



THE IUCN RED LIST  
OF THREATENED SPECIES™



## ***Rallus aquaticus* (Western Water Rail)**

### **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**

Reported national population sizes and trends  
Trend maps of reported national population data  
Sources of reported national population data  
Species factsheet bibliography

#### **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](mailto:science@birdlife.org).

*Rallus aquaticus* (Western Water Rail)

**Table 1.** Reported national breeding population size and trends in Europe<sup>1</sup>.

Country (or territory) <sup>2</sup>	Population estimate				Short-term population trend <sup>5</sup>				Long-term population trend <sup>5</sup>				Subspecific population (where relevant)
	Size (pairs) <sup>3</sup>	Europe (%)	Year(s)	Method <sup>4</sup>	Direction <sup>6</sup>	Magnitude (%) <sup>7</sup>	Year(s)	Method <sup>4</sup>	Direction <sup>6</sup>	Magnitude (%) <sup>7</sup>	Year(s)	Method <sup>4</sup>	
Albania	80–180	<1	2007-2018	complete	-	-42 to -20	2007-2018	complete	-	-42 to -20	1980-2018	expert	
Armenia	380–540	<1	2013-2018	complete	0		2007-2018		?		2003-2018	deficient	
Austria	1500–2800	<1	2013-2018	complete	?		2007-2018	expert	-	-80 to -50	1981-2018	partial	
Azerbaijan	1000–10000	1	1996-2019	expert	0		2013-2019	expert	0		1980-2019	expert	
Belarus	11000–14000	6	2010-2018	partial	0	-10 to 10	2012-2019	expert	0	0	1980-2019	expert	
Belgium	730–1300	<1	2013-2018	partial	0	-37 to 5	2008-2018	partial	+	26 to 109	1973-2018	partial	
Bosnia & HG	1000–1500	<1	2015-2018	complete	?	-10 to 10	2007-2018	complete	?		1980-2018	deficient	
Bulgaria	2000–4000	1	2005-2018	partial	0	0	2001-2018	expert	0	0	1980-2018	expert	
Croatia	5000–8000	3	2013-2013	expert	?		2007-2018	deficient	?		1980-2018	expert	
Czechia	800–1600	<1	2014-2017	complete	?		2007-2018	deficient	?		1980-2018	deficient	
Denmark	1600–1700	<1	2017	partial	0	-36 to 90	2006-2017	complete	0	-39 to 51	1996-2017	complete	
Estonia	800–1500	<1	2013-2017	partial	0	29 to 48	2006-2017	partial	+	29 to 48	1980-2017	partial	
Finland	700–1300	<1	2013-2018	partial	+		2007-2018	partial	+		1980-2018	partial	
France	4000–7000	2	2013-2018	partial	?		2007-2017	deficient	-		1980-2018	expert	
Georgia	800–8100	1	2013-2017	partial	?			deficient	?				
Germany	13500–20000	8	2011-2016	expert	0		2004-2016	expert	+		1980-2016	expert	
Greece	1000–3000	<1	2015	partial	0		2007-2018	partial	?		1980-2018	deficient	
Hungary	5000–7000	3	2014-2018	expert	0		2007-2018	expert	?		1990-2018	deficient	
Iceland	0	<1	2018	partial	?		2006-2018	partial	?		1980-2018	partial	
Rep. Ireland	980–2000	<1	2008-2011	partial	?		2000-2011	deficient	?		1980-2011	deficient	
Italy	3000–6000	2	2013-2018	expert	?		2007-2018	deficient	0		1993-2018	expert	
Kosovo	15–30	<1	2007-2019	partial	-		2007-2018	partial	-		1990-2018	partial	
Latvia	870–1800	<1	2013-2017	partial	?		2012-2017	expert	+	41 to 48	1991-2017	partial	
Lithuania	2000–2500	1	2013-2018	partial	0		2013-2018	partial	0		1980-2018	partial	
Luxembourg	17–22	<1	2013-2018	complete	0	0 to 10	2007-2018	complete	0	0 to 10	1980-2018	partial	
North Macedonia	100–500	<1	2014-2019	expert	0		2007-2018	expert	?		1980-2019		
Moldova	100–150	<1	2014-2017	partial	0		2007-2018	partial	0		1990-2018	expert	
Montenegro	500–1500	<1	2002-2012	expert	0		2007-2018	expert	?				
Netherlands	2800–4700	2	2013-2015	complete	+	31 to 58	2006-2017	complete	0	-1 to 59	1984-2017	complete	
Norway	70–170	<1	2013-2018	partial	0		2013-2018	expert	0		1980-2018	partial	
Poland	10000–20000	6	2013-2018	expert	?	-4 to 197	2007-2018	complete	?		1980-2018	deficient	
Portugal	50–250	<1	2013-2018	partial	?		2007-2018	partial	?		1980-2018	deficient	

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**Table 1.** Reported national breeding population size and trends in Europe<sup>1</sup>.

Country (or territory) <sup>2</sup>	Population estimate				Short-term population trend <sup>5</sup>				Long-term population trend <sup>5</sup>				Subspecific population (where relevant)
	Size (pairs) <sup>3</sup>	Europe (%)	Year(s)	Method <sup>4</sup>	Direction <sup>6</sup>	Magnitude (%) <sup>7</sup>	Year(s)	Method <sup>4</sup>	Direction <sup>6</sup>	Magnitude (%) <sup>7</sup>	Year(s)	Method <sup>4</sup>	
Romania	9300–21200	6	2013-2015	complete	?		2007-2018	deficient	?		1980-2018	deficient	
Russia	15000–30000	10	2008-2018	partial	?		2008-2018	deficient	?		1980-2018	deficient	
Serbia	2100–2800	1	2013-2018	partial	0	0	2007-2018	complete	0	0	1980-2018	complete	
Slovakia	300–600	<1	2013-2018	partial	0		2007-2018	partial	0		1980-2018	partial	
Slovenia	200–300	<1	2013-2018	partial	?		2007-2013	deficient	?		1980-2018	deficient	
Spain	11400–68800	13	1998-2002	partial	?		2007-2018	expert	+		1980-2018	complete	
Sweden	2900–6500	2	2013-2018	partial	?	-50 to 50	2007-2018	expert	?	-55 to 665	1980-2018	partial	
Switzerland	500–800	<1	2013–2016	complete	0	-17 to 122	2007-2018	complete	0	-24 to 19	1990-2018	complete	
Turkey	8000–16000	5	2002-2012	partial	?		2008-2019	deficient	?		1980-2013	deficient	
Ukraine	35000–45000	18	2015-2017	partial	?		2007-2019	deficient	F		1980-2018	deficient	
United Kingdom	1400–1500	<1	2012-2016	complete	?		2004-2018	deficient	0		1988-2011	deficient	
EU28	81900–196000	56											
<b>Europe</b>	<b>157000–327000</b>	<b>100</b>											

<sup>1</sup> 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>.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> 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.

<sup>5</sup> 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.

<sup>6</sup> Trend directions are reported as: increasing (+); decreasing (-); stable (0); fluctuating (F); or unknown (?).

<sup>7</sup> Trend magnitudes are rounded to the nearest integer.

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**Table 2.** Reported national wintering population sizes and trends in Europe<sup>1</sup>. 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) <sup>2</sup>	Population estimate				Short-term population trend <sup>5</sup>				Long-term population trend <sup>5</sup>				Subspecific population (where relevant)
	Size (individuals) <sup>3</sup>	Europe (%)	Year(s)	Method <sup>4</sup>	Direction <sup>6</sup>	Magnitude (%) <sup>7</sup>	Year(s)	Method <sup>4</sup>	Direction <sup>6</sup>	Magnitude (%) <sup>7</sup>	Year(s)	Method <sup>4</sup>	
Albania	15–80	1	2007-2018	complete	+	0 to 12	2007-2018	complete	0	0	1980-2018	complete	
Azerbaijan	1000–10000	80	1996-2019	expert	F		2010-2019	expert	?		1980-2019	expert	
Bosnia & HG	50–200	2	2015-2018	complete	?		2007-2018	deficient	?		1980-2018	deficient	
DK: Faroe Is	5–100	<1	2018		?				?				
Iceland		<1	2018	expert	0		2002-2014	partial	0		1980-2018	partial	
Malta	35–50	1	2017-2018	expert	?		2008-2018	expert	?		1980-2018	expert	
Serbia	100–1000	8	2013-2018	partial	?	-10 to 10	2013-2018	expert	+	10 to 29	1980-2018	expert	
Ukraine	150–400	6	2014-2017	partial	0		2007-2018	partial	0		1980-2018	partial	
EU28	35–50	1											
<b>Europe</b>	<b>1300–11900</b>	<b>100</b>											

<sup>1</sup> 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>.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> 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.

<sup>5</sup> 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.

<sup>6</sup> Trend directions are reported as: increasing (+); decreasing (-); stable (0); fluctuating (F); or unknown (?).

<sup>7</sup> 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

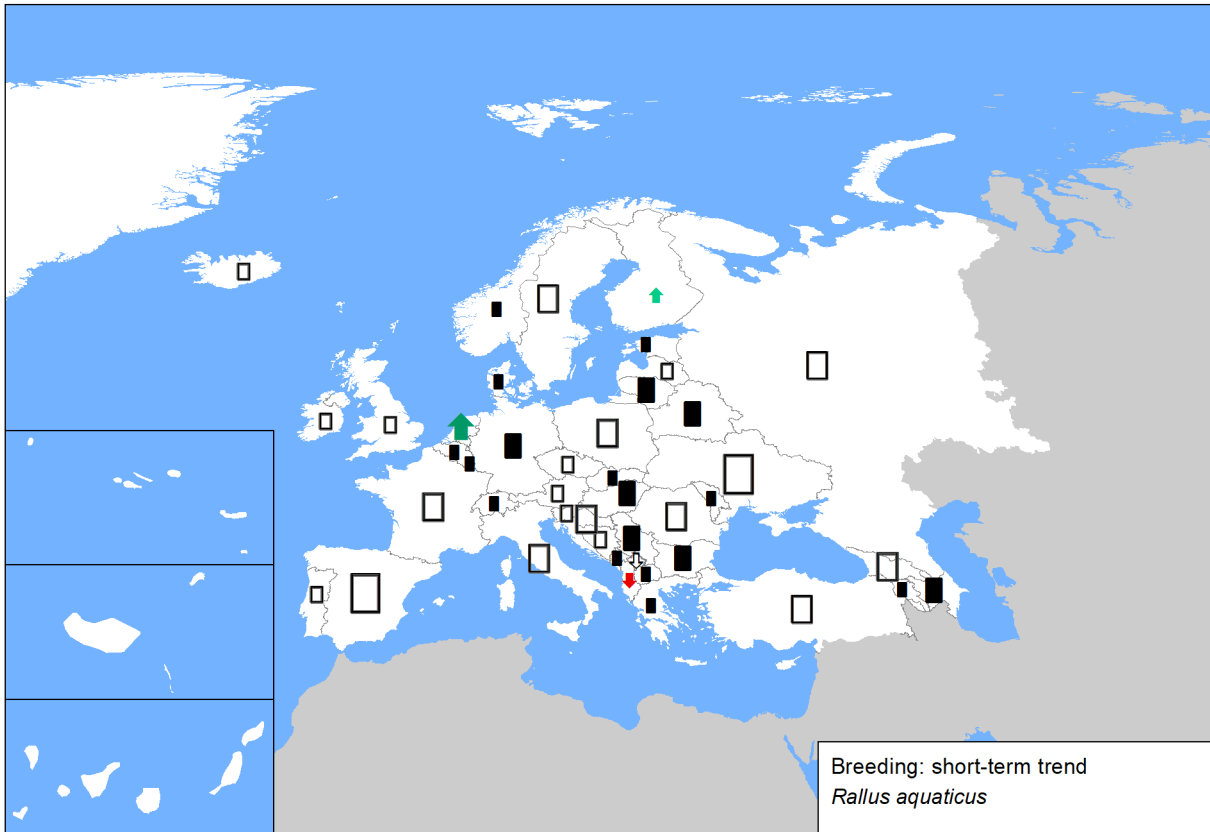
- |   |                                 |
|---|---------------------------------|
| ↑ Large increase (≥50%)                 | ↓ Large decrease (≥50%)         |
| ↑ Moderate increase (20–49%)            | ↓ Moderate decrease (20–49%)    |
| ↑ Small increase (<20%)                 | ↓ Small decrease (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

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.

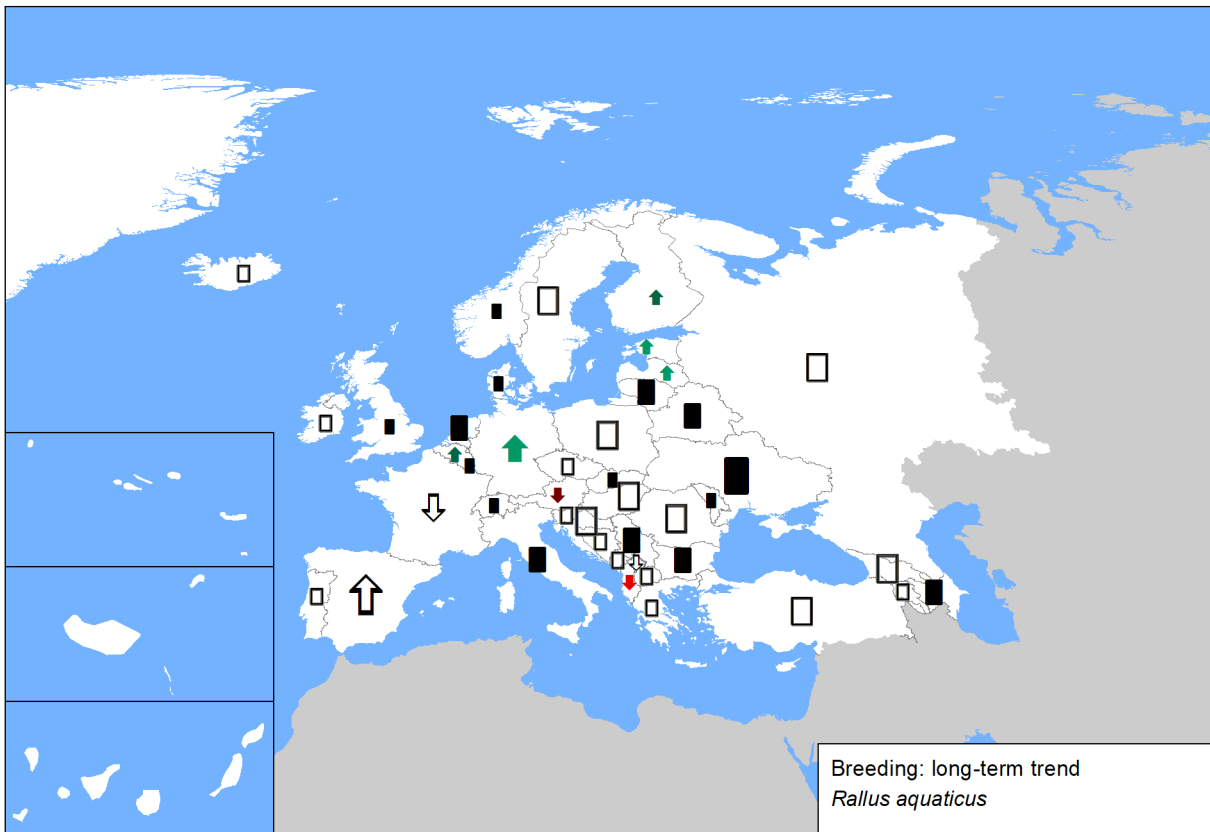
- ↑ Large: ≥10% of the European population
- ↑ Medium: 1–9% of the European population
- ↑ Small: <1% of the European population

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.

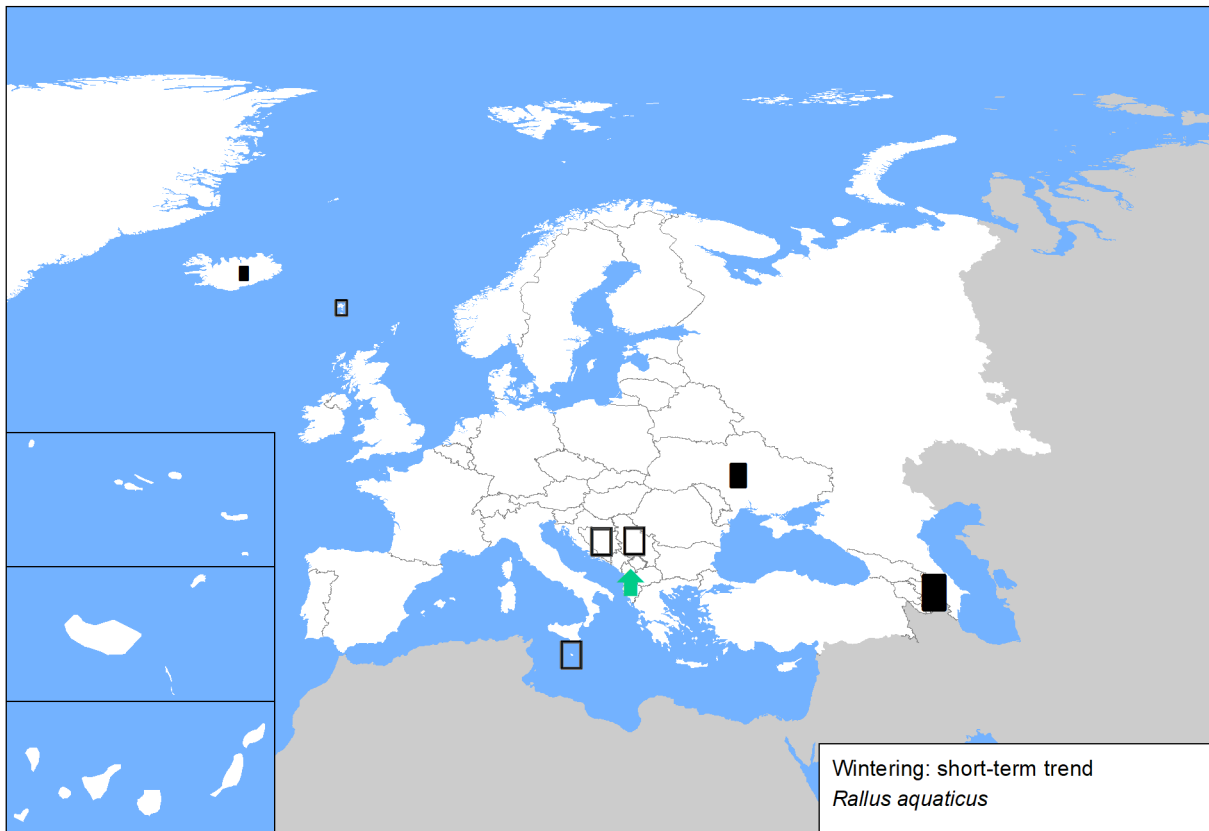
**Figure 1.** Breeding population sizes and short-term trends across Europe.



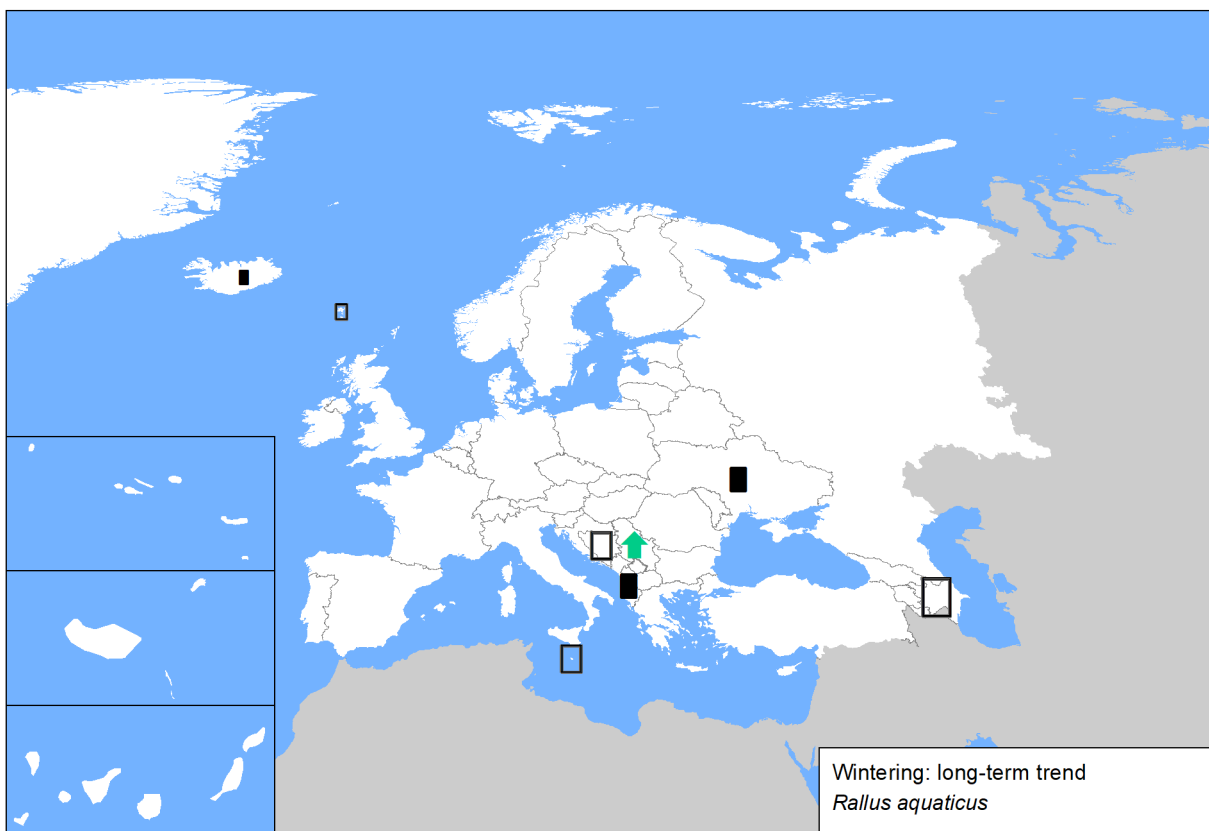
**Figure 2.** Breeding population sizes and long-term trends across Europe.



**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.



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### Sources

#### Albania

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

#### Armenia

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

#### Austria

<b>Breeding population size:</b> M. Dvorak et al. Unpublished data; Dvorak & Nemeth (2014); BirdLife Austria, unpublished data from <a href="http://www.ornitho.at">www.ornitho.at</a>
<b>Breeding short-term trend:</b> M. Dvorak et al. Unpublished data
<b>Breeding long-term trend:</b> Dvorak, Ranner & Berg 1993 (Atlas of Austrian Breeding Birds); M. Dvorak et al. Unpublished data

#### Azerbaijan

<b>Breeding population size:</b> BirdLife International 2004
<b>Breeding short-term trend:</b> AOS data base
<b>Breeding long-term trend:</b> AOS Data Base
<b>Winter population size:</b> AOS data base
<b>Winter short-term trend:</b> AOS Data Base
<b>Winter long-term trend:</b> AOS Data Base

#### Belarus

<b>Breeding population size:</b> 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"
<b>Breeding long-term trend:</b> Nikiforov M.E., Kozulin A.V., eds. Belarussian birds at the beginning of XXI century: status, numbers, distribution. - 1997. - Minsk. - 187 p.

#### Belgium

<b>Breeding population size:</b> 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.
<b>Breeding short-term trend:</b> 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.
<b>Breeding long-term trend:</b> 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

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

#### Bulgaria

<b>Breeding population size:</b> IANKOV, P. (ed.) 2007. Atlas of Breeding Birds in Bulgaria. BSPB Conservation Series, Book 10. Sofia. 679 pp.; National Art. 12 reporting database 2013-2018;
<b>Breeding short-term trend:</b> IANKOV, P. (ed.) 2007. Atlas of Breeding Birds in Bulgaria. BSPB Conservation Series, Book 10. Sofia. 679 pp.; National Art. 12 reporting database 2013-2018;
<b>Breeding long-term trend:</b> IANKOV, P. (ed.) 2007. Atlas of Breeding Birds in Bulgaria. BSPB Conservation Series, Book 10. Sofia. 679 pp.

#### Croatia

<b>Breeding population size:</b> Kralj i sur. (2013): Atlas selidbe ptica Hrvatske. ZZO HAZU, Zagreb.
<b>Breeding short-term trend:</b> no data available

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### Croatia

**Breeding long-term trend:** no data available

### Czechia

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

**Breeding short-term trend:** expert opinion

**Breeding long-term trend:** expert opinion

### 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

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

**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

### DK: Faroe Is

### 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. Lehtikoinen, 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.

**Breeding short-term trend:** BirdLife Finland 2019: Regional observation summary database of Finnish Birdwatching societies on scarce bird species. Lehtiniemi, T. 2019: Harvalukuiset lintulajit Suomessa 2017-2018. . – Linnut-vuosikirja 2018: 26-37.

**Breeding long-term trend:** BirdLife Finland 2019: Regional observation summary database of Finnish Birdwatching societies on scarce bird species. Lehtiniemi, T. 2019: Harvalukuiset lintulajit Suomessa 2017-2018. . – Linnut-vuosikirja 2018: 26-37.

### France

**Breeding population size:** Issa N. & Muller Y. 2015. Atlas des oiseaux nicheurs de France métropolitaine. , LPO/SEOF/MNHN/Delachaux et Niestlé, Paris

### Georgia

**Breeding population size:** EBBA Georgia, prepared by Sabuko-Society for nature conservation, Ilia state university, NGO "psovi".

### Germany

**Breeding population size:** Gerlach et al. (in Vorb.): Vögel in Deutschland – 2019. Dachverband Deutscher Avifaunisten, Bundesamt für Naturschutz und Länderarbeitsgemeinschaft der Vogelschutzwarten, Münster.

**Breeding short-term trend:** Gerlach et al. (in Vorb.): Vögel in Deutschland – 2019. Dachverband Deutscher Avifaunisten, Bundesamt für Naturschutz und Länderarbeitsgemeinschaft der Vogelschutzwarten, Münster.

**Breeding long-term trend:** Gerlach et al. (in Vorb.): Vögel in Deutschland – 2019. Dachverband Deutscher Avifaunisten, Bundesamt für Naturschutz und Länderarbeitsgemeinschaft der Vogelschutzwarten, Münster.

### Greece

**Breeding population size:** BirdLife International (2004) Birds in Europe : Population estimates, trends and conservation status, Cambridge, UK: Birdlife International (Birdlife Conservation Series No. 12).

**Breeding short-term trend:** BirdLife International (2004) Birds in Europe : Population estimates, trends and conservation status, Cambridge, UK: Birdlife International (Birdlife Conservation Series No. 12).

**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.termesztvedelem.hu/\\_user/browser/File/Natura2000/BD\\_12\\_jelentes\\_2013\\_anyagai/Rallus\\_aquaticus.pdf](http://www.termesztvedelem.hu/_user/browser/File/Natura2000/BD_12_jelentes_2013_anyagai/Rallus_aquaticus.pdf) National park directorates' databases <http://map.mme.hu/maps/map2>

**Breeding long-term trend:** KEHOP-4.3.0-15-2016-00001 project results, unpublished. National park directorates' databases <http://map.mme.hu/maps/map2>

### Iceland

**Breeding population size:** Icelandic Institute of Natural History 2018. Red list of Icelandic Birds. WaterRail. <https://www.ni.is/node/27317> ; Icelandic Institute of Natural History, unpubl.data.

**Breeding short-term trend:** Icelandic Institute of Natural History 2018. Red list of Icelandic Birds. WaterRail. <https://www.ni.is/node/27317> ; Icelandic Institute of Natural History, unpubl.data.

**Breeding long-term trend:** Icelandic Institute of Natural History 2018. Red list of Icelandic Birds. WaterRail. <https://www.ni.is/node/27317> ; Icelandic Institute of Natural History, unpubl.data.

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### Iceland

<b>Winter population size:</b> Icelandic Institute of Natural History. Mid-winter bird counts, <a href="https://www.ni.is/greinar/vetrarfuglatalningar-nidurstodur">https://www.ni.is/greinar/vetrarfuglatalningar-nidurstodur</a> ; Icelandic Institute of Natural History, unpubl.data.
<b>Winter short-term trend:</b> Icelandic Institute of Natural History. Mid-winter bird counts, <a href="https://www.ni.is/greinar/vetrarfuglatalningar-nidurstodur">https://www.ni.is/greinar/vetrarfuglatalningar-nidurstodur</a> ; Icelandic Institute of Natural History, unpubl.data; Rare birds in Iceland, annual report in Bliki.
<b>Winter long-term trend:</b> Icelandic Institute of Natural History. Mid-winter bird counts, <a href="https://www.ni.is/greinar/vetrarfuglatalningar-nidurstodur">https://www.ni.is/greinar/vetrarfuglatalningar-nidurstodur</a> ; Icelandic Institute of Natural History, unpubl.data.

### Republic of Ireland

<b>Breeding population size:</b> Balmer, D., Gillings, S., Caffrey, B., Swan, B., Downie, I. & Fuller, R. (2013) Bird Atlas 2007-11 The breeding and wintering birds of Britain and Ireland. British Trust for Ornithology. Gibbons D.W., Reid J.B. & Chapman R.A. (1993) The New Atlas of Breeding Birds in Britain and Ireland 1988-1991. Poyser, London.
<b>Breeding short-term trend:</b> Balmer, D., Gillings, S., Caffrey, B., Swan, B., Downie, I. & Fuller, R. (2013) Bird Atlas 2007-11 The breeding and wintering birds of Britain and Ireland. British Trust for Ornithology. Gibbons D.W., Reid J.B. & Chapman R.A. (1993) The New Atlas of Breeding Birds in Britain and Ireland 1988-1991. Poyser, London.
<b>Breeding long-term trend:</b> Balmer, D., Gillings, S., Caffrey, B., Swan, B., Downie, I. & Fuller, R. (2013) Bird Atlas 2007-11 The breeding and wintering birds of Britain and Ireland. British Trust for Ornithology. Sharrock, J.T.R. (1976) The Atlas of Breeding Birds in Britain and Ireland. T. & AD Poyser.

### Italy

<b>Breeding population size:</b> Brichetti P & Fracasso G. 2004. Ornitologia italiana. Vol.2 (Tetraonidae-Scolopacidae). Alberto Perdisa Editore, Bologna
<b>Breeding short-term trend:</b> No recent data available
<b>Breeding long-term trend:</b> Brichetti P., Meschini E., 1993. Stima delle popolazioni di uccelli nidificanti. In Meschini E., Frugis S., 1993. Atlante degli uccelli nidificanti in Italia. Suppl. Ric. Biol. Selvaggina, 20, 1-345.

### Kosovo

<b>Breeding population size:</b> Qenan Maxhuni
<b>Breeding short-term trend:</b> Qenan Maxhuni
<b>Breeding long-term trend:</b> Puzovic, S. et al. (2004): Birds of Serbia and Montenegro – Size of nesting populations. I trends: 1990-2002. Ciconia 12

### Latvia

<b>Breeding population size:</b> Unpublished data for European Breeding Bird Atlas (2013-2017); Expert: Andris Dekants, <a href="mailto:andris.dekants@lob.lv">andris.dekants@lob.lv</a>
<b>Breeding short-term trend:</b> Unpublished data for European Breeding Bird Atlas (2013-2017); Expert: Andris Dekants, <a href="mailto:andris.dekants@lob.lv">andris.dekants@lob.lv</a>
<b>Breeding long-term trend:</b> Strazds M., Priednieks J., Vaverins G. 1994. [Size of Latvian bird populations.] (in Latvian) In: Putni dabā, 4: 3–18 Unpublished data for European Breeding Bird Atlas (2013-2017); Expert: Andris Dekants, <a href="mailto:andris.dekants@lob.lv">andris.dekants@lob.lv</a>

### Lithuania

<b>Breeding population size:</b> Expert working group of the Lithuanian Ornithological Society ( <a href="mailto:lod@birdlife.lt">lod@birdlife.lt</a> ) 2015-2018. Lietuvos perinčių paukščių atlaso duomenų bazė (Lithuanian Breeding Birds Atlas Database). Vilnius. Ministry of Environment of the Republic of Lithuania. 2012. Status and trends of bird populations (Article 12, Birds Directive 2009/147/EC) National Summary 2008-2012 Lithuania.
<b>Breeding short-term trend:</b> Expert working group of the Lithuanian Ornithological Society ( <a href="mailto:lod@birdlife.lt">lod@birdlife.lt</a> ) 2015-2018. Lietuvos perinčių paukščių atlaso duomenų bazė (Lithuanian Breeding Birds Atlas Database). Vilnius. Ministry of Environment of the Republic of Lithuania. 2012. Status and trends of bird populations (Article 12, Birds Directive 2009/147/EC) National Summary 2008-2012 Lithuania.
<b>Breeding long-term trend:</b> Logminas, V. (ed.). 1991. Lietuvos fauna: paukščiai. Vilnius: „Mokslas“. Kurlavičius, P. (ed.) 2006. Lietuvos perinčių paukščių atlasas. Kaunas: „Lututė“. Expert working group of the Lithuanian Ornithological Society ( <a href="mailto:lod@birdlife.lt">lod@birdlife.lt</a> ) BirdLife International/European Bird Census Council. 2000. European bird populations: estimates and trends. Cambridge, UK: BirdLife International (BirdLife Conservation Series No. 10). Raudonikis L. 2004. Important Bird Areas of the European Union Importance in Lithuania. Lithuanian Ornithological Society & Institute of Ecology of Vilnius University. Lutute, Vilnius. Jusys, V., Karalius, S., Raudonikis, L. 2012. Lietuvos paukščių pažinimo vadovas. Kaunas: „Lututė“. Ministry of Environment of the Republic of Lithuania. 2012. Status and trends of bird populations (Article 12, Birds Directive 2009/147/EC) National Summary 2008-2012 Lithuania. Expert working group of the Lithuanian Ornithological Society ( <a href="mailto:lod@birdlife.lt">lod@birdlife.lt</a> ) 2015-2018. Lietuvos perinčių paukščių atlaso duomenų bazė (Lithuanian Breeding Birds Atlas Database). Vilnius.

### Luxembourg

<b>Breeding population size:</b> Bastian M. (2013): Die Brutverbreitung 2012 der Wasserralle ( <i>Rallus aquaticus</i> ) in Luxemburg. Regulus Wissenschaftliche Berichte, 28: 9-16; Lorgé P., E. Melchior (2016): Die Vögel Luxemburgs. Natur&environment Luxembourg. ISBN: 978-2-919920-01-3; Ornitho.lu (2018): online database natur&environment asbl & Dachverband Deutscher Avifaunisten (DDA) e.V.; Luxembourg Recorder (2018): database Musée national d'histoire naturelle; Luxembourg
<b>Breeding short-term trend:</b> Bastian M. (2013): Die Brutverbreitung 2012 der Wasserralle ( <i>Rallus aquaticus</i> ) in Luxemburg. Regulus Wissenschaftliche Berichte, 28: 9-16; Lorgé P., E. Melchior (2016): Die Vögel Luxemburgs. Natur&environment Luxembourg. ISBN: 978-2-919920-01-3; Ornitho.lu (2018): online database natur&environment asbl & Dachverband Deutscher Avifaunisten (DDA) e.V.; Luxembourg Recorder (2018): database Musée national d'histoire naturelle; Luxembourg; LUXOR (2018): natur&environment – Bird-database, Luxembourg
<b>Breeding long-term trend:</b> Melchior E., E. Mentgen, R. Peltzer, R. Schmitt, J. Weiss (1987): Atlas der Brutvögel Luxemburgs. Lëtzebuurger Natur- a Vulleschutzliga. Kremer-Muller & Cie, Foetz, Luxembourg; Bastian M. (2013): Die Brutverbreitung 2012 der Wasserralle ( <i>Rallus aquaticus</i> ) in Luxemburg. Regulus Wissenschaftliche Berichte, 28: 9-16; Lorgé P., E. Melchior (2016): Die Vögel Luxemburgs. Natur&environment Luxembourg. ISBN: 978-2-919920-01-3; Ornitho.lu (2018): online database natur&environment asbl & Dachverband Deutscher Avifaunisten (DDA) e.V.; Luxembourg Recorder (2018): database Musée national d'histoire naturelle; Luxembourg

### North Macedonia

<b>Breeding population size:</b> unpublished data from the European Breeding Bird Atlas 2
<b>Breeding short-term trend:</b> unpublished data from the European Breeding Bird Atlas 2

### Malta

<b>Winter population size:</b> Birdlife Malta (Unpublished data)
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## *Rallus aquaticus* (Western Water Rail)

### Malta

**Winter short-term trend:** BirdLife International (2017) European birds of conservation concern: populations, trends and national responsibilities Cambridge, UK: BirdLife International

**Winter long-term trend:** BirdLife International (2017) European birds of conservation concern: populations, trends and national responsibilities Cambridge, UK: BirdLife International

### 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)

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

### Montenegro

**Breeding population size:** Puzovic, S., Simic, D., Saveljić, D., Gergelj, J., Tucakov, M., Stojnic, N., Hulo, I., Ham, I., Vizi, O., Sciban, M., Ruzic, M., Vucanovic, M., Jovanovic, T. (2004): Birds of Serbia and Montenegro – Size of nesting populations. I trends: 1990-2002. Ciconia 12,

### Netherlands

**Breeding population size:** Sovon Bird atlas (Sovon 2018)

**Breeding short-term trend:** NEM (Sovon, RWS, CBS, provinces)

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

### Norway

**Breeding population size:** Shimmings P. & Øien, I.J. 2015. Bestandsestimater og trender for norske hekkefugler. NOF-rapport 2015-2.

**Breeding short-term trend:** Shimmings, P. & Øien, I.J. 2015. Bestandsestimater for norske hekkefugler. NOF Rapport 2-2015. 268 pp.

**Breeding long-term trend:** Shimmings, P. & Øien, I.J. 2015. Bestandsestimater for norske hekkefugler. NOF Rapport 2-2015. 268 pp.

### Poland

**Breeding population size:** Chodkiewicz T., Kuczyński L., Sikora A., Chylarecki P., Neubauer G., Ławicki Ł., Stawarczyk T. 2015. Ocena liczebności populacji ptaków lęgowych w Polsce w latach 2008–2012. Ornis Polonica 56: 149-189; expert assessment

**Breeding short-term trend:** State Environmental Monitoring / Chief Inspectorate of Environmental Protection (survey: MPM)

**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).

**Breeding short-term trend:** eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available: <http://www.ebird.org/po>

### Romania

**Breeding population size:** Romanian Common Bird Monitoring Programme, Breeding Waterbird Monitoring Programme, Ornitodata (Romanian Ornithological Society) Database, OpenBirdMaps (Milvus Group) Database

**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.

**Breeding short-term trend:** 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.

**Breeding long-term trend:** 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.

**Winter population size:** IWC database

**Winter short-term trend:** IWC database

**Winter long-term trend:** IWC database; Bioras database <http://www.bioras.petnica.rs/home.php>

### Slovakia

**Breeding population size:** Coordinatory group for reporting 2019. Danko Štefan, Darolová Alžbeta, Krištín Anton: Rozšírenie vtákov na Slovensku. VEDA, vyd. SAV Bratislava, 2002.

**Breeding short-term trend:** Coordinatory group for reporting 2019, AVES-Symfony Database 2013-2018, KIMS Database 2013-2018. Danko Štefan, Darolová Alžbeta, Krištín Anton: Rozšírenie vtákov na Slovensku. VEDA, vyd. SAV Bratislava, 2002.

## *Rallus aquaticus* (Western Water Rail)

### Slovakia

**Breeding long-term trend:** Coordinatory group for reporting 2019, AVES-Symfony Database 2013-2018, KIMS Database 2013-2018. Danko Štefan, Darolová Alžbeta, Krištín Anton: Rozšírenie vtákov na Slovensku. VEDA, vyd. SAV Bratislava, 2002.

### Slovenia

**Breeding population size:** Mihelič T., Kmecl P., Denac K., Koce U., Vrezec A., Denac D. (eds.) (2019): Atlas ptic Slovenije. Popis gnezdičk 2002–2017. – DOPPS, Ljubljana. Kmecl P., Denac K., Ploj A., Gamser M. (2019): Poročilo popisa ptic na Cerknškem jezeru v letu 2018. Projekt LIFE Stržen (LIFE16NAT/SI/000708). DOPPS, Ljubljana.

**Breeding short-term trend:** Denac K., Mihelič T., Božič L., Kmecl P., Jančar T., Figelj J., Rubinič B. (2011): Strokovni predlog za revizijo posebnih območij varstva (SPA) z uporabo najnovejših kriterijev za določitev mednarodno pomembnih območij za ptice (IBA). Končno poročilo (dopolnjena verzija). – DOPPS, Ljubljana. Mihelič T., Kmecl P., Denac K., Koce U., Vrezec A., Denac D. (eds.) (2019): Atlas ptic Slovenije. Popis gnezdičk 2002–2017. – DOPPS, Ljubljana.

**Breeding long-term trend:** Birdlife International (2004): Birds in Europe: population estimates, trends and conservation status. BirdLife Conservation Series No. 12. – Birdlife International, Cambridge. Bordjan D., Božič L. (2009): Pojavljanje vodnih ptic in ujed na območju vodnega zadrževalnika Medvedce (Dravsko polje, SV Slovenija) v obdobju 2002–2008. – Acrocephalus 30 (141/142/143): 55–163. Denac, K., T. Mihelič, L. Božič, P. Kmecl, T. Jančar, J. Figelj & B. Rubinič (2011): Strokovni predlog za revizijo posebnih območij varstva (SPA) z uporabo najnovejših kriterijev za določitev mednarodno pomembnih območij za ptice (IBA). Končno poročilo (dopolnjena verzija). Naročnik: Ministrstvo za okolje in prostor. DOPPS – BirdLife, Ljubljana. Geister I. (1995): Ornitološki atlas Slovenije. Razširjenost gnezdičk. – DZS, Ljubljana. Mihelič T., Kmecl P., Denac K., Koce U., Vrezec A., Denac D. (eds.) (2019): Atlas ptic Slovenije. Popis gnezdičk 2002–2017. – DOPPS, Ljubljana.

### Spain

**Breeding population size:** 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](https://www.miteco.gob.es/es/biodiversidad/temas/inventarios-nacionales/inventario-especies-terrestres/inventario-nacional-de-biodiversidad/ieet_aves_atlas.aspx))

**Breeding short-term trend:** Información proporcionada por las Comunidades Autónomas

**Breeding long-term trend:** Birdlife International/European Bird Census Council (2000) European bird populations: estimates and trends. Cambridge, UK: Birdlife International (Birdlife Conservation Series No. 10) Hagemeijer, E.J. & Blair, M.J. (Eds.) (1997). The EBCC Atlas of European Breeding birds: Their distribution and abundance. T & A D Poyser, London.

### Sweden

**Breeding population size:** Ottosson, U., Ottvall, R., Elmberg, J., Green, M., Gustafsson, R., Haas, F., Holmqvist, N., Lindström, Å., Nilsson, L., Svensson, M., Svensson, S. & Tjernberg, M. 2012. Fåglarna i Sverige – antal och förekomst. SOF, Halmstad. Swedish Bird Survey. BirdLife Sverige, Annual Bird reports.

**Breeding short-term trend:** Svensk fågeltaxering - Swedish Bird Survey

**Breeding long-term trend:** Svensk fågeltaxering - Swedish Bird Survey

### Switzerland

**Breeding population size:** Knaus, P., S. Antoniazza, S. Wechsler, J. Guélat, M. Kéry, N. Strebel & T. Sattler (2018): Swiss Breeding Bird Atlas 2013–2016. Distribution and population trends of birds in Switzerland and Liechtenstein. Swiss Ornithological Institute, Sempach.

**Breeding short-term trend:** <https://www.vogelwarte.ch/en/projects/population-trends/breeding-population-indices/>

**Breeding long-term trend:** <https://www.vogelwarte.ch/en/projects/population-trends/breeding-population-indices/>

### Turkey

**Breeding population size:** Birdlife International (2004) Birds in Europe: population estimates, trends and conservation status, Cambridge UK: Birdlife International (Birdlife Conservation series no: 12) Kusbank Bird Database (Ebird) Kirwan G.M., Boyla K. A., Castell P., Demirci B., Özen M., Welch H., Marlow T., 2008, Birds of Turkey. Londra, Christopher Helm, 978-1-4081-0475-

### Ukraine

**Breeding population size:** Atlas work, non-published data

### United Kingdom

**Breeding population size:** RBBP; Holling, M. & the Rare Breeding Birds Panel. 2018. Rare breeding birds in the United Kingdom in 2016. British Birds 111: 644-694. A known under-estimate; RBBP (Holling, M. & the Rare Breeding Birds Panel 2017. Rare breeding birds in the United Kingdom in 2015. British Birds 110: 706-754) suggest 1,950 territories in 2015 if separate estimates from county recorders included in total.

**Breeding long-term trend:** Trend inferred from 20 year index of distribution change in GB = -0.04 indicating stability (as documented by comparison of 1988-91 and 2007-11 BTO breeding atlases: Gibbons, D.W., Reid, J.B. & Chapman, R.A. 1993. The New Atlas of Breeding Birds in Britain and Ireland: 1988-1991. Poyser, London. Balmer, D., Gillings, S., Caffrey, B., Swann, B., Downie, I. & Fuller, R.J. 2013. Bird Atlas 2007-2011. The breeding and wintering birds of Britain and Ireland. BTO, BirdWatch Ireland & SOC; Thetford, Norfolk. 720 pp.)

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