

## ***Recurvirostra avosetta* (Pied Avocet)**

### **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).

*Recurvirostra avosetta* (Pied Avocet)

**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	120–200	<1	2007-2018	complete	0	-20 to 20	2007-2018	complete	+	400 to 500	1980-2018	expert	
Armenia	18–30	<1	2013-2018	complete	?		2007-2018		?		2003-2018	deficient	
Austria	60–190	<1	2013-2017	complete	-		2007-2018	complete	+		1984-2017	complete	
Azerbaijan	500–2000	2	1996-2019	expert	0		2013-2019	expert	?		1980-2019	expert	
Belarus	5–50	<1	2010-2018	partial	+	0 to 100	2012-2019	expert	?		1980-2019	deficient	
Belgium	400–550	1	2013-2018	complete	+	-2 to 35	2008-2018	complete	+	78 to 144	1973-2018	partial	
Bosnia & HG	1	<1	2015-2018	complete	+		2007-2018	expert	+		1980-2018	deficient	
Bulgaria	100–800	<1	2013-2018	partial	F		2001-2018	expert	-	-35 to -5	1980-2018	expert	
Croatia	5–6	<1	2013-2018	complete	?		2007-2018	deficient	?		1980-2018	deficient	
Czechia	7–15	<1	2014-2017	complete	+	275 to 600	2001-2017	complete	+		1987-2016	complete	
Denmark	2500	5	2014-2014	complete	-		2004-2014	partial	F		1980-2014	complete	
Estonia	150–250	<1	2013-2017	complete	0	16 to 28	2006-2017	complete	+	45 to 82	1980-2017	complete	
France	3500–4300	8	2013-2018	partial	0		2010-2018	expert	+	140 to 160	1984-2018	partial	
Georgia	present	<1		deficient	?			deficient	?				
Germany	3600–4200	8	2011-2016	expert	-		2004-2016	expert	-		1985-2016	expert	
Greece	400–600	1	2015	partial	+		2007-2018	partial	-		1980-2018	partial	
Hungary	340–360	<1	2015-2017	complete	F		2007-2018	complete	F		1980-2018	partial	
Italy	1400–2300	4	2013-2018	expert	0		2007-2018	expert	+	50 to 60	1993-2018	expert	
Lithuania	0–3	<1	2013-2018	partial	-	-100 to -70	2013-2018	partial	+	0 to 300	1980-2018	partial	
Moldova	44–60	<1	2014-2017	partial	+		2007-2018	partial	0		1990-2018	expert	
Montenegro	0–1	<1	2002-2012	complete	-		2007-2018	expert	?				
Netherlands	4700–5700	11	2013-2017	complete	-	-28 to -4	2006-2017	complete	-	-45 to -43	1980-2017	complete	
Norway		<1	2013-2018	complete	-		2013-2018	complete	-		1980-2018	complete	
Poland	0–2	<1	2013-2018	complete	F		2007-2018	complete	F		1980-2018	complete	
Portugal	200–500	<1	2013-2018	partial	?		2007-2018	deficient	?		1980-2018	deficient	
Romania	1000–7000	6	2013-2018	expert	?		2007-2018	deficient	?		1980-2018	deficient	
Russia	3000–4000	7	2008-2018	partial	F		2008-2018	partial	F		1980-2018	partial	
Serbia	90–200	<1	2013-2018	partial	F	0	2007-2018	complete	+	10 to 29	1980-2018	complete	
Slovakia	0–20	<1	2013-2018	partial	F		2007-2018	partial	F		1980-2018	partial	
Slovenia	22–49	<1	2013-2018	complete	+		2008-2018	complete	+	2000 to 5000	1980-2018	complete	
Spain	9300–28500	20	2007	partial	0		2007-2018	expert	0		1980-2018	expert	
Sweden	1200–2200	4	2013-2018	complete	0	-30 to 30	2007-2018	complete	+	-30 to 70	1980-2018	complete	

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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>	
Turkey	1000–2000	3	2002-2012	expert	?		2008-2019	deficient	?		1980-2013	deficient	
Ukraine	5000–7000	13	2014-2018	partial	F	10 to 20	2007-2018	partial	-	-50 to -20	1980-2018	partial	
United Kingdom	1800–1900	4	2016	complete	+		2001-2016	complete	+		1978-2016	complete	
EU28	30800–61900	74											
<b>Europe</b>	<b>40600–77400</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	100–900	<1	2007-2018	complete	-	-60 to 0	2007-2018	complete	-	-50 to 0	1980-2018	complete	
Armenia	1–10	<1	2013-2018	partial	?		2007-2018	deficient	?		2003-2018	deficient	
Azerbaijan	2500–15000	7	1996-2019	complete	?		2010-2019	complete	?		1980-2019	expert	
Belgium	200–410	<1	2013-2018	complete	?	-55 to 85	2007-2018	complete	?	-30 to 107	1992-2018	complete	
Bulgaria	100–350	<1	2013-2018	expert	-	-25 to -5	2001-2018	expert	F		1980-2018	expert	
France	20100–30100	27	2013-2018	complete	0	-16 to 57	2007-2017	complete	+	27 to 103	1980-2018	complete	
Greece	2000–6000	4	2015	expert	+		2007-2018	partial	+		1980-2018	partial	
Italy	9300–11100	12	2013-2015	partial	+	45 to 50	2009-2015	partial	+	80 to 120	1991-2015	partial	
Netherlands	1200–3800	3	2013-2017	complete	+	24 to 65	2006-2017	complete	+	100 to 415	1981-2017	complete	
Portugal	7500–14300	12	2013-2018	complete	0	6 to 34	2007-2018	complete	0		1988-2018	partial	
Spain	18800–18900	22	2007-2010	complete	+		2007-2018	partial	?		1991-2018	expert	
Turkey	1500–3500	3	2013-2019	complete	?		2008-2019	deficient	?		1980-2019	deficient	
Ukraine	5–45	<1	2014-2017	partial	?		2007-2018	partial	?		1980-2018	partial	
United Kingdom	8600–8700	10	2012-2016	complete	+		2005-2016	complete	+		1980-2016	complete	
EU28	68000–93400	90											
<b>Europe</b>	<b>72100–113000</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) Deficient: 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

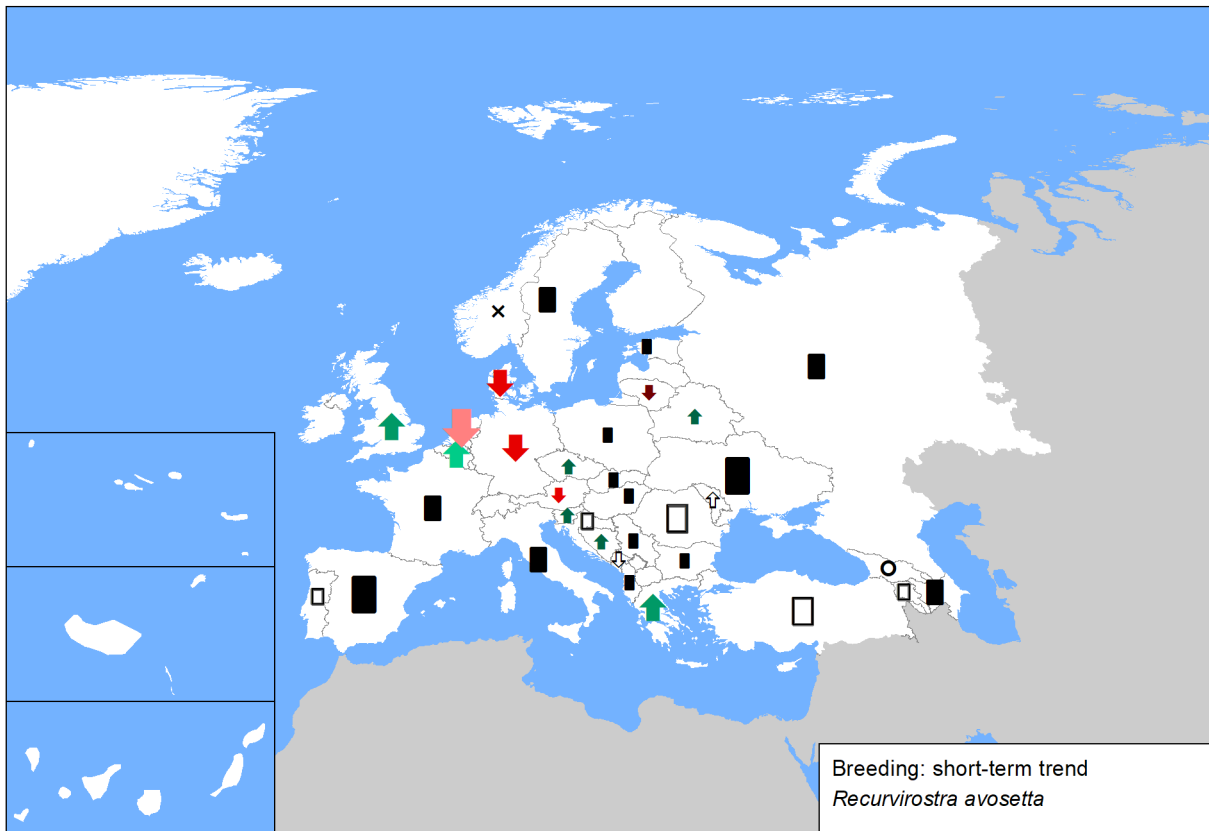
- |   |                                 |
|---|---------------------------------|
| ↑ Large increase (≥50%)                 | ↓ Large decrease (≥50%)         |
| ↑ Moderate increase (20–49%)            | ↓ Moderate decrease (20–49%)    |
| ↑ Small increase (<20%)                 | ↓ Small decrease (<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.

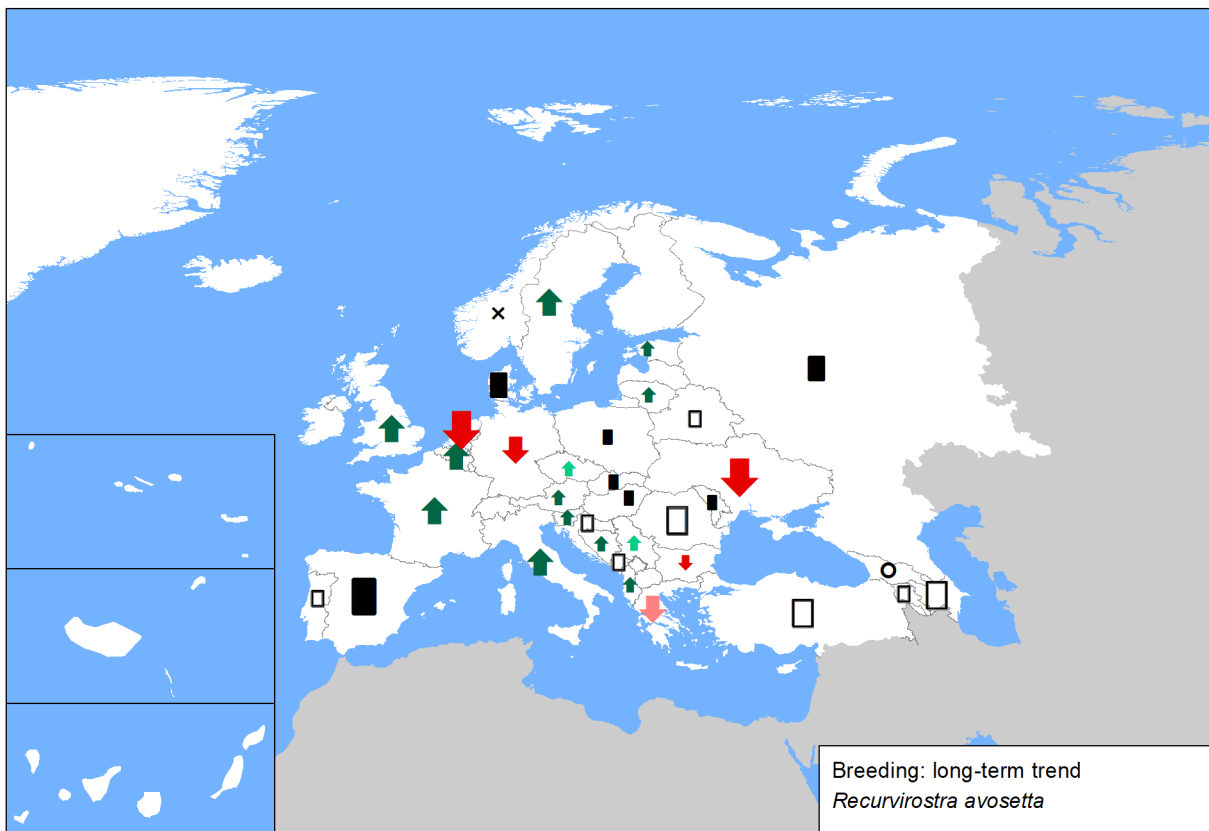
- ↑ Large: ≥10% of the European population
- ↑ Medium: 1–9% of the European population
- ↑ Small: <1% of the European population

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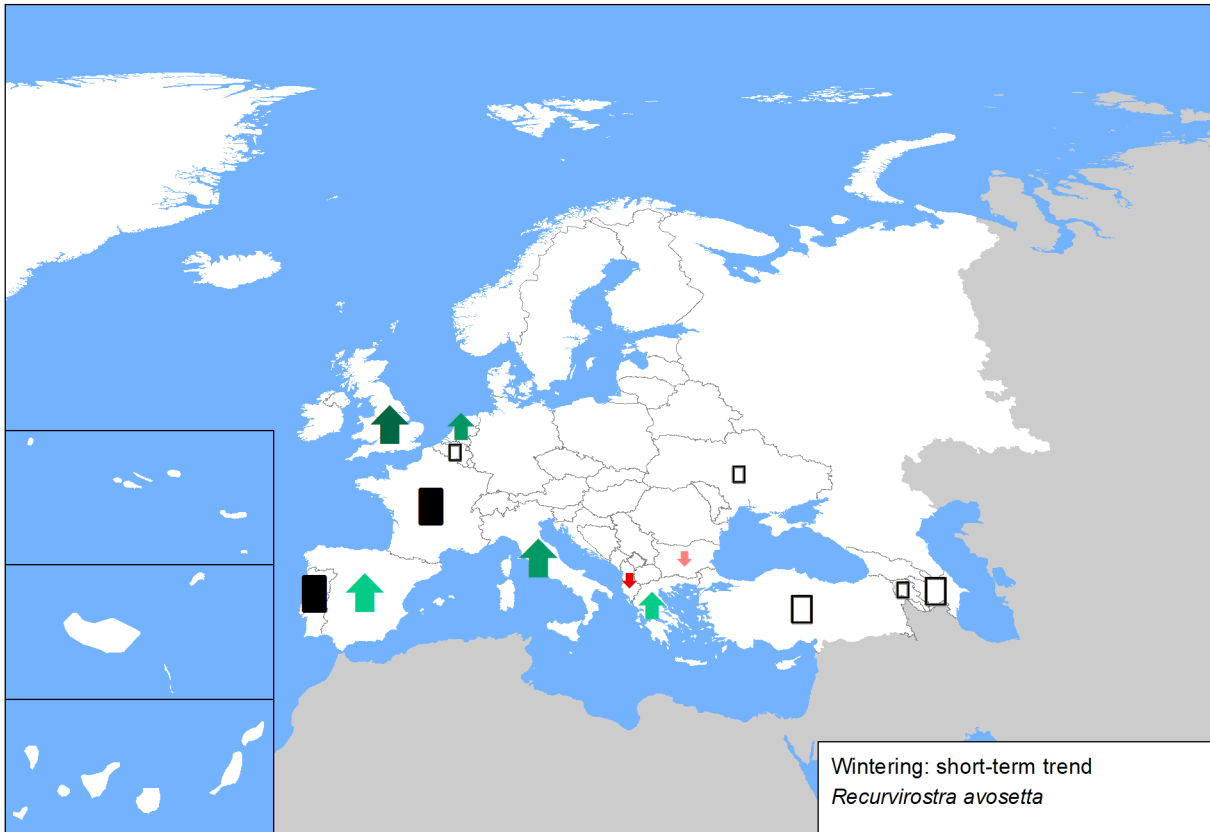
**Figure 1.** Breeding population sizes and short-term trends across Europe.



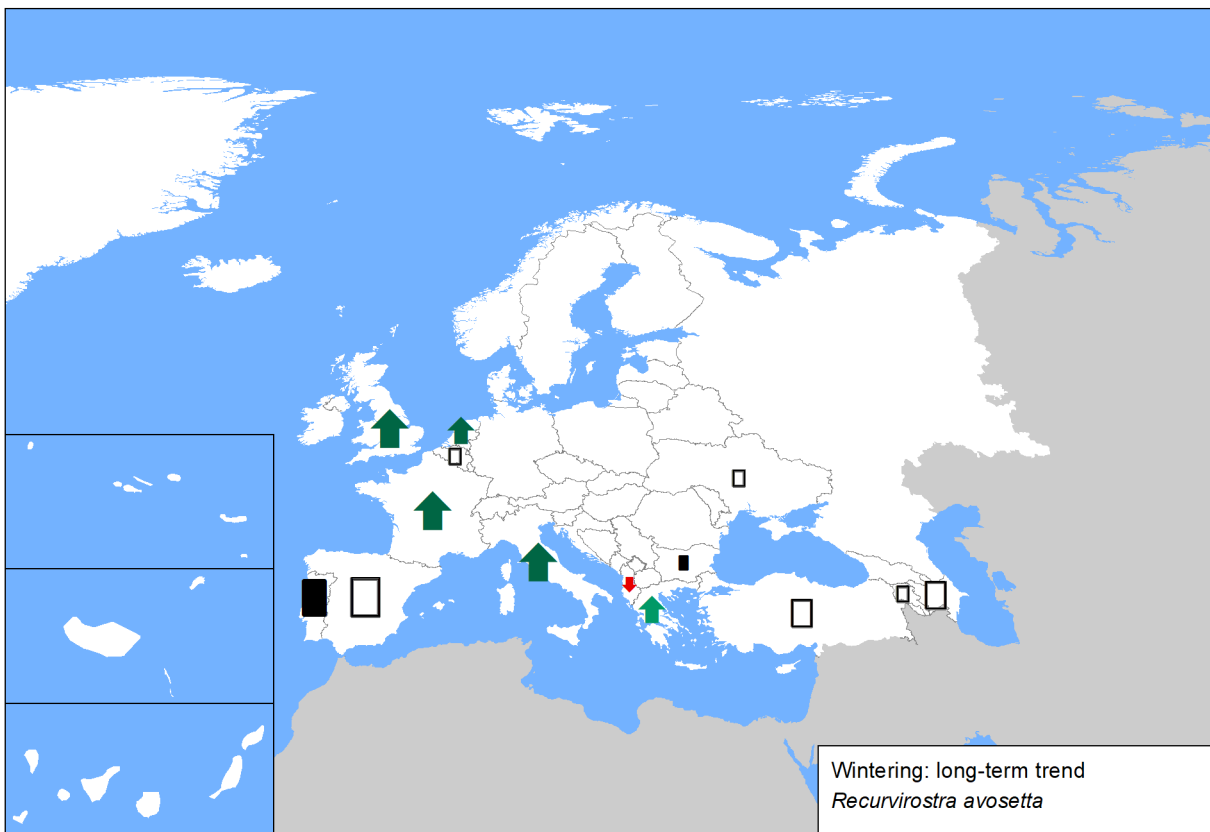
**Figure 2.** Breeding population sizes and long-term trends across Europe.



**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

<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.
<b>Winter population size:</b> TSE NGO, National Bird Monitoring
<b>Winter short-term trend:</b> TSE calculations using TRIM
<b>Winter long-term trend:</b> TSE calculations using TRIM

### Austria

<b>Breeding population size:</b> Kohler & Bieringer 2016; Bernhard Kohler, unpublished data from the bird monitoring program of the national park Neusiedler See-Seewinkel, BirdLife Austria, unpublished data from www.ornitho.at
<b>Breeding short-term trend:</b> Kohler & Bieringer 2016; Bernhard Kohler, unpublished data from the bird monitoring program of the national park Neusiedler See-Seewinkel
<b>Breeding long-term trend:</b> Kohler & Bieringer 2016; Bernhard Kohler, unpublished data from the bird monitoring program of the national park Neusiedler See-Seewinkel

### 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"
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### 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.
<b>Winter population size:</b> Waterbird database INBO
<b>Winter short-term trend:</b> Waterbird database INBO & Aves
<b>Winter long-term trend:</b> Waterbird database INBO & Aves

### Bosnia and Herzegovina

<b>Breeding population size:</b> Based on data for EBBA2
<b>Breeding short-term trend:</b> some individual data
<b>Breeding long-term trend:</b> EBBA2 data

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### Bulgaria

**Breeding population size:** Shurulinkov P., Daskalova G., Michov S., Koev V. (2016) The distribution, numbers, and breeding of terns and waders on the sand islands along the Bulgarian-Romanian section of the Danube. NwJZ Art#e151604 (vol.12, no.1, pp.065-077); National Art. 12 reporting database 2013-2018; DIMITROV, M. Pied Avocet *Recurvirostra avosetta*. Red Data Book of Bulgaria. e-version: <http://e-ecodb.bas.bg/rdb/en/vol2/Reavoset.html> last access: August 2019 IANKOV, P. (ed.) 2007. Atlas of Breeding Birds in Bulgaria. BSPB Conservation Series, Book 10. Sofia. 679 pp. NANKINOV, D., A. DUTSOV, B. NIKOLOV, B. BORISSOV, G. STOYANOV, G. GRADEV, D. GEORGIEV, D. POPOV, D. DOMUSCHIEV, D. KIROV, E. TILOVA, I. NIKOLOV, I. IVANOV, K. DICHEV, K. POPOV, N. KARAIVANOV, N. TODOROV, P. SHURULINKOV, R. STANCHEV, R. ALEKSOV, R. TSONEV, S. DALAKTCHIEVA, S. IVANOV, S. MARIN, S. STAJKOV, S. NIKOLOV & H. NIKOLOV. 2004. Breeding totals of the ornithofauna in Bulgaria, 2004. Green Balkans, Plovdiv. 32 pp. NANKINOV, D., S. SIMEONOV, T. MICHEV, B. IVANOV. 1997. The Fauna of Bulgaria. Vol. 26. AVES. Part II. BAS Press, Pensoft. Sofia. 428 pp.

**Breeding short-term trend:** DIMITROV, M. Pied Avocet *Recurvirostra avosetta*. Red Data Book of Bulgaria. e-version: <http://e-ecodb.bas.bg/rdb/en/vol2/Reavoset.html> last access: August 2013; National Art. 12 reporting database 2013-2018; IANKOV, P. (ed.) 2007. Atlas of Breeding Birds in Bulgaria. BSPB Conservation Series, Book 10. Sofia. 679 pp. NANKINOV, D., A. DUTSOV, B. NIKOLOV, B. BORISSOV, G. STOYANOV, G. GRADEV, D. GEORGIEV, D. POPOV, D. DOMUSCHIEV, D. KIROV, E. TILOVA, I. NIKOLOV, I. IVANOV, K. DICHEV, K. POPOV, N. KARAIVANOV, N. TODOROV, P. SHURULINKOV, R. STANCHEV, R. ALEKSOV, R. TSONEV, S. DALAKTCHIEVA, S. IVANOV, S. MARIN, S. STAJKOV, S. NIKOLOV & H. NIKOLOV. 2004. Breeding totals of the ornithofauna in Bulgaria, 2004. Green Balkans, Plovdiv. 32 pp.

**Breeding long-term trend:** DIMITROV, M. Pied Avocet *Recurvirostra avosetta*. Red Data Book of Bulgaria. e-version: <http://e-ecodb.bas.bg/rdb/en/vol2/Reavoset.html> last access: August 2013 IANKOV, P. (ed.) 2007. Atlas of Breeding Birds in Bulgaria. BSPB Conservation Series, Book 10. Sofia. 679 pp. NANKINOV, D., A. DUTSOV, B. NIKOLOV, B. BORISSOV, G. STOYANOV, G. GRADEV, D. GEORGIEV, D. POPOV, D. DOMUSCHIEV, D. KIROV, E. TILOVA, I. NIKOLOV, I. IVANOV, K. DICHEV, K. POPOV, N. KARAIVANOV, N. TODOROV, P. SHURULINKOV, R. STANCHEV, R. ALEKSOV, R. TSONEV, S. DALAKTCHIEVA, S. IVANOV, S. MARIN, S. STAJKOV, S. NIKOLOV & H. NIKOLOV. 2004. Breeding totals of the ornithofauna in Bulgaria, 2004. Green Balkans, Plovdiv. 32 pp. NANKINOV, D., S. SIMEONOV, T. MICHEV, B. IVANOV. 1997. The Fauna of Bulgaria. Vol. 26. AVES. Part II. BAS Press, Pensoft. Sofia. 428 pp.

**Winter population size:** Wetlands International (2019): Submitted IWC data for Bulgaria for period 2013-2018.; National Art. 12 reporting database 2013-2018; National workshop of experts, Sofia 27-29.8.2019.

**Winter short-term trend:** Wetlands International (2019): Submitted IWC data for Bulgaria for period 2013-2018.; National Art. 12 reporting database 2013-2018; Dimitrov, M., T. Michev, L. Profirov, K. Nyagolov. 2005. Waterbirds of Bourgas Wetlands: Results and Evaluation of the Monthly Waterbirds Monitoring 1996-2002. Bulgarian Biodiversity Foundation and Publ. House Pensoft, Sofia, 160 pp.;

**Winter long-term trend:** MICHEV, T., L. PROFIROV. 2003. Mid-winter Numbers of Waterbirds in Bulgaria (1977-2001). Results from 25 years of mid-winter counts carried out at the most important Bulgarian Wetlands. Pensoft Publishing House, Sofia. 160 pp. BSPB database.

### Croatia

**Breeding population size:** Dumbović Mazal V., Pintar V., Zdravec M. (2019): Prvo izvješće o brojnosti i rasprostranjenosti ptica u Hrvatskoj sukladno odredbama Direktive o pticama. Zavod za ornitologiju (Sanja Barišić, Davor Čiković, Jelena Kralj, Goran Sušić, Vesna Tutiš), Dragan Radović, Ivan Budinski, Robert Crnković, Antun Delić, Dubravko Dender, Vlatka Dumbović, Ivan Darko Grlica, Bariša Ilić, Luka Jurinović, Davor Krnjeta, Krešimir Leskovar, Duje Lisičić, Ivica Lolić, Gordan Lukač, Kristijan Mandić, Krešimir Mikulić, Tibor Mikuska, Gvido Piasevoli, Andrej Radalj, Zlatko Ružanović, Vlatka Ščetarić, Mirko Šetina, Adrian Tomik (2015): Procjene brojnosti za SPA područja. Državni zavod za zaštitu prirode, Zagreb

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

### 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. & Zárbynický 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:** The precise number is unknow. Šťastný et al. 2006

### Denmark

**Breeding population size:** Nielsen, R.D., Holm, T.E., Clausen, P., Bregnballe, T., Clausen, K.K., Petersen, I.K., Sterup, J., Balsby, T.J.S., Pedersen, C.L., Mikkelsen, P. & Bladt, J. (2019). Fugle 2012-2017. NOVANA. Aarhus Universitet, DCE – Nationalt Center for Miljø og Energi. - Videnskabelig rapport nr. 314. <http://dce2.au.dk/pub/SR314.pdf> and <http://novana.au.dk/fugle/>

**Breeding short-term trend:** Nielsen, R.D., Holm, T.E., Clausen, P., Bregnballe, T., Clausen, K.K., Petersen, I.K., Sterup, J., Balsby, T.J.S., Pedersen, C.L., Mikkelsen, P. & Bladt, J. (2019). Fugle 2012-2017. NOVANA. Aarhus Universitet, DCE – Nationalt Center for Miljø og Energi. - Videnskabelig rapport nr. 314. <http://dce2.au.dk/pub/SR314.pdf> and <http://novana.au.dk/fugle/>

**Breeding long-term trend:** Nielsen, R.D., Holm, T.E., Clausen, P., Bregnballe, T., Clausen, K.K., Petersen, I.K., Sterup, J., Balsby, T.J.S., Pedersen, C.L., Mikkelsen, P. & Bladt, J. (2019). Fugle 2012-2017. NOVANA. Aarhus Universitet, DCE – Nationalt Center for Miljø og Energi. - Videnskabelig rapport nr. 314. <http://dce2.au.dk/pub/SR314.pdf> and <http://novana.au.dk/fugle/>

### 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

## Recurvirostra avosetta (Pied Avocet)

### France

**Breeding population size:** Les Amis des Marais du Vigueirat (coord.) 2018. Life+ ENVOLL - Résultats des suivis laro-limicoles 2014-2018. [www.life-envoll.eu/](http://www.life-envoll.eu/), [http://www.life-envoll.eu/IMG/pdf/newsletter\\_reseau\\_de\\_gestionnaires\\_et\\_de\\_suivi\\_no5\\_dec.2018-4.pdf](http://www.life-envoll.eu/IMG/pdf/newsletter_reseau_de_gestionnaires_et_de_suivi_no5_dec.2018-4.pdf); RNN de Séné - Bretagne-Vivante 2018. Suivi Avocette élégante RNN de Séné - Bretagne-Vivante. <http://www.bretagne-vivante-dev.org>, <http://www.bretagne-vivante-dev.org/avolette/avosites.php>; Debout G. 2018. Observatoire de l'Avifaune Normande. Bilan Synthétique. 12 p., GONM - Groupe Ornithologique Normand, Caen 12 p. [http://www.gonm.org/public/Telechargements/Etudes/2017\\_Observatoires-Bilan\\_GONM.pdf](http://www.gonm.org/public/Telechargements/Etudes/2017_Observatoires-Bilan_GONM.pdf); LPO Vendée 2016. Limicoles nicheurs en Marais breton. Enquête 2015. , LPO Vendée 24 p. [http://www.baie-bourgneuf.com/wp-content/uploads/2011/10/01-limicoles\\_nicheurs-marais\\_breton.pdf](http://www.baie-bourgneuf.com/wp-content/uploads/2011/10/01-limicoles_nicheurs-marais_breton.pdf); Guéret J.-P. & Moneuse S. 2017. Limicoles nicheurs du Marais poitevin. Synthèse de l'enquête 2015-2016 et tendances d'évolution. , LPO / PNR du Marais Poitevin 60 p. [http://biodiversite.parc-marais-poitevin.fr/IMG/pdf/limicoles\\_nicheurs\\_du\\_marais\\_poitevin\\_-\\_synthese\\_2015-2016\\_et\\_tendances\\_d\\_evolution-2.pdf](http://biodiversite.parc-marais-poitevin.fr/IMG/pdf/limicoles_nicheurs_du_marais_poitevin_-_synthese_2015-2016_et_tendances_d_evolution-2.pdf); Poitou-Charentes Nature 2018. Liste rouge du Poitou-Charentes : chapitre Oiseaux nicheurs. , Poitou-Charente Nature, Fontaine-le-Comte 25 p. [http://www.nouvelle-aquitaine.developpement-durable.gouv.fr/IMG/pdf/lrr\\_oiseaux\\_nicheurs\\_du\\_poitou-charentes\\_pcn-lpo\\_modif032019.pdf](http://www.nouvelle-aquitaine.developpement-durable.gouv.fr/IMG/pdf/lrr_oiseaux_nicheurs_du_poitou-charentes_pcn-lpo_modif032019.pdf); Beaudoin C. & Camberlein P. 2017. Liste rouge des Oiseaux nicheurs du Nord-Pas-de-Calais. , Centrale oiseaux du Groupe ornithologique et naturaliste du Nord - Pas-de-Calais / Conservatoire faunistique régional 16 <https://gon.fr/gon/wp-content/uploads/2017/12/gon-liste-rouge-des-oiseaux-nicheurs-du-nord-pas-de-calais.pdf>; Le Teich Réserve Ornithologique-PNRLG 2018. Synthèse des observations d'Avocette élégante 2017/2018 en période de nidification en Gironde (consultation le 10/12/2018). Faune-France <https://www.faune-france.org/>; Beauflis, M. 2018. Les oiseaux en période de reproduction en baie du Mont-Saint-Michel (enquête 2009-2013). Essai sur l'histoire récente (1970-2013) répartitions et effectifs. , Groupe Ornithologique Normand - GONM / Bretagne Vivante - SEPNB388 p. [http://www.gonm.org/index.php?post/Les-oiseaux-en-p%C3%A9riode-de-reproduction-en-baie-du-Mont-Saint-Michel-\(enqu%C3%AAte-2009-2013\)](http://www.gonm.org/index.php?post/Les-oiseaux-en-p%C3%A9riode-de-reproduction-en-baie-du-Mont-Saint-Michel-(enqu%C3%AAte-2009-2013)); Monnier G., Touzalin F. & Gélineau G. 2015. Suivi des populations de laro-limicoles nicheurs, conseil et évaluation des contrats Natura 2000 dans les marais salants de la presqu'île guérandaise - bilan 2014. , Bretagne-Vivante - SEPNB41 p. [http://www.side.developpement-durable.gouv.fr/EXPLOITATION/DEFAULT/doc/IFD/IFD\\_REFDOC\\_0536972/Suivi-des-populations-de-laro-limicoles-nicheursconseil-et-%C3%A9valuation-des-contrats-Natura-2000-dans-](http://www.side.developpement-durable.gouv.fr/EXPLOITATION/DEFAULT/doc/IFD/IFD_REFDOC_0536972/Suivi-des-populations-de-laro-limicoles-nicheursconseil-et-%C3%A9valuation-des-contrats-Natura-2000-dans-); ClicNat 2018. Fiche espèce Avocette élégante. obs.picardie-nature, Picardie Nature <http://obs.picardie-nature.org/?page=fiche&id=887>

**Breeding short-term trend:** Issa N. 2012. Limicoles nicheurs en France. Enquête 2010-2011. , LPO, Rochefort 41 p.

**Breeding long-term trend:** Deceuninck B. 2001. Breeding waders in France: populations, trends and distributions. Wader Study Group Bulletin 95, 45-50 ; Issa N. 2012. Limicoles nicheurs en France. Enquête 2010-2011. , LPO, Rochefort 41 p. ; Dubois, P. J. & Mahéo, R. 1986. Limicoles nicheurs de France, Rochefort, LPO. 291 p.

**Winter population size:** Gaudard C., Quaintenne G., Dupuy J. (2018) Comptage des Oiseaux d'eau à la mi-janvier en France. Résultats 2018 du comptage Wetlands International. LPO BirdLife France - Service Connaissance, Wetlands International, Ministère de la Transition écologique et solidaire. pp. 24, et Annexes pp. 104, Rochefort..

**Winter short-term trend:** Gaudard C., Quaintenne G., Dupuy J. (2018) Comptage des Oiseaux d'eau à la mi-janvier en France. Résultats 2018 du comptage Wetlands International. LPO BirdLife France - Service Connaissance, Wetlands International, Ministère de la Transition écologique et solidaire. pp. 24, et Annexes pp. 104, Rochefort..

**Winter long-term trend:** Gaudard C., Quaintenne G., Dupuy J. (2018) Comptage des Oiseaux d'eau à la mi-janvier en France. Résultats 2018 du comptage Wetlands International. LPO BirdLife France - Service Connaissance, Wetlands International, Ministère de la Transition écologique et solidaire. pp. 24, et Annexes pp. 104, Rochefort..

### Georgia

**Breeding population size:** BirdLife International 2004

### 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:** 1) BirdLife International (2004) Birds in Europe: Population estimates, trends and conservation status. Cambridge, UK: BirdLife International (BirdLife Conservation Series No. 12). 2) Λεγάκις, Α. & Μαραγκού, Π. (επιμ.). 2009. Το Κόκκινο Βιβλίο των Απειλούμενων Ζώων της Ελλάδας. Ελληνική Ζωολογική Εταιρεία, Αθήνα, 528 σελ. 3) Natura Viewer (<http://natura2000.eea.europa.eu/#>). 4) Δημηλέξης, Τ., Καστρίτης, Θ., Γρίβας, Κ., Μανωλόπουλος, Α., Καρδακάρη, Ν., Κακαλής, Λ., Ξηρουχάκης, Σ., Τσαϊτουρίδης, Χ., Παπαζογλου, C. & Βαρον, Β. 2009. Προσδιορισμός συμβατών δραστηριοτήτων σε σχέση με τα είδη χαρακτηρισμού των Ζωνών Ειδικής Προστασίας της ορνιθοπανίδας. Παραδοτέο 8. Οδηγός οικολογικών απαιτήσεων, απειλών και ενδεδειγμένων μέτρων για τα είδη χαρακτηρισμού. 5) Πορτόλου, Δ., Μπουρδάκης, Σ., Βλάχος, Χ., Καστρίτης, Θ. & Δημηλέξης, Τ. (επιμ.). 2009. Οι Σημαντικές Περιοχές για τα Πουλιά της Ελλάδας: Περιοχές Προτεραιότητας για τη Διατήρηση της Βιοποικιλότητας. Ελληνική Ορνιθολογική Εταιρεία, Αθήνα. 6) Βλάχος Χ., Μπίρτσας Π., Θωμαΐδης Χ., Χατζηνίκος Ε., Μπουντζώρος Β., Μπραζιλιώτης Σ., Κόντος Κ., Βλαχάκη Δ., Δεδουσοπούλου Ε., Κιούσης Δ., Ξένος Α., Στεφάνου Λ.Μ., Κασάμπαλης Δ., και Μελικώκη Κ. (Συντονιστές έκδοσης). 2015. Γ' Φάση της Μελέτης 9 «Εποπτεία και Αξιολόγηση της Κατάστασης Διατήρησης Ειδών Ορνιθοπανίδας στην Ελλάδα» ΥΠΑΠΕΝ, Αθήνα, Σύμπραξη Γραφείων Μελετών «Φ.ΦΑΣΟΥΛΑΣ-Ν.ΜΑΝΤΖΙΟΣ» Ε.Ε. – ΡΟΔΟΥΛΑ ΚΩΝΣΤΑΝΤΙΝΙΔΟΥ ΤΟΥ ΓΕΩΡΓΙΟΥ – «ΑΘ.ΤΖΑΚΟΠΟΥΛΟΣ ΚΑΙ ΣΙΑ» Ε.Ε.», Θεσσαλονίκη.

**Breeding short-term trend:** 1) BirdLife International (2004) Birds in Europe: Population estimates, trends and conservation status. Cambridge, UK: BirdLife International (BirdLife Conservation Series No. 12). 2) Λεγάκις, Α. & Μαραγκού, Π. (επιμ.). 2009. Το Κόκκινο Βιβλίο των Απειλούμενων Ζώων της Ελλάδας. Ελληνική Ζωολογική Εταιρεία, Αθήνα, 528 σελ. 3) Natura Viewer (<http://natura2000.eea.europa.eu/#>). 4) Δημηλέξης, Τ., Καστρίτης, Θ., Γρίβας, Κ., Μανωλόπουλος, Α., Καρδακάρη, Ν., Κακαλής, Λ., Ξηρουχάκης, Σ., Τσαϊτουρίδης, Χ., Παπαζογλου, C. & Βαρον, Β. 2009. Προσδιορισμός συμβατών δραστηριοτήτων σε σχέση με τα είδη χαρακτηρισμού των Ζωνών Ειδικής Προστασίας της ορνιθοπανίδας. Παραδοτέο 8. Οδηγός οικολογικών απαιτήσεων, απειλών και ενδεδειγμένων μέτρων για τα είδη χαρακτηρισμού. 5) Πορτόλου, Δ., Μπουρδάκης, Σ., Βλάχος, Χ., Καστρίτης, Θ. & Δημηλέξης, Τ. (επιμ.). 2009. Οι Σημαντικές Περιοχές για τα Πουλιά της Ελλάδας: Περιοχές Προτεραιότητας για τη Διατήρηση της Βιοποικιλότητας. Ελληνική Ορνιθολογική Εταιρεία, Αθήνα. 6) Βλάχος Χ., Μπίρτσας Π., Θωμαΐδης Χ., Χατζηνίκος Ε., Μπουντζώρος Β., Μπραζιλιώτης Σ., Κόντος Κ., Βλαχάκη Δ., Δεδουσοπούλου Ε., Κιούσης Δ., Ξένος Α., Στεφάνου Λ.Μ., Κασάμπαλης Δ., και Μελικώκη Κ. (Συντονιστές έκδοσης). 2015. Γ' Φάση της Μελέτης 9 «Εποπτεία και Αξιολόγηση της Κατάστασης Διατήρησης Ειδών Ορνιθοπανίδας στην Ελλάδα» ΥΠΑΠΕΝ, Αθήνα, Σύμπραξη Γραφείων Μελετών «Φ.ΦΑΣΟΥΛΑΣ-Ν.ΜΑΝΤΖΙΟΣ» Ε.Ε. – ΡΟΔΟΥΛΑ ΚΩΝΣΤΑΝΤΙΝΙΔΟΥ ΤΟΥ ΓΕΩΡΓΙΟΥ – «ΑΘ.ΤΖΑΚΟΠΟΥΛΟΣ ΚΑΙ ΣΙΑ» Ε.Ε.», Θεσσαλονίκη.

## Recurvirostra avosetta (Pied Avocet)

### Greece

**Breeding long-term trend:** 1) BirdLife International (2004) Birds in Europe: Population estimates, trends and conservation status. Cambridge, UK: BirdLife International (BirdLife Conservation Series No. 12). 2) Λεγάκις, Α. & Μαραγκού, Π. (επιμ.). 2009. Το Κόκκινο Βιβλίο των Απειλούμενων Ζώων της Ελλάδας. Ελληνική Ζωολογική Εταιρεία, Αθήνα, 528 σελ. 3) Natura Viewer (<http://natura2000.eea.europa.eu/#>). 4) Δημαλέξης, Τ., Καστρίτης, Θ., Γρίβας, Κ., Μανωλόπουλος, Α., Καρδακάρη, Ν., Κακαλής, Λ., Ξηρουχάκης, Σ., Τσαϊτουρίδης, Χ., Παρζαζογλου, C. & Βaron, B. 2009. Προσδιορισμός συμβατών δραστηριοτήτων σε σχέση με τα είδη χαρακτηρισμού των Ζωνών Ειδικής Προστασίας της ορνιθοπανίδας. Παραδοτέο 8. Οδηγός οικολογικών απαιτήσεων, απειλών και ενδεδειγμένων μέτρων για τα είδη χαρακτηρισμού. 5) Πορτόλου, Δ., Μπουρδάκης, Σ., Βλάχος, Χ., Καστρίτης, Θ. & Δημαλέξης, Τ. (επιμ.). 2009. Οι Σημαντικές Περιοχές για τα Πουλιά της Ελλάδας: Περιοχές Προτεραιότητας για τη Διατήρηση της Βιοποικιλότητας. Ελληνική Ορνιθολογική Εταιρεία, Αθήνα. 6) Βλάχος Χ., Μπίρτσας Π., Θωμαΐδης Χ., Χατζηνίκος Ε., Μποντζώρλος Β., Μπραζιώτης Σ., Κόντος Κ., Βλαχάκη Δ., Δεδουσοπούλου Ε., Κιούσης Δ., Ξένος Α., Στεφάνου Λ.Μ., Κασάμπαλης Δ., και Μελικώκη Κ. (Συντονιστές έκδοσης). 2015. Γ' Φάση της Μελέτης 9 «Εποπτεία και Αξιολόγηση της Κατάστασης Διατήρησης Ειδών Ορνιθοπανίδας στην Ελλάδα» ΥΠΑΠΕΝ, Αθήνα, Σύμπραξη Γραφείων Μελετών «Φ.ΦΑΣΟΥΛΑΣ-Ν.ΜΑΝΤΖΙΟΣ» Ε.Ε. – ΡΟΔΟΥΛΑ ΚΩΝΣΤΑΝΤΙΝΙΔΟΥ ΤΟΥ ΓΕΩΡΓΙΟΥ – "ΑΘ.ΤΖΑΚΟΠΟΥΛΟΣ ΚΑΙ ΣΙΑ" Ε.Ε., Θεσσαλονίκη. 7) Handrinos, G., & Akriotis T., (1997) The birds of Greece. C. Helm, A & Black, London.

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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)

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

### Montenegro

**Breeding population size:** Sackl, P. et al (2018): Unpub.data

### Netherlands

**Breeding population size:** Sovon NEM (Sovon, CBS and provinces) and Bird atlas (Sovon 2018)

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

**Breeding long-term trend:** Sovon

**Winter population size:** NEM waterbird monitoring scheme (Sovon, RWS, CBS, provinces)

**Winter short-term trend:** NEM waterbird monitoring scheme (Sovon, RWS, CBS, provinces)

**Winter long-term trend:** NEM waterbird monitoring scheme (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:** a) The Norwegian Rare Bird Records Committee (NSKF). (b) Artsobservasjoner www.artsobservasjoner.no

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

### Poland

**Breeding population size:** The Polish Avifaunistic Commission <http://komisjafaunistyczna.pl/>

**Breeding short-term trend:** Stawarczyk T., Cofta T., Kajzer Z., Lontkowski J., Sikora A. 2017. Rzadkie Ptaki Polski. Studio B&W Wojciech Janecki, Sosnowiec; The Polish Avifaunistic Commission <http://komisjafaunistyczna.pl/>

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**Winter short-term trend:** Programa Nacional de Monitorização de Aves Aquáticas Invernantes

**Winter long-term trend:** Sousa J (2002b). Tendências populacionais de aves aquáticas. Relatório de estudo integrado no Projecto do Instituto da Conservação da Natureza "Livro Vermelho dos Vertebrados de Portugal - Revisão"/Programa Operacional do Ambiente, não publicado.; Programa Nacional de Monitorização de Aves Aquáticas Invernantes

### Romania

**Breeding population size:** Ornitodata (Romanian Ornithological Society) Database, OpenBirdMaps (Milvus Group) Database, Rombird (Romanian Rarity Commission) 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:** Lohman in press; Database of the project on Atlas of breeding birds of European Russia

**Breeding short-term trend:** Belik 2014; in press

**Breeding long-term trend:** Belik et al. 2003; Borodin unpublished spinus73@mail.ru

### 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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<b>Breeding long-term trend:</b> 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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<b>Breeding population size:</b> Coordinatory group for reporting 2019. Danko Štefan, Darolová Alžbeta, Krištín Anton: Rozšírenie vtákov na Slovensku. VEDA, vyd. SAV Bratislava, 2002. Karaska D., Trnka A., Krištín A., Ridzoň J.: Chránené vtáčie územia Slovenska. ŠOP SR Banská Bystrica, 2015.
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<b>Winter population size:</b> Información proporcionada por las Comunidades Autónomas. SEO/BirdLife (2012). Atlas de las aves en invierno en España 2007-2010. Ministerio de Agricultura, Alimentación y Medio Ambiente-SEO/ BirdLife. Madrid. 817 pp. ( <a href="https://www.miteco.gob.es/es/biodiversidad/temas/inventarios-nacionales/atlas_aves_invierno_tcm30-198034.pdf">https://www.miteco.gob.es/es/biodiversidad/temas/inventarios-nacionales/atlas_aves_invierno_tcm30-198034.pdf</a> )
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<b>Breeding short-term trend:</b> Species observation system, <a href="http://www.artportalen.se">www.artportalen.se</a>
<b>Breeding long-term trend:</b> BirdLife Sverige annual reports

### Turkey

<b>Breeding population size:</b> Güven Eken personal communication (2019), Eken G., Bozdoğan M., İsfendiyaçoğlu S., Kılıç D.T., Lise Y. (2006) Türkiye'nin Önemli Doğa Alanları. Doğa Derneği, Ankara. BirdLife International (2004) Birds in Europe: population estimates, trends and conservation status, Cambridge UK: BirdLife International (BirdLife Conservation series no: 12), Onmuş, O. and Sıki, M (2011): Shorebirds in the Gediz Delta (Izmir, Turkey): breeding and wintering abundances, distributions, and seasonal occurrences. Turkish Journal of Zoology 35(5):615-629. 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-
<b>Winter population size:</b> Ebird Database and Midwinter Fowl Counts (2013-2018), Birdlife Estimate
<b>Winter short-term trend:</b> Midwinter bird counts 2012-2019
<b>Winter long-term trend:</b> Midwinter bird counts 1980-2019 and Historical Records come from OSME and other midwinter counts

### Ukraine

<b>Breeding population size:</b> 1. Молодан Г.М. (2009): Чоботар (шилодзьобка). - Червона книга України. Тваринний світ. Київ: Глобалконсалтинг. 450. 2. Пономаренко О.Л., Коцюруба В.В. (2011): Чоботар. - Червона книга Дніпропетровської області (Тваринний світ). 361. 3. Гаврилюк М.Н., Ілюха А.В. (2013): Гнездованіе ходулочника (Himantopus himantopus) і шилоклювки (Recurvirostra avosetta) в Черкаській області. - Беркут. 22 (2): 169-171. 4. Молодан Г.М. (2017): Чоботар. - Червона книга Донецької області. Тваринний світ. Вінниця: Вінницька обласна друкарня. 331. 5. Матеріали до 4-го видання Червоної книги України. Тваринний світ. Київ, 2018. Т. 1. 442 с. Т. 2. 454 с.
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## *Recurvirostra avosetta* (Pied Avocet)

### Ukraine

**Breeding short-term trend:** 1. Молодан Г.М. (2009): Чоботар (шилодзьобка). - Червона книга України. Тваринний світ. Київ: Глобалконсалтинг. 450. 2. Пономаренко О.Л., Коцюруба В.В. (2011): Чоботар. - Червона книга Дніпропетровської області (Тваринний світ). 361. 3. Гаврилюк М.Н., Ілюха А.В. (2013): Гнездование ходулочника (*Himantopus himantopus*) и шилоклювки (*Recurvirostra avosetta*) в Черкасской области. - Беркут. 22 (2): 169-171. 4. Молодан Г.М. (2017): Чоботар. - Червона книга Донецької області. Тваринний світ. Вінниця: Вінницька обласна друкарня. 331. 5. Матеріали до 4-го видання Червоної книги України. Тваринний світ. Київ, 2018. Т. 1. 442 с. Т. 2. 454 с.

**Breeding long-term trend:** 1. Черничко И.И. (1988): Шилоклювка. - Колониальные гидрофильные птицы юга Украины. Киев: Наукова думка. 90-101. 2. Hagemaijer W.J.M., Blair M.J. The EBCC Atlas of European Breeding Birds: Their Distribution and Abundance. Poyser. - London. 1997. 903 p. 3. Сіохин В.Д. (2000): Характеристика распределения и численности гнездящихся птиц в ВБУ Азово-Черноморского побережья. - Численность и размещение гнездящихся околоводных птиц в водно-болотных угодьях Азово-Черноморского побережья Украины. Киев: Wetland International. 412-444. 4. Горбань І. (2003): Оцінка чисельності гніздових птахів України. - Вісн. Львів. ун-ту. Сер. біол. 34: 147-158. 5. Birds in Europe: Population Estimates, Trends and Conservation Status. BirdLife Conservation Series 12; 2004. 374 p. 6. Молодан Г.М. (2009): Чоботар (шилодзьобка). - Червона книга України. Тваринний світ. Київ: Глобалконсалтинг. 450. 7. Пономаренко О.Л., Коцюруба В.В. (2011): Чоботар. - Червона книга Дніпропетровської області (Тваринний світ). 361. 8. Гаврилюк М.Н., Ілюха А.В. (2013): Гнездование ходулочника (*Himantopus himantopus*) и шилоклювки (*Recurvirostra avosetta*) в Черкасской области. - Беркут. 22 (2): 169-171. 9. Молодан Г.М. (2017): Чоботар. - Червона книга Донецької області. Тваринний світ. Вінниця: Вінницька обласна друкарня. 331. 10. Матеріали до 4-го видання Червоної книги України. Тваринний світ. Київ, 2018. Т. 1. 442 с. Т. 2. 454 с.

**Winter population size:** Andryushchenko, Yu.A., Popenko, V.M. 2016. New data on winter records of waders in South Ukraine. In Chernichko I.I., Mel'nikov V.N. (Eds.). 2016. Issues of Wader Ecology, Migration and Conservation in Northern Eurasia: Materials of the 10th Jubilee Conference of the Working Group on Waders of Northern Eurasia, Ivanovo, 3–6 February 2016. Ivanovo State University, Ivanovo: 7-17 (in Russ.).

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**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.

**Breeding short-term trend:** RBBP; Holling, M. & the Rare Breeding Birds Panel. 2018. Rare breeding birds in the United Kingdom in 2016. British Birds 111: 644-694.

**Breeding long-term trend:** RBBP; Holling, M. & the Rare Breeding Birds Panel. 2018. Rare breeding birds in the United Kingdom in 2016. British Birds 111: 644-694.

**Winter population size:** Frost, T.M., Austin, G.E., Hearn, R.D., McAvoy, S.G., Robinson, A., Stroud, D.A., Woodward, I.D. & Wotton, S.R. 2019. Population estimates of wintering waterbirds in Great Britain. British Birds 112: 130-145.

**Winter short-term trend:** Frost, T.M., Austin, G.E., Calbrade, N.A., Mellan, H.J., Hearn, R.D., Stroud, D.A., Wotton, S.R. & Balmer, D.E. (2018). Waterbirds in the UK 2016/17: The Wetland Bird Survey. BTO, RSPB and JNCC, in association with WWT. British Trust for Ornithology, Thetford. 40 pp.

**Winter long-term trend:** Frost, T.M., Austin, G.E., Calbrade, N.A., Mellan, H.J., Hearn, R.D., Stroud, D.A., Wotton, S.R. & Balmer, D.E. (2018). Waterbirds in the UK 2016/17: The Wetland Bird Survey. BTO, RSPB and JNCC, in association with WWT. British Trust for Ornithology, Thetford. 40 pp.

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