European Red List of Birds

Compiled by BirdLife International

European Commission

IUCN SSC Species Survival Commission

BirdLife INTERNATIONAL

RED LIST

European Red List of Birds

Compiled by BirdLife International

Published by the European Commission.

This publication has been prepared by BirdLife International.

The designation of geographical entities in this book, and the presentation of the material, do not imply the expression of any opinion whatsoever on the part of the European Commission or BirdLife International concerning the legal status of any country, territory, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries. The views expressed in this publication do not necessarily reflect those of the European Commission or BirdLife International.

Citation:	BirdLife International (2015) European Red List of Birds. Luxembourg: Office for Official Publications of the European Communities.
Design and layout by:	Imre Sebestyén jr. / UNITgraphics.com
Printed by:	Pannónia Nyomda
Picture credits on cover page:	The Atlantic Puffin, *Fratercula arctica*, is a seabird species that has been classified as Endangered in Europe and Near Threatened in the EU 27, because of ongoing declines that are projected to continue into the future. © Ondrej Pelánek
	All photographs used in this publication remain the property of the original copyright holder (see individual captions for details). Photographs should not be reproduced or used in other contexts without written permission from the copyright holder.
Available from:	Luxembourg: Publications Office of the European Union, http://bookshop.europa.eu

Europe Direct is a service to help you find answers to your questions about the European Union

Freephone number (*):
00 800 6 7 8 9 10 11

(*) Certain mobile telephone operators do not allow access to 00 800 numbers or these calls may be billed

Published by the European Commission.

A great deal of additional information on the European Union is available on the Internet. It can be accessed through the Europa server (http://europa.eu).

Cataloguing data can be found at the end of this publication.

Luxembourg: Office for Official Publications of the European Communities, 2015.

ISBN: 978-92-79-47450-7

DOI: 10.2779/975810

© European Union, 2015

Reproduction of this publication for educational or other non-commercial purposes is authorized without prior written permission from the copyright holder provided the source is fully acknowledged. Reproduction of this publication for resale or other commercial purposes is prohibited without prior written permission of the copyright holder.

Printed in Hungary.

The text of this book is printed on 130 gsm environmentally-friendly paper.

European Red List of Birds Consortium

Table of contents

Acknowledgements 1

Executive summary 5

1. Background 6
1.1 The European context 6
1.2 European birds, distribution and threat status 6
1.3 Objectives of the assessment 9

2. Assessment Methodology 10
2.1 Global and regional assessment 10
2.2 Data sources 10
2.3 Geographic scope 11
2.4 Preliminary assessments 11
2.5 Production of population sizes and trends 12

3. Results 13
3.1 Threatened status of birds 13
3.2 Status by taxonomic group 19
3.3 Spatial distribution of species 20
3.4 Major threats to birds in Europe 24
3.5 Demographic trends 25
3.6 Gaps in Knowledge 26

4. Biodiversity protection in Europe and the EU 27
4.1 European protection of bird species 27
4.2 Natura 2000 network 28
4.3 Conservation management of birds in the EU 31
4.4 Extinction risk versus conservation status in the EU 32
4.5 Red List versus priority for conservation action 33

5. Recommendations and future work 34
5.1 Policy recommendations 34
5.2 Application of project outputs 35
5.3 Future work 35

References 36

Appendix 1. 38
Appendix 2. 59
Appendix 3. 60

Introduction

We would like to say we are happy to be introducing the European Red List of Birds, an exhaustive compendium of threatened species, but we are not happy. There should not have to be a Red List. One of the reasons for having one is to make future Red Lists unnecessary by saving and protecting the species involved.

But why should WE bother to do that? you might ask. Here are a few reasons.

1. Obvious economic value. For forest industries, avian pest control is estimated at billions of dollars annually. Fruit farmers and crop farmers also benefit: such pests as codling moths and rats and mice are effectively controlled by birds. Restoring seabird colonies adds markedly to the supply of fish, as bird excrement feeds the phytoplankton necessary for small fish. The removal of birds from economic systems would have a catastrophic impact.

2. Hidden economic value. Many, many bird species replant forests by distributing nuts and seeds, hiding them in the ground and then failing to collect. Regrowing forests is one of the crucial elements in any overall carbon-uptake plan; here the role of birds is essential. The jay and the nutcracker are veteran forest-planters.

3. The psychological and emotional value to humans. As more work is done on the negative effect of "nature deficit disorder" and the positive effects of exposure to nature – even on blood pressure, heart rate, and white cell count – someone may put a value on this role soon. Meanwhile, we know that birds have been around for at least 150 million years, and that, for us, they are symbols of hope and of our connection to the numinous. Imagine a world without birdsong, without birdflight, without the return of the birds in spring. Now calculate the cost of the depression and hopelessness that would ensue.

Perhaps it is time to rewrite John Donne's famous sermon:

No bird is an island, entire of itself; every bird is a piece of nature, a part of the ecosystem; if a single species be extinguished, mankind is the less, as well as if a whole family were, as well as any manner of thy friends were; any bird species' death diminishes me, because I am involved in the natural world. And therefore never send to know for whom the Red List is compiled; it is compiled for thee.

First the birds, then us. Unless we pay attention, we'll be on the Red List next. Take note.

Margaret Atwood

and **Graeme Gibson**.

Honourary Presidents, Rare Bird Club,
BirdLife International.

Foreword

Wild birds, many of which are migratory, represent an extraordinary shared natural heritage of Europeans. Our continent is home to more than 530 regularly occurring wild bird species, with a total estimated breeding population of more than two billion pairs. Millions more pass through on migration to Africa or arrive from the Arctic or Russia to spend the winter in Europe.

As a highly visible and colourful part of our wildlife birds have long been used as important key indicators of the health of our natural environment. It is therefore no coincidence that the Birds Directive was the first major piece of EU environmental law to address the issue of biodiversity conservation. Europe's birds are also protected under the Bern Convention, the Convention on Migratory Species and the African Eurasian Waterbird Agreement. The EU Biodiversity Strategy, which aims to achieve the political objective of '*halting the loss of biodiversity and the degradation of ecosystem services in the EU and restoring them in so far as feasible* by 2020, includes an objective of achieving a significant improvement in the status of birds in the EU.

Good quality monitoring is essential to assess progress towards meeting these commitments to protect Europe's birds, as well as for other species and habitats. Within the EU there are now established reporting systems under the Habitats and Birds Directives. While highlighting important progress in halting the loss of species and habitats the latest 2015 State of Nature in the European Union report underlines the serious situation that nature continues to face in the EU.

The IUCN Red Data lists assess the risk of extinction and as such are another important and complementary tool to scientifically assess and communicate the status of species and habitats. Since 2005 the European Commission has been financially supporting the development of Red Data lists for many taxa, including all terrestrial vertebrate groups, except birds. During 2012–2014, a Commission-funded project – led by BirdLife International, and involving a consortium including the European Bird Census Council, Wetlands International, IUCN, BTO, Sovon, RSPB, the Czech Society for Ornithology and BirdLife Europe – filled this important gap.

The European Red List of Birds builds on two earlier valuable assessments of the population status of all species at European level – the *Birds in Europe* volumes. For EU Member States the information in this new publication is for the first time almost fully based on official reporting under the Birds Directive. This has been achieved through very important collaboration between Member States authorities, BirdLife partners and other ornithological experts.

Whereas this new study confirms that over half the bird species in Europe are secure and not at risk of extinction it also reveals that 13% of Europe's regularly occurring wild bird species are threatened, a figure comparable to that recorded in 2004. A further 6% of species are Near Threatened in Europe.

Species that were formerly considered to be of Least Concern but are now threatened or Near Threatened include the European Turtle-dove *Streptopelia turtur,* the Common Kingfisher *Alcedo atthis*, the Eurasian Oystercatcher *Haematopus ostralegus* and the Meadow Pipit *Anthus* pratensis. Many species that were identified as being in trouble a decade ago have still not improved. Examples include the Egyptian Vulture *Neophron percnopterus*, the Aquatic Warbler *Acrocephalus paludicola* and the Northern Lapwing *Vanellus vanellus*.

Yet there is still important progress to report, giving hope for the future. This is particularly the case for some of the species listed in Annex I of the Birds Directive that have been the focus of targeted conservation measures including the designation of Special Protection Areas as part of the Natura 2000 network. For example, while still threatened, the Spanish Imperial Eagle *Aquila adalberti*, the Zino's Petrel *Pretodroma madeira* and the Azores Bullfinch *Pyrrhula murina* all have improved in status thanks to conservation effort. There are also a number of species that were previously considered threatened in Europe and whose status has improved to Least Concern, including the Dalmatian Pelican *Pelecanus crispus*, the Ferruginous Duck *Aythya nyroca*, and the Great Bustard *Otis tarda*. Many of these species have benefitted from EU funded international species action plans and have also been a priority for funding under the EU LIFE programme.

These scientific findings are a vital input to help evaluate the effectiveness of legislation and policies for bird protection in Europe and will underpin future conservation action for birds and their habitats. They demonstrate that much stronger conservation efforts, including better integration with agricultural and other land use policies, will be needed to achieve the target of halting and reversing the loss of biodiversity in Europe by 2020.

Birds are an important and highly valued part of our natural heritage. European citizens will therefore want us to succeed in achieving this ambitious goal.

Micheal O'Briain
Deputy Head of the Nature Unit
DG Environment
European Commission

Acknowledgements

The European Red List of Birds was overseen by the European Red List of Birds Consortium Steering Committee: Ian Burfield (BirdLife International), Craig Hilton-Taylor (IUCN), Paul Donald (RSPB), Richard Gregory (RSPB), David Noble (British Trust for Ornithology, BTO, and the European Bird Census Council, EBCC), Ruud Foppen (Sovon Vogelonderzoek Nederland, and EBCC), Petr Voříšek (Czech Society for Ornithology, ČSO, and EBCC) and Szabolcs Nagy (Wetlands International). Coordination was carried out by Rob Pople and Christina Ieronymidou from the European and Central Asian (ECA) Division of BirdLife International.

Joscelyne Ashpole and Laura Wright, from the BirdLife ECA Division, provided excellent support and compiled species-specific information. Expert advice on applying the IUCN Red List categories, criteria and regional guidelines was provided by Andy Symes, Global Species Officer. Iván Ramírez, Head of Conservation for ECA, coordinated the writing and delivery of this report. Wouter Langhout, Ariel Brunner, Willem Van den Bossche, Marguerite Tarzia and other colleagues at the ECA division, as well as André van Kleunen and Henk Sierdsema of Sovon, Ana Nieto, Melanie Bilz and Rebecca Miller of IUCN, Jana Skorpilová of ČSO and EBCC, Stuart Newson of BTO, and Stephan Flink and Tom Langendoen of Wetlands International, provided additional help, encouragement, and good advice throughout the project. We would like to thank Jan Plesník, Chair of the Standing Committee to the Bern Convention, for chairing the European Red List of Birds kick-off meeting in Mikulov, Czech Republic, in 2012, as well as everyone who participated and helped make the meeting a success. The EBCC Board deserve special thanks for their help at the kick-off meeting and for support throughout the project.

Ian May of the BirdLife Global Information Management team, Ackbar Joolia of IUCN and Carl Scott of Solertium provided essential support and assistance with entering data in the IUCN Species Information Service (SIS) Toolkit. Mark Balman and Mike Evans of BirdLife International provided high-quality support on GIS and database issues and Hannah Wheatley and Rob Martin of the BirdLife Global Science team and Jemma Able of IUCN produced the species distribution maps. Alena Klvaňová (ČSO) and Sarah Harris (BTO) were instrumental in sourcing photos of all bird species in Europe. Laura Formoy provided important support for recruitment and human resources management, Sarah Stokes, Adriana Gawrysiak, Sarah Jones and Colette Sotrines provided substantial assistance with financial management of the project, and Tracy Spraggon provided legal and contracting advice. Additional support was provided by many other colleagues at BirdLife, including Gilly Banks, Beverley Childs, Kandi Lawrence, Irene Lorenzo, Alison Morris and Sue Patterson. Special thanks go to Angelo Caserta, Director for Europe & Central Asia, and Stuart Butchart, Head of Science, for their continuous support and encouragement during this process.

We would like to thank the European Commission, and especially Angelika Rubin, Frank Vassen, Micheal O'Briain and Françoise Lambillotte at DG Environment, as well as Carlos De Oliveira Romao of the European Environment Agency, Zelmira Šípková-Gaudillat, Jérôme Bailly Maitre, Doug Evans, Dominique Richard, Marita Arvela, Brian Mac Sharry and others at the European Topic Centre on Biological Diversity.

The European Red List of Birds assessments and consequently this report were produced in the frame of a service contract with the European Commission (Service Contract No. 070307/2011/604476/SER/B3).

The European Union (EU) Red List assessments were based largely on the official data reported by EU Member States to the European Commission under Article 12 of the Birds Directive in 2013-14[1]. To complete the dataset for the pan-European Red List assessments, similar data were sourced from BirdLife Partners and other collaborating experts in most other European countries. The European Red List of Birds was heavily dependent on the collaboration of hundreds of experts and thousands of volunteers in more than 50 countries and territories, who generously gave of their time, data and knowledge. The enthusiasm and commitment of these people has enabled

1 No Article 12 data were received for Greece and the Czech Republic only reported on breeding birds listed on Annex I of the Birds Directive. With the agreement of the European Commission, surrogate data were sourced and used for these countries. Croatia did not join the EU until 2013 and so did not report under Article 12 for the period 2008-12.

us to generate a comprehensive and detailed picture of bird status and trends in Europe. Whilst acknowledging in general the efforts made by everyone in EU Member States who contributed to the Article 12 reporting, we record below our particular thanks to the following people, who have contributed and provided species data included within this report, asking for forgiveness from anyone whose name is inadvertently omitted or misspelled:

Andorra: Albert Ruzafa (Associació per a la Defensa de la Natura, ADN), Clara Pladevall (Centre d'Estudis de la Neu i la Muntanya d'Andorra, CENMA)

Albania: Taulant Bino (Albanian Society for the Protection of Birds and Mammals, ASPBM)

Armenia: Luba Balyan (Armenian Society for the Protection of Birds, ASPB) Mamikon Ghasabyan (ASPB), Tsovinar Hovhannisyan (ASPB), Nshan Margaryan (Institute of Zoology NAS Armenia), Vardges Hakobyan, Shaqro Ghazaryan (Lake Arpi IBA), Artak Sargsyan (Lake Sevan IBA; Lake Sevan National Park), Rudik Tatoyan (Tashir IBA), Mikhail Voskanov

Azerbaijan: Elchin Sultanov (Azerbaijan Ornithological Society, AOS)

Belarus: Nikiforov M.E. (Belarus Bird Ringing Centre, BBRC; BirdLife Belarus, APB), Pavlushchick T.E. (BBRC; APB), Kozulin A.V. (BBRC; APB), Karlionova N.V. (BBRC; APB), Pinchuk P.V. (BBRC; APB), Samusenko I.E., Bogdanovich I.A. (BBRC; APB), Zhuravliev D.V. (BBRC; APB), Koloskov M.N., and Yakovets N.N. (BBRC; APB)

Bosnia & Herzegovina: Dražen Kotrošan (Ornithological Society Naše Ptice), Goran Topić (Naše Ptice), Ilhan Dervović (Naše Ptice), Branislav Gašić (Museum of Republic of Srpska,), Jovica Sjeničić (Society for Research and Protection of Biodiversity)

Croatia: Vlatka Dumbović Mazal (State Institute for Nature Protection, Croatia), Krešimir Mikulić (Association BIOM, Croatia), Ivan Budinski (Association BIOM), Luka Jurinović, Tibor Mikuška

Czech Republic: Lucie Šmejdová (Czech Society for Ornithology, CSO), Zdeněk Vermouzek (CSO)

Georgia: Brecht Verhelst (Bird Conservation Georgia, BCG), Mary Kate Ugrekhelidze (BCG), Zura Javakhishvili (Institute of Zoology, Ilia State University), Aleksandre Gavashelishvili (Institute of Zoology, Ilia State University), Aleksandre Abuladze (Institute of Zoology, Ilia State University)

Greece: Thanos Kastritis (Hellenic Ornithological Society, HOS), Aris Manolopoulos (HOS), Danae Portolou (HOS), Jakob Fric (HOS), Giorgos Handrinos (HOS), Giorgos Catsadorakis (Society for the Protection of Prespa), Savvas Kazantzidis (Forest Research Institute), Stavros Xirouchakis (Natural History Museum of Crete), Lavrentis Sidiropoulos (HOS), Dora Skartsi (WWF Greece), Tasos Bounas (HOS), Christos Barboutis (HOS), Sergi Herrando (Catalan Ornithological Institute), Filios Akriotis (University of Aegean)

Greenland: David Boertmann (Aarhus University), Anthony David Fox (Aarhus University)

Iceland: Ellen Magnúsdóttir (Fuglavernd), Hólmfríður Arnardóttir (Fuglavernd), Gudmundur A. Gudmundsson (Icelandic Institute of Natural History)

Kosovo: Nexhmedin Ramadani (NGO "FINCH" for protection of birds, Kosovo), Myzafer Arifi (NGO "FINCH")

Liechtenstein: Georg Willi (Botanisch-Zoologische Gesellschaft, BZG)

Former Yugoslav Republic of Macedonia: Metodija Velevski (Macedonian Museum of Natural History), Ana and Borce Arsovski (Macedonian Owl Trust), Emanuel and Tome Lisicanec (Nature Conservation Association "Aquila"), Bratislav Grubac (Institute of Nature Conservation of Serbia), Oliver Avramoski (National Park "Galicica"), Vlasta Skorpikova (Czech Society for Ornithology, CSO), Vaclav Prasek (CSO), Mojmir Dostal (CSO), Petr Vorisek (CSO), Borut Stumberger, Danka Uzunova (Macedonian Ecological Society, MES), Ksenija Putilin (MES), Zarko Brajanoski (MES), Elizabeta Dimitrovska (MES), Bobi Delov (MES)

Moldova: Larisa Bogdea (Institute of Zoology, Academy of Sciences of Moldova, ASM), Nicolai Zubcov (Institute of Zoology, ASM), Andrei Munteanu (Institute of Zoology, ASM), Constantin Cojan (Institute of Zoology, ASM), Vitalie Ajder (Institute of Ecology and Geography,

ASM), Serghei Jurminschi (Biotica Ecological Society), Oleg Mantorov.

Montenegro: Darko Saveljic (Centre for Protection and Research of birds of Montenegro, CZIP), Budimir Rašović, (CZIP)

Norway and Svalbard: Adriaan de Jong (University of Umeå, Sweden), Agnar Målsnes, Andreas Meyer Winnem (BirdLife Norway, NOF, Sør-Trøndelag branch), Arne Follestad (Norwegian Institute for Nature Research, NINA), Arnfinn Tøråsen (NOF, Hedmark branch), Arve Østlyngen, Atle Ivar Olsen (LRSK Nordland), Bjørn Harald Larsen (LRSK Oppland), Carl Knoff (NOF, Hedmark branch), Carsten Lome (Oslo & Akershus Ringing Group/Oslo og Akershus ringmerkingsgruppe), Egil Soglo (State Nature Inspectorate/Statens naturoppsyn, SNO), Frantz Sortland (NOF, Nordland branch), Frode Falkenberg (NOF; LRSK Hordaland), Geir Høitomt (NOF, Oppland branch), Georg Bangjord (SNO; NOF, Sør-Trøndelag branch), Gunnar Gundersen (LRSK Vest-Agder), Gunnar Skjærpe, Hallvard Strøm (Norwegian Polar Institutt/Norsk Polarinstitutt), Hans Christian Pedersen (NINA), Ingar Jostein Øien (NOF), Ingvar Stenberg (NOF, Møre og Romsdal branch), Jan Eivind Østnes (Nord-Trøndelag University College/Høyskolen i Nord-Trøndelag, HiNT), Jan Helge Kjøstvedt (LRSK Aust-Agder), Jan Ove Gjershaug (NINA), Jan Ove Sagerøy (LRSK Sogn og Fjordane), Jepser Madsen (University of Aarhus, Denmark), John Grønning (LRSK Rogaland), John Stenersen (LRSK Nordland), Jon Atle Kålås (NINA), Jon Bekken (LRSK Hedmark; County Governor of Hedmark, Environment Department/Fylkesmannen i Hedmark, miljøvernavdelingen), Jon Lurås (NOF, Hedmark branch), Jon Opheim (LRSK Oppland), Jon Swenson (NINA), Jostein Sandvik pers. comm. (State Nature Inspectorate), Karl-Birger Strann (NINA), Karl-Otto Jakobsen (NINA), Kjell Aadne Solbakken (NOF), Kjell Isaksen (Strix Miljøutredning), Kjell R. Mjølsnes (Mangfold/Kartlegging av artsmangfold), Kjetil Hansen (Norwegian University of Life Sciences/Norges miljø- og biovitenskapsuniversitet, NMBU), Knut Sigbjørn Olsen (LRSK Vest-Agder), Knut Totland (NOF, Hemne local branch), Larry Griffin (The Wildfowl & Wetlands Trust, UK), Lars Frelsøy, Lorentz Noteng (SNO), Magne Myklebust (NOF), Magnus Johan Steinvåg (County Governor of Hordaland, Environment Department/ Fylkesmannen i Hordaland, miljøvernavdeling), Martin Dagsland, Morten Günther (Bioforsk Nord; LRSK Finnmark), Morten Helberg (Department of Biosciences/ Institutt for biovitenskap, IBV), Morten Ree, Odd Frydenlund Steen (County Governor of Buskerud, Environment Department/Fylkesmannen i Buskerud, miljøvernavdeling), Oddvar Heggøy (NOF; LRSK Hordaland), Ole Andreas Forseth, Ole Petter Blestad (NOF, Hedmark branch), Paul Eric Aspholm (Bioforsk Nord), Per Inge Værnesbranden (LRSK Sør-Trøndelag; NOF, Nord-Trøndelag branch), Per Jan Hagevik (LRSK Hedmark), Per Kristian Slagsvold (LRSK Vestfold), Per Ole Syvertsen (Helgeland Museum), Per Willy Bøe (NOF, Sør-Trøndelag branch), Peter Sjolte Ranke (LRSK Østfold; NOF, Sør-Trøndelag branch), Preben Clausen (University of Aarhus, Denmark), Rab Rae (Grampian Ringing Group; NINA), Roald Bengtson (NOF, Aust-Agder branch), Roar Solheim (Agder Natural History Museum and Botanical Garden/Agder naturmuseum og botanisk hage), Rolf Terje Kroglund (HiNT), Runar Jacobsson, Runar Jåbekk (NOF), Rune Aae (LRSK Østfold), Rune Solvang (LRSK Telemark), Simon Rix, Stein Byrkjeland (County Governor of Hordaland, Environment Department /Fylkesmannen i Hordaland, miljøvernavdeling), Steinar Stueflotten (LRSK Buskerud), Steve Baines (LRSK Nordland), Stuart Rae (Grampian Ringing Group; NINA), Svein Dale (NMBU; LRSK Oslo & Akershus), Svein-Håkon Lorentsen (NINA), Sven Rislaa (NOF, Vest-Agder branch), T.V. Johnsen, Terje Bøhler, Terje Lislevand (Bergen Museum), Tom Roger Østerås (NOF, Nord-Trøndelag branch), Tomas Aarvak (NOF), Tor Audun Olsen (LRSK Vest-Agder), Tore Reinsborg (NOF, Nord-Trøndelag branch), Torgeir Nygård (NINA), Vidar Selås, Ø.N. Larsen, Øyvind Wathne Johannesen

Russia: Alexander Mischenko (Russian Society for Bird Conservation and Study), Victor Belik (Southern Federal University), Vladimir Morozov (All-Russian Research Institute for Nature Protection), Lyubov Malovichko (Russian State Agrarian University - Moscow Agricultural Academy), Yuri Krasnov (Murmansk Marine Biological Institute Russian Academy of Sciences), Vladimir Sarychev (Nature Reserve "Galichya Gora" of the Voronezh State University), Oleg Borodin (Ecological Centre of Ulyanovsk Region), Sergei Volkov (Severtsov's Institute of Ecology and Evolution Russian Academy of Sciences, Moscow), Ekaterina Preobrazhenskaya (Russian Bird Conservation Union), Olga Sukhanova (BirdsRussia, Russian Society for Bird Conservation and Study)

Serbia: Slobodan Puzović (Provincial Secretariat for Urban Planning, Construction and Environmental Protection), Milan Ružić (Bird Protection and Study Society of Serbia, BSPSS), Marko Šćiban (BSPSS)

Switzerland: Verena Keller (Swiss Ornithological Institute), Hans Schmid (Swiss Ornithological Institute), Jérôme Guélat (Swiss Ornithological Institute), Marc Kéry (Swiss Ornithological Institute), Peter Knaus (Swiss Ornithological Institute), Claudia Müller (Swiss Ornithological Institute), Nikolai Orgland (Swiss Ornithological Institute), Reto Spaar (Swiss Ornithological Institute), Bernard Volet (Swiss Ornithological Institute), Samuel Wechsler (Swiss Ornithological Institute), Niklaus Zbinden (Swiss Ornithological Institute), Raffael Ayé (SVS/BirdLife Switzerland)

Turkey: Süreyya Isfendiyaroğlu (Doğa Derneği, DD), Engin Yılmaz (DD), Adem Yavuz (Beypazarı Nature House), Arzu Gürsoy (Ondokuz Mayıs University, Biology Department), Burak Özkırlı (DD), Can Yeniyurt (DD), Cemil Gezgin (Istanbul Birdwacthing Society), Cenk Durmuskahya (Nature Research Society), Dilara Kızıl (Ege University, Seferihisar Nature School), Dimitar Demerchiev (Bulgarian Society for the Protection of Birds), Emin Yoğurtcuoglu (birdwacthturkey.com), Emrah Çoban (Kuzeydoga Society), Evrim Tabur (DD), Ferdi Akarsu, Güven Eken (DD; Seferihisar Nature School), İlker Özbahar (Nature Research Society), Kerem Ali Boyla (Kusbank; Turkish Bird Atlas), Levent Erkol (Nature Research Society), Murat Bozdogan (Istanbul Birdwatching Society; birdwatchturkey.com), Ömer Döndüren (The Conservation and Development Union for Izmir Bird Paradise), Riyat Gül, Soner Bekir (birdwacthturkey.com), Sühedan Karauz Er (Turkish Ministry of Forest and Water Affairs), Tamer Albayrak (Mehmet Akif Ersoy University- Biology Department), Vedat Beşkardeş (Istanbul University- Forestry Faculty),Zeynel Arslangündoğdu (Istanbul University-Forestry Faculty)

Ukraine: Yuliya Bondarenko (Ukrainian Society for the Protection of Birds, USPB), Olga Yaremchenko (USPB), Igor Gorban (Ivan Franko Lviv National University), Volodymyr Domashlinets (Ministry of Ecology and Natural Resources of Ukraine), Yuriy Kuzmenko (I.I. Schmalhausen Institute of Zoology of National Academy of Sciences of Ukraine), Petro Chegorka (Oles Honchar Dnipropetrovsk National University), Gennadiy Molodan (Regional Landscape Park "Meotyda"), Mykhaylo Banik (Vasyl Karazin Kharkiv National University), Mykhaylo Beskaravayniy (Karadazkiy Nature Reserve), Ivan Rusev (I.I. Mechnikov Scientific Research Anti-plague Institute), Zinoviy Petrovych (Regional Landscape Park "Kinburnska Kosa")

More than 100 ornithologists and stakeholders from 40 countries met in Mikulov, Czech Republic, in February 2012 to launch the European Red List of Birds project. © BirdLife International

Executive summary

Aim

The European Red List is a review of the conservation status of all European species (mammals, birds, reptiles, amphibians, freshwater fishes, butterflies, dragonflies, bees, medicinal plants and selected groups of beetles, molluscs, and vascular plants) according to IUCN regional Red Listing guidelines. It identifies those species that are threatened with extinction at the regional level – in order that appropriate conservation action can be taken to improve their status. This Red List publication summarises the results for European birds.

Scope

The geographical scope is continent-wide, extending from Greenland in the northwest to the Urals in the northeast, and from the Canary Islands in the southwest to Cyprus and the Caucasus in the southeast. Red List assessments were carried out at two regional levels: for geographical Europe as described above, and for the 27[2] countries that were Member States of the European Union during the period covered by the 2008-2012 round of reporting under Article 12 of the Birds Directive.

Status assessment

The status of all species was assessed using the IUCN Red List Categories and Criteria (Version 3.1; IUCN 2012a[3]), which are the world's most widely accepted system for measuring extinction risk. All assessments followed the latest Guidelines for Using the IUCN Red List Categories and Criteria (IUCN 2014[4]) and the latest Guidelines for Application of IUCN Red List Criteria at Regional and National Levels (Version 4.0; IUCN 2012b[5]). Assessments are available on the European Red List website and data portal: http://ec.europa.eu/environment/nature/conservation/species/redlist, http://www.iucnredlist.org/europe and www.birdlife.org/datazone.

2 Croatia acceded to the EU in 2013 and so did not participate in the current round of Article 12 reporting. Hence data from Croatia were not included in the EU-level assessments.

3 http://cmsdocs.s3.amazonaws.com/keydocuments/Categories_and_Criteria_en_web%2Bcover%2Bbckcover.pdf

4 http://jr.iucnredlist.org/documents/RedListGuidelines.pdf

5 http://cmsdocs.s3.amazonaws.com/keydocuments/Reg_Guidelines_en_web%2Bcover%2Bbackcover.pdf

Results

At the European regional level, 13% of bird species are threatened, with 2% Critically Endangered, 3% Endangered, and 7% Vulnerable. A further 6% are Near Threatened. Within the EU 27, 18% of bird species are threatened, with 2% Critically Endangered, 4% Endangered, and 12% Vulnerable, and a further 6% are Near Threatened.

The countries with the largest numbers of bird species are Russia and Turkey. Russia and Eastern Europe, and the Mediterranean, Black Sea and Caucasus regions show a higher species richness than northwest Europe. Russia and Turkey have the highest richness of threatened species. Important numbers of threatened species can also be found in the Caucasus region, the Iberian Peninsula and France, as well as in some regions in the Baltic States and Eastern Europe. Threatened species, mainly marine birds, are found in north and northwest Europe.

There are 91 bird species endemic or near-endemic to Europe, found mainly in temperate and central Europe. The Mediterranean and Macaronesian islands have many endemic bird species, as does the Caucasus region.

'Biological resource use', and 'agriculture and aquaculture' are Europe's top threats to bird species, followed by 'climate change and severe weather', 'pollution', 'invasive and other problematic species, genes and diseases' and 'natural system modifications'.

Conclusions

Across Europe, many governments, NGOs and other parties are showing increasing commitment to conserving wild birds and their habitats and thanks to these efforts some species are showing signs of recovery. However, the proportion of threatened species in this assessment is comparable to that in the previous assessment a decade ago. Bird species continue to decline as a result of various threats, including illegal hunting, changing agricultural practices, invasive and alien species and habitat loss and degradation. It is evident that much more needs to be done to save threatened European bird species from extinction and to safeguard the bird populations of Europe.

1. Background

1.1 The European context

Europe is one of the seven continents of the world, and comprises the westernmost peninsula of Eurasia. It is divided from Asia by the Ural and Caucasus mountains, the Ural river and the Caspian Sea to the east, bordered by the Arctic Ocean to the north, the Atlantic Ocean to the west and the Mediterranean Sea to the south. Europe is the world's second smallest continent by surface area, with approximately 10,180,000 square kilometres, covering just 7% of the world's land. It is, however, the third largest in terms of population (after Asia and Africa) with an estimated population of 742 million people - approximately 12% of the world's population.

The European Union (EU), the world's largest politico-economic union, is formed by 28 Member States, located in Europe. It has a combined population of over 500 million inhabitants, which represent 7.3% of the world population and generated in 2012 a nominal gross domestic product (GDP) of 16,584 trillion US dollars, which is approximately 23% of the global nominal GDP.

European biodiversity includes around 530 species of birds, 138 species of dragonflies and damselflies (Kalkman *et al.* 2010), 260 species of mammals (Temple and Terry 2007, 2009), 151 species of reptiles (Cox and Temple 2009), 85 species of amphibians (Temple and Cox 2009), 546 species of freshwater fishes (Kottelat and Freyhof 2007, Freyhof and Brooks 2011), around 1,200 species of marine fishes (IUCN in prep. 2015), 20-25,000 species of vascular plants (Euro+Med 2006- 2011) and well over 100,000 species of invertebrates (Fauna Europaea 2004). The Mediterranean part of Europe, which is especially rich in plant and animal species, has been recognised as a global biodiversity hotspot (Mittermeier *et al.* 2004, Cuttelod *et al.* 2008).

The Organisation for Economic Co-operation and Development (OECD) consistently project a continued decrease of global biodiversity. Towards the middle of the 21st century, habitat loss due to bioenergy-crop farming and climate change is expected to gain in significance as drivers of biodiversity decline[6]. Global terrestrial biodiversity in 2010, measured as mean species abundance (MSA), was just 68% of the level that potential natural vegetation could support. In a business-as-usual scenario for 2050, MSA is projected to decline further to around 60 %. In Europe, MSA is estimated to decline by 24% (from an estimated 38% in 2010)[7].

The EU 2020 Biodiversity strategy includes six targets and 20 actions. Two of these targets (Target 1 "Fully Implement the Birds and Habitats Directives" and Target 3 "Increase the contribution of agriculture and forestry to maintaining and enhancing biodiversity") make explicit mention to the conservation of habitats and species. With regards to Target 1 and according to the latest data available, only 16% of habitats and 23% of species listed under the Habitats Directive are assessed as "Favourable", while most 'Unfavourable' assessments did not improve or deteriorated (42% for habitats and 33% for species). Concerning Target 3, habitats and species listed under the Habitats Directive related to agricultural ecosystems are doing worse than those related to other terrestrial and freshwater ecosystems and there is no real improvement in their conservation status: 11 % of habitat assessments and 20 % of species assessments are favourable. Less than half (48 %) of the bird species from the Birds Directive associated with agricultural ecosystems have a "Secure" status.

The rates of biodiversity loss in the EU are worrying. According to the recent European Environment Agency synthesis report on the state and outlook of the European environment (EEA 2015), "Europe's natural capital is not yet being protected, conserved and enhanced in line with the ambitions of the 7th Environment Action Programme". Already, climate change impacts are intensifying the underlying drivers of biodiversity loss[8].

1.2 European birds, distribution and threat status

As of 2014, BirdLife has established that worldwide 1,373 bird species are threatened with extinction (13%

6 'OECD Environmental Outlook to 2050', Organisation for Economic Co-operation and Development, Paris, France.

7 http://www.eea.europa.eu/soer-2015/global/ecosystems

8 CBD (2010), 'Global Biodiversity Outlook 3', Secretariat to the Convention on Biological Diversity, Montreal, Quebec, Canada

Cory's Shearwater, *Calonectris borealis*, is a seabird species endemic to the EU 27, where it mainly breeds on the Azores and Madeira (nearly 90% of the global population) and on the Canary Islands. Although a small decline was reported over the short term in the Azores, the population is estimated and projected to be increasing, so the species is classified as Least Concern. © J. M. Arcos

Island Canary, *Serinus canaria*, is endemic to Europe, where it is confined to the Canary Islands, Madeira and the Azores. Although the population trend is unknown, there was no evidence that the status of the species has deteriorated and so it is classified as Least Concern. © Ivan Mikšík

of the total, or roughly one in eight)[9]. These species have small, fragmented or dwindling ranges, tiny populations, or are declining rapidly. Of these, 213 species are considered Critically Endangered and face an extremely high risk of extinction in the immediate future. The Red List Index for birds can be broken down biogeographically. The results show that although species have deteriorated in all major ecosystems and regions, these changes have not occurred evenly across the globe. Birds associated with Pacific islands, the open ocean and the lowland forests of Asia have undergone particularly sharp declines.

Europe is home to more than 530 regularly occurring wild bird species, across 69 families (Table 1), with a total estimated breeding population of around two billion pairs. Millions more migrate through the continent on passage to Africa, whilst millions of others from the Arctic or Russia spend the winter in Europe. Around 17% of European birds are endemic or near-endemic, i.e. are found only in Europe or species whose global range is concentrated in Europe. More than half the European endemic or near-endemic species are from six families: Columbidae (pigeons and doves), Procellariidae (petrels and shearwaters), Laridae (gulls and terns), Fringillidae (finches), Muscicapidae (chats and flycatchers), and Sylviidae (warblers).

At present, 53 (10%) of European species are considered to be of global conservation concern, and are listed as Threatened or Near Threatened on the IUCN Red List[10]. These range from species endemic to single islands, to widespread species occurring in many countries. According to the last assessment of the conservation status of birds in Europe (BirdLife International 2004a), 43% of the bird species occurring regularly in Europe had an unfavourable conservation status and therefore qualified as Species of European Conservation Concern (SPECs). Of the species assessed, 40 (7.6%) were classified as SPEC 1 (European species of global conservation concern), 45 (8.6%) as SPEC 2 (species with global population concentrated in Europe and with unfavourable conservation status in Europe) and 141 (26.9%) as SPEC 3 (species not concentrated in Europe, but with unfavourable conservation status in Europe). The percentage of species in each of these three categories was higher than in the preceding assessment in 1994 (Tucker & Heath 1994), when 38% of species were classified as SPEC 1, 2 or 3. At the EU level, 48% of species had an unfavourable conservation status in 2004 (BirdLife International 2004b).

9 http://www.birdlife.org/datazone/sowb/spotthreatbirds

10 http://bit.ly/1I7sEFE

Table 1. Diversity and endemism in bird families in Europe.

Class	Order	Family	Europe			EU 27		
			Number of species	Number of (near-) endemic species	% of (near-) endemic species	Number of species	Number of (near-) endemic species	% of (near-) endemic species
Aves	GALLIFORMES	Phasianidae	17	4	24%	13	1	8%
	ANSERIFORMES	Anatidae	41	2	5%	36	0	0%
	PODICIPEDIFORMES	Podicipedidae	5	0	0%	5	0	0%
	PHOENICOPTERIFORMES	Phoenicopteridae	1	0	0%	1	0	0%
	COLUMBIFORMES	Columbidae	9	5	56%	8	3	38%
	PTEROCLIFORMES	Pteroclidae	3	0	0%	2	0	0%
	CAPRIMULGIFORMES	Apodidae	6	1	17%	6	1	17%
		Caprimulgidae	2	0	0%	2	0	0%
	CUCULIFORMES	Cuculidae	3	0	0%	2	0	0%
	GRUIFORMES	Gruidae	2	0	0%	1	0	0%
		Rallidae	9	0	0%	9	0	0%
	OTIDIFORMES	Otididae	4	0	0%	3	0	0%
	GAVIIFORMES	Gaviidae	4	0	0%	3	0	0%
	PROCELLARIIFORMES	Hydrobatidae	4	2	50%	4	2	50%
		Oceanitidae	1	0	0%	1	0	0%
		Procellariidae	10	7	70%	10	7	70%
	CICONIIFORMES	Ciconiidae	2	1	50%	2	0	0%
	PELECANIFORMES	Ardeidae	9	0	0%	9	0	0%
		Pelecanidae	2	0	0%	2	0	0%
		Threskiornithidae	3	0	0%	3	0	0%
	SULIFORMES	Anhingidae	1	0	0%	0	0	0%
		Phalacrocoracidae	3	1	33%	3	0	0%
		Sulidae	1	1	100%	1	0	0%
	CHARADRIIFORMES	Alcidae	7	2	29%	5	0	0%
		Burhinidae	1	0	0%	1	0	0%
		Charadriidae	13	0	0%	9	0	0%
		Glareolidae	3	0	0%	3	0	0%
		Haematopodidae	2	1	50%	2	1	50%
		Laridae	29	5	17%	22	1	5%
		Recurvirostridae	2	0	0%	2	0	0%
		Scolopacidae	31	0	0%	28	0	0%
		Stercorariidae	4	1	25%	3	0	0%
		Turnicidae	1	0	0%	1	0	0%
	STRIGIFORMES	Strigidae	14	0	0%	12	0	0%
		Tytonidae	1	0	0%	1	0	0%
	ACCIPITRIFORMES	Accipitridae	29	4	14%	27	2	7%
		Pandionidae	1	0	0%	1	0	0%
	BUCEROTIFORMES	Upupidae	1	0	0%	1	0	0%
	CORACIIFORMES	Alcedinidae	3	0	0%	1	0	0%
		Coraciidae	1	0	0%	1	0	0%
		Meropidae	2	0	0%	1	0	0%
	PICIFORMES	Picidae	11	3	27%	11	1	9%

Class	Order	Family	Europe			EU 27		
			Number of species	Number of (near-) endemic species	% of (near-) endemic species	Number of species	Number of (near-) endemic species	% of (near-) endemic species
	FALCONIFORMES	Falconidae	10	1	10%	10	1	10%
	PASSERIFORMES	Aegithalidae	1	0	0%	1	0	0%
		Alaudidae	13	1	8%	9	0	0%
		Bombycillidae	1	0	0%	1	0	0%
		Certhiidae	2	1	50%	2	1	50%
		Cinclidae	1	0	0%	1	0	0%
		Cisticolidae	2	0	0%	1	0	0%
		Corvidae	11	0	0%	11	0	0%
		Emberizidae	18	3	17%	14	0	0%
		Fringillidae	28	9	32%	23	7	30%
		Hirundinidae	5	0	0%	5	0	0%
		Laniidae	5	0	0%	5	0	0%
		Motacillidae	13	3	23%	11	1	9%
		Muscicapidae	31	7	23%	24	2	8%
		Oriolidae	1	0	0%	1	0	0%
		Paridae	9	3	33%	8	0	0%
		Passeridae	8	0	0%	5	0	0%
		Prunellidae	5	1	20%	2	0	0%
		Pycnonotidae	1	0	0%	0	0	0%
		Reguliidae	3	1	33%	3	1	33%
		Remizidae	1	0	0%	1	0	0%
		Sittidae	6	3	50%	5	1	20%
		Sturnidae	3	0	0%	3	0	0%
		Sylviidae	46	17	37%	39	6	15%
		Timaliidae	2	0	0%	1	0	0%
		Troglodytidae	1	0	0%	1	0	0%
		Turdidae	8	1	13%	6	0	0%
Total			**533**	**91**	**17%**	**451**	**39**	**9%**

1.3 Objectives of the assessment

The European regional assessment has three main objectives:

- To assess the status of European bird species using for the first time data reported by EU Member States under Article 12 of the EU Birds Directive together with comparable data reported by NGOs and other collaborating experts from the rest of Europe.
- To contribute to regional conservation planning through provision of an up-to-date dataset reporting the status of European birds.
- To identify the major threats and to propose mitigating measures and conservation actions to address them.

The assessment provides two main outputs:

- This summary report on the status of European birds.
- A website and data portal showcasing these data in the form of species factsheets for all European birds, along with background and other interpretative material[11, 12, 13].

The data presented in this report provides a snapshot based on available knowledge at the time of writing. BirdLife International will ensure wide dissemination of these data to relevant decision makers, NGOs, and

11 http://www.iucnredlist.org

12 http://ec.europa.eu/environment/nature/conservation/species/redlist/

13 www.birdlife.org/datazone

scientists to inform the implementation of conservation actions on the ground.

2. Assessment Methodology

2.1 Global and regional assessment

The IUCN Red List Categories and Criteria are designed to determine a taxon's relative risk of extinction (IUCN 2012a). The IUCN Red List Categories (Figure 1) are based on a set of quantitative criteria linked to population trends, population size and structure, and geographic range. There are nine Categories, and species classified as Vulnerable (VU), Endangered (EN) and Critically Endangered (CR) are considered as 'threatened'.

The extinction risk of a species can be assessed at global, regional or national level. One species can have a different category in the Global Red List and a Regional Red List. Therefore, a species that is common worldwide and classed as Least Concern (LC) in the Global Red List could face a high level of threat and fit the Endangered category (EN) in a particular region (see Figure 1 for the explanation of the IUCN categories). To avoid under- or over-estimation of a particular species, the Guidelines for the application of IUCN Red List Criteria at Regional Level should be applied (IUCN 2012b).

The present study is an assessment of the EU and pan-European threat status of bird species. The methodology for both the EU and Europe followed the Guidelines for the application of IUCN Red List Criteria at Regional Level (IUCN 2012b).

2.2 Data sources

The EU assessments were based mainly on data reported by EU Member States under Article 12 of the EU Birds Directive. Article 12 requires that Member States regularly prepare and submit reports on progress made with the national implementation of the Birds Directive. In 2011, the European Commission, in agreement with Member States, revised the reporting procedure and frequency in order to focus the reporting obligations on information relating to the status and trend of bird

Figure 1. IUCN Red List Categories at regional scale.

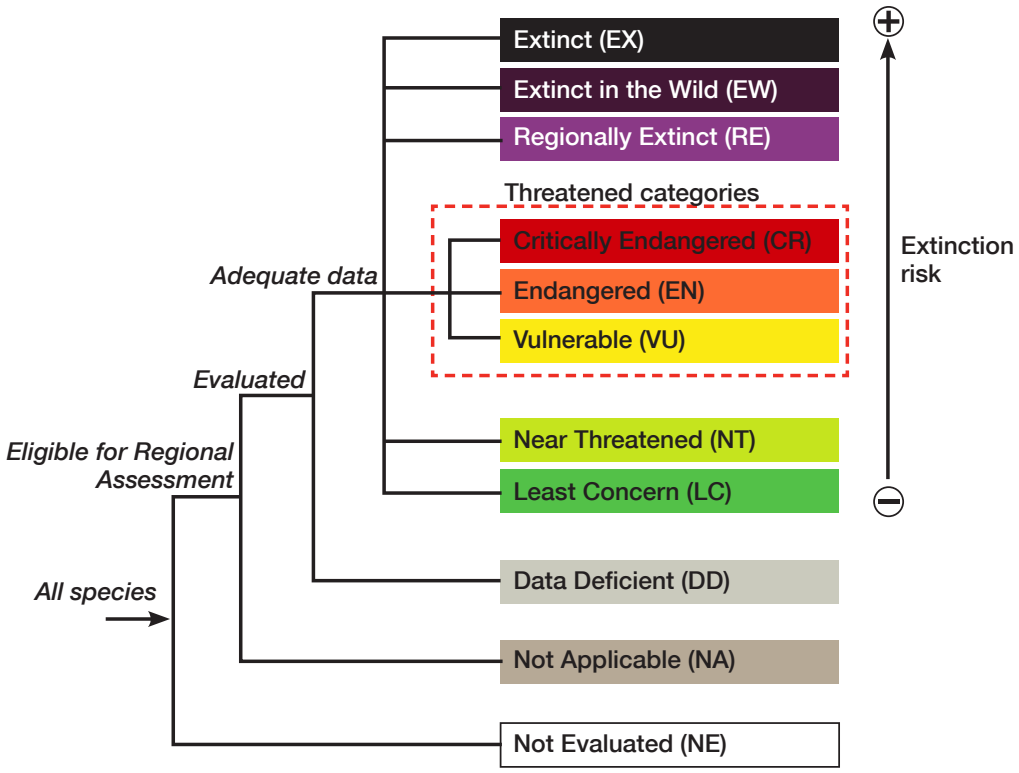
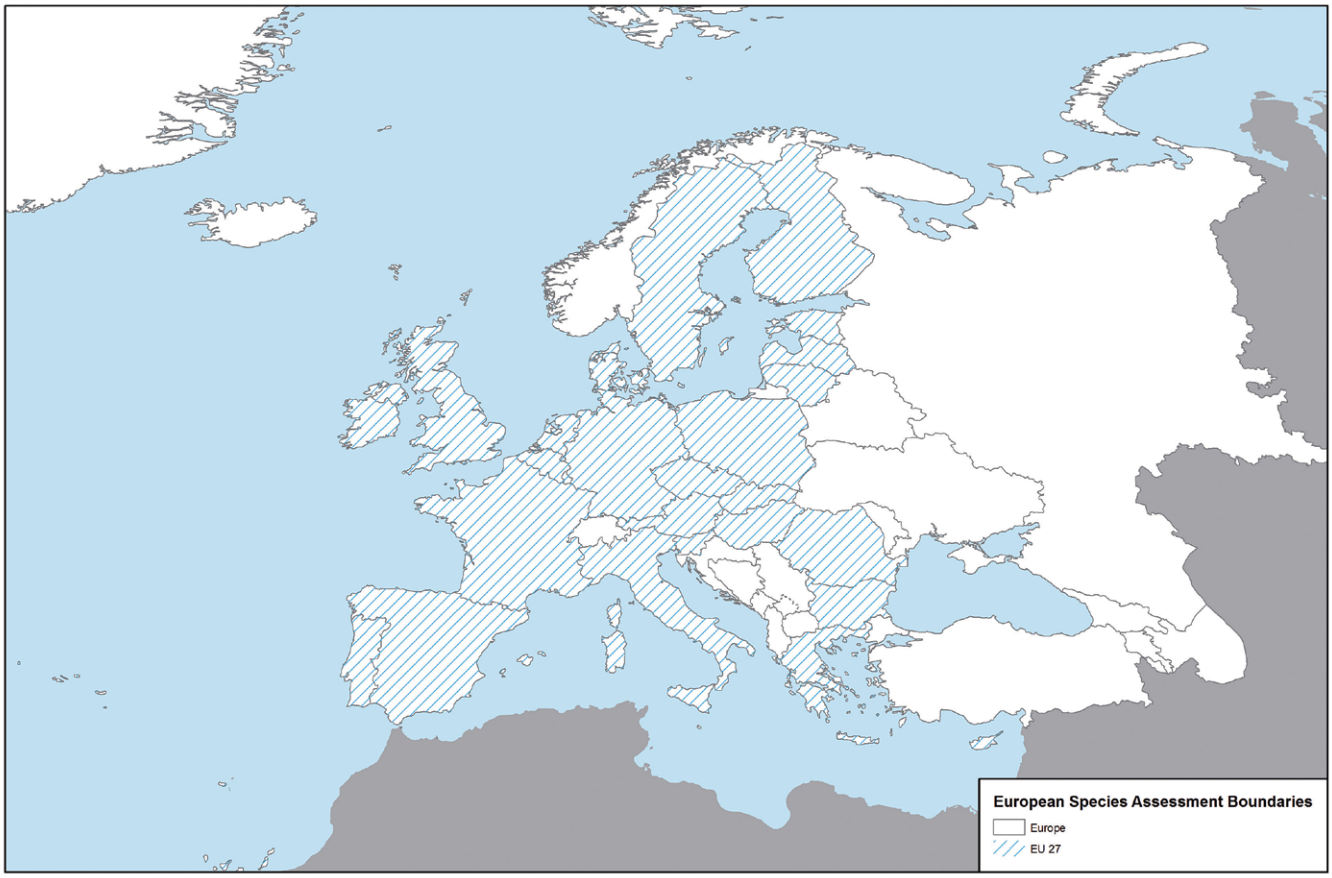


Figure 2. Regional assessments were made for two areas – continental Europe and the EU 27.



populations, thereby streamlining the reporting under Article 12 of the Birds Directive with the reporting on conservation status under Article 17 of the Habitats Directive. Article 12 reports covering the period 2008-2012 were submitted in 2013-2014. These reports include information on the size and trend of populations and distributions of individual bird taxa. Similar data were sourced from non-EU countries, drawing heavily on the expertise and data holdings of national bird monitoring schemes and organisations across Europe, including BirdLife International Partners and many others.

2.3 Geographic scope

The geographical scope is continent-wide, extending from Iceland in the west to the Urals in the east (including European parts of the Russian Federation), and from the Arctic in the north to the Mediterranean in the south (see Figure 2). The Canary Islands, Madeira and the Azores were also included. It was not possible to collate separate data for Isle of Man or the Channel Islands, but in most cases bird populations and trends will be reflected within the UK and France totals. There are a few exceptions, for example Hen Harrier, *Circus cyaneus*, and Red-billed Chough, *Pyrrhocorax pyrrhocorax*, on the Isle of Man, some seabird species and Short-toed Treecreeper, *Certhia brachydactyla*, on the Channel Islands), but populations are not so large as to affect the assessments.

Red List assessments were carried out at two regional levels: 1) for geographical Europe (limits described above); and 2) for the area of the 27 Member States of the EU[14].

2.4 Preliminary assessments

For every bird species native to Europe, the following data were compiled:

- Species' taxonomic classification
- Geographic range and distribution map
- Population and trend information (including trend maps and national data tables)
- Ecology and habitat preferences
- Major threats
- Conservation measures (in place, and needed)
- Species utilization
- Key literature references

14 Croatia acceded to the EU in 2013 and so did not participate in the current round of Article 12 reporting. Hence data from Croatia were not included in the EU-level assessments.

2.5 Production of population sizes and trends

National data were combined to produce overall EU and pan-European population sizes and trends for each taxon. For population sizes, the reported minimum and maximum population size data across countries were summed to calculate the overall minimum and maximum. All European countries were requested to use the same population unit, which was breeding pairs for most breeding birds – with the exception of a minority of taxa with unusual or complex breeding biology or cryptic behaviour, for which other units, such as calling or lekking males, were used – and individuals for birds in winter. For population trends, data from all countries were combined, weighting each country's contribution according to the size of its population. Weightings were based on the geometric mean of the countries' minimum and maximum population size compared to the geometric mean of the equivalent totals for the overall EU or pan-European population. This analysis was carried out using a dedicated tool developed by IUCN to estimate overall trends based on data from multiple (national) subpopulations[15].

Where it was not possible to allocate a trend category with confidence, either because trend directions were reported as unknown for a large proportion of the total European population or in the case of conflicting trend information or lack of trend magnitudes, the overall European trend was classified as 'Unknown'. Where possible, the robustness of trend categories to the effects of any missing data was tested using plausible 'good' and 'bad' scenarios, based on other sources of information, such as any other reported trend information, recent national Red Lists, scientific literature, and other publications and consultations with experts.

For the majority of species, assessments were based on data from the breeding season, but for a minority of species, winter data were (also) used. Winter data were only reported for a subset of species, mainly wintering waterbirds, and especially migratory wildfowl and waders, whose populations are often best monitored in the winter, when they congregate in large numbers.

The assessments of species that do not breed (regularly) within the EU and/or the European region were based solely on winter data, while for species that occur in both seasons and for which the reported dataset was representative of the regional population, the assessment process was carried out independently on data for both the breeding and wintering populations. For some species in winter, underlying population trends can be obscured by demographic factors, often related to inter- annual variation in weather conditions. In some years, for example, birds that usually winter in the region may be forced to move elsewhere by harsh winter conditions, whilst in others, birds that usually winter outside the region may show marked influxes into the region. Consequently, assessments were carried out principally on the basis of breeding data, provided that the resulting status category was the same as or higher (i.e. more threatened) than that obtained using winter data.All terrestrial and marine bird species native to Europe or naturalised in Europe were included in the assessment. Species introduced to Europe by man after AD 1500 were not considered by the assessment[16]. Similarly, species that are of marginal occurrence in Europe were not considered[17]. Assessments were carried out at the species level, following BirdLife International's current taxonomy[18] (BirdLife International 2014) and population size and trend data for any bird taxa for which a country reported at the subspecific or flyway level[19] were aggregated to the species level.

15 Available at http://goo.gl/yZLATv from http://www.iucnredlist.org/technical-documents/red-list-documents

16 Some countries reported data for a number of non-native species introduced, but these were not considered in the assessment. For species such as Common Pheasant (*Phasianus colchicus*) where both introduced and native populations exist in the region, only the native populations were assessed.

17 Data were reported by some countries for Surf Scoter (Melanitta perspicillata), Thayer's Gull (*Larus thayeri*), Sooty Tern (*Onychoprion fuscatus*) and Oriental Skylark (*Alauda gulgula*), but as these are not regularly occurring species in Europe, they were not considered in the assessment.

18 http://www.birdlife.org/datazone/info/taxonomy

19 Reporting under Article 12 was by subspecies or other subspecific units where subspecies are listed in Annex I of the Birds Directive, for subspecies for which international Species Action Plans (SAPs), Management Plans (MPs) or Brief Management Statements (BMSs) have been prepared, for subspecies or distinct flyway populations listed in Column A of Table 1 of the AEWA 'Status of the Populations of Migratory Waterbirds (2009-2012), and for subspecies or distinct populations of species classified as globally Threatened or Near Threatened according to the 2010 IUCN Red List.

3. Results

3.1 Threatened status of birds

The status of birds was assessed at two regional levels: geographical Europe, and the EU 27. At the European regional level, 13% of bird species (67 species) are threatened, with 2% (10 species) Critically Endangered, 3% (18 species) Endangered, and 7% (39 species) Vulnerable. A further 6% (32 species) are considered Near Threatened. Within the EU 27, 18% of bird species (82 species) are threatened, with 2% (11 species) Critically Endangered, 4% (16 species) Endangered, and 12% (55 species) Vulnerable, and a further 6% (26 species) are Near Threatened (Table 2 and Figures 3 and 4 show the percentage of species in each IUCN Red List Category). By comparison, 59% of freshwater molluscs, 40% of freshwater fishes, 23% of amphibians, 20% of reptiles, 17% of mammals, 16% of dragonflies, 9% of butterflies and 8% of aquatic plants are threatened (IUCN 2011). Additional European Red Lists assessing only a selection of species showed that 22% of terrestrial molluscs, 16% of crop wild relatives, 15% of saproxylic beetles and 2% of medicinal plants are also threatened (IUCN 2011, Allen *et al.* 2014).

Two species are globally Extinct (Canarian Oystercatcher, *Haematopus meadewaldoi*, and Great Auk, *Pinguinus impennis*) and four are Regionally Extinct at the European level: Northern Bald Ibis (*Geronticus eremita),* African Darter (*Anhinga rufa*), Caspian Plover (*Charadrius asiaticus*) and Desert Warbler (*Sylvia nana*). Of these, African Darter, Caspian Plover and Desert Warbler are listed as Least Concern globally and Northern Bald Ibis is globally Critically Endangered. Asian Houbara (*Chlamydotis macqueenii*), Slender-billed Curlew (*Numenius tenuirostris*) and Common Buttonquail (*Turnix sylvaticus*) are considered as Critically Endangered and Possibly Extinct at the European level. Species classed as Regionally Extinct, threatened (Critically Endangered, Endangered or Vulnerable) and Near Threatened at the European and EU 27 level are listed in Table 3. The complete list of all species assessed is in Appendix 1.

Figure 3. IUCN Red List status of birds in Europe.

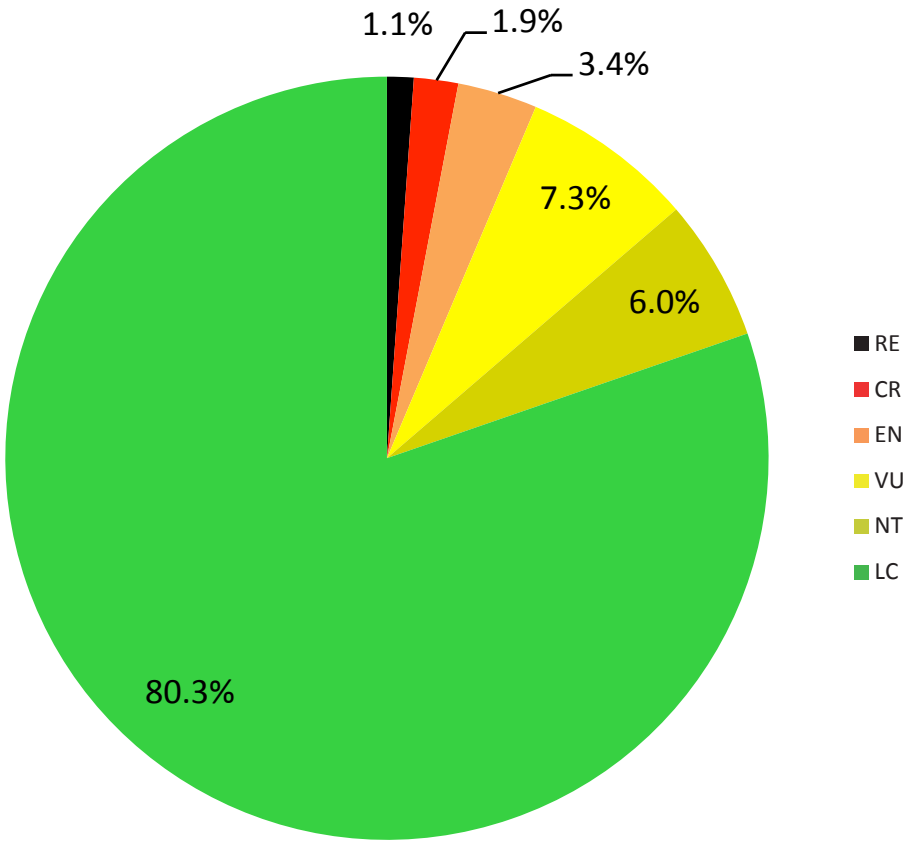


Figure 4. IUCN Red List status of birds in the EU 27.

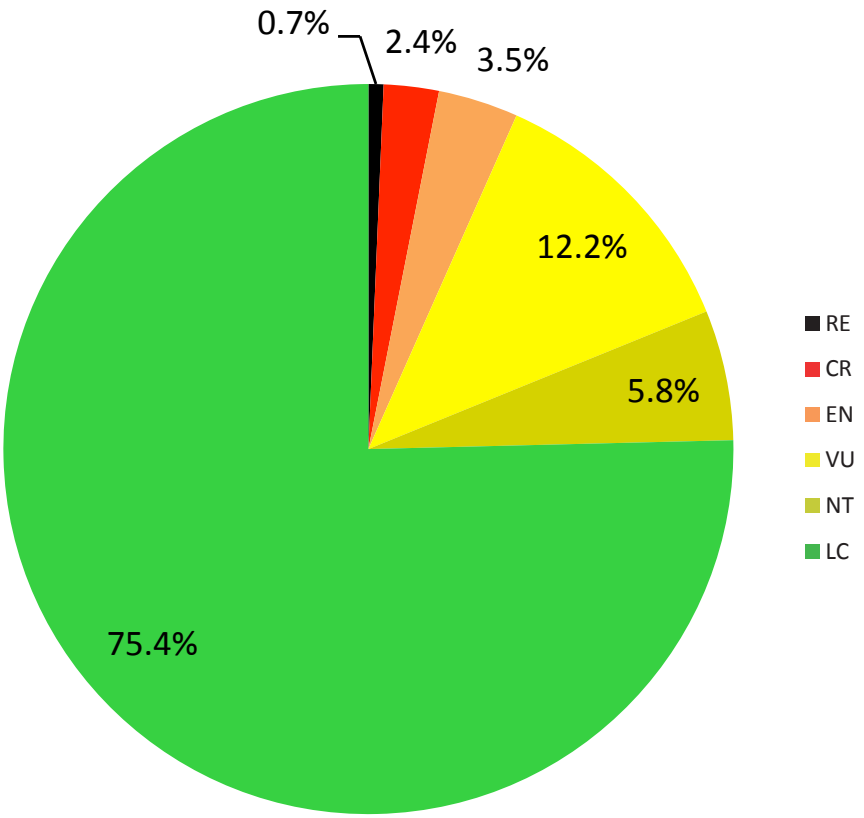


Table 2. Summary of numbers of bird species within each category of threat.

	IUCN Red List Categories	No. species Europe	No. species EU 27
	Extinct (EX)	2	2
	Regionally Extinct (RE)	4	1
Threatened categories	Critically Endangered (CR)	10	11
	Endangered (EN)	18	16
	Vulnerable (VU)	39	55
	Near Threatened (NT)	32	26
	Least Concern (LC)	428	340
	Total number of species assessed	**533**	**451**

Table 3. Regionally extinct, threatened or Near Threatened bird species at the European and EU 27 level. Species endemic or near-endemic to Europe or to EU 27 are marked with an asterisk (*).

Family	Genus	Species	Common name	Red List status	
				Europe	EU 27
Threskiornithidae	*Geronticus*	*eremita*	Northern Bald Ibis	RE	RE
Anhingidae	*Anhinga*	*rufa*	African Darter	RE	NE
Charadriidae	*Charadrius*	*asiaticus*	Caspian Plover	RE	NE
Sylviidae	*Sylvia*	*nana*	Desert Warbler	RE	NE

Family	Genus	Species	Common name	Red List status	
				Europe	EU 27
Procellariidae	*Puffinus*	*mauretanicus*	Balearic Shearwater	CR*	CR*
Scolopacidae	*Numenius*	*tenuirostris*	Slender-billed Curlew	CR	CR
Turnicidae	*Turnix*	*sylvaticus*	Common Buttonquail	CR	CR
Emberizidae	*Emberiza*	*aureola*	Yellow-breasted Bunting	CR	CR
Otididae	*Chlamydotis*	*macqueenii*	Asian Houbara	CR	NE
Charadriidae	*Vanellus*	*gregarius*	Sociable Lapwing	CR	NE
Strigidae	*Ketupa*	*zeylonensis*	Brown Fish-owl	CR	NE
Accipitridae	*Aquila*	*nipalensis*	Steppe Eagle	CR	NE
Alaudidae	*Melanocorypha*	*yeltoniensis*	Black Lark	CR	NE
Alaudidae	*Ammomanes*	*deserti*	Desert Lark	CR	NE
Anatidae	*Anser*	*erythropus*	Lesser White-fronted Goose	EN	CR
Accipitridae	*Clanga*	*clanga*	Greater Spotted Eagle	EN	CR
Anatidae	*Cygnus*	*columbianus*	Tundra Swan	EN	EN
Pteroclidae	*Pterocles*	*orientalis*	Black-bellied Sandgrouse	EN	EN
Rallidae	*Fulica*	*cristata*	Red-knobbed Coot	EN	EN
Oceanitidae	*Pelagodroma*	*marina*	White-faced Storm-petrel	EN	EN
Procellariidae	*Pterodroma*	*madeira*	Zino's Petrel	EN*	EN*
Fringillidae	*Pyrrhula*	*murina*	Azores Bullfinch	EN*	EN*
Anatidae	*Oxyura*	*leucocephala*	White-headed Duck	EN	VU
Procellariidae	*Fulmarus*	*glacialis*	Northern Fulmar	EN	VU
Accipitridae	*Neophron*	*percnopterus*	Egyptian Vulture	EN	VU
Falconidae	*Falco*	*biarmicus*	Lanner Falcon	EN	VU
Alcidae	*Fratercula*	*arctica*	Atlantic Puffin	EN*	NT
Pteroclidae	*Syrrhaptes*	*paradoxus*	Pallas's Sandgrouse	EN	NE
Laridae	*Rhodostethia*	*rosea*	Ross's Gull	EN	NE
Strigidae	*Otus*	*brucei*	Pallid Scops-owl	EN	NE
Alcedinidae	*Ceryle*	*rudis*	Pied Kingfisher	EN	NE
Muscicapidae	*Oenanthe*	*chrysopygia*	Red-tailed Wheatear	EN	NE
Anatidae	*Marmaronetta*	*angustirostris*	Marbled Teal	VU	CR
Charadriidae	*Charadrius*	*leschenaultii*	Greater Sandplover	VU	CR
Glareolidae	*Glareola*	*nordmanni*	Black-winged Pratincole	VU	CR
Anatidae	*Somateria*	*mollissima*	Common Eider	VU	EN
Scolopacidae	*Limosa*	*limosa*	Black-tailed Godwit	VU	EN
Laridae	*Rissa*	*tridactyla*	Black-legged Kittiwake	VU	EN
Phasianidae	*Lagopus*	*lagopus*	Willow Grouse	VU	VU
Anatidae	*Clangula*	*hyemalis*	Long-tailed Duck	VU	VU
Anatidae	*Melanitta*	*fusca*	Velvet Scoter	VU	VU
Anatidae	*Aythya*	*ferina*	Common Pochard	VU	VU
Anatidae	*Aythya*	*marila*	Greater Scaup	VU	VU
Apodidae	*Apus*	*affinis*	Little Swift	VU	VU
Otididae	*Tetrax*	*tetrax*	Little Bustard	VU	VU
Gaviidae	*Gavia*	*immer*	Common Loon	VU	VU
Hydrobatidae	*Hydrobates*	*monteiroi*	Monteiro's Storm-petrel	VU*	VU*
Procellariidae	*Pterodroma*	*deserta*	Desertas Petrel	VU*	VU*
Haematopodidae	*Haematopus*	*ostralegus*	Eurasian Oystercatcher	VU	VU
Charadriidae	*Vanellus*	*vanellus*	Northern Lapwing	VU	VU
Scolopacidae	*Numenius*	*arquata*	Eurasian Curlew	VU	VU
Scolopacidae	*Calidris*	*ferruginea*	Curlew Sandpiper	VU	VU
Accipitridae	*Gypaetus*	*barbatus*	Bearded Vulture	VU	VU
Accipitridae	*Aquila*	*adalberti*	Spanish Imperial Eagle	VU*	VU*
Alcedinidae	*Alcedo*	*atthis*	Common Kingfisher	VU	VU

Family	Genus	Species	Common name	Red List status	
				Europe	EU 27
Falconidae	*Falco*	*cherrug*	Saker Falcon	VU	VU
Laniidae	*Lanius*	*excubitor*	Great Grey Shrike	VU	VU
Alaudidae	*Chersophilus*	*duponti*	Dupont's Lark	VU	VU
Sylviidae	*Acrocephalus*	*paludicola*	Aquatic Warbler	VU*	VU
Sittidae	*Sitta*	*whiteheadi*	Corsican Nuthatch	VU*	VU*
Muscicapidae	*Oenanthe*	*leucura*	Black Wheatear	VU	VU
Emberizidae	*Emberiza*	*cineracea*	Cinereous Bunting	VU*	VU
Emberizidae	*Emberiza*	*rustica*	Rustic Bunting	VU	VU
Columbidae	*Streptopelia*	*turtur*	European Turtle-dove	VU	NT
Gaviidae	*Gavia*	*adamsii*	Yellow-billed Loon	VU	NE
Charadriidae	*Vanellus*	*indicus*	Red-wattled Lapwing	VU	NE
Accipitridae	*Accipiter*	*badius*	Shikra	VU	NE
Alcedinidae	*Halcyon*	*smyrnensis*	White-breasted Kingfisher	VU	NE
Passeridae	*Passer*	*moabiticus*	Dead Sea Sparrow	VU	NE
Motacillidae	*Anthus*	*gustavi*	Pechora Pipit	VU	NE
Emberizidae	*Emberiza*	*leucocephalos*	Pine Bunting	VU	NE
Accipitridae	*Circus*	*macrourus*	Pallid Harrier	NT	EN
Phasianidae	*Alectoris*	*graeca*	Rock Partridge	NT*	VU
Phasianidae	*Lagopus*	*muta*	Rock Ptarmigan	NT	VU
Anatidae	*Mergus*	*serrator*	Red-breasted Merganser	NT	VU
Podicipedidae	*Podiceps*	*auritus*	Horned Grebe	NT	VU
Laridae	*Larus*	*argentatus*	European Herring Gull	NT*	VU
Falconidae	*Falco*	*vespertinus*	Red-footed Falcon	NT	VU
Turdidae	*Turdus*	*iliacus*	Redwing	NT	VU
Motacillidae	*Anthus*	*pratensis*	Meadow Pipit	NT*	VU
Anatidae	*Branta*	*ruficollis*	Red-breasted Goose	NT	NT
Columbidae	*Columba*	*junoniae*	White-tailed Laurel-pigeon	NT*	NT*
Apodidae	*Apus*	*caffer*	White-rumped Swift	NT	NT
Otididae	*Chlamydotis*	*undulata*	African Houbara	NT	NT
Procellariidae	*Puffinus*	*lherminieri*	Audubon's Shearwater	NT	NT
Glareolidae	*Cursorius*	*cursor*	Cream-coloured Courser	NT	NT
Accipitridae	*Aquila*	*fasciata*	Bonelli's Eagle	NT	NT
Accipitridae	*Milvus*	*milvus*	Red Kite	NT*	NT*
Picidae	*Picus*	*sharpei*	Iberian Green Woodpecker	NT*	NT*
Sylviidae	*Sylvia*	*undata*	Dartford Warbler	NT*	NT
Muscicapidae	*Saxicola*	*dacotiae*	Fuerteventura Stonechat	NT*	NT*
Fringillidae	*Fringilla*	*teydea*	Blue Chaffinch	NT*	NT*
Phasianidae	*Alectoris*	*chukar*	Chukar	NT	LC
Rallidae	*Fulica*	*atra*	Common Coot	NT	LC
Laridae	*Hydrocoloeus*	*minutus*	Little Gull	NT	LC
Alcidae	*Alca*	*torda*	Razorbill	NT*	LC
Alcidae	*Uria*	*aalge*	Common Murre	NT	LC
Accipitridae	*Circus*	*cyaneus*	Hen Harrier	NT	LC
Anatidae	*Bucephala*	*islandica*	Barrow's Goldeneye	NT	NE
Laridae	*Larus*	*armenicus*	Armenian Gull	NT*	NE
Timaliidae	*Turdoides*	*altirostris*	Iraq Babbler	NT	NE
Muscicapidae	*Oenanthe*	*deserti*	Desert Wheatear	NT	NE
Prunellidae	*Prunella*	*montanella*	Siberian Accentor	NT	NE
Scolopacidae	*Xenus*	*cinereus*	Terek Sandpiper	LC	CR
Strigidae	*Bubo*	*scandiacus*	Snowy Owl	LC	CR
Anatidae	*Polysticta*	*stelleri*	Steller's Eider	LC	EN

Family	Genus	Species	Common name	Red List status	
				Europe	EU 27
Scolopacidae	*Arenaria*	*interpres*	Ruddy Turnstone	LC	EN
Scolopacidae	*Calidris*	*pugnax*	Ruff	LC	EN
Scolopacidae	*Tringa*	*stagnatilis*	Marsh Sandpiper	LC	EN
Stercorariidae	*Stercorarius*	*parasiticus*	Arctic Jaeger	LC	EN
Accipitridae	*Buteo*	*lagopus*	Rough-legged Buzzard	LC	EN
Anatidae	*Spatula*	*querquedula*	Garganey	LC	VU
Anatidae	*Mareca*	*penelope*	Eurasian Wigeon	LC	VU
Anatidae	*Anas*	*acuta*	Northern Pintail	LC	VU
Hydrobatidae	*Hydrobates*	*leucorhous*	Leach's Storm-petrel	LC	VU
Charadriidae	*Vanellus*	*spinosus*	Spur-winged Lapwing	LC	VU
Scolopacidae	*Gallinago*	*media*	Great Snipe	LC	VU
Scolopacidae	*Tringa*	*totanus*	Common Redshank	LC	VU
Alcidae	*Cepphus*	*grylle*	Black Guillemot	LC	VU
Falconidae	*Falco*	*rusticolus*	Gyrfalcon	LC	VU
Paridae	*Parus*	*montanus*	Willow Tit	LC	VU
Paridae	*Parus*	*cinctus*	Siberian Tit	LC	VU
Alaudidae	*Melanocorypha*	*calandra*	Calandra Lark	LC	VU
Sylviidae	*Locustella*	*fluviatilis*	Eurasian River Warbler	LC*	VU
Sylviidae	*Phylloscopus*	*borealis*	Arctic Warbler	LC	VU
Turdidae	*Turdus*	*pilaris*	Fieldfare	LC	VU
Fringillidae	*Fringilla*	*montifringilla*	Brambling	LC	VU
Fringillidae	*Carduelis*	*flavirostris*	Twite	LC	VU
Fringillidae	*Carpodacus*	*erythrinus*	Common Rosefinch	LC	VU
Anatidae	*Tadorna*	*ferruginea*	Ruddy Shelduck	LC	NT
Rallidae	*Zapornia*	*pusilla*	Baillon's Crake	LC	NT
Phalacrocoracidae	*Phalacrocorax*	*aristotelis*	European Shag	LC*	NT
Scolopacidae	*Calidris*	*maritima*	Purple Sandpiper	LC	NT
Scolopacidae	*Actitis*	*hypoleucos*	Common Sandpiper	LC	NT
Scolopacidae	*Tringa*	*erythropus*	Spotted Redshank	LC	NT
Laridae	*Hydroprogne*	*caspia*	Caspian Tern	LC	NT
Accipitridae	*Aquila*	*heliaca*	Eastern Imperial Eagle	LC	NT
Alaudidae	*Eremophila*	*alpestris*	Horned Lark	LC	NT
Reguliidae	*Regulus*	*regulus*	Goldcrest	LC	NT
Sittidae	*Sitta*	*krueperi*	Krueper's Nuthatch	LC*	NT
Emberizidae	*Calcarius*	*lapponicus*	Lapland Longspur	LC	NT

Table 4. Red List Status (European Regional level) of birds by taxonomic family.

Family	Total	EX/RE	CR	EN	VU	NT	LC	% Threatened
Phasianidae	17				1	3	13	5.9%
Anatidae	41			3	6	3	29	22.0%
Podicipedidae	5					1	4	0.0%
Phoenicopteridae	1						1	0.0%
Columbidae	9				1	1	7	11.1%
Pteroclidae	3			2			1	66.7%
Caprimulgidae	2						2	0.0%
Apodidae	6				1	1	4	16.7%
Cuculidae	3						3	0.0%
Rallidae	9			1		1	7	11.1%
Gruidae	2						2	0.0%
Otididae	4		1		1	1	1	50.0%
Gaviidae	4				2		2	50.0%
Oceanitidae	1			1				100.0%
Hydrobatidae	4				1		3	25.0%
Procellariidae	10		1	2	1	1	5	40.0%
Ciconiidae	2						2	0.0%
Threskiornithidae	3	1					2	0.0%
Ardeidae	9						9	0.0%
Pelecanidae	2						2	0.0%
Sulidae	1						1	0.0%
Phalacrocoracidae	3						3	0.0%
Anhingidae	1	1						0.0%
Burhinidae	1						1	0.0%
Haematopodidae	2	1			1			50.0%
Recurvirostridae	2						2	0.0%
Charadriidae	13	1	1		3		8	30.8%
Scolopacidae	31		1		3		27	12.9%
Turnicidae	1		1					100.0%
Glareolidae	3				1	1	1	33.3%
Laridae	29			1	1	3	24	6.9%
Stercorariidae	4						4	0.0%
Alcidae	7	1		1		2	3	14.3%
Tytonidae	1						1	0.0%
Strigidae	14		1	1			12	14.3%
Pandionidae	1						1	0.0%
Accipitridae	29		1	2	3	4	19	20.7%
Upupidae	1						1	0.0%
Meropidae	2						2	0.0%
Coraciidae	1						1	0.0%
Alcedinidae	3			1	2			100.0%
Picidae	11					1	10	0.0%
Falconidae	10			1	1	1	7	20.0%

Family	Total	EX/RE	CR	EN	VU	NT	LC	% Threatened
Laniidae	5				1		4	20.0%
Oriolidae	1						1	0.0%
Corvidae	11						11	0.0%
Bombycillidae	1						1	0.0%
Paridae	9						9	0.0%
Remizidae	1						1	0.0%
Hirundinidae	5						5	0.0%
Aegithalidae	1						1	0.0%
Alaudidae	13		2		1		10	23.1%
Cisticolidae	2						2	0.0%
Pycnonotidae	1						1	0.0%
Sylviidae	46	1			1	1	43	2.2%
Timaliidae	2					1	1	0.0%
Reguliidae	3						3	0.0%
Troglodytidae	1						1	0.0%
Sittidae	6				1		5	16.7%
Certhiidae	2						2	0.0%
Sturnidae	3						3	0.0%
Turdidae	8					1	7	0.0%
Muscicapidae	31			1	1	2	27	6.5%
Cinclidae	1						1	0.0%
Passeridae	8				1		7	12.5%
Prunellidae	5					1	4	0.0%
Motacillidae	13				1	1	11	7.7%
Fringillidae	28			1		1	26	3.6%
Emberizidae	18		1		3		14	22.2%
Total	533	6	10	18	39	32	428	12.6%

3.2 Status by taxonomic group

There are 69 bird families occurring in Europe and there are considerable differences among them in both species numbers and threatened status. As seen in Table 4, a small number of families have all their species classified as threatened: Alcedinidae (kingfishers, 3 species), Oceanitidae (storm-petrel, 1 species), Turnicidae (buttonquail, 1 species) while others (e.g. Corvidae, crows and jays, 11 species; Paridae, tits, 9 species; Sylvidae, warblers, 46 species) do not presently have any of their species as Threatened. Other families with a high proportion of their species classified as threatened are the Gaviidae (loons or divers, 4 species), Haematopididae (oystercatchers, 2 species), Otididae (bustards, 4 species), Pteroclidae (sandgrouse, 3 species) and Procellaridae (petrels and shearwaters).

Common Loon, *Gavia immer*, breeds in the European Arctic and winters on sea coasts or on larger lakes along the Atlantic coast of Europe and the western Mediterranean. The estimated and projected rate of decline of the population in winter meets the threshold under the population trend criterion and so the species is classified as Vulnerable. © Petr Podzemný

Eurasian Jay, *Garrulus glandarius*, is a widespread resident forest species across most of Europe. The species is stable or increasing across most countries and is classified as Least Concern. © Jan Veber

Black Woodpecker, *Dryocopus martius*, is a widespread resident forest species across much of Europe. The species expanded its range in western and central Europe and showed long-term population increases in most European countries. It is currently stable and classified as Least Concern. © Přemysl Vaněk

A detailed analysis of the results according to the habitat associations of European bird species (Tucker & Evans 1997, BirdLife International 2004a) shows some interesting conclusions. Birds associated with marine habitats have a relatively high proportion of threatened species (20%). This highlights the impact that some known pressures pose to these birds; namely predation and disturbance at colonies, fisheries bycatch and marine pollution. There is much variation between families associated with terrestrial ecosystems. Birds associated with grasslands and agricultural habitats (23%) and with upland moorland habitats (18%) have the highest proportion of threatened species, while birds associated with forests have the lowest (3%).

3.3 Spatial distribution of species

3.3.1 Species richness

The highest absolute numbers of bird species are found in Russia and Turkey. Russia, the Baltic states and eastern Europe, the Mediterranean, Black Sea and Caucasus regions show a higher species richness than northwest Europe. Figure 5 shows the geographic distribution of bird species in Europe (see Appendix 2 for method used).

3.3.2 Distribution of threatened species

The distribution of threatened birds in Europe (Figure 6) shows Russia and Turkey as the countries with the highest richness of threatened species (38 and 35 species, respectively, representing nearly 10 % of all species in those countries). Spain and Portugal, together with the Macaronesian islands, as well as France, also have high proportions of threatened species (26, 22 and 21 species, respectively). The Caucasus region also has high richness of threatened species. In Azerbaijan, for example, 7% of species (23 species) are threatened and in Georgia 6% (18 species). Some regions in the Baltic states and Eastern Europe have higher threatened species richness. For example 7% of species in both Ukraine and Estonia are threatened (21 and 16 species, respectively). Norway, parts of the United Kingdom and the Republic of Ireland have high numbers of threatened species, mainly marine birds. In Iceland, Greenland and the Faroe Islands more than 10% of species are threatened.

Table 5. Total number of bird species and number and proportion of species threatened at the European level per country.

Country	Number of species	Number of threatened species	% threatened species
Albania	270	16	5.9%
Andorra	113	1	0.9%
Armenia	271	15	5.5%
Austria	223	9	4.0%
Azerbaijan	308	23	7.5%
Belarus	232	15	6.5%
Belgium	211	12	5.7%
Bosnia & Herzegovina	249	10	4.0%

Country	Number of species	Number of threatened species	% threatened species
Bulgaria	298	20	6.7%
Croatia	255	9	3.5%
Cyprus	117	6	5.1%
Czech Republic	225	9	4.0%
Denmark	209	14	6.7%
Estonia	225	16	7.1%
Faroe Islands	76	11	14.5%
Finland	248	17	6.9%
France	301	21	7.0%
Georgia	297	18	6.1%
Germany	266	17	6.4%
Greece	270	15	5.6%
Greenland	61	7	11.5%
Hungary	224	10	4.5%
Iceland	82	10	12.2%
Republic of Ireland	162	16	9.9%
Italy	262	15	5.7%
Kosovo	187	5	2.7%
Latvia	229	13	5.7%
Liechtenstein	135	3	2.2%
Lithuania	223	13	5.8%
Luxembourg	148	5	3.4%
FYRO Macedonia	246	9	3.7%
Malta	26	0	0.0%
Moldova	204	13	6.4%
Montenegro	241	10	4.1%
Netherlands	211	15	7.1%
Norway	255	20	7.8%
Poland	246	14	5.7%
Portugal	252	22	8.7%
Romania	269	16	5.9%
Russia	402	38	9.5%
Serbia	270	16	5.9%
Slovakia	226	9	4.0%
Slovenia	238	10	4.2%
Spain	306	26	8.5%
Sweden	263	16	6.1%
Switzerland	217	12	5.5%
Turkey	357	35	9.8%
Ukraine	293	21	7.2%
United Kingdom	247	18	7.3%

Figure 5. Species richness of European birds.

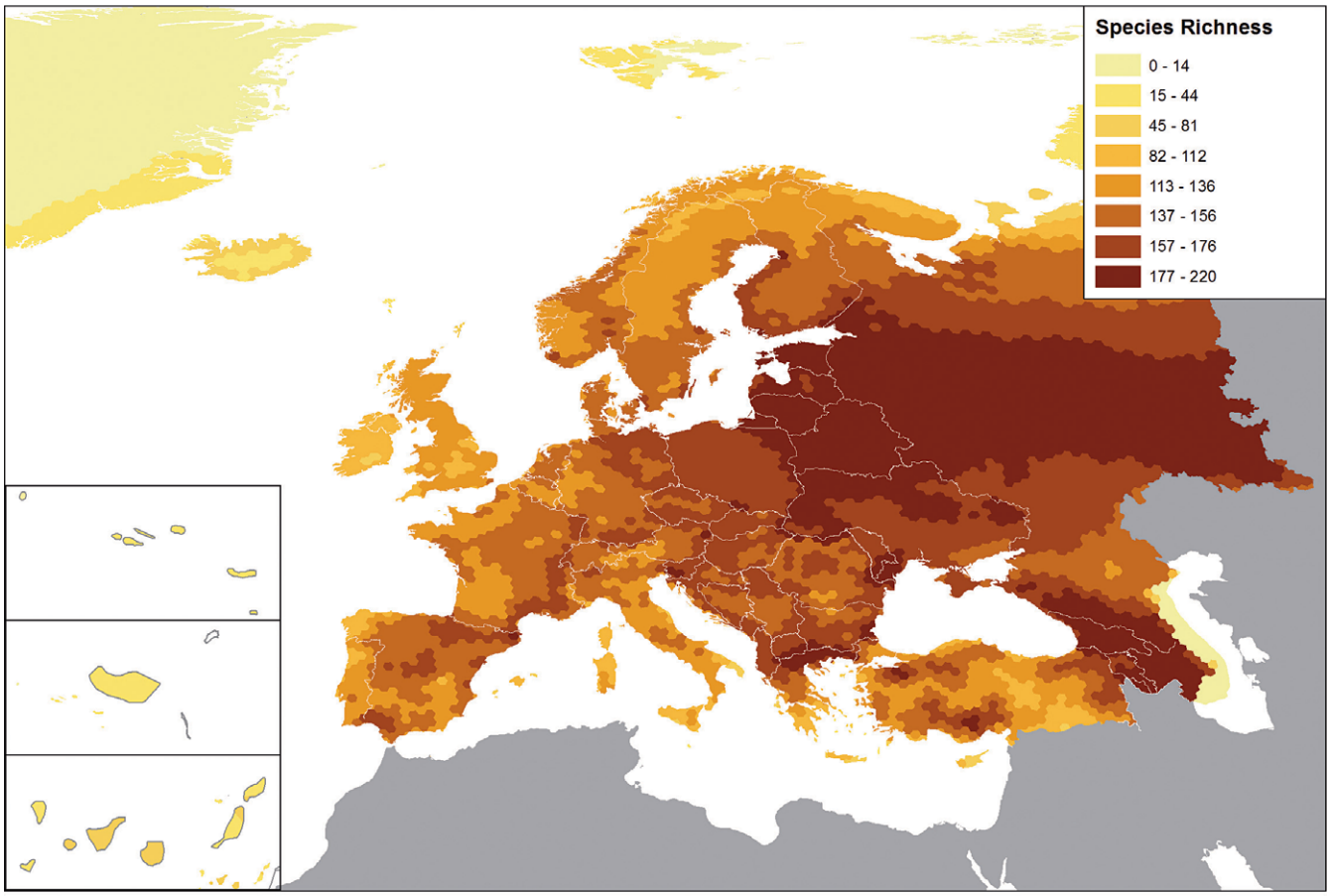
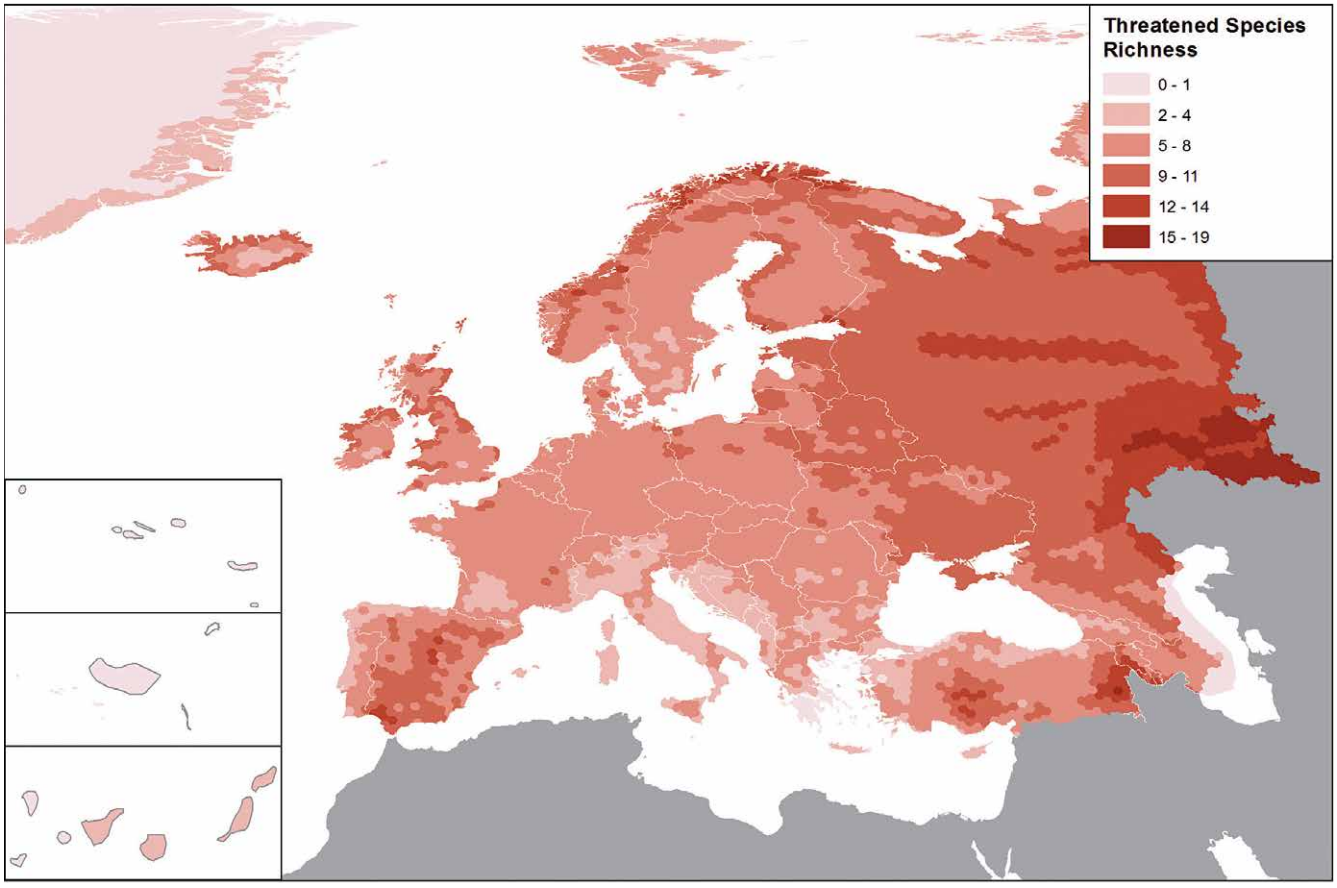


Figure 6. Distribution of threatened birds in Europe



3.3.3 Endemic species richness

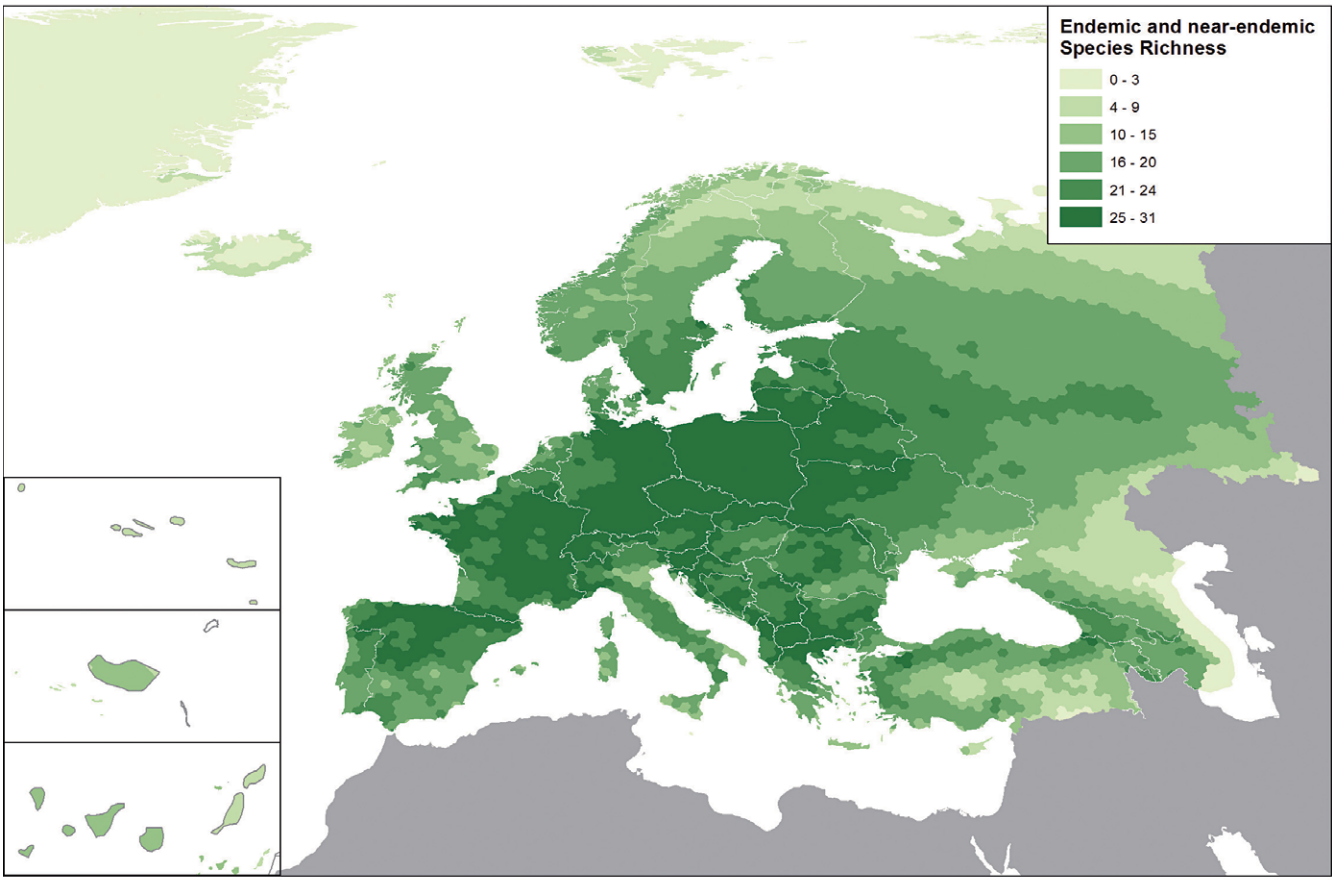
An endemic species is defined as having its global range restricted to European political boundaries. Birds, as is the case with other taxa, are not confined according to administrative borders so this definition would not capture all species whose global range is concentrated in Europe. Figure 7 presents the current distribution of both endemic and near-endemic species, the latter defined as species whose global range is concentrated (more than 75%) in Europe.

There are 91 bird species endemic or near-endemic to Europe, and their distribution shows the richest areas located in temperate and central Europe. The Mediterranean and Macaronesian islands have many endemic bird species, such as the Madeira and Dark- and White-tailed Laurel-pigeons (*Columba trocaz*, *C. bollii* and *C. junoniae*), the Cyprus Wheatear and Warbler (*Oenanthe cypriaca* and *Sylvia melanothorax*), and the Corsican Nuthatch (*Sitta whiteheadi*). The Caucasus region also has a number of species endemic or near-endemic restricted to the Caucasus mountains, such as Caucasian Snowcock (*Tetraogallus caucasicus*) and Caucasian Grouse (*Lyrurus mlokosiewiczi*).

Dark-tailed Laurel-pigeon, *Columba bollii*, is endemic to the Canary Islands, where it is found in dense laurel forest in mountainous areas. The species suffered historical declines due to intensive exploitation of laurel forests in the past but has recovered since, thanks to legal protection and habitat restoration efforts. The species has a European action plan and has benefitted from LIFE funding. Recent trends are unknown, but the reported long-term trend since 1980 was increasing, so the species is classified as Least Concern. © José Juan Hernández

Of the species endemic or near-endemic to Europe, more than 10% (10 species) are threatened and 12% (11 species) are Near Threatened. Of the 39 species endemic or near-endemic to the EU 27, nearly 20% (7 species) are threatened and 13% (5 species) are Near Threatened.

Figure 7. Distribution of endemic and near-endemic bird species in Europe



3.4 Major threats to birds in Europe

Threats to bird species were assessed following the IUCN Threats Classification Scheme[20]. By using this hierarchical classification we ensure there are clearly identified categories and that these can be compared with previous studies. A summary of the relative importance of the different threats recorded for birds in Europe is shown in Figure 8.

'Biological resource use', and 'agriculture and aquaculture' are Europe's top threats to bird species, followed by 'climate change and severe weather', 'pollution', 'invasive and other problematic species, genes and diseases' and 'natural system modifications'. Within 'biological resource use', 'hunting and collecting of terrestrial birds' represents the largest threat, affecting a total of 42 threatened species. This threat category relates mainly to illegal killing of birds, especially in the case of protected species, such as birds of prey that suffer from persecution. Within 'agriculture and aquaculture', threats relating to 'annual and perennial non-timber crops' and 'livestock farming and ranching' affect 27 and 13 threatened species, respectively. Agricultural threats relate to changes in land-use practices, including both intensification of agriculture and land abandonment, which are behind the dramatic declines in farmland bird species observed since the 1970s (Donald *et al.* 2006, Sirami *et al.*. 2008, Stoate *et al.* 2009) and continue to pose an important threat today. Agricultural effluents, mainly pesticides and herbicides, are a key threat under 'pollution', affecting 20 threatened species. Industrial effluents, mainly oil spills, affect 19 threatened marine species.

Aquatic Warbler, *Acrocephalus paludicola*, is a formerly widespread summer visitor to north-central and eastern Europe, which constitutes the majority of its global breeding range. It is classified as Vulnerable owing to its small range and population size and owing to continuing population decline and, in the EU27, also owing to its small range and population size. The most important threats to Aquatic Warbler are loss and degradation of breeding habitat owing to drainage of fen mires for agriculture and changes in grazing management. © Dušan Boucný

Balearic Shearwater, *Puffinus mauretanicus*, is a long-lived seabird species that breeds in the Balearic Islands. It is classified as Critically Endangered because of predicted population declines. The main threats to Balearic Shearwater are predation by introduced carnivores, such as cats, martens and genets, in the breeding colonies, and fisheries by-catch at sea. © Cabrera Natura

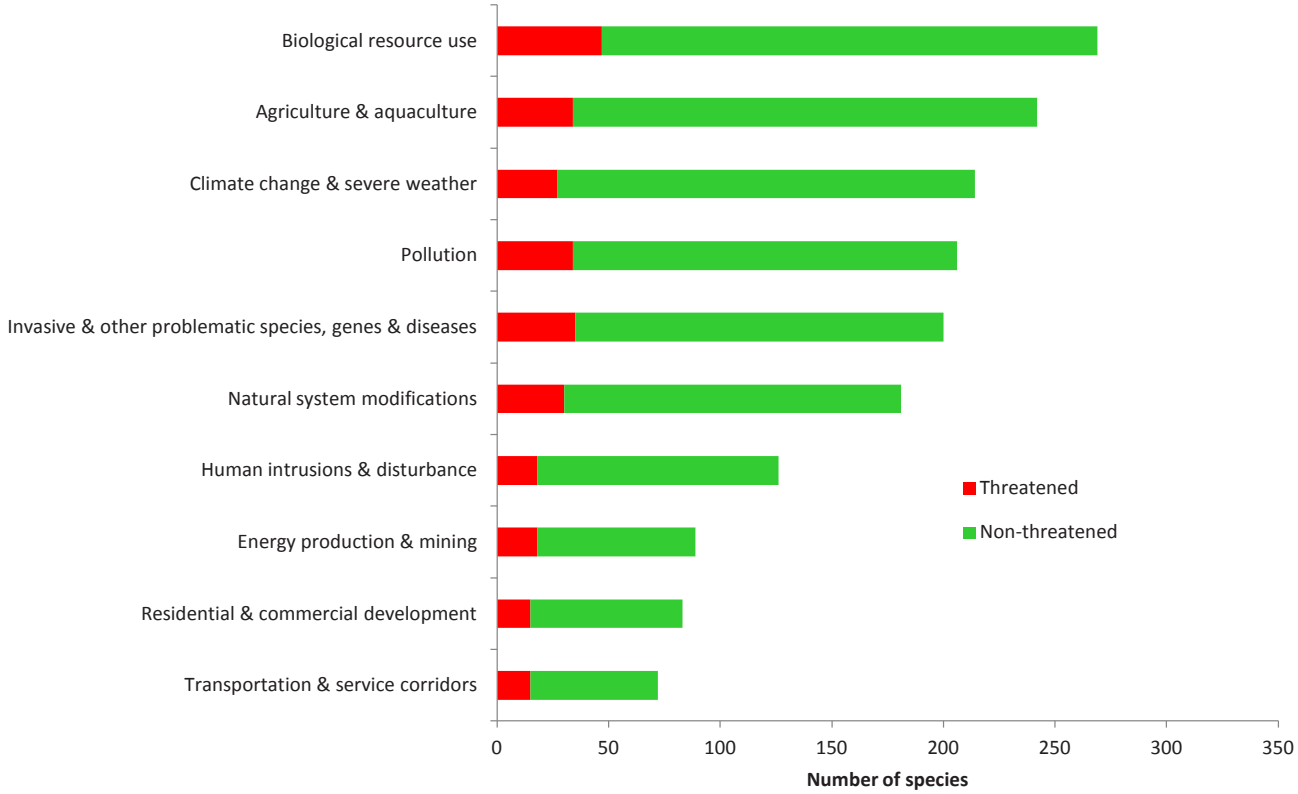
Invasive species pose an important threat affecting 35 threatened species. Alien species are particularly important and affect 21 threatened species. Invasive species are a particular problem for colonial seabirds, such as Balearic Shearwater and Zino's Petrel, which are prone to mammal predation, as well as some other species such as Azores Bullfinch, an island endemic whose native habitat is threatened by invasive alien plant species, and White-headed Duck, which is threatened by hybridisation with the introduced Ruddy Duck.

'Natural system modifications' mainly refer to changes in hydrological conditions and other changes to ecosystems, including land-use change. Habitat loss and degradation also features as the main threat associated with 'climate change and severe weather', while the threat category 'residential and commercial development' refers to habitat loss and disturbance as result of residential and tourism development. Recreational activities make up most cases of 'human intrusions and disturbance'.

The 'energy production and mining' threat category comprises mostly threats from renewable energy, namely wind turbines, collision with which poses a threat to soaring bird species, such as birds of prey, pelicans, storks, cranes and seabirds. These species are also threatened by collision with electricity pylons and utility lines, under 'Transportation and service corridors'. This threat category also encompasses roads and railroads and hence habitat fragmentation.

20 http://www.iucnredlist.org/technical-documents/classification-schemes/threats-classification-scheme

Figure 8. Threats to birds in Europe*



* Note that a single species may be affected by multiple threats.

3.5 Demographic trends

Understanding and documenting population trends provides fundamental information when assessing the Red List status of a particular species. As part of this process, the species' current breeding and winter population trends were assessed as decreasing, stable or fluctuating, increasing, or unknown.

A total of 144 bird species (representing 28% of the total) of Europe's breeding bird species are decreasing, while 29% (152 species) are considered stable or fluctuating and 21% (112 species) are increasing (Figure 9). Breeding population trends were unknown for 22% of species (114 species). Of the 92 species assessed in winter, 16% are decreasing, 30% are stable or fluctuating, 35% are increasing and 19% have unknown trends (Figure 10).

Figure 9. Breeding population trends of European birds.

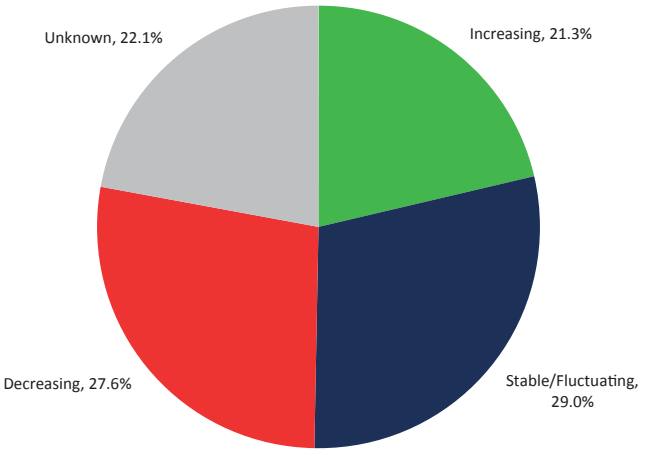
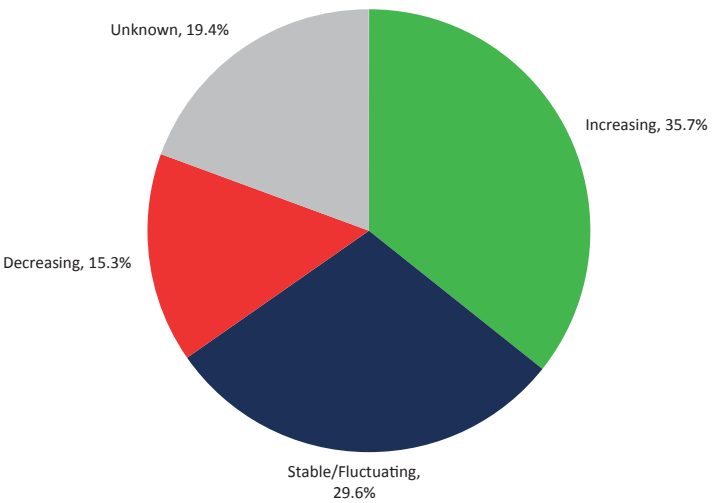


Figure 10. Winter population trends of European birds.



3.6 Gaps in knowledge

The assessments of all European species were principally based on data on species population size and trends. For the majority of species' and Red List categories the assessments under the population size reduction criteria (see IUCN 2012a) were based on the short-term (c. 2001-2012) population trends, as this was the period closest to the IUCN Red List assessment period of three generation lengths. Long-term trend (c. 1980-2012) information was essential for longer-lived species. The figures for population sizes and trends should ideally be calculated by combining figures provided by each country and this requires that the data do not have significant gaps. While population size estimates were missing in a very small number of cases (2% of breeding population size estimates), reported information on trends was in many cases incomplete, especially long-term trend information.

There were 13 countries for which 50% or more of the short-term trends were reported as unknown and 19 countries for which 50% or more of the long-term trends were reported as unknown. Bird monitoring efforts began relatively recently for many countries, which explains the lack of long-term trend data. In general, data were missing from countries or territories where monitoring of bird populations is difficult because large areas are difficult to access; the Caucasus and Norway and Svalbard, for example. For other countries or territories, such as Romania, Croatia, the Faroe Islands or the Azores, the issue may be more related to lack of capacity.

Bulwer's Petrel, *Bulweria bulwerii*, is a marine and highly pelagic species that breeds in the Azores, Madeira and the Canary Islands. Recent trends are unknown in Madeira, the stronghold of the species, and the Canary Islands, but the reported long-term trend since 1980 was increasing and there was no evidence to suggest the status of the species has deteriorated and it is classified as Least Concern. © Iván Ramírez

The Black-tailed Godwit, *Limosa limosa*, is a species of wader that has been classified as Vulnerable in Europe and Endangered in the EU 27, because of ongoing declines owing to changes in agricultural practices. © Petr Šaj

4. Biodiversity protection in Europe and the EU

4.1 European protection of bird species

Most European countries and all EU member states are signatories to a number of relevant international conventions, including the 1979 Bern Convention on the Conservation of European Wildlife and Natural Habitats, the 1992 Convention on Biological Diversity and the African-Eurasian Migratory Waterbird Agreement (AEWA). International trade of a small number of European bird species is regulated under the Convention on International Trade in Endangered Species (CITES).

The Bern Convention is a binding international legal instrument that aims to conserve wild flora and fauna and their natural habitats and to promote European cooperation towards that objective. It covers all European countries and some African states. It aims to increase cooperation between contracting parties and to regulate the exploitation of those species (including migratory species). Key provisions of the Convention include establishment of protected areas (defined as the Emerald network), protection of breeding and resting sites and regulation of disturbance, capture, killing and trade of wild species. The Bern Convention has played a fundamental role when promoting the adoption of International Species Action Plans on European threatened or Near Threatened species.

The African-Eurasian Migratory Waterbird Agreement AEWA[21] is an international treaty for the conservation of migratory waterbirds developed under the auspices of the Convention on Migratory Species (CMS, or Bonn Convention). Amongst other obligations, Parties to the Agreement are called upon to adopt so called International Single Species Action Plans (SSAPs) for species of particular concern (i.e. species/populations with an unfavourable conservation status). These Action Plans, or SSAPs, cover all Range States relevant for the species in an effort to ensure a coordinated conservation approach along the entire flyway.

Eurasian Spoonbill, *Platalea leucorodia*, is a widespread but patchily distributed breeder across much of southern Europe. The species declined dramatically in the past as a result of habitat loss caused mainly by drainage of wetlands. With the establishment of international treaties and conventions for the protection of the species and its habitat, including an international action plan under the African-Eurasian Waterbird Agreement (AEWA), the majority of breeding sites are now protected across its range in Europe. The species is now increasing and classified as Least Concern. Habitat protection and management has been crucial in enabling the recovery of Eurasian Spoonbill in Europe. © Martin Mecnarowski

The Convention on International Trade in Endangered Species of Wild Fauna and Flora[22] (CITES), adopted in 1973, has 178 countries that are Parties to the Convention. The Convention aims to protect species from the detrimental effects of international trade by establishing an international legal framework for preventing or controlling trade. Species listed on Appendix I of the Convention are considered to be threatened with extinction and are not allowed to be traded commercially, while those on Appendix II are only allowed to enter international trade under specific controlled circumstances. Parties are obliged to develop national legislation effectively implementing the obligations of the Convention including setting sustainable quotas for Appendix II species. Currently 161 bird species are listed on Appendix I and more than 1,300 on Appendix II.

The European Union responded to global commitments made in the context of the Convention on Biological Diversity[23] and its "Strategic Plan for Biodiversity" where world leaders adopted a package of measures to address global biodiversity loss over the coming decade. The EU

21 http://www.unep-aewa.org

22 http://www.cites.org

23 http://www.cbd.int/sp/

therefore adopted its own ambitious strategy to halt the loss of biodiversity and ecosystem services in the EU by 2020. There are six main targets[24], and 20 actions to help Europe reach its goal. The strategy is in line with two commitments made by EU leaders in 2010. The first is the 2020 headline target: "Halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible, while stepping up the EU contribution to averting global biodiversity loss"; the second is the 2050 vision: "By 2050, European Union biodiversity and the ecosystem services it provides – its natural capital – are protected, valued and appropriately restored for biodiversity's intrinsic value and for their essential contribution to human wellbeing and economic prosperity, and so that catastrophic changes caused by the loss of biodiversity are avoided." A detailed analysis of the current implementation of the EU Biodiversity 2020 targets was published by BirdLife International in 2012[25]

4.2 Natura 2000 network

EU nature conservation policy is based on two main pieces of legislation - the Birds Directive of 1979 and the Habitats Directive of 1992[26]. The Birds Directive provides a legal framework, binding for all Member States, for the protection of all wild birds in the EU, including their eggs, nests and habitats. Under the Birds Directive, EU Member States need to ensure that a sufficient area and diversity of habitats is available for all wild bird species, including those that live on farmland and in urban environments. The most important areas for the birds on Annex I of the Birds Directive and for regularly occurring migratory birds should be designated as Special Protection Areas (SPAs). These form part of the Natura 2000 network, regulated by the Habitats Directive.

The Birds Directive also regulates the hunting of birds in the EU, restricting the hunting seasons and methods, as well as the species that can be hunted (listed in Annex II).

The Habitats Directive is Europe's most powerful tool to address habitat protection, listing the priority types of habitats (e.g. specific types of wetlands, meadows, marine habitats) on Annex I and species on Annex II. As with the Birds Directive, important sites under the Habitats Directive should be designated as Special Areas of Conservation (SACs), which, together with the SPAs under the Birds Directive form the Natura 2000 network.

Each Member State is required to identify sites of European importance and is encouraged to put in place a special management plan to protect them, combining long-term conservation with economic and social activities as part of a sustainable development strategy. The Natura 2000 network has grown over the last 25 years and now includes more than 27,000 protected areas in all Member States combined, with a total area of around over 1,100,000 km^2 – this represents more than 18% of the EU land territory[27].

Dalmatian Pelican, *Pelecanus crispus*, breed locally in south-eastern Europe. The species suffered large declines in the last centuries due to habitat loss and degradation and persecution. In Europe, the species has shown a remarkable recovery, especially in Greece, where it has benefitted from targeted conservation efforts and the most complete implementation of the European Species Action Plan, including protection and management of breeding sites. The species is classified as Least Concern in Europe and the EU 27. © Arjan Haverkamp

The majority of threatened bird species are listed on the Birds Directive Annexes and the Bern Convention Appendices (Table 6). A full table containing all bird species and their presence on the Birds Directive Annexes, the Bern Convention Appendices, as well as the Emerald Network Annexes, the CMS Appendices, AEWA and CITES can be found in Appendix 1.

24 http://ec.europa.eu/environment/nature/biodiversity/comm2006/2020.htm

25 http://www.birdlife.org/sites/default/files/attachments/On-the-Road-to-Recovery.pdf

26 Council Directive 92/43/EEC on the conservation of natural habitats and of wild flora and fauna

27 http://ec.europa.eu/environment/nature/info/pubs/docs/nat2000newsl/nat37_en.pdf

Table 6. European threatened bird species and legal protection in Europe.

Genus	Species	Red List status		Birds Directive Annexes	Bern Convention Appendices
		Europe	EU 27		
Alectoris	graeca	NT	VU	I; IIA	III
Lagopus	lagopus	VU	VU	IIA[1]; IIB[2]; IIIA[3]	III
Lagopus	muta	NT	VU	I[4]; IIA; IIIB	III
Oxyura	leucocephala	EN	VU	I	II
Cygnus	columbianus	EN	EN	I[5]	II[5]; III
Anser	erythropus	EN	CR	I	II
Clangula	hyemalis	VU	VU	IIB	III
Somateria	mollissima	VU	EN	IIB; IIIB	III
Polysticta	stelleri	LC	EN	I	II
Melanitta	fusca	VU	VU	IIB	III
Mergus	serrator	NT	VU	IIB	III
Marmaronetta	angustirostris	VU	CR	I	II
Aythya	ferina	VU	VU	IIA; IIIB	III
Aythya	marila	VU	VU	IIB; IIIB	III
Spatula	querquedula	LC	VU	IIA	III
Mareca	penelope	LC	VU	IIA; IIIB	III
Anas	acuta	LC	VU	IIA; IIIB	III
Podiceps	auritus	NT	VU	I	II
Streptopelia	turtur	VU	NT	IIB	III
Syrrhaptes	paradoxus	EN	NE		II
Pterocles	orientalis	EN	EN	I	II
Apus	affinis	VU	VU		III
Fulica	cristata	EN	EN	I	II
Tetrax	tetrax	VU	VU	I	II
Chlamydotis	macqueenii	CR	NE		II
Gavia	immer	VU	VU	I	II
Gavia	adamsii	VU	NE		II
Pelagodroma	marina	EN	EN	I	III
Hydrobates	monteiroi	VU	VU		II
Hydrobates	leucorhous	LC	VU	I	II
Fulmarus	glacialis	EN	VU		III
Pterodroma	deserta	VU	VU	I	II
Pterodroma	madeira	EN	EN	I	II
Puffinus	mauretanicus	CR	CR	I	III
Haematopus	ostralegus	VU	VU	IIB	III
Charadrius	leschenaultii	VU	CR		II
Vanellus	vanellus	VU	VU	IIB	III
Vanellus	spinosus	LC	VU	I	II
Vanellus	indicus	VU	NE		III
Vanellus	gregarius	CR	NE		III
Numenius	tenuirostris	CR	CR	I	II
Numenius	arquata	VU	VU	IIB	III

Genus	Species	Red List status		Birds Directive Annexes	Bern Convention Appendices
		Europe	EU 27		
Limosa	limosa	VU	EN	IIB	III
Arenaria	interpres	LC	EN		II
Calidris	pugnax	LC	EN	I; IIB	III
Calidris	ferruginea	VU	VU		II
Gallinago	media	LC	VU	I	II
Xenus	cinereus	LC	CR	I	II
Tringa	totanus	LC	VU	IIB	III
Tringa	stagnatilis	LC	EN		II
Turnix	sylvaticus	CR	CR	I	II
Glareola	nordmanni	VU	CR		II
Rhodostethia	rosea	EN	NE		III
Rissa	tridactyla	VU	EN		III
Larus	argentatus	NT	VU	IIB	
Stercorarius	parasiticus	LC	EN		III
Fratercula	arctica	EN	NT		III
Cepphus	grylle	LC	VU		III
Otus	brucei	EN	NE		II
Bubo	scandiacus	LC	CR	I	II
Ketupa	zeylonensis	CR	NE		II
Gypaetus	barbatus	VU	VU	I	III
Neophron	percnopterus	EN	VU	I	III
Clanga	clanga	EN	CR	I	III
Aquila	nipalensis	CR	NE		III
Aquila	adalberti	VU	VU	I	III
Circus	macrourus	NT	EN	I	III
Accipiter	badius	VU	NE		III
Buteo	lagopus	LC	EN		III
Alcedo	atthis	VU	VU	I	II
Ceryle	rudis	EN	NE		II
Halcyon	smyrnensis	VU	NE		II
Falco	vespertinus	NT	VU	I	II
Falco	biarmicus	EN	VU	I	II
Falco	cherrug	VU	VU	I	II
Falco	rusticolus	LC	VU	I	II
Lanius	excubitor	VU	VU		II
Parus	montanus	LC	VU		II
Parus	cinctus	LC	VU		II
Melanocorypha	calandra	LC	VU	I	II
Melanocorypha	yeltoniensis	CR	NE		II
Ammomanes	deserti	CR	NE		III
Chersophilus	duponti	VU	VU	I	II
Locustella	fluviatilis	LC	VU		II
Acrocephalus	paludicola	VU	VU	I	II

Genus	Species	Red List status		Birds Directive Annexes	Bern Convention Appendices
		Europe	EU 27		
Phylloscopus	borealis	LC	VU		II
Sitta	whiteheadi	VU	VU	I	II
Turdus	pilaris	LC	VU	IIB	III
Turdus	iliacus	NT	VU	IIB	III
Oenanthe	leucura	VU	VU	I	II
Oenanthe	chrysopygia	EN	NE		II
Passer	moabiticus	VU	NE		III
Anthus	gustavi	VU	NE		II
Anthus	pratensis	NT	VU		II
Fringilla	montifringilla	LC	VU		III
Carduelis	flavirostris	LC	VU		II
Carpodacus	erythrinus	LC	VU		II
Pyrrhula	murina	EN	EN	I	III
Emberiza	leucocephalos	VU	NE		II
Emberiza	cineracea	VU	VU	I	II
Emberiza	rustica	VU	VU		II
Emberiza	aureola	CR	CR		II

[1] L. l. scoticus and hibernicus only

[2] L. l. lagopus only

[3] L. l. lagopus, scoticus and hibernicus only

[4] L. m. pyrenaicus and helveticus only

[5] C. c. bewickii only

4.3 Conservation management of birds in the EU

Addressing species conservation requires full coordination of public and private resources, skills and capacities. The Birds and Habitats Directives provide an excellent framework for coordinated work with threatened species, and within them, the financial support provided by the LIFE Programme has been fundamental since 1992. To date, LIFE has co-financed over 4,000 projects with a total budget of approximately €3,4 billion. Half of the total programme budget has addressed the implementation of the Birds and Habitats Directives and the establishment of the Natura 2000 network. Examples include habitat restoration, site purchases, communication and awareness-raising, protected area infrastructure and conservation planning.

A detailed search on the LIFE project database[28] yields more than 500 projects focusing on bird conservation across the European Union. LIFE has become one of the most powerful sources of national and international cooperation within the Union, providing not only financial resources, but a sound administrative monitoring framework that has allowed many different stakeholders to become "champions" of many threatened species.

Unlike the Habitats Directive, the Birds Directive does not distinguish between priority and non priority species. Nevertheless, for the purposes of LIFE funding, the Ornis Committee has adopted a list of bird species listed in Annex I of the Directive, which are considered as priority for funding under the LIFE programme (meaning that if the LIFE Project works directly with such species, the level of EU co-funding could be increased from 60% to 75%) This priority list includes all globally threatened species that regularly occur in the EU. A detailed analysis of the use of LIFE funding resources yields 348 projects directly targeting priority species for funding.

28 http://ec.europa.eu/environment/life/project/Projects/

Table 7. LIFE projects that have addressed conservation of birds and their habitats.

LIFE projects related to bird conservation		Number of projects
Total		511
Related to species of funding priority		348
Theme	Bird species	267
	Habitats	261
	Habitats and bird species	74
	Invasive species	23
	Awareness raising, stakeholder participation or capacity building	15
	High Nature Value farmland	11
	Ecological coherence	14
	Forest management	3
	Climate change adaptation	2

The themes of LIFE projects for birds range from specific species and habitats to issues such as 'climate change adaptation', as well as 'awareness raising, stakeholder participation or capacity building'. Table 7 suggests there is still room for improvement in terms of how EU funds are being used. Most of the major threats to birds in Europe (see section 3.4) are addressed, but not equally. While illegal hunting, trapping, poisoning and pressures arising from agricultural practices are relatively well covered, others that rank highly, such as impacts of climate change or forest habitat loss or degradation are clearly underrepresented.

Azores Bullfinch, *Pyrrhyla murina*, is endemic to the EU 27, where it has a very small range on the island of São Miguel in the Azores. The quality of habitat for the species is thought to be decreasing due to the spread of invasive plant species, so the species is classified as Endangered. Thanks to EU LIFE-Nature project funding, the Azores Bullfinch has benefitted from a management plan for its Special Protected Area, the clearance of invasive plant species and replanting with native species. © Mark Putney

LIFE funding has been extremely useful for many species of conservation concern, giving hope for the future. For example, although the Bearded Vulture (*Gypaetus barbatus*) is still threatened in Europe, the species is recovering in western and central Europe thanks to reintroductions and active conservation efforts mostly funded through the EU. Other species that are still threatened but have improved in status thanks to conservation efforts funded by EU LIFE include Spanish Imperial Eagle (*Aquila adalberti*), Zino's Petrel (*Pretodroma madeira*) and Azores Bullfinch (*Pyrrhula murina*).

4.4 Extinction risk versus conservation status in the EU

The IUCN Red List categories and criteria are well known and widely respected. They highlight species with a relatively high risk of extinction, which is just one of many ways of informing conservation priorities. This concept is very relevant to the Birds Directive (e.g. Art. 4) and has been used to help prioritise species (e.g. for Species Action Plans, LIFE funding, etc.).

Target 1 for birds under the EU's biodiversity strategy for 2020 is expressed as follows: "By 2020, 50% more species assessed under the Birds Directive show a secure or improved status." Species that meet the IUCN Red List Criteria for Critically Endangered, Endangered of Vulnerable at the regional level are considered to be threatened in the EU. However, species that are not threatened or Near Threatened, as defined by IUCN Red List Criteria, do not necessarily have a 'secure or improved status'. Many bird species that would be classified as Least Concern under the IUCN Red List Criteria have undergone significant long-term declines as a result of threats including land-use change and illegal hunting (see Section 3.4) and therefore could not be regarded as being secure or improved. In previous assessments of

the conservation status of European bird species (Tucker & Heath 1994, BirdLife International 2004a, BirdLife International 2004b), additional criteria were applied to identify species of European conservation concern (SPECs). Although SPECs do not trigger or approach the IUCN Red List Criteria, they are depleted or declining over the long term and so cannot be considered to contribute towards progress to Target 1 of the EU's Biodiversity Strategy. For this reason, similar additional criteria will be used in the frame of the current Article 12 assessment to identify secure, improved, declining or depleted species and hence evaluate progress towards the Target.

4.5 Red List versus priority for conservation action

Assessment of extinction risk and setting conservation priorities are two related but different processes. Assessment of extinction risk, such as the assignment of IUCN Red List Categories, generally precedes the setting of conservation priorities. The purpose of the Red List categorization is to produce a relative estimate of the likelihood of extinction of a species. Setting conservation priorities, on the other hand, which normally includes the assessment of extinction risk, also takes into account other factors such as ecological, phylogenetic, historical, or cultural preferences for some taxa over others, as well as the probability of success of conservation actions, availability of funds or personnel, cost-effectiveness, and legal frameworks for conservation of threatened taxa. In the context of regional risk assessments, a number of additional pieces of information are valuable for setting conservation priorities. For example, it is important to consider not only conditions within the region but also the status of the taxon from a global perspective and the proportion of the global population that occurs within the region. Decisions on how these three variables, as well as other factors, are used for establishing conservation priorities are a matter for the regional authorities to determine.

The Northern Lapwing, *Vanellus vanellus*, is a species of wader that has been classified as Vulnerable in Europe and the EU 27, because of ongoing population declines owing to changes in agricultural practices. © Ivan Dudáček

5. Recommendations and future work

5.1 Policy recommendations

Across Europe, many governments, NGOs and other parties are showing a major commitment to conserving wild birds and their habitats. As a result, some bird species have come back from the brink of extinction during the last 30 years (Deinet *et al.*. 2013). Taking into account the substantial declines of many widespread and formerly common species, in particular those linked to farmlands, it is clear that much more still needs to be done to prevent further extinctions and keep populations in favourable conditions.

BirdLife International believes there are a number of key recommendations which, if implemented, would greatly strengthen the long-term conservation of European birds. Some of these recommendations are summarized below.

5.1.1 Species conservation

- Ensure funding for the protection of threatened species.
- Ensure that threats to migratory birds are tackled on a flyway scale. This is likely to require boosting targeted conservation efforts in the wintering grounds outside the European region.
- Ensure that legal hunting is sustainable and carried out in line within the legal framework of AEWA, the Bern Convention and, where relevant, the EU Birds Directive.
- Combat illegal killing of birds, such as poisoning of birds of prey, through improving enforcement of national legislation.
- Ensure that energy infrastructures are developed in harmony with nature and do not adversely impact birds and their habitat.

5.1.2 Habitats conservation

- Increase the protection of Important Bird and Biodiversity Areas[29], through designation as protected areas, enforcement of site protection and through improving site management.
- Enhance cross-policy coordination to strengthen protection and restoration efforts for the existing protected area networks of national and international importance (in particular Natura 2000 and Emerald sites), but also on High Nature Value (HNV) farmlands and other areas of outstanding importance for bird conservation.
- Ensure that agricultural policies, such as the EU Common Agricultural Policy, safeguard farmland biodiversity through incentives and legal obligations.
- Ensure sustainable forest management and ecologically compatible afforestation policies.
- Improve the effectiveness of Agri-Environment Schemes (AES) by setting specific long-term objectives, including those for wild birds, at a range of spatial scales and develop targeted measures to support bird biodiversity in agro-ecosystems, and by allocating sufficient funding resources.
- Provide "bundles" of bird-friendly measures within AES, which can be deployed together to provide forage, nesting and other resources within local landscapes.

5.1.3 Marine policy

- Ensure that catch limits are set on strict scientific grounds at or below the level of fishing that allows for harvested species to be restored and maintained above levels capable of producing maximum sustainable yield.
- Designate and properly manage a comprehensive network of Marine Protected Areas.
- Eliminate the bycatch of seabirds in fisheries through the deployment of appropriate mitigation measures and better management of fisheries.

5.1.4 Invasive alien species

- Ensure that invasive alien species are detected early and, where appropriate, rapidly eradicated. Widely established invasive alien species should be managed to reduce impacts and to prevent further spreading.

29 http://www.birdlife.org/worldwide/programmes/important-bird-and-biodiversity-areas-ibas

5.1.5 Knowledge base

- Continue to support bird indicators, such as the European Union agri-environmental indicator "population trends of farmland birds"[30] and promote more targeted long-term monitoring schemes.
- Invest in targeted research on threatened species, especially those for which the threats are poorly understood, such as seaducks.

5.2 Application of project outputs

This European Red List of birds is part of a wider initiative aimed at assessing the status of European species. It provides key resources for decision-makers, policymakers, resources managers, environmental planners and NGOs. It has gathered large amounts of data on the population, ecology, habitats and threats of each bird species. These data are freely available on the IUCN Red List website (www.iucnredlist.org/initiatives/europe), on the European Commission's website (http://ec.europa.eu/environment/nature/conservation/species/redlist) and through paper publications (see the list of European Red Lists published at the end of this report).

The outputs of this project can be applied to inform policy and identify priority species to include in research and monitoring programmes.

5.3 Future work

Red Lists are a dynamic tool that will evolve with time as species are re-assessed according to new information or situations. They are aimed at stimulating and supporting research, monitoring and conservation action at local, regional and international levels, especially for threatened, Near Threatened and Data Deficient species.

Through the process of compiling bird data for the European Red List a number of knowledge gaps have been identified. Across Europe there are significant geographic, geopolitical and taxonomic biases in the quality of data available on the distribution and status of species. It is evident that for a number of countries, capacity and probably funding is lacking for regular monitoring of bird populations. Despite these issues, this European Red List forms the third assessment of birds in Europe since 1994. Periodical assessments can be used to produce a Red List Index to track the changing status of species (Butchart *et al.*. 2004, 2005, 2006, 2007). The Red List Index for European birds based on a comparison of the two previous assessments (Tucker & Heath 1994, BirdLife International 2004a) was adopted as one of the headline indicators to monitor progress towards halting biodiversity loss in Europe by 2010 (EEA 2007). It is envisaged that this European Red List will form the third data point in the Red List Index. The European Red List of Birds will also form the basis for identification of species of European concern, following the methodology developed in the previous assessments (Tucker & Heath 1994, BirdLife International 2004a).

30 http://ec.europa.eu/eurostat/statistics-explained/index.php/Agri-environmental_indicator_-_population_trends_of_farmland_birds

References

Allen, D.J., Bilz, M., Leaman, D.J., Miller, R.M., Timoshyna, A. and Window, J. 2014. *European Red List of Medicinal Plants*. Luxembourg: Publications Office of the European Union.

BirdLife International 2004a. *Birds in Europe: population estimates, trends, and conservation status*. Cambridge, UK: BirdLife International.

BirdLife International 2004b *Birds in the European Union: a status assessment*. Wageningen, The Netherlands: BirdLife International.

BirdLife International 2014. The BirdLife checklist of the birds of the world: Version 7. Downloaded from http://www.birdlife.org/datazone/userfiles/file/Species/Taxonomy/BirdLife_Checklist_Version_70.zip [.xls zipped 1 MB].

Butchart, S.H.M, Stattersfield, A.J., Bennun, L.A., Shutes, S.M., Akcakaya, H.R., *et al.*. 2004. Measuring global trends in the status of biodiversity: Red List Indices for birds. *PLoS Biology* 2: e383.

Butchart, S.H.M., Stattersfield, A.J., Baillie, J.E.M., Bennun, L.A., Stuart, S.N., *et al.*. 2005. Using Red List Indices to measure progress towards the 2010 target and beyond. *Philosophical Transactions of the Royal Society of London B* 360: 255–268.

Butchart, S.H.M., Akcakaya, H.R., Kennedy, E., HiltonTaylor, C. 2006. Biodiversity indicators based on trends in conservation status: strengths of the IUCN Red List Index. *Conservation Biology* 20: 579–581.

Butchart, S.H.M., Akcakaya, H.R., Chanson, J., Baillie, J.E.M., Collen, B., *et al.*. 2007. Improvements to the Red List Index. *PLoS ONE* 2(1): e140. doi:10.1371/journal.pone.0000140.

Cox, N.A. and Temple, H.J. 2009. *European Red List of Reptiles*. Luxembourg: Office for Official Publications of the European Communities.

Cuttelod, A., García, N., Abdul Malak, D., Temple, H. and Katariya, V. 2008. The Mediterranean: a biodiversity hotspot under threat. *In*: Vié, J.-C., Hilton-Taylor, C. and Stuart, S.N. (eds). *The 2008 Review of the IUCN Red List of Threatened Species*. Gland, Switzerland: IUCN.

Deinet, S., Ieronymidou, C., McRae, L., Burfield, I.J., Foppen, R.P., Collen, B. and Böhm, M. (2013) *Wildlife comeback in Europe: The recovery of selected mammal and bird species*. Final report to Rewilding Europe by ZSL, BirdLife International and the European Bird Census Council. London, UK: ZSL.

Donald, P.F., Sanderson, F.J., Burfield, I.J. & van Bommel, F.P.J. 2006. Further evidence of continent-wide impacts of agricultural intensification on European farmland birds, 1990-2000. *Agriculture, Ecosystems & Environment* 116: 189–196.

EEA 2007. *Halting the loss of biodiversity by 2010: proposal for a first set of indicators to monitor progress in Europe*. EEA Technical Report NO. 11/2007.

EEA 2015. *The European environment — state and outlook 2015: synthesis report.* European Environment Agency, Copenhagen.

Euro+Med. 2006-2011. *Euro+Med PlantBase - the information resource for Euro-Mediterranean plant diversity*. Accessed on 12 August 2014: http://ww2.bgbm.org/EuroPlusMed/.

Fauna Europaea 2004. Web Service 2004. Fauna Europaea version 1.1. Available at www.faunaeur.org

Freyhof, J. and Brooks, E. 2011. *European Red List of Freshwater Fishes*. Luxembourg: Publications Office of the European Union.

IUCN 2011. *European species under threat. Overview of European Red Lists results*.

IUCN 2012a. *IUCN Red List Categories and Criteria: Version 3.1. Second edition*. Gland, Switzerland and Cambridge, UK: IUCN.

IUCN 2012b. *Guidelines for Application of IUCN Red List Criteria at Regional and National Levels. Version 4.0.* IUCN Species Survival Commission. Gland: IUCN.

IUCN 2014. *Guidelines for Using the IUCN Red List Categories and Criteria. Version 11*. Prepared by the Standards and Petitions Subcommittee. Downloadable from http://www.iucnredlist.org/documents/RedListGuidelines.pdf.

IUCN in prep. 2015. *European Red List of Marine Fishes*. Luxembourg: Publication Office of the European Union.

Kalkman, V.J., Boudot, J.-P., Bernard, R., Conze, K.-J., De Knijf, G., Dyatlova, E., Ferreira, S., Jović, M., Ott, J., Riservato, E., and Sahlén, G. 2010. *European Red List of Dragonflies*. Luxembourg: Publications Office of the European Union.

Kottelat, M. and Freyhof, J. 2007. *Handbook of European freshwater fishes*. Cornol, Switzerland: Kottelat, and Berlin, Germany: Freyhof.

Mittermeier, R.A., Robles Gil, P., Hoffmann, M., Pilgrim, J., Brooks, T., Mittermeier, C.G., Lamoreux, J. and Fonseca, G.A.B. 2004. *Hotspots Revisited: Earth's Biologically Richest and Most Endangered*

Sirami, C., Brotons, L., Burfield, I., Fonderflick, J. & Martin, J.-L. 2008. Is land abandonment having an impact on biodiversity? A meta-analytical approach to bird distribution changes in the north-western Mediterranean. *Biological Conservation* 141: 450–459.

Stoate, C., Báldi, A., Beja, P., Boatman, N.D., Herzon, I., van Doorn, A., de Snoo, G.R., Rakosy, L. & Ramwell, C. 2009. Ecological impacts of early 21st century agricultural change in Europe: a review. *Journal of Environmental Management* 91: 22–46.

Temple, H.J. and Terry, A. 2007. *The status and distribution of European mammals*. Luxembourg: Office for Official Publications of the European Communities.

Temple, H.J. and Cox, N.A. 2009. *European Red List of Amphibians*. Luxembourg: Office for Official Publications of the European Communities.

Tucker, G.M., Evans, M.I., 1997. *Habitats for Birds in Europe: A Conservation Strategy for the Wider Environment*. BirdLife International, Cambridge, UK.

Tucker, G.M. and Heath, M.F. 1994. *Birds in Europe: their conservation status*. Cambridge, UK: BirdLife International.

Appendix 1.
Red List status of all European bird species and their protection status under international legislation, conventions and agreements

Assessments based on winter data are denoted with 'W'

Taxonomy	IUCN Red List Category (Europe)	IUCN Red List Criteria (Europe)	IUCN Red List Category (EU 27)	IUCN Red List Criteria (EU 27)	(Near-) Endemic to Europe?	(Near-) Endemic to EU 27?	Birds Directive Annexes	Bern Convention Appendices	Emerald Network Annexes	CMS Appendices	AEWA	CITES Appendices	Notes
Phasianidae													
Coturnix coturnix	LC		LC				IIB	III		II*			* C. c. coturnix only
Tetraogallus caucasicus	LC		NE		Y			III					
Tetraogallus caspius	LC		NE					III				I	
Alectoris graeca	NT	A2abcd+3bcd+4abcd	VU	A2abcd+3bcd+4abcd	Y		I; IIA	III	I				
Alectoris chukar	NT	A2abcd+3bcd+4abcd	LC				IIB	III					
Alectoris barbara	LC		LC				I; IIB; IIIA	III	I				
Alectoris rufa	LC		LC		Y	Y	IIA; IIIA	III					
Ammoperdix griseogularis	LC		NE					III					
Francolinus francolinus	LC		LC				IIB	III					
Phasianus colchicus	LC		LC				IIA; IIIA	III					
Perdix perdix	LC		LC				I*; IIA; IIIA	III	I*				* P. p. italica and hispaniensis only
Bonasa bonasia	LC		LC				I; IIB	III	I				
Lagopus lagopus	VU	A2abcd+3bcd+4abcd	VU	A2abcd+3bcd+4abcd			IIA*; IIB**; IIIA***	III					* L. l. scoticus and hibernicus only. ** L. l. lagopus only. *** L. l. lagopus, scoticus and hibernicus only

Taxonomy	IUCN Red List Category (Europe)	IUCN Red List Criteria (Europe)	IUCN Red List Category (EU 27)	IUCN Red List Criteria (EU 27)	(Near-) Endemic to Europe?	(Near-) Endemic to EU 27?	Birds Directive Annexes	Bern Convention Appendices	Emerald Network Annexes	CMS Appendices	AEWA	CITES Appendices	Notes
Lagopus muta	NT	A2abcd+3bcd+4abcd	VU	A2abcd+3bcd+4abcd			I*; IIA; IIIB	III	I*				* L. m. pyrenaicus and helveticus only
Tetrao urogallus	LC		LC				I; IIB; IIIB	II*; III**	I				* T. u. cantabricus only. ** all others
Lyrurus tetrix	LC		LC				I*; IIB; IIIB**	III	I*				* T. t. tetrix only. ** T. t. britannicus only
Lyrurus mlokosiewiczi	LC		NE		Y			III					
Anatidae													
Oxyura leucocephala	EN	C1	VU	D1			I	II	I	I; II	Y	II	
Cygnus olor	LC		LC				IIB	III		II	Y		
Cygnus cygnus	LC		LC				I	II	I	II	Y		
Cygnus columbianus	EN[W]	A4abcde	EN[W]	A4abcde			I*	II*; III**	I*	II	Y		* C. c. bewickii only. ** all others
Branta bernicla	LC		LC[W]				IIB	III		II	Y		
Branta leucopsis	LC		LC		Y		I	II	I	II	Y		
Branta ruficollis	NT[W]	B2ab(iii,v)	NT[W]	B2a+b(iii,v)			I	II	I	I; II	Y	II	
Branta canadensis	LC		NE				IIA	III				I	
Anser caerulescens	LC		NE					III					
Anser anser	LC		LC				IIA; IIIB	III		II	Y		
Anser fabalis	LC		LC				IIA	III		II	Y		
Anser brachyrhynchus	LC		LC[W]		Y		IIB	III		II	Y		
Anser albifrons	LC		LC[W]				I*; IIB; IIIB**	III	I*	II	Y		* A. a. flavirostris only. ** A. a. ablifrons only
Anser erythropus	EN	C1	CR	D			I	II	I	I; II	Y		
Clangula hyemalis	VU[W]	A2abcde+3bcde+4abcde	VU[W]	A2abcde+3bcde+4abcde			IIB	III		II	Y		
Somateria spectabilis	LC		NE					II		II	Y		
Somateria mollissima	VU	A4abcde	EN	A4abcde			IIB; IIIB	III		II	Y		
Polysticta stelleri	LC[W]		EN[W]	C1			I	II	I	I; II	Y		
Melanitta fusca	VU[W]	A2abcde	VU[W]	A2abcde			IIB	III		II	Y		
Melanitta nigra	LC		LC				IIB; IIIB	III		II	Y		
Bucephala clangula	LC		LC				IIB	III		II	Y		
Bucephala islandica	NT	D2	NE					II	I				
Mergellus albellus	LC		LC				I	II	I	II	Y		
Mergus merganser	LC		LC				IIB	III		II	Y		

Taxonomy	IUCN Red List Category (Europe)	IUCN Red List Criteria (Europe)	IUCN Red List Category (EU 27)	IUCN Red List Criteria (EU 27)	(Near-) Endemic to Europe?	(Near-) Endemic to EU 27?	Birds Directive Annexes	Bern Convention Appendices	Emerald Network Annexes	CMS Appendices	AEWA	CITES Appendices	Notes
Mergus serrator	NT	A2abcde+3bcde+4abcde	VU	A2abcde+3bcde+4abcde			IIB	III		II	Y		
Histrionicus histrionicus	LC		NE					II	I				
Tadorna tadorna	LC		LC					II		II	Y		
Tadorna ferruginea	LC		NT[0]	D1			I	II	I	II	Y		
Marmaronetta angustirostris	VU	C1; D1	CR	C2a(ii)			I	II	I	I; II	Y		
Netta rufina	LC		LC				IIB	III		II	Y		
Aythya ferina	VU	A2abcd+3bcd+4abcd	VU	A2abcd+3bcd+4abcd			IIA; IIIB	III		II	Y		
Aythya nyroca	LC		LC				I	III	I	I; II	Y		
Aythya fuligula	LC		LC				IIA; IIIB	III		II	Y		
Aythya marila	VU[W]	A2abcde	VU	A2abcde+3bcde+4abcde			IIB; IIIB	III		II	Y		
Spatula querquedula	LC		VU	A2abcde+3bcde+4abcde			IIA	III		II	Y		
Spatula clypeata	LC		LC				IIA; IIIB	III		II	Y		
Mareca strepera	LC		LC				IIA	III		II	Y		
Mareca penelope	LC		VU	A2abcde+3bcde+4abcde			IIA; IIIB	III		II	Y		
Anas platyrhynchos	LC		LC				IIA; IIIA	III		II	Y		
Anas acuta	LC		VU	A2abcde+3bcde+4abcde			IIA; IIIB	III		II	Y		
Anas crecca	LC		LC				IIA; IIIB	III		II	Y		
Podicipedidae													
Tachybaptus ruficollis	LC		LC					II			Y		
Podiceps grisegena	LC		LC					II		II*	Y		* P. g. grisegena
Podiceps cristatus	LC		LC					III			Y		
Podiceps auritus	NT	A2abce+3bce+4abce	VU	A2abce+3bce+4abce; C1			I	II	I	II	Y		
Podiceps nigricollis	LC		LC					II*; III**			Y		* P. n. caspicus only. ** all others
Phoenicopteridae													
Phoenicopterus roseus	LC		LC					III			Y		
Columbidae													
Columba livia	LC		LC				IIA	III					
Columba oenas	LC		LC		Y		IIB	III					
Columba palumbus	LC		LC		Y		I*; IIA; IIIA		I*				* C. p. azorica only
Columba trocaz	LC		LC		Y	Y	I	III	I				
Columba bollii	LC		LC		Y	Y	I	II	I				

Taxonomy	IUCN Red List Category (Europe)	IUCN Red List Criteria (Europe)	IUCN Red List Category (EU 27)	IUCN Red List Criteria (EU 27)	(Near-) Endemic to Europe?	(Near-) Endemic to EU 27?	Birds Directive Annexes	Bern Convention Appendices	Emerald Network Annexes	CMS Appendices	AEWA	CITES Appendices	Notes
Columba junoniae	NT	B1ab(iii)+2ab(iii)	NT	B1ab(iii)+2ab(iii)	Y	Y	I	II	I				
Streptopelia turtur	VU	A2abcde+3bcde+4abcde	NT	A2abcde+3bcde+4abcde			IIB	III		II*			* S. t. turtur only
Streptopelia decaocto	LC		LC				IIB	III					
Spilopelia senegalensis	LC		NE					III					
Pteroclidae													
Syrrhaptes paradoxus	EN[0]	D	NE					II					
Pterocles orientalis	EN	A2abcd+3bcd+4abcd	EN	A2abcd+3bcd+4abcd			I	II	I				
Pterocles alchata	LC		LC				I	II	I				
Caprimulgidae													
Caprimulgus ruficollis	LC		LC					II					
Caprimulgus europaeus	LC		LC				I	II	I				
Apodidae													
Tachymarptis melba	LC		LC					II					
Apus caffer	NT[0]	D1	NT[0]	D1			I	II	I				
Apus affinis	VU	C1	VU[00]	D				III					
Apus unicolor	LC		LC		Y	Y		II					
Apus pallidus	LC		LC					II					
Apus apus	LC		LC					III					
Cuculidae													
Clamator glandarius	LC		LC					II					
Cuculus canorus	LC		LC					III					
Cuculus saturatus	LC		NE					III					
Rallidae													
Rallus aquaticus	LC		LC				IIB	III			Y		
Crex crex	LC		LC				I	II	I	II	Y		
Porzana porzana	LC		LC				I	II	I	II	Y		
Zapornia parva	LC		LC				I	II	I	II*	Y		* Western Eurasia/ Africa population only
Zapornia pusilla	LC		NT[0]	D1			I	II	I	II*	Y		* Z. p. intermedia only
Porphyrio porphyrio	LC		LC				I	II	I				
Gallinula chloropus	LC		LC				IIB	III			Y		
Fulica cristata	EN	D	EN	D			I	II	I		Y		

Taxonomy	IUCN Red List Category (Europe)	IUCN Red List Criteria (Europe)	IUCN Red List Category (EU 27)	IUCN Red List Criteria (EU 27)	(Near-) Endemic to Europe?	(Near-) Endemic to EU 27?	Birds Directive Annexes	Bern Convention Appendices	Emerald Network Annexes	CMS Appendices	AEWA	CITES Appendices	Notes
Fulica atra	NT	A2abcde+3bcde+4abcde	LC				IIA; IIIB	III		II*	Y		* F. a. atra (Mediterranean and Black Sea populations) only
Gruidae													
Anthropoides virgo	LC		NE					II		II	Y	II	
Grus grus	LC		LC				I	II	I	II	Y	II	
Otididae													
Tetrax tetrax	VU	A2abcd+3bcd+4abcd	VU	A2abcd+3bcd+4abcd			I	II	I			II	
Otis tarda	LC		LC				I	II	I	I; II		II	
Chlamydotis undulata	NT	D1	NT	D1			I	II	I	I*		I	* only Northwest African populations
Chlamydotis macqueenii	CR (PE)	C2a(i, ii); D	NE					II		II		I	
Gaviidae													
Gavia stellata	LC		LC				I	II	I	II*	Y		* Western Palearctic populations only
Gavia arctica	LC		LC				I	II	I	II*	Y		* G. a. arctica only
Gavia immer	VU [W]	A4abce; C1	VU [W]	A4abce; C1			I	II	I	II*	Y		* Northwest European population only
Gavia adamsii	VU [W]	D1	NE					II	I	II*	Y		* Western Palearctic population only
Oceanitidae													
Pelagodroma marina	EN	B2ab(iii,v)	EN	B2ab(iii,v)			I	III	I				
Hydrobatidae													
Hydrobates pelagicus	LC		LC		Y	Y	I	II	I				
Hydrobates castro	LC		LC				I	II	I				
Hydrobates monteiroi	VU	D1+2	VU	D1+2	Y	Y		II					
Hydrobates leucorhous	LC		VU	B2ab(v)			I	II	I				
Procellariidae													
Fulmarus glacialis	EN	A4abcde	VU	A4abcde				III					
Pterodroma deserta	VU	D1+2	VU	D1+2	Y	Y	I	II	I				
Pterodroma madeira	EN	D	EN	D	Y	Y	I	II	I				
Calonectris diomedea	LC		LC		Y	Y	I	II	I				
Calonectris borealis	LC		LC		Y	Y		III					
Puffinus puffinus	LC		LC		Y	Y		II					

Taxonomy	IUCN Red List Category (Europe)	IUCN Red List Criteria (Europe)	IUCN Red List Category (EU 27)	IUCN Red List Criteria (EU 27)	(Near-) Endemic to Europe?	(Near-) Endemic to EU 27?	Birds Directive Annexes	Bern Convention Appendices	Emerald Network Annexes	CMS Appendices	AEWA	CITES Appendices	Notes
Puffinus yelkouan	LC		LC		Y	Y	I	II	I				
Puffinus mauretanicus	CR	A4bcde	CR	A4bcde	Y	Y	I	III	I	I			
Puffinus lherminieri	NT	B2ab(v); C1+2a(i)	NT	B2ab(v); C1+2a(i)			I	II	I				
Bulweria bulwerii	LC		LC				I	II	I				
Ciconiidae													
Ciconia nigra	LC		LC				I	II	I	II	Y	II	
Ciconia ciconia	LC		LC		Y		I	II	I	II	Y		
Threskiornithidae													
Platalea leucorodia	LC		LC				I	II	I	II	Y	II	
Geronticus eremita	RE		RE					II		I; II	Y	I	
Plegadis falcinellus	LC		LC				I	II	I	II	Y		
Ardeidae													
Botaurus stellaris	LC		LC				I	II	I	II*	Y		* B. s. stellaris (Western Palearctic populations) only
Ixobrychus minutus	LC		LC				I	II	I	II*	Y		* I. m. minutus (Western Palearctic populations) only
Nycticorax nycticorax	LC		LC				I	II	I		Y		
Ardeola ralloides	LC		LC				I	II	I		Y		
Bubulcus ibis	LC		LC					II			Y		
Ardea cinerea	LC		LC					III			Y		
Ardea purpurea	LC		LC				I	II	I	II*	Y		* A. p. purpurea (populations breeding in the Western Palearctic) only
Ardea alba	LC		LC				I	II	I	II*	Y		* A.a. alba (Western Palearctic populations) only
Egretta garzetta	LC		LC				I	II	I		Y		
Pelecanidae													
Pelecanus crispus	LC		LC				I	II	I	I; II	Y	I	
Pelecanus onocrotalus	LC		LC				I	II	I	I*; II*	Y		* Western Palearctic populations
Sulidae													
Morus bassanus	LC		LC		Y			III			Y		
Phalacrocoracidae													

Taxonomy	IUCN Red List Category (Europe)	IUCN Red List Criteria (Europe)	IUCN Red List Category (EU 27)	IUCN Red List Criteria (EU 27)	(Near-) Endemic to Europe?	(Near-) Endemic to EU 27?	Birds Directive Annexes	Bern Convention Appendices	Emerald Network Annexes	CMS Appendices	AEWA	CITES Appendices	Notes
Microcarbo pygmaeus	LC		LC				I	II	I	II	Y		
Phalacrocorax aristotelis	LC		NT	A2abcde+3bcde+4abcde	Y		I*	II**; III***	I*				* P. a. desmarestii only. ** Mediterranean population only. *** all others
Phalacrocorax carbo	LC		LC					III			Y		
Anhingidae													
Anhinga rufa	RE		NE					III					
Burhinidae													
Burhinus oedicnemus	LC		LC				I	II	I	II			
Haematopodidae													
Haematopus meadewaldoi	EX		EX					III					
Haematopus ostralegus	VU	A2abc+3bc+4abc	VU	A2abc+3bc+4abc			IIB	III			Y		
Recurvirostridae													
Recurvirostra avosetta	LC		LC				I	II	I	II	Y		
Himantopus himantopus	LC		LC				I	II	I	II	Y		
Charadriidae													
Pluvialis squatarola	LC		LC[W]				IIB	III		II	Y		
Pluvialis apricaria	LC		LC				I; IIB; IIIB	III	I	II	Y		
Eudromias morinellus	LC		LC				I	II	I	II	Y		
Charadrius hiaticula	LC		LC					II		II	Y		
Charadrius dubius	LC		LC					II		II	Y		
Charadrius alexandrinus	LC		LC				I	II	I	II	Y		
Charadrius leschenaultii	VU	C1	CR[W]	D				II	I	II	Y		
Charadrius asiaticus	RE		NE					III	I	II	Y		
Vanellus vanellus	VU	A2abce+3bce+4abce	VU	A2abce+3bce+4abce			IIB	III		II	Y		
Vanellus spinosus	LC		VU[0]	D			I	II	I	II	Y		
Vanellus indicus	VU[0]	D	NE					III					
Vanellus gregarius	CR	A2abcd+3bcd+4abcd; C1+2a(i,ii); D	NE					III	I	I; II	Y		
Vanellus leucurus	LC		NE					III		II	Y		
Scolopacidae													

Taxonomy	IUCN Red List Category (Europe)	IUCN Red List Criteria (Europe)	IUCN Red List Category (EU 27)	IUCN Red List Criteria (EU 27)	(Near-) Endemic to Europe?	(Near-) Endemic to EU 27?	Birds Directive Annexes	Bern Convention Appendices	Emerald Network Annexes	CMS Appendices	AEWA	CITES Appendices	Notes
Numenius phaeopus	LC		LC				IIB	III		II	Y		
Numenius tenuirostris	CR (PE) [W]	C1+2a(i); D	CR (PE) [W]	C1+2a(i); D			I	II	I	I; II	Y	I	
Numenius arquata	VU	A2abcde+3bcde+4abcde	VU	A2abcde+3bcde+4abcde			IIB	III		II	Y		
Limosa lapponica	LC		LC				I; IIB	III	I	II	Y		
Limosa limosa	VU	A2abcde+3bcde+4abcde	EN	A2abcde+3bcde+4abcde			IIB	III		II	Y		
Arenaria interpres	LC		EN	A2abc+3bc+4abc				II		II	Y		
Calidris canutus	LC		LC [W]				IIB	III		II	Y		
Calidris pugnax	LC		EN	A2abc+3bc+4abc			I; IIB	III	I	II	Y		
Calidris falcinellus	LC		LC					II		II	Y		
Calidris ferruginea	VU [W]	D1	VU [W]	D1				II		II	Y		
Calidris temminckii	LC		LC					II		II	Y		
Calidris alba	LC		LC [W]					II		II	Y		
Calidris alpina	LC		LC				I*	II	I*	II	Y		* C. a. schinzii only
Calidris maritima	LC		NT [W]	A2abc+3bc+4abc; C1				II		II	Y		
Calidris bairdii	LC[0]	D1	NE					III					
Calidris minuta	LC		LC [W]					II		II	Y		
Scolopax rusticola	LC		LC				IIA; IIIB	III			Y		
Gallinago stenura	LC		NE					III			Y		
Gallinago media	LC		VU	C1			I	II	I	II	Y		
Gallinago gallinago	LC		LC				IIA; IIIB	III		II	Y		
Lymnocryptes minimus	LC		LC				IIA; IIIB	III		II	Y		
Phalaropus lobatus	LC		LC				I	II	I	II	Y		
Phalaropus fulicarius	LC[0]	D1	NE					II	I	II	Y		
Xenus cinereus	LC		CR	C1+2a(i); D			I	II	I	II	Y		
Actitis hypoleucos	LC		NT	A2abc+3bc+4abc				II		II	Y		
Tringa ochropus	LC		LC					II		II	Y		
Tringa erythropus	LC		NT	A2abc+3bc+4abc			IIB	III		II	Y		
Tringa nebularia	LC		LC				IIB	III		II	Y		
Tringa totanus	LC		VU	A2abc+3bc+4abc			IIB	III		II	Y		
Tringa glareola	LC		LC				I	II	I	II	Y		
Tringa stagnatilis	LC		EN	D				II		II	Y		
Turnicidae													

Taxonomy	IUCN Red List Category (Europe)	IUCN Red List Criteria (Europe)	IUCN Red List Category (EU 27)	IUCN Red List Criteria (EU 27)	(Near-) Endemic to Europe?	(Near-) Endemic to EU 27?	Birds Directive Annexes	Bern Convention Appendices	Emerald Network Annexes	CMS Appendices	AEWA	CITES Appendices	Notes
Turnix sylvaticus	CR (PE)	D	CR (PE)	D			I	II	I				
Glareolidae													
Cursorius cursor	NT	D1	NT	D1			I	II	I				
Glareola pratincola	LC		LC				I	II	I	II	Y		
Glareola nordmanni	VU	A2abce+3bce+4abce	CR	C2a(i); D				II	I	II	Y		
Laridae													
Hydrocoloeus minutus	NT	A4abce	LC				I	II	I		Y		
Rhodostethia rosea	EN[0]	D	NE					III					
Xema sabini	LC		NE					II			Y		
Pagophila eburnea	LC		NE					II	I				
Rissa tridactyla	VU	A4abcd	EN	A4abcd				III			Y		
Larus genei	LC		LC				I	II	I	II	Y		
Larus ridibundus	LC		LC				IIB	III			Y		
Larus ichthyaetus	LC		NE					III		II*	Y		* West Eurasian and African population only
Larus melanocephalus	LC		LC		Y		I	II	I	II	Y		
Larus audouinii	LC		LC		Y	Y	I	II	I	I; II	Y		
Larus canus	LC		LC				IIB	III			Y		
Larus fuscus	LC		LC				IIB				Y		
Larus argentatus	NT	A2abcde+3bcde+4abcde	VU	A2abcde+3bcde+4abcde	Y		IIB				Y		
Larus armenicus	NT	B2ab(iii,v)	NE		Y			III		II	Y		
Larus michahellis	LC		LC		Y			III					
Larus cachinnans	LC		LC				IIB	III			Y		
Larus glaucoides	LC		NE					III			Y		
Larus hyperboreus	LC		NE					III			Y		
Larus marinus	LC		LC				IIB				Y		
Sternula albifrons	LC		LC				I	II	I	II	Y		
Gelochelidon nilotica	LC		LC				I	II	I	II*	Y		* G. n. nilotica (West Eurasian and African populations) only
Hydroprogne caspia	LC		NT	C1			I	II	I	II*	Y		* West Eurasian and African populations only
Chlidonias hybrida	LC		LC				I	II	I		Y		

Taxonomy	IUCN Red List Category (Europe)	IUCN Red List Criteria (Europe)	IUCN Red List Category (EU 27)	IUCN Red List Criteria (EU 27)	(Near-) Endemic to Europe?	(Near-) Endemic to EU 27?	Birds Directive Annexes	Bern Convention Appendices	Emerald Network Annexes	CMS Appendices	AEWA	CITES Appendices	Notes
Chlidonias leucopterus	LC		LC					II	I	II*	Y		* West Eurasian and African population only
Chlidonias niger	LC		LC				I	II	I	II*	Y		* C. n. niger only
Sterna dougallii	LC		LC				I	II	I	II*	Y		* Atlantic population only
Sterna hirundo	LC		LC				I	II	I	II*	Y		* S. h. hirundo (populations breeding in the Western Palearctic) only
Sterna paradisaea	LC		LC				I	II	I	II*	Y		* Atlantic populations only
Thalasseus sandvicensis	LC		LC				I	II	I	II*	Y		* T. s. sandvicensis only
Stercorariidae													
Stercorarius longicaudus	LC		LC					III			Y		
Stercorarius parasiticus	LC		EN	A2abc+3bc+4abc				III					
Stercorarius pomarinus	LC		NE					III					
Catharacta skua	LC		LC		Y			III			Y		
Alcidae													
Fratercula arctica	EN	A4abcde	NT	A4abcde	Y			III			Y		
Cepphus grylle	LC		VU	A2abcde+3bcde+4abcde				III			Y		
Alca torda	NT	A4abcde	LC		Y			III			Y		
Pinguinus impennis	EX		EX					III					
Alle alle	LC		NE					III			Y		
Uria lomvia	LC		NE					III			Y		
Uria aalge	NT	A4abcde	LC				I*	III	I*		Y		* U. a. ibericus only
Tytonidae													
Tyto alba	LC		LC					II				II	
Strigidae													
Surnia ulula	LC		LC				I	II	I			II	
Glaucidium passerinum	LC		LC				I	II	I			II	
Athene noctua	LC		LC					II				II	
Aegolius funereus	LC		LC				I	II	I			II	
Otus scops	LC		LC					II				II	
Otus brucei	EN	C2a(i); D	NE					II				II	

Taxonomy	IUCN Red List Category (Europe)	IUCN Red List Criteria (Europe)	IUCN Red List Category (EU 27)	IUCN Red List Criteria (EU 27)	(Near-) Endemic to Europe?	(Near-) Endemic to EU 27?	Birds Directive Annexes	Bern Convention Appendices	Emerald Network Annexes	CMS Appendices	AEWA	CITES Appendices	Notes
Asio otus	LC		LC					II				II	
Asio flammeus	LC		LC				I	II	I			II	
Strix aluco	LC		LC					II				II	
Strix uralensis	LC		LC				I	II	I			II	
Strix nebulosa	LC		LC				I	II	I			II	
Bubo scandiacus	LC		CR	D			I	II	I			II	
Bubo bubo	LC		LC				I	II	I			II	
Ketupa zeylonensis	CR	C2a(i)	NE					II	I			II	
Pandionidae													
Pandion haliaetus	LC		LC				I	III	I	II		II	
Accipitridae													
Elanus caeruleus	LC		LC				I	III	I			II	
Pernis apivorus	LC		LC		Y		I	III	I	II		II	
Gypaetus barbatus	VU	C1+2a(i)	VU	D1			I	III	I			II	
Neophron percnopterus	EN	A2abcde+3bcde+4abcde	VU	A2abcde			I	III	I	I; II		II	
Circaetus gallicus	LC		LC				I	III	I	II		II	
Gyps fulvus	LC		LC				I	III	I	II		II	
Aegypius monachus	LC		LC				I	III	I	II		II	
Clanga pomarina	LC		LC		Y		I	III	I	II		II	
Clanga clanga	EN	A2abcde+3bcde+4abcde; C1	CR	C1; D			I	III	I	I; II		II	
Aquila nipalensis	CR	A2abcd+3bcd+4abcd	NE					III	I	II		II	
Aquila adalberti	VU	D1	VU	D1	Y	Y	I	III	I	I; II		I	
Aquila heliaca	LC		NT[0]	D1			I	III	I	I; II		I	
Aquila chrysaetos	LC		LC				I	III	I	II		II	
Aquila fasciata	NT	A2abcde	NT	A2abcde			I	III	I	II		II	
Hieraaetus pennatus	LC		LC				I	III	I	II		II	
Circus aeruginosus	LC		LC				I	III	I	II		II	
Circus cyaneus	NT	A4abcd	LC				I	III	I	II		II	
Circus macrourus	NT	D1	EN[0]	D			I	III	I	II		II	
Circus pygargus	LC		LC				I	III	I	II		II	
Accipiter badius	VU[0]	D	NE					III		II		II	
Accipiter brevipes	LC		LC				I	III	I	II		II	

Taxonomy	IUCN Red List Category (Europe)	IUCN Red List Criteria (Europe)	IUCN Red List Category (EU 27)	IUCN Red List Criteria (EU 27)	(Near-) Endemic to Europe?	(Near-) Endemic to EU 27?	Birds Directive Annexes	Bern Convention Appendices	Emerald Network Annexes	CMS Appendices	AEWA	CITES Appendices	Notes
Accipiter nisus	LC		LC				I*	III	I*	II		II	* A. n. granti only
Accipiter gentilis	LC		LC				I*	III	I*	II		II	* A. g. arrigonii only
Haliaeetus albicilla	LC		LC				I	III	I	I; II		I	
Milvus milvus	NT	A2abcde+3bcde+4abcde	NT	A2abcde+3bcde+4abcde	Y	Y	I	III	I	II		II	
Milvus migrans	LC		LC				I	III	I	II		II	
Buteo lagopus	LC		EN	A2abcd				III		II		II	
Buteo buteo	LC		LC					III		II		II	
Buteo rufinus	LC		LC				I	III	I	II		II	
Upupidae													
Upupa epops	LC		LC					II					
Meropidae													
Merops persicus	LC		NE					III					
Merops apiaster	LC		LC					II		II			
Coraciidae													
Coracias garrulus	LC		LC				I	II	I	I; II			
Alcedinidae													
Alcedo atthis	VU	A2abce+3bce+4abce	VU	A2abce+3bce+4abce			I	II	I				
Ceryle rudis	EN	C2a(i); D	NE					II					
Halcyon smyrnensis	VU	C1; D1	NE					II	I				
Picidae													
Jynx torquilla	LC		LC					II					
Picus canus	LC		LC				I	II	I				
Picus viridis	LC		LC		Y			II					
Picus sharpei	NT	A2abc+3bc+4abc	NT	A2abc+3bc+4abc	Y	Y		II					
Dryocopus martius	LC		LC				I	II	I				
Picoides tridactylus	LC		LC				I	II	I				
Leiopicus medius	LC		LC		Y		I	II	I				
Dryobates minor	LC		LC					II					
Dendrocopos leucotos	LC		LC				I	II	I				
Dendrocopos syriacus	LC		LC				I	II	I				
Dendrocopos major	LC		LC				I*	II	I*				* D. m. canariensis and thanneri only
Falconidae													

Taxonomy	IUCN Red List Category (Europe)	IUCN Red List Criteria (Europe)	IUCN Red List Category (EU 27)	IUCN Red List Criteria (EU 27)	(Near-) Endemic to Europe?	(Near-) Endemic to EU 27?	Birds Directive Annexes	Bern Convention Appendices	Emerald Network Annexes	CMS Appendices	AEWA	CITES Appendices	Notes
Falco naumanni	LC		LC				I	II	I	I; II		II	
Falco tinnunculus	LC		LC					II		II		II	
Falco vespertinus	NT	A2abcde+3bcde+4abcde	VU	A2abcde+3bcde+4abcde; C1			I	II	I	I; II		II	
Falco eleonorae	LC		LC		Y	Y	I	II	I	II		II	
Falco columbarius	LC		LC				I	II	I	II		II	
Falco subbuteo	LC		LC					II		II		II	
Falco biarmicus	EN	C1	VU	D1			I	II	I	II		II	
Falco cherrug	VU	D1	VU	D1			I	II	I	I*; II		II	* except Mongolian populations
Falco rusticolus	LC		VU	D1			I	II	I	II		I	
Falco peregrinus	LC		LC				I	II	I	II		I	
Laniidae													
Lanius collurio	LC		LC				I	II	I				
Lanius minor	LC		LC				I	II	I				
Lanius excubitor	VU	A2abc+3bc+4abc	VU	A2abc+3bc+4abc				II					
Lanius senator	LC		LC					II					
Lanius nubicus	LC		LC				I	II	I				
Oriolidae													
Oriolus oriolus	LC		LC					II					
Corvidae													
Perisoreus infaustus	LC		LC					II					
Garrulus glandarius	LC		LC				IIB						
Cyanopica cyanus	LC		LC					II					
Pica pica	LC		LC				IIB						
Nucifraga caryocatactes	LC		LC					II					
Pyrrhocorax pyrrhocorax	LC		LC				I	II	I				
Pyrrhocorax graculus	LC		LC					II					
Corvus monedula	LC		LC				IIB						
Corvus frugilegus	LC		LC				IIB						
Corvus corone	LC		LC				IIB						
Corvus corax	LC		LC					III					

Taxonomy	IUCN Red List Category (Europe)	IUCN Red List Criteria (Europe)	IUCN Red List Category (EU 27)	IUCN Red List Criteria (EU 27)	(Near-) Endemic to Europe?	(Near-) Endemic to EU 27?	Birds Directive Annexes	Bern Convention Appendices	Emerald Network Annexes	CMS Appendices	AEWA	CITES Appendices	Notes
Bombycillidae													
Bombycilla garrulus	LC		LC					II					
Paridae													
Parus palustris	LC		LC					II					
Parus lugubris	LC		LC		Y			II					
Parus montanus	LC		VU	A2abc+3bc+4abc				II					
Parus cinctus	LC		VU	A2abc+3bc+4abc				II					
Parus ater	LC		LC				I*	II	I*				* P. a. cypriotes only
Parus cristatus	LC		LC		Y			II					
Parus major	LC		LC					II					
Parus caeruleus	LC		LC		Y			II					
Parus cyanus	LC		NE					II					
Remizidae													
Remiz pendulinus	LC		LC					III					
Hirundinidae													
Riparia riparia	LC		LC					II					
Hirundo rupestris	LC		LC					II					
Hirundo rustica	LC		LC					II					
Hirundo daurica	LC		LC					II					
Delichon urbicum	LC		LC					II					
Aegithalidae													
Aegithalos caudatus	LC		LC					III					
Alaudidae													
Melanocorypha calandra	LC		VU	A2abc+3bc+4abc			I	II	I				
Melanocorypha bimaculata	LC		NE					II					
Melanocorypha leucoptera	LC		NE					II					
Melanocorypha yeltoniensis	CR	A2abc+3bc+4abc; C1	NE					II	I				
Ammomanes deserti	CR	C2a(ii)	NE					III					
Calandrella brachydactyla	LC		LC				I	II	I				
Calandrella rufescens	LC		LC					II					

Taxonomy	IUCN Red List Category (Europe)	IUCN Red List Criteria (Europe)	IUCN Red List Category (EU 27)	IUCN Red List Criteria (EU 27)	(Near-) Endemic to Europe?	(Near-) Endemic to EU 27?	Birds Directive Annexes	Bern Convention Appendices	Emerald Network Annexes	CMS Appendices	AEWA	CITES Appendices	Notes
Chersophilus duponti	VU	C1	VU	C1			I	II	I				
Galerida cristata	LC		LC					III					
Galerida theklae	LC		LC				I	II	I				
Lullula arborea	LC		LC		Y		I	III	I				
Alauda arvensis	LC		LC				IIB	III					
Eremophila alpestris	LC		NT	C1				II					
Cisticolidae													
Cisticola juncidis	LC		LC					III					
Prinia gracilis	LC		NE					III					
Pycnonotidae													
Pycnonotus xanthopygos	LC		NE					III					
Sylviidae													
Cettia cetti	LC		LC					II		II			
Locustella lanceolata	LC		NE					II		II			
Locustella naevia	LC		LC					II		II			
Locustella fluviatilis	LC		VU	A2abc+3bc+4abc	Y			II		II			
Locustella luscinioides	LC		LC					II		II			
Acrocephalus melanopogon	LC		LC				I	II	I	II			
Acrocephalus paludicola	VU	A2abc+3bc+4abc	VU	B1ab(i,ii,iii,iv,v); C1	Y		I	II	I	I; II			
Acrocephalus schoenobaenus	LC		LC					II		II			
Acrocephalus agricola	LC		LC					II		II			
Acrocephalus scirpaceus	LC		LC					II		II			
Acrocephalus dumetorum	LC		LC					II		II			
Acrocephalus palustris	LC		LC		Y			II		II			
Acrocephalus arundinaceus	LC		LC					II		II			
Hippolais caligata	LC		LC[00]	D1				II		II			
Hippolais rama	LC		NE					II		II			
Hippolais pallida	LC		LC					II		II			
Hippolais opaca	LC		LC					II		II			
Hippolais languida	LC		NE					II		II			

Taxonomy	IUCN Red List Category (Europe)	IUCN Red List Criteria (Europe)	IUCN Red List Category (EU 27)	IUCN Red List Criteria (EU 27)	(Near-) Endemic to Europe?	(Near-) Endemic to EU 27?	Birds Directive Annexes	Bern Convention Appendices	Emerald Network Annexes	CMS Appendices	AEWA	CITES Appendices	Notes
Hippolais olivetorum	LC		LC		Y		I	II	I	II			
Hippolais polyglotta	LC		LC		Y	Y		II		II			
Hippolais icterina	LC		LC		Y			II		II			
Phylloscopus trochilus	LC		LC					II		II			
Phylloscopus collybita	LC		LC					II		II			
Phylloscopus canariensis	LC		LC		Y	Y		II		II			
Phylloscopus ibericus	LC		LC		Y	Y		II		II			
Phylloscopus sindianus	LC		NE					II		II			
Phylloscopus bonelli	LC		LC		Y			II		II			
Phylloscopus sibilatrix	LC		LC		Y			II		II			
Phylloscopus inornatus	LC		NE					II		II			
Phylloscopus borealis	LC		VU	C1				II		II			
Phylloscopus trochiloides	LC		LC					II		II			
Sylvia atricapilla	LC		LC		Y			II		II			
Sylvia borin	LC		LC		Y			II		II			
Sylvia communis	LC		LC					II		II			
Sylvia curruca	LC		LC					II		II			
Sylvia nana	RE		NE					II		II			
Sylvia nisoria	LC		LC				I	II	I	II			
Sylvia hortensis	LC		LC					II		II			
Sylvia rueppelli	LC		LC		Y		I	II	I	II			
Sylvia melanocephala	LC		LC					II		II			
Sylvia melanothorax	LC		LC		Y	Y	I	II	I	II			
Sylvia cantillans	LC		LC		Y	Y		II		II			
Sylvia mystacea	LC		NE					II		II			
Sylvia conspicillata	LC		LC					II		II			
Sylvia undata	NT	A2abc+3bc+4abc	NT	A2abc+3bc+4abc	Y		I	II	I	II			
Sylvia sarda	LC		LC		Y	Y	I	II	I	II			
Timaliidae													
Turdoides altirostris	NT[00]	D	NE					III					
Panurus biarmicus	LC		LC					II					

Taxonomy	IUCN Red List Category (Europe)	IUCN Red List Criteria (Europe)	IUCN Red List Category (EU 27)	IUCN Red List Criteria (EU 27)	(Near-) Endemic to Europe?	(Near-) Endemic to EU 27?	Birds Directive Annexes	Bern Convention Appendices	Emerald Network Annexes	CMS Appendices	AEWA	CITES Appendices	Notes
Reguliidae													
Regulus regulus	LC		NT	A2abc+3bc+4abc				II					
Regulus ignicapilla	LC		LC		Y	Y		II					
Regulus madeirensis	LC		LC					II					
Troglodytidae													
Troglodytes troglodytes	LC		LC				I*	II	I*				* T. t. fridariensis only
Sittidae													
Sitta europaea	LC		LC					II					
Sitta whiteheadi	VU	C1+2a(ii)	VU	C1+2a(ii)	Y	Y	I	II	I				
Sitta krueperi	LC		NT	D1	Y		I	II	I				
Sitta neumayer	LC		LC		Y			II					
Sitta tephronota	LC		NE					II					
Tichodroma muraria	LC		LC					II					
Certhiidae													
Certhia familiaris	LC		LC					II					
Certhia brachydactyla	LC		LC		Y	Y	I*	II	I*				* C. b. dorotheae only
Sturnidae													
Sturnus roseus	LC		LC					II					
Sturnus vulgaris	LC		LC				IIB						
Sturnus unicolor	LC		LC					II					
Turdidae													
Zoothera dauma	LC		NE					III					
Turdus torquatus	LC		LC		Y			II					
Turdus merula	LC		LC				IIB	III					
Turdus ruficollis	LC		NE					III					
Turdus pilaris	LC		VU	A2abc+3bc+4abc			IIB	III					
Turdus iliacus	NT	A2abc+3bc+4abc	VU	A2abc+3bc+4abc			IIB	III					
Turdus philomelos	LC		LC				IIB	III					
Turdus viscivorus	LC		LC				IIB	III					
Muscicapidae													
Erithacus rubecula	LC		LC		Y			II		II			

Taxonomy	IUCN Red List Category (Europe)	IUCN Red List Criteria (Europe)	IUCN Red List Category (EU 27)	IUCN Red List Criteria (EU 27)	(Near-) Endemic to Europe?	(Near-) Endemic to EU 27?	Birds Directive Annexes	Bern Convention Appendices	Emerald Network Annexes	CMS Appendices	AEWA	CITES Appendices	Notes
Luscinia luscinia	LC		LC					II		II			
Luscinia megarhynchos	LC		LC					II		II			
Luscinia calliope	LC		NE					II		II			
Luscinia svecica	LC		LC				I	II	I	II			
Tarsiger cyanurus	LC		LC[00]	D1				II		II			
Irania gutturalis	LC		NE					II		II			
Erythropygia galactotes	LC		LC					II		II			
Phoenicurus ochruros	LC		LC					II		II			
Phoenicurus phoenicurus	LC		LC					II		II			
Phoenicurus erythrogastrus	LC		NE					II		II			
Saxicola rubetra	LC		LC		Y			II		II			
Saxicola dacotiae	NT	B1ab(ii,iii); C2a(ii)	NT	B1ab(ii,iii); C2a(ii)	Y	Y	I	II	I	II			
Saxicola torquatus	LC		LC					II		II			
Oenanthe leucura	VU	A2abc+3bc+4abc	VU	A2abc+3bc+4abc			I	II	I	II			
Oenanthe oenanthe	LC		LC					II		II			
Oenanthe finschii	LC		NE					II		II			
Oenanthe hispanica	LC		LC					II		II			
Oenanthe pleschanka	LC		LC				I	II	I	II			
Oenanthe cypriaca	LC		LC		Y	Y	I	II	I	II			
Oenanthe xanthoprymna	LC		NE					II		II			
Oenanthe chrysopygia	EN[0]	D	NE					II		II			
Oenanthe deserti	NT[0]	D1	NE					II		II			
Oenanthe isabellina	LC		LC					II		II			
Monticola saxatilis	LC		LC					II		II			
Monticola solitarius	LC		LC					II		II			
Muscicapa striata	LC		LC					II		II			
Ficedula hypoleuca	LC		LC		Y			II		II			
Ficedula albicollis	LC		LC		Y		I	II	I	II			
Ficedula semitorquata	LC		LC		Y		I	II	I	II			
Ficedula parva	LC		LC				I	II	I	II			

Taxonomy	IUCN Red List Category (Europe)	IUCN Red List Criteria (Europe)	IUCN Red List Category (EU 27)	IUCN Red List Criteria (EU 27)	(Near-) Endemic to Europe?	(Near-) Endemic to EU 27?	Birds Directive Annexes	Bern Convention Appendices	Emerald Network Annexes	CMS Appendices	AEWA	CITES Appendices	Notes
Cinclidae													
Cinclus cinclus	LC		LC					II					
Passeridae													
Passer domesticus	LC		LC										
Passer hispaniolensis	LC		LC					III					
Passer moabiticus	VU	C1	NE					III					
Passer montanus	LC		LC					III					
Petronia xanthocollis	LC		NE					III					
Petronia petronia	LC		LC					II					
Petronia brachydactyla	LC		NE					III					
Montifringilla nivalis	LC		LC					II					
Prunellidae													
Prunella collaris	LC		LC					II					
Prunella montanella	NT[0]	D1	NE					II					
Prunella ocularis	LC		NE					II					
Prunella atrogularis	LC		NE					II					
Prunella modularis	LC		LC		Y			II					
Motacillidae													
Motacilla alba	LC		LC					II					
Motacilla citreola	LC		LC[00]	D1				II					
Motacilla flava	LC		LC					II					
Motacilla cinerea	LC		LC					II					
Anthus campestris	LC		LC				I	II	I				
Anthus berthelotii	LC		LC		Y	Y		II					
Anthus trivialis	LC		LC					II					
Anthus hodgsoni	LC		NE					II					
Anthus gustavi	VU[0]	D	NE					II					
Anthus pratensis	NT	A2abc+3bc+4abc	VU	A2abc+3bc+4abc	Y			II					
Anthus cervinus	LC		LC					II					
Anthus petrosus	LC		LC		Y			II					
Anthus spinoletta	LC		LC					II					

Taxonomy	IUCN Red List Category (Europe)	IUCN Red List Criteria (Europe)	IUCN Red List Category (EU 27)	IUCN Red List Criteria (EU 27)	(Near-) Endemic to Europe?	(Near-) Endemic to EU 27?	Birds Directive Annexes	Bern Convention Appendices	Emerald Network Annexes	CMS Appendices	AEWA	CITES Appendices	Notes
Fringillidae													
Fringilla coelebs	LC		LC				I*	III	I*				* F. c. ombriosa only
Fringilla teydea	NT	D2	NT	D2	Y	Y	I	II	I				
Fringilla montifringilla	LC		VU	A2abc+3bc+4abc				III					
Serinus pusillus	LC		NE					II					
Serinus serinus	LC		LC		Y	Y		II					
Serinus canaria	LC		LC		Y	Y		III					
Carduelis chloris	LC		LC		Y			II					
Carduelis spinus	LC		LC					II					
Carduelis carduelis	LC		LC					II					
Carduelis citrinella	LC		LC		Y	Y		II					
Carduelis corsicana	LC		LC		Y	Y		III					
Carduelis flammea	LC		LC					II					
Carduelis flavirostris	LC		VU	A2abc+3bc+4abc				II					
Carduelis cannabina	LC		LC					III					
Rhodopechys sanguineus	LC		NE					III					
Eremopsaltria mongolicus	LC⁰	D1	NE					III					
Rhodopechys obsoletus	LC		NE					III					
Bucanetes githagineus	LC		LC				I	II	I				
Carpodacus erythrinus	LC		VU	A2abc+3bc+4abc				II					
Carpodacus rubicilla	LC		NE					III					
Pinicola enucleator	LC		LC					II					
Loxia pytyopsittacus	LC		LC		Y			II					
Loxia scotica	LC		LC		Y	Y	I	II	I				
Loxia curvirostra	LC		LC					II					
Loxia leucoptera	LC		LC					II					
Pyrrhula pyrrhula	LC		LC					III					
Pyrrhula murina	EN	B1ab(iii)+2ab(iii)	EN	B1ab(iii)+2ab(iii)	Y	Y	I	III	I				
Coccothraustes coccothraustes	LC		LC					II					

Taxonomy	IUCN Red List Category (Europe)	IUCN Red List Criteria (Europe)	IUCN Red List Category (EU 27)	IUCN Red List Criteria (EU 27)	(Near-) Endemic to Europe?	(Near-) Endemic to EU 27?	Birds Directive Annexes	Bern Convention Appendices	Emerald Network Annexes	CMS Appendices	AEWA	CITES Appendices	Notes
Emberizidae													
Miliaria calandra	LC		LC					III					
Emberiza citrinella	LC		LC					II					
Emberiza leucocephalos	VU[0]	D	NE					II					
Emberiza cirlus	LC		LC		Y			II					
Emberiza cia	LC		LC					II					
Emberiza buchanani	LC		NE					III					
Emberiza cineracea	VU	C1	VU	D1	Y		I	II	I				
Emberiza hortulana	LC		LC				I	III	I				
Emberiza caesia	LC		LC		Y		I	II	I				
Emberiza pusilla	LC		LC					II					
Emberiza rustica	VU	A2abcd+3bcd+4abcd	VU	A2abcd+3bcd+4abcd				II					
Emberiza aureola	CR	A2abcd+3bcd+4abcd; C1	CR	A2abcd+3bcd+4abcd; C1				II		I			
Emberiza melanocephala	LC		LC					II					
Emberiza bruniceps	LC		NE					III					
Emberiza pallasi	LC		NE					III					
Emberiza schoeniclus	LC		LC					II					
Calcarius lapponicus	LC		NT	A2abc+3bc+4abc				II					
Plectrophenax nivalis	LC		LC					II					

Appendix 2.
Methodology for spatial analyses

Data were analysed using a geodesic discrete global grid system, defined on an icosahedron and projected to the sphere using the inverse Icosahedral Snyder Equal Area (ISEA) Projection (S39). This corresponds to a hexagonal grid composed of individual units (cells) that retain their shape and area (~2,500 km^2) throughout the globe. These are more suitable for a range of ecological applications than the most commonly used rectangular grids (S40).

The range of each species was converted to the hexagonal grid for analysis purposes. Coastal cells were clipped to the coastline. Patterns of species richness (Fig. 5) were mapped by counting the number of species in each cell (or cell section, for species with a coastal distribution). Patterns of threatened species richness (Fig. 6) were mapped by counting the number of threatened species (categories CR, EN, VU at the European regional level) in each cell or cell section. Patterns of endemic and near-endemic species richness were mapped by counting the number of species in each cell (or cell section for coastal species) that were flagged as being endemic or near-endemic to geographic Europe as defined in this project (Fig. 7).

Appendix 3.
Example species summary and distribution map

The species summary gives all the information collated for each species during this assessment, including a distribution map. You can search for and download all the summaries and distribution maps from the European Red List website and data portal available online at http://ec.europa.eu/environment/nature/conservation/ species/redlist and http://www.iucnredlist.org/europe.

Milvus milvus – (Linnaeus, 1758)

ANIMALIA – CHORDATA – AVES – ACCIPITRIFORMES – ACCIPITRIDAE

Common Names: Red Kite

Red List Assessment

Red List Status
NT – Near Threatened, (IUCN version 3.1)

Assessment Information

Year published:	2015
Date assessed:	2014-12-01
Assessor(s):	BirdLife International
Reviewer(s):	Symes, A.
Compiler(s):	Ashpole, J., Burfield, I., Ieronymidou, C., Pople, R., & Wright, L.
Contributor(s):	The European Union (EU 27) Red List assessments were based principally on the official data reported by all EU Member States to the European Commission under Article 12 of the Birds Directive in 2013-14. For the European Red List assessments, similar data were sourced from BirdLife Partners and other collaborating experts in most other European countries and territories. For more information, see BirdLife International (2015).

Assessment Rationale

This species is listed as Near Threatened at both European and EU 27 scales, because it is experiencing a moderately rapid population decline. Despite the current rapid declines in southern Europe, if population increases in northern range states are sustained the species may qualify for downlisting in the future.

Distribution

Range Description

Milvus milvus is endemic to the western Palearctic, with Europe encompassing 95% of its global breeding range (Carter 2007, Mammen 2007). It breeds from Spain and Portugal east through central Europe to Ukraine, north to southern Sweden, Latvia and the U.K., and south to southern Italy. Populations winter within the western breeding range, and formerly in isolated patches south and east to eastern Turkey.

Occurrence

Countries of Occurrence

Countries of Occurrence

Native:
Albania; Andorra; Austria; Azerbaijan; Belarus; Belgium; Bosnia and Herzegovina; Bulgaria; Croatia; Czech Republic; Denmark; France; Germany; Gibraltar; Hungary; Ireland; Italy; Kosovo; Latvia; Liechtenstein; Lithuania; Luxembourg; Macedonia, the former Yugoslav Republic of; Montenegro; Netherlands; Poland; Portugal; Russian Federation; Serbia; Slovakia; Slovenia; Spain; Sweden; Switzerland; Turkey; Ukraine; United Kingdom

Possibly extinct:
Greece; Moldova; Romania;

Vagrant:
Armenia; Cyprus; Estonia; Finland; Georgia; Iceland; Malta; Norway

Population

The population is estimated to number 50,400-66,800 mature individuals in Europe, 48,000-63,700 of which (95%) occur in the EU 27. See supplementary material (see link below) for more details of national population sizes and trends.

Trend

At both European and EU 27 levels, the population is estimated to be decreasing overall at a moderately rapid rate (approaching 30% over three generations).

Although the Red Kite declined globally until the 1970s owing to persecution, many populations recovered or stabilised during 1970-1990 (Mionnet 2007) and its overall numbers were probably stable in Europe from 1970 to 1990 (Tucker & Heath 1994). Since 1990, declines documented within its core breeding areas - Spain, France and Germany - have been partly offset by increases in countries like the UK, Sweden, Poland and Switzerland. The population declined over the past three generations (34.5 years) by c. 25%. This three generation rate of decline is likely to increase in the short term as numbers continue to fall in Iberia, but in the longer-term a reduction in the rate of decline, and even population increases are likely if current trends in the northwest Europe are sustained. Therefore, a moderately rapid decline over three generations is retained for the present; this will be reviewed in the future.

Habitats and Ecology

The species breeds in broadleaf woodlands and forests, mixed with farmland, pasture and heathland. In winter it also occupies farmland without trees, wasteland, scrub and wetlands. Formerly an urban scavenger, it still visits the edges of towns and cities. Eggs are laid between March and May. The nest is a platform of sticks, often with rags or plastic incorporated, and normally lined with wool. It is built in a fork or on a wide side branch of a tree (coniferous or broadleaf), in forests, woods or clump of trees. Each pair normally has several nests, using the same one each year or alternating. Clutches range between one to four eggs, normally two but sometimes three. It takes a wide range of food, but feeds mainly on carrion and small to medium-sized mammals and birds. Reptiles, amphibians and invertebrates are less important prey. Most birds in north-east Europe are migratory, wintering mainly in southern France and Iberia, but with some travelling as far as Africa (Orta and Christie 2013). Migrants travel south from their breeding grounds between August and November, returning between February and April (Snow and Perrins 1998). Birds are usually seen singly or in pairs, but sometimes form small flocks, possibly family groups, when soaring on migration (Ferguson-Lees and Christie 2001).

Habitats & Altitude

Habitat (level 1)	Habitat (level 2)	Importance	Occurrence
Artificial/Terrestrial	Arable Land	suitable	resident
Artificial/Terrestrial	Pastureland	suitable	resident
Artificial/Terrestrial	Urban Areas	suitable	breeding
Artificial/Terrestrial	Urban Areas	suitable	non-breeding
Forest	Temperate	major	breeding
Forest	Temperate	major	non-breeding
Grassland	Temperate	suitable	breeding
Grassland	Temperate	suitable	non-breeding
Shrubland	Mediterranean-type Shrubby Vegetation	major	breeding
Shrubland	Mediterranean-type Shrubby Vegetation	major	non-breeding
Altitude	0 - 800 m	**Occasional altitudinal limits**	(max) 2500 m

Threats

The most pertinent threat to this species is illegal direct poisoning to kill predators of livestock and game animals (targeting foxes, wolves, corvids etc.) and indirect poisoning from pesticides and secondary poisoning from consumption of poisoned rodents by rodenticides spread on farmland to control vole plagues, particularly in the wintering ranges in France and Spain, where it is driving rapid population declines (A. Aebischer in litt. 2009); there is a strong correlation between rapid declines and those populations that winter in Spain (Carter 2007). The Spanish government released more than 1,500 tons of rodenticide-treated baits over about 500,000 ha to fight against a common vole plague in agricultural lands between August 2007 and April 2008; records of Red Kites dying by secondary poisoning in treated areas resulted (J. Vinuela in litt. 2009). Illegal poisoning is also a serious threat to the species in north Scotland, with 40% of birds found dead between 1989 and 2006 having been killed by poisoning (Smart et al. 2010). In France populations disappeared at the same rate as conversion from grasslands to cereal crops (P. Tourret in litt. 2009). The decline of grazing livestock and farming intensification leading to chemical pollution, homogenization of landscapes and ecological impoverishment also threatens the species (Knott et al. 2009). Wind turbines are a potentially serious future threat (Duchamp 2003, Mammen et al. 2009, P. Tourret in litt. 2009) and more research needs to be conducted to assess the level of threat windfarms pose to the species. Other less significant threats include electrocution and collision with powerlines (Mionnet 2007, P. Tourret in litt. 2009), hunting and trapping (Mionnet 2007, P. Tourret in litt. 2009), road-kills, deforestation, egg-collection (on a local scale) and possibly competition with the generally more successful Black Kite (Milvus migrans) (Ferguson-Lees et al. 2001, Cardiel in litt. 2000, Mammen 2007, Cardiel and Viñuela 2007). Another factor implicated in the declines in France and Spain is a decrease in the number of rubbish dumps (Mionnet 2007, Cardiel and Viñuela 2007).

Threats & impacts

Threat (level 1)	Threat (level 2)	Impact and Stresses			
		Timing	**Scope**	**Severity**	**Impact**
Agriculture & aquaculture	Annual & perennial non-timber crops / Agro-industry farming	Ongoing	Minority (<50%)	Slow, Significant Decline	Low Impact
		Stresses			
		Ecosystem degradation			
		Timing	**Scope**	**Severity**	**Impact**
Agriculture & aquaculture	Livestock farming & ranching / Agro-industry grazing, ranching or farming	Ongoing	Minority (<50%)	Slow, Significant Decline	Low Impact
		Stresses			
		Ecosystem degradation			
		Timing	**Scope**	**Severity**	**Impact**
Biological resource use	Hunting & trapping terrestrial animals / Intentional use (species is the target)	Ongoing	Minority (<50%)	Negligible declines	Low Impact
		Stresses			
		Reduced reproductive success, Species mortality			
		Timing	**Scope**	**Severity**	**Impact**
Biological resource use	Hunting & trapping terrestrial animals / Persecution/control	Ongoing	Majority (50-90%)	Slow, Significant Decline	Medium Impact
		Stresses			
		Species mortality			
		Timing	**Scope**	**Severity**	**Impact**
Biological resource use	Logging & wood harvesting / Unintentional effects: (large scale) [harvest]	Ongoing	Majority (50-90%)	Slow, Significant Decline	Medium Impact
		Stresses			
		Ecosystem degradation, Ecosystem conversion			
		Timing	**Scope**	**Severity**	**Impact**
Energy production & mining	Renewable energy	Ongoing	Minority (<50%)	Negligible declines	Low Impact
		Stresses			
		Species mortality			
		Timing	**Scope**	**Severity**	**Impact**
Invasive and other problematic species, genes & diseases	Problematic native species/diseases	Ongoing	Majority (50-90%)	Unknown	Unknown
		Stresses			
		Competition			
		Timing	**Scope**	**Severity**	**Impact**
Pollution	Agricultural & forestry effluents / Herbicides and pesticides	Ongoing	Majority (50-90%)	Slow, Significant Decline	Medium Impact
		Stresses			
		Species mortality			
		Timing	**Scope**	**Severity**	**Impact**
Transportation & service corridors	Roads & railroads	Ongoing	Majority (50-90%)	Negligible declines	Low Impact
		Stresses			
		Species mortality			
		Timing	**Scope**	**Severity**	**Impact**
Transportation & service corridors	Utility & service lines	Ongoing	Majority (50-90%)	Negligible declines	Low Impact
		Stresses			
		Species mortality			

Utilisation

Purpose	Primary form used	Life stage used	Source	Scale	Level	Timing
Pets	Whole	Adults and juveniles	Wild	International	Non-trivial	Recent
Sport	Whole	Adults and juveniles	Wild	Subsistence, National	Non-trivial	Recent
Sport	Whole	Eggs	Wild	Subsistence, National	Non-trivial	Recent

Conservation

Conservation Actions Underway

The species is listed on CMS Appendix II, CITES Appendix II, Bern Convention Annex II and EU Birds Directive Annex I. It is the focus of close monitoring and targeted conservation actions across most of its range, including reintroduction to parts of the U.K. since 1989 (English Nature 1995, RSPB 2007). Since 2007, further reintroduction projects are aiming to re-establish Red Kites in Tuscany and in the Marche (Italy), the Republic of Ireland and Northern Ireland - the first breeding attempt in the Republic was recorded in 2009. An EU species action plan was published in 2009 (Knott et al. 2009). National species action plans are in place in Germany, France, the Balearic Islands and Denmark, and a draft national action plan is in place in Portugal. Ongoing research in Germany aims to examine further the impact of windfarms on the red kite breeding population.

Conservation Actions Proposed

Continue to monitor population trends and breeding productivity. Continue to manage reintroduction projects. Regulate the use of pesticides, especially in France and Spain. Reduce persecution through law enforcement, prosecutions and awareness campaigns. Carry out further studies into the impact of changing land-use practices. Lobby for changes in EU and national agricultural policies. Increase the area of suitable woodland and forest with protected status. Work with land-owners to protect habitat and prevent persecution. Consider extending supplementary feeding to more areas of low food availability. Ensure national legislation on animal by-products takes into account the needs of scavengers. Promote control on feeding stations to be compliant with sanitary regulations.

Bibliography

BirdLife International (2015) *European Red List of Birds*. Luxembourg: Publications Office of the European Union.

Cardiel, I.; Viñuela, J. 2007. *The Red Kite in Spain: distribution, recent population trends, and current threats.*

*Carter, N. 2007. The Red Kite. 2*nd edition. Arlequin Press.

Duchamp, M. 2003. *Birds and windfarms.*

English Nature. 1995. Return of the red kite: The red kite reintroduction project in England.

Ferguson-Lees, J.; Christie, D. A. 2001. Raptors of the world. Christopher Helm, London.

Knott, J, P. Newbery, and B. Barov. 2009. Action plan for the red kite Milvus milvus in the European Union. BirdLife International for the European Union.

Mammen, U. 2007. Der Rotmilan als prioritäre Art des Vogelschutzes in Deutschland und Mitteleuropa.

Mammen, U., Mammen, K., Kratzsch, L. andr Resetaritz, A. 2009. Interactions of Red Kites and wind farms in Germany: results of radio telemetry and field observations. In: David, F. (ed.), *Red Kite International symposium, pp. 100-105. Montbéliard, France.*

Mionnet, A. 2007. Red Kite in France: distribution, population development, threats.

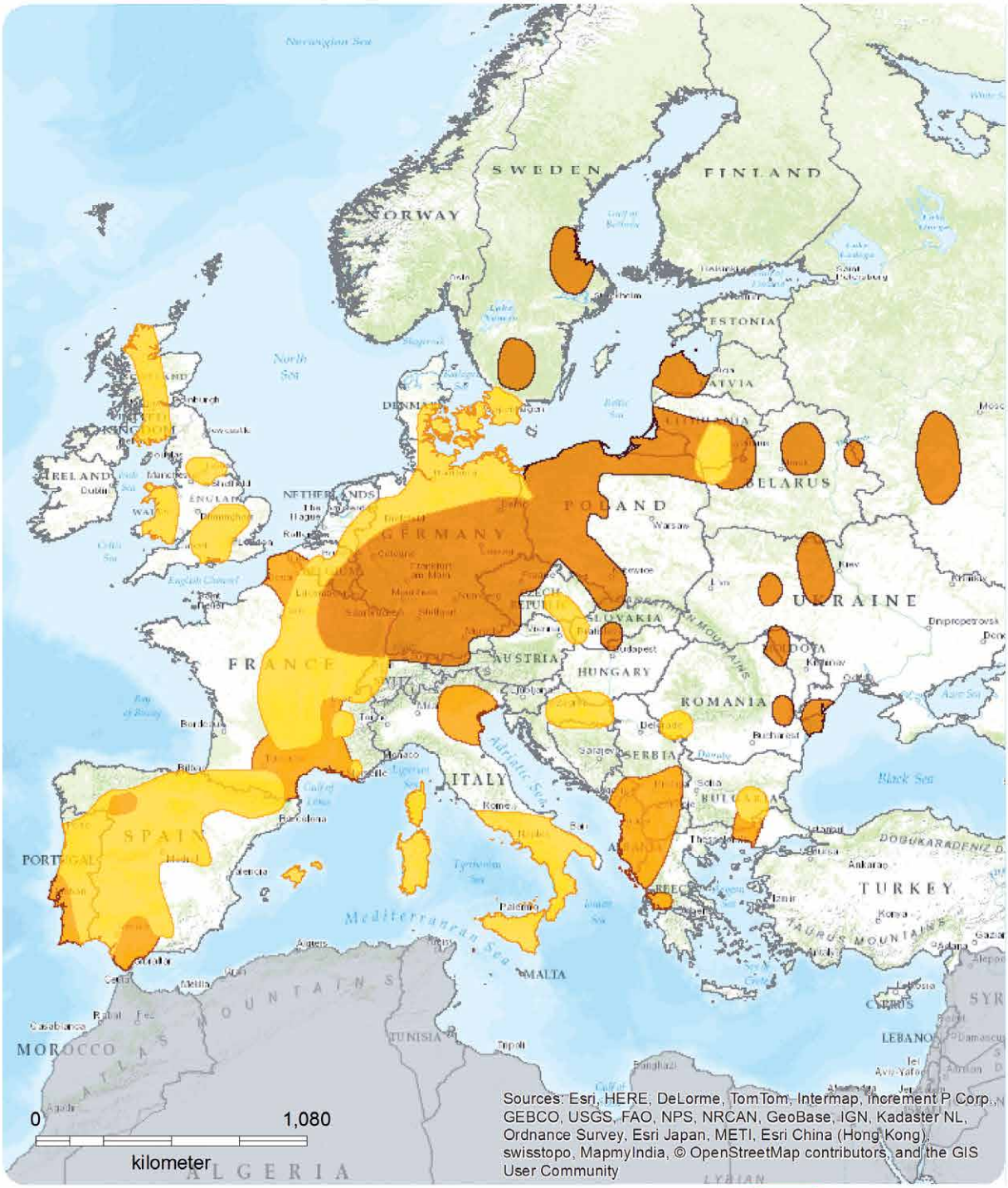
*Orta, J. & Christie, D.A. (2013). Red Kite (*Milvus milvus). In: del Hoyo, J., Elliott, A., Sargatal, J., Christie, D.A. & de Juana, E. (eds.) (2013). Handbook of the Birds of the World Alive. Lynx Edicions, Barcelona. (retrieved from http://www.hbw.com/node/52977 on 20 January 2015).

RSPB (2007) *Birds of prey in the U.K.: on a wing and a prayer*. RSPB, Sandy.

Smart, J.; Amar, A.; Sim, I. M. W.; Etheridge, B.; Cameron, D.; Christie, G.; Wilson, J. D. 2010. Illegal killing slows population recovery of a re-introduced raptor of high conservation concern - the Red Kite Milvus milvus. *Biological Conservation 143(5): 1278-1286.*

Snow, D. W.; Perrins, C. M. 1998. The Birds of the Western Palearctic vol. 1: Non-Passerines. Oxford University Press, Oxford.

European Regional Assessment



Milvus milvus

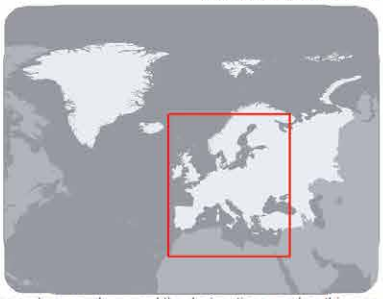
NE | DD | LC | **NT** NEAR THREATENED | VU | EN | CR | EW | EX

Range

- Extant (breeding)
- Extant (non breeding)
- Extant (resident)

Citation:
BirdLife International (2015)
European Red List of Birds

Map created 04/16/2015



The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.

IUCN Red List of Threatened Species™ – Regional Assessments

Europe

- *The Status and Distribution of European Mammals*. Compiled by Helen J. Temple and Andrew Terry, 2007
- *European Red List of Reptiles*. Compiled by Neil Cox and Helen J. Temple, 2009
- *European Red List of Amphibians*. Compiled by Helen J. Temple and Neil Cox, 2009
- *European Red List of Dragonflies*. Compiled by Vincent J. Kalkman, Jean-Pierre Boudot, R. Bernard, Klaus-Jurgen Conze, Geert De Knijf, Elena Dyatlova, Sonia Ferreira, Miloš Jović, Jurgen Ott, Elisa Riservato and Goran Sahlen, 2010
- *European Red List of Saproxylic Beetles*. Compiled by Ana Nieto and Keith Alexander, 2010
- *European Red List of Butterflies*. Compiled by Chris van Swaay, Sue Collins, Annabelle Cuttelod, Dirk Maes, Miguel Lopez Munguira, Martina Šašić, Josef Settele, Theo Verstrael, Rudi Verovnik, Martin Warren, Martin Wiemers and Irma Wynhoff, 2010
- *European Red List of Non-marine Molluscs*. Annabelle Cuttelod, Eike Neubert and Mary Seddon, 2011
- *European Red List of Freshwater Fishes*. Jorg Freyhof and Emma Brooks, 2011
- *European Red List of Vascular Plants*. Melanie Bilz, Shelagh P. Kell, Nigel Maxted and Richard V. Lansdown, 2011
- *European Red List of Medicinal Plants*. David J. Allen, Melanie Bilz, Rebecca Miller, Jemma Window and Anastasiya Timoshyna, 2014
- *European Red List of Bees.* Nieto, A., Roberts, S.P.M., Kemp, J., Rasmont, P., Kuhlmann, M., García Criado, M., Biesmeijer, J.C., Bogusch, P., Dathe, H.H., De la Rúa, P., De Meulemeester, T., Dehon, M., Dewulf, A., Ortiz-Sánchez, F.J., Lhomme, P., Pauly, A., Potts, S.G., Praz, C., Quaranta, M., Radchenko, V.G., Scheuchl, E., Smit, J., Straka, J., Terzo, M., Tomozii, B., Window, J. and Michez, D. 2014.

Other regions

- *The Status and Distribution of Freshwater Biodiversity in Eastern Africa*. Compiled by William R.T. Darwall, Kevin G. Smith, Thomas Lowe, Jean-Christophe Vié, 2005
- *The Status and Distribution of Freshwater Fish Endemic to the Mediterranean Basin*. Compiled by Kevin G. Smith and William R.T. Darwall, 2006
- *The Status and Distribution of Reptiles and Amphibians of the Mediterranean Basin*. Compiled by Neil Cox, Janice Chanson and Simon Stuart, 2006
- *Overview of the Cartilaginous Fishes (Chondrichthyans) in the Mediterranean Sea*. Compiled by Rachel D. Cavanagh and Claudine Gibson, 2007
- *The Status and Distribution of Dragonflies of the Mediterranean Basin*. Compiled by Elisa Riservato, Jean-Pierre Boudot, Sonia Ferreira, Miloš Jović, Vincent J. Kalkman, Wolfgang Schneider, Boudjema Samraoui and Annabelle Cuttelod, 2009
- *The Status and Distribution of Mediterranean Mammals*. Compiled by Helen J. Temple and Annabelle Cuttelod, 2009
- *The Status and Distribution of Freshwater Biodiversity in Southern Africa*. Compiled by William R.T. Darwall, Kevin G. Smith, Denis Tweddle and Paul Skelton, 2009
- *The Status and Distribution of Freshwater Biodiversity in Western Africa*. Compiled by Kevin Smith, Mame D. Diop and Mamadou Niane, 2009
- *The Status and Distribution of Freshwater Biodiversity in Northern Africa*. Compiled by Nieves Garcia, Annabelle Cuttelod and Dania Abdul Malak, 2010

- *The Status and Distribution of Freshwater Biodiversity in the Eastern Himalaya*. Compiled by David Allen, Sanjay Molur and B.A. Daniel, 2010
- *Overview of the Conservation Status of the Marine Fishes of the Mediterranean Sea*. Compiled by Dania Abdul Malak, Suzanne R. Livingstone, David Pollard, Beth A. Polidoro, Annabelle Cuttelod, Michel Bariche, Murat Bilecenoglu, Kent E. Carpenter, Bruce B. Collette, Patrice Francour, Menachem Goren, Mohamed Hichem Kara, Enric Massutí, Costas Papaconstantinou and Leonardo Tunesi, 2011
- *The Status and Distribution of Freshwater Biodiversity in Central Africa*. Compiled by Emma G.E. Brooks, David Allen and William R.T. Darwall, 2011
- *The diversity of life in African freshwaters; Underwater, under threat. An analysis of the status and distribution of freshwater species throughout mainland Africa*. Edited by William Darwall, Kevin Smith, David Allen, Robert Holland, Ian Harrison and Emma Brooks, 2011
- *The Status and Distribution of Freshwater Biodiversity in the Western Ghats, India*. Sanjay Molur, Kevin G. Smith, B.A. Daniel and William Darwall, 2011
- *The Status and Distribution of Freshwater Biodiversity in Indo-Burma*. David Allen, Kevin G. Smith, and William Darwall, 2012

HOW TO OBTAIN EU PUBLICATIONS

Free publications:
- **via EU Bookshop (http://bookshop.europa.eu);**
- **at the European Commission's representations or delegations.**

You can obtain their contact details by linking http://ec.europa.eu, or by sending a fax to +352 2929-42758.

Publications for sale:
- **via EU Bookshop (http://bookshop.europa.eu);**
- **Priced subscriptions (Official Journal of the EU, Legal cases of the Court of Justice as well as certain periodicals edited by the European Commission) can be ordered from one of our sales agents.**

You can obtain their contact details by linking http://bookshop.europa.eu, or by sending a fax to +352 2929-42758.

IUCN – The Species Survival Commission

The Species Survival Commission (SSC) is the largest of IUCN's six volunteer commissions with a diverse global membership of nearly 10,000 experts. With biodiversity loss as one of the world's most pressing crises, and many species declining to critical levels, the SSC drives its efforts and expertise to conserving nature through positive and informed action. This is achieved through the strength of its dedicated science-based network of volunteer experts who constitute the invaluable "power house" of the SSC.

www.iucn.org/ssc

IUCN – Global Species Programme

The IUCN Global Species Programme supports the activities of the IUCN Species Survival Commission and individual Specialist Groups, as well as implementing global species conservation initiatives. It is an integral part of the IUCN Secretariat and is managed from IUCNs international headquarters in Gland, Switzerland. The Global Species Programme includes a number of technical units covering Species Trade and Use, The IUCN Red List, Freshwater Biodiversity Unit and Climate Change Unit (all located in Cambridge, UK), the Biodiversity Assessment Unit (located in Washington DC, USA), and the Marine Biodiversity Unit (hosted by Old Dominion University Norfolk VA, USA).

www.iucn.org/species

IUCN – European Union Representative Office

The IUCN European Union Representative Office is located in Brussels. It is an out-posted Headquarters office unit providing global services to the organization, and vital linkages for IUCN - its Members, National Committees, scientific Commissions and the global Secretariat - to key EU institutions and other public and private actors with regional headquarters in Brussels. The IUCN EU Office is the focal point for EU nature policies, partnerships and networking, and influencing decisions and raising awareness of nature conservation among the EU institutions are at the core of its mandate. The IUCN EU Office hosts staff dedicated to the above mentioned functions as well as project staff from the Global Species Programme.

www.iucn.org/europe

The European Red List is a review of the conservation status of European species according to IUCN regional Red Listing guidelines. It identifies those species that are threatened with extinction at the regional level – in order that appropriate conservation action can be taken to improve their status.

This publication summarises results for Europe's 533 native species of birds. Approximately 13% of these species are threatened with extinction at the European level as a result of threats including changing land-use practices, invasive and alien species and illegal killing of birds.

The European Red List was compiled by BirdLife International and is the product of a service contract with the European Commission. It is available online at http://ec.europa.eu/environment/nature/conservation/species/redlist and http://www.iucnredlist.org/europe.

KH-01-15-258-EN-N

DOI: 10.2779/975810

Publications Office