg and Switzerland.................................73
1. Introduction

1.1. Background information

Illegal killing and taking of birds takes place worldwide, with recent examples including illegal poisoning of vultures in Sub-Saharan Africa (e.g. Ogada 2014), illegal shooting of raptors in Europe (e.g. Selás et al. 2017) and in North America (e.g. Finkelstein et al. 2014), illegal trapping of passerines in Asia (e.g. Kamp et al. 2015) and illegal capture for the bird trade in South America (e.g. Alves et al. 2013). The issue poses a major threat to the conservation of biodiversity on a global scale and has attracted international attention in recent years with the EC publishing a ‘Roadmap towards eliminating illegal killing, trapping and trade of birds’3, the Bern Convention developing the ‘Tunis Action Plan for the eradication of illegal killing, trapping and trade of wild birds’4, and the Convention on the Conservation of Migratory Species of Wild Animals adopting a Resolution in 2014 and establishing an ‘Intergovernmental Task Force to address illegal killing, taking and trade of migratory birds in the Mediterranean’5. Controlling illegal killing and taking of birds is a complex issue. One reason may be the difficulty of estimating the importance of illegal activities. By definition those activities detected may be only the ‘tip of the iceberg’ and the proportion of the total cases these represents is often unknown (BirdLife International 2015a). Indeed, a recent large-scale study revealed that as many as 41 (31%) of 131 Golden Eagles fitted with satellite tags in Scotland between 2004 and 2016 abruptly stopped transmitting in areas with historically high levels of raptor persecution and intensive gamebird management, strongly suggesting that they had been illegally killed (Whitfield and Fielding 2017). However, none of these 41 birds were found again, despite intensive on-the-ground searches. For less high-profile species subject to less intensive monitoring one would expect that the likelihood of discovering evidence of illegal killing is even lower. Quantitative assessments of illegal killing and taking of birds are therefore needed to estimate how many individuals may be killed or taken illegally each year, which species may be the most impacted and where the worst locations may be. This information is essential for governments, policy instruments, NGOs and other stakeholders to be able to effectively prioritise action to tackle the issue and to provide a baseline from which progress can be measured.

In 2014-2015 BirdLife International led a project aiming to review all aspects of illegal killing and taking of birds in the Mediterranean region. As part of this work, legislation was reviewed in 27 Mediterranean countries of the Middle East, North Africa and Europe. Information on the species

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4 Downloadable at https://wcd.coe.int/ViewDoc.jsp?p=12138467&Site=&direct=true (accessed on 10/08/2017)
affected and the number of individuals illegally killed or taken each year, the worst locations and the illegal practices used in these countries were compiled using a diverse range of data sources and incorporating expert knowledge. The approximate scale and scope of illegal killing and taking of birds in the region was assessed. We identified some of the species of greatest concern, as well as the highest priority locations at which urgent remedial action is required to tackle this threat. In total 11-36 million individual birds were estimated to be killed/taken illegally each year in the Mediterranean region. At the 20 worst locations, 7.9 million individuals may be illegally killed/taken per year, representing 34% of the mean estimated annual regional total for all species combined. For species such as Blackcap, Common Quail, Eurasian Chaffinch, House Sparrow and Song Thrush, more than one million individuals of each species were estimated to be killed/taken illegally on average each year.

This review also highlighted the paucity of data and the need to establish standardised monitoring. Best-practice guidelines for systematic monitoring of illegal killing of birds were developed to generate more reliable national-scale estimates (see BirdLife International 2015a). The results were published in the scientific journal *Bird Conservation International* (see Brochet et al. 2016) and summarised in a layman’s report “The Killing”6. This led to significant national and international awareness-raising around the issue, leveraged funding to address the issue and catalysed much needed political support at the national and international level. In particular, at their first meeting held in July 2016 in Egypt7 the recently formed CMS MIKT Task Force used the assessment report8 to prioritise their work in the region. At their second meeting held in June 2017 in Malta9, jointly with the Bern Convention Network of Special Focal Points on Eradication of Illegal Killing, Trapping and Trade in Wild Birds, the CMS MIKT Task Force has been moved towards adoption of a ‘scoreboard’ approach to assessing national and regional progress in tackling this issue.

**Qualitative information and indications from Mediterranean European countries suggested that illegal killing and taking of birds may be a significant issue beyond the Mediterranean area.** Similar data are therefore needed for Northern and Central Europe and the Caucasus in order to provide a continent-scale picture. A wide range of migratory birds have shown population declines in recent decades in the African-Eurasian flyway (e.g. Sanderson *et al*. 2006, Vickery *et al*. 2014). After habitat loss/degradation (driven primarily by unsustainable agriculture), overexploitation is the second most significant threat to migratory birds (Kirby *et al*. 2008), with much unsustainable use being illegal

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1. Introduction

(BirdLife International 2013). However, the current lack of data hampers the ability of governments, policy instruments, organisations and initiatives to set appropriate priorities and address the issue.

1.2. Project description

To provide useful information for priority-setting both across the geographic region and within single-species conservation efforts, BirdLife International expanded in 2016-2017 the review of illegal killing and taking of birds in the Mediterranean to the rest of Europe. This project was coordinated by BirdLife International’s Global and ECA secretariats.

1.2.1. Geographic scope

Illegal killing and taking of birds was reviewed in 29 new European countries and one territory (Faroe Islands) completing the Mediterranean picture (Map 1.1): Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bulgaria, Czechia, Denmark, Estonia, Faroe Islands, Finland, Georgia, Germany, Hungary, Iceland, Ireland, Latvia, Liechtenstein, Lithuania, Luxembourg, Netherlands, Norway, Poland, Romania, Slovakia, Sweden, Switzerland, Ukraine and UK.

Greenland, Moldova and Russia were not surveyed as we were unable to secure inputs from experts in these countries. Georgia was already assessed in 2014-2015 (during the Mediterranean review) but the Georgian national expert took the opportunity of the assessment of the other Caucasian countries to update the information for his country.

Results are presented in this report at the regional level (non-Mediterranean Europe). National level results are presented in the Annex.

Map 1.1. Map of the 46 European countries involved in the different BirdLife International reviews of illegal killing and taking of birds projects, assessed in 2014-2015 (in dark green) and in 2016-2017 (light green)
1. Introduction

1.2.2. Objectives

The project objectives were to review all the aspects of illegal killing and taking of birds in the newly assessed countries, following the work undertaken during the Mediterranean review:

1. To undertake high-level review of national legislation on hunting, trapping and trading of birds, thus defining what is illegal at the national level.
2. To assess the scale and scope of illegal killing and taking of birds by compiling information on the species, numbers of individuals, worst locations and illegal practices, using a diverse range of data sources and incorporating expert knowledge.
3. To share best-practice techniques and protocols for systematic monitoring of the different types of illegal activities.
4. To develop a road-map for a communications, advocacy and response portfolio as follow-up to addressing the problem.

1.2.3. General principles

For this review, we used the same definition of illegal killing and taking of birds, i.e. any form of deliberate action that results in the death or removal from the wild of an individual bird (regardless of whether it was the target of this action or not) that is prohibited under national legislation. Examples of illegal killing/taking include hunting of ‘game’ species during the closed season, use of prohibited methods (e.g. mist-nets, lime-sticks, poisons) or activities (e.g. egg-collecting), killing/taking protected species, and/or inside protected areas in which such activities are forbidden. Species can be killed/taken for different reasons, such as for food, trade, predator control or to be used as caged pets.

Between July 2016 and July 2017, Birdlife partners and other national experts/organisations from assessed countries were asked to provide a range of information. Data about the hunting and taking legislation, the scope and scale of illegal killing for all native species regularly present in any season (i.e. excluding vagrants) and the protocols currently implemented for monitoring illegal killing and taking of birds in their respective countries were provided through templates and many one-to-one discussions. National contributors (see list of contributors in the Annex) were consulted throughout and provided input to all products of this project.
2. Review of the illegal killing and taking of birds

2.1. Review of the national hunting, trapping and trading legislation

The aim was to define what was illegal at the national level and to identify major areas of concern in the national legislation. A high-level review of national legislation on hunting, trapping and trading of birds of all assessed countries was therefore undertaken using a specific template to compile information (available upon request at science@birdlife.org). National legislation can be very complex, e.g. with specific bag limits and permitted times and dates for taking particular species changing annually. The aim of this review was not to collect highly detailed information, but to focus on a broader perspective and identify any clear legislative gaps. The information collected was summarised in country factsheets\(^{10}\) available on the BirdLife Data Zone (http://www.birdlife.org/datazone/country under ‘resources’ tab).

All the 30 assessed countries/territories had hunting/taking regulations in their national legislation. Hunting regulations were sufficiently detailed with especially lists of legally huntable species (mainly waterbird species) during open seasons (with however some species huntable all-year round). Shooting was the most widespread practice for hunting in the region, allowed by law in all countries/territories. Trapping was also allowed by law in many countries/territories, either with trapping regulations set in the legislation or authorised under specific derogations (mainly with regards of ‘predator/pest species’, such as corvids, herons, cormorants, etc.). Falconry was also mentioned as legal activity in few countries (Belarus, Belgium, Czechia, Georgia, Germany, Lithuania, Romania and UK). Collecting eggs was mentioned as prohibited in all assessed countries, except some Northern countries/territories, i.e. Faroe Islands, Iceland, and Norway. Spring hunting was allowed in Austria (for grouse and some passerine species considered as ‘pest’), in Belarus (for geese), in Finland (for Common Eider in Åland Islands), in Faroe Islands and in Iceland (for puffins).

A main loophole detected was the presence of species of conservation concern (i.e. globally threatened or Near Threatened) in the lists of huntable species for several countries: Long-tailed Duck (Vulnerable, huntable in 9 countries), Common Eider (Near Threatened, huntable in 5), Velvet Scoter (Vulnerable, huntable in 5 countries), Common Pochard (Vulnerable, huntable in 18 countries), Ferruginous Duck (Near Threatened, huntable in 3 countries), European Turtle-dove (Vulnerable, huntable in 7 countries), Northern Lapwing (Near Threatened, huntable in 2 countries), Atlantic Puffin (Vulnerable, huntable in 2 countries), Razorbill (Near Threatened, huntable in 2 countries) and

\(^{10}\) The information found in these factsheets prepared was updated in 2016-2017. Every reasonable effort has been made to ensure that the information presented is current and accurate at this time, but recent legislative changes may not be reflected. The content of these factsheets is for information only and is not intended as legal advice. If official legal documentation of national legislation is required it should be sought from the relevant national government authority.
2. Review of the illegal killing and taking of birds

Redwing (Near Threatened, huntable in 3 countries). Absence of bag limits and species-specific hunting bag reports in most of the countries was also an issue, as such data, in combination with estimates for illegal killing, are needed for robustly assessing the sustainability of exploitation of birds.

2.2. Scope and scale of illegal killing and taking of birds

All numbers presented below are mean best estimates, for further details and minimum/maximum estimates, see the scientific paper: Illegal killing and taking of birds in Europe outside the Mediterranean: assessing the scope and scale of a complex issue (Brochet et al. in revision).

Please note that data from Andorra are not presented in the scientific paper focussing on Northern and Central Europe and the Caucasus and they are therefore not summarised in this section, but results for this country are presented in the Annex, like for the other assessed countries/territories.

The aim was to better understand which species might be most affected, why and how, which countries/territories were the most seriously affected by the issue of illegal killing and taking of birds and where were the worst locations for the illegal killing and taking of birds. The scale and scope of this issue in Northern and Central Europe and the Caucasus was quantified using a diverse range of data sources and incorporating expert knowledge, using a specific template to compile the information (available upon request at science@birdlife.org). It was estimated that 0.4 - 2.1 million birds per year may be killed/taken illegally in the region. The highest estimate of illegal killing in the region was for Azerbaijan (on average 0.6 million birds per year, Map 2.1). For Mallard and Common Coot, > 100,000 individuals of each species were estimated to be illegally killed/taken on average every year in the region. Species of global conservation concern were also reported to be illegally killed/taken in substantial numbers in the region, e.g. Common Pochard and Little Bustard (> 30,000 individuals of each species estimated to be illegally killed/taken on average every year in the region). Birds were reported to be illegally killed/taken primarily for sport and food in the Caucasus and for sport and predator/pest control in both Northern and Central Europe. Despite efforts by many European governments, illegal killing and taking of birds is still a serious pan-European problem, with clear regional patterns, having a considerable negative impact on biodiversity across the continent. This review focused geographically on Northern and Central Europe and the Caucasus. Combining these results with those from the Mediterranean assessment provides a broader picture for the northern part of the African-Eurasian flyway, but similar data are now needed for other regions to provide a complete flyway-scale picture (i.e. sub-Saharan Africa, the Arabian Peninsula and Russia).
2. Review of the illegal killing and taking of birds

Map 2.1. Spatial pattern of illegal killing/taking of birds in Northern and Central Europe and Caucasus in terms of the mean estimated number of individual birds illegally killed/taken per year per country in absolute values.

2.3. Monitoring of illegal killing and taking of birds

The aim was to collect information about best-practice techniques and protocols for monitoring of the different type of illegal activities being implemented by BirdLife Partners and other organisations within their countries. This information has been collected using a specific template (available upon request at science@birdlife.org) for different types of illegal activities (mist-netting, liming, poisoned baits, shooting, etc.). Our review of protocols currently implemented in non-Mediterranean Europe highlighted the lack of systematic monitoring schemes which can generate reliable quantitative national-scale estimates of the number of birds killed/taken per species per year.

Many national and local stakeholders do, however, show a strong commitment to survey aspects of this issue (e.g. for particular species such as raptors and waterbirds) and/or collect some relevant data on confirmed incidents of illegal killing and taking of birds (e.g. in Belgium, Estonia, Georgia, Germany, Hungary, Ireland, Netherlands, Poland and the UK). However, such data tend to be derived from ad-hoc reporting and/or detection, and therefore typically underestimate totals and may not allow robust assessment of temporal trends. This lack of systematic monitoring is likely to result in underestimation of the scope and scale of illegal killing and taking of birds in some countries. The need
2. Review of the illegal killing and taking of birds

for monitoring is also highlighted by the high percentage (69%) of countries where the trend in the scale of illegal killing and taking of birds over the last 10 years was unknown (see Brochet et al. in press).

In 2015 BirdLife International developed a Best Practice Guide for monitoring illegal killing and taking of birds \(^{11}\). The aim was to provide BirdLife Partners and other stakeholders with a toolkit of best practices covering all aspects of monitoring the different activities of illegal killing of birds in order to improve their standard and quality and to support the geographic expansion of monitoring schemes. The information obtained from newly assessed countries/territories haven’t provided any major insight. No major missing information was noticed. As reviews of illegal killing and taking of birds may be carried out in other regions (i.e. Asia, sub-Saharan Africa) over the coming years, no update of the Best Practice Guide was undertaken yet, but could be done with information from more regions. In addition, the CMS MIKT Task Force showed great interest in the Best Practice Guide and could use it as the base for a manual for government to implement monitoring on illegal killing and taking of birds.

\(^{11}\) Downloadable at 
(accessed on 10/08/2017)
3. Roadmap for addressing the illegal killing and taking of birds

Combining these results with those from the Mediterranean European countries provides a wider picture for the northern part of the African-Eurasian flyway and shows that illegal killing and taking of birds is still a serious continental issue. A greater understanding of the characteristics, attitudes and motivations of the groups of people undertaking each illegal activity in the region may help with tailoring appropriate interventions to specific activities and target groups.

National governments undoubtedly have a key role to play in recognising and tackling illegal killing and taking of birds within their borders (and indeed by their citizens outside the country). However, in most countries/territories there will be multiple stakeholders who can work successfully together to address the shared problem of illegal killing and taking. Harnessing their expertise to produce and implement a national multi-stakeholder action plan to tackle illegal killing and taking may be an effective approach. There are important roles for local, national and international action involving a wide array of actors, such as law enforcement agencies, the judiciary, national government agencies, hunting groups, NGOs, international policy instruments and local communities. The full commitment of all concerned will be essential if this intractable problem is to be effectively resolved.

There has been recent agreement under the CMS MIKT Task Force and the Bern Convention Network of Special Focal Points on Eradication of Illegal Killing, Trapping and Trade in Wild Birds, during a joint meeting hold in June 2017 in Malta\textsuperscript{12}, to move towards adoption of a ‘scoreboard’ approach to assessing national and regional progress in tackling this issue. This welcome development may encourage improved monitoring of the issue as well as focus attention on effective action by government in many of the European and Mediterranean countries.

BirdLife International is also still strongly committed to helping both BirdLife Partners and other stakeholders to tackle this issue. Future steps (some of them funding dependent) would include:

- Supporting BirdLife Partners to strengthen and expand actions on the ground to reduce this threat, targeting the worst locations, and contribute to improved enforcement of legislation, awareness-raising, education, advocacy, communications and publicity activities.
- Establishing, expanding or strengthening coordinated and systematic monitoring of illegal killing and taking of birds in the worst affected countries and locations where such monitoring is currently lacking, or incomplete.
- Promoting results of this project to and increasing collaboration with international initiatives on the same topic.
- Extending the review of illegal killing and taking of birds to other regions within the African-Eurasian flyway (sub-Saharan Africa and Central Asia) and other flyways.

\textsuperscript{12} \url{http://www.cms.int/en/meeting/joint-meeting-cms-intergovernmental-task-force-illegal-killing-taking-and-trade-migratory} (accessed on 10/08/2017)
4. Conclusion

As a preliminary assessment setting a baseline for future more detailed studies, this work provides useful indications about the overall magnitude of the issue, which species may be most heavily affected, which countries may have the most significant problems with illegal killing/taking, and which may be the worst locations. This assessment also highlights the need to establish systematic monitoring schemes which use standardised, replicable methods. The current lack of standardised data is likely to result in an underestimation of the scope and scale of illegal killing and taking of birds in some countries. Improved availability of systematic monitoring data would allow repeat assessments to improve in accuracy over time. It is therefore a priority to implement systematic monitoring of illegal killing and taking of birds, allowing stakeholders to track trends, target actions and monitor the effectiveness of responses.

Future conservation efforts combating illegal activities in Europe, and beyond, would require a greater understanding of the characteristics of the demographic groups undertaking each illegal activity, and of the attitudes and perceived subjective norms which they hold. A full analysis of all potential drivers of illegal killing requires more detailed data. Conservation interventions designed to alter human behaviours should take these differences into account and tailor behaviour-changing interventions to specific activities and target groups. Considering the multiple dimensions of illegal killing of birds in Europe, such as the ecological/environmental, legal, economic, social and political aspects, a combination of measures, policies and strategies is necessary to solve the issue.
5. References


Selås V. et al. (2017) Female turnover rate differs between two Northern Goshawk *Accipiter gentilis* nesting areas, as revealed by DNA analysis of moulted feathers. *Ibis*: in press.


Annex. National reviews of the illegal killing and taking of birds

Please note that main results of the review of illegal killing and taking of birds at the regional level are summarised in the main text. Please consult the scientific paper (see Brochet et al. in revision) for more detailed information about data collection and analysis. For more information about the review at national level, please contact the main data contributor of the country.

All the following national results are presented on the same template:

- **Contributors to the review:** Name and organisation of the main national contact point and names and organisations of other co-contributors.

- **Hunting and trapping legislation:** Summary of the national legislation, highlighting restrictions, illegal practices and any identified gap in the legislation. In this paragraph “comprehensive legislation” means that it is sufficiently detailed, listing huntatable species, open seasons, hunting regulations, etc. Comprehensive legislation can however contain inconsistencies in terms of species conservation (e.g. spring/summer hunting, hunting of threatened species, etc.). More information is available in country factsheets on the BirdLife Data Zone (http://www.birdlife.org/datazone/country under ‘resources’ tab).

- **Scale and scope of illegal killing and taking of birds:** Summary of the national assessment of the illegal killing and taking of birds, highlighting more particularly the reported trend in the scale of the illegal activity over the last 10 years, the total estimated numbers of birds illegally killed or taken (for all the species and the five species with the highest estimates), the type of information/data used for the assessment, the main reason and the main type of illegality reported (detailed national data are available upon request at science@birdlife.org).

- **Worst areas for illegal killing and taking of birds:** Information of worst areas identified within the country and their location on a map. Main cities and all (or only main) protected areas are also presented on each map for information. Detailed data on worst locations are available in the supplementary information of Brochet et al. (in revision).

- **Recommendation to tackle the illegal killing and taking of birds:** Background information on this issue in the country and recommendations suggested by BirdLife Partners or other national experts consulted to address this issue at national level.

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A.1. Armenia

Contributors to the review

Main contributors:
Mamikon Ghasabyan, Tsovinar Hovhannisyan and Levon Harutyunyan (Armenian Society for the Protection of Birds-ASPB)

Co-contributors:
Artur Beglaryan (Senior inspector, Ministry of Nature Protection, State Environmental Inspectorate); Artak Sargsyan (Senior inspector, Sevan National Park); Vardges Hakobyan (taxidermist, Nature museum of Armenia); Shaqro Ghazaryan, Rudik Tatoyan, Vardges Karakhanyan (IBA caretakers); Eghya Zadoyan (CEO Armash fish farm), Vilen Minasyan (hunter).

Hunting and trapping legislation

The legislation is comprehensive in Armenia. Hunting was permitted between August and February for 19 bird species in 2015 (the list of species suggested by Ministry of Nature Protection is approved every year in July by the Zoology Institute). Shooting, trapping and falconry are permitted, but use of flashlights and calling devices, and hunting from a moving vehicle are prohibited.

Scale and scope of illegal killing and taking of birds

24,300 – 57,700 individual birds may be illegally killed/taken each year in Armenia (Table A.1) and the trend in the scale of illegal killing/taking was reported to be stable. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds. The five species with the highest mean estimates represented 34% of the total estimated number (Table A.1). ‘Sport’ was the main reason for killing/taking birds and ‘illegal shooting’ the main type of illegality reported (Figure A.1).

Worst areas for illegal killing and taking of birds

Ten worst locations were identified in Armenia (Map A.1), accounting for 62-94% of the total estimated number of individual birds illegally killed/taken each year in the country.

Recommendation to tackle the illegal killing and taking of birds

Illegal killing and taking of birds is an issue in Armenia. Laws exist but there is no enforcement. Illegal killing using illegal firearms or outside the legal season are widespread activities. Illegal trade is also an issue with important black markets. The biggest Armenian online website also offers a range of various exotic and local species both bred in captivity, according to the vendors, as well as captured from the wild. It is a priority to strengthen the enforcement of legislation in Armenia, particularly in protected areas.
Table A.1. Review of the illegal killing/taking of birds in Armenia for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed/taken in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (325)</td>
<td>24,300 – 57,700</td>
<td>Stable</td>
<td>100%</td>
</tr>
<tr>
<td>Common Starling</td>
<td>3,000 – 5,000</td>
<td>Stable</td>
<td>10%</td>
</tr>
<tr>
<td>Calandra Lark</td>
<td>2,000 – 4,000</td>
<td>Stable</td>
<td>7%</td>
</tr>
<tr>
<td>Rosy Starling</td>
<td>2,000 – 4,000</td>
<td>Stable</td>
<td>7%</td>
</tr>
<tr>
<td>Eurasian Skylark</td>
<td>1,000 – 3,000</td>
<td>Stable</td>
<td>5%</td>
</tr>
<tr>
<td>Common coot</td>
<td>1,000 – 2,500</td>
<td>Stable</td>
<td>4%</td>
</tr>
</tbody>
</table>

Figure A.1. Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Armenia. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.

Map A.1. Potential worst locations for illegal killing/taking of birds in Armenia.
A.2. Austria

Contributors to the review

**Main contributor:**
Matthias Schmidt (BirdLife Austria)

**Co-contributors:**
Christian Pichler (WWF Austria), Remo Probst (BirdLife Austria)

Hunting and trapping legislation

**The legislation is comprehensive in Austria.** A major shortage is however that all species listed in the hunting laws are huntable (all raptor and owl species, some waterfowl, heron, Galliformes, crow, pigeon and songbird species) regardless of their threatening status. Some of the listed species are protected the whole year while for others hunting seasons are defined. Hunting is permitted in certain seasons and for certain bird species. There are several derogations under the EU Bird Directive for spring hunting of grouse species, hunting of Carrion Crow, Herons and Cormorants and the *Salzkammergut* songbird-catching.

Scale and scope of illegal killing and taking of birds

**700 – 7,100 individual birds may be illegally killed/taken each year in Austria** (Table A.2) and the trend in the scale of illegal killing/taking was reported to be unknown. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds and know cases. The five species with the highest mean estimates represented 42% of the total estimated number (Table A.2). ‘Predator/Pest control’ was the main reason for killing/taking birds and ‘Protected species’ and ‘illegal shooting’ were both the main types of illegality reported (Figure A.2).

Worst areas for illegal killing and taking of birds

**Two administrative regions were identified as worst locations in Austria** (Map A.2), accounting for 25-50% of the total estimated number of individual birds illegally killed/taken each year in the country. Illegal bird killing seems to be more common in both these regions, where there is a small game hunting tradition and raptors are seen as concurrent, but illegal activities also happen in other regions.

Recommendation to tackle the illegal killing and taking of birds

**There is no real systematic data available in Austria, hence uncertainties about extent of illegal killing of birds in the country.** Illegal shooting and poisoning raptors seems to be the main issue, with the main problem being the legislation itself. The ability of police and prosecutors to enforce the law also seems to be restricted. Another issue is that the authorities had outsourced the controlling of hunting laws to the hunters themselves, meaning means that there is no independent controlling.
Table A.2. Review of the illegal killing/taking of birds in Austria for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed/taken in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (301)</td>
<td>700 – 7,100</td>
<td>Unknown</td>
<td>100%</td>
</tr>
<tr>
<td>Carrion Crow</td>
<td>100 – 1,000</td>
<td>Unknown</td>
<td>14%</td>
</tr>
<tr>
<td>Western Marsh-Harrier</td>
<td>50 – 500</td>
<td>Unknown</td>
<td>7%</td>
</tr>
<tr>
<td>Eurasian Buzzard</td>
<td>50 – 500</td>
<td>Unknown</td>
<td>7%</td>
</tr>
<tr>
<td>Rook</td>
<td>50 – 500</td>
<td>Unknown</td>
<td>7%</td>
</tr>
<tr>
<td>Common Starling</td>
<td>50 – 500</td>
<td>Unknown</td>
<td>7%</td>
</tr>
</tbody>
</table>

Figure A.2. Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Austria. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.

Map A.2. Potential worst locations for illegal killing/taking of birds in Austria.
A.3. Azerbaijan

Contributors to the review

Main contributor: Elchin Sultanov (Azerbaijan Ornithological Society-AOS)

Co-contributors: Tahie Kerimov, Arzu Mammadov (AOS)

Hunting and trapping legislation

The legislation is detailed in Azerbaijan, but mentions exceptions (species included in the Red Data Book) instead of huntable species for duck, goose and Rallidae species. Hunting is permitted in certain seasons and for certain species with hunting quotas. The hunting law only identifies sport hunting, but in many regions there is also commercial hunting. Bird trapping is prohibited.

Scale and scope of illegal killing and taking of birds

191,000 – 997,000 individual birds may be illegally killed/taken each year in Azerbaijan (Table A.3) and the trend in the scale of illegal killing/taking was reported to be stable. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds. The five species with the highest mean estimates represented 64% of the total estimated number (Table A.3). ‘Food (trade)’ was the main reason for killing/taking birds and ‘illegal shooting’ the main type of illegality reported (Figure A.3).

Worst areas for illegal killing and taking of birds

Ten worst locations were identified in Azerbaijan (Map A.3), accounting for 44-90% of the total estimated number of individual birds illegally killed/taken each year in the country. Most of them were located on the Caspian coast where illegal waterbird shooting is reported to be widespread. Ten of 20 potential worst locations were located in Azerbaijan, of which the worst one ‘Greater and Lesser Gizilagach Bays’, where >100,000 birds were estimated to be illegally killed/taken on average each year.

Recommendation to tackle the illegal killing and taking of birds

A large part of the bird take in Azerbaijan may be as a result of various violations of hunting legislation. The Ministry of Ecology seems to be pro-active in tackling the issue (e.g. announcing fighting with poachers and showing deterrent actions on TV) but results of monitoring and inspections are not publicly shared. Necessary changes in hunting legislation are needed, as well as zoning of hunting areas in some protected areas, licensing all trade of shot/trapped birds and allowing commercial hunting where it is important for local population but with strong limits in relevant legislation. All these recommendations need to be implemented on the ground.
Table A.3. Review of the illegal killing/taking of birds in Azerbaijan for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed/taken in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (351)</td>
<td>191,000 – 997,000</td>
<td>Stable</td>
<td>100%</td>
</tr>
<tr>
<td>Common Coot</td>
<td>50,000 – 150,000</td>
<td>Stable</td>
<td>17%</td>
</tr>
<tr>
<td>Mallard</td>
<td>20,000 – 150,000</td>
<td>Stable</td>
<td>14%</td>
</tr>
<tr>
<td>Eurasian Wigeon</td>
<td>20,000 – 120,000</td>
<td>Stable</td>
<td>12%</td>
</tr>
<tr>
<td>Common Teal</td>
<td>20,000 – 120,000</td>
<td>Stable</td>
<td>12%</td>
</tr>
<tr>
<td>Red-crested Pochard</td>
<td>15,000 – 100,000</td>
<td>Moderate increase</td>
<td>10%</td>
</tr>
</tbody>
</table>

Figure A.3. Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Azerbaijan. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.

A.4. Belarus

Contributors to the review

Main contributor:
Alexandre Vintchevski (BirdLife Belarus-APB)

Co-contributors:
Irina Samusenko and Pavel Pinchuk (Practical Center for Bioresources, National Academy of Sciences of Belarus), Vadzim Prakapchuk (APB)

Hunting and trapping legislation

The legislation is comprehensive in Belarus. Hunting is permitted in certain seasons and for certain bird species. Decoys and calling devices can be used without limitation for any species or season. Trapping of birds as a mean of hunting is prohibited, but trapping of some passerine species such as cagebirds doesn’t require a permission. Falconry is authorised with some species. Spring hunting allowed for geese is detrimental for both protected Lesser White-fronted Goose and Red-Breasted Goose, owing to possible misidentification by hunters.

Scale and scope of illegal killing and taking of birds

35,700 – 94,300 individual birds may be illegally killed/taken each year in Belarus (Table A.4) and the trend in the scale of illegal killing/taking was reported to be stable. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds as there are no actual data on this issue. The five species with the highest mean estimates represented 39% of the total estimated number reported (Table A.4). ‘Sport’ was the main reason for killing/taking birds and ‘illegal shooting’ the main type of illegality reported (Figure A.4).

Worst areas for illegal killing and taking of birds

Nine worst locations were identified in Belarus (Map A.4), accounting for 6-12% of the total estimated number of individual birds illegally killed each year in the country. These low percentages mean that illegal activities are widespread within the country.

Recommendation to tackle the illegal killing and taking of birds

Belarus is facing specific issues regarding illegal killing of birds, but there is no real systematic data available in Belarus. More robust data and better law enforcement should help to underpin efforts to tackle this issue on the ground.
Table A.4. Review of the illegal killing/taking of birds in Belarus for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed/taken in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (262)</td>
<td>35,700 – 94,300</td>
<td>Stable</td>
<td>100%</td>
</tr>
<tr>
<td>Common Starling</td>
<td>3,000 – 10,000</td>
<td>Stable</td>
<td>10%</td>
</tr>
<tr>
<td>Northern House Martin</td>
<td>1,000 – 10,000</td>
<td>Moderate increase</td>
<td>8%</td>
</tr>
<tr>
<td>Barn Swallow</td>
<td>1,000 – 10,000</td>
<td>Moderate increase</td>
<td>8%</td>
</tr>
<tr>
<td>Great White Egret</td>
<td>3,000 – 5,000</td>
<td>Moderate increase</td>
<td>6%</td>
</tr>
<tr>
<td>Caspian Gull</td>
<td>3,000 – 4,500</td>
<td>Substantial increase</td>
<td>6%</td>
</tr>
</tbody>
</table>

Figure A.4. Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Belarus. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.

A.5. Belgium

Contributors to the review

Main contributor:
Gerald Driessens (Natuurpunt) and Jean-Yves Paquet (Natagora)

Co-contributors:
Marita Arvela (Policy Officer EU), Wim Van den Bossche (BirdLife international), Jan Rodts and Nicolas Brackx (Vogelbescherming Vlaanderen), Mark Vandenmeerschaut (Agentchap voor Natuur en Bos)

Hunting and trapping legislation

The legislation is comprehensive in Belgium with hunting laws for each region (Flanders and Wallonia, hunting ban in the Brussel region). Hunting is permitted in certain seasons and for certain bird species. Trapping is legal in Flanders with certain types of traps, but is illegal in Wallonia. Falconry is legal in both Flanders and Wallonia (with specific authorisation).

Scale and scope of illegal killing and taking of birds

13,800 – 107,000 individual birds may be illegally killed/taken each year in Belgium (Table A.5) and the trend in the scale of illegal killing/taking was reported to be unknown. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds and published data of numbers of birds illegally killed/taken (source: Vogelbescherming Vlaanderen). The five species with the highest mean estimates represented 58% of the total estimated number (Table A.5). ‘Cagebird’ was the main reason for killing/taking birds and ‘Protected species’ the main type of illegality reported (Figure A.5).

Worst areas for illegal killing and taking of birds

No worst locations were identified in Belgium as illegal practises were reported to spread over the country randomly.

Recommendation to tackle the illegal killing and taking of birds

The two main Belgian issues regarding illegal activities against birds are bird trapping for keeping them in cages and bird shooting/poisoning for predator/pest control. There are special anti-poaching units in both Flanders and Wallonia that are trained in the pursuit of illegal activities, but data should be better centralised and include more details in order to increase the robustness of estimates and to measure trends in illegal activities.
Table A.5. Review of the illegal killing/taking of birds in Belgium for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed/taken in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (264)</td>
<td>13,800 – 107,000</td>
<td>Unknown</td>
<td>100%</td>
</tr>
<tr>
<td>Common Chaffinch</td>
<td>2,000 – 20,000</td>
<td>Unknown</td>
<td>18%</td>
</tr>
<tr>
<td>Carrion Crow</td>
<td>1,100 – 11,000</td>
<td>Unknown</td>
<td>10%</td>
</tr>
<tr>
<td>Brambling</td>
<td>1,100 – 11,000</td>
<td>Unknown</td>
<td>10%</td>
</tr>
<tr>
<td>European Goldfinch</td>
<td>2,000 – 10,000</td>
<td>Unknown</td>
<td>10%</td>
</tr>
<tr>
<td>Common Starling</td>
<td>1,000 – 10,000</td>
<td>Substantial decline</td>
<td>9%</td>
</tr>
</tbody>
</table>

Figure A.5. Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Belgium. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.
A.6. Bulgaria

Contributors to the review

**Main contributor:** Dimitar Gradinarov (Bulgarian Society for the Protection of Birds-BSPB)

**Co-contributors:** Stoycho Stoychev, Petar Iankov, Irina Kostadinova-Mateeva and Stoyan Nikolov (BSPB)

Hunting and trapping legislation

The legislation is comprehensive in Bulgaria. Hunting is permitted in certain seasons and for certain bird species. Only certain types of rifles are permitted and all other hunting methods are forbidden including use of calling devices or live decoys. Any form of trapping is illegal in the common terms of the regular hunting practices.

Scale and scope of illegal killing and taking of birds

11,600 – 63,700 individual birds may be illegally killed/taken each year in Bulgaria (Table A.6) and the trend in the scale of illegal killing/taking was reported to be unknown. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds compiled in the BSPB bird crime database. The five species with the highest mean estimates represented 55% of the total estimated number (Table A.6). ‘Sport’ was the main reason for killing/taking birds and ‘illegal shooting’ the main type of illegality (Figure A.6).

Worst areas for illegal killing and taking of birds

Five worst locations were identified in Bulgaria (Map A.6), accounting for 5-68% of the total estimated number of individual birds illegally killed each year in the country. ‘Black Sea coast’ is a large area where illegal activities may be widespread with a higher intensity in specific sites: Dobrudzha and Dobrich region, Durankulak lake, Shabla lake and Burgas lakes.

Recommendation to tackle the illegal killing and taking of birds

There are various issues concerning the illegal killing and taking of birds in Bulgaria, such as nest robbing for illegal falconry, egg collecting, persecution of raptors, trapping of songbirds for foreign market, illegal hunting by foreigners, killing of raptor for taxidermy collection, etc. BSPB are using a data base to try to monitor all kinds of data regarding bird crime cases. It contains information of the date, place, type, species, etc. Whilst better law enforcement should help to underpin efforts to tackle this issue on the ground, bird crime in general seems to be a low priority task for the institutions.
Table A.6. Review of the illegal killing/taking of birds in Bulgaria for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (335)</td>
<td>11,600 – 63,700</td>
<td>Unknown</td>
<td>100%</td>
</tr>
<tr>
<td>Eurasian Skylark</td>
<td>100 – 17,000</td>
<td>Unknown</td>
<td>23%</td>
</tr>
<tr>
<td>Mallard</td>
<td>2,000 – 5,000</td>
<td>Unknown</td>
<td>9%</td>
</tr>
<tr>
<td>Common Quail</td>
<td>1,000 – 5,000</td>
<td>Moderate increase</td>
<td>8%</td>
</tr>
<tr>
<td>Common Starling</td>
<td>1,000 – 5,000</td>
<td>Unknown</td>
<td>8%</td>
</tr>
<tr>
<td>Greater White-fronted Goose</td>
<td>500 – 5,000</td>
<td>Stable</td>
<td>7%</td>
</tr>
</tbody>
</table>

Figure A.6. Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Bulgaria. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.

A.7. Czechia

Contributors to the review

Main contributor: Zdeněk Vermouzek (Czech Society for Ornithology-CSO)

Co-contributors: Petr Lumpe (for Common Crane) and the data from all contributors to the “Free Wings Database” (database of illegal persecutions led by CSO)

Hunting and trapping legislation

The legislation is comprehensive in Czechia. Licensed hunting is permitted in certain seasons and for certain bird species. Falconry is allowed, but only at certain times of the year and trapping of birds is prohibited. Hunting with calling devices, live decoys, from moving vehicles, etc. are prohibited methods. No major inconsistency was reported.

Scale and scope of illegal killing and taking of birds

1,800 – 23,700 individual birds may be illegally killed/taken each year in Czechia (Table A.7) and the trend in the scale of illegal killing/taking was reported to be stable. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds compiled in the “Free Wings Database”. The five species with the highest mean estimates represented 54% of the total estimated number (Table A.7). ‘Predator/Pest control’ was the main reason for killing/taking birds and ‘Protected species’ the main type of illegality reported (Figure A.7).

Worst areas for illegal killing and taking of birds

No worst location was identified in Czechia as illegal killing occurs where the target species are: illegal poisoning mainly in lowlands, illegal shooting of starling in vineyards, etc.

Recommendation to tackle the illegal killing and taking of birds

Killing for control of predators is the main purpose of illegal activities in Czechia. In autumn 2016, a LIFE project ‘PannonEagle’ was started which programmed the systematic monitoring of illegal poisoning and other illegal persecutions. Poisoning is regarded by CSO as the most important type of illegality to survey because it affects the most endangered species in the country. Systematic data should increase robustness of estimates and measure trends in illegal activities. Better enforcement of the law on all levels (detection, investigation, prosecution) should deter the offenders and help to ensure a decrease in the illegal persecution of birds.
**Table A.7.** Review of the illegal killing/taking of birds in Czechia for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (284)</td>
<td>1,800 – 23,700</td>
<td>Stable</td>
<td>100%</td>
</tr>
<tr>
<td>Common Starling</td>
<td>50 – 5,000</td>
<td>Stable</td>
<td>20%</td>
</tr>
<tr>
<td>Great Cormorant</td>
<td>260 – 3,000</td>
<td>Stable</td>
<td>13%</td>
</tr>
<tr>
<td>Grey Heron</td>
<td>260 – 2,000</td>
<td>Stable</td>
<td>9%</td>
</tr>
<tr>
<td>Northern House Martin</td>
<td>200 – 2,000</td>
<td>Unknown</td>
<td>9%</td>
</tr>
<tr>
<td>Mallard</td>
<td>100 – 1,000</td>
<td>Stable</td>
<td>4%</td>
</tr>
</tbody>
</table>

**Figure A.7.** Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Czechia. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.
A.8. Denmark

Contributors to the review

Main contributor: Knud N. Flensted (Dansk Ornitologisk Forening – BirdLife/DOF)

Co-contributors: (none)

Hunting and trapping legislation

The legislation is comprehensive in Denmark. Licensed hunting is permitted in certain seasons and for certain bird species. Trapping of crows and magpies is allowed only with special permission. No major inconsistency was reported.

Scale and scope of illegal killing and taking of birds

7,500 – 55,000 individual birds may be illegally killed/taken each year in Denmark (Table A.8) and the trend in the scale of illegal killing/taking was reported to be unknown. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds. The five species with the highest mean estimates represented 53% of the total estimated number (Table A.8). ‘Predator/Pest control’ was the main reason for killing/taking birds and ‘illegal shooting’ the main type of illegality reported (Figure A.8).

Worst areas for illegal killing and taking of birds

No worst location was identified in Denmark. There is not enough information nor knowledge to pin down worst locations.

Recommendation to tackle the illegal killing and taking of birds

Several illegal activities against birds were mentioned for Denmark, although the importance of many of them may be decreasing. The killing of predators (birds of prey but also competitor species such as crows, gulls) is the biggest issue. Because of the very high intensity of hunting activity in Denmark (ducks, swans, geese, waders etc.), protected species may also be affected but the evidence is limited. DOF collect ad-hoc information about illegal killing of birds, in particular on birds of prey and other full protected species. Systematic data should be collected to increase the robustness of estimates and to measure trends in illegal activities.
Table A.8. Review of the illegal killing/taking of birds in Denmark for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (274)</td>
<td>7,500 – 55,000</td>
<td>Unknown</td>
<td>100%</td>
</tr>
<tr>
<td>Common Starling</td>
<td>1,000 – 10,000</td>
<td>Substantial decline</td>
<td>18%</td>
</tr>
<tr>
<td>Common Woodpigeon</td>
<td>500 – 5,000</td>
<td>Unknown</td>
<td>9%</td>
</tr>
<tr>
<td>European Herring Gull</td>
<td>500 – 5,000</td>
<td>Substantial decline</td>
<td>9%</td>
</tr>
<tr>
<td>Eurasian Magpie</td>
<td>500 – 5,000</td>
<td>Unknown</td>
<td>9%</td>
</tr>
<tr>
<td>Northern House Martin</td>
<td>500 – 5,000</td>
<td>Unknown</td>
<td>9%</td>
</tr>
</tbody>
</table>

Figure A.8. Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Denmark. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.
A.9. Estonia

Contributors to the review

Main contributor: Veljo Volke (Estonian Ornithological Society-EOS)

Co-contributors: Piret Reinsalu (Environmental Inspectorate), Jaanus Elts (EOS), Madis Leivits DVM (Estonian University of Life Sciences)

Hunting and trapping legislation

The legislation is comprehensive in Estonia. Hunting is permitted in certain seasons and for certain bird species. Shooting (with permitted firearms) and trapping (with permitted traps) are allowed by law. All other hunting methods are forbidden including use of calling devices, falconry or live decoys, shooting from a moving vehicle of any sort.

Scale and scope of illegal killing and taking of birds

1,700 – 11,000 individual birds may be illegally killed/taken each year in Estonia (Table A.9) and the trend in the scale of illegal killing/taking was reported to be unknown. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds, and data from hunting bag monitoring and species survey for Great Cormorant and White-tailed Sea-eagle. The five species with the highest mean estimates represented 54% of the total estimated number (Table A.9). ‘Predator/Pest control’ was the main reason for killing/taking birds and ‘Other’ (specified as egg collection and nest destruction for half the cases respectively) the main type of illegality reported (Figure A.9).

Worst areas for illegal killing and taking of birds

Two worst locations were identified in Estonia (Map A.9), accounting for 13-35% of the total estimated number of individual birds illegally killed or taken each year in the country. They are both located on the coast where cases of illegal killing of waterbirds are reported every year, but illegal activities also occur in other parts of the country.

Recommendation to tackle the illegal killing and taking of birds

Illegal activities against birds are not common in Estonia. Cormorants are the only exception as serious levels of illegal killing exists in some islands or regions, likely due to fishermen. The collection of eggs for traditional delicacies is also a regular activity on some islands. To increase the robustness of estimates and to measure trends in illegal activities systematic data should be collected, while better law enforcement should help to underpin efforts to tackle this issue on the ground.
Table A.9. Review of the illegal killing/taking of birds in Estonia for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (259)</td>
<td>1,700 – 11,000</td>
<td>Unknown</td>
<td>100%</td>
</tr>
<tr>
<td>Great Cormorant</td>
<td>200 – 4,500</td>
<td>Substantial decline</td>
<td>37%</td>
</tr>
<tr>
<td>Tufted Duck</td>
<td>100 – 500</td>
<td>Stable</td>
<td>5%</td>
</tr>
<tr>
<td>European Herring Gull</td>
<td>100 – 500</td>
<td>Stable</td>
<td>5%</td>
</tr>
<tr>
<td>Barnacle Goose</td>
<td>50 – 500</td>
<td>Unknown</td>
<td>4%</td>
</tr>
<tr>
<td>Common Swift</td>
<td>100 – 300</td>
<td>Unknown</td>
<td>3%</td>
</tr>
</tbody>
</table>

Figure A.9. Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Estonia. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.

A.10. Faroe Islands

Contributors to the review

**Main contributor:**
Leivur Janus Hansen (Faroese Ornithological Society-FOS)

**Co-contributors:**
Johannis Danielsen and William Simonsen (FOS)

Hunting and trapping legislation

*The legislation is comprehensive in Faroe Islands* but the legal framework is to some degree based on a public and government structure from the 1950s, parts of which no longer exists. Hunting is permitted in certain seasons and for certain bird species. Shooting, catching and egg collecting are allowed by law. Bird trapping is prohibited.

Scale and scope of illegal killing and taking of birds

200 – 2,700 individual birds may be illegally killed/taken each year in Faroe Islands (Table A.10) and the trend in the scale of illegal killing/taking was reported to be unknown. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds. The five species with the highest mean estimates represented 63% of the total estimated number (Table A.10). ‘Food (subsistence)’ was the main reason for killing/taking birds and ‘illegal shooting’ the main type of illegality reported (Figure A.10).

Worst areas for illegal killing and taking of birds

*No worst location was identified in Faroe Islands*. There is not enough information nor knowledge to pin down worst locations.

Recommendation to tackle the illegal killing and taking of birds

*There is neither monitoring nor any plans to start monitoring of illegal killing and taking of birds in Faroe Islands*. This issue doesn’t seem to be a priority for government. Cases of illegal killing/taking are however reported each year, but are very difficult to document. The collection of systematic data ought to increase robustness of estimates and measure trends in illegal activities while better law enforcement should help to underpin efforts to tackle this issue on the ground.
Table A.10. Review of the illegal killing/taking of birds in Faroe Islands for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (118)</td>
<td>200 – 2,700</td>
<td>Unknown</td>
<td>100%</td>
</tr>
<tr>
<td>Common Starling</td>
<td>100 – 500</td>
<td>Unknown</td>
<td>20%</td>
</tr>
<tr>
<td>Atlantic Puffin</td>
<td>10 – 500</td>
<td>Unknown</td>
<td>17%</td>
</tr>
<tr>
<td>European Shag</td>
<td>10 – 300</td>
<td>Unknown</td>
<td>10%</td>
</tr>
<tr>
<td>Greylag Goose</td>
<td>20 – 200</td>
<td>Unknown</td>
<td>7%</td>
</tr>
<tr>
<td>Common Eider</td>
<td>20 – 200</td>
<td>Unknown</td>
<td>7%</td>
</tr>
</tbody>
</table>

Figure A.10. Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Faroe Islands. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.
A.11. Finland

Contributors to the review

Main contributor:
Teemu Lehtiniemi (BirdLife Finland)

Co-contributors:
Tero Toivanen and Aki Arkiomaa
(BirdLife Finland), Finnish ringing center

Hunting and trapping legislation

The legislation is comprehensive in Finland. Licensed hunting is permitted in certain seasons and for certain bird species. Hunting is allowed 24/7 by rifles, shotguns and bows. Trapping by snares of Willow Grouse and Rock Ptarmigan in Northern Finland is also allowed. There is separate legislation for the autonomous region of the Åland Islands. There are major inconsistencies in the reported hunting of endangered species during the spring and summer hunting of male Eiders. Another problematic aspect is that hunting is allowed 24/7.

Scale and scope of illegal killing and taking of birds

1,900 – 13,300 individual birds may be illegally killed/taken each year in Finland (Table A.11) and the trend in the scale of illegal killing/taking was reported to be stable. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds, monitoring of Great Cormorant colonies and ring recovery data. The five species with the highest mean estimates represented 57% of the total estimated number (Table A.11). ‘Food (delicacy)’ was the main reason for killing/taking birds and ‘illegal shooting’ the main type of illegality reported (Figure A.11).

Worst areas for illegal killing and taking of birds

No worst location was identified in Finland. Illegal activities were reported to occur within the country (mainly in rural areas).

Recommendation to tackle the illegal killing and taking of birds

Illegal killing of birds in Finland seems to be very limited and is neither widespread nor concentrated in any particular area. It happens occasionally or accidentally. Law enforcement seems adequate and no specific action is recommended.
Table A.11. Review of the illegal killing/taking of birds in Finland for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (264)</td>
<td>1,900–13,300</td>
<td>Stable</td>
<td>100%</td>
</tr>
<tr>
<td>Western Capercaillie</td>
<td>200 – 2,000</td>
<td>Moderate increase</td>
<td>14%</td>
</tr>
<tr>
<td>Black Grouse</td>
<td>200 – 2,000</td>
<td>Stable</td>
<td>14%</td>
</tr>
<tr>
<td>Great Cormorant</td>
<td>500 – 1,500</td>
<td>Stable</td>
<td>13%</td>
</tr>
<tr>
<td>Mew Gull</td>
<td>200 – 1,000</td>
<td>Stable</td>
<td>8%</td>
</tr>
<tr>
<td>Eurasian Jackdaw</td>
<td>100 – 2,000</td>
<td>Substantial increase</td>
<td>7%</td>
</tr>
</tbody>
</table>

Figure A.11. Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Finland. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.
A.12. Georgia

Please note that first information was collected in 2014-2015 (during the Mediterranean review). As monitoring areas were enlarged, better data were used to update the first assessment.

Contributors to the review

Main contributor: Alexander Rukhaia (SABUKO)
Co-contributors: Aslan Bolkvadze, Natia Javakhishvili, Anna Sandor, Dennis de los Rios, Anders Gray and Oliver Reville (SABUKO); Zura Javakhisvili and Lexo Gavashelishvili (ISU); Gareth Goldthorpe (FFI); Johannes Jansen, Wouter Mertens, Wouter Vansteelant (BRC); Amiran Kodiashvili (FAVPA); Local poachers; National Falconry Union of Georgia

Hunting and trapping legislation

The legislation is comprehensive in Georgia. Hunting is permitted in certain seasons and for certain bird species. One of the major inconsistencies reported was that quotas and hunting periods are fixed and are not subject to a yearly review based on surveys, natural or meteorological circumstances. Falconry is permitted by law but any aspect is regulated. Trapping is forbidden by law.

Scale and scope of illegal killing and taking of birds

8,600 – 37,100 individual birds may be illegally killed/taken each year in Georgia (Table A.12) and the trend in the scale of illegal killing/taking was reported to be unknown. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds and data from illegal bird killing monitoring in different areas of the country. The five species with the highest mean estimates represented 56% of the total estimated number (Table A.12). ‘Sport’ was the main reason for killing/taking birds and ‘illegal shooting’ the main type of illegality (Figure A.12).

Worst areas for illegal killing and taking of birds

There were six worst locations identified in Georgia (Map A.13) which accounted for 28-72% of the total estimated number of individual birds illegally killed or taken each year. Under the legal hunting pretext all resident and migratory species may be shot in these worst locations, but illegal killing also occurs elsewhere in the country.

Recommendation to tackle the illegal killing and taking of birds

SABUKO collects information on illegal killing in Western and Eastern part of Georgia, providing annual systematic monitoring of hunting activities, especially poaching. Cooperation with competent bodies is the priority in order to establish effective information campaigns, feasible law enforcement strategies, realistic quotas and best practices for hunters.
Table A.12. Review of the illegal killing/taking of birds in Georgia for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (284)</td>
<td>8,600 – 37,100</td>
<td>Unknown</td>
<td>100%</td>
</tr>
<tr>
<td>European Honey-buzzard</td>
<td>3,000 – 7,000</td>
<td>Unknown</td>
<td>22%</td>
</tr>
<tr>
<td>Common Quail</td>
<td>1,000 – 5,000</td>
<td>Unknown</td>
<td>13%</td>
</tr>
<tr>
<td>Eurasian Buzzard</td>
<td>1,000 – 4,000</td>
<td>Unknown</td>
<td>11%</td>
</tr>
<tr>
<td>Montagu’s Harrier</td>
<td>500 – 2,000</td>
<td>Unknown</td>
<td>5%</td>
</tr>
<tr>
<td>Common Snipe</td>
<td>100 – 2,000</td>
<td>Unknown</td>
<td>5%</td>
</tr>
</tbody>
</table>

Figure A.12. Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Georgia. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.

Map A.12. Potential worst locations for illegal killing/taking of birds in Georgia.
A.13. Germany

Contributors to the review

Main contributor: Lars Lachmann (Nature and Biodiversity Conservation Union-NABU)

Co-contributors: (none)

Hunting and trapping legislation

The legislation in Germany is comprehensive and includes federal and regional laws. Licensed hunting is permitted in certain seasons and for certain bird species. Shooting and falconry are permitted by law but trapping is prohibited. The major problem of German hunting legislation and practice is that bags are not being reported in a species-specific way for all “wild geese” or “wild ducks”, making it impossible to tell how many individuals of which species are hunted.

Scale and scope of illegal killing and taking of birds

53,500 – 146,000 individual birds may be illegally killed/taken each year in Germany (Table A.13) and the trend in the scale of illegal killing/taking was reported to be stable. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds and quantitative data from different surveys on illegal killing (raptor persecution, nest destruction, illegal killing of protected species, finch trapping, etc.). The five species with the highest mean estimates represented 44% of the total estimated number (Table A.13). ‘Other’ was the main reason for killing/taking birds, with 68% of cases being misidentification with species that could be hunted, and ‘illegal shooting’ the main type of illegality reported (Figure A.13).

Worst areas for illegal killing and taking of birds

Six worst locations were identified in Germany (Map A.13), accounting for 51-77% of the total estimated number of individual birds illegally killed each year in the country. All of them with the exclusion of Harz Mountains are large administrative regions where illegal activities were reported to be widespread.

Recommendation to tackle the illegal killing and taking of birds

Illegal killing of birds seems to be a widespread in Germany, in spite of law enforcement which seems efficient and effective. Efforts are therefore still needed to ensure that legislation is fully enforced on the ground.
**Table A.13.** Review of the illegal killing/taking of birds in Germany for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (309)</td>
<td>53,500–146,000</td>
<td>Stable</td>
<td>100%</td>
</tr>
<tr>
<td>Gadwall</td>
<td>11,000 – 22,000</td>
<td>Stable</td>
<td>17%</td>
</tr>
<tr>
<td>Northern Shoveler</td>
<td>8,000 – 16,000</td>
<td>Stable</td>
<td>12%</td>
</tr>
<tr>
<td>Common Goldeneye</td>
<td>5,000 – 10,000</td>
<td>Stable</td>
<td>8%</td>
</tr>
<tr>
<td>Garganey</td>
<td>5,000 – 10,000</td>
<td>Stable</td>
<td>5%</td>
</tr>
<tr>
<td>Barnacle Goose</td>
<td>2,000 – 4,000</td>
<td>Moderate increase</td>
<td>3%</td>
</tr>
</tbody>
</table>

**Figure A.13.** Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Germany. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.

**Map A.13.** Potential worst locations for illegal killing/taking of birds in Germany.
**A.14. Hungary**

**Contributors to the review**

**Main contributor:** Marton Horvath (Magyar Madártani és Természetvédelmi Egyesület-MME)

**Co-contributors:** Gergo Halmos, Karoly Nagy and Gábor Deák (MME BirdLife Hungary); András Schmidt and Gergő Nagy (Ministry of Agriculture)

**Hunting and trapping legislation**

**The legislation is comprehensive in Hungary.** Licensed hunting is permitted in certain seasons and for certain bird species. Shooting with licensed firearms, trapping with legal equipment and falconry are permitted.

**Scale and scope of illegal killing and taking of birds**

*2,300 – 25,700 individual birds may be illegally killed/taken each year in Hungary* (Table A.14) and the trend in the scale of illegal killing/taking was reported to be in moderate decline. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds and data from the Bird Crime Database operated by MME since 2006. The five species with the highest mean estimates represented 42% of the total estimated number (Table A.14). ‘Sport’ was the main reason for killing/taking birds and ‘protected species’ the main type of illegality reported (Figure A.14).

**Worst areas for illegal killing and taking of birds**

*Nine worst locations were identified in Hungary* (Map A.14), accounting for 55-97% of the total estimated number of individual birds illegally killed/taken each year in the country. They are all large administrative regions as illegal activities were reported to be widespread.

**Recommendation to tackle the illegal killing and taking of birds**

**The most important conservation issue regarding illegal killing of birds in Hungary is the poisoning of raptors for the purpose of predator control,** and the frequency of this activity has increased exponentially since 2005. Hungary is also a transit country for the illegal trade of songbirds. Since 2006, MME has gathered data from relevant stakeholders about bird crimes into a single national database. In the frame of a National Anti-Poisoning Working Group, all relevant stakeholder (national park directorates, NGOs, veterinarians, police, hunters) are providing data for the database and getting back raw data or queries for their work. Better law enforcement should help to underpin efforts to tackle this issue on the ground.
**Table A.14.** Review of the illegal killing/taking of birds in Hungary for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (282)</td>
<td>2,300 – 25,700</td>
<td>Moderate decline</td>
<td>100%</td>
</tr>
<tr>
<td>European Goldfinch</td>
<td>10 – 5,000</td>
<td>Moderate decline</td>
<td>18%</td>
</tr>
<tr>
<td>Northern House Martin</td>
<td>300 – 3,000</td>
<td>Stable</td>
<td>12%</td>
</tr>
<tr>
<td>Eurasian Woodcock</td>
<td>200 – 1,000</td>
<td>Stable</td>
<td>4%</td>
</tr>
<tr>
<td>Western Marsh-harrier</td>
<td>200 – 1,000</td>
<td>Stable</td>
<td>4%</td>
</tr>
<tr>
<td>Northern Goshawk</td>
<td>200 – 1,000</td>
<td>Stable</td>
<td>4%</td>
</tr>
</tbody>
</table>

**Figure A.14.** Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Hungary. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.

**Map A.14.** Potential worst locations for illegal killing/taking of birds in Hungary.
A.15. Iceland

Contributors to the review

Main contributor: Hólmfríður Arnardóttir (Fuglavernd)
Co-contributors: Anonymous Fuglavernd members

Hunting and trapping legislation

The legislation is comprehensive in Iceland. Licensed hunting is permitted in certain seasons and for certain bird species. Shooting, trapping and taking of seabird eggs is authorised by the law. Gulls and Ravens are considered “pest species” and can be shot all year round.

Scale and scope of illegal killing and taking of birds

7,200–48,400 individual birds may be illegally killed/taken each year in Iceland (Table A.15) and the trend in the scale of illegal killing/taking was reported to be unknown. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds. The five species with the highest mean estimates represented 85% of the total estimated number (Table A.15). ‘Food (trade)’ was the main reason for killing/taking birds and ‘Other’ (specifying illegal take of eggs) was the main type of illegality reported (Figure A.15).

Worst areas for illegal killing and taking of birds

No worst location was identified in Iceland due to a lack of information and knowledge.

Recommendation to tackle the illegal killing and taking of birds

There is no systematic data available in Iceland which causes uncertainties about the extent of illegal killing of birds in the country. The main issues seems to be illegal commercial hunting and illegal taking of eggs. Collection of systematic data should increase the robustness of estimates and enable trends to be measured while better law enforcement should help to underpin efforts to tackle this issue on the ground.
Table A.15. Review of the illegal killing/taking of birds in Iceland for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (91)</td>
<td>7,200 – 48,400</td>
<td>Unknown</td>
<td>100%</td>
</tr>
<tr>
<td>Artic Tern (NT)</td>
<td>1,000 – 10,000</td>
<td>Unknown</td>
<td>20%</td>
</tr>
<tr>
<td>Razorbill</td>
<td>1,000 – 10,000</td>
<td>Unknown</td>
<td>20%</td>
</tr>
<tr>
<td>Thick-billed Murre</td>
<td>1,000 – 10,000</td>
<td>Unknown</td>
<td>20%</td>
</tr>
<tr>
<td>Common Murre</td>
<td>1,000 – 10,000</td>
<td>Unknown</td>
<td>20%</td>
</tr>
<tr>
<td>Greater White-fronted Goose</td>
<td>1,000 – 2,000</td>
<td>Unknown</td>
<td>5%</td>
</tr>
</tbody>
</table>

Figure A.15. Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Iceland. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.
A.16. Ireland

Contributors to the review

Main contributor: John Lusby (Birdwatch Ireland)
Co-contributors: Sinead Cummins (BirdWatch Ireland)

Hunting and trapping legislation

The legislation is comprehensive in Ireland. Licensed hunting is permitted in certain seasons and for certain bird species. Only shooting with authorised firearms and trapping for certain species are permitted. The major inconsistency reported was the lack of transparency with respect to bag totals.

Scale and scope of illegal killing and taking of birds

100 – 6,300 individual birds were estimated to be illegally killed/taken each year in Ireland and the trend in the scale of illegal killing/taking was reported to be unknown (Table A.16). These estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds and quantitative data from RAPTOR reports (see below). Lack of evidence and recording of the scale of illegal killing affects the quality of estimates for the majority of species in Ireland.

Please note that upon a request of BWI, only species estimates for raptors are presented in Table A.16.

Worst areas for illegal killing and taking of birds

Seven worst locations for raptor persecution were identified in Ireland (Map A.16), accounting for 40-85% of the total estimated number of individual birds illegally killed each year in the country (based on RAPTOR data). A high number of illegal activities related to raptor persecution were recorded in these large administrative regions for the period 2011-2014. However, it is acknowledged that the incidents of raptor persecution recorded represent a small proportion of the illegal killing of these species, and reporting and evidence gathering bias could affect identification of the worst locations, in addition to the scale of illegal killing.

Recommendation to tackle the illegal killing and taking of birds

There is no systematic data available in Ireland, hence uncertainties about the extent of illegal killing of birds in the country. There is however a national scheme to monitor human related injury and mortality in Irish birds of prey, as well as any incidents of poisoned bait or poisoning of any wildlife, called the RAPTOR (Recording and Addressing Persecution and Threats to Our Raptors) scheme. This monitoring run by National Parks & Wildlife Service (NPWS) provides an indication of the scale of the problem of illegal killing (Figure A.16), however is likely to record only a proportion of incidents which occur. The legislation in Ireland including changes to laws surrounding the use of poison meat baits which came into affect in 2010 are sufficiently robust, however enforcement remains an issue. Collection of systematic data for all bird species should increase robustness of estimates and measure
trends in illegal activities while better law enforcement should help to underpin efforts to tackle this issue on the ground.

Table A.16. Review of the illegal killing/taking of birds in Ireland for all and the five raptor species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (210)</td>
<td>100 – 6,300</td>
<td>Unknown</td>
<td>100%</td>
</tr>
<tr>
<td>Eurasian Buzzard</td>
<td>50 – 400</td>
<td>Moderate increase</td>
<td>7%</td>
</tr>
<tr>
<td>Peregrine Falcon</td>
<td>0 – 250</td>
<td>Moderate increase</td>
<td>4%</td>
</tr>
<tr>
<td>Eurasian Sparrowhawk</td>
<td>0 – 150</td>
<td>Unknown</td>
<td>2%</td>
</tr>
<tr>
<td>Hen Harrier</td>
<td>0 – 30</td>
<td>Stable</td>
<td>0.5%</td>
</tr>
<tr>
<td>Common Kestrel</td>
<td>0 – 30</td>
<td>Unknown</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

Figure A.16. Annual poison and persecution incidents 2011 to 2015 in Ireland (from NPWS 2015).  


A.17. Latvia

Contributors to the review

Main contributor: Andris Stīpnieks (Latvian Ornithological Society-LOB)

Co-contributors: Aiva Bondare (State forestry service); Santa Kirsanova (Nature Conservation Agency); Mara Janaus (Institute of Biology, Laboratory of Ornithology); anonymous LOB members

Hunting and trapping legislation

The legislation is comprehensive in Latvia. Licensed hunting is permitted in certain seasons and for certain bird species. Shooting with authorised firearms and trapping of corvids with selective traps are permitted. The major loophole reported was that there is no pre-defined penalties for taking of non-game species.

Scale and scope of illegal killing and taking of birds

900 – 4,100 individual birds may be illegally killed/taken each year in Latvia (Table A.17) and the trend in the scale of illegal killing/taking was reported to be in moderate decline. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds and quantitative data from the 1993-2016 hunting bag survey conducted by the Latvian Institute of Biology. The five species with the highest mean estimates represented 48% of the total estimated number (Table A.17). ‘Sport’ was the main reason for killing/taking birds and ‘illegal shooting’ the main type of illegality reported (Figure A.17).

Worst areas for illegal killing and taking of birds

Four worst locations were identified in Latvia (Map A.17), accounting for 4-40% of the total estimated number of individual birds illegally killed or taken each year in the country. They are all located in wetland areas.

Recommendation to tackle the illegal killing and taking of birds

In Latvia, illegal activities against birds are rare and do not seem to threaten species conservation. However, the Great Cormorant was reported to be illegally killed in high numbers for ‘predator control’ and some waterbirds were reported to be shot during the hunting season. Most of the birds that are killed illegally are shot. Collection of systematic data for all bird species should increase robustness of estimates and measure trends in illegal activities while better law enforcement should help to underpin efforts to tackle this issue on the ground.
Table A.17. Review of the illegal killing/taking of birds in Latvia for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (268)</td>
<td>900 – 4,100</td>
<td>Moderate decline</td>
<td>100%</td>
</tr>
<tr>
<td>Mallard</td>
<td>500 – 1,000</td>
<td>Moderate decline</td>
<td>30%</td>
</tr>
<tr>
<td>Common Starling</td>
<td>50 – 300</td>
<td>Moderate decline</td>
<td>7%</td>
</tr>
<tr>
<td>Great Cormorant</td>
<td>50 – 200</td>
<td>Moderate increase</td>
<td>5%</td>
</tr>
<tr>
<td>Common Teal</td>
<td>50 – 100</td>
<td>Moderate decline</td>
<td>3%</td>
</tr>
<tr>
<td>Great Crested Grebe</td>
<td>20 - 100</td>
<td>Moderate decline</td>
<td>2%</td>
</tr>
</tbody>
</table>

Figure A.17. Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Latvia. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.

Map A.17. Potential worst locations for illegal killing/taking of birds in Latvia.
A.18. Lithuania

Contributors to the review

Main contributor: Marius Karlonas (Lithuanian ornithological society-LOD)

Co-contributors: Liutauras Raudonikis (LOD); Julius Morkūnas (Klaipėda university); Džiugas Anuškevičius (Ministry of Environment)

Hunting and trapping legislation

The legislation is comprehensive in Lithuania. Licensed hunting is permitted in certain seasons and for certain bird species. Only falconry (with special permits) and shooting with rifles are permitted. All other hunting methods are forbidden, including the use of calling devices and shooting from any moving vehicle. Bird trapping is prohibited.

Scale and scope of illegal killing and taking of birds

600 – 5,500 individual birds may be illegally killed/taken each year in Lithuania (Table A.18) and the trend in the scale of illegal killing/taking was reported to be stable. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds and on quantitative data from hunting bag and Great Cormorant regulation. The five species with the highest mean estimates represented 50% of the total estimated number (Table A.18). ‘Other’ (specifying ‘nuisance’) was the main reason for killing/taking birds and ‘illegal shooting’ the main type of illegality (Figure A.18).

Worst areas for illegal killing and taking of birds

No exceptionally important places could be identified in Lithuania. Illegal killing and taking of birds is an issue in most of the urban areas, as well as in fish farms during the autumn hunting season.

Recommendation to tackle the illegal killing and taking of birds

Illegal killing of adult birds, chicks and eggs which are considered nuisance and damage buildings (e.g. Northern House Martin and Rook) was reported to be widespread in Lithuania. Illegal killing of starlings and other “berries-eaters” also seems quite common. Ducks and geese are illegally killed for human consumption. Collection of systematic data for all bird species should increase the robustness of estimates and measure trends in illegal activities while better law enforcement should help to underpin efforts to tackle this issue on the ground.
Table A.18. Review of the illegal killing/taking of birds in Lithuania for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (268)</td>
<td>600 – 5,500</td>
<td>Stable</td>
<td>100%</td>
</tr>
<tr>
<td>Northern House Martin</td>
<td>100 – 1,000</td>
<td>Moderate increase</td>
<td>18%</td>
</tr>
<tr>
<td>Mallard</td>
<td>100 – 500</td>
<td>Stable</td>
<td>10%</td>
</tr>
<tr>
<td>Rock Dove</td>
<td>100 – 500</td>
<td>Moderate increase</td>
<td>10%</td>
</tr>
<tr>
<td>Common Starling</td>
<td>50 – 500</td>
<td>Unknown</td>
<td>9%</td>
</tr>
<tr>
<td>Rook</td>
<td>20 – 200</td>
<td>Moderate decline</td>
<td>4%</td>
</tr>
</tbody>
</table>

Figure A.18. Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Lithuania. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.
A.19. Netherlands

Contributors to the review

**Main contributor:**
Gert Ottens (Society for the Protection of Birds-VBN)

**Co-contributors:**
Jip Louwe Kooijmans and Gerald Derksen (VBN); Central Veterinary Institute; Dierenbescherming

Hunting and trapping legislation

**Hunting is comprehensively regulated** in the Netherlands in the Nature Conservation Act and the associated Decree and Regulations implementing the law. Licensed hunting is permitted in certain seasons and for certain bird species. Only falconry and shooting with rifles are permitted and all other hunting methods are forbidden including shooting from any moving vehicle. Bird trapping is prohibited. A lot of hunting in the Netherlands takes place under derogations from the law.

**Scale and scope of illegal killing and taking of birds**

1,500 – 24,900 individual birds may be illegally killed/taken each year in the Netherlands (Table A.19) and the trend in the scale of illegal killing/taking was reported to be unknown. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds and on quantitative data of illegally killed raptor/nest destroyed from the Dutch Working Group on Raptors. The five species with the highest mean estimates represented 23% of the total estimated number (Table A.19). ‘Predator/Pest control’ was the main reason for killing/taking birds and ‘protected species’ the main type of illegality reported (Figure A.19).

Worst areas for illegal killing and taking of birds

Three worst locations were identified in the Netherlands (Map A.19), accounting for 70-90% of the total estimated number of individual birds illegally killed or taken each year in the country. All locations are entire provinces, where relatively large numbers of raptors were reported to be illegally killed or (in most cases) nests were reported to be destroyed.

Recommendation to tackle the illegal killing and taking of birds

In the Netherlands, illegal killing or destroying nests of raptors for ‘predator control’ is an important conservation issue. Many stakeholders (governmental and non-governmental) are carrying out monitoring of illegal killing and taking of birds with different focus (raptor, illegal trade, etc.) but not in a systematic way. Moreover all these data are not centralised. Collection of systematic data for all bird species should increase robustness of estimates and measure trends in illegal activities while better law enforcement should help to underpin efforts to tackle this issue on the ground.
**Table A.19.** Review of the illegal killing/taking of birds in the Netherlands for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (270)</td>
<td>1,500 – 24,900</td>
<td>Unknown</td>
<td>100%</td>
</tr>
<tr>
<td>Eurasian Buzzard</td>
<td>400 – 1,400</td>
<td>Unknown</td>
<td>7%</td>
</tr>
<tr>
<td>European Goldfinch</td>
<td>250 – 1,000</td>
<td>Unknown</td>
<td>5%</td>
</tr>
<tr>
<td>Common Chaffinch</td>
<td>100 – 1,000</td>
<td>Unknown</td>
<td>4%</td>
</tr>
<tr>
<td>Mute Swan</td>
<td>1 – 1,000</td>
<td>Unknown</td>
<td>4%</td>
</tr>
<tr>
<td>Greylag Goose</td>
<td>1 – 1,000</td>
<td>Unknown</td>
<td>4%</td>
</tr>
</tbody>
</table>

**Figure A.19.** Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in the Netherlands. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.

**Map A.19.** Potential worst locations for illegal killing/taking of birds in the Netherlands.
A.20. Norway

Contributors to the review

**Main contributor:**
Paul Shimmings (BirdLife Norway)

**Co-contributors:**
Oddvar Heggøy and anonymous members/contacts (BirdLife Norway); Øystein R. Størkersen (Norwegian Environment Agency)

Hunting and trapping legislation

The legislation is comprehensive in Norway. Hunting is permitted in certain seasons and for certain bird species. Only shooting both with shotguns and/or rifles and trapping with snares (for Willow Grouse and Rock Ptarmigan) are permitted. All other hunting methods are forbidden including the use of artificial lights. No major inconsistencies or loopholes were reported.

Scale and scope of illegal killing and taking of birds

5,200 – 34,500 individual birds may be illegally killed/taken each year in Norway (Table A.20) and the trend in the scale of illegal killing/taking was reported to be unknown. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds and on data from the Statistics Norway for European Shag. The five species with the highest mean estimates represented 76% of the total mean estimated number (Table A.20). ‘Taxidermy/Egg collection’ was the main reason for killing/taking birds and was almost as serious as illegal shooting, and ‘other’ (specifying ‘collecting egg’) and ‘food (as delicacy)’ the main types of illegality reported (Figure A.20).

Worst areas for illegal killing and taking of birds

Four worst locations were identified in Norway (Map A.20), accounting for 4-14% of the total estimated number of individual birds illegally killed each year in the country. A large number of illegal activities were reported in these locations but illegal activities occur throughout the country.

Recommendation to tackle the illegal killing and taking of birds

Illegal activities against birds are present in Norway. The main challenges faced today are illegal egg collecting and collecting of specimens for either falconry or taxidermy. Collection of systematic data for all bird species should increase the robustness of estimates and measure trends in illegal activities while better law enforcement should help to underpin efforts to tackle this issue on the ground.
Table A.20. Review of the illegal killing/taking of birds in Norway for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (253)</td>
<td>5,200 – 34,500</td>
<td>Unknown</td>
<td>100%</td>
</tr>
<tr>
<td>Mew Gull</td>
<td>1,000 – 10,000</td>
<td>Unknown</td>
<td>28%</td>
</tr>
<tr>
<td>European Herring Gull</td>
<td>1,000 – 10,000</td>
<td>Unknown</td>
<td>28%</td>
</tr>
<tr>
<td>Great Black-backed Gull</td>
<td>500 – 5,000</td>
<td>Unknown</td>
<td>14%</td>
</tr>
<tr>
<td>European Shag</td>
<td>700 – 800</td>
<td>Unknown</td>
<td>4%</td>
</tr>
<tr>
<td>Long-tailed Jaeger</td>
<td>100 – 1,000</td>
<td>Unknown</td>
<td>3%</td>
</tr>
</tbody>
</table>

Figure A.20. Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Norway. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.

A.21. Poland

Contributors to the review
Main contributor: Jarosław Krogulec (Polish Society for Protection of Birds-OTOP)
Co-contributors: (none)

Hunting and trapping legislation
The legislation is comprehensive in Poland. Hunting is permitted in certain seasons and for certain bird species. Only shooting with hunting firearms is allowed. Bird trapping is prohibited. No major inconsistencies or loopholes were reported.

Scale and scope of illegal killing and taking of birds
6,800 – 30,100 individual birds may be illegally killed/taken each year in Poland (Table A.21) and the trend in the scale of illegal killing/taking was reported to be in moderate decline. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds and quantitative data available on the webpage of the Polish Eagle Protection Committee and Central Statistical Office of Poland. The five species with the highest mean estimates represented 41% of the total estimated number (Table A.21). ‘Food (delicacy)’ was the main reason for killing/taking birds and ‘illegal shooting’ the main type of illegality reported (Figure A.21).

Worst areas for illegal killing and taking of birds
No exceptionally important places could be pinned down for Poland. Raptor persecution cases are widespread within the country or are limited to the species distribution range (e.g. Osprey, Golden Eagle). Illegal killing of protected waterfowl species was reported to occur alongside legal hunting in water reservoirs, lakes and fishpond complexes.

Recommendation to tackle the illegal killing and taking of birds
The Polish Ministry of Environment has estimated the importance of illegal killing in Poland as medium, but may be a conservation concern for some species, especially raptors. Collection of systematic data for all bird species should increase robustness of estimates and measure trends in illegal activities while better law enforcement should help to underpin efforts to tackle this issue on the ground.
Table A.21. Review of the illegal killing/taking of birds in Poland for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (290)</td>
<td>6,800 – 30,100</td>
<td>Moderate decline</td>
<td>100%</td>
</tr>
<tr>
<td>Eurasian Wigeon</td>
<td>1,000 – 5,000</td>
<td>Moderate decline</td>
<td>16%</td>
</tr>
<tr>
<td>Bean Goose</td>
<td>500 – 2,000</td>
<td>Moderate decline</td>
<td>7%</td>
</tr>
<tr>
<td>Greater White-fronted Goose</td>
<td>500 – 2,000</td>
<td>Moderate decline</td>
<td>7%</td>
</tr>
<tr>
<td>Great Cormorant</td>
<td>500 – 2,000</td>
<td>Moderate decline</td>
<td>7%</td>
</tr>
<tr>
<td>Grey Partridge</td>
<td>700 – 1,000</td>
<td>Substantial decline</td>
<td>7%</td>
</tr>
</tbody>
</table>

Figure A.21. Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Poland. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.
A.22. Romania

Contributors to the review

Main contributor: Dorin Damoc (Romanian Ornithological Society-SOR)

Co-contributors: Fantana Ciprian, Dani Dragan, Sebastian Bugariu and Emil Todorov (SOR); Daroczi Szilard (Milvus Group)

Hunting and trapping legislation

The legislation is comprehensive in Romania. Licensed hunting is permitted in certain seasons and for certain bird species with hunting quotas. Only shooting with rifles and trapping with approved traps are permitted and all other hunting methods are forbidden including falconry and the use of calling devices. A reported loophole in the hunting legislation was that the hunting quotas changed every year and are not approved based on a scientific methodology but on the proposal of the hunting associations. A standardised methodology needs to be developed.

Scale and scope of illegal killing and taking of birds

22,300 – 177,000 individual birds may be illegally killed/taken each year in Romania (Table A.22) and the trend in the scale of illegal killing/taking was reported to be unknown. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds. The five species with the highest mean estimates represented 34% of the total estimated number (Table A.22). ‘Sport’ was the main reason for killing/taking birds and ‘protected species’ the main type of illegality reported (Figure A.22).

Worst areas for illegal killing and taking of birds

No worst location was identified in Romania due to a lack of information and knowledge.

Recommendation to tackle the illegal killing and taking of birds

They are many different illegal activities conducted against birds in Romania. As there is no database on this issue, there are uncertainties about the extent of illegal killing of birds in the country. One of the main issue may be illegal hunting of Skylark for sport and other similar passerine species by foreign hunters, as skylark hunting is not a traditional hunting activity in Romania. Collection of systematic data for all bird species should increase the robustness of estimates and measure trends in illegal activities while better law enforcement should help to underpin efforts to tackle this issue on the ground.
Table A.22. Review of the illegal killing/taking of birds in Romania for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (317)</td>
<td>22,300 – 177,000</td>
<td>Unknown</td>
<td>100%</td>
</tr>
<tr>
<td>Eurasian skylark</td>
<td>1,700 – 25,000</td>
<td>Unknown</td>
<td>13%</td>
</tr>
<tr>
<td>Common Starling</td>
<td>2,000 – 11,000</td>
<td>Unknown</td>
<td>7%</td>
</tr>
<tr>
<td>Mallard</td>
<td>1,200 – 10,000</td>
<td>Unknown</td>
<td>6%</td>
</tr>
<tr>
<td>Crested Lark</td>
<td>760 – 10,000</td>
<td>Unknown</td>
<td>5%</td>
</tr>
<tr>
<td>House Sparrow</td>
<td>500 – 6,300</td>
<td>Unknown</td>
<td>3%</td>
</tr>
</tbody>
</table>

Figure A.22. Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Romania. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.
A.23. Slovakia

Contributors to the review

Main contributor: Miroslav Demko (SOS/BirdLife Slovakia)

Co-contributors: D. Karaska and M. Macek (State Nature Conservation of the Slovak republic); J. Gúgh, J. Ridzon and A. Chudý (SOS/BirdLife Slovakia); Z. Guziová (Raptor Protection of Slovakia-RPS)

Hunting and trapping legislation

The legislation is comprehensive in Slovakia. Licensed hunting is permitted in certain seasons and for certain bird species. Only shooting with authorised firearms and falconry are permitted. All other hunting methods are forbidden including hunting from vehicles and the use of decoys. Trapping is prohibited (except with special permit for pest control). No major inconsistencies or loopholes were reported.

Scale and scope of illegal killing and taking of birds

1,900 – 9,500 individual birds may be illegitimately killed/taken each year in Slovakia (Table A.23) and the trend in the scale of illegal killing/taking was reported to be unknown. Estimates were based on informed expert opinion drawing on qualitative information on the illegal killing/taking of birds and on quantitative data from Vtacia Kriminalita online database. The five species with the highest mean estimates represented 40% of the total estimated number (Table A.23). ‘Predator/Pest control’ was the main reason for killing/taking birds and ‘protected species’ the main type of illegality reported (Figure A.23).

Worst areas for illegal killing and taking of birds

One worst location was identified in Slovakia (Map A.23) which accounted for 5-10% of the total estimated number of individual birds illegally killed each year in the country. Most of the illegal poisoning cases in Slovakia occurred in this wide region (South West Slovakia), but illegal activities are also widespread in the rest of the country.

Recommendation to tackle the illegal killing and taking of birds

The most important conservation issue for Slovakia is the illegal killing of raptors for predator control and the taking of raptors for falconry. Data on illegal raptor persecution are currently collected by Raptor Protection Slovakia, with other governmental and non-governmental stakeholders provide information, but not in a systematic way. Collection of systematic data for all bird species should increase robustness of estimates and measure trends in illegal activities while better law enforcement should help to underpin efforts to tackle this issue on the ground.
Table A.23. Review of the illegal killing/taking of birds in Slovakia for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (281)</td>
<td>1,900–9,500</td>
<td>Unknown</td>
<td>100%</td>
</tr>
<tr>
<td>Common Starling</td>
<td>100 – 2,000</td>
<td>Unknown</td>
<td>18%</td>
</tr>
<tr>
<td>Eurasian Magpie</td>
<td>100 – 1,000</td>
<td>Unknown</td>
<td>10%</td>
</tr>
<tr>
<td>Northern House Martin</td>
<td>100 – 500</td>
<td>Moderate increase</td>
<td>5%</td>
</tr>
<tr>
<td>Rook</td>
<td>100 – 300</td>
<td>Moderate increase</td>
<td>4%</td>
</tr>
<tr>
<td>Carrion Crow</td>
<td>100 – 300</td>
<td>Unknown</td>
<td>4%</td>
</tr>
</tbody>
</table>

Figure A.23. Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Slovakia. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.

A.24. Sweden

Contributors to the review

Main contributor: Ulrik Lötberg (BirdLife Sweden)

Co-contributors: Thomas Birkö, Claes Kyrk, Kenneth Bengtsson, Måns Hjernquist, Peter Nilsson, Lars Gezelius, Tommy Larsson, Mats Axbrink, Lars Harnemo, Tommy Järås and Rolf Larsson (BirdLife Sweden); Peter Hellström (Museum of Natural History)

Hunting and trapping legislation

The legislation is comprehensive in Sweden. Hunting is permitted in certain seasons and for certain bird species. Only shooting with approved firearms and trapping with approved traps is permitted. The major inconsistency reported was that any bird nest situated on private property can be legally removed (including eggs and young) if it is causing major damage or major inconvenience.

Scale and scope of illegal killing and taking of birds

37,400 – 79,800 individual birds may be illegally killed/taken each year in Sweden (Table A.24) and the trend in the scale of illegal killing/taking was reported to be unknown. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds, quantitative data from court cases, and cormorant colony monitoring. The five species with the highest mean estimates represented 51% of the total estimated number (Table A.24). ‘Taxidermy/Egg Collection’ was the main reason for killing/taking birds and ‘protected species’ the main type of illegality reported (Figure A.24).

Worst areas for illegal killing and taking of birds

No worst location was identified in Sweden. Most of the illegal hunting is done on breeding birds and occurs all over the country, but may be more prevalent in less populated areas such as the north of Sweden.

Recommendation to tackle the illegal killing and taking of birds

There is no real systematic data available in Sweden, hence uncertainties about the extent of illegal killing of birds in the country. The fact that the illegal killing and taking of birds is not taking place on migrations points but at remote/obscure breeding sites makes surveying this issue on a national level a very challenging task. BirdLife Sweden is actively monitoring Great Cormorant colonies and collects illegal killing data for this species. Collection of systematic data for all bird species should increase robustness of estimates and measure trends in illegal activities while better law enforcement should help to underpin efforts to tackle this issue on the ground.
Table A.24. Review of the illegal killing/taking of birds in Sweden for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (274)</td>
<td>37,400 – 79,800</td>
<td>Unknown</td>
<td>100%</td>
</tr>
<tr>
<td>Great Tit</td>
<td>7,010 – 14,010</td>
<td>Unknown</td>
<td>18%</td>
</tr>
<tr>
<td>European Greenfinch</td>
<td>5,090 – 10,090</td>
<td>Unknown</td>
<td>13%</td>
</tr>
<tr>
<td>Eurasian Siskin</td>
<td>2,930 – 5,890</td>
<td>Moderate increase</td>
<td>8%</td>
</tr>
<tr>
<td>Redpoll</td>
<td>2,770 – 5,560</td>
<td>Moderate increase</td>
<td>7%</td>
</tr>
<tr>
<td>Eurasian Blue Tit</td>
<td>2,030 – 4,060</td>
<td>Unknown</td>
<td>5%</td>
</tr>
</tbody>
</table>

Figure A.24. Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Sweden. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.
Hunting and trapping legislation

The legislation is comprehensive in Ukraine. Licensed hunting is permitted in certain seasons and for certain bird species. Only shooting with approved firearms is permitted. All other hunting methods are forbidden, including use of calling devices or live decoys and shooting from any moving vehicle. Bird trapping is prohibited.

Scale and scope of illegal killing and taking of birds

1,600 – 20,400 individual birds may be illegally killed/taken each year in Ukraine (Table A.25) and the trend in the scale of illegal killing/taking was reported to be unknown. Estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds and quantitative data from online bird trade monitoring. The five species with the highest mean estimates represented 27% of the total estimated number (Table A.25). ‘Sport’ was the main reason for killing/taking birds and ‘illegal shooting’ the main type of illegality (Figure A.25).

Worst areas for illegal killing and taking of birds

Three worst locations were identified in three (Map A.25), which accounted for 50-85% of the total estimated number of individual birds illegally killed or taken each year in the country. These locations correspond to towns where large numbers of bird trading cases were detected (based on data collected in 2016).

Recommendation to tackle the illegal killing and taking of birds

There is no real systematic data available in Ukraine, but USPB is monitoring illegal shooting, trapping and bird trade. Illegal activities against birds may have a big importance in Ukraine. Collection of systematic data for all bird species should increase robustness of estimates and measure trends in illegal activities while better law enforcement should help to underpin efforts to tackle this issue on the ground.
Table A.25. Review of the illegal killing/taking of birds in Ukraine for all and the five species with the highest estimates of individuals known or likely to be illegally killed/taken per year.

<table>
<thead>
<tr>
<th>Species</th>
<th>Min - Max estimated number of individual birds illegally killed/taken per year</th>
<th>Reported trend of the illegal killing over last 10 years</th>
<th>% of the total estimated number of individual birds illegally killed in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All species (317)</td>
<td>1,600–20,400</td>
<td>Unknown</td>
<td>100%</td>
</tr>
<tr>
<td>Mallard</td>
<td>50 – 2,000</td>
<td>Stable</td>
<td>9%</td>
</tr>
<tr>
<td>Greater White-fronted Goose</td>
<td>100 – 1,000</td>
<td>Stable</td>
<td>5%</td>
</tr>
<tr>
<td>Common Quail</td>
<td>10 – 2,000</td>
<td>Moderate increase</td>
<td>5%</td>
</tr>
<tr>
<td>Grey Partridge</td>
<td>10 – 2,000</td>
<td>Moderate increase</td>
<td>5%</td>
</tr>
<tr>
<td>European Goldfinch</td>
<td>72 – 700*</td>
<td>Unknown</td>
<td>4%</td>
</tr>
</tbody>
</table>

* Underestimated during the 1st assessment in 2016, as new information received in June 2017 that no less than 2,000 individuals were illegally removed from the wild in the South of Ukraine.

Figure A.25. Index of importance of a) the potential reasons and b) the potential types of illegality for killing/taking birds in Ukraine. Solid bars indicate the primary reasons/types, open bars indicate secondary reasons/types.

Hunting and trapping legislation

The legislation in the UK specifies species which can be taken, methods and open seasons, with different hunting laws for each nation. The major loophole reported was the lack of system of licensing for hunting, with no statutory limits applied to hunting bags, or statutory requirement to submit returns. Trapping with approved traps is permitted under General Licences; however, this form of derogation from EU Birds Directive requirements presents challenges for enforcement and lacks a statutory reporting requirement.

Scale and scope of illegal killing and taking of birds

In consultation with the RSPB, impacts to species in the UK are outlined with reference to available studies.

300 – 14,500 individual birds were estimated to be illegally killed/taken each year in the UK and the trend in the scale of illegal killing/taking was reported to be unknown. These estimates were based on informed expert opinion drawing on qualitative information on illegal killing/taking of birds and on quantitative data from RSPB Bird Crime database for raptor species. This database is a unique catalogue of incidents and includes confirmed incidents substantiated by evidence. These represent only a fraction of the number of incidents – many remain undetected and unreported, particularly those that occur in remote areas. Intelligence along with data and population studies support that illegal killing of birds of prey has a significant impact on the density and range of species despite suitable habitat being available. This is particularly acute for the sport of driven grouse shooting, with the survival, breeding productivity and distribution of Golden Eagle15,16, Hen Harrier17,18,19, Peregrine Falcon20,21 and Red Kite22,23 all constrained by illegal persecution on and around grouse moors. Data on the survival and breeding productivity of Red Kites12 and studies of illegal killing, annual productivity and satellite tag data for Golden Eagles5,24 provide an insight into the true scale of the impact of illegal killing on these species, with around a third of newly fledged Golden Eagles illegally killed, for example. Persecution of birds of prey in the UK is also linked to management of released Common Pheasant and Red-legged Partridge in the lowlands and the targeting of birds for falconry, and to protect racing pigeons. Trade in cagebirds and egg collecting are additional areas of bird crime.

23 Smart et al. 2010. Illegal killing slows population recovery of a re-introduced raptor of high conservation concern - The red kite Milvus milvus. Biological Conservation 143: 1278-1286.
Worst areas for illegal killing and taking of raptors

Based on confirmed raptor persecution incidents recorded over a 25-year period (1990-2014), RSPB provided the Map A.26. While the problem is widespread, it is particularly acute in areas associated with driven grouse shooting in the north of England and large parts of Scotland. Over a fifteen-year period (2000-2014) the five worst sites for the largest number of confirmed incidents were the Angus Glens in the north east of Scotland, the Peak District in the north of England, South Lanarkshire and the Scottish Borders in the south of Scotland, and Aberfeldy in the north of Scotland.

Recommendation to tackle the illegal killing and taking of birds

Retention and fully implementing the legal protections for wild birds enshrined in the Birds and Habitats Directives will be essential to address impacts to wild birds from illegal killing in the UK. Raptor persecution was set as one of the UK governments wildlife crime priorities in 2009 but remains an ongoing problem. This can involve organised crime and a higher standard of statutory enforcement and prevention are required, with more effective structuring and targetting of this work. Industry self-regulation and voluntary schemes have repeatedly failed to address the problems of raptor persecution in the UK and associated wider issues of damaging management affecting protected species and habitats. High values attributed to game birds via both shoot income and associated asset value of land and shooting rights present significant barriers to voluntary action. Existing sanctions have very limited deterrent effect, with high levels of recidivism and a lack of accountability for landowners and managers whose staff commit offences. Regulatory interventions are required, including the introduction of a robust licensing system capable of governing driven grouse shooting. This should be supported by a statutory code of practice, including a requirement to submit bag returns. Legislation in Scotland which has introduced ‘vicarious liability’, as a measure to increase accountability for the actions of staff working on estates should be extended to the rest of the UK. There also needs to be increased investment in monitoring, such as the use of satellite tagging, and improved recording of raptor persecution, and enforcement. Raptor persecution cases are often complex, and progressing investigations through to prosecution requires specialist enforcement input. Partnership working involving statutory and non-statutory specialists including police Wildlife Crime Officer (WCO) network, Natural England (NE) advisors, National Wildlife Crime Unit (NWCU), and RSPB Investigators has routinely been critical to cases being taken forward to prosecution. It is important that these partnerships continue to be supported, developed and utilised to maximise enforcement opportunities and outcomes.
A.27. Countries for which illegal killing and taking of birds is not an important conservation issue: Andorra, Liechtenstein, Luxembourg and Switzerland

- **Andorra**

  **Contributors to the review**
  
  **Main contributor:** Albert Ruzafa (Associació per a la Defensa de la Natura)

  **Hunting and trapping legislation**
  
  The legislation is comprehensive in Andorra. Licensed hunting is permitted for certain bird species for certain periods. It is forbidden to use electronic devices, artificial light sources, mirrors, night vision equipment, explosives, poison baits, decoys or air rifles and semi-automatic weapons with more than two cartridges, as well as hunting from moving vehicles. Trapping is forbidden.

  **Scale and scope of illegal killing and taking of birds**
  
  Illegal killing and taking of birds was not reported as an important conservation issue in Andorra for this review. The Andorran government commented in the 2011 National report about the scope of illegal killing of birds for the Bern Convention\(^{25}\) that there is no evidence that illegal killing activities on wild birds are a common fact in Andorra and that the number of recorded cases is less than 1 case/year. According to ADN, specific episodes in which an individual removes a protected species from the wild on a whim may occur. In the past, Western Capercaillies were illegally killed as trophies and it is possible that individuals may continue this practice, but surveillance of mountains and forest by government forces is very efficient.

- **Liechtenstein**

  **Contributors to the review**
  
  **Main contributor:** Georg Willi (Botanisch-Zoologische Gesellschaft)

  **Hunting and trapping legislation**
  
  The legislation is comprehensive in Liechtenstein. Licensed hunting is permitted for certain bird species for certain periods. Only rifles are permitted and all other hunting methods are forbidden including the use of arrows, traps, nets, decoys, falconry and shooting from a moving vehicle etc. Trapping is forbidden.

  **Scale and scope of illegal killing and taking of birds**
  
  For this review the illegal killing and taking of birds was reported as not being an important conservation issue in Liechtenstein. According to BZG, there may be less than five birds illegally killed per year, mainly because of lack of knowledge or from ignorance of the law.

\(^{25}\) Available at:
• Luxembourg

Contributors to the review

Main contributor: Patric Lorgé (natur&ëmwelt)

Hunting and trapping legislation

The legislation is comprehensive in Luxembourg. Licensed hunting is permitted for certain bird species for certain periods. Trapping is forbidden.

Scale and scope of illegal killing and taking of birds

Illegal killing and taking of birds was reported as not an important conservation issue in Luxembourg for this review. Three waterbird species (Mute Swan, Black Stork and Grey Heron) and six passerine species (Eurasian Jackdaw, Rook, Carrion Crow, Northern House Martin, Common Starling and House Sparrow) were however reported to be illegally killed or taken in non-significant numbers. Only European Goldfinch was estimated to be illegal taken in significant numbers (0-200 individuals) for the cagebird trade in Belgium. Indirect poisoning that targets voles was mentioned in relation to Red Kites and Eurasian Buzzard, with a few individuals affected each year. This latter species could also be shot on rare occasions. Few theft of young or eggs is suspected for the Peregrine Falcon.

• Switzerland

Contributors to the review

Main contributor: Michael Gerber (BirdLife Switzerland)

Hunting and trapping legislation

The legislation is comprehensive in Switzerland. Licensed hunting is permitted for 28 native bird species for certain periods. Only rifles are permitted for hunting. It is forbidden to shoot from moving vehicles, use decoys, poison, explosives, fumigation, electrocution, night vision devices, laser sights, silencers, blinding devices or to use lead shot for waterfowl. All traps are forbidden except for cage traps for live trapping that is not used for birds.

Scale and scope of illegal killing and taking of birds

Illegal killing and taking of birds was not reported as an important conservation issue in Switzerland for this review. However, problems with the pigeon fanciers poisoning Peregrine Falcons in the recent years has been mentioned by BirdLife Switzerland, leading to an almost complete disappearance of the species in some regions. While the numbers killed are considered to be insignificant according to the guidance of this review (2-20 individuals may be killed each year in Switzerland), it’s a major concern at the national level. The poisoning of Peregrine Falcons can also affects other species, mainly Goshawk and Sparrowhawk which have an estimated to 1-20 individuals affected each year for each species, although they are not normally the primary targets.