



THE IUCN RED LIST  
OF THREATENED SPECIES™



## ***Chlidonias leucopterus* (White-winged Tern)**

### **European Red List of Birds**

### **Supplementary Material**

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

#### **Contents**

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

#### **Recommended citation**

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

#### **Further information**

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

#### **Data requests and feedback**

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

*Chlidonias leucopterus* (White-winged Tern)

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

Country (or territory) <sup>2</sup>	Population estimate				Short-term population trend <sup>5</sup>				Long-term population trend <sup>5</sup>				Subspecific population (where relevant)
	Size (pairs) <sup>3</sup>	Europe (%)	Year(s)	Method <sup>4</sup>	Direction <sup>6</sup>	Magnitude (%) <sup>7</sup>	Year(s)	Method <sup>4</sup>	Direction <sup>6</sup>	Magnitude (%) <sup>7</sup>	Year(s)	Method <sup>4</sup>	
Albania	0–5	<1	2007-2018	complete	+	0 to 200	2007-2018	complete	?		1980-2018	expert	
Armenia	2300–3600	2	2013-2018	complete	+	3 to 8	2007-2018	complete	?		2003-2018	deficient	
Azerbaijan	5000–50000	12	1996-2019	partial	-		2013-2019	expert	?		1980-2019	partial	
Belarus	8000–30000	12	2010-2018	partial	0	-10 to 10	2012-2019	expert	?		1980-2019	deficient	
Bulgaria	0–47	<1	2013-2018	complete	F		2000-2018	expert	?		1980-2018	deficient	
Estonia	0–5	<1	2013-2017	expert	F		2006-2017	expert	?		1980-2017	expert	
Georgia	110–1200	<1	2013-2017	partial	?			deficient	?				
Germany	0–36	<1	2011-2016	complete	?		2004-2016	deficient	?		1980-2016	deficient	
Hungary	0–130	<1	2015-2017	complete	F		2007-2018	complete	F		1980-2018	complete	
Italy	4	<1	2013-2018	expert	?		2007-2018	deficient	+	100 to 300	1993-2018	expert	
Latvia	120–350	<1	2013-2018	expert	+	20 to 44	2012-2018	partial	+	251 to 426	1991-2017	partial	
Lithuania	80–150	<1	2013-2018	partial	F		2013-2018	partial	+	160 to 300	1980-2018	partial	
North Macedonia	0–10	<1	2014-2019	expert	?		2007-2018	deficient	?		1980-2019		
Moldova	48–120	<1	2014-2017	partial	?		2007-2018	partial	?		1990-2018	deficient	
Poland	300–5000	<1	2013-2018	expert	F		2007-2018	expert	+	275 to 315	1980-2018	expert	
Romania	0–100	<1	2013-2018	expert	F	-100 to 10000	2007-2018	expert	F	-100 to 10000	1980-2018	expert	
Russia	65000–110000	64	2007-2018	partial	?		2008-2018	deficient	0		1980-2018	expert	
Serbia	20	<1	2013-2018	complete	F	0	2007-2018	expert	F	0	1980-2018	complete	
Slovakia	0	<1	2013-2018	partial	F		2007-2018	partial	F		1980-2018	partial	
Turkey	40–100	<1	2002-2012	partial	?		2008-2019	deficient	?		1980-2013	deficient	
Ukraine	7000–15000	8	2015-2018	expert	F		20013-2018	deficient	F		1980-2018	deficient	
EU28	500–5900	1											
<b>Europe</b>	<b>88000–216000</b>	<b>100</b>											

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

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

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

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

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

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

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

*Chlidonias leucopterus* (White-winged Tern)

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

Country (or territory) <sup>2</sup>	Population estimate				Short-term population trend <sup>5</sup>				Long-term population trend <sup>5</sup>				Subspecific population (where relevant)
	Size (individuals) <sup>3</sup>	Europe (%)	Year(s)	Method <sup>4</sup>	Direction <sup>6</sup>	Magnitude (%) <sup>7</sup>	Year(s)	Method <sup>4</sup>	Direction <sup>6</sup>	Magnitude (%) <sup>7</sup>	Year(s)	Method <sup>4</sup>	
Turkey	0–13	100	2013-2019	complete	?		2008-2019	deficient	?		1980-2019	deficient	
<b>Europe</b>	<b>0–13</b>	<b>100</b>											

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

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

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

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

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

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

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

## Trend maps

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

### KEY

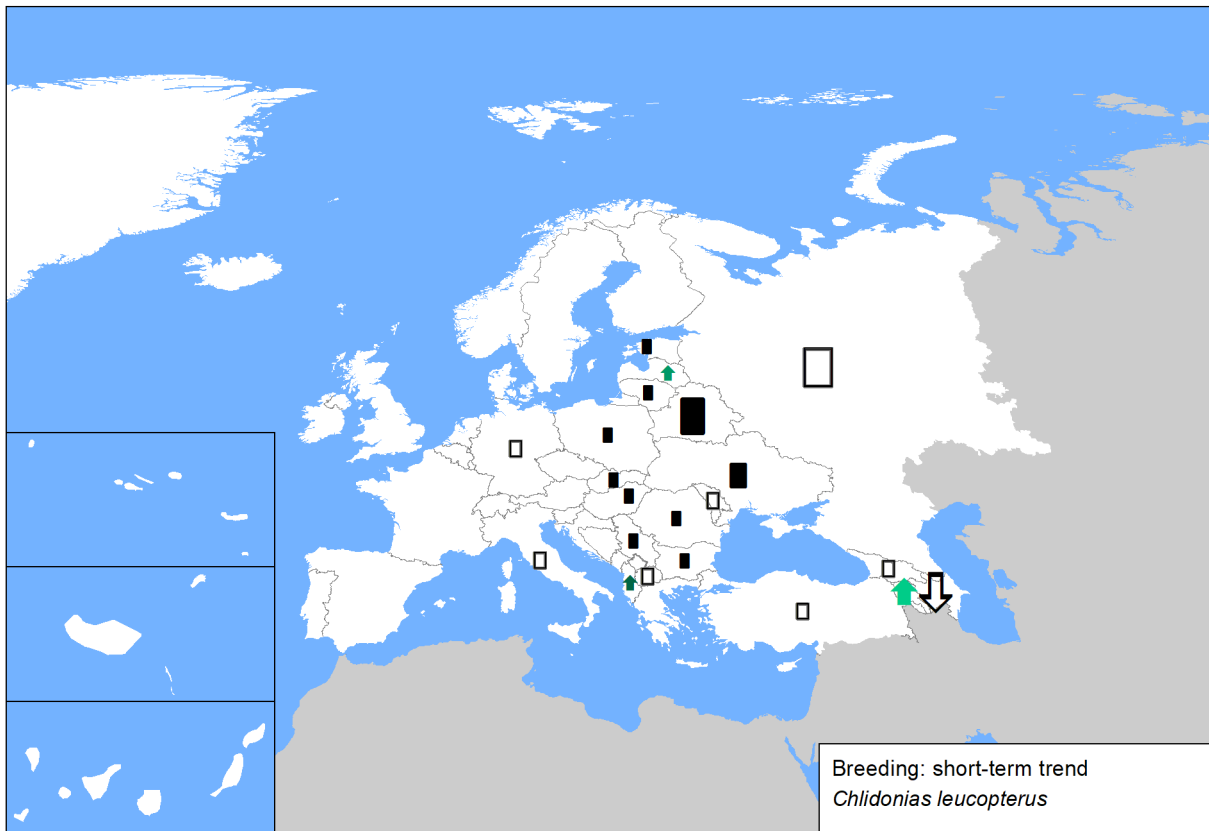
- |   |                                 |
|---|---------------------------------|
| ↑ Large increase (≥50%)                 | ↓ Large decrease (≥50%)         |
| ↑ Moderate increase (20–49%)            | ↓ Moderate decrease (20–49%)    |
| ↑ Small increase (<20%)                 | ↓ Small decrease (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

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

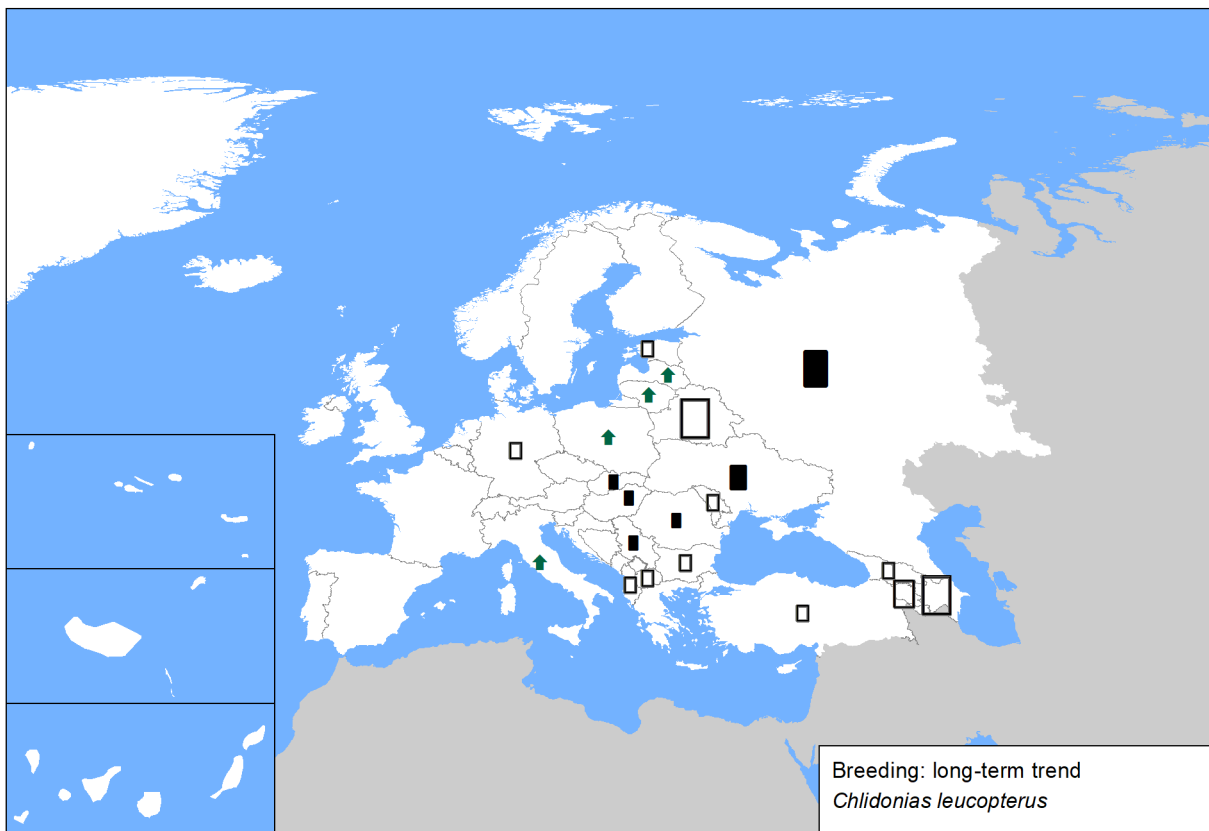
- ↑ Large: ≥10% of the European population
- ↑ Medium: 1–9% of the European population
- ↑ Small: <1% of the European population

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

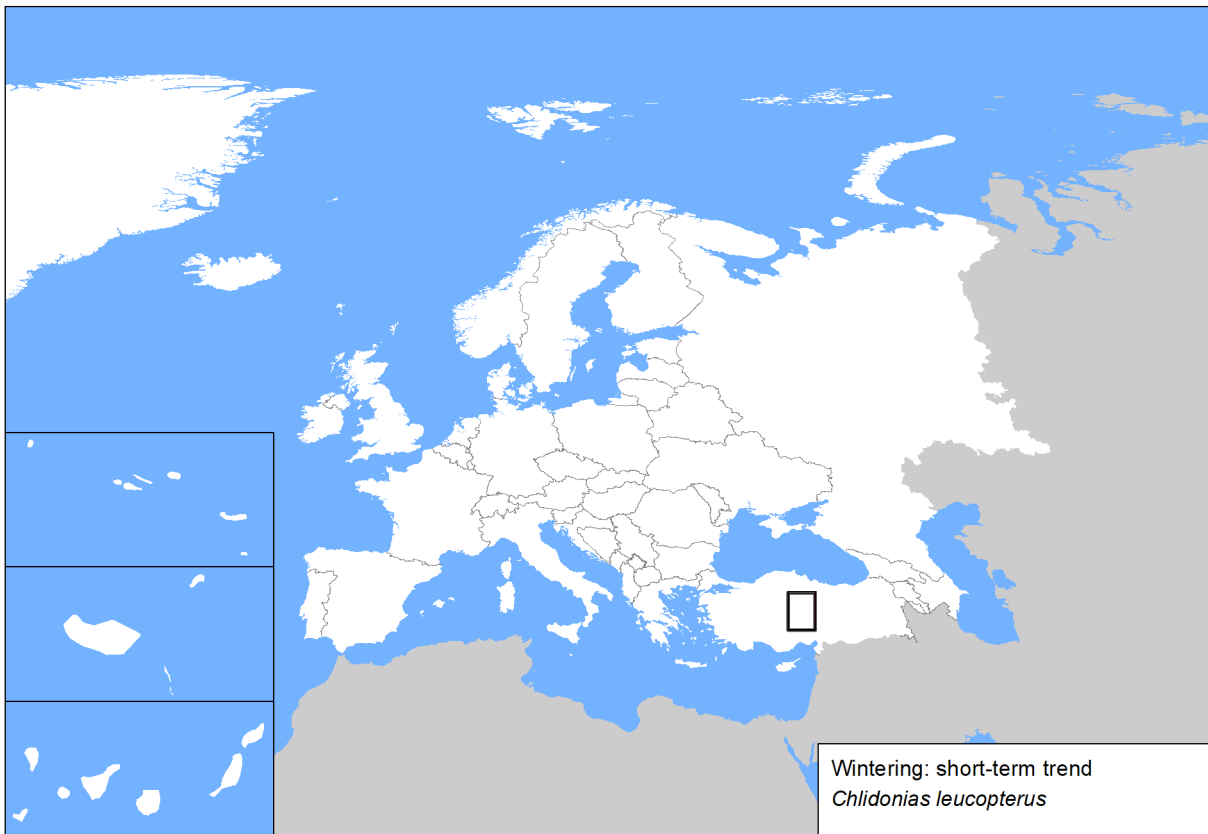
**Figure 1.** Breeding population sizes and short-term trends across Europe.



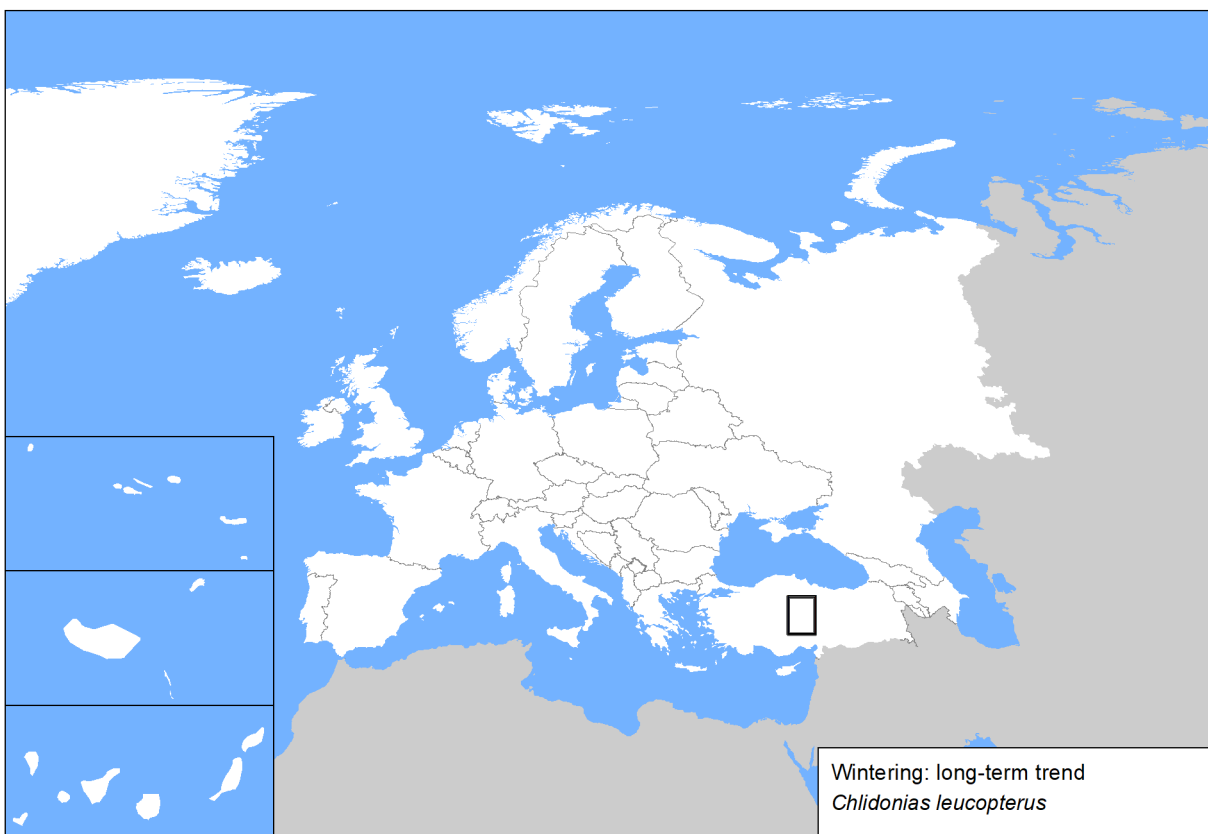
**Figure 2.** Breeding population sizes and long-term trends across Europe.



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



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



*Chlidonias leucopterus* (White-winged Tern)

## Sources

### Albania

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

### Armenia

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

### Azerbaijan

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

### Belarus

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

### Bulgaria

<b>Breeding population size:</b> 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; Shurulinkov, P., G. Daskalova, R. Tzonev. 2013. Breeding Waterbirds in Temporally Flooded Wetlands in Northern Bulgaria. - Acta zool. Bulgarica, 65 (2), 207-215. BSPB Bird Database
<b>Breeding short-term trend:</b> National Art. 12 reporting database 2013-2018;
<b>Breeding long-term trend:</b> No additional information available

### Estonia

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

### Georgia

<b>Breeding population size:</b> EBBA Georgia, prepared by Sabuko-Society for nature conservation, Iliia state university, NGO "psovi".
---

### Germany

<b>Breeding population size:</b> Monitoring seltener Brutvögel ( <a href="http://www.dda-web.de/index.php?cat=monitoring&amp;subcat=ga&amp;subsubcat=kontakt">http://www.dda-web.de/index.php?cat=monitoring&amp;subcat=ga&amp;subsubcat=kontakt</a> )
<b>Breeding short-term trend:</b> Gerlach et al. (in Vorb.): Vögel in Deutschland – 2019. Dachverband Deutscher Avifaunisten, Bundesamt für Naturschutz und Länderarbeitsgemeinschaft der Vogelschutzwarten, Münster.
<b>Breeding long-term trend:</b> Gerlach et al. (in Vorb.): Vögel in Deutschland – 2019. Dachverband Deutscher Avifaunisten, Bundesamt für Naturschutz und Länderarbeitsgemeinschaft der Vogelschutzwarten, Münster.

### Hungary

<b>Breeding population size:</b> National park directorates' databases (Annual survey of colonially breeding and strictly protected bird species) <a href="http://map.mme.hu/maps/map2">http://map.mme.hu/maps/map2</a>
<b>Breeding short-term trend:</b> MME Nomenclator Bizottság (2008): Magyarország madarainak névjegyzéke. Nomenclator avium Hungariae. Magyar Madártani és Természetvédelmi Egyesület, Budapest. p. 278. National park directorates' databases (Annual survey of colonially breeding and strictly protected bird species) <a href="http://map.mme.hu/maps/map2">http://map.mme.hu/maps/map2</a>
<b>Breeding long-term trend:</b> MME Nomenclator Bizottság (2008): Magyarország madarainak névjegyzéke. Nomenclator avium Hungariae. Magyar Madártani és Természetvédelmi Egyesület, Budapest. p. 278. Magyar, G., Hadarics, T., Waliczky, Z., Schmidt, A., Nagy, T. & Bankovics, A. (1998): Nomenclator avium Hungariae. Magyarország madarainak névjegyzéke. KTM Természetvédelmi Hivatal Madártani Intézete – Magyar Madártani és Természetvédelmi Egyesület – Winter Fair, Budapest – Szeged. p. 202. National park directorates' databases (Annual survey of colonially breeding and strictly protected bird species) <a href="http://map.mme.hu/maps/map2">http://map.mme.hu/maps/map2</a>

### Italy

<b>Breeding population size:</b> Alessandria G, Della Toffola M & Fasano S. 2009. Resoconto ornitologico per la Regione Piemonte-Valle d'Aosta. Anno 2007-2008. Riv. Piem. St. Nat. 30: 225-288
<b>Breeding short-term trend:</b> No recent data available
<b>Breeding long-term trend:</b> Brichetti P., Meschini E., 1993. Stima delle popolazioni di uccelli nidificanti. In Meschini E., Frugis S., 1993. Atlante degli uccelli nidificanti in Italia. Suppl. Ric. Biol. Selvaggina, 20, 1-345.

### Latvia

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

## *Chlidonias leucopterus* (White-winged Tern)

### Latvia

**Breeding short-term trend:** Kerus V. 2011. Changes in the status of breeding birds of Latvia during 1980-2010. Doctoral Thesis. Riga: University of Latvia 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., Petriņš 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

**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) Ministry of Environment of the Republic of Lithuania. 2017-2018. Lietuvos saugomų gyvūnų, augalų ir grybų vertinimo pagal IUCN kategorijas ir rūšių aprašymų parengimo paslaugos (Protected species of animals, plants and mushrooms IUCN status estimation and descriptions in Lithuania (Agreement No VPS-2017-16-AARP) Expert working group of the Lithuanian Ornithological Society (lod@birdlife.lt) Jusys, V., Karalius, S., Raudonikis, L. 2017. New and rare birds for Lithuania. Vilnius: „Lithuanian Ornithological Society“.

**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) Ministry of Environment of the Republic of Lithuania. 2017-2018. Lietuvos saugomų gyvūnų, augalų ir grybų vertinimo pagal IUCN kategorijas ir rūšių aprašymų parengimo paslaugos (Protected species of animals, plants and mushrooms IUCN status estimation and descriptions in Lithuania (Agreement No VPS-2017-16-AARP) Expert working group of the Lithuanian Ornithological Society (lod@birdlife.lt) Jusys, V., Karalius, S., Raudonikis, L. 2017. New and rare birds for Lithuania. Vilnius: „Lithuanian Ornithological Society“.

**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) Ministry of Environment of the Republic of Lithuania. 2017-2018. Lietuvos saugomų gyvūnų, augalų ir grybų vertinimo pagal IUCN kategorijas ir rūšių aprašymų parengimo paslaugos (Protected species of animals, plants and mushrooms IUCN status estimation and descriptions in Lithuania (Agreement No VPS-2017-16-AARP) Expert working group of the Lithuanian Ornithological Society (lod@birdlife.lt) Jusys, V., Karalius, S., Raudonikis, L. 2017. New and rare birds for Lithuania. Vilnius: „Lithuanian Ornithological Society“.

### 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)

### Poland

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

**Breeding short-term trend:** Polish Society for the Protection of Birds (OTOP) / BirdLife Poland

**Breeding long-term trend:** Tucker G.M., Heath M.F. 1994. Birds in Europe: their conservation status. BirdLife International, Cambridge, UK.; BirdLife International 2004. Birds in Europe: population estimates, trends and conservation status. BirdLife International, Cambridge, UK; To

### 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 long-term trend:** Zubakin 1998; 2008; Sukhanova et al. 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.

**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.

## *Chlidonias leucopterus* (White-winged Tern)

### Serbia

**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.

### Slovakia

**Breeding population size:** Coordinatory group for reporting 2019. Danko Štefan, Darolová Alžbeta, Krištín Anton: Rozšírenie vtákov na Slovensku. VEDA, vyd. SAV Bratislava, 2002.; Balla M., 115-116, Tichodroma 22.

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

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

### Turkey

**Breeding population size:** Güven Eken personal communication Eken G., Bozdoğan M., İsfendiyaroğlu S., Kılıç D.T., Lise Y. (2006) Türkiye'nin Önemli Doğa Alanları. Doğa Derneği, Ankara. Kusbank Bird Database (Ebird) Kirwan G.M., Boyla K. A., Castell P., Demirci B., Özen M., Welch H., Marlow T., 2008, Birds of Turkey. Londra, Christopher Helm, 978-1-4081-0475-

**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

## 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.
- Górski, A, 2004. *Chlidonias leucopterus* (Temm., 1815) – rybitwa białoskrzydła. In: M. Gromadzki (ed.), *Ptaki (czesc II). Poradniki ochrony siedlisk i gatunków Natura 2000 – podrecznik metodyczny*, pp. 208-211. Ministerstwo Srodowiska, Warszawa.
- Hagemeijer, E.J.M. and Blair, M.J. 1997. The EBCC atlas of European breeding birds: their distribution and abundance. T. and A.D. Poyser, London.
- 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.
- Richards, A. 1990. Seabirds of the northern hemisphere. Dragon's World Ltd, Limpsfield, U.K.
- 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., Elliott, A. and Sargatal, J. (eds). 1996. *Handbook of the Birds of the World, Vol. 3: Hoatzin to Auks*. Lynx Edicions, Barcelona, Spain.