Numenius arquata (Eurasian Curlew)

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]	
Austria	150–170	<1	2013-2018	complete	0		2007-2018	complete	+	120 to 160	1981-2018	complete	arquata
Belarus	580–750	<1	2010-2018	partial	-	-40 to -10	2012-2019	expert	-	-26 to 0	1980-2019	expert	
Belgium	300–500	<1	2013-2018	complete	-	-45 to -9	2008-2018	complete	0	-38 to 3	1973-2018	partial	arquata
Czechia	0–2	<1	2014-2017	complete	-	-100 to -33	2001-2017	complete	-	-100 to -88	1987-2016	complete	arquata
Denmark	450	<1	2017	complete	0	-7 to 30	2009-2017	complete	+	33 to 193	1981-2017	complete	arquata
DK: Faroe Is	0–3	<1	1990	expert	?				?				
Estonia	1000–2000	<1	2013-2017	partial	-	-48 to -13	2007-2018	partial	-	-54 to -53	1980-2017	partial	arquata
Finland	80000–91400	37	2013-2018	complete	+	4 to 31	2007-2018	complete	0	-21 to 18	1980-2018	complete	arquata
France	1300–1600	<1	2010-2011	complete	?		2007-2018	deficient	?		1980-2018	expert	arquata
Germany	3600–4800	2	2016-2016	expert	0		2004-2016	expert	-		1985-2016	expert	arquata
Hungary	21–70	<1	2014-2018	complete	F		2007-2018	complete	F		1980-2018	expert	arquata
Iceland	1–10	<1	2018	partial	?		2006-2018	deficient	?		1980-2018	deficient	
Rep. Ireland	130–150	<1	2015-2017	complete	-		2008-2017	partial	-		1987-2017	partial	arquata
Latvia	210–310	<1	2013-2017	partial	0		2000-2017	expert	?		1980-2017	deficient	arquata
Lithuania	30–50	<1	2013-2018	partial	-	-20 to -10	2013-2018	partial	?		1980-2018	deficient	arquata
Netherlands	3900–4800	2	2013-2015	complete	-	-39 to -27	2006-2017	complete	-	-59 to -44	1984-2017	complete	arquata
Norway	2000–3000	1	2013-2018	partial	-	-5 to 0	2013-2018	partial	-	-50 to -25	1980-2018	partial	
Poland	120–250	<1	2013-2018	complete	-	-51 to -8	2015-2018	complete	-	-75 to -50	1980-2018	expert	arquata
Romania	0	<1	2013-2018	deficient	0		2007-2018	expert	-		1980-2018	expert	arquata
Russia	45000–100000	28	2007-2018	partial	-	-10 to -5	2008-2018	partial	-	-29 to -20	1980-2018	partial	
Russia		<1			?				?				N. a. orientalis
Russia		<1	2008-2018	expert	-	-49 to -30	2010-2018	expert	?		1980-2018	deficient	N. a. suchkini
Serbia	4	<1	2013-2018	deficient	?		2007-2018	deficient	?		1980-2018	deficient	
Slovakia	0	<1		deficient	-	-100 to -80	2007-2018	partial	-	-100 to -80	1980-2018	expert	arquata
Slovenia	5–15	<1	2007-2018	complete	-	-70 to -65	2011-2018	complete	-	-20 to -10	1980-2018	partial	arquata
Spain	3–5	<1	2007-2018	complete	-	-37 to -25	2007-2018	complete	-	-37 to -25	1980-2018	complete	arquata
Sweden	5200–7100	3	2013-2018	partial	-	-42 to -21	2007-2018	partial	-	-52 to -21	1980-2018	partial	arquata
Switzerland		<1	2013–2016	partial	0	0	2007-2018	complete	-	-99 to -92	1990-2018	complete	
Ukraine	22–33	<1	2009-2019	complete	-	-30 to -10	2009-2019	complete	-	-30 to -10	1990-2019	partial	
United Kingdom	58700–58800	25	2016	partial	-	-25	2004-2016	complete	-	-59	1980-2016	complete	arquata
EU28	155000–173000	70											
Europe	**202000–277000**	**100**											

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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]	

[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	270–1300	<1	2007-2018	complete	-	-17 to -10	2007-2018	complete	-	-17 to 0	1980-2018	complete	
Austria	300–700	<1	2013-2016	complete	0		2007-2018	partial	?		1981-2018	deficient	
Azerbaijan	500–2500	<1	1996-2019	partial	0		2010-2019	partial	?		1980-2019	expert	
Belgium	7900–10400	2	2013-2018	complete	?	-30 to 48	2007-2018	complete	?	-2 to 87	2000-2018	complete	
Bosnia & HG	1–10	<1	2015-2018	complete	?		2007-2018	deficient	?		1980-2018	deficient	
Bulgaria	10–180	<1	2013-2018	partial	-	-15 to -10	2000-2018	complete	-	-15 to -10	1980-2018	expert	
Croatia	60–120	<1	2010-2012	expert	0		2003-2012	expert	?		1980-2018	deficient	
Cyprus	10–50	<1	2013-2018	partial	0	0	2007-2018	partial	+	50 to 100	1980-2018	expert	
Denmark	12600–12700	2	2016-2016	complete	F		2006-2017	complete	+		1987-2017	complete	
DK: Faroe Is	50–200	<1	1992		?				?				
France	25100–42200	6	2013-2018	complete	-		2009-2018	complete	+		1978-2018	complete	
Georgia	17–19	<1	2014-2019	expert	?				?				
Germany	125000	24	2011-2016	complete	0	-6 to 6	2003-2016	complete	0	-30 to 40	1980-2016	partial	
Greece	0	<1			?				?				
Greece	1000–2500	<1	2013-2018	partial	-		2007-2018	partial	?		1980-2018	deficient	
Iceland	60–80	<1	2018	partial	0		2002-2014	partial	0		1980-2018	partial	
Rep. Ireland	28300	5	2011-2016	partial	-		2004-2016	partial	-		1987-2016	partial	
Italy	7200–8400	2	2013-2015	partial	+	15 to 20	2009-2015	partial	+	285 to 350	1991-2015	partial	
Montenegro	20–50	<1	2013-2018	expert	?		2007-2018	expert	?				
Netherlands	160000–197000	33	2013-2017	complete	0	-8 to 25	2006-2017	complete	+	39 to 98	1981-2017	partial	
Portugal	420–2600	<1	2013-2018	complete	-	-62 to -41	2007-2018	complete	-		1988-2018	partial	
Serbia	5–800	<1	2013-2018	complete	F		2013-2018	complete	+	80 to 100	1980-2018	partial	
Slovenia	6–25	<1	2013-2018	complete	-		2007-2018	complete	0		1980-2018	expert	
Spain	1000–5100	<1	2013-2018	complete	0		2007-2018	complete	+	3 to 45	1980-2018	complete	
Switzerland	370–1100	<1	2015-2019	complete	+	33 to 50	2008-2019	complete	+	143 to 185	1980-2019	complete	
Turkey	110–3200	<1	2013-2019	complete	?		2008-2019	deficient	?		1980-2019	deficient	
Ukraine	150–420	<1	2014-2017	partial	F		2007-2018	partial	F		1980-2018	partial	
United Kingdom	124000–125000	24	2012-2016	complete	-	-17	2005-2016	complete	+	21	1980-2016	complete	
EU28	494000–560000	99											
Europe	**495000–569000**	**100**											

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[6] Trend directions are reported as: increasing (+); decreasing (-); stable (0); fluctuating (F); or unknown (?).
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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
- Large decrease (≥50%)
- Moderate decrease (20–49%)
- Small decrease (<20%)
- 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.

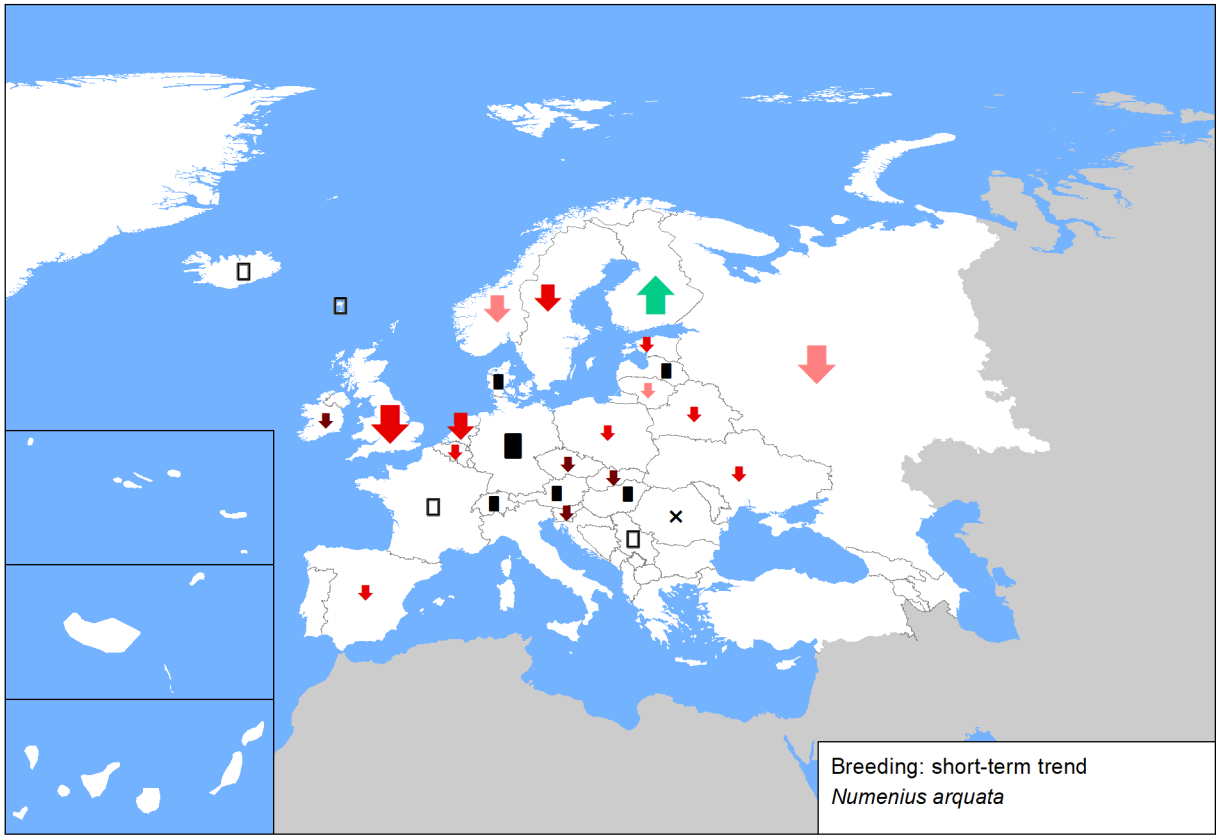


Figure 2. Breeding population sizes and long-term trends across Europe.

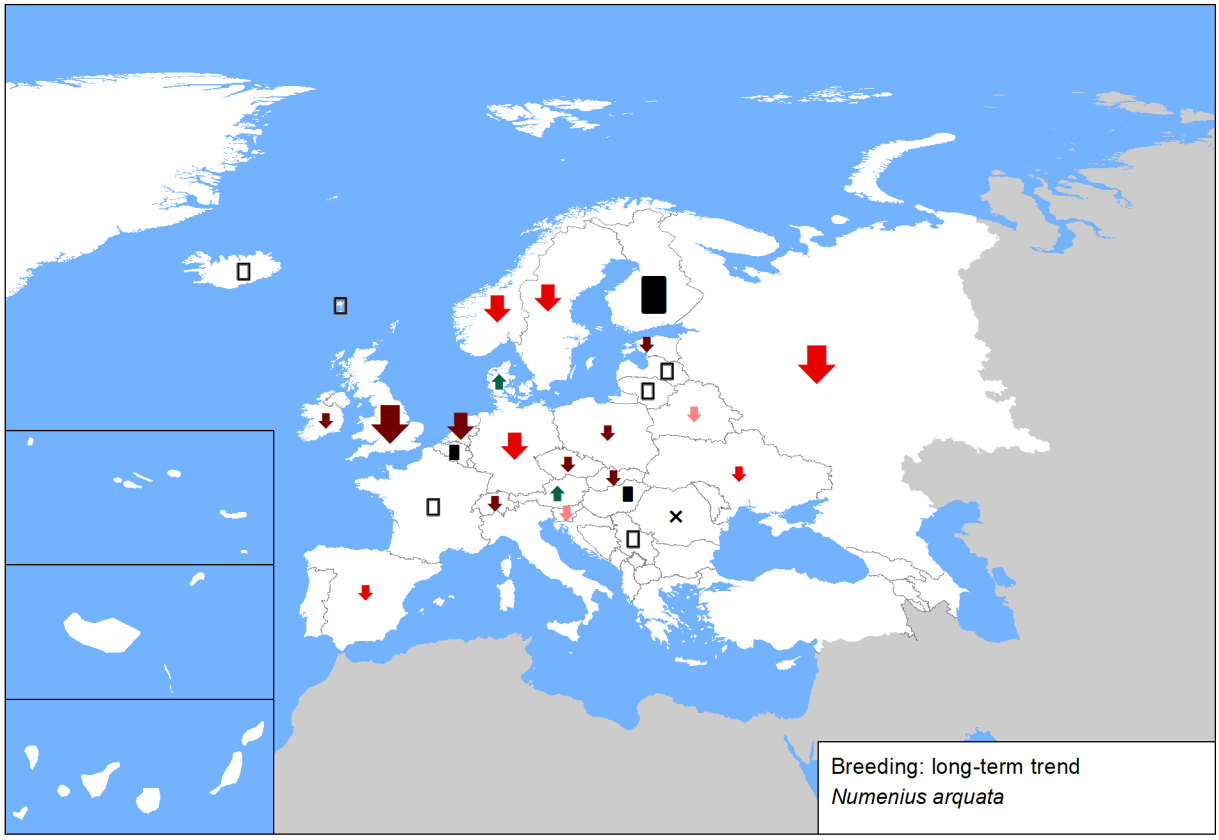


Figure 3. Reported wintering population sizes and short-term trends across Europe. Note that some countries within the species' wintering range did not report any data.

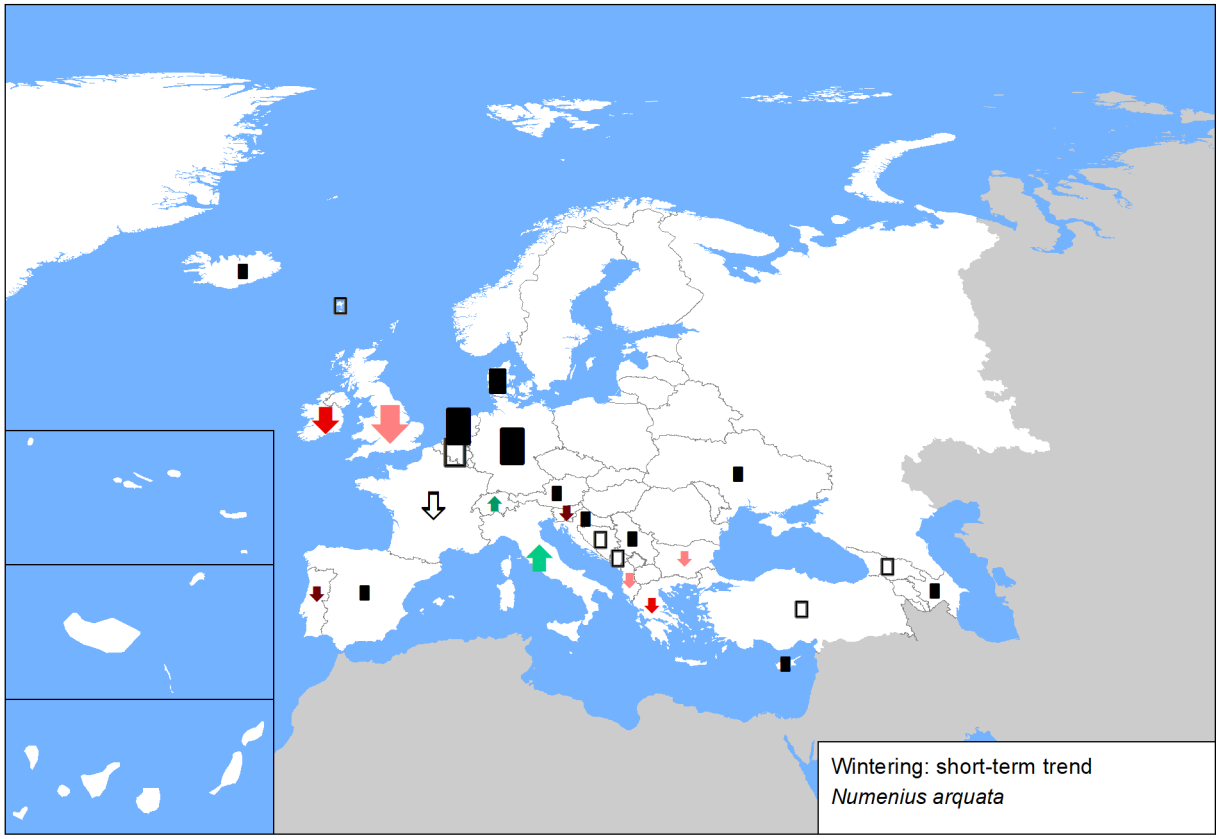
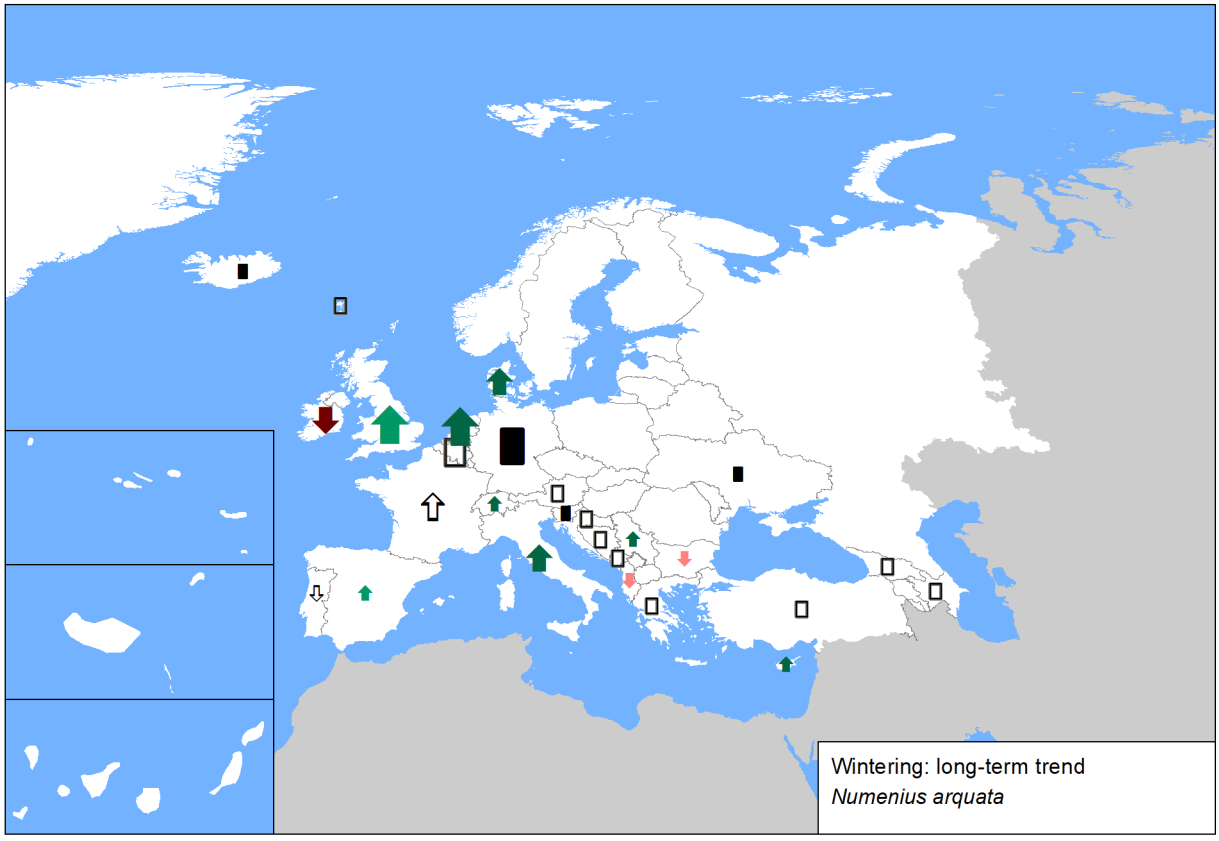


Figure 4. Reported wintering population sizes and long-term trends across Europe. Note that some countries within the species' wintering range did not report any data.



Sources

Albania

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

Austria: N. a. arquata

Winter population size: BirdLife Austria, data from www.ornitho.at
Winter short-term trend: BirdLife Austria, unpublished information
Winter long-term trend: BirdLife Austria, unpublished information

Austria: arquata

Breeding population size: BirdLife Austria, unpublished data from bird monitoring programs in the national park Neusiedler See - Seewinkel and in SPAs in northern Burgenland, Grinschgl (2013-2017), Uhl & Wichmann 2017 (Oberösterreich); Pöhacker et al. 2013 (Salzburg), Burtscher et al. 2017 (Vorarlberg)
Breeding short-term trend: BirdLife Austria, unpublished data from bird monitoring programs in the national park Neusiedler See - Seewinkel and in SPAs in northern Burgenland, Grinschgl (2013-2017), Uhl & Wichmann 2017 (Oberösterreich); Pöhacker et al. 2013 (Salzburg), Burtscher et al. 2017 (Vorarlberg)
Breeding long-term trend: Dvorak, Ranner & Berg 1993 (Atlas of Austrian breeding bird 1981-1985)

Azerbaijan

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: N. a. arquata

Winter population size: Waterbird database INBO
Winter short-term trend: Waterbird database INBO & Aves
Winter long-term trend: Waterbird database INBO & Aves

Belgium: arquata

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

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: N. a. arquata

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: Statistical analysis made by expert on base of Mid-winter count data; 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. Midwinter Numbers of Waterbirds in Bulgaria (1977-2001). Results from 25 years of mid-winter count carried out at the most important Bulgarian Wetlands. Publ. House Pensoft, Sofia, 160 pp.

Croatia: N. a. arquata

Winter population size: Tutiš, V., Kralj, J., Radović, D., Ćiković, D., Barišić, S. (ur.) (2013): Crvena knjiga ptica Hrvatske. Ministarstvo zaštite okoliša i prirode, Državni zavod za zaštitu prirode, Zagreb, 258 str. Zavod za ornitologiju (Sanja Barišic, Davor Cikovic, Jelena Kralj, Goran Sušic,Vesna Tutiš), Dragan Radovic, Ivan Budinski, Robert Crnkovic, Antun Delic, Dubravko Dender, Vlatka Dumbovic, Ivan Darko Grlica, Bariša Ilic, Luka Jurinovic, Davor Krnjeta, Krešimir Leskovar, Duje Lisicic, Ivica Lolic, Gordan Lukac. Kristijan Mandic, Krešimir Mikulic, Tibor Mikuska, Gvido Piasevoli, Andrej Radalj, Zlatko Ružanovic, Vlatka Ščetaric, Mirko Šetina, Adrian Tomik (2015): Procjene brojnosti za SPA podrucja. Državni zavod za zaštitu prirode, Zagreb Tutiš, V., Kralj, J., Radović, D., Ćiković, D., Barišić, S. (ur.) (2013): Crvena knjiga ptica Hrvatske. Ministarstvo zaštite okoliša i prirode, Državni zavod za zaštitu prirode, Zagreb, 258 str.

Winter short-term trend: Tutiš, V., Kralj, J., Radović, D., Ćiković, D., Barišić, S. (ur.) (2013): Crvena knjiga ptica Hrvatske. Ministarstvo zaštite okoliša i prirode, Državni zavod za zaštitu prirode, Zagreb, 258 str.

Winter long-term trend: Tutiš, V., Kralj, J., Radović, D., Ćiković, D., Barišić, S. (ur.) (2013): Crvena knjiga ptica Hrvatske. Ministarstvo zaštite okoliša i prirode, Državni zavod za zaštitu prirode, Zagreb, 258 str.

Cyprus: N. a. orientalis

Winter population size: Monthly waterbird counts by BirdLife Cyprus and Game & Fauna Service, as published in BirdLife Cyprus monthly checklists and also by the Game & Fauna Service; Analysis of recent BirdLife Cyprus bird sightings records reported in the society's annual reports.

Winter short-term trend: Monthly waterbird counts by BirdLife Cyprus and Game & Fauna Service, as published in BirdLife Cyprus monthly checklists and also by the Game & Fauna Service; Analysis of recent BirdLife Cyprus bird sightings records reported in the society's annual reports

Winter long-term trend: More recent records (2000 onwards) as above, pre-2000 records based on birdwatching records as reported in BirdLife Cyprus annual reports

Czechia: arquata

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: Šťastný et al. 2006

Denmark: N. a. arquata

Winter population size: Clausen, P., Holm, T.E., Laursen, K., Nielsen, R.D. & Christensen, T.K. (2013). Rastende fugle i det danske reservatnetværk 1994-2010. Del 1: Nationale resultater. Aarhus Universitet, DCE – Nationalt Center for Miljø og Energi, 118 s. - Videnskabelig rapport fra DCE - Nationalt Center for Miljø og Energi nr. 72. http://www.dmu.dk/Pub/SR72.pdf Kleefstra, R., Hornman, M., Bregnballe, T., Frikke, J., Günther, K., Hälterlein, B., Körber, P., Ludwig, J. & Scheiffarth, G. (2019). Trends of Migratory and Wintering Waterbirds in the Wadden Sea 1987/1988-2016/2017. - Wadden Sea Ecosystem No. 39. Common Wadden Sea Secretariat, Joint Monitoring Group of Migratory Birds in the Wadden Sea, Wilhelmshaven, Germany. Laursen, K. (2005). Curlews in the Wadden Sea, effects of shooting protection in Denmark. Pp. 171-184 i J. Blew & P. Südbeck (ed.): Migratory waterbirds in the Wadden Sea 1992-2000. – Wadden Sea Ecosystem 17, Common Wadden Sea Secretariat. Wilhelmshaven, Germany. 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/

Winter short-term trend: Kleefstra, R., Hornman, M., Bregnballe, T., Frikke, J., Günther, K., Hälterlein, B., Körber, P., Ludwig, J. & Scheiffarth, G. (2019). Trends of Migratory and Wintering Waterbirds in the Wadden Sea 1987/1988-2016/2017. - Wadden Sea Ecosystem No. 39. Common Wadden Sea Secretariat, Joint Monitoring Group of Migratory Birds in the Wadden Sea, Wilhelmshaven, Germany Laursen, K. (2005). Curlews in the Wadden Sea, effects of shooting protection in Denmark. Pp. 171-184 i J. Blew & P. Südbeck (ed.): Migratory waterbirds in the Wadden Sea 1992-2000. – Wadden Sea Ecosystem 17, Common Wadden Sea Secretariat. Wilhelmshaven, Germany. 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/

Winter long-term trend: Kleefstra, R., Hornman, M., Bregnballe, T., Frikke, J., Günther, K., Hälterlein, B., Körber, P., Ludwig, J. & Scheiffarth, G. (2019). Trends of Migratory and Wintering Waterbirds in the Wadden Sea 1987/1988-2016/2017. - Wadden Sea Ecosystem No. 39. Common Wadden Sea Secretariat, Joint Monitoring Group of Migratory Birds in the Wadden Sea, Wilhelmshaven, Germany Laursen, K. (2005). Curlews in the Wadden Sea, effects of shooting protection in Denmark. Pp. 171-184 i J. Blew & P. Südbeck (ed.): Migratory waterbirds in the Wadden Sea 1992-2000. – Wadden Sea Ecosystem 17, Common Wadden Sea Secretariat. Wilhelmshaven, Germany. 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/

Denmark: arquata

Breeding population size: www.dofbasen.dk & Nyegaard,T. et al.,Truede og sjældne ynglefugle i Danmark 1998-2012, Dansk Ornitologisk Forenings Tidsskrift 108, nr 1, 2014 & Atlas III 2014-2017 (www.dofbasen.dk/atlas) & DOF BirdLifeDK Fugleåret 2006-2017 &

Breeding short-term trend: www.dofbasen.dk & Nyegaard,T. et al.,Truede og sjældne ynglefugle i Danmark 1998-2012, Dansk Ornitologisk Forenings Tidsskrift 108, nr 1, 2014 & Atlas III 2014-2017 (www.dofbasen.dk/atlas) & DOF BirdLifeDK Fugleåret 2006-2017

Breeding long-term trend: www.dofbasen.dk & Nyegaard,T. et al.,Truede og sjældne ynglefugle i Danmark 1998-2012, Dansk Ornitologisk Forenings Tidsskrift 108, nr 1, 2014 & Atlas III 2014-2017 (www.dofbasen.dk/atlas) & DOF BirdLifeDK Fugleåret 2006-2017

DK: Faroe Is

Breeding population size: BirdLife International (2004) Birds in Europe: population estimates, trends and conservation status. BirdLife International, Cambridge, UK.

Winter population size: BirdLife International 2004

Estonia: arquata

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

Numenius arquata (Eurasian Curlew)

Estonia: arquata

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: arquata

Breeding population size: 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.

Breeding short-term trend: Bird monitoring schemes of the Finnish Museum of Natural History, University of Helsinki.

Breeding long-term trend: Bird monitoring schemes of the Finnish Museum of Natural History, University of Helsinki.

France: N. a. arquata

Winter population size: Clémence Gaudard, Gwenaël Quaintenne, Jérémy Dupuy 2018. Comptage des oiseaux d'eau à la mi-janvier en France en 2018 - Wetland International. revue LPO,

Winter short-term trend: Clémence Gaudard, Gwenaël Quaintenne, Jérémy Dupuy 2018. Comptage des oiseaux d'eau à la mi-janvier en France en 2018 - Wetland International. revue LPO,

Winter long-term trend: Clémence Gaudard, Gwenaël Quaintenne, Jérémy Dupuy 2018. Comptage des oiseaux d'eau à la mi-janvier en France en 2018 - Wetland International. revue LPO,

France: arquata

Breeding population size: Issa & Muller 2015. Atlas des oiseaux de France métropolitaine. Atlas, ; Nidal Issa, Pierre Defos du Rau, Bernard Deceuninck, Vincent Schricke, Bertrand Trolliet, Jean-Marie Boutin, Thierry Micol. 2012. Anatidés et Limicoles en France. revue, 20

Breeding short-term trend: Nidal Issa, Pierre Defos du Rau, Bernard Deceuninck, Vincent Schricke, Bertrand Trolliet, Jean-Marie Boutin, Thierry Micol. 2012. Anatidés et Limicoles en France. revue, 20

Breeding long-term trend: Issa N & Muller Y. 2015. Atlas des Oiseaux de France métropolitaine. Atlas des Oiseaux de France métropolitaine. Nidification et présence hivernale, Delachaux et Niestlé, Paris

Georgia

Winter population size: www.observation.org

Germany: N. a. arquata

Winter population size: Dachverband Deutscher Avifaunisten e.V. (http://www.dda-web.de)

Winter short-term trend: Dachverband Deutscher Avifaunisten e.V. (http://www.dda-web.de)

Winter long-term trend: Dachverband Deutscher Avifaunisten e.V. (http://www.dda-web.de)

Germany: arquata

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: N. a. arquata

Winter population size: 1) Natura Viewer (http://natura2000.eea.europa.eu/#) 2) 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. 3) Midwinter Counts Database (1967 - 2019), Hellenic Ornithological Society 4) BirdLife International (2017). European birds of conservation concern: populations, trends and national responsibilities. Cambridge. UK: BirdLife Internationa. ISBN 978-1-912086-00-9, 5) Portolou, D., Bourdakis, S., Vlachos, C., Kastritis, T., and Dimalexis. T. (eds.) 2009. Important Bird Areas of Greece: Priority sites for conservation. Hellenic Ornithological Society. Athens.

Winter short-term trend: (1) Midwinter Counts Database (1967 - 2019), Hellenic Ornithological Society (2) BirdLife International (2017). European birds of conservation concern: populations, trends and national responsibilities. Cambridge. UK: BirdLife Internationa. ISBN 978-1-912086-00-9, (3) Portolou, D., Bourdakis, S., Vlachos, C., Kastritis, T., and Dimalexis. T. (eds.) 2009. Important Bird Areas of Greece: Priority sites for conservation. Hellenic Ornithological Society. Athens.

Winter long-term trend: No data available

Greece: N. a. orientalis

Hungary: arquata

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/Numenius_arquata.pdf National park directorates' databases (Annual survey of colonially breeding and strictly protected bird species) http://map.mme.hu/maps/map2

Breeding long-term trend: Haraszthy L. (szerk.) (1984): Magyarország fészkelő madarai. Natura, Budapest. 83-84 p. Tucker, G. M. – Heath, M. F. (1994): Birds in Europe – Their Conservation Status. Royal Society for the Protection of Birds, BirdLife International, 278-279 p. Haraszthy, L. (szerk.) (1998): Magyarország madarai. Mezőgazda Kiadó, Budapest. 160 p. Magyar G., Hadarics T., Waliczky Z., Schmidt A., Nagy T. & Bankovics A. (1998): Magyarország madarainak névjegyzéke. Madártani Intézet, Budapest, 70-71 p. Ecsedi Z. (szerk.) (2004): A Hortobágy madárvilága. Hortobágy Természetvédelmi Egyesület, Winter Fair, Balmazújváros - Szeged. 2004. 313-314 p. BirdLife International (2004) Birds in Europe: population estimates, trends and conservation status. Cambridge, UK: BirdLife International. (BirdLife Conservation Series No.12.), 126 p. MME Nomenclator Bizottság (2008): Magyarország madarainak névjegyzéke. Nomenclator avium Hungariae. Magyar Madártani és Természetvédelmi Egyesület, Budapest. 120-121 p. KEHOP-4.3.0-15-2016-00001 project results, unpublished. National park directorates' databases (Annual survey of colonially breeding and strictly protected bird species) http://map.mme.hu/maps/map2

Numenius arquata (Eurasian Curlew)

Iceland

Breeding population size: Icelandic Institute of Natural History 2018. Red list of Icelandic Birds. Curlew. https://www.ni.is/node/27161; Icelandic Institute of Natural History, unpubl.data.
Breeding long-term trend: Icelandic Institute of Natural History 2018. Red list of Icelandic Birds. Curlew. https://www.ni.is/node/27161
Winter population size: Icelandic Institute of Natural History. Mid-winter bird counts, https://www.ni.is/greinar/vetrarfuglatalningar-nidurstodur; Icelandic Institute of Natural History, unpubl.data.
Winter short-term trend: Icelandic Institute of Natural History. Mid-winter bird counts, https://www.ni.is/greinar/vetrarfuglatalningar-nidurstodur; Icelandic Institute of Natural History, unpubl.data; Rare birds in Iceland, annual report in Bliki.
Winter long-term trend: Icelandic Institute of Natural History. Mid-winter bird counts, https://www.ni.is/greinar/vetrarfuglatalningar-nidurstodur; Icelandic Institute of Natural History, unpubl.data.

Republic of Ireland: N. a. arquata

Winter population size: Burke, B., Lewis, L. J., Fitzgerald, N., Frost, T., Austin, G. & Tierney, T. D. (2018) Estimates of waterbird numbers wintering in Ireland, 2011/12 – 2015/16. Irish Birds 11, 1-12.
Winter short-term trend: Lewis, L. J., Burke, B., Fitzgerald, N., Tierney, T. D. & Kelly, S. (2019) Irish Wetland Bird Survey: Waterbird Status and Distribution 2009/10-2015/16. Irish Wildlife Manuals, No. 106. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland.
Winter long-term trend: Lewis, L. J., Burke, B., Fitzgerald, N., Tierney, T. D. & Kelly, S. (2019) Irish Wetland Bird Survey: Waterbird Status and Distribution 2009/10-2015/16. Irish Wildlife Manuals, No. 106. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland.

Republic of Ireland: arquata

Breeding population size: O'Donoghue, B.G., Donaghy A., and Kelly, S.B.A. (2019). National survey of breeding Curlew in the Republic of Ireland 2015-2017. Wader Study 126: 43-48.
Breeding short-term trend: Lauder and Donaghy (2008) estimated 1,000 pairs on expert opinion and available data. O'Donoghue et al. (2019) recorded 138 breeding pairs when surveyed all previous known sites. Lauder, C. & A. Donaghy 2008. Breeding Waders in Ireland 2008: A Review and Recommendations for Future Action. Unpublished report to the National Parks and Wildlife Service, Ireland. O'Donoghue, Donaghy and Kelly (2019). National survey of breeding Curlew in the Republic of Ireland 2015-2017. Wader Study 126: 43-48.
Breeding long-term trend: Reed, T. (1985). Estimates of British breeding wader populations. Wader Study Group Bulletin 45: 11-12. Partridge, J.K. & K.W. Smith. (1992). Breeding wader populations in Northern Ireland, 1985-87. Irish Birds 4: 497–518. O'Donoghue, Donaghy and Kelly (2019). National survey of breeding Curlew in the Republic of Ireland 2015-2017. Wader Study 126: 43-48. Gibbons, D.W., J.B. Reid & R.A. Chapman. (1993). The New Atlas of Breeding Birds in Britain and Ireland: 1988–1991. T & A.D. Poyser, London, UK.

Italy: N. a. arquata

Winter population size: ISPRA-IWC Database
Winter short-term trend: ISPRA-IWC Database - Zenatello M., Baccetti N., Borghesi F., 2014. Risultati dei censimenti degli uccelli acquativi svernanti in Italia. Distribuzione, stima e trend delle popolazioni nel 2001-2010. ISPRA, Serie Rapporti, 206/2014, pp: 24-28.
Winter long-term trend: ISPRA-IWC Database; Baccetti N, Dall'Antonia P, Magagnoli P, Melega L, Serra L, Soldatini C, Zenatello M 2002. Risultati dei censimenti degli uccelli acquatici svernanti in Italia: distribuzione, stima e trend delle popolazioni nel 1991-2000. Biol. Cons. Fauna 111: 19-20.

Latvia: arquata

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
Breeding long-term trend: Priednieks J., Strazds M., Strazds A., Petrins A. 1989. Latvian Breeding Bird Atlas 1980-1984. Riga: Zinatne Unpublished data for European Breeding Bird Atlas (2013-2017); Expert: Andris Dekants, andris.dekants@lob.lv

Lithuania: arquata

Breeding population size: Expert working group of the Lithuanian Ornithological Society (lod@birdlife.lt) 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. Ministry of Environment of the Republic of Lithuania. 2016-2018. Leidinio "Lietuvos raudonoji knyga" parengimo paslaugos (Red data book of Lithuania). (Agreement No VPS-2016-104-ES)
Breeding short-term trend: Expert working group of the Lithuanian Ornithological Society (lod@birdlife.lt) 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. Ministry of Environment of the Republic of Lithuania. 2016-2018. Leidinio "Lietuvos raudonoji knyga" parengimo paslaugos (Red data book of Lithuania). (Agreement No VPS-2016-104-ES)
Breeding long-term trend: 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 (lod@birdlife.lt) BirdLife International/European Bird Cencus 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 (lod@birdlife.lt) 2015-2018. Lietuvos perinčių paukščių atlaso duomenų bazė (Lithuanian Breeding Birds Atlas Database). Vilnius. Ministry of Environment of the Republic of Lithuania. 2016-2018. Leidinio "Lietuvos raudonoji knyga" parengimo paslaugos (Red data book of Lithuania). (Agreement No VPS-2016-104-ES)

Montenegro

Winter population size: IWC reports (2013-2018): Dubak, Vešović, N., Jovićević, M., Vizi O., Vizi,A.

Netherlands: N. a. arquata

Winter population size: NEM waterbird monitoring scheme (Sovon, RWS, CBS, provincies)
Winter short-term trend: NEM waterbird monitoring scheme (Sovon, RWS, CBS, provincies)

Netherlands: N. a. arquata

Winter long-term trend: NEM waterbird monitoring scheme (Sovon, RWS, CBS, provincies)

Netherlands: arquata

Breeding population size: Sovon Bird atlas (Sovon 2018)
Breeding short-term trend: NEM (Sovon, RWS, CBS, provincies)
Breeding long-term trend: NEM (Sovon, RWS, CBS, provincies)

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) Terrestrial monitoring programme - extensive (TOV-e), b) Dale, S. & Monthouel, M. 2018. Storspoven i tilbakegang i Oslo og Akershus. Toppdykker'n 41: 87-93.
Breeding long-term trend: (a) Shimmings P. & Øien, I.J. 2015. Bestandsestimater og trender for norske hekkefugler. NOF-rapport 2015-2. (b) Norwegian terrestrial monitoring - extensive (TOV-E) programme (c) Dale, S. & Monthouel, M. 2018. Storspoven i tilbakegang i Akershus.Toppdykker'n 41: 87-93. (d) Byrkjedal, I., Kyllingstad, K., & Efteland, S. 2019. Bestandsendring hos storspove på Jæren, 1997-2019. Falco 48: 70-75.

Poland: arquata

Breeding population size: Lewtak J., Trzciński K., Krupiński D. 2016. Krajowy Plan Ochrony Kulika Wielkiego.Towarzystwo Przyrodnicze „Bocian", Warszawa; expert assessment
Breeding short-term trend: State Environmental Monitoring / Chief Inspectorate of Environmental Protection (survey: MKW)
Breeding long-term trend: Ławicki Ł., Wylegała P. 2011. Recent data on the declining breeding population of Eurasian Curlew Numenius arquata in western Poland. Wader Study Group Bulletin 118: 14–17; Ławicki Ł., Wylegała P. 2011. Spadek liczebności kulika wielkiego Numenius arquata

Portugal: N. a. arquata

Winter population size: Programa Nacional de Monitorização de Aves Aquáticas Invernantes
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: arquata

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: Sviridova in press
Breeding short-term trend: Kalyakin et al. 2019; Mischenko et al. 2019; Belik 2014
Breeding long-term trend: Butjev 2001; Sviridova 2008;

Russia: N. a. orientalis

Breeding population size: Morozov, expert opinion. piskulka@rambler.ru

Russia: N. a. suchkini

Breeding population size: Morozov, expert opinion. piskulka@rambler.ru
Breeding short-term trend: Morozov, expert opinion. piskulka@rambler.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.
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: arquata

Breeding population size: Coordinatory group for reporting 2019.

Slovakia: arquata

Breeding short-term trend: Coordinatory group for reporting 2019, AVES-Symfony Database 2013-2018, KIMS Database 2013-2018.

Breeding long-term trend: Coordinatory group for reporting 2019, AVES-Symfony Database 2013-2018, KIMS Database 2013-2018.

Slovenia: N. a. arquata

Winter population size: Božič L. (2013): Rezultati januarskega štetja vodnih ptic leta 2013 v Sloveniji. – Acrocephalus 34 (156/157): 93–103. Božič L. (2014): Rezultati januarskega štetja vodnih ptic leta 2014 v Sloveniji. – Acrocephalus 35 (160/161): 73–83. Božič L. (2015): Rezultati januarskega štetja vodnih ptic leta 2015 v Sloveniji. – Acrocephalus 36 (164/165): 57–67. Božič L. (2016): Rezultati januarskega štetja vodnih ptic leta 2016 v Sloveniji. – Acrocephalus 37 (170/171): 209–219. Božič L. (2017): Rezultati januarskega štetja vodnih ptic leta 2017 v Sloveniji. – Acrocephalus 38 (174/175): 203–215. Božič L. (2018): Rezultati januarskega štetja vodnih ptic leta 2018 v Sloveniji. – Acrocephalus 39 (178/179): xx–xx.

Winter short-term trend: Short-term trend Božič L. (2007): Rezultati januarskega štetja vodnih ptic leta 2007 v Sloveniji. – Acrocephalus 28 (132): 23–31. Božič L. (2008a): Rezultati januarskega štetja vodnih ptic leta 2008 v Sloveniji. – Acrocephalus 29 (136): 39–49. Božič L. (2008b): Rezultati januarskega štetja vodnih ptic leta 2009 v Sloveniji. – Acrocephalus 29 (138/139): 169–179. Božič L. (2010): Rezultati januarskega štetja vodnih ptic leta 2010 v Sloveniji. – Acrocephalus 31 (145/146): 131–141. Božič L. (2011): Rezultati januarskega štetja vodnih ptic leta 2011 v Sloveniji. – Acrocephalus 32 (148/149): 67–77. Božič L. (2012): Rezultati januarskega štetja vodnih ptic leta 2012 v Sloveniji. – Acrocephalus 33 (152/153): 109–119. Božič, L. (2008): Monitoring populacij izbranih vrst ptic – Zimsko štetje vodnih ptic 2002–2008. Končno poročilo. – DOPPS, Maribor. Rubinić, B. & Božič, L. (2009): Monitoring populacij izbranih vrst ptic. Rezultati zimskega štetja vodnih ptic 2009, rezultati popisov preleta uped v jesenski sezoni 2008. 2. vmesno poročilo. – DOPPS, Ljubljana. Božič, L. (2010): Monitoring populacij izbranih ciljnih vrst ptic – Zimsko štetje vodnih ptic. Poročilo. – DOPPS, Ljubljana. Božič, L. (2011): Monitoring populacij izbranih ciljnih vrst ptic – Zimsko štetje vodnih ptic. Poročilo. – DOPPS, Ljubljana.

Winter long-term trend: Birdlife International (2004): Birds in Europe: population estimates, trends and conservation status. BirdLife Conservation Series No. 12. – Birdlife International, Cambrige. Sovinc, A. (1994): Zimski ornitološki atlas Slovenije. – Tehniška založba Slovenije, Ljubljana.

Slovenia: arquata

Breeding population size: Bordjan D. (2012): Vodne ptice in ujede Cerkniškega polja (južna Slovenija) v letih 2007 in 2008, s pregledom zanimivejših opazovanj do konca leta 2010. Acrocephalus 33 (152/153): 25–104. Denac K. (2013): Velikost in razširjenost populacije velikega škurha Numenius arquata na Ljubljanskem barju v letih 2011 in 2012. Acrocephalus 34 (156/157): 33–41. Denac K. (2014): Popis velikega škurha na Ljubljanskem barju. Svet ptic 20 (2): 34–35. Koce U. (2018): Veliki škurh Numenius arquata. pp. 126-131. In: Denac K., Jančar T., Božič L., Mihelič T., Koce U., Kmecl P., Kljun I., Denac D., Bordjan D. (2018): Monitoring populacij izbranih ciljnih vrst ptic na območjih Natura 2000 v letu 2018 in sinteza monitoringa 2016-2018. Poročilo. Naročnik: Ministrstvo za kmetijstvo, gozdarstvo in prehrano. DOPPS, Ljubljana.

Breeding short-term trend: For data from Ljubljansko barje: Koce U. (2018): Veliki škurh Numenius arquata. pp. 126-131. In: Denac K., Jančar T., Božič L., Mihelič T., Koce U., Kmecl P., Kljun I., Denac D., Bordjan D. (2018): Monitoring populacij izbranih ciljnih vrst ptic na območjih Natura 2000 v letu 2018 in sinteza monitoringa 2016-2018. Poročilo. Naročnik: Ministrstvo za kmetijstvo, gozdarstvo in prehrano. DOPPS, Ljubljana. For data from Lake Cerknica: Web portal NOAGS: http://atlas.ptice.si/atlas/index.php?r=user/login, accessed 11 Apr 2019

Breeding long-term trend: Geister I. (1995): Ornitološki atlas Slovenije. Državna založba Slovenije, Ljubljana. Bordjan D. (2012): Vodne ptice in ujede Cerkniškega polja (južna Slovenija) v letih 2007 in 2008, s pregledom zanimivejših opazovanj do konca leta 2010. Acrocephalus 33 (152/153): 25–104. Denac K. (2013): Velikost in razširjenost populacije velikega škurha Numenius arquata na Ljubljanskem barju v letih 2011 in 2012. Acrocephalus 34 (156/157): 33–41. Denac K. (2014): Popis velikega škurha na Ljubljanskem barju. Svet ptic 20 (2): 34–35. Koce U. (2018): Veliki škurh Numenius arquata. pp. 126-131. In: Denac K., Jančar T., Božič L., Mihelič T., Koce U., Kmecl P., Kljun I., Denac D., Bordjan D. (2018): Monitoring populacij izbranih ciljnih vrst ptic na območjih Natura 2000 v letu 2018 in sinteza monitoringa 2016-2018. Poročilo. Naročnik: Ministrstvo za kmetijstvo, gozdarstvo in prehrano. DOPPS, Ljubljana.

Spain: N. a. arquata

Winter population size: Información proporcionada por las Comunidades Autónomas. SEO/BirdLife (2018). Censos de aves acuáticas. (http://www.acuaticas.org/WebForms/ConsultaContenidos/Paginas/RealMapasDistAbunEspecie.aspx)

Winter short-term trend: Información proporcionada por las Comunidades Autónomas. SEO/BirdLife (2018). Censos de aves acuáticas. (http://www.acuaticas.org/WebForms/ConsultaContenidos/Paginas/RealMapasDistAbunEspecie.aspx) SEO/BirdLife (2019). Programas de seguimiento y grupos de trabajo de SEO/BirdLife 2018. SEO/BirdLife. Madrid. (https:doi.org/10.31170/0073)

Winter long-term trend: González, R. & Pérez-Aranda, D. (2011). Las aves acuáticas en España, 1980-2009. SEO/BirdLife, Madrid, 338 pp. 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. (https://www.miteco.gob.es/es/biodiversidad/temas/inventarios-nacionales/atlas_aves_invierno_tcm30-198034.pdf) SEO/BirdLife (2018). Censos de aves acuáticas. (http://www.acuaticas.org/WebForms/ConsultaContenidos/Paginas/RealMapasDistAbunEspecie.aspx) SEO/BirdLife (2019). Programas de seguimiento y grupos de trabajo de SEO/BirdLife 2018. SEO/BirdLife. Madrid. (https:doi.org/10.31170/0073)

Spain: arquata

Breeding population size: Domínguez, J. & Vidal, M. (2008). Propuesta técnica de Plan de Recuperación de la población nidificante de zarapito real (Numenius arquata) en Galicia. Informe no publicado. Dirección Xeral de Conservación da Natureza, Consellería de Medio Ambiente e Desenvolvemento Sostible. 116 pp. Domínguez, J. & Vidal, M. (2017). Actualización de la propuesta técnica de Plan de Recuperación de la población nidificante de zarapito real (Numenius arquata) en Galicia. Informe no publicado. Dirección Xeral de Patrimonio Natural, Consellería de Medio Ambiente e Ordenación do Territorio. 153 pp.

Breeding short-term trend: Domínguez, J. & Vidal, M. (2008). Propuesta técnica del Plan de Recuperación de la población nidificante del zarapito real (Numenius arquata) en Galicia. Informe no publicado. Dirección Xeral de Conservación da Natureza, Consellería de Medio Ambiente e Desenvolvemento Sostible. 116 pp. Domínguez, J. & Vidal, M. (2017). Actualización de la propuesta técnica del Plan de Recuperación de la población nidificante del zarapito real (Numenius arquata) en Galicia. Informe no publicado. Dirección Xeral de Patrimonio Natural, Consellería de Medio Ambiente e Ordenación do Territorio. 153 pp.

Breeding long-term trend: Domínguez, J. & Vidal, M. (2008). Propuesta técnica del Plan de Recuperación de la población nidificante del zarapito real (Numenius arquata) en Galicia. Informe no publicado. Dirección Xeral de Conservación da Natureza, Consellería de Medio Ambiente e Desenvolvemento Sostible. 116 pp. Domínguez, J. & Vidal, M. (2017). Actualización de la propuesta técnica del Plan de Recuperación de la población nidificante del zarapito real (Numenius arquata) en Galicia. Informe no publicado. Dirección Xeral de Patrimonio Natural, Consellería de Medio Ambiente e Ordenación do Territorio. 153 pp.

Sweden: arquata

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: National inventories

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/
Winter population size: Strebel, N. (2019): Überwinternde Wasservögel in der Schweiz: Ergebnisse der Wasservogelzählungen 2018/2019. Schweizerische Vogelwarte, Sempach./Strebel, N. (2019): Monitoring hivernal des oiseaux d'eau en Suisse: Résultats des recensements des oiseaux d'eau 2018/2019. Station ornithologique suisse, Sempach.
Winter short-term trend: Strebel, N. (2019): Überwinternde Wasservögel in der Schweiz: Ergebnisse der Wasservogelzählungen 2018/2019. Schweizerische Vogelwarte, Sempach./Strebel, N. (2019): Monitoring hivernal des oiseaux d'eau en Suisse: Résultats des recensements des oiseaux d'eau 2018/2019. Station ornithologique suisse, Sempach.
Winter long-term trend: Strebel, N. (2019): Überwinternde Wasservögel in der Schweiz: Ergebnisse der Wasservogelzählungen 2018/2019. Schweizerische Vogelwarte, Sempach./Strebel, N. (2019): Monitoring hivernal des oiseaux d'eau en Suisse: Résultats des recensements des oiseaux d'eau 2018/2019. Station ornithologique suisse, Sempach.

Turkey

Winter population size: Ebird Datebase and Midwinter Fowl Counts (2013-2018), Birdlife Estimate
Winter short-term trend: Midwinter bird counts 2012-2019
Winter long-term trend: Midwinter bird counts 1980-2019 and Historical Records come from OSME and other midwinter counts

Ukraine

Breeding population size: 1. Петрович З. О., Редінов К. О. Гніздування великого кроншнепа (Numenius arquata) на Нижньодніпровській піщаній арені // Бранта, 2011. – Вип. 14, – С. 149–151. 2. Андрющенко Ю.А., Попенко В.М. О некоторых интересных орнитологических наблюдениях на юге Украины в 2012-2013 годах / Птицы и окружающая среда // Сборник научных работ / Под редакцией Русева И.Т., Стойловского В.П., Корзюкова А.И., Кивганова Д.А.- Одесса, 2013.- С.3-9.
Breeding long-term trend: Горбань І. (2003): Оцінка чисельності гніздових птахів України. - Вісн. Львів. ун-ту. Сер. біол. 34: 147-158.
Winter population size: Черничко И. И., Дядичева Е. А., Попенко В. М., Черничко Р. Н. ПТИЦЫ ВОДНО-БОЛОТНОГО УГОДЬЯ МЕЛКОВОДНАЯ ЧАСТЬ УТЛЮКСКОГО ЛИМАНА (СЕВЕРО-ЗАПАДНОЕ ПРИАЗОВЬЕ) // Бранта: Сборник научных трудов Азово-Черноморской орнитологической станции. – 2017. – Вып. 20. – С. 39-68.
Winter short-term trend: 1. 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.). 2. Redinov, K.A., Petrovych, Z.O. 2016. Winter records of waders on Kinburnsky peninsula and in adjacent areas of Mykolaiv region. 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: 314-324 (in Russ.). 3. Plyusch, S.O., Moskalenko, Yu.O. 2018. The records of bird species listed in Red Data Book of Ukraine in non-breeding gatherings on the waters of Chernomorsky biosphere reserve in 2007-2017. In Materials to the 4th edition of Red Data Book of Ukraine. Animals. Kyiv, 133-162 (in Ukr.). (Ser. Conservation Biology in Ukraine. Iss. 7., vol. 2).

United Kingdom: N. a. arquata

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. 112: 130-145. Burke, B., Lewis, L.J., Frost, T., Austin, G. & Tierney, T.D. 2019. Estimates of waterbird numbers wintering in Ireland, 2011/12 - 2015/16. Irish Birds in press.
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.

United Kingdom: arquata

Breeding population size: Baseline = O'Brien, M. 2004. Estimating the number of farmland waders breeding in the United Kingdom. International Wader Studies 14: 135-139. Total (derived from a compilation of estimates between 1980s-2000) adjusted using subsequent BBS monitoring from 1995 to 2016 for GB, plus an estimate from a survey in NI.
Breeding short-term trend: BTO/JNCC/RSPB Breeding Bird Survey data: Harris, S.J., Massimino, D., Gillings, S., Eaton, M.A., Noble, D.G., Balmer, D.E., Procter, D., PearceHiggins, J.W. & Woodcock, P. 2018. The Breeding Bird Survey 2017. BTO Research Report 706 British Trust for Ornithology, Thetford. https://www.bto.org/sites/default/files/bbs-report-2017.pdf
Breeding long-term trend: Joint Common Bird Census/Breeding Bird Survey smoothed trend index. Woodward, I.D., Massimino, D., Hammond, M.J., Harris, S.J., Leech, D.I., Noble, D.G., Walker, R.H., Barimore, C., Dadam, D., Eglington, S.M., Marchant, J.H., Sullivan, M.J.P., Baillie, S.R. & Robinson, R.A. (2018) BirdTrends 2018: trends in numbers, breeding success and survival for UK breeding birds. Research Report 708. BTO, Thetford. www.bto.org/birdtrends

Bibliography

Baines, D. 1988. The effects of improvement of upland grassland on the distribution and density of breeding wading birds (Charadriiformes) in northern England. Biological Conservation 45: 221-236.

Billerman, S.M., Keeney, B.K., Rodewald, P.G. and Schulenberg, T.S. (eds). 2020. Birds of the World. Cornell Laboratory of Ornithology, Ithaca.

Bird, J. P., Martin, R., Akçakaya, H. R., Gilroy, J., Burfield, I. J., Garnett, S. G., Symes, A., Taylor, J., Sekercioglu, Ç. H. and Butchart, S. H. M. 2020. Generation lengths of the world's birds and their implications for extinction risk. Conservation Biology 34(5): 1252-1261. DOI: 10.1111/cobi.13486.

BirdLife International. 2004. Birds in Europe: population estimates, trends and conservation status. BirdLife International, Cambridge, U.K.

Brazil, M. 2009. Birds of East Asia: eastern China, Taiwan, Korea, Japan, eastern Russia. Christopher Helm, London.

Brown, D., Crockford, N. and Sheldon, R. 2014. Drivers of population change and conservation priorities for the Numeniini populations of the world. UNEP/CMS/COP11/Inf.33. Birdlife International, International Wader Study Group.

Burton, N.H.K. 2006. The impact of the Cardiff Bay barrage on wintering waterbirds. In: G. Boere, C. Galbraith & D. Stroud (eds), aterbirds around the world, pp. 805. The Stationary Office, Edinburgh, UK.

Burton, N.H.K., Armitage, M.J.S., Musgrove, A.J. and Rehfisch, M.M. 2002. Impacts of man-made landscape features on numbers of estuarine waterbirds at low tide. Environmental Management 30(6): 857-864.

Burton, N.H.K., Rehfisch, M.M. and Clark, N.A. 2002. Impacts of Disturbance from Construction Work on the Densities and Feeding Behavior of Waterbirds using the Intertidal Mudflats of Cardiff Bay, U.K. Environmental Management 30(6): 865-871.

Crick, H.Q.P., Dudley, C., Glue, D.E. and Thomson, D.L. 1997. UK birds are laying earlier. Nature 388: 526.

Delany, S. and Scott, D. 2006. Waterbird population estimates. Wetlands International, Wageningen, The Netherlands.

Eaton, M.A., Austin, G.E., Banks, A.N., Conway, G., Douse, A., Grice, P.V., Hearn, R.D., Hilton, G.M., Hoccom, D., Musgrove, A.J., Noble, D.G.N., Ratcliffe, N, Rehrisch, M.M, Worden, J. and Wotton, S. 2007. The state of the UK's birds 2006.

Flint, V.E., Boehme, R.L., Kostin, Y.V. and Kuznetsov, A.A. 1984. A field guide to birds of the USSR. Princeton University Press, Princeton, New Jersey.

Gibbons, D.W., Reid, J.B. and Chapman, R.A. 1993. Poyser, London, UK.

Hayman, P., Marchant, J. and Prater, A.J. 1986. Shorebirds. Croom Helm, London.

Hillis, J.P. 2003. Rare Irish breeding birds, 1992-2001. Irish Birds 7(2): 157-172.

Hötker, H., Jeromin, H. and Melter, J. 2007. Entwicklung der Brutbestände der Wiesen-Limikolen in Deutschland - Ergebnisse eines neuen Ansatzes im Monitoring mittelhäufiger Brutvogelarten. Vogelwelt 128: 49-65.

Jenkins, D. and Watson, A. 2000. Dates of first arrival and song of birds during 1974-1999 in mid-Deeside, Scotland. Bird Study 47: 249-251.

Jensen, F. P.; Lutz, M. 2007. Management plan for Curlew (Numenius arquata) 2007-2009. Office for Official Publications of the European Communities, Luxembourg.

Johnsgard, P.A. 1981. The plovers, sandpipers and snipes of the world. University of Nebraska Press, Lincoln, U.S.A. and London.

Kelin, C. and Qiang, X. 2006. Conserving migratory shorebirds in the Yellow Sea region. In: G. Boere, C. Galbraith & D. Stroud (eds), Waterbirds around the world, pp. 319. The Stationery Office, Edinburgh, UK.

Laursen, K. 2005. Curlews in the Wadden Sea - effects of shooting protection in Denmark. Wadden Sea Ecosystem 20: 173-183.

Meltofte, H.; Laursen, K.; Amstrup, O. 2009. [Marked increase in numbers of staging and wintering Curlews in Denmark following improved protection and climate amelioration]. Dansk Ornitologisk Forenings Tidsskrift 103(4): 99-113.

Melville, D.S. and Shortridge, K.F. 2006. Migratory waterbirds and avian influenza in the East Asian-Australasian Flyway with particular reference to the 2003-2004 H5N1 outbreak. In: G. Boere, C. Galbraith & D. Stroud (eds), Waterbirds around the World, pp. 432-438. The Stationery Office, Edinburgh, U.K.

Navedo, J. G.; Masero, J. A. 2007. Measuring potential negative effects of traditional harvesting practices on waterbirds: a case study with migrating curlews. Animal Conservation 10: 88-94.

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

Thorup, O. 2006. Breeding waders in Europe 2000. International Wader Study Group, Thetford, U.K.

Wetland International - China Office. 2006. Relict Gull surveys in Hongjianao, Shaanxi Province. Newsletter of China Ornithological Society 15(2): 29.

del Hoyo, J., Elliott, A. and Sargatal, J. (eds). 1996. Handbook of the Birds of the World, Vol. 3: Hoatzin to Auks. Lynx Edicions, Barcelona, Spain.