Gallinula chloropus (Common Moorhen)

European Red List of Birds

Supplementary Material

The European Union (EU28) Red List assessments were based principally on the official data reported by EU Member States to the European Commission under Article 12 of the Birds Directive in 2019-20. For the European Red List assessments, similar data were sourced from BirdLife Partners and other collaborating experts in other European countries and territories. For more information, see BirdLife International (2021).

Contents

Recommended citation

BirdLife International (2021) European Red List of Birds. Luxembourg: Publications Office of the European Union.

Further information

http://datazone.birdlife.org/info/euroredlist
http://www.birdlife.org/europe-and-central-asia/european-red-list-birds-0
http://www.iucnredlist.org/regions/europe
http://ec.europa.eu/environment/nature/conservation/species/redlist/

Data requests and feedback

To request access to these data in electronic format, provide new information, correct any errors or provide feedback, please email science@birdlife.org.

Table 1. Reported national breeding population size and trends in Europe[1].

Country (or territory)[2]	Population estimate				Short-term population trend[5]				Long-term population trend[5]				Subspecific population (where relevant)
	Size (pairs)[3]	Europe (%)	Year(s)	Method[4]	Direction[6]	Magnitude (%)[7]	Year(s)	Method[4]	Direction[6]	Magnitude (%)[7]	Year(s)	Method[4]	
Albania	530–1200	<1	2007-2018	complete	+	86 to 168	2007-2018	complete	+	59 to 168	1980-2018	expert	
Armenia	2300–3300	<1	2013-2018	complete	+	3 to 7	2007-2018	complete	0		2003-2018	partial	
Austria	2000–2700	<1	2013-2018	complete	0		2007-2018	partial	+	15 to 30	1981-2018	complete	
Azerbaijan	5000–45000	1	1996-2019	expert	0		2013-2019	expert	0		1980-2019	expert	
Belarus	15000–20000	2	2010-2018	partial	0	-10 to 10	2012-2019	expert	0	0	1980-2019	expert	
Belgium	12500–31000	2	2013-2018	expert	-	-52 to -22	2008-2018	complete	-	-70 to -24	1973-2018	partial	
Bosnia & HG	2000–5000	<1	2015-2018	complete	?	-10 to 10	2007-2018	complete	?		1980-2018	partial	
Bulgaria	5000–12000	<1	2005-2018	partial	0	0 to 10	2000-2018	complete	0	0 to 10	1980-2018	partial	
Croatia	5000–15000	<1	2013-2018	expert	?		2007-2018	deficient	?		1980-2018	deficient	
Cyprus	50–200	<1	2013-2018	partial	+	0 to 33	2007-2018	partial	+	250 to 500	1980-2018	expert	
Czechia	3000–6000	<1	2014-2017	complete	-	-93 to -25	2001-2017	complete	?		1981-2017	deficient	
Denmark	3300–3400	<1	2017	partial	-	-58 to -17	2006-2017	complete	-	-65 to -42	1980-2017	complete	
Estonia	500–1000	<1	2013-2017	expert	0	-10 to 10	2006-2017	expert	-	-10 to 0	1980-2017	expert	
Finland	100–200	<1	2013-2018	partial	+		2007-2018	partial	+		1980-2018	partial	
France	120000–200000	14	2013-2018	partial	0	0	2007-2017	partial	0	0	1989-2017	partial	
Georgia	780–7900	<1	2013-2017	partial	?			deficient	?				
Germany	30000–52000	4	2011-2016	expert	-		2004-2016	expert	0		1980-2016	expert	
Greece	5000–10000	<1	2015	partial	0		2007-2018	partial	?		1980-2018	deficient	
Hungary	6000–12000	<1	2014-2018	expert	0		2007-2018	expert	0		1980-2018	expert	
Rep. Ireland	64400–64500	6	2008-2011	partial	0		2000-2011	partial	-		1972-2011	partial	
Italy	100000–150000	11	2013-2018	expert	-	-15 to -5	2000-2014	partial	+	0 to 25	1993-2018	expert	
Kosovo	30	<1	2007-2019	deficient	?		2007-2018	partial	-		1990-2018	partial	
Latvia	520–1000	<1	2013-2017	partial	?		2000-2017	expert	-	-82 to -81	1991-2017	partial	
Lithuania	2500–3500	<1	2013-2018	partial	-	-20 to -15	2013-2018	partial	0		1980-2018	partial	
Luxembourg	400–600	<1	2013-2018	partial	0	0	2007-2018	partial	?		1980-2018	expert	
North Macedonia	1000–1500	<1	2014-2019	expert	0		2007-2018	expert	?		1980-2019		
Malta	20–31	<1	2017-2018	complete	0		2008-2018	complete	0		1980-2018	complete	
Moldova	1500–2000	<1	2014-2017	partial	0		2007-2018	partial	0		1990-2018	expert	
Montenegro	2000–4000	<1	2002-2012	expert	0		2007-2018	expert	?				
Netherlands	25000–35000	3	2013-2015	complete	-	-28 to -15	2006-2017	complete	0	-17 to 18	1984-2017	complete	
Norway	110–220	<1	2013-2018	partial	?		2013-2018	expert	0		1980-2018	complete	
Poland	10000–21000	1	2013-2018	expert	?	-54 to 3	2007-2018	complete	?		1980-2018	deficient	

Table 1. Reported national breeding population size and trends in Europe[1].

Country (or territory)[2]	Population estimate				Short-term population trend[5]				Long-term population trend[5]				Subspecific population (where relevant)
	Size (pairs)[3]	Europe (%)	Year(s)	Method[4]	Direction[6]	Magnitude (%)[7]	Year(s)	Method[4]	Direction[6]	Magnitude (%)[7]	Year(s)	Method[4]	
Portugal	5000–25000	1	2013-2018	partial	?		2007-2018	partial	?		1980-2018	deficient	
PT: Azores	30	<1	2013-2018	partial	?		2007-2018	deficient	?		1980-2018	deficient	
PT: Madeira	50–100	<1	2013-2018	partial	+		2008-2018	partial	+		1980-2018	partial	
Romania	36600–61800	4	2013-2015	complete	?		2007-2018	deficient	?		1980-2018	deficient	
Russia	65000–108000	8	2008-2018	partial	?		2008-2018	deficient	?		1980-2018	deficient	
Serbia	16600–23500	2	2013-2018	partial	0	0	2007-2018	complete	+	10 to 29	1980-2018	complete	
Slovakia	1000–2500	<1	2013-2018	partial	0		2007-2018	partial	0		1980-2018	partial	
Slovenia	750–1000	<1	2013-2018	partial	?		2007-2018	deficient	?		1980-2018	deficient	
Spain	58400	5	2007-2010	complete	-	-4 to -1	2007-2018	partial	0		1980-2018	expert	
ES: Canary Is	200–210	<1	2018	complete	F		2007-2018	expert	F		1980-2018	expert	
Sweden	2500–3700	<1	2013-2018	partial	0	-30 to 30	2007-2018	partial	?	-50 to 200	1980-2018	expert	
Switzerland	1000–2000	<1	2013–2016	partial	+	8 to 90	2007-2018	complete	+	2 to 56	1990-2018	complete	
Turkey	15000–25000	2	2002-2012	partial	?		2008-2019	deficient	?		1980-2013	deficient	
Ukraine	60000–100000	7	2015-2017	partial	F		2007-2019	deficient	F		1980-2018	deficient	
United Kingdom	208000–209000	19	2016	complete	-	-26	2004-2016	complete	-	-25	1980-2016	complete	
EU28	708000–983000	76											
Europe	**896000–1340000**	**100**											

[1] See 'Sources' at end of factsheet, and for more details on individual EU Member State reports, see the Article 12 reporting portal at http://bd.eionet.europa.eu/article12/report.
[2] The designation of geographical entities and the presentation of the material do not imply the expression of any opinion whatsoever on the part of IUCN 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.
[3] In the few cases where population size estimates were reported in units other than those specified, they were converted to the correct units using standard correction factors.
[4] The 'method used' (replacing the data 'quality' assessment in the 2015 European Red List) is reported as: a) Complete: complete survey or a statistically robust estimate; b) Partial: based mainly on extrapolation from a limited amount of data; c) Expert: based mainly on expert opinion with very limited data; d) Defficient: insufficient or no data available.
[5] The robustness of regional trends to the effects of any missing or incomplete data was tested using plausible scenarios, based on other sources of information, including any other reported information, recent national Red Lists, scientific literature, other publications and consultation with relevant experts.
[6] Trend directions are reported as: increasing (+); decreasing (-); stable (0); fluctuating (F); or unknown (?).
[7] Trend magnitudes are rounded to the nearest integer.

Table 2. Reported national wintering population sizes and trends in Europe[1]. Note that some countries within the species' wintering range did not report any data, and that only minimum totals are presented, to avoid double-counting of birds moving between countries.

Country (or territory)[2]	Population estimate				Short-term population trend[5]				Long-term population trend[5]				Subspecific population (where relevant)
	Size (individuals)[3]	Europe (%)	Year(s)	Method[4]	Direction[6]	Magnitude (%)[7]	Year(s)	Method[4]	Direction[6]	Magnitude (%)[7]	Year(s)	Method[4]	
Albania	50–150	<1	2007-2018	complete	+	100 to 150	2007-2018	complete	+	0 to 150	1980-2018	complete	
Azerbaijan	5000–100000	88	1996-2019	partial	0		2010-2019	partial	?		1980-2019	expert	
Bosnia & HG	200–600	1	2015-2018	complete	?		2007-2018	deficient	?		1980-2018	deficient	
Czechia	130–660	1	2015-2019	complete	-		2008-2019	complete	-		1980-2019	complete	
Kosovo		<1	2019	complete	?				?				
Serbia	300–1500	3	2013-2018	partial	?	-10 to 10	2013-2018	expert	+	30 to 49	1980-2018	expert	
Ukraine	1200–2000	6	2014-2017	partial	0		2007-2018	partial	F		1980-2018	partial	
EU28	130–660	1											
Europe	**6800–105000**	**100**											

[1] See 'Sources' at end of factsheet, and for more details on individual EU Member State reports, see the Article 12 reporting portal at http://bd.eionet.europa.eu/article12/report.
[2] The designation of geographical entities and the presentation of the material do not imply the expression of any opinion whatsoever on the part of IUCN 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.
[3] In the few cases where population size estimates were reported in units other than those specified, they were converted to the correct units using standard correction factors.
[4] The 'method used' (replacing the data 'quality' assessment in the 2015 European Red List) is reported as: a) Complete: complete survey or a statistically robust estimate; b) Partial: based mainly on extrapolation from a limited amount of data; c) Expert: based mainly on expert opinion with very limited data; d) Defficient: insufficient or no data available.
[5] The robustness of regional trends to the effects of any missing or incomplete data was tested using plausible scenarios, based on other sources of information, including any other reported information, recent national Red Lists, scientific literature, other publications and consultation with relevant experts.
[6] Trend directions are reported as: increasing (+); decreasing (-); stable (0); fluctuating (F); or unknown (?).
[7] Trend magnitudes are rounded to the nearest integer.

Trend maps

A symbol appears in each country where the species occurs: the shape and colour of the symbol represent the population trend in that country, and the size of the symbol corresponds to the proportion of the European population occurring in that country.

KEY

- Large increase (≥50%)
- Moderate increase (20–49%)
- Small increase (<20%)
- Increase of unknown magnitude
- Stable or fluctuating
- Unknown
- Present (no population or trend data)
- Extinct since 1980
- Large decrease (≥50%)
- Moderate decrease (20–49%)
- Small decrease (<20%)
- Decrease of unknown magnitude

Each symbol, with the exception of Present and Extinct, may occur in up to three different size classes, corresponding to the proportion of the European population occurring in that country.

- Large: ≥10% of the European population
- Medium: 1–9% of the European population
- Small: <1% of the European population

The designation of geographical entities and the presentation of the material do not imply the expression of any opinion whatsoever on the part of IUCN 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.

Figure 1. Breeding population sizes and short-term trends across Europe.

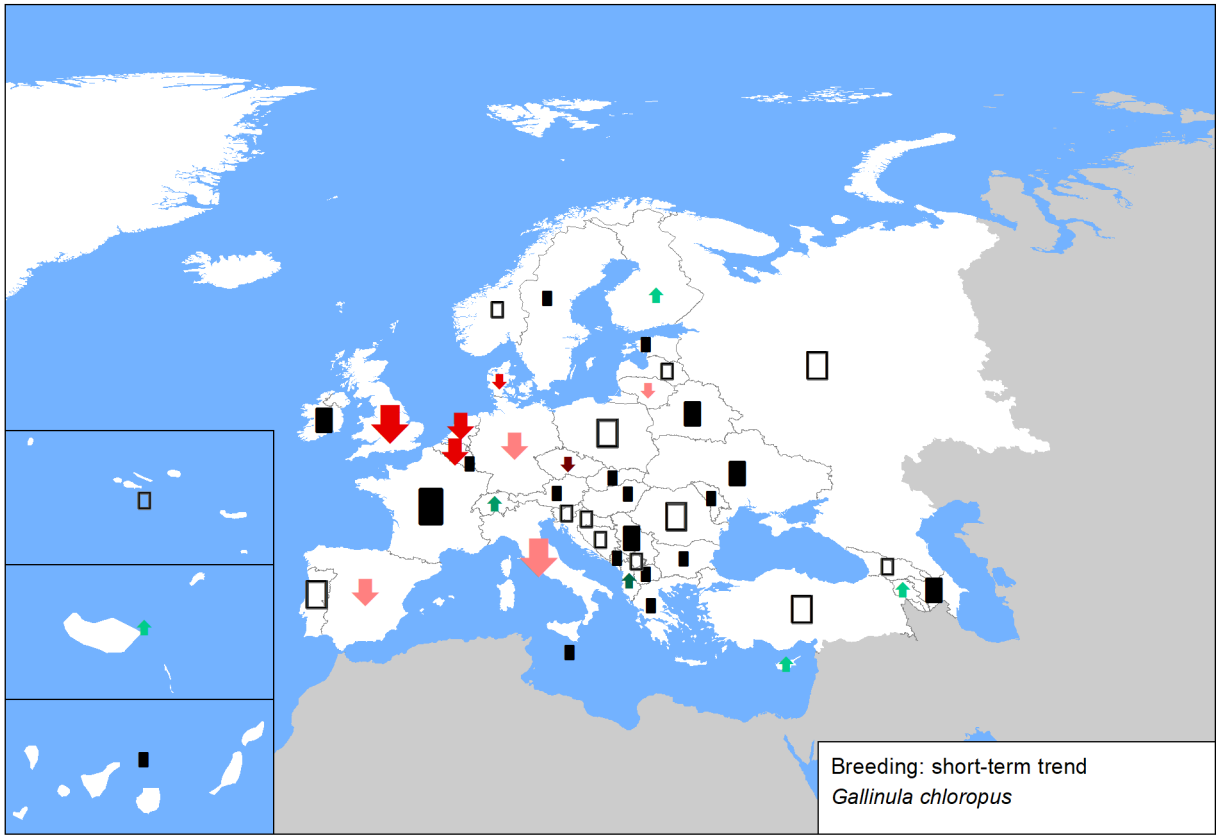


Figure 2. Breeding population sizes and long-term trends across Europe.

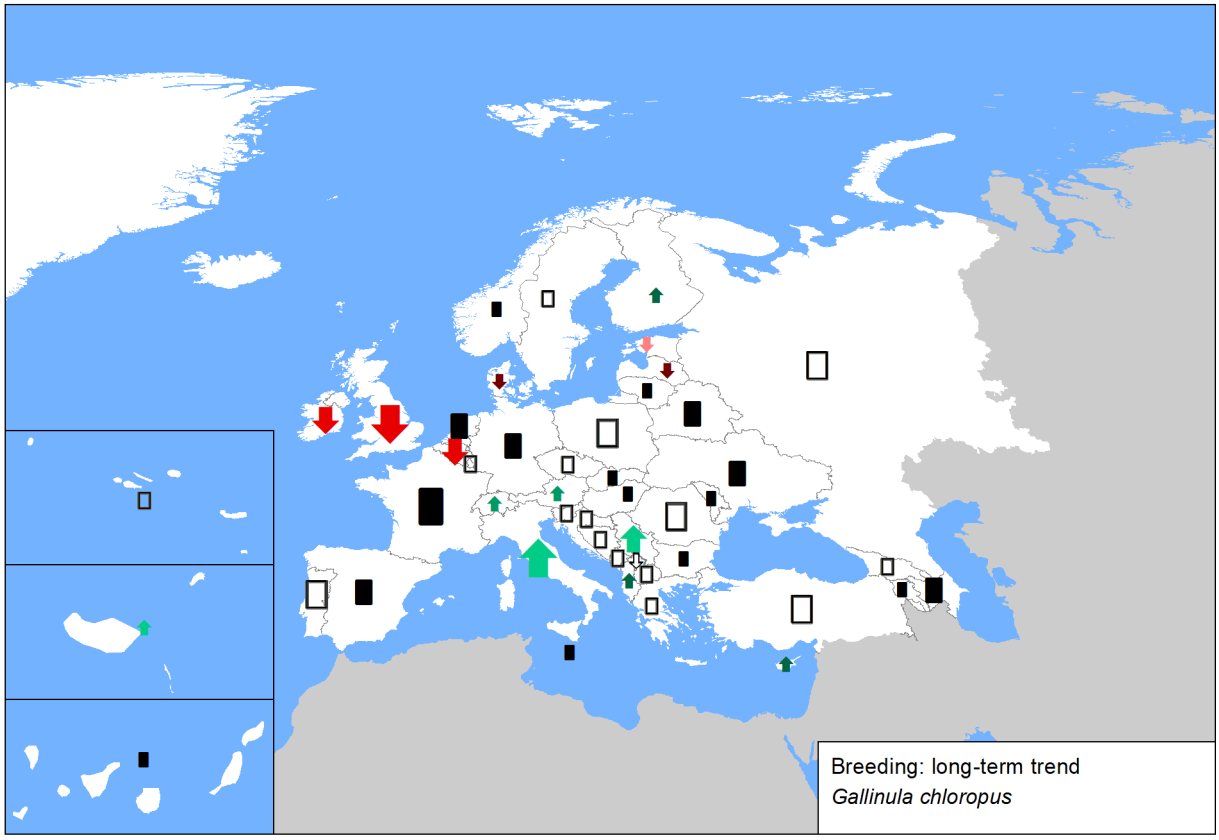


Figure 3. Reported wintering population sizes and short-term trends across Europe. Note that some countries within the species' wintering range did not report any data.

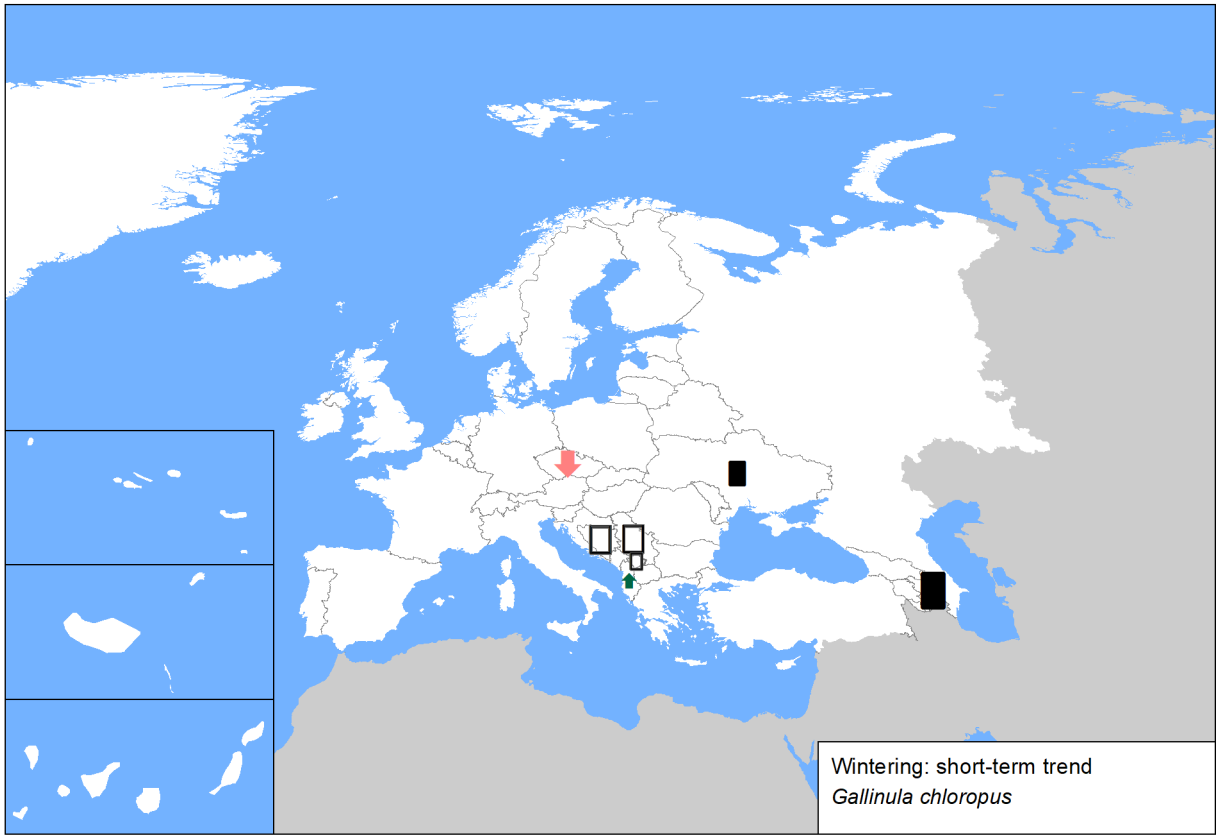
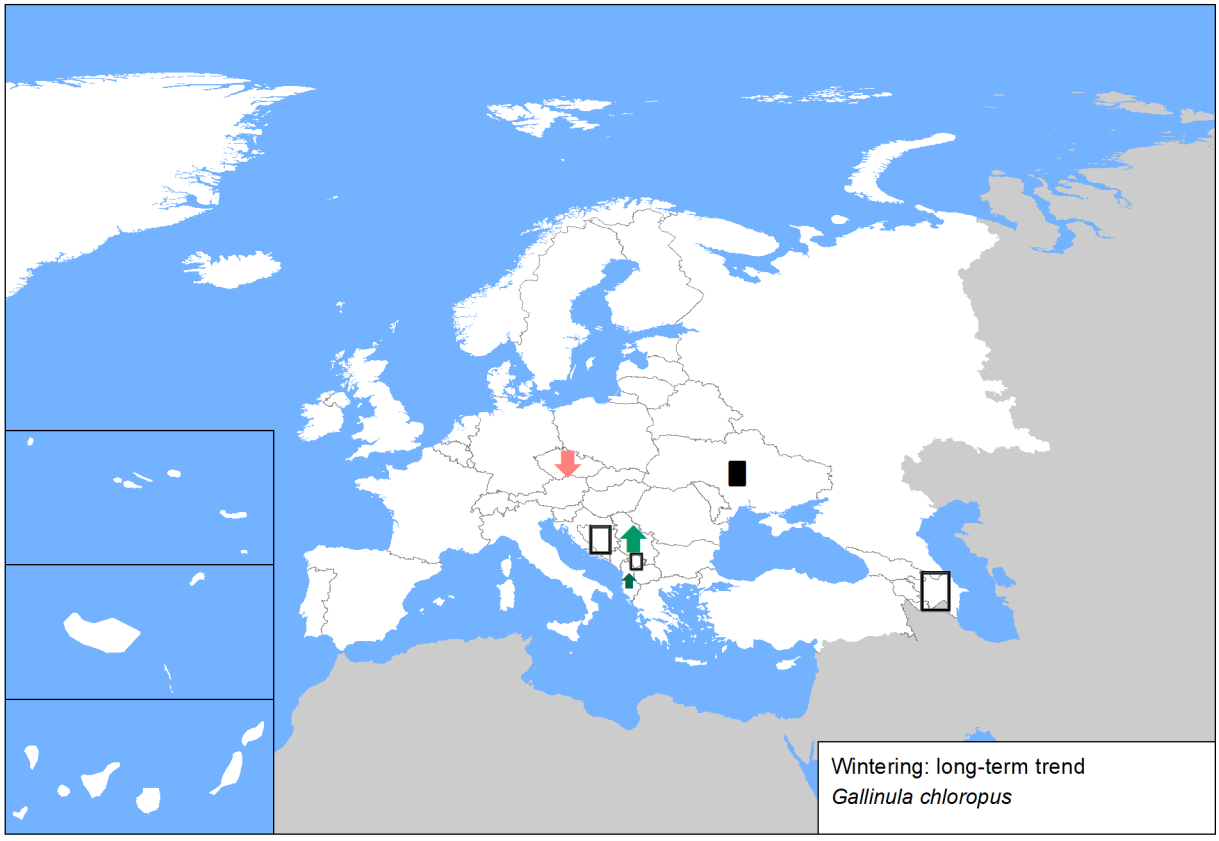


Figure 4. Reported wintering population sizes and long-term trends across Europe. Note that some countries within the species' wintering range did not report any data.



Sources

Albania

Breeding population size: Bino & Xeka pers. obs.
Breeding short-term trend: Bino & Xeka pers. obs.
Breeding long-term trend: Bino pers. obs.
Winter population size: Bino pers. obs.
Winter short-term trend: Bino et al. 2018
Winter long-term trend: Bino et al. 2018

Armenia

Breeding population size: TSE NGO
Breeding short-term trend: TSE (2020) The Atlas of the Breeding Birds in Armenia. In preparation.
Breeding long-term trend: TSE (2020) The Atlas of the Breeding Birds in Armenia. In preparation.

Austria

Breeding population size: BirdLife Austria, unpublished data from www.ornitho.at
Breeding short-term trend: BirdLife Austria, unpublished data from www.ornitho.at; BirdLife Austria, unpublished archive data
Breeding long-term trend: Dvorak et al. 1994

Azerbaijan

Breeding population size: AOS data base
Breeding short-term trend: AOS data base
Breeding long-term trend: AOS Data Base
Winter population size: AOS data base
Winter short-term trend: AOS Data Base
Winter long-term trend: AOS Data Base

Belarus

Breeding population size: Research work of the National Academy of Sciences of the Republic of Belarus “Dynamics and predictive assessment of changes in the state of populations of the main resource and biocenotically most important bird species in Belarus”
Breeding long-term trend: Nikiforov M.E., Kozulin A.V., eds. Belarussian birds at the beginning of XXI century: status, numbers, distribution. - 1997. - Minsk. - 187 p.

Belgium

Breeding population size: Vermeersch G. et al. (2018, in press). Broedvogels in Vlaanderen in de periode 2013-2018. Rapporten van het Instituut voor Natuur- en Bosonderzoek (INBO), Brussel. / Paquet, J-Y., Anselin, A., Vermeersch, G., Derouaux, A., Devos, K. (2019, in prep.). Contribution of Belgium to EBCC European Breeding Bird Atlas 2. Internal Report.
Breeding short-term trend: Vermeersch G. et al. (2018, in press). Broedvogels in Vlaanderen in de periode 2013-2018. Rapporten van het Instituut voor Natuur- en Bosonderzoek (INBO), Brussel. / Paquet, J-Y., Anselin, A., Vermeersch, G., Derouaux, A., Devos, K. (2019, in prep.). Contribution of Belgium to EBCC European Breeding Bird Atlas 2. Internal Report.
Breeding long-term trend: Vermeersch G. et al. (2018, in press). Broedvogels in Vlaanderen in de periode 2013-2018. Rapporten van het Instituut voor Natuur- en Bosonderzoek (INBO), Brussel. / Paquet, J-Y., Anselin, A., Vermeersch, G., Derouaux, A., Devos, K. (2019, in prep.). Contribution of Belgium to EBCC European Breeding Bird Atlas 2. Internal Report.

Bosnia and Herzegovina

Breeding population size: Based on data for EBBA2
Breeding short-term trend: more individual articles e.g published in magazine Bilten mreže posmatrača ptica u Bosni i Hercegovini-see https://ptice.ba/bs/category/bilteni_/), individual reports (e.g. for EBBA2, projects etc)
Breeding long-term trend: individual reports, reports for EBBA2
Winter population size: based on IWC reports-all reports published in magazine Bilten mreže posmatrača ptica (www.ptice.ba)
Winter short-term trend: based on IWC reports-all reports published in magazine Bilten mreže posmatrača ptica (www.ptice.ba)
Winter long-term trend: There are no qualitative data before 2005 to make estimates

Bulgaria

Breeding population size: Iankov, P. (ed.). 2007. Atlas of Breeding Birds in Bulgaria. BSPB Conservation Series Book 10.; National Art. 12 reporting database 2013-2018; BSPB GIS related ornithological database
Breeding short-term trend: Iankov, P. (ed.). 2007. Atlas of Breeding Birds in Bulgaria. BSPB Conservation Series Book 10.; National Art. 12 reporting database 2013-2018; BSPB GIS related ornithological database
Breeding long-term trend: Iankov, P. (ed.). 2007. Atlas of Breeding Birds in Bulgaria. BSPB Conservation Series Book 10. BSPB GIS related ornithological database Cramp, S. & K. E. L. Simmons. 1980. The Birds of the Western Palearctic, Vol. 2. Simeonov, S., T. Michev & D. Nankinov. 1990. Fauna of Bulgaria, Vol. 20 Aves-I.

Croatia

Breeding population size: Dumbović Mazal V., Pintar V., Zadravec M. (2019): Prvo izvješće o brojnosti i rasprostranjenosti ptica u Hrvatskoj sukladno odredbama Direktive o pticama.

Breeding short-term trend: Dumbović Mazal V., Pintar V., Zadravec M. (2019): Prvo izvješće o brojnosti i rasprostranjenosti ptica u Hrvatskoj sukladno odredbama Direktive o pticama.

Breeding long-term trend: Dumbović Mazal V., Pintar V., Zadravec M. (2019): Prvo izvješće o brojnosti i rasprostranjenosti ptica u Hrvatskoj sukladno odredbama Direktive o pticama.

Cyprus

Breeding population size: Systematic monthly waterbird counts by BirdLife Cyprus as published in BirdLife Cyprus monthly checklists; Birdwatching records as reported in BirdLife Cyprus annual reports

Breeding short-term trend: Systematic monthly waterbird counts by BirdLife Cyprus as published in BirdLife Cyprus monthly checklists; Birdwatching records as reported in BirdLife Cyprus annual reports

Breeding long-term trend: Analysis of BirdLife Cyprus bird sightings records reported in the society's annual reports.

Czechia

Breeding population size: Šťastný et Bejček in prep. - Atlas hnízdního rozšíření ptáků ČR 2014-2017

Breeding short-term trend: Trends in waterbird breeding population size were estimated using changes in population data from nation-wide numbers project of "Atlas of Breeding Bird Distribution" carried out in whole Czech Republic in 2001 -2003 and 2014 – 2017. Range of relative change in breeding population size was used as the measurement of population trend. The values of relative rate of change were compared with data from annual monitoring (census in May – see Musil & Fuchs 1994, Musil et al. 2001, Čehovská et al. 2019 for the methods) on limited amount of sites (fishpond regions in south and central Bohemia - see Musil & Fuchs 1994). Čehovská M., Musil P., Musilová Z., Poláková, K. & Zouhar J. 2019: Diving duck census efficiency based on monitoring of individually marked females: the influence of breeding stage of individual females and timing of census. Bird Study in press. Musil P. Cepák J. Hudec K. & Zárybnický J. 2001. The long-term trends in the breeding waterfowl populations in the Czech Republic. OMPO, Institute of Applied Ecology, Kostelec nad Černými lesy. Musil P. & Fuchs R. 1994: Changes in abundance of water birds species in southern Bohemia (Czech Republic) in the last 10 years. Development in Hydrobiology. In: Kerekes J. J. [ed.]: Aquatic Birds in Trophic Web of Lakes. Hydrobiologia 279/280: 511–519.

Breeding long-term trend: see the short term trend section

Winter population size: Waterbird numbers were recorded in mid-January by regular citizen-science monitoring programme - the International Waterbird Census (IWC) – see Gilissen et al. 2002, Wetlands International 2006, Wetlands International 2019. Hundreds of volunteer birdwatchers conduct the mid-January counts on predetermined dates and sites each year, aiming to maximize synchrony (Gilissen et al. 2002, Musil et al. 2011, Musilová et al. 2014). The estimation of population size was calculated by Trends and Indices for Monitoring data (TRIM) software (Statistics Netherlands version 3.52, Pannekoek and Van Strien, 2005). 'Time Totals' values of the data (i.e. the actual count values plus the numbers of birds estimated by the TRIM software) for all 1155 sites included in the analysis were used to generate total estimates of the range of numbers of the waterbird species wintering in the Czech Republic between 2015 and 2019. We use the range (min–max) of population estimates due to the effect of between-year variation in numbers because of variable climatic conditions (Musil et al. 2008, Musilová et al. 2018). Gilissen N, Haanstra L, Delany S, Boere G, Hagemeijer W (2002) Numbers and distribution of wintering waterbirds in the Western Palearctic and Southwest Asia in 1987, 1988 and 1999. Results from the International Waterbird Census. Wetlands International Global Series No. 11, Wetlands International, Wageningen, The Netherlands. Musil P, Darolová A, Jureček J, Musilová Z, Podhrázský M, Slabeyová K (2008) The long-term trends in numbers of wintering geese in the Czech Republic and Slovakia in 1991–2007. Tichodroma 20: 61–67. Musil P, Musilová Z, Fuchs R, Poláková S (2011) Long-term changes in numbers and distribution of wintering waterbirds in the Czech Republic, 1966–2008. Bird Study 58: 450–460. Musilová Z, Musil P, Zouhar J, Adam M (2018) Changes in habitat suitability influence non-breeding distribution of waterbirds in central Europe. Ibis: 160: 582–596. Musilová Z, Musil P, Zouhar J, Bejček V, Šťastný K, Hudec K (2014) Numbers of wintering waterbirds in the Czech Republic: long-term and spatial-scale approaches to assess population size. Bird Study 61: 321–331.

Winter short-term trend: Waterbird numbers were recorded in mid-January by regular citizen-science monitoring programme - the International Waterbird Census (IWC) – see Gilissen et al. 2002, Wetlands International 2006, Wetlands International 2019. Hundreds of volunteer birdwatchers conduct the mid-January counts on predetermined dates and sites each year, aiming to maximize synchrony (Gilissen et al. 2002, Musil et al. 2011, Musilová et al. 2014). The individual species trends in numbers was calculated by Trends and Indices for Monitoring data (TRIM) software (Statistics Netherlands version 3.52, Pannekoek and Van Strien, 2005). The additive slope (i.e. the change in indices from one year to the next) was used to estimate the Czech trend, see also Fouque et al. (2009), Musil et al. (2011), Musilová et al. (2015), Musilová et al. (2018 a, b). Fouque C, Guillemain M, Schricke V (2009) Trends in the numbers of Coot Fulica atra and wildfowl Anatidae wintering in France and their relationship with hunting activity at wetland sites. Wildfowl. Special Issue 2: 42–59. Gilissen N, Haanstra L, Delany S, Boere G, Hagemeijer W (2002) Numbers and distribution of wintering waterbirds in the Western Palearctic and Southwest Asia in 1987, 1988 and 1999. Results from the International Waterbird Census. Wetlands International Global Series No. 11, Wetlands International, Wageningen, The Netherlands. Musil P, Musilová Z, Fuchs R, Poláková S (2011) Long-term changes in numbers and distribution of wintering waterbirds in the Czech Republic, 1966–2008. Bird Study 58: 450–460. Musilová Z, Musil P, Zouhar J, Adam M (2018a) Changes in habitat suitability influence non-breeding distribution of waterbirds in central Europe. Ibis: 160: 582–596. Musilová Z, Musil P, Zouhar J, Adam M, Bejček V (2018b) Importance of Natura 2000 sites for wintering waterbirds: Low preference, species' distribution changes and carrying capacity of Natura 2000 could fail to protect the species. Biological Conservation 228: 79–88. Musilová Z, Musil P, Zouhar J, Bejček V, Šťastný K, Hudec K (2014) Numbers of wintering waterbirds in the Czech Republic: long-term and spatial-scale approaches to assess population size. Bird Study 61: 321–331. Musilová Z, Musil P, Zouhar J, Romportl D (2015) Long-term trends, total numbers and species richness of increasing waterbird populations at sites on the edge of their winter range: cold-weather refuge sites are more important than protected sites. J Ornithol: 1–10. Pannekoek J, Van Strien AJ (2005) TRIM 3 Manual (TRends and Indices for Monitoring Data). Statistics Netherlands, Voorburg, The Netherlands. Wetlands International (2006) Waterbird population estimates. Fourth Edition. Wetlands International, Wageningen, The Netherlands. Wetlands International (2019) Waterbird Population Estimates. Available at: wpe.wetlands.org (accessed 10 March 2019).

Gallinula chloropus (Common Moorhen)

Czechia

Winter long-term trend: Waterbird numbers were recorded in mid-January by regular citizen-science monitoring programme - the International Waterbird Census (IWC) – see Gilissen et al. 2002, Wetlands International 2006, Wetlands International 2019. Hundreds of volunteer birdwatchers conduct the mid-January counts on predetermined dates and sites each year, aiming to maximize synchrony (Gilissen et al. 2002, Musil et al. 2011, Musilová et al. 2014). The individual species trends in numbers was calculated by Trends and Indices for Monitoring data (TRIM) software (Statistics Netherlands version 3.52, Pannekoek and Van Strien, 2005). The additive slope (i.e. the change in indices from one year to the next) was used to estimate the Czech trend, see also Fouque et al. (2009), Musil et al. (2011), Musilová et al. (2015), Musilová et al. (2018 a, b). Fouque C, Guillemain M, Schricke V (2009) Trends in the numbers of Coot Fulica atra and wildfowl Anatidae wintering in France and their relationship with hunting activity at wetland sites. Wildfowl. Special Issue 2: 42–59. Gilissen N, Haanstra L, Delany S, Boere G, Hagemeijer W (2002) Numbers and distribution of wintering waterbirds in the Western Palearctic and Southwest Asia in 1987, 1988 and 1999. Results from the International Waterbird Census. Wetlands International Global Series No. 11, Wetlands International, Wageningen, The Netherlands. Musil P, Musilová Z, Fuchs R, Poláková S (2011) Long-term changes in numbers and distribution of wintering waterbirds in the Czech Republic, 1966–2008. Bird Study 58: 450–460. Musilová Z, Musil P, Zouhar J, Adam M (2018a) Changes in habitat suitability influence non-breeding distribution of waterbirds in central Europe. Ibis: 160: 582–596. Musilová Z, Musil P, Zouhar J, Adam M, Bejček V (2018b) Importance of Natura 2000 sites for wintering waterbirds: Low preference, species' distribution changes and carrying capacity of Natura 2000 could fail to protect the species. Biological Conservation 228: 79–88. Musilová Z, Musil P, Zouhar J, Bejček V, Šťastný K, Hudec K (2014) Numbers of wintering waterbirds in the Czech Republic: long-term and spatial-scale approaches to assess population size. Bird Study 61: 321–331. Musilová Z, Musil P, Zouhar J, Romportl D (2015) Long-term trends, total numbers and species richness of increasing waterbird populations at sites on the edge of their winter range: cold-weather refuge sites are more important than protected sites. J Ornithol: 1–10. Pannekoek J, Van Strien AJ (2005) TRIM 3 Manual (TRends and Indices for Monitoring Data). Statistics Netherlands, Voorburg, The Netherlands. Wetlands International (2006) Waterbird population estimates. Fourth Edition. Wetlands International, Wageningen, The Netherlands. Wetlands International (2019) Waterbird Population Estimates. Available at: wpe.wetlands.org (accessed 10 March 2019).

Denmark

Breeding population size: Charlotte M. Moshøj, Daniel Palm Eskildsen, Michael Fink Jørgensen & Thomas Vikstrøm, (2018): Overvågning af de almindelige fuglearter i Danmark 1975-2017 & Mandrup, E. 1997, Hvor mange fugle yngler i Danmark, Dansk Ornitologisk Tidsskrift, nr 3, 1997

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Breeding long-term trend: Charlotte M. Moshøj, Daniel Palm Eskildsen, Michael Fink Jørgensen & Thomas Vikstrøm, (2018): Overvågning af de almindelige fuglearter i Danmark 1975-2017

Estonia

Breeding population size: Estonian Working Group on Bird Status and Numbers

Breeding short-term trend: Estonian Working Group on Bird Status and Numbers

Breeding long-term trend: Estonian Working Group on Bird Status and Numbers

Finland

Breeding population size: BirdLife Finland 2019: Regional observation summary database of Finnish Birdwatching societies on scarce bird species. Lehikoinen, A. , Below, A., Jukarainen, A., Laaksonen, T., Lehtiniemi, T., Mikkola-Roos, M., Pessa, J., Rajasärkkä, A., Rusanen, P., Sirkiä, P., Tiainen, J. & Valkama, J. 2019: Suomen lintujen pesimäkantojen koot. – Linnut-vuosikirja 2018: 38-45.

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Georgia

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Germany

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Breeding long-term trend: no data available

Hungary

Breeding population size: KEHOP-4.3.0-15-2016-00001 project results, unpublished. National park directorates' databases http://map.mme.hu/maps/map2

Breeding short-term trend: http://www.termeszetvedelem.hu/_user/browser/File/Natura2000/BD_12_jelentes_2013_anyagai/Gallinula_chloropus.pdf National park directorates' databases http://map.mme.hu/maps/map2

Gallinula chloropus (Common Moorhen)

Hungary

Breeding long-term trend: Magyar G., Hadarics T., Waliczky Z., Schmidt A., Nagy T. & Bankovics A. (1998): Magyarország madarainak névjegyzéke. Madártani Intézet, Budapest, 56-57 p. Ecsedi Z. (szerk.) (2004): A Hortobágy madárvilága. Hortobágy Természetvédelmi Egyesület, Winter Fair, Balmazújváros - Szeged. 2004. 250-251 p. BirdLife International (2004) Birds in Europe: population estimates, trends and conservation status. Cambridge, UK: BirdLife International. (BirdLife Conservation Series No.12.), 87 p. MME Nomenclator Bizottság (2008): Magyarország madarainak névjegyzéke. Nomenclator avium Hungariae. Magyar Madártani és Természetvédelmi Egyesület, Budapest. 94 p. KEHOP-4.3.0-15-2016-00001 project results, unpublished. National park directorates' databases http://map.mme.hu/maps/map2 National common bird monitoring scheme (MMM) database.

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Latvia

Breeding population size: Unpublished data for European Breeding Bird Atlas (2013-2017); Expert: Andris Dekants, andris.dekants@lob.lv

Breeding short-term trend: Unpublished data for European Breeding Bird Atlas (2013-2017); Expert: Andris Dekants, andris.dekants@lob.lv

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Breeding long-term trend: Experts' estimate

North Macedonia

Breeding population size: unpublished data from the European Breeding Bird Atlas 2

Breeding short-term trend: unpublished data from the European Breeding Bird Atlas 2

Malta

Breeding population size: 'Malta Breeding Bird Atlas 2018' in preparation, (included a complete breeding bird population census in Malta together with a wintering bird census in 2017-2018

Gallinula chloropus (Common Moorhen)

Malta

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Moldova

Breeding population size: Moldova`s contribution for the second European Breeding Bird Atlas (EBBA2)

Breeding short-term trend: SPPN expert opinion (sppn.moldova@gmail.com)

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Netherlands

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Breeding long-term trend: NEM (Sovon, RWS, CBS, provincies)

Norway

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Poland

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Breeding long-term trend: Chief Inspectorate of Environmental Protection & Polish Society for the Protection of Birds (OTOP) / BirdLife Poland

Portugal

Breeding population size: eBird (2019). eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available: http://www.ebird.org/portugal/home. (Accessed: October 22, 2018).

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PT: Azores

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PT: Madeira

Breeding population size: Equipa Atlas, 2013 - http://www.atlasdasaves.netmadeira.com/index.php?option=com_content&view=article&id=82&Itemid=80&lang=pt 1º Atlas das Aves Invernantes e Migradoras de Portugal https://drive.google.com/drive/folders/1MJWLVHRhU9A8IgbvY2DhPiFm_Tp1hD25

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Romania

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Breeding short-term trend: Ornitodata (Romanian Ornithological Society) Database, OpenBirdMaps (Milvus Group) Database, Rombird (Romanian Rarity Commission) Database

Breeding long-term trend: Ornitodata (Romanian Ornithological Society) Database, OpenBirdMaps (Milvus Group) Database, Rombird (Romanian Rarity Commission) Database

Russia

Breeding population size: Voltzit & Kalyakin 2013-2019; Database of the project on Atlas of breeding birds of European Russia

Serbia

Breeding population size: EBBA2 project; Puzović, S., Radišić, D., Ružić, M., Rajković, D., Radaković, M., Pantović, U., Janković, M., Stojnić, N., Šćiban, M., Tucakov, M., Gergelj, J., Sekulić, G., Agošton, A. & Raković, M. 2015. Birds of Serbia: Breeding Population Estimates and Trends for the Period 2008-2013. Bird protection and study society of Serbia, and Department of Biology and Ecology, Faculty of Sciences, University of Novi Sad, Novi Sad.
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Breeding long-term trend: Información proporcionada por las Comunidades Autónomas Martí, R. & del Moral, J.C. (Eds.) (2003). Atlas de las Aves Reproductoras de España. Dirección General de Conservación de la Naturaleza- Sociedad Española de Ornitología. Madrid, 733 pp. (https://www.miteco.gob.es/es/biodiversidad/temas/inventarios-nacionales/inventario-especies-terrestres/inventario-nacional-de-biodiversidad/ieet_aves_atlas.aspx)

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