

***Botaurus stellaris* (Eurasian Bittern)**

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).

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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.

Botaurus stellaris (Eurasian Bittern)

Table 1. Reported national breeding population size and trends in Europe¹.

Country (or territory) ²	Population estimate				Short-term population trend ⁵				Long-term population trend ⁵				Subspecific population (where relevant)
	Size (pairs) ³	Europe (%)	Year(s)	Method ⁴	Direction ⁶	Magnitude (%) ⁷	Year(s)	Method ⁴	Direction ⁶	Magnitude (%) ⁷	Year(s)	Method ⁴	
Albania	14–35	<1	2007-2018	complete	+	133 to 180	2007-2018	complete	+	133 to 180	1980-2018	expert	
Austria	110–170	<1	2013-2018	partial	-	-60 to -40	2007-2013	complete	?		1981-2018	deficient	
Belarus	1000–1800	2	2010-2018	partial	0	-10 to 10	2012-2019	expert	0	0	1980-2019	expert	
Belgium	20–31	<1	2013-2018	complete	+	-7 to 44	2008-2018	complete	-	-68 to -50	1973-2018	partial	
Bosnia & HG	30–70	<1	2015-2018	complete	?	-10 to 10	2007-2018	complete	?		1980-2018	deficient	
Bulgaria	70–110	<1	2005-2018	partial	+	80 to 110	2000-2018	partial	+	150 to 200	1980-2018	partial	
Croatia	50–70	<1	2013-2018	expert	-	-40 to -20	2007-2018	expert	?		1980-2018	deficient	
Czechia	20–30	<1	2014-2017	complete	-		2002-2006	complete	0		1986-2016	complete	
Denmark	210–220	<1	2013	complete	F	218 to 355	2008-2017	complete	+	30 to 355	1980-2017	complete	
Estonia	300–400	<1	2013-2017	partial	0	-1 to 21	2006-2017	partial	+	30 to 61	1980-2017	partial	
Finland	1200–1400	2	2013-2018	partial	+		2007-2018	partial	+		1980-2018	partial	
France	270–290	<1	2012-2012	partial	?		2008-2018	deficient	-	-50 to -10	1970-2018	expert	
Georgia	15–45	<1	2018-2019	partial	?			deficient	?				
Germany	800–850	<1	2014-2016	complete	+		2004-2016	expert	0		1985-2016	expert	
Greece	5–15	<1	2013-2018	partial	-		2007-2018	partial	?		1980-2018	deficient	
Hungary	800–1800	1	2017-2018	partial	0		2007-2018	expert	?		1980-2018	deficient	
Italy	70–100	<1	2013-2018	expert	?		2007-2018	deficient	+	215 to 275	1993-2018	expert	
Latvia	420–430	<1	2013-2017	partial	0	2 to 6	2000-2017	partial	+		1991-2017	partial	
Lithuania	1500–2000	2	2013-2018	partial	+	0 to 5	2013-2018	partial	+	5 to 10	1980-2018	partial	
North Macedonia	2–10	<1	2014-2019	expert	0		2007-2018	expert	?		1980-2019		
Moldova	120–200	<1	2014-2017	partial	+		2007-2018	partial	0		1990-2018	expert	
Montenegro	25–40	<1	2013-2018	partial	-		2007-2018	expert	?				
Netherlands	310–400	<1	2013-2017	complete	+	14 to 59	2006-2017	complete	+	12 to 28	1980-2017	complete	
Poland	3300–4800	5	2013-2018	complete	-	-39 to -1	2007-2018	complete	?		1980-2018	deficient	
Portugal	1	<1	2013-2018	partial	?		2007-2018	deficient	?		1980-2018	deficient	
Romania	2500–4500	4	2013-2018	expert	?		2007-2018	deficient	?		1980-2018	deficient	
Russia	45000–65000	62	2008-2018	partial	0		2010-2018	partial	0		1980-2018	expert	
Serbia	510–780	<1	2013-2018	partial	0	0	2007-2018	complete	+	10 to 29	1980-2018	complete	
Slovakia	10–60	<1	2013-2018	partial	-	-20 to -10	2007-2018	partial	-	-50 to -30	1980-2018	partial	
Slovenia	1–4	<1	2013-2018	complete	-	-50 to 0	2007-2018	complete	-	-80 to -50	1980-2018	expert	
Spain	17–44	<1	2011-2018	complete	0		2007-2018	complete	F		1980-2018	partial	
Sweden	580–740	<1	2013-2018	complete	-	-25 to -5	2007-2018	partial	+	80 to 120	1980-2018	partial	

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Table 1. Reported national breeding population size and trends in Europe¹.

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	
Turkey	270–340	<1	2002-2012	partial	?		2008-2019	deficient	?		1980-2013	deficient	
Ukraine	14000–16000	17	2015-2017	partial	?		2007-2019	deficient	-	-25 to -20	1980-2018	expert	
United Kingdom	150–160	<1	2012-2016	complete	+		2001-2016	complete	+		1978-2016	complete	
EU28	12700–18600	18											
Europe	73700–103000	100											

¹ See 'Sources' at end of factsheet, and for more details on individual EU Member State reports, see the Article 12 reporting portal at <http://bd.eionet.europa.eu/article12/report>.

² The designation of geographical entities and the presentation of the material do not imply the expression of any opinion whatsoever on the part of IUCN or BirdLife International concerning the legal status of any country, territory or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

³ In the few cases where population size estimates were reported in units other than those specified, they were converted to the correct units using standard correction factors.

⁴ The 'method used' (replacing the data 'quality' assessment in the 2015 European Red List) is reported as: a) Complete: complete survey or a statistically robust estimate; b) Partial: based mainly on extrapolation from a limited amount of data; c) Expert: based mainly on expert opinion with very limited data; d) Defficient: insufficient or no data available.

⁵ The robustness of regional trends to the effects of any missing or incomplete data was tested using plausible scenarios, based on other sources of information, including any other reported information, recent national Red Lists, scientific literature, other publications and consultation with relevant experts.

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

⁷ Trend magnitudes are rounded to the nearest integer.

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Table 2. Reported national wintering population sizes and trends in Europe¹. 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	0–3	<1	2007-2018	complete	0	0	2007-2018	complete	-	-25 to 0	1980-2018	complete	
Azerbaijan	100–500	7	1996-2019	expert	?		2010-2019	expert	?		1980-2019	expert	
Belgium	30–100	2	2013-2018	partial	?	-3 to 141	2007-2018	complete	?		1992-2018	deficient	
Bosnia & HG	5–10	<1	2015-2018	complete	?	-10 to 10	2007-2018	deficient	?		1980-2018	deficient	
Bulgaria	50–100	2	2013-2018	partial	+	50 to 60	2000-2018	partial	F		1980-2018	expert	
Croatia	10	<1	2013-2018	expert	?		2007-2018	deficient	?		1980-2013	deficient	
France	1000–3000	54	2013-2018	expert	?		2007-2018	deficient	?		1980-2018	deficient	
Germany	150–400	8	2011-2016	partial	?		2003-2016	deficient	?		1980-2016	deficient	
Luxembourg	5–7	<1	2013-2018	complete	F		2007-2018	partial	+	500 to 700	1980-2018	partial	
Serbia	10–100	1	2013-2018	partial	?		2013-2018	deficient	?		1980-2018	deficient	
Turkey	4–12	<1	2013-2019	complete	?		2008-2019	partial	?		1980-2019	partial	
Ukraine	20–40	<1	2014-2017	partial	?		2007-2018	partial	?		1980-2018	partial	
United Kingdom	790–800	25	2017	partial	+		2009-2018	partial	+		1981-2017	partial	
EU28	2000–4500	91											
Europe	2100–5100	100											

¹ See 'Sources' at end of factsheet, and for more details on individual EU Member State reports, see the Article 12 reporting portal at <http://bd.eionet.europa.eu/article12/report>.

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³ In the few cases where population size estimates were reported in units other than those specified, they were converted to the correct units using standard correction factors.

⁴ The 'method used' (replacing the data 'quality' assessment in the 2015 European Red List) is reported as: a) Complete: complete survey or a statistically robust estimate; b) Partial: based mainly on extrapolation from a limited amount of data; c) Expert: based mainly on expert opinion with very limited data; d) Defficient: insufficient or no data available.

⁵ The robustness of regional trends to the effects of any missing or incomplete data was tested using plausible scenarios, based on other sources of information, including any other reported information, recent national Red Lists, scientific literature, other publications and consultation with relevant experts.

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

⁷ Trend magnitudes are rounded to the nearest integer.

Trend maps

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

KEY

- | | |
|---|----------------------------------|
| ↑ Large increase ($\geq 50\%$) | ↓ Large decrease ($\geq 50\%$) |
| ↑ 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: $\geq 10\%$ 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.

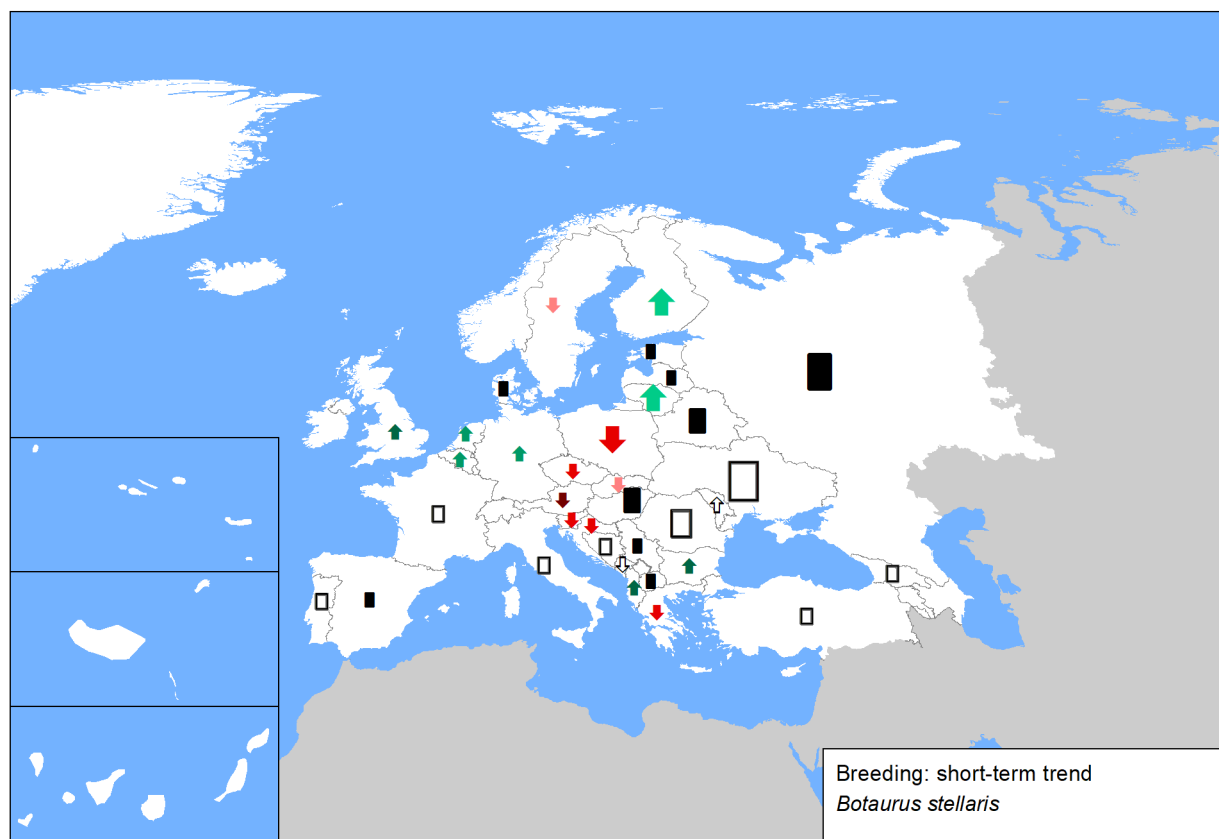


Figure 2. Breeding population sizes and long-term trends across Europe.

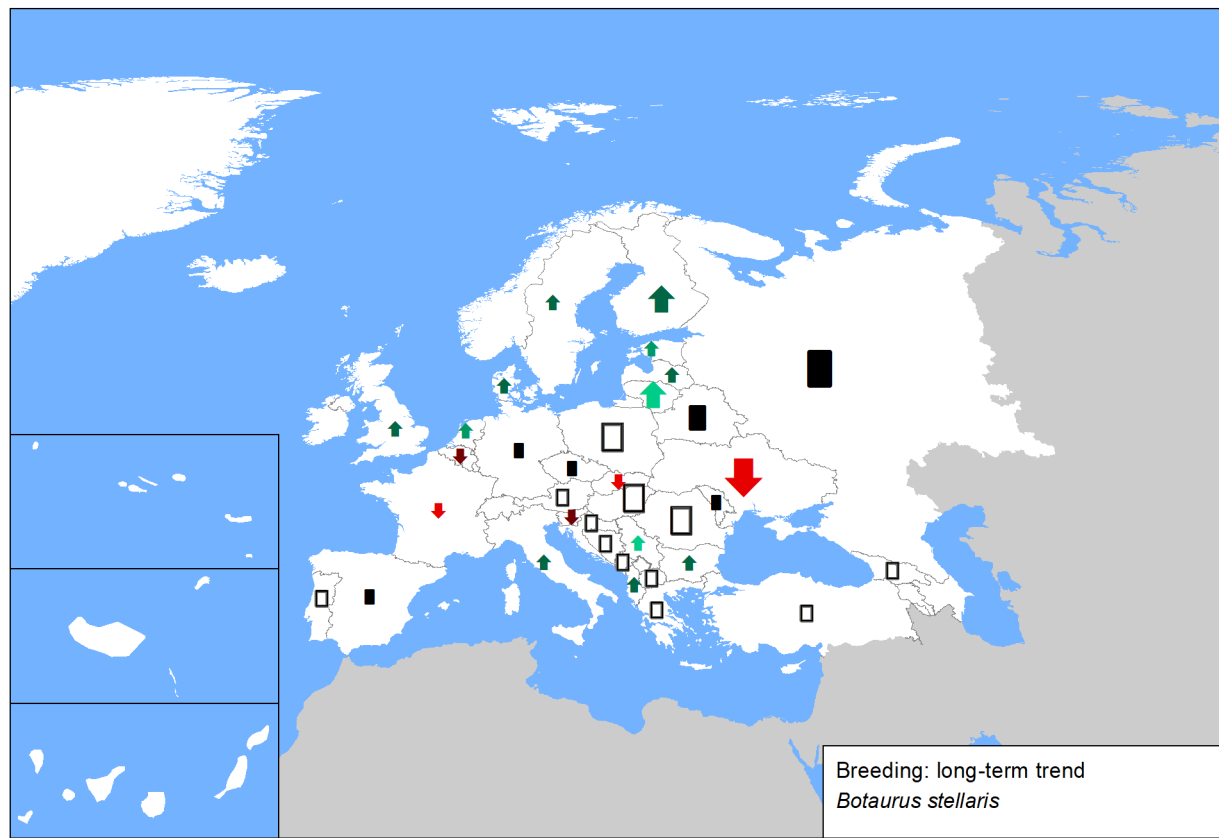


Figure 3. Reported wintering population sizes and short-term trends across Europe. Note that some countries within the species' wintering range did not report any data.

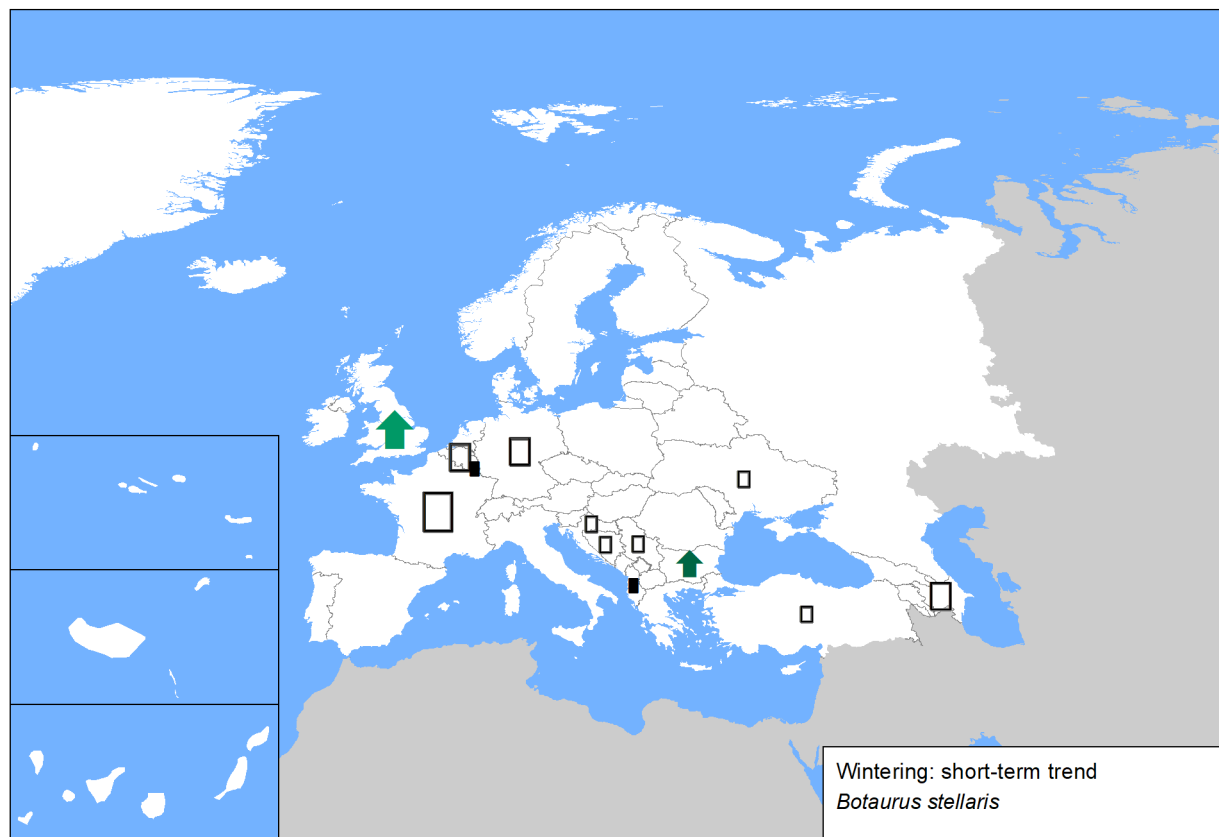
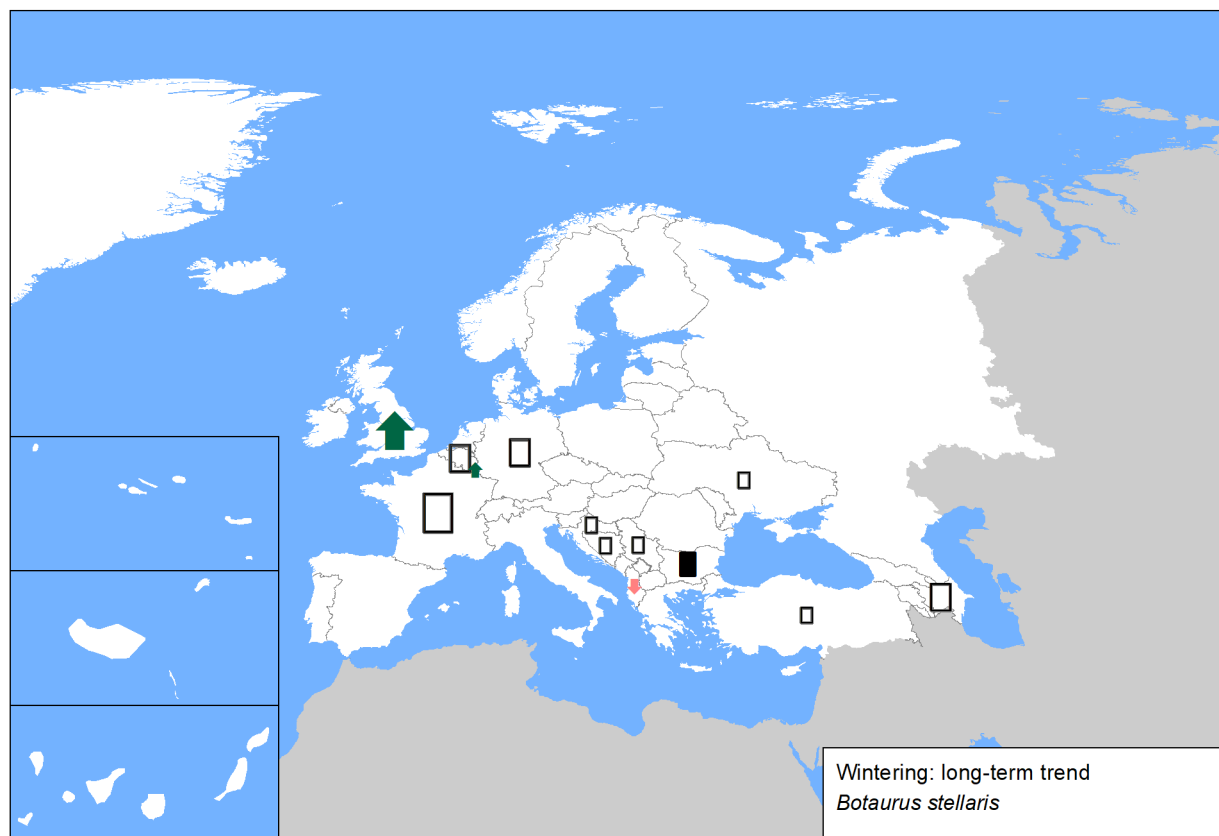


Figure 4. Reported wintering population sizes and long-term trends across Europe. Note that some countries within the species' wintering range did not report any data.



Sources

Albania

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

Austria

Breeding population size: Dvorak et al. 2016; Michael Dvorak & Erwin Nemeth, unpublished data from the bird monitoring program of the national park Neusiedler See-Seewinkel; BirdLife Austria, unpublished data from www.ornitho.at
Breeding short-term trend: Dvorak et al. 2016; Michael Dvorak & Erwin Nemeth, unpublished data from the bird monitoring program of the national park Neusiedler See-Seewinkel
Breeding long-term trend: Dvorak et al. 2016; Michael Dvorak & Erwin Nemeth, unpublished data from the bird monitoring program of the national park Neusiedler See-Seewinkel; Dvorak, Ranner & Berg 1993 (Atlas of Austrian Breeding Birds)

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

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

Bosnia and Herzegovina

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

Bulgaria

Breeding population size: Iankov P. (ed.) 2007 Atlas of the breeding birds in Bulgaria. BSPB , Conservation series, book 10.Sofia.; National Art. 12 reporting database 2013-2018; Kostadinova, I., M. Gramatikov 2007. Important bird areas in Bulgaria and Natura-2000. BSPB , Conservation series, book 11. BSPB, Sofia. (In Bulgarian and English) Golemsky (ed.) (2011) Red Data Book of Bulgaria. Vol.2 Animals. http://e-ecodb.bas.bg/rdb/en/vol2 P.Shurulinkov -own survey conducted for the creation of Action Plan for conservation of the Bittern in Bulgaria.(unpublished)
Breeding short-term trend: Iankov, P. (ed.) 2007 Atlas of Breeding Birds in Bulgaria. Bulgarian Society for the Protection of Birds, Conservation Series, Book 10, Sofia, BSPB, 679 p.; National Art. 12 reporting database 2013-2018; Golemsky V. (ed.) 2011. Red Data Book of the Republic of Bulgaria. Digital edition, Vol. 2, Animals. BAS-MOEW, Sofia, http://e-ecodb.bas.bg/rdb/en/vol2/ Kostadinova, I., M. Gramatikov 2007. Important bird areas in Bulgaria and Natura-2000. BSPB , Conservation series, book 11. BSPB, Sofia. (In Bulgarian and English) Nankinov, D., A. Dutsov, B. Nikolov, B. Borisov, 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. Dalakchieva, S. Ivanov, S. Marin, S. Staikov, S. Nikolov & H. Nikolov. 2004. Breeding totals of the ornithofauna in Bulgaria, 2004. Green Balkans, Plovdiv. 32 pp. P.Shurulinkov -own survey conducted for the creation of Action Plan for conservation of the Bittern in Bulgaria.(unpublished)

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Bulgaria

Breeding long-term trend: Botev, B. (ed.) 1985. Red Data Book of Bulgaria, Vol. 2, Animals, Sofia, BAS, 183 p. Iankov, P. (ed.) 2007 Atlas of Breeding Birds in Bulgaria. Bulgarian Society for the Protection of Birds, Conservation Series, Book 10, Sofia, BSPB, 679 p. Simeonov S., T. Michev, D. Nankinov 1990. Fauna of Bulgaria. Vol. 20. Aves-1. BAS. Sofia. Kostadinova I. (ed.) 1997. Important bird areas of Bulgaria. BSPB. Conservation series., book 1. Sofia. P. Shurulinkov - own survey conducted for the creation of Action Plan for conservation of the Bittern in Bulgaria. (unpublished)
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;
Winter long-term trend: Michev T., Profirov L. 2003. Mid-Winter Numbers of Waterbirds in Bulgaria (1977-2001). Pensoft, Sofia, 160 pp. Kostadinova I., S. Dereliev 2001 Results of mid-winter counts of birds in Bulgaria, 1997-2001. BSPB Conservation series, Sofia. Peter Shurulinkov, G. Daskalova - own unpublished information

Croatia

Breeding population size: Dumbović Mazal V., Pintar V., Zadravec M. (2019): Prvo izvješće o brojnosti i rasprostranjenosti ptica u Hrvatskoj sukladno odredbama Direktive o pticama. 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 Lesković, 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., Zadravec M. (2019): Prvo izvješće o brojnosti i rasprostranjenosti ptica u Hrvatskoj sukladno odredbama Direktive o pticama.
Breeding long-term trend: Dumbović Mazal V., Pintar V., Zadravec M. (2019): Prvo izvješće o brojnosti i rasprostranjenosti ptica u Hrvatskoj sukladno odredbama Direktive o pticama.
Winter population size: Tutiš, V., Kralj, J., Radović, D., Čiković, 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: no data available
Winter long-term trend: no data available

Czechia

Breeding population size: Šťastný et Bejček in prep. - Atlas hnízdního rozšíření ptáků ČR 2014-2017
Breeding short-term trend: Šťastný et Bejček in prep. - Atlas hnízdního rozšíření ptáků ČR 2014-2017
Breeding long-term trend: Šťastný et al. 2006

Denmark

Breeding population size: Pihl, S., Holm, T.E., Clausen, P., Petersen, I.K., Nielsen, R.D., Laursen, K., Bregnballe, T. & Sogaard, B. 2015. Fugle 2012-2013. NOVANA. Aarhus Universitet, DCE – Nationalt Center for Miljø og Energi, 170 s. - Videnskabelig rapport fra DCE - Nationalt Center for Miljø og Energi nr. 125
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 <a 107="" 33="" 647="" 662"="" data-label="Section-Header" href="http://novana.au.dk/fugle/Pihl,%20S.,%20Clausen,%20P.,%20Petersen,%20I.K.,%20Nielsen,%20R.D.,%20Laursen,%20K.,%20Bregnballe,%20T.,%20Holm,%20T.E.%20&%20Sogaard,%20B.2015.Fugle2012-2013.NOVANA.AarhusUniversitet,DCE%E2%80%93NationaltCenterforMilj%C3%B8ogEnergi,188s.-VidenskabeligrapportfraDCE-NationaltCenterforMilj%C3%B8ogEnerginr.49Lange,P.(Red.).2013.FugleiDanmark2012.ÅrsrapportfraRapportgruppen.Fugleåret2012s.22-102.DanskOrnitologiskForening.Lange,P.,Christophersen,H&Christensen,J.S.2016.FugleiDanmark2015.ÅrsrapportfraRapportgruppen.Fugleåret2015s.27-109.DanskOrnitologiskForening.Lange,P.,Christophersen,H&Christensen,J.S.2017.FugleiDanmark2016.ÅrsrapportfraRapportgruppen.Fugleåret2016s.15-115.DanskOrnitologiskForening.Lange,P.,Christophersen,H&Christensen,J.S.2018.FugleiDanmark2017.ÅrsrapportfraRapportgruppen.Fugleåret2017s.33-128.DanskOrnitologiskForening.</td></tr> <tr> <td>Breeding long-term trend: Lange, P., Christophersen, H & Christensen, J.S. 2017. Fugle i Danmark 2016. Årsrapport fra Rapportgruppen. Fugleåret 2016 s. 15-115. Dansk Ornitologisk Forening. Sørensen, U.G. 1995. Truede og sjældne ynglefugle 1976-1991. Dansk Orn. Foren. Tidsskr. 89: 1-48.</td></tr> </table> </div> <div data-bbox="> Estonia

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

Finland

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

France

Breeding population size: Barret, V. 2013. Butor étoilé - Botaurus stellaris. in Quaintenne & les coordinateurs-espèce (2013). Ornithos 20-6, 297-333
Breeding short-term trend: Barret, V. 2013. Butor étoilé - Botaurus stellaris. in Quaintenne & les coordinateurs-espèce (2013). Ornithos 20-6, 297-333
Breeding long-term trend: Yeatman-Berthelot D. & G. Jarry 1994. Nouvel atlas des oiseaux nicheurs de France 1985-1989. , Société Ornithologique de France 775 p ; Barret, V. 2013. Butor étoilé - Botaurus stellaris. in Quaintenne & les coordinateurs-espèce (2013). Ornithos 20-6, 297-333
Winter population size: Issa N. & Muller Y. 2015. Atlas des oiseaux nicheurs de France métropolitaine. , LPO/SEOF/MNHN/Delachaux et Niestlé, Paris
Winter short-term trend: Hunault, S. & Kerbiriou, E. 2007. Le Butor étoilé (Botaurus stellaris) Plan national de restauration 2008 - 2012, Paris, MEEDDAT. 108
Winter long-term trend: Hunault, S. & Kerbiriou, E. 2007. Le Butor étoilé (Botaurus stellaris) Plan national de restauration 2008 - 2012, Paris, MEEDDAT. 108

Botaurus stellaris (Eurasian Bittern)

Georgia

Breeding population size: Davit Dekanoidze, e-mail: davit.dekanoidze@iliuni.edu.ge

Germany

Breeding population size: Monitoring seltener Brutvögel (<http://www.dda-web.de/index.php?cat=monitoring&subcat=ga&subsubcat=kontakt>)

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.

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

Winter short-term trend: keine Angabe

Winter long-term trend: keine Angabe

Greece

Breeding population size: 1. Δημαλέξης, Τ., Καστρίτης, Θ., Γρίβας, Κ., Μανωλόπουλος, Α., Καρδακάρη, Ν., Κακαλής, Λ., Ξηρουχάκης, Σ., Τσαϊτουρίδης, Χ., Παπαζογλου, C. & Barov, 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. 2. Λεγάκις, Α. & Μαραγκού, Π. (επιμ.). 2009. Το Κόκκινο Βιβλίο των Απειλούμενων Ζώων της Ελλάδας. Ελληνική Ζωολογική Εταιρεία, Αθήνα, 528 σελ. 3. 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. 4. Βλάχος Χ., Μπίρτσας Π., Θωμαΐδης Χ., Χατζηνίκος Ε., Μποντζώρος Β., Μπραζιιώτης Σ., Κόντος Κ., Βλαχάκη Δ., Δεδουσοπούλου Ε., Κιούσης Δ., Ξένος Α., Στεφάνου Α.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. 5. BirdLife International (2017). European birds of conservation concern: populations, trends and national responsibilities. Cambridge. UK: BirdLife International. ISBN 978-1-912086-00-9 6) Kazantzidis, S. & G. Yfantis. 2012. Heronries in Greece - 2nd national Census. Oionos (Hellenic Ornithological Society' s 3-mothly edition) 49: 8-9.

Breeding short-term trend: 1. BirdLife International (2017). European birds of conservation concern: populations, trends and national responsibilities. Cambridge. UK: BirdLife International. ISBN 978-1-912086-00-9 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., Παπαζογλου, C. & Barov, 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., Μποντζώρος Β., Μπραζιιώτης Σ., Κόντος Κ., Βλαχάκη Δ., Δεδουσοπούλου Ε., Κιούσης Δ., Ξένος Α., Στεφάνου Α.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) Kazantzidis, S. & G. Yfantis. 2012. Heronries in Greece - 2nd national Census. Oionos (Hellenic Ornithological Society' s 3-mothly edition) 49: 8-9.

Breeding long-term trend: no data available

Hungary

Breeding population size: Haraszthy L. (szerk.) (2014): Natura 2000 fajok és élőhelyek Magyarországon. Pro Vértés Közalapítvány, Csákvár. p. 502-505. 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>

Breeding short-term trend: Haraszthy L. (szerk.) (2014): Natura 2000 fajok és élőhelyek Magyarországon. Pro Vértés Közalapítvány, Csákvár. p. 502-505. National park directorates' databases (Annual survey of colonially breeding and strictly protected bird species) <http://map.mme.hu/maps/map2>

Breeding long-term trend: Tucker, G. M. – Heath, M. F. (1994): Birds in Europe – Their Conservation Status. Royal Society for the Protection of Birds, BirdLife International, 600 p. Haraszthy L. (szerk.) (2014): Natura 2000 fajok és élőhelyek Magyarországon. Pro Vértés Közalapítvány, Csákvár. p. 502-505. 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>

Italy

Breeding population size: Brichetti P., Fracasso G., 2018. The Birds of Italy. Vol. I. Anatidae-Alcidae. Ed. Belvedere, Latina (Italy), "historia naturae" (6), pp. 512.

Breeding short-term trend: No recent data available

Breeding long-term trend: Brichetti P., Meschini E., 1993. Stima delle popolazioni di uccelli nidificanti. In Meschini E., Frugis S., 1993. Atlante degli uccelli nidificanti in Italia. Suppl. Ric. Biol. Selvaggina, 20, 1-345.

Latvia

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

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

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

Lithuania

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)

Botaurus stellaris (Eurasian Bittern)

Lithuania

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 Census Council. 2000. European bird populations: estimates and trends. Cambridge, UK: BirdLife International (BirdLife Conservation Series No. 10). Raudonikis L. 2004. Important Bird Areas of the European Union Importance in Lithuania. Lithuanian Ornithological Society & Institute of Ecology of Vilnius University. Lututė, 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)

Luxembourg

Winter population size: Biver, G. (2013): Waterbird count - recensement hivernal des oiseaux d'eau 2009-2012. Regul. Wissenschaftliche Berichte, 28: 43-58. Lorgé P., E. Melchior (2016): Die Vögel Luxemburgs. Natur&mwelt Luxembourg. ISBN: 978-2-919920-01-3; Ornitho.lu (2018): online database natur&mwelt asbl & Dachverband Deutscher Avifaunisten (DDA) e.V.; Luxembourg Recorder (2018): database Musée national d'histoire naturelle; Luxembourg

Winter short-term trend: Biver, G. (2013): Waterbird count - recensement hivernal des oiseaux d'eau 2009-2012. Regul. Wissenschaftliche Berichte, 28: 43-58. Lorgé P., E. Melchior (2016): Die Vögel Luxemburgs. Natur&mwelt Luxembourg. ISBN: 978-2-919920-01-3; Ornitho.lu (2018): online database natur&mwelt asbl & Dachverband Deutscher Avifaunisten (DDA) e.V.; Luxembourg Recorder (2018): database Musée national d'histoire naturelle; Luxembourg

Winter long-term trend: Ornitho.lu (2018): online database natur&mwelt asbl & Dachverband Deutscher Avifaunisten (DDA) e.V.; Luxembourg Recorder (2018): database Musée national d'histoire naturelle; Luxembourg Lorgé P., E. Melchior (2016): Die Vögel Luxemburgs. Natur&mwelt Luxembourg. ISBN: 978-2-919920-01-3; Biver, G. (2013): Waterbird count - recensement hivernal des oiseaux d'eau 2009-2012. Regul. Wissenschaftliche Berichte, 28: 43-58.

North Macedonia

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

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

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: Rubinić, B., Sackl, P. & Gramatikov, M. (2019): Conserving of wild birds in Montenegro. The first inventory of potential Special Protection Areas in Montenegro. Aam Consulting. Budapest xiii + 328 pp.

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

Poland

Breeding population size: State Environmental Monitoring / Chief Inspectorate of Environmental Protection (survey: MFGP – Flagship Species Survey)

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

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

Portugal

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

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

Breeding short-term trend: Kalyakin et al. 2019; Sarychev unpublished. vssar@yandex.ru

Breeding long-term trend: Krivenko & Vinogradov 2008; Sarychev 2009

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.

Botaurus stellaris (Eurasian Bittern)

Serbia

Breeding short-term trend: Puzović, S., Radišić, D., Ružić, M., Rajković, D., Radaković, M., Pantović, U., Janković, M., Stojnić, N., Šćiban, M., Tucakov, M., Gergelj, J., Sekulić, G., Agošton, A. & Raković, M. 2015. Birds of Serbia: Breeding Population Estimates and Trends for the Period 2008-2013. Bird protection and study society of Serbia, and Department of Biology and Ecology, Faculty of Sciences, University of Novi Sad, Novi Sad.
Breeding long-term trend: Puzović, S., Radišić, D., Ružić, M., Rajković, D., Radaković, M., Pantović, U., Janković, M., Stojnić, N., Šćiban, M., Tucakov, M., Gergelj, J., Sekulić, G., Agošton, A. & Raković, M. 2015. Birds of Serbia: Breeding Population Estimates and Trends for the Period 2008-2013. Bird protection and study society of Serbia, and Department of Biology and Ecology, Faculty of Sciences, University of Novi Sad, Novi Sad.
Winter population size: IWC database
Winter short-term trend: IWC database
Winter long-term trend: IWC database; Bioras database http://www.bioras.petnica.rs/home.php

Slovakia

Breeding population size: Coordinatory group for reporting 2019. Karaska D., Trnka A., Krištin A., Ridzoň J.: Chránené vtácie územia Slovenska. ŠOP SR Banská Bystrica, 2015.
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. Danko Štefan, Darolová Alžbeta, Krištin Anton: Rozšírenie vtákov na Slovensku. VEDA, vyd. SAV Bratislava, 2002. Ridzoň, J., Darolová, A. Karaska, D., Fulín, M.

Slovenia

Breeding population size: Denac, K. (2018): Stanje bobnarice <i>Botaurus stellaris</i> na Cerkniškem jezeru v letu 2018. Poročilo. Projekt LIFE Stržen (LIFE16NAT/SI/000708). DOPPS, Ljubljana. Mihelič T., Kmecl P., Denac K., Koce U., Vrezec A., Denac D. (eds.) (2019): Atlas ptic Slovenije. Popis gnezdil 2002–2017. – DOPPS, Ljubljana.
Breeding short-term trend: Bordjan D. (2012): Vodne ptice in ujede Cerkniškega polja (južna Slovenija) v letih 2007 in 2008, s pregledom zanimivejših opazovanj do konca leta 2010. – <i>Acrocephalus</i> 33 (152/153): 25–104. Denac K., Mihelič T., Božič L., Kmecl P., Jančar T., Figelj J., Rubinič B. (2011): Strokovni predlog za revizijo posebnih območij varstva (SPA) z uporabo najnovejših kriterijev za določitev mednarodno pomembnih območij za ptice (IBA). Končno poročilo (dopolnjena verzija). – DOPPS, Ljubljana. Mihelič T., Kmecl P., Denac K., Koce U., Vrezec A., Denac D. (eds.) (2019): Atlas ptic Slovenije. Popis gnezdil 2002–2017. – DOPPS, Ljubljana.
Breeding long-term trend: BirdLife International (2004): Birds in Europe: population estimates, trends and conservation status. BirdLife Conservation Series No. 12. – BirdLife International, Cambridge. Bordjan D., Božič L. (2009): Pojavljanje vodnih ptic in ujed na območju vodnega zadrževalnika Medvedce (Dravsko polje, SV Slovenija) v obdobju 2002–2008. – <i>Acrocephalus</i> 30 (141/142/143): 55–163. Denac K., T. Mihelič, L. Božič, P. Kmecl, T. Jančar, J. Figelj & B. Rubinič (2011): Strokovni predlog za revizijo posebnih območij varstva (SPA) z uporabo najnovejših kriterijev za določitev mednarodno pomembnih območij za ptice (IBA). Končno poročilo (dopolnjena verzija). Naročnik: Ministrstvo za okolje in prostor. DOPPS – BirdLife, Ljubljana. Geister I. (1995): Ornitološki atlas Slovenije. Razširjenost gnezdil. – DZS, Ljubljana. Mihelič T., Kmecl P., Denac K., Koce U., Vrezec A., Denac D. (eds.) (2019): Atlas ptic Slovenije. Popis gnezdil 2002–2017. – DOPPS, Ljubljana.

Spain

Breeding population size: Garrido, J.R., Molina, B. & del Moral, J.C. (2012). Las garzas en España: población reproductora e invernante en 2010-2011 y método de censo. <i>Seo/BirdLife</i> . Madrid, 219 pp. (https://www.miteco.gob.es/es/biodiversidad/temas/inventarios-nacionales/38-garzas_tcm30-207952.pdf) Información proporcionada por las comunidades autónomas.
Breeding short-term trend: Garrido, J.R., Molina, B. & del Moral, J.C. (2012). Las garzas en España: población reproductora e invernante en 2010-2011 y método de censo. <i>Seo/BirdLife</i> . Madrid, 219 pp. (https://www.miteco.gob.es/es/biodiversidad/temas/inventarios-nacionales/38-garzas_tcm30-207952.pdf) Información proporcionada por las Comunidades Autónomas. Madroño, A., González, C. & Atienza, J.C. (Eds.). (2004). Libro Rojo de las Aves de España. Dirección General para la Biodiversidad-SEO/BirdLife, Madrid. 452 pp. (https://www.miteco.gob.es/es/biodiversidad/temas/inventarios-nacionales/lrcompletoparaweb_tcm30-207942.pdf)
Breeding long-term trend: Garrido, J.R., Molina, B. & del Moral, J.C. (2012). Las garzas en España: población reproductora e invernante en 2010-2011 y método de censo. <i>Seo/BirdLife</i> . Madrid, 219 pp. (https://www.miteco.gob.es/es/biodiversidad/temas/inventarios-nacionales/38-garzas_tcm30-207952.pdf) Información proporcionada por las Comunidades Autónomas. Madroño, A., González, C. & Atienza, J.C. (Eds.). (2004). Libro Rojo de las Aves de España. Dirección General para la Biodiversidad-SEO/BirdLife, Madrid. 452 pp. (https://www.miteco.gob.es/es/biodiversidad/temas/inventarios-nacionales/lrcompletoparaweb_tcm30-207942.pdf)

Sweden

Breeding population size: Ottosson, U., Ottvall, R., Elmberg, J., Green, M., Gustafsson, R., Haas, F., Holmqvist, N., Lindström, Å., Nilsson, L., Svensson, M., Svensson, S. & Tjernberg, M. 2012. Fåglarna i Sverige – antal och förekomst. SOF, Halmstad. Swedish Bird Survey. BirdLife Sverige, Annual Bird reports.
Breeding short-term trend: Svensk fågeltaxering - Swedish Bird Survey, Species Observation system www.artportalen.se
Breeding long-term trend: BirdLife Sverige annual reports

Turkey

Breeding population size: Ferdi Akarsu (Sarısu Plain, Doğubeyazıt Marshes - Gediz Deltası (Ömer Döndüren- 2017) - Gölarmara Bird Thesis, 20111 (Orhan Gül)
Winter population size: Ebird Database 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: Atlas work, non-published data

United Kingdom

Breeding population size: RBBP; Holling, M. & the Rare Breeding Birds Panel. 2018. Rare breeding birds in the United Kingdom in 2016. <i>British Birds</i> 111: 644-694.RSPB data
Breeding short-term trend: RBBP; Holling, M. & the Rare Breeding Birds Panel. 2018. Rare breeding birds in the United Kingdom in 2016. <i>British Birds</i> 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. <i>British Birds</i> 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. <i>British Birds</i> 112: 130-145.

Botaurus stellaris (Eurasian Bittern)

United Kingdom

Winter short-term trend: Trend based on change in population estimates from 2009/10 (600 inds - Musgrove, A.J., Austin, G.E., Hearn, R.D., Holt, C.A., Stroud, D.A. & Wotton, S.R. 2011. Overwinter population estimates of British waterbirds. British Birds 104: 364-397) to 2017/18 (800 inds - 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 long-term trend: Trend based on change in population estimates from 1981/84 (50-150 inds - Lack, P. 1986. The Atlas of Wintering Birds in Britain and Ireland. Calton, T. & A.D. Poyser, London. 447 pp.) to 2017/18 (800 inds - 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).

Bibliography

- 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.
- Brazil, M. 2009. Birds of East Asia: eastern China, Taiwan, Korea, Japan, eastern Russia. Christopher Helm, London.
- Delany, S. and Scott, D. 2006. Waterbird population estimates. Wetlands International, Wageningen, The Netherlands.
- Gilbert, G.; Tyler, G. A.; Dunn, C. J.; Smith, K. W. 2005. Nesting habitat selection by bitterns *Botaurus stellaris* in Britain and the implications for wetland management. *Biological Conservation* 124: 547-553.
- Gilbert, G.; Tyler, G. A.; Dunn, C. J.; Ratcliffe, N.; Smith, K. W. 2007. The influence of habitat management on the breeding success of the Great Bittern *Botaurus stellaris* in Britain. *Ibis* 149: 53-66.
- Hancock, J. and Kushlan, J. 1984. The herons handbook. Croom Helm, London.
- Kushlan, J.A. and Hancock, J.A. 2005. The herons. Oxford University Press, Oxford, U.K.
- Marion, L.; Ulenaers, P.; van Vesseem, J. 2000. Herons in Europe. In: Kushlan, J. A.; Hafner, H. (ed.), *Heron conservation*, pp. 1-31. Academic Press, San Diego.
- Newbery, P.; Schäffer, N.; Smith, K. 1996. European Union Bittern *Botarus stellaris* Action Plan.
- Noble, R. A. A.; Harvey, J. P.; Cowx, I. G. 2004. Can management of freshwater fish populations be used to protect and enhance the conservation status of a rare, fish-eating bird, the bittern, *Botaurus stellaris*, in the UK? *11*: 291-302.
- Puglisi, L.; Adamo, M. C.; Baldaccini, N. E. 2005. Man-induced habitat changes and sensitive species: a GIS approach to the Eurasian Bittern (*Botaurus stellaris*) distribution in a Mediterranean wetland. *Biodiversity and Conservation* 14: 1909-1922.
- Self, M. 2005. A review of management for fish and bitterns, *Botaurus stellaris*, in wetland reserves. *Fisheries Management and Ecology* 12: 387-394.
- Snow, D.W. and Perrins, C.M. 1998. The Birds of the Western Palearctic, Volume 1: Non-Passerines. Oxford University Press, Oxford.
- del Hoyo, J., Elliot, A. & Sargatal, J. (ed.). 1992. Handbook of the Birds of the World, Vol. 1: Ostrich to Ducks. Lynx Edicions, Barcelona, Spain.