



THE IUCN RED LIST  
OF THREATENED SPECIES™



## ***Cygnus cygnus (Whooper Swan)***

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

### **Supplementary Material**

The European Union (EU27) 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 2013-14.

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 (2015).

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#### **Recommended citation**

BirdLife International (2015) European Red List of Birds. Luxembourg: Office for Official Publications of the European Communities.

#### **Further information**

- <http://www.birdlife.org/datazone/info/euroredlist>
- <http://www.birdlife.org/europe-and-central-asia/european-red-list-birds-0>
- <http://www.iucnredlist.org/initiatives/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).

*Cygnus cygnus* (Whooper Swan)

**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>4</sup>				Long-term population trend <sup>4</sup>				Subspecific population (where relevant)
	Size (pairs) <sup>3</sup>	Europe (%)	Year(s)	Quality	Direction <sup>5</sup>	Magnitude (%) <sup>6</sup>	Year(s)	Quality	Direction <sup>5</sup>	Magnitude (%) <sup>6</sup>	Year(s)	Quality	
Belarus	40-50	<1	2011-2012	medium	+	3900-4900	2002-2012	medium	?				
DK: Faroe Is	4	<1	2014	medium	+		2001-2014	good	+		1980-2014	good	
Estonia	150-200	1	2008-2012	medium	+	50-70	2001-2012	medium	+	50-70	1980-2012	medium	North-west Mainland Europe
Finland	8,500-11,000	33	2006-2012	good	+	84-153	2001-2012	good	+	508-829	1986-2012	good	North-west Mainland Europe
Germany	30-40	<1	2005-2009	good	+	145-879	1998-2008	good	+	958-3598	1985-2008	good	North-west Mainland Europe
Hungary	1	<1	2005-2012	good	0	0	2005-2012	good	+	100	1980-2012	good	North-west Mainland Europe
Iceland	3,000	10	2010	medium	+	30-50	2000-2010	good	+	30-50	1980-2012	medium	
Latvia	320	1	2012	good	+	60-88	2001-2012	medium	+	1500-3100	1980-2012	medium	North-west Mainland Europe
Lithuania	120-130	<1	2008-2012	good	+	700-800	2001-2012	good	+	2300-2500	1980-2012	good	North-west Mainland Europe
Norway	350-600	2	2000-2013	medium	+	50-100	2000-2013	good	?				
Poland	100-110	<1	2013-2013	good	+	570-800	2001-2013	good	+	2900-3230	1980-2013	good	North-west Mainland Europe
Russia	8,000-10,000	31	2000-2012	medium	+	5-30	2000-2012	medium	+	5-30	1980-2012	medium	
Sweden	4,700-7,300	21	2008-2012	good	+	1-51	2001-2012	good	+	800-1200	1980-2012	good	North-west Mainland Europe
United Kingdom	9-14	<1	2006-2010	good	+	169	1996-2008	good	+	250	1980-2008	good	Iceland/UK & Ireland
EU27	13,900-19,100	57		Increasing									
Europe	25,300-32,800	100		Increasing									

<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 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>5</sup> Trend directions are reported as: increasing (+); decreasing (-); stable (0); fluctuating (F); or unknown (?).

<sup>6</sup> Trend magnitudes are rounded to the nearest integer.

*Cygnus cygnus* (Whooper Swan)

**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>4</sup>				Long-term population trend <sup>4</sup>				Subspecific population (where relevant)
	Size (individuals) <sup>3</sup>	Europe (%)	Year(s)	Quality	Direction <sup>5</sup>	Magnitude (%) <sup>6</sup>	Year(s)	Quality	Direction <sup>5</sup>	Magnitude (%) <sup>6</sup>	Year(s)	Quality	
Albania	5-20	<1	2002-2012	good	+	10-30	2002-2012	good	0	0	1980-2012	poor	
Armenia	5-173	<1	2003-2013	medium	?				?				
Austria	80-260	<1	2008-2010	good	F	0	2001-2012	good	+	300-500	1980-2012	good	
Azerbaijan	200-600	<1	1996-2002	medium	?				?				
Belarus	0-10	<1	2009-2013	good	0	0	2001-2012	medium	?				
Belgium	11-106	<1	2008-2012	good	F	0	2001-2012	good	F	0	1992-2012	good	
Bulgaria	60-650	<1	2008-2012	medium	+	30-50	2000-2012	medium	+	10-20	1980-2012	medium	
Czech Rep.	0	<1	2007	medium	-	100	2000-2007	medium	-	100	1980-2007	medium	
Denmark	24,300	21	2011	good	F	0	2000-2011	good	+	100-200	1980-2011	medium	
DK: Faroe Is	0-20	<1	1992	medium	?				?				
Estonia	5,000-15,000	8	2008-2012	good	0	0-10	2001-2012	good	+	50-70	1980-2012	good	
France	100	<1	2008-2012	good	+	130-180	2000-2012	good	+	1000-1150	1980-2012	good	
Georgia	350	<1	2002	good	?				?				
Germany	25,000	22	2000-2005	good	F	0	1997-2009	good	+	70-162	1984-2009	good	
Greece	20-2,068	<1	2007-2013	good	+	841	2004-2013	medium	?			medium	
Iceland	Present	<1	2012		?				?				
Rep. Ireland	10,520	9	2010	good	+	16	2000-2010	good	+	32	1986-2010	good	
FYRO Macedonia	0-10	<1	2001-2012	poor	?				?				
Moldova	10-150	<1	2000-2010	medium	F	10-30	2000-2010	medium	F	10-20	1980-2010	medium	
Netherlands	1,756-2,900	2	2006-2010	good	+	4-170	2000-2011	good	+	98-399	1981-2011	good	
Norway	5,000-8,000	6	1994-2003	medium	F	0	2001-2013	medium	F	0	1980-2013	good	
Poland	4,000-8,000	5	2005-2012	medium	+	30-210	2000-2012	good	+	160-390	1985-2012	medium	
Romania	2,000-5,000	3	2008-2013	medium	?				?				
Serbia	2-25	<1	2008-2012	medium	+	10-20	2000-2012	medium	?				
Slovenia	0-2	<1	2008-2012	good	F	0-200	2001-2012	medium	F	0-200	1980-2012	medium	
Sweden	4,000-12,000	7	2008-2012	good	+	10-50	2001-2012	good	+	100-140	1980-2012	good	
Switzerland	101-263	<1	2008-2012	good	+	125-180	2001-2012	good	+	219-287	1980-2012	good	
Turkey	20-1,107	<1	2002-2012	medium	F	0	2002-2012	poor	?				
Ukraine	500-3,000	1	1998-2009	medium	F	10-50	1998-2009	medium	F	20-50	1980-2009	medium	
United Kingdom	16,475	15	2010	good	+	56	1999-2010	good	+	317	1980-2010	good	
EU27	93,300-122,000	92			Increasing								

*Cygnus cygnus* (Whooper Swan)

**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>4</sup>				Long-term population trend <sup>4</sup>				Subspecific population (where relevant)
	Size (individuals) <sup>3</sup>	Europe (%)	Year(s)	Quality	Direction <sup>5</sup>	Magnitude (%) <sup>6</sup>	Year(s)	Quality	Direction <sup>5</sup>	Magnitude (%) <sup>6</sup>	Year(s)	Quality	
Europe	99,500-136,000	100			Increasing								

<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>.

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<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 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>5</sup> Trend directions are reported as: increasing (+); decreasing (-); stable (0); fluctuating (F); or unknown (?).

<sup>6</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 ( $\geq 50\%$ ) | ▼ 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  |

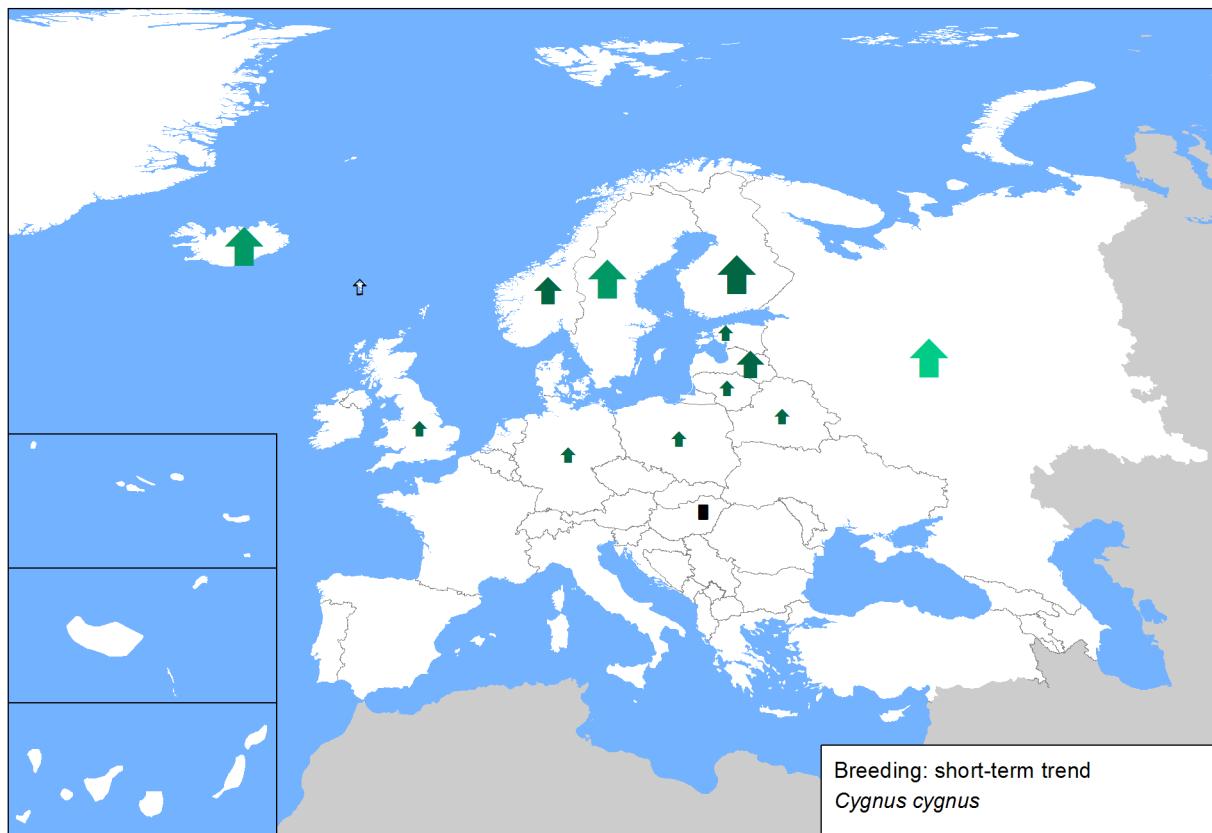
- Stable or fluctuating
- Unknown
- Present (no population or trend data)
- ✗ Extinct since 1980

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.

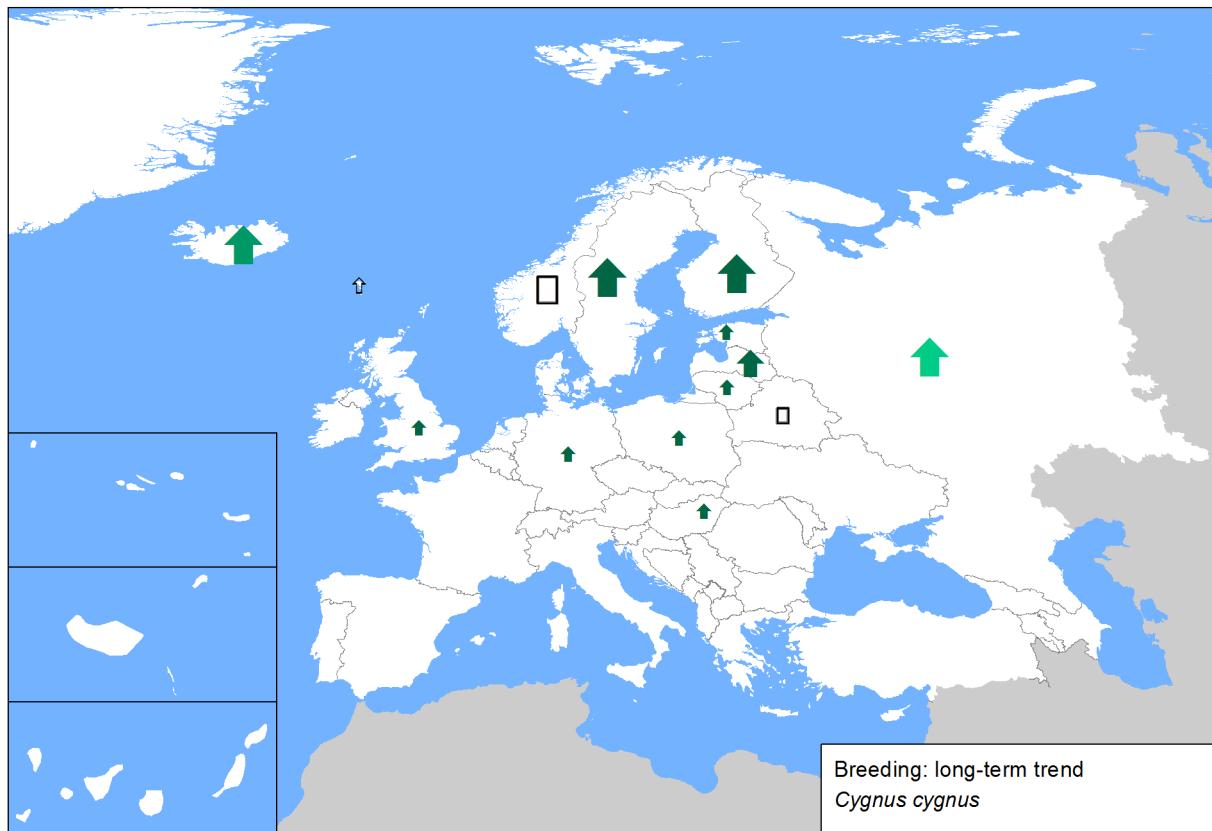
- ↑ Large:  $\geq 10\%$  of the European population
- ↑ Medium: 1–9% of the European population
- ↑ Small: <1% of the European population

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.

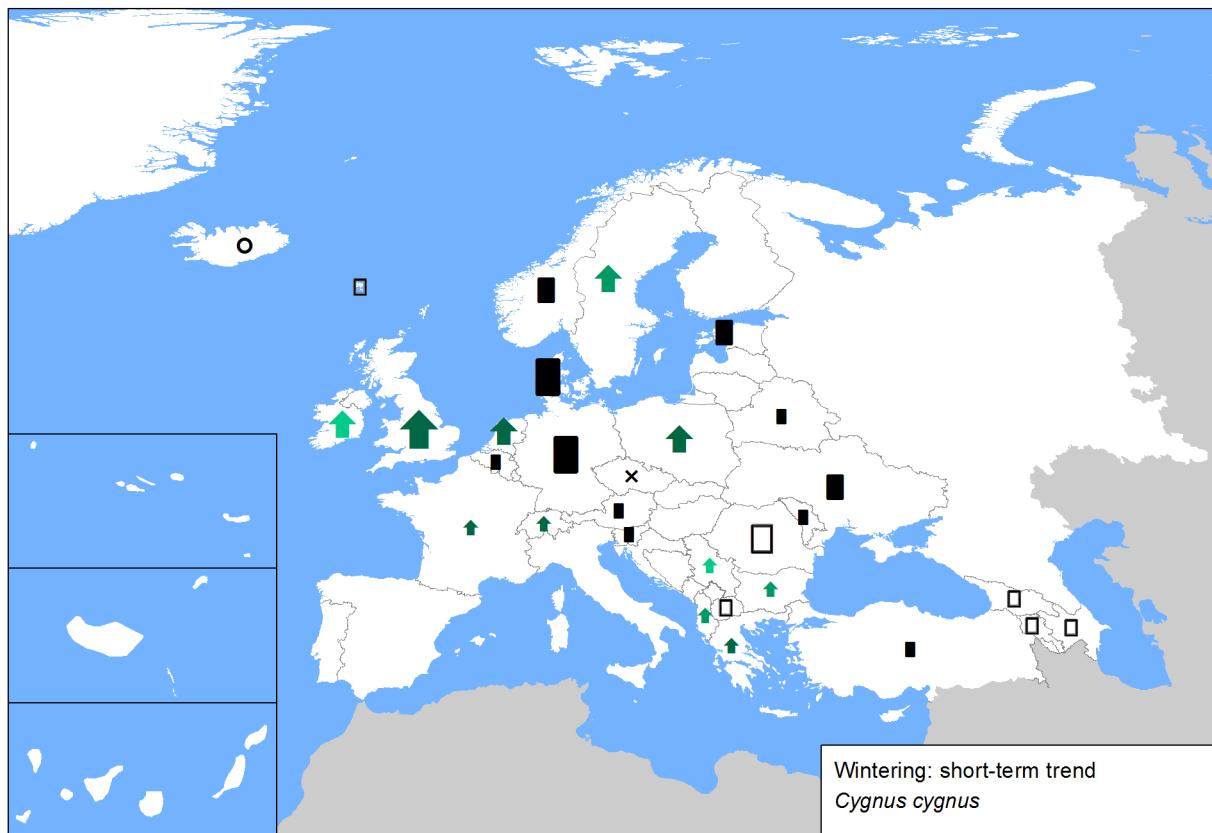
**Figure 1.** Breeding population sizes and short-term trends across Europe.



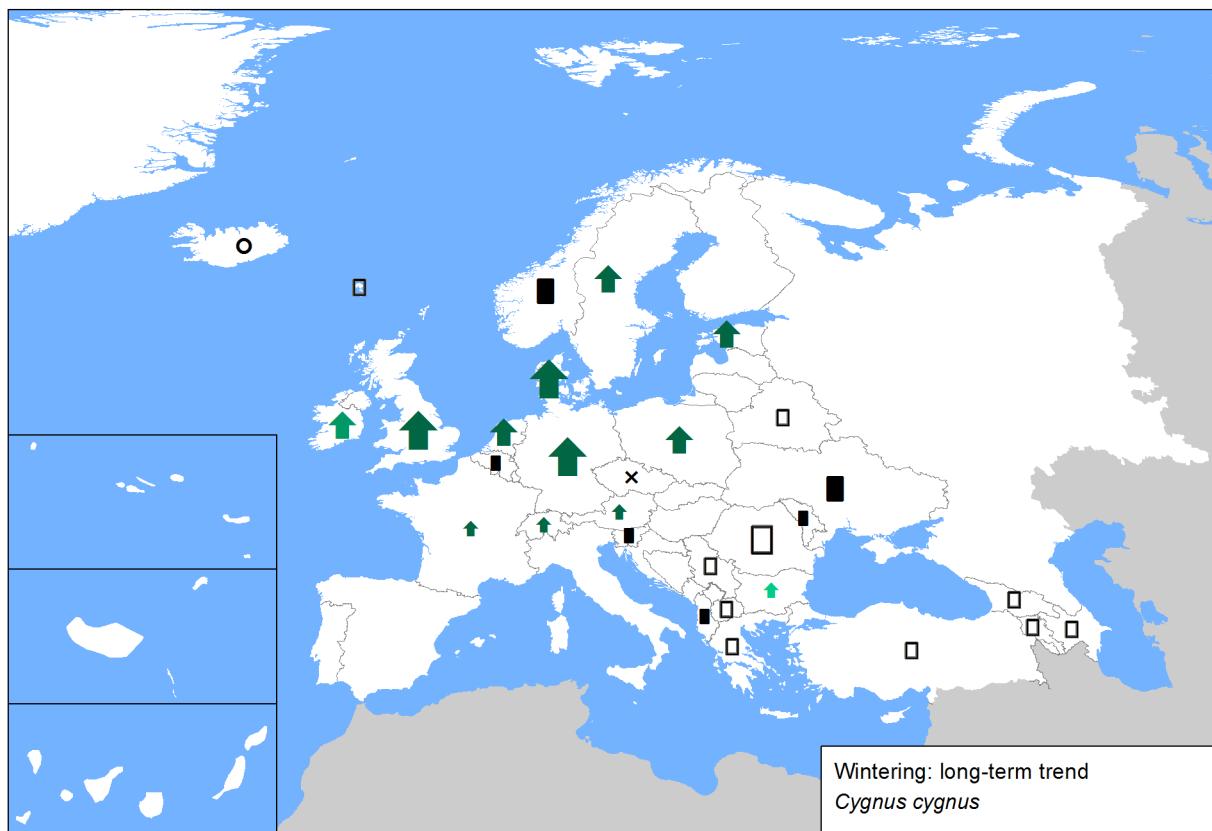
**Figure 2.** Breeding population sizes and long-term trends across Europe.



**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.



*Cygnus cygnus* (Whooper Swan)

## Sources

### Albania

**Winter population size:** Bino pers. obs.

**Winter short-term trend:** Bino pers. obs.

**Winter long-term trend:** Bino pers. obs.

### Armenia

**Winter population size:** ASPB IWC counts

### Austria: North-west Mainland Europe

**Winter population size:** BirdLife Austria, unpublished IWC data

**Winter short-term trend:** BirdLife Austria, estimate on the basis of available unpublished and published trend data

**Winter long-term trend:** BirdLife Austria, unpublished IWC data

### Azerbaijan

**Winter population size:** BirdLife International 2004

### Belarus

**Breeding population size:** Bogdanovich I.A., Nikiforov M.E. Distribution and number of whooper swan (*Cygnus cygnus*) in Belarus //Vesci Natsiyanal'nay Academii Navuk Belarusi. Ser.biyal.navuk - 2013. – No 1. – P. 78-81

**Breeding short-term trend:** Bogdanovich I.A., Nikiforov M.E. Distribution and number of whooper swan (*Cygnus cygnus*) in Belarus //Vesci Natsiyanal'nay Academii Navuk Belarusi. Ser.biyal.navuk - 2013. – No 1. – P. 78-81

**Breeding long-term trend:** Bogdanovich I.A., Nikiforov M.E. Distribution and number of whooper swan (*Cygnus cygnus*) in Belarus //Vesci Natsiyanal'nay Academii Navuk Belarusi. Ser.biyal.navuk - 2013. – No 1. – P. 78-81

**Winter population size:** Bogdanovich I.A. - personal communication

**Winter short-term trend:** Data of midwinter counts of wintering waterbirds in Belarus (2009-2013).

### Belgium: North-west Mainland Europe

**Winter population size:** waterbird database INBO + Aves

**Winter short-term trend:** waterbird database INBO and Aves

**Winter long-term trend:** waterbird database INBO and Aves

### Bulgaria: N Europe & W Siberia/Black Sea & E Mediterranean

**Winter population size:** Mid-winter count of waterfowl BSPB Bird Database Golemansky 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/>

**Winter short-term trend:** Mid-winter count of waterfowl BSPB Bird Database Golemansky 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/>

**Winter long-term trend:** Mid-winter count of waterfowl BSPB Bird Database Golemansky 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/>

### Czech Republic

**Winter population size:** MUSIL P.& MUSILOVA Z. 2011: Aythya 4, Univerzita Karlova v Praze, Praha.

**Winter short-term trend:** MUSIL P.& MUSILOVA Z. 2011: Aythya 4, Univerzita Karlova v Praze, Praha.

**Winter long-term trend:** MUSIL P.& MUSILOVA Z. 2011: Aythya 4, Univerzita Karlova v Praze, Praha.

### Denmark: North-west Mainland Europe

**Winter population size:** Pihl, S., Clausen, P., Petersen, I.K., Nielsen, R.D., Laursen, K., Bregnalle, T., Holm, T.E. & Søgaard, B. (2013): Fugle 2004-2011. NOVANA. Aarhus Universitet, DCE - Nationalt Center for Miljø og Energi. - Videnskabelig rapport fra DCE nr. 49. 188 s.

**Winter short-term trend:** Pihl, S., Clausen, P., Petersen, I.K., Nielsen, R.D., Laursen, K., Bregnalle, T., Holm, T.E. & Søgaard, B. (2013): Fugle 2004-2011. NOVANA. Aarhus Universitet, DCE - Nationalt Center for Miljø og Energi. - Videnskabelig rapport fra DCE nr. 49. 188 s.

**Winter long-term trend:** Pihl, S., Clausen, P., Petersen, I.K., Nielsen, R.D., Laursen, K., Bregnalle, T., Holm, T.E. & Søgaard, B. (2013): Fugle 2004-2011. NOVANA. Aarhus Universitet, DCE - Nationalt Center for Miljø og Energi. - Videnskabelig rapport fra DCE nr. 49. 188 s.

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**Breeding short-term trend:** Hammer et al. (2014) Færøsk trækfugleatlas [Faroese bird migration atlas]. Fróðskapur / Faroe University Press, Tórshavn.

**Breeding long-term trend:** Hammer et al. (2014) Færøsk trækfugleatlas [Faroese bird migration atlas]. Fróðskapur / Faroe University Press, Tórshavn.

**Winter population size:** BirdLife International 2004

### Estonia: North-west Mainland Europe

**Breeding population size:** Elts, J., Leito, A., Leivits, A., Luigjõe, L., Mägi, E., Nellis, Rein, Nellis, Renno, Ots, M., Pehlak, H. 2013. Status and numbers of Estonian birds, 2008–2012. *Hirundo* 26(2): 80-112. URL: [http://www.eoy.ee/hirundo/file\\_download/149/Elts\\_et\\_al\\_2013\\_2.pdf](http://www.eoy.ee/hirundo/file_download/149/Elts_et_al_2013_2.pdf)

## *Cygnus cygnus* (Whooper Swan)

### Estonia: North-west Mainland Europe

**Breeding short-term trend:** Elts, J., Leito, A., Leivits, A., Luigjõe, L., Mägi, E., Nellis, Rein, Nellis, Renno, Ots, M., Pehlak, H. 2013. Status and numbers of Estonian birds, 2008–2012. *Hirundo* 26(2): 80–112. URL: [http://www.eoy.ee/hirundo/file\\_download/149/Elts\\_et\\_al\\_2013\\_2.pdf](http://www.eoy.ee/hirundo/file_download/149/Elts_et_al_2013_2.pdf)

**Breeding long-term trend:** Elts, J., Leito, A., Leivits, A., Luigjõe, L., Mägi, E., Nellis, Rein, Nellis, Renno, Ots, M., Pehlak, H. 2013. Status and numbers of Estonian birds, 2008–2012. *Hirundo* 26(2): 80–112. URL: [http://www.eoy.ee/hirundo/file\\_download/149/Elts\\_et\\_al\\_2013\\_2.pdf](http://www.eoy.ee/hirundo/file_download/149/Elts_et_al_2013_2.pdf)

**Winter population size:** Elts, J., Leito, A., Leivits, A., Luigjõe, L., Mägi, E., Nellis, Rein, Nellis, Renno, Ots, M., Pehlak, H. 2013. Status and numbers of Estonian birds, 2008–2012. *Hirundo* 26(2): 80–112. URL: [http://www.eoy.ee/hirundo/file\\_download/149/Elts\\_et\\_al\\_2013\\_2.pdf](http://www.eoy.ee/hirundo/file_download/149/Elts_et_al_2013_2.pdf)

**Winter short-term trend:** Elts, J., Leito, A., Leivits, A., Luigjõe, L., Mägi, E., Nellis, Rein, Nellis, Renno, Ots, M., Pehlak, H. 2013. Status and numbers of Estonian birds, 2008–2012. *Hirundo* 26(2): 80–112. URL: [http://www.eoy.ee/hirundo/file\\_download/149/Elts\\_et\\_al\\_2013\\_2.pdf](http://www.eoy.ee/hirundo/file_download/149/Elts_et_al_2013_2.pdf)

**Winter long-term trend:** Elts, J., Leito, A., Leivits, A., Luigjõe, L., Mägi, E., Nellis, Rein, Nellis, Renno, Ots, M., Pehlak, H. 2013. Status and numbers of Estonian birds, 2008–2012. *Hirundo* 26(2): 80–112. URL: [http://www.eoy.ee/hirundo/file\\_download/149/Elts\\_et\\_al\\_2013\\_2.pdf](http://www.eoy.ee/hirundo/file_download/149/Elts_et_al_2013_2.pdf)

### Finland: North-west Mainland Europe

**Breeding population size:** <http://www.birdlife.fi/suojelu/lajit/laulujoutsen.pdf> Lehikoinen, A., Pöysä, H., Rintala, J. & Väistänen, R.A. 2013: Population changes of 20 waterbird species in Finnish lakes in 1986–2012. – *Linnut-vuosikirja* 2012: 95–101. (in Finnish with English summary)

**Breeding short-term trend:** Lehikoinen, A., Pöysä, H., Rintala, J. & Väistänen, R.A. 2013: Population changes of 20 waterbird species in Finnish lakes in 1986–2012. – *Linnut-vuosikirja* 2012: 95–101. (in Finnish with English summary)

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### France: North-west Mainland Europe

**Winter population size:** LPO - Wetlands International 2012 Base de données des dénombrements d'oiseaux d'eau « Wetlands International » 1980–2012 réalisés à la mi-janvier, LPO - BirdLife France, Rochefort

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### Georgia

**Winter population size:** BirdLife International 2004

### Germany: North-west Mainland Europe

**Breeding population size:** Gedeon, K., C. Grüneberg, A. Mitschke & C. Sudfeldt (in Vorb.): *Atlas Deutscher Brutvogelarten*. SVD & DDA, Münster.

**Breeding short-term trend:** Monitoring seltener Brutvögel

**Breeding long-term trend:** Monitoring seltener Brutvögel

**Winter population size:** Wahl, J., J. Bellebaum, J. Blew, S. Garthe, K. Günther & T. Heinicke (in Vorb.): *Rastende Wasservögel in Deutschland 2000–2005: Bestandsschätzungen und Schwellenwerte für Rastgebiete nationaler Bedeutung*. Vogelwelt.

**Winter short-term trend:** Monitoring rastender Wasservögel

**Winter long-term trend:** Monitoring rastender Wasservögel

### Greece

**Winter population size:** Midwinter Counts Database, Hellenic Ornithological Society

**Winter short-term trend:** Midwinter Counts Database, Hellenic Ornithological Society

**Winter long-term trend:** Midwinter Counts Database, Hellenic Ornithological Society

### Hungary: North-west Mainland Europe

**Breeding population size:** MME Nomenclator Bizottság (2008): Magyarország madarainak névjegyzéke. Nomenclator avium Hungariae. Magyar Madártani és Természetvédelmi Egyesület, Budapest. p. 278. Annual reports of the Hungarian Checklist and Rarities Committee.

**Breeding short-term trend:** MME Nomenclator Bizottság (2008): Magyarország madarainak névjegyzéke. Nomenclator avium Hungariae. Magyar Madártani és Természetvédelmi Egyesület, Budapest. p. 278. Annual reports of the Hungarian Checklist and Rarities Committee.

**Breeding long-term trend:** MME Nomenclator Bizottság (2008): Magyarország madarainak névjegyzéke. Nomenclator avium Hungariae. Magyar Madártani és Természetvédelmi Egyesület, Budapest. p. 278. Annual reports of the Hungarian Checklist and Rarities Committee.

### Iceland

**Breeding population size:** Arnþór Garðarsson & Kristinn Haukur Skarphéðinsson unpubl. data

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**Breeding long-term trend:** Arnþór Garðarsson & Kristinn Haukur Skarphéðinsson unpubl. data

### Republic of Ireland: Iceland/UK & Ireland

**Winter population size:** Boland, H., McElwaine, J., Henderson, G., Hall, G., Walsh, A., & Crowe, O. (2010). Whooper Cygnus cygnus and Bewick's C. columbianus bewickii Swans in Ireland: Results of the International Swan Census January 2010. *Irish Birds*, 9, 1–10. Expert - O. Crowe, <http://www.birdwatchireland.ie>.

**Winter short-term trend:** Boland, H., McElwaine, J., Henderson, G., Hall, G., Walsh, A., & Crowe, O. (2010) Whooper Cygnus cygnus and Bewick's C. columbianus bewickii Swans in Ireland: Results of the International Swan Census January 2010. *Irish Birds*, 9, 1–10. Expert - O. Crowe, <http://www.birdwatchireland.ie>. Colhoun, K., McElwaine, J.G., Cranswick, P.A., Enlander, I. & Merne, O.J. (2000) Numbers and distribution of Whooper Cygnus cygnus and Bewick's C. columbianus bewickii Swans in Ireland: results of the International Swan Census, January 2000. *Irish Birds* 6: 485–494.

## *Cygnus cygnus* (Whooper Swan)

### Republic of Ireland: Iceland/UK & Ireland

**Winter long-term trend:** Boland, H., McElwaine, J., Henderson, G., Hall, G., Walsh, A., & Crowe, O. (2010) Whooper Cygnus cygnus and Bewick's C. columbianus bewickii Swans in Ireland: Results of the International Swan Census January 2010. Irish Birds, 9, 1-10. Expert - O. Crowe, <http://www.birdwatchireland.ie>. Merne, O.J. and Murphy, C.W. (1986) Whooper Swans in Ireland, January 1986. Irish Birds 3:199-206.

### Latvia: North-west Mainland Europe

**Breeding population size:** Dmitrijs Boiko: dmitrijs.boiko@ldm.gov.lv

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**Breeding long-term trend:** Dmitrijs Boiko: dmitrijs.boiko@ldm.gov.lv

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**Breeding population size:** Expert working group of the Lithuanian Ornithological Society (lod@birdlife.lt) Julius Morkūnas (juliusmorkunas@gmail.com) Jusys, V., Karalius, S., Raudonikis, L. 2012. Lietuvos paukščių pažinimo vadovas. Kaunas: „Lututė“, 288 p.

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**Winter population size:** M. Velevski, unedited data

### Moldova

**Winter population size:** Winter assessment of water birds in Moldova

**Winter short-term trend:** Winter assessment of water birds in Moldova

**Winter long-term trend:** Winter assessment of water birds in Moldova Аверин Ю. В., Ганя И.М., Успенский Г. Птицы Молдавии, том 2, Кишинев, 1971, Burfield I., Bommel van F., Birds in Europe. Population estimates, trends and conservation status. BirdLife International. Oxford, 2004. 374p.

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**Winter population size:** Hornman et al 2012

**Winter short-term trend:** NEM (Sovon, RWS, CBS), Hornman et al 2013

**Winter long-term trend:** NEM (Sovon, RWS, CBS), Hornman et al 2013

### Norway

**Breeding population size:** County bird recording committees (LRSK)

**Breeding short-term trend:** 1). County bird recorders. 2) Shimmings P. & Øien, I.J. 2015. Bestandsestimater og trender for norske hekkefugler. Norsk Ornitologisk Forening Rapport 2015-2.

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### Poland: North-west Mainland Europe

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**Breeding long-term trend:** Sikora A., Wieloch M., Chylarecki P. 2012. Stan populacji labędzia krzykliwego Cygnus cygnus w Polsce. Ornis Polonica 2012, 53: 69–85; Tomiałoń L. & Stawarczyk T. 2003. Awifauna Polski: rozmieszczenie, liczliwość i zmiany. PTTP "pro Natura", Wrocław

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### Romania: N Europe & W Siberia/Black Sea & E Mediterranean

**Winter population size:** International Waterbird Census, Romania SOR Database Milvus Database

**Winter short-term trend:** International Waterbird Census, Romania SOR Database Milvus Database

## *Cygnus cygnus* (Whooper Swan)

### Romania: N Europe & W Siberia/Black Sea & E Mediterranean

Winter long-term trend: International Waterbird Census, Romania SOR Database Milvus Database

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Breeding long-term trend: Swedish Bird Survey (Svensk Fågeltaxering), Lund University.

Winter population size: Swedish Bird Survey (Svensk Fågeltaxering), Lund University.

Winter short-term trend: Swedish Bird Survey (Svensk Fågeltaxering), Lund University.

Winter long-term trend: Swedish Bird Survey (Svensk Fågeltaxering), Lund University.

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Winter population size: Swiss Ornithological Institute. Winter waterbird census (January). <http://www.vogelwarte.ch/monitoring-wintering-waterbirds.html> Min Max of total count

Winter short-term trend: Swiss Ornithological Institute. Winter waterbird census (January). Swiss Ornithological Institute. Winter waterbird census (January). <http://www.vogelwarte.ch/monitoring-wintering-waterbirds.html> Min Max refer to 95% Confidence interval.

Winter long-term trend: Swiss Ornithological Institute. Winter waterbird census (January). Swiss Ornithological Institute. Winter waterbird census (January). <http://www.vogelwarte.ch/monitoring-wintering-waterbirds.html> Min Max refer to 95% Confidence interval.

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## *Cygnus cygnus* (Whooper Swan)

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### United Kingdom: Iceland/UK & Ireland

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**Breeding short-term trend:** RBBP; Holling, M. & the Rare Breeding Birds Panel. 2012. Rare breeding birds in the United Kingdom in 2010. British Birds 105: 352–416.

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