

## ***Mergus merganser* (Goosander)**

### **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).

*Mergus merganser* (Goosander)

**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	
Albania	2-5	<1	2002-2012	poor	0	0	2002-2012	poor	-	10-20	1980-2012	poor	
Austria	160-220	<1	2001-2012	medium	0	0	2001-2012	medium	+	50-100	1980-2012	poor	M. m. merganser, other populations
Belarus	60-70	<1	2008-2012	medium	+	29-33	2001-2012	medium	+	29-33	1980-2012	medium	
Bosnia & HG	5-10	<1	2010-2014	poor	+	5-10	2001-2012	poor	+	5-10	1980-2013	poor	
Croatia	4-10	<1	2010	good	+	100	2002-2012	good	?				
Czech Rep.	2-11	<1	2001-2003	good	?				+	200-1000	1985-2003	medium	M. m. merganser, other populations
Denmark	62-70	<1	2011	good	+	50-100	1999-2011	medium	+	100-1000	1980-2011	medium	M. m. merganser, other populations
Estonia	1,500-2,000	2	2008-2012	poor	0	0-10	2001-2012	poor	-	20-50	1980-2012	poor	M. m. merganser, other populations
Finland	20,000-30,000	30	2006-2010	medium	-	31-45	2001-2012	good	-	37-49	1980-2012	good	M. m. merganser, other populations
France	250-400	<1	2009	medium	+	30-90	2000-2010	good	+	90-170	1980-2010	good	M. m. merganser, other populations
Germany	950-1,100	1	2005-2009	good	+	11-40	1998-2009	medium	+	31-400	1985-2009	medium	M. m. merganser, other populations
Greece	11-23	<1	2011-2013	good	0	0	2001-2012	good	0	0	1980-2012	medium	M. m. merganser, other populations
Hungary	1	<1	2004-2012	good	0	0	2004-2012	good					M. m. merganser, other populations
Iceland	100-300	<1	1990	poor	?				?				
Rep. Ireland	0-5	<1	2008-2011	medium	0	0	2000-2011	medium	0	0	1980-2011	medium	M. m. merganser, other populations
Italy	22-29	<1	2008	good	+		2001-2012		+	2100-2800	1996-2008	good	M. m. merganser, other populations
Latvia	440-1,164	1	2000-2004	good	?				?				M. m. merganser, other populations
Lithuania	1,000-2,000	2	2008-2012	medium	+	5-20	2001-2012	medium	+	5-20	1980-2012	medium	M. m. merganser, other populations
FYRO Macedonia	30-50	<1	2001-2012	medium	0	0	2001-2012	medium	?				
Norway	1,000-5,000	3	2013	poor	?				?				
Poland	1,500-2,000	2	2008-2012	medium	+	70-100	1995-2012	medium	+	190-200	1980-2012	medium	M. m. merganser, other populations
Romania	20-50	<1	2008-2013	medium	+	5-10	2000-2012	poor	?				M. m. merganser, North-east Europe/Black Sea
Russia	9,000-12,000	13	2002-2010	poor	+	3-20	1996-2006	poor	+	5-20	1980-2010	poor	
Serbia	50-70	<1	2008-2012	medium	+	30	2000-2012	good	+		1980-2012	medium	
Slovakia	0-10	<1	2000-2012	medium	+	20-50	2000-2012	medium	+	50-100	1980-2012	medium	M. m. merganser, other populations
Slovenia	45-80	<1	2002-2012	medium	+	20-50	2001-2012	medium	+	200-400	1980-2012	medium	M. m. merganser, other populations
Sweden	27,000-42,000	41	2008-2012	medium	0	0	2001-2012	good	+	25-55	1980-2012	medium	M. m. merganser, other populations
Switzerland	500-700	1	2008-2012	medium	+	22-36	2001-2012	medium	+	66-105	1990-2012	medium	
Ukraine	10-25	<1	2000	medium	+	20-50	2001-2012	medium	+	25-60	1980-2012	medium	
United Kingdom	3,100-3,800	4	2009	medium	+	28	1990-2006	good	+	130	1970-2006	good	M. m. merganser, other populations
<b>EU27</b>	<b>56,100-85,000</b>	<b>83</b>			<b>Decreasing</b>								
<b>Europe</b>	<b>66,800-103,000</b>	<b>100</b>			<b>Stable</b>								

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

Country (or territory) <sup>2</sup>	Population estimate				Short-term population trend <sup>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	

<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.

*Mergus merganser* (Goosander)

**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	1-3	<1	2002-2012	medium	0	0	2002-2012	medium	?				
Armenia	1-160	<1	2003-2013	good	?				?				
Austria	1,400-1,500	1	2008-2010	good	+	10-30	2001-2012	good	+	100-200	1980-2012	medium	
Azerbaijan	100-500	<1	1996-2002	medium	?				?				
Belarus	400-800	<1	2009-2013	good	0	0	2000-2012	medium	F	0-100	1980-2012	medium	
Belgium	459-753	<1	2008-2012	good	?				-	1-4	1992-2012	good	
Bosnia & HG	200-600	<1	2008-2013	medium	0	0	2000-2013	medium	?				
Bulgaria	1-85	<1	2000-2012	good	F	10-100	2000-2012	good	F	5-95	1980-2012	good	
Croatia	5-50	<1	2014	poor	F	0-900	2010-2013	poor	F	0-900	1988-2013	poor	
Czech Rep.	3,279	2	2011	medium	+	64	2000-2011	medium	+	119	1980-2011	medium	
Denmark	13,850	9	2008	good	0	0-25	2000-2011	good	-	33-50	1980-2011	good	
Estonia	4,000-9,000	4	2008-2012	medium	0	0-10	2001-2012	medium	+	50-70	1980-2012	medium	
Finland	8,200-22,000	8	2007-2012	medium	+	59-153	2001-2012	good	+	127-230	1983-2012	good	
France	1,841	1	2008-2012	good	+	58-127	2000-2012	good	+	141-220	1980-2012	good	
Georgia	Present	<1	2012		?				?				
Germany	37,000	23	2000-2005	good	-	2-42	1997-2009	good	F	0	1984-2009	good	
Greece	15-58	<1	2007-2013	good	?				?				
Iceland	Present	<1	2012		?				?				
Latvia	1,500-12,000	3	2001-2012	medium	F	0	2001-2012	medium	0	0	1984-2012	medium	
Lithuania	1,500-5,000	2	2010-2012	good	-	40-50	2001-2012	medium	-	60-80	1980-2012	medium	
Luxembourg	100-150	<1	2008-2012	medium	F	15-35	2000-2012	medium	+	200-400	1980-2012	poor	
FYRO Macedonia	20-150	<1	2001-2012	medium	0	0	2001-2012	medium	0	0	1980-2012	medium	
Moldova	20-180	<1	2000-2010	medium	+	5-10	2000-2010	medium	F	0	1980-2010	medium	
Montenegro	0-5	<1	2003-2012	medium	?				?				
Netherlands	5,368-23,224	7	2006-2010	good	F	0	2000-2011	good	-	17-80	1981-2011	good	
Norway	4,000	3	1994-2003	medium	?				?				
Poland	19,000-20,000	12	2011-2012	medium	?				F	0	1985-2012	medium	
Romania	150-500	<1	2008-2013	medium	F	0-20	2000-2013	medium	?				
Russia	4,700-8,700	4	2007-2010	medium	F	0	2002-2012	medium	?				
Serbia	350-700	<1	2008-2012	medium	+	5-10	2000-2012	medium	?				
Slovakia	500-1,300	1	2011	good	+	75-80	2000-2012	good	+	100-300	1980-2012	medium	

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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	
Slovenia	400-580	<1	2008-2012	medium	+	10-30	2001-2012	good	+	30-50	1980-2012	medium	
Sweden	9,000-17,000	8	2008-2012	good	-	10-50	2001-2012	good	-	20-60	1980-2012	good	
Switzerland	4,047-5,073	3	2008-2012	good	+	29-35	2001-2012	good	+	28-30	1980-2012	good	
Turkey	1-20	<1	2002-2012	good	?				?				
Ukraine	900-1,500	1	1998-2009	medium	F	10-20	1998-2009	medium	F	15-30	1980-2009	medium	
United Kingdom	12,000	8	2004-2008	medium	-	8	1999-2010	good	+	25	1980-2010	good	
<b>EU27</b>	<b>120,000-181,000</b>	<b>89</b>			<b>Decreasing</b>								
<b>Europe</b>	<b>134,000-204,000</b>	<b>100</b>			<b>Decreasing</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>.

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<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

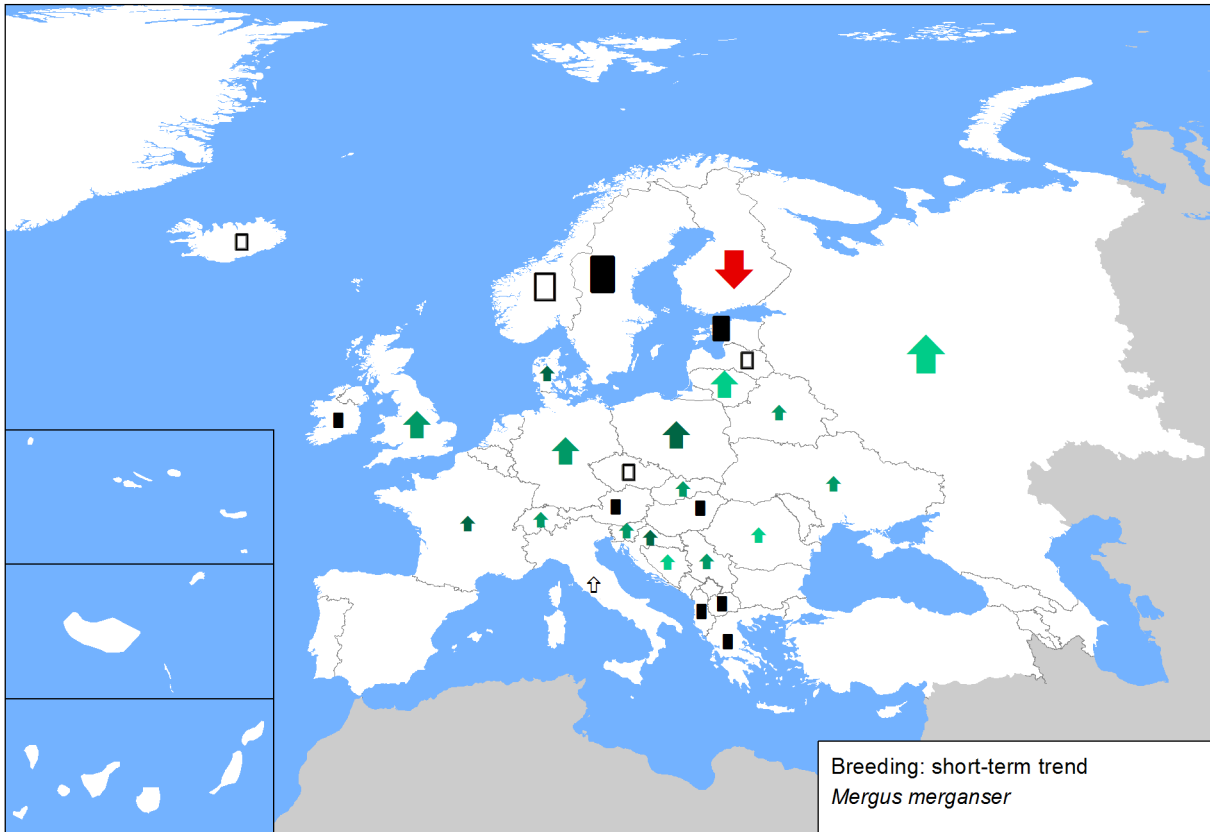
- |   |                                  |
|---|----------------------------------|
| ↑ Large increase ( $\geq 50\%$ )        | ↓ Large decrease ( $\geq 50\%$ ) |
| ↑ Moderate increase (20–49%)            | ↓ Moderate decrease (20–49%)     |
| ↑ Small increase ( $< 20\%$ )           | ↓ Small decrease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

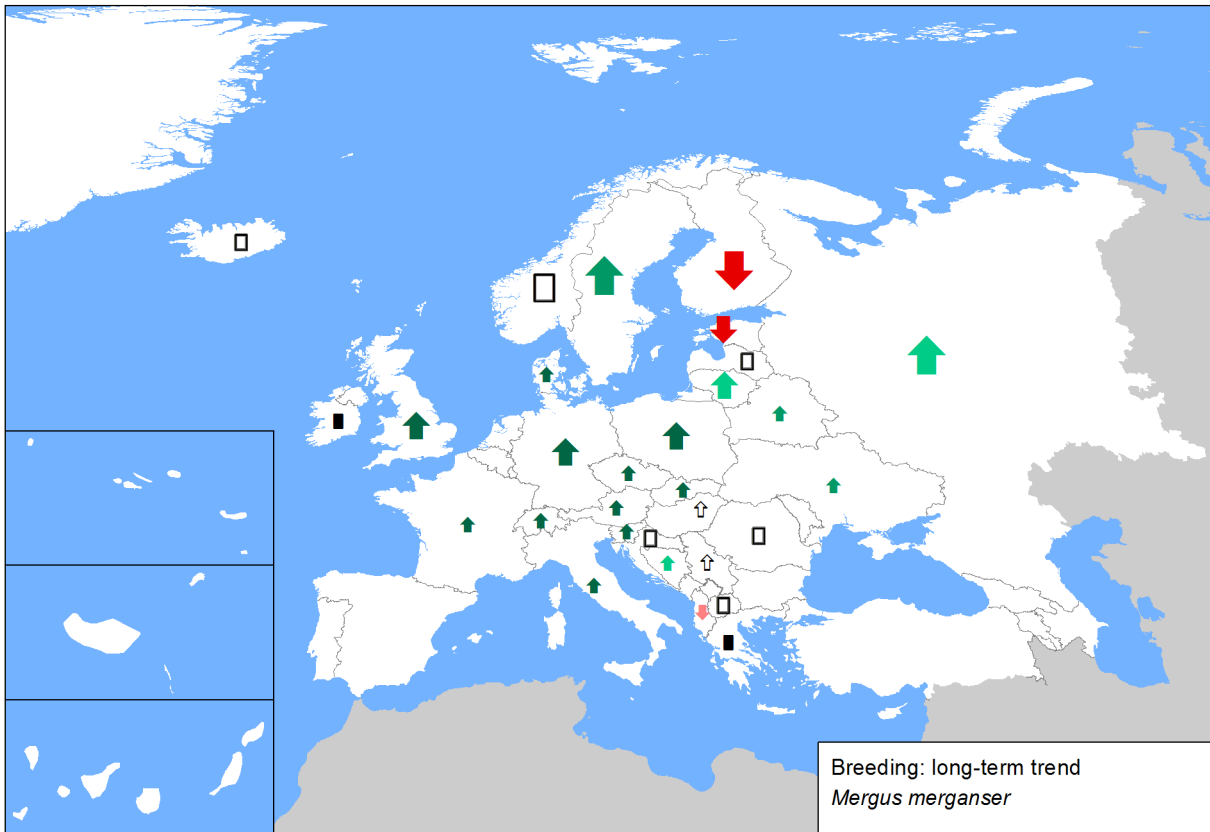
- ↑ Large:  $\geq 10\%$  of the European population
- ↑ Medium: 1–9% of the European population
- ↑ Small:  $< 1\%$  of the European population

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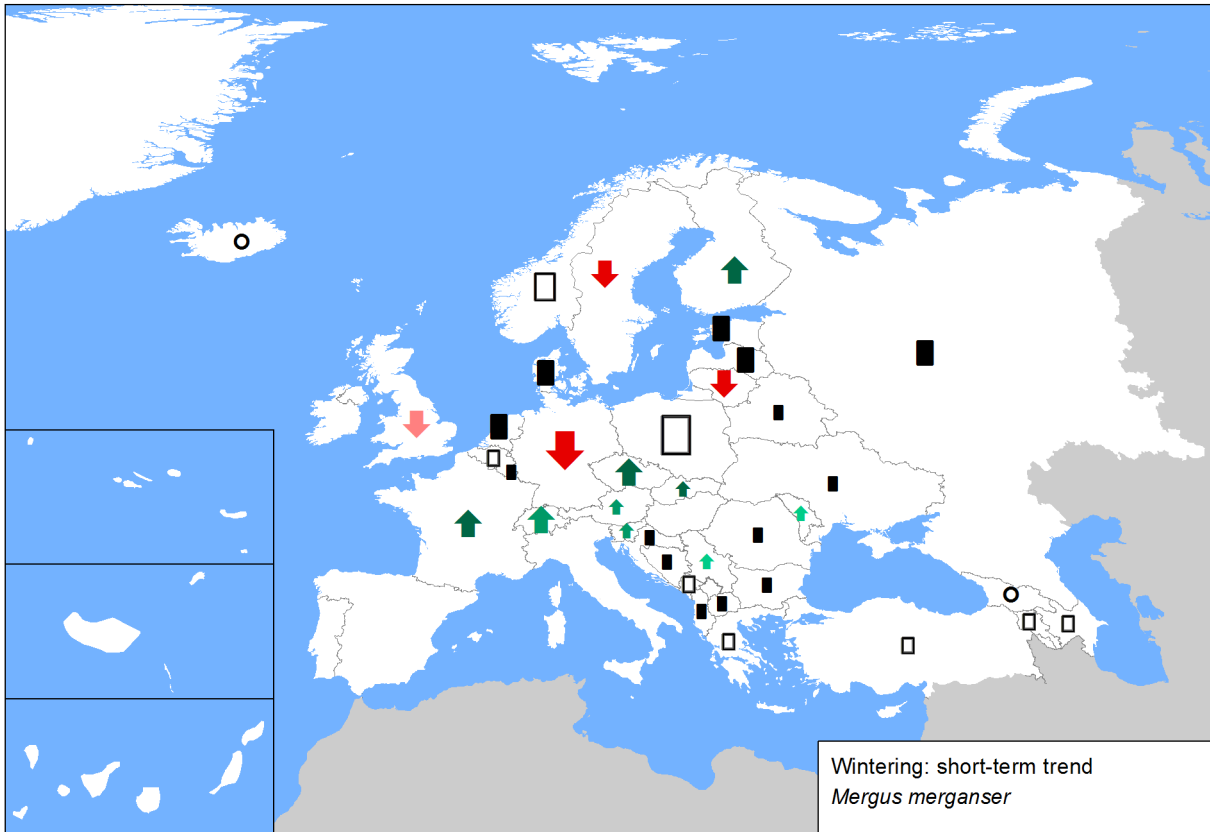
**Figure 1.** Breeding population sizes and short-term trends across Europe.



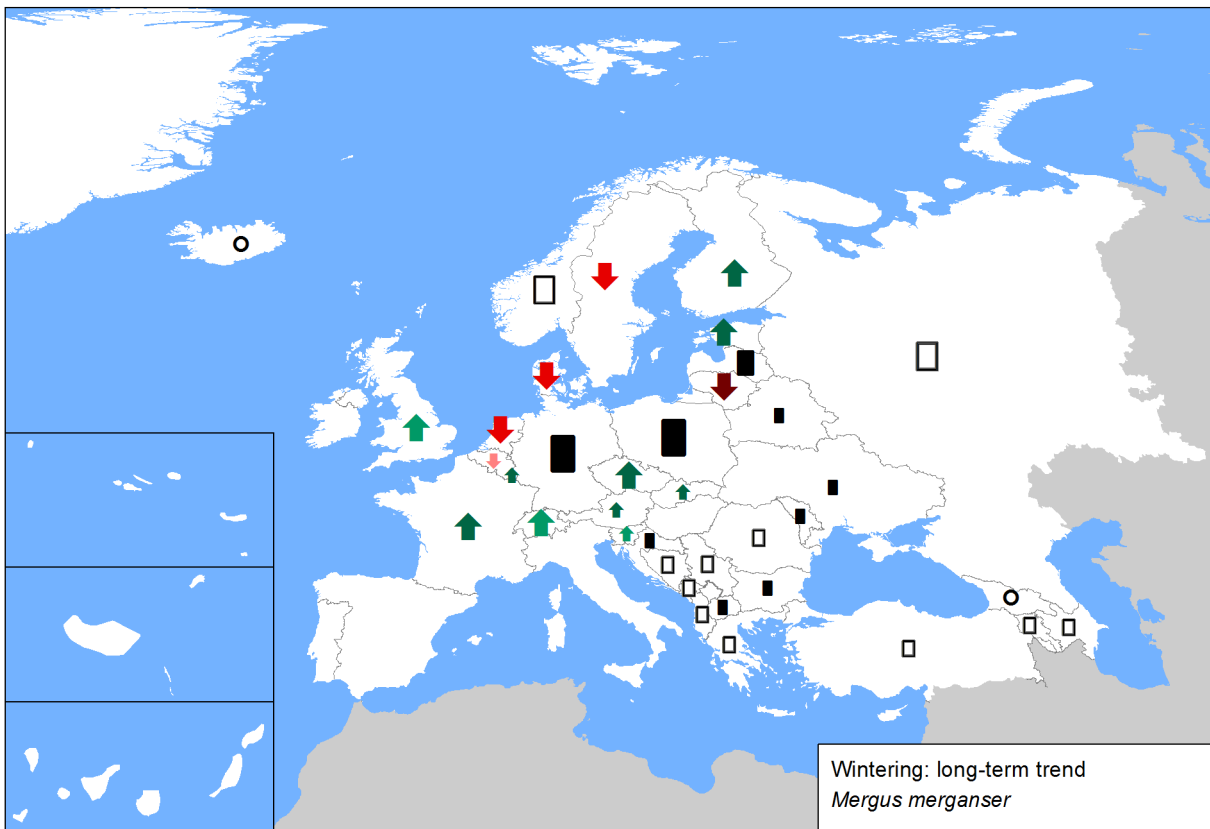
**Figure 2.** Breeding population sizes and long-term trends across Europe.



**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.





## *Mergus merganser* (Goosander)

### Sources

#### Albania

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

#### Armenia

<b>Winter population size:</b> ASPB IWC counts
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#### Austria: *M. m. merganser*, other populations

<b>Breeding population size:</b> BirdLife Austria, estimate on the basis of available unpublished and published population data
<b>Breeding short-term trend:</b> BirdLife Austria, estimate on the basis of available unpublished and published trend data
<b>Breeding long-term trend:</b> BirdLife Austria, estimate on the basis of available unpublished and published trend data
<b>Winter population size:</b> BirdLife Austria, unpublished IWC data
<b>Winter short-term trend:</b> BirdLife Austria, unpublished IWC data
<b>Winter long-term trend:</b> BirdLife Austria, unpublished IWC data

#### Azerbaijan

<b>Winter population size:</b> BirdLife International 2004
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#### Belarus

<b>Breeding population size:</b> Kozulin A.V. - personal communication
<b>Breeding short-term trend:</b> Kozulin A.V. - personal communication
<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.
<b>Winter population size:</b> Bogdanovich I.A. - personal communication
<b>Winter short-term trend:</b> Bogdanovich I.A. - personal communication
<b>Winter 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.

#### Belgium: *M. m. merganser*, other populations

<b>Winter population size:</b> waterbird database INBO + Aves
<b>Winter short-term trend:</b> waterbird database INBO and Aves
<b>Winter long-term trend:</b> waterbird database INBO and Aves

#### Bosnia and Herzegovina

<b>Breeding population size:</b> Marinković, S., Skorić, S., Popović, Z. & Nikčević, M., 2008: Research on long-term colonization of Goosander ( <i>Mergus merganser</i> Linnaeus, 1758) with reference to habitat availability. Archives of Biological Science, 60 (3): 501-506.
<b>Breeding short-term trend:</b> unpublsh data
<b>Breeding long-term trend:</b> unpublsh data
<b>Winter population size:</b> Kotrošan, D., Dervović, I., 2010: Rezultati zimskog brojanja ptica močvarica u Bosni i Hercegovini za period od 2008. do 2010. godine. Bilten Mreže posmatrača ptica u Bosni i Hercegovini, 6(6): 23-45., Dervović, I. & Kotrošan, D., 2011/2012: Rezultati zimskog brojana ptica močvarica u Bosni i Hercegovini u 2011. godini. Bilten Mreže posmatrača ptica u Bosni i Hercegovini, 7-8(7-8): 44-55., Topić, G. & Kotrošan, D., 2011/2012: Rezultati Međunarodnog cenzusa ptica vodenih staništa u Bosni i Hercegovini 2012. godine. Bilten Mreže posmatrača ptica u Bosni i Hercegovini, 7-8(7-8): 56-73., Topić, G., 2013: Rezultati Međunarodnog cenzusa ptica vodenih staništa u Bosni i Hercegovini 2013. godine. Bilten Mreže posmatrača ptica u Bosni i Hercegovini, 7-8(7-8): 14-40.
<b>Winter short-term trend:</b> Dervović, I. 2005: Rezultati januarskog brojanja vodenih ptica 1998-2005. Bilten Mreže posmatrača ptica u Bosni i Hercegovini, 1(1): 43-45. Dervović, I. 2006: Rezultati zimskog prebrojavanja ptica močvarica u Bosni i Hercegovini u 2006. godini. Bilten Mreže posmatrača ptica u Bosni i Hercegovini, 2(2): 20-22. Dervović, I. 2007: Izvještaj o januarskom prebrojavanju vodenih ptica u 2007. godini. Bilten Mreže posmatrača ptica u Bosni i Hercegovini, 3(3): 47. Kotrošan, D., Dervović, I., 2010: Rezultati zimskog brojanja ptica močvarica u Bosni i Hercegovini za period od 2008. do 2010. godine. Bilten Mreže posmatrača ptica u Bosni i Hercegovini, 6(6): 23-45., Dervović, I. & Kotrošan, D., 2011/2012: Rezultati zimskog brojana ptica močvarica u Bosni i Hercegovini u 2011. godini. Bilten Mreže posmatrača ptica u Bosni i Hercegovini, 7-8(7-8): 44-55., Topić, G. & Kotrošan, D., 2011/2012: Rezultati Međunarodnog cenzusa ptica vodenih staništa u Bosni i Hercegovini 2012. godine. Bilten Mreže posmatrača ptica u Bosni i Hercegovini, 7-8(7-8): 56-73., Topić, G., 2013: Rezultati Međunarodnog cenzusa ptica vodenih staništa u Bosni i Hercegovini 2013. godine. Bilten Mreže posmatrača ptica u Bosni i Hercegovini, 7-8(7-8): 14-40.

#### Bulgaria: *M. m. merganser*, North-east Europe/Black Sea

<b>Winter population size:</b> BSPB GIS related ornithological database IWC counts in Bulgaria
<b>Winter short-term trend:</b> BSPB GIS related ornithological database
<b>Winter long-term trend:</b> BSPB GIS related ornithological database

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### Croatia

<b>Breeding population size:</b> Tutiš, V., Kralj, J., Radović, D., Čiković, D. i Barišić, S. (2013): Crvena knjiga ptica Republike Hrvatske. Ministarstvo zaštite okoliša i prirode, Državni zavod za zaštitu prirode
<b>Breeding short-term trend:</b> Tutiš, V., Kralj, J., Radović, D., Čiković, D. i Barišić, S. (2013): Crvena knjiga ptica Republike Hrvatske. Ministarstvo zaštite okoliša i prirode, Državni zavod za zaštitu prirode
<b>Breeding long-term trend:</b> Tutiš, V., Kralj, J., Radović, D., Čiković, D. i Barišić, S. (2013): Crvena knjiga ptica Republike Hrvatske. Ministarstvo zaštite okoliša i prirode, Državni zavod za zaštitu prirode
<b>Winter population size:</b> International Waterbird Census Count Totals 2010 - 2013: African-Eurasian region ( <a href="http://www.wetlands.org/LinkClick.aspx?fileticket=0YKYRi11%2F0k%3d&amp;tabid=3044">http://www.wetlands.org/LinkClick.aspx?fileticket=0YKYRi11%2F0k%3d&amp;tabid=3044</a> )
<b>Winter short-term trend:</b> International Waterbird Census Count Totals 2010 - 2013: African-Eurasian region ( <a href="http://www.wetlands.org/LinkClick.aspx?fileticket=0YKYRi11%2F0k%3d&amp;tabid=3044">http://www.wetlands.org/LinkClick.aspx?fileticket=0YKYRi11%2F0k%3d&amp;tabid=3044</a> )
<b>Winter long-term trend:</b> International Waterbird Census Count Totals 2010 - 2013: African-Eurasian region ( <a href="http://www.wetlands.org/LinkClick.aspx?fileticket=0YKYRi11%2F0k%3d&amp;tabid=3044">http://www.wetlands.org/LinkClick.aspx?fileticket=0YKYRi11%2F0k%3d&amp;tabid=3044</a> )

### Czech Republic: M. m. merganser, other populations

<b>Breeding population size:</b> STASTNY K., BEJCEK V. & HUDEC K. 2006: Atlas hnízdního rozsireni ptaku v Ceske republice. Aventinum Praha.
<b>Breeding long-term trend:</b> STASTNY K., BEJCEK V. & HUDEC K. 2006: Atlas hnízdního rozsireni ptaku v Ceske republice. Aventinum Praha.
<b>Winter population size:</b> MUSIL P. & MUSILOVA Z. 2011: Aythya 4, Univerzita Karlova v Praze, Praha.
<b>Winter short-term trend:</b> MUSIL P. & MUSILOVA Z. 2011: Aythya 4, Univerzita Karlova v Praze, Praha.
<b>Winter long-term trend:</b> MUSIL P. & MUSILOVA Z. 2011: Aythya 4, Univerzita Karlova v Praze, Praha.

### Denmark: M. m. merganser, other populations

<b>Breeding population size:</b> Nyegaard et al. (2014): Truede og sjældne ynglefugle i Danmark 1998-2012 - With a summary in English: Rare and threatened breeding birds in Denmark 1998-2012. DOFT 108(1). In prep.
<b>Breeding short-term trend:</b> Nyegaard et al. (2014): Truede og sjældne ynglefugle i Danmark 1998-2012 - With a summary in English: Rare and threatened breeding birds in Denmark 1998-2012. DOFT 108(1). In prep. Nyegaard, T. (2012): Truede og sjældne ynglefugle i Danmark 2011. Trykt hos Svendborg Tryk Eskildsen, A. & T. Vikstrøm. (2010): Truede og sjældne ynglefugle i Danmark 2010. Dansk Ornitologisk Forening. Nyegaard, T. & M.B. Grell (2009): Truede og sjældne ynglefugle i Danmark 2008. Dansk Ornitologisk Forening. Nyegaard, T. & M.B. Grell (2008): Truede og sjældne ynglefugle i Danmark 2007. Dansk Ornitologisk Forening. Nyegaard, T. & M.B. Grell (2007): Truede og sjældne ynglefugle i Danmark 2006. Dansk Ornitologisk Forening. Nyegaard, T. & M.B. Grell (2006): Truede og sjældne ynglefugle i Danmark 2005. DOFT 100: 11-28. Nyegaard, T. & M.B. Grell (2005): Truede og sjældne ynglefugle i Danmark 2004. DOFT 99: 88-106. Grell, M.B., Heldbjerg, H., Rasmussen, B., Stabell, M., Tofft, J. & T. Vikstrøm (2004): Truede og sjældne ynglefugle i Danmark 1998-2003. Midtvejsrapport fra Dansk Ornitologisk Forenings Arbejdsgruppe for Truede og Sjældne Ynglefugle (DATSY). DOFT 98: 45-100.
<b>Breeding long-term trend:</b> Nyegaard et al. (2014): Truede og sjældne ynglefugle i Danmark 1998-2012 - With a summary in English: Rare and threatened breeding birds in Denmark 1998-2012. DOFT 108(1). In prep. Nyegaard, T. (2012): Truede og sjældne ynglefugle i Danmark 2011. Trykt hos Svendborg Tryk Eskildsen, A. & T. Vikstrøm. (2010): Truede og sjældne ynglefugle i Danmark 2010. Dansk Ornitologisk Forening. Nyegaard, T. & M.B. Grell (2009): Truede og sjældne ynglefugle i Danmark 2008. Dansk Ornitologisk Forening. Nyegaard, T. & M.B. Grell (2008): Truede og sjældne ynglefugle i Danmark 2007. Dansk Ornitologisk Forening. Nyegaard, T. & M.B. Grell (2007): Truede og sjældne ynglefugle i Danmark 2006. Dansk Ornitologisk Forening. Nyegaard, T. & M.B. Grell (2006): Truede og sjældne ynglefugle i Danmark 2005. DOFT 100: 11-28. Nyegaard, T. & M.B. Grell (2005): Truede og sjældne ynglefugle i Danmark 2004. DOFT 99: 88-106. Grell, M.B., Heldbjerg, H., Rasmussen, B., Stabell, M., Tofft, J. & T. Vikstrøm (2004): Truede og sjældne ynglefugle i Danmark 1998-2003. Midtvejsrapport fra Dansk Ornitologisk Forenings Arbejdsgruppe for Truede og Sjældne Ynglefugle (DATSY). DOFT 98: 45-100. Grell, Michael Borch (1998): Fuglenes Danmark. Gads forlag i samarbejde med Dansk Ornitologisk Forening. Dybbro, Tommy (1976): De danske ynglefugles udbredelse. Dansk Ornitologisk Forening.
<b>Winter population size:</b> Pihl, S., Clausen, P., Petersen, I.K., Nielsen, R.D., Laursen, K., Bregnballe, 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.
<b>Winter short-term trend:</b> Pihl, S., Clausen, P., Petersen, I.K., Nielsen, R.D., Laursen, K., Bregnballe, 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.
<b>Winter long-term trend:</b> Pihl, S., Clausen, P., Petersen, I.K., Nielsen, R.D., Laursen, K., Bregnballe, 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.

### Estonia: M. m. merganser, other populations

<b>Breeding population size:</b> Elts, J., Leito, A., Leivits, A., Luigujõe, 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: <a href="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</a>
<b>Breeding short-term trend:</b> Elts, J., Leito, A., Leivits, A., Luigujõe, 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: <a href="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</a>
<b>Breeding long-term trend:</b> Elts, J., Leito, A., Leivits, A., Luigujõe, 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: <a href="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</a>
<b>Winter population size:</b> Elts, J., Leito, A., Leivits, A., Luigujõe, 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: <a href="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</a>
<b>Winter short-term trend:</b> Elts, J., Leito, A., Leivits, A., Luigujõe, 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: <a href="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</a>
<b>Winter long-term trend:</b> Elts, J., Leito, A., Leivits, A., Luigujõe, 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: <a href="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</a>

### Finland: M. m. merganser, other populations

<b>Breeding population size:</b> Väisänen, Risto A., Hario, Martti & Saurola, Pertti 2011: Population estimates of Finnish birds. In: Valkama, Jari, Vepsäläinen, Ville & Lehikoinen, Aleksi 2011: The Third Finnish Breeding Bird Atlas. – Finnish Museum of Natural History and Ministry of Environment. (cited [15.11.2013]) ISBN 978-952-10-7145-4.
<b>Breeding short-term trend:</b> Archipelago Bird Census data and Monitoring of Breeding Waterfowl data combined.

## *Mergus merganser* (Goosander)

### Finland: *M. m. merganser*, other populations

<b>Breeding long-term trend:</b> Archipelago Bird Census data and Monitoring of Breeding Waterfowl data combined. Pöysä, H., Rintala, J., Lehtikoinen, A., & Väisänen, R. A. 2013: The importance of hunting pressure, habitat preference and life history for population trends of breeding waterbirds in Finland. <i>European Journal of Wildlife Research</i> 59:245-256. doi:10.1007/s10344-012-0673-8 Hario, M. & Rintala, J. 2011: Population trends of the archipelago birds along Finnish coasts during 1986–2010. – <i>Linnut-vuosikirja</i> 2010: 40–51. (in Finnish with English summary)
<b>Winter population size:</b> BirdLife Finland 2013: Regional observation summary database of Finnish Birdwatching societies on wintering bird species.
<b>Winter short-term trend:</b> Winter bird censuses of the Finnish Museum of Natural History, University of Helsinki.
<b>Winter long-term trend:</b> Winter bird censuses of the Finnish Museum of Natural History, University of Helsinki.

### France: *M. m. merganser*, other populations

<b>Breeding population size:</b> 2013 Avis d'expert sur les effectifs et tendances du Harle bièvre (nidification)
<b>Breeding short-term trend:</b> 2013 Avis d'expert sur les effectifs et tendances du Harle bièvre (nidification)
<b>Breeding long-term trend:</b> 2013 Avis d'expert sur les effectifs et tendances du Harle bièvre (nidification)
<b>Winter population size:</b> 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
<b>Winter short-term trend:</b> 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
<b>Winter long-term trend:</b> 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

### Georgia

<b>Winter population size:</b> BirdLife International 2004
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### Germany: *M. m. merganser*, other populations

<b>Breeding population size:</b> Gedeon, K., C. Grüneberg, A. Mitschke & C. Sudfeldt (in Vorb.): Atlas Deutscher Brutvogelarten. SVD & DDA, Münster.
<b>Breeding short-term trend:</b> Dachverband Deutscher Avifaunisten e.V.
<b>Breeding long-term trend:</b> Dachverband Deutscher Avifaunisten e.V.
<b>Winter population size:</b> 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.
<b>Winter short-term trend:</b> Monitoring rastender Wasservögel
<b>Winter long-term trend:</b> Monitoring rastender Wasservögel

### Greece: *M. m. merganser*, other populations

<b>Breeding population size:</b> Catsadorakis, Nikolaou, Avramoski, Bojadzi( in prep.) Status of the isolated Goosander <i>Mergus merganser</i> Balkan population at lakes Prespa.
<b>Breeding short-term trend:</b> BirdLife International 2004. Birds in Europe - Population estimates, trends and conservation status. Cambridge, UK, BirdLife International (BirdLife Conservation Series No 12).
<b>Breeding long-term trend:</b> Handrinos, G. & Akriotis, T. 1997. The Birds of Greece. Helm.
<b>Winter population size:</b> Midwinter Counts Database, Hellenic Ornithological Society
<b>Winter short-term trend:</b> Midwinter Counts Database, Hellenic Ornithological Society
<b>Winter long-term trend:</b> Midwinter Counts Database, Hellenic Ornithological Society

### Hungary: *M. m. merganser*, other populations

<b>Breeding population size:</b> 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. Barabás, L. (2013): Breeding distribution of Hungarian Duck species. <i>Hungarian Waterfowl Publications</i> 23: 79-120.
<b>Breeding short-term trend:</b> 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. Barabás, L. (2013): Breeding distribution of Hungarian Duck species. <i>Hungarian Waterfowl Publications</i> 23: 79-120.
<b>Breeding long-term trend:</b> First breeding in 2004: 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. Barabás, L. (2013): Breeding distribution of Hungarian Duck species. <i>Hungarian Waterfowl Publications</i> 23: 79-120.

### Iceland

<b>Breeding population size:</b> Umhverfissráðuneytið 1992
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### Republic of Ireland: *M. m. merganser*, other populations

<b>Breeding population size:</b> Hillis, J.P. (2003) Rare Irish Breeding Birds, 1992-2001. <i>Irish Birds</i> , Vol 7, No.2: 157-172. Hillis, J. P. (2004) First Annual Report of the Irish Rare Breeding Birds Panel, 2002. <i>Irish Birds</i> 7: 375-384 Hillis, J. P. (2005) Rare breeding birds in Ireland, 2003 The Second Annual Report of the Irish Rare Breeding Birds Panel (IRBBP). <i>Irish Birds</i> 7: 539-548 Hillis, J.P. (2006) Rare Irish Breeding Birds, 2004 The Third Annual Report of the Irish Rare Breeding Birds Panel (IRBBP) <i>Irish Birds</i> 8: 97-106 Hillis, J.P. (2007) Rare Breeding Birds in Ireland 2005 and 2006. <i>Irish Birds</i> 8: 249-262 Hillis, J.P. (2008) Rare Irish Breeding Birds, 2007 The Seventh Annual Report of the Irish Rare Breeding Birds Panel (IRBBP) <i>Irish Birds</i> 8: 365-372 Hillis, J.P. (2009) Rare Irish Breeding Birds, 2008 The Annual Report of the Irish Rare Breeding Birds Panel (IRBBP) <i>Irish Birds</i> 8: 571-582. Hillis, J.P. (2010) Rare Irish Breeding Birds, 2009 The Annual Report of the Irish Rare Breeding Birds Panel (IRBBP) <i>Irish Birds</i> 9: 67-76 Hillis, J.P. (2011) Rare Irish Breeding Birds, 2010 The Annual Report of the Irish Rare Breeding Birds Panel (IRBBP) <i>Irish Birds</i> 9: 241-250 Hillis, J.P. (2012) Rare Irish Breeding Birds, 2011 The Annual Report of the Irish Rare Breeding Birds Panel (IRBBP) <i>Irish Birds</i> 9: 411-420
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## *Mergus merganser* (Goosander)

### Republic of Ireland: *M. m. merganser*, other populations

**Breeding short-term trend:** Hillis, J.P. (2003) Rare Irish Breeding Birds, 1992-2001. Irish Birds, Vol 7, No.2: 157-172. Hillis, J. P. (2004) First Annual Report of the Irish Rare Breeding Birds Panel, 2002. Irish Birds 7: 375-384 Hillis, J. P. (2005) Rare breeding birds in Ireland, 2003 The Second Annual Report of the Irish Rare Breeding Birds Panel (IRBBP). Irish Birds 7: 539-548 Hillis, J.P. (2006) Rare Irish Breeding Birds, 2004 The Third Annual Report of the Irish Rare Breeding Birds Panel (IRBBP) Irish Birds 8: 97-106 Hillis, J.P. (2007) Rare Breeding Birds in Ireland 2005 and 2006. Irish Birds 8: 249-262 Hillis, J.P. (2008) Rare Irish Breeding Birds, 2007 The Seventh Annual Report of the Irish Rare Breeding Birds Panel (IRBBP) Irish Birds 8: 365-372 Hillis, J.P. (2009) Rare Irish Breeding Birds, 2008 The Annual Report of the Irish Rare Breeding Birds Panel (IRBBP) Irish Birds 8: 571-582. Hillis, J.P. (2010) Rare Irish Breeding Birds, 2009 The Annual Report of the Irish Rare Breeding Birds Panel (IRBBP) Irish Birds 9: 67-76 Hillis, J.P. (2011) Rare Irish Breeding Birds, 2010 The Annual Report of the Irish Rare Breeding Birds Panel (IRBBP) Irish Birds 9: 241-250 Hillis, J.P. (2012) Rare Irish Breeding Birds, 2011 The Annual Report of the Irish Rare Birds Panel (IRBBP) Irish Birds 9: 411-420

**Breeding long-term trend:** Hutchinson, C.D. (1989) Birds in Ireland. Irish Wildbird Conservancy. T & A D Poyser. Hillis, J.P. (2003) Rare Irish Breeding Birds, 1992-2001. Irish Birds, Vol 7, No.2: 157-172. Hillis, J. P. (2004) First Annual Report of the Irish Rare Breeding Birds Panel, 2002. Irish Birds 7: 375-384 Hillis, J. P. (2005) Rare breeding birds in Ireland, 2003 The Second Annual Report of the Irish Rare Breeding Birds Panel (IRBBP). Irish Birds 7: 539-548 Hillis, J.P. (2006) Rare Irish Breeding Birds, 2004 The Third Annual Report of the Irish Rare Breeding Birds Panel (IRBBP) Irish Birds 8: 97-106 Hillis, J.P. (2007) Rare Breeding Birds in Ireland 2005 and 2006. Irish Birds 8: 249-262 Hillis, J.P. (2008) Rare Irish Breeding Birds, 2007 The Seventh Annual Report of the Irish Rare Breeding Birds Panel (IRBBP) Irish Birds 8: 365-372 Hillis, J.P. (2009) Rare Irish Breeding Birds, 2008 The Annual Report of the Irish Rare Breeding Birds Panel (IRBBP) Irish Birds 8: 571-582. Hillis, J.P. (2010) Rare Irish Breeding Birds, 2009 The Annual Report of the Irish Rare Breeding Birds Panel (IRBBP) Irish Birds 9: 67-76 Hillis, J.P. (2011) Rare Irish Breeding Birds, 2010 The Annual Report of the Irish Rare Breeding Birds Panel (IRBBP) Irish Birds 9: 241-250 Hillis, J.P. (2012) Rare Irish Breeding Birds, 2011 The Annual Report of the Irish Rare Birds Panel (IRBBP) Irish Birds 9: 411-420

### Italy: *M. m. merganser*, other populations

**Breeding population size:** Zenatello M, Bordignon L, Ventolini N, Utmar P & Viganò E. 2009. Lo smergo maggiore *Mergus merganser* nidificante in Italia: 1996-2008. Alula XVI (1-2): 491-496.

**Breeding short-term trend:** Started to breed in Italy in 1996 (one pair); in 2008, 22 breeding pairs and 7 territorial pairs (probably unsuccessful breeding pairs) (Zenatello et al. 2009).

**Breeding long-term trend:** Zenatello M, Bordignon L, Ventolini N, Utmar P & Viganò E. 2009. Lo smergo maggiore *Mergus merganser* nidificante in Italia: 1996-2008. Alula XVI (1-2): 491-496

### Latvia: *M. m. merganser*, other populations

**Breeding population size:** Kerus V. 2011. Latvijas ligzdojoso putnu stavokla parmainas laika no 1980. līdz 2010. gadam. Promocijas darbs. Rīga: Latvijas Universitāte

**Winter population size:** WI IWC

**Winter short-term trend:** WI IWC

**Winter long-term trend:** WI IWC

### Lithuania: *M. m. merganser*, other populations

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

**Breeding short-term trend:** Expert working group of the Lithuanian Ornithological Society (lod@birdlife.lt) Jusys, V., Karalius, S., Raudonikis, L. 2012. Lietuvos paukščių pažinimo vadovas. Kaunas: „Lututė“, 288 p. Raudonikis L. 2004. Lithuania. In: Birds in Europe: population estimates, trends, and conservation status. BirdLife International, BirdLife Conservation Series No12, Cambridge, UK. Rašomavičius, V. (red.) 2007. Lietuvos raudonji knyga. Kaunas: „Lututė“, 800 p. (Red Data Book of Lithuania, 2007)

**Breeding long-term trend:** 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). Kurlavičius, P. (ed.) 2006. Lietuvos perinčių paukščių atlasas. Kaunas: „Lututė“, 256 p. Rašomavičius, V. (red.) 2007. Lietuvos raudonji knyga. Kaunas: „Lututė“, 800 p. (Red Data Book of Lithuania, 2007)

**Winter population size:** Šniaukšta, L. 2012. Results of the midwinter waterfowl counts in Lithuania. Paukščiai 14 (2): 6-14. Midwinter count data 2012 State monitoring scheme data (2010-2012) Mindaugas Dagys (dagys@ekoi.lt)

**Winter short-term trend:** Šniaukšta, L. 2012. Results of the midwinter waterfowl counts in Lithuania. Paukščiai 14 (2): 6-14. Midwinter count data 2010-2012 State monitoring scheme data (2001-2012) LIFE05 NAT/LV/000100 project data LIFE05 NAT/LT/000095 project data Mindaugas Dagys (dagys@ekoi.lt)

**Winter long-term trend:** Šniaukšta, L. 2012. Results of the midwinter waterfowl counts in Lithuania. Paukščiai 14 (2): 6-14. Midwinter count data 2010-2012 State monitoring scheme data (2001-2012) LIFE05 NAT/LV/000100 project data LIFE05 NAT/LT/000095 project data Mindaugas Dagys (dagys@ekoi.lt)

### Luxembourg: *M. m. merganser*, other populations

**Winter population size:** LUXOR (2013): NATUR&EMWELT - BIRD-DATABASE, LUXEMBOURG Recorder (2013): database, Musée national d'histoire naturelle, Luxembourg Biver, G. (2013): Waterbird count - recensement hivernal des oiseaux d'eau 2009-2012. Regulus Wissenschaftliche Berichte, 28: 43-58. Konter A. (2010): Wasservogel an der Sauer im Raum Echternach: Bestand und Ausblick. Wissenschaftliche Berichte, 25: 41-55 (<http://www.luxnatur.lu/publi/wb25001144.pdf>) Lorgé P., E. Melchior (2010): Die Vögel Luxemburgs. LNVL, Luxembourg. ISBN: 978-2-919920-01-3

**Winter short-term trend:** LUXOR (2013): NATUR&EMWELT - BIRD-DATABASE, LUXEMBOURG Recorder (2013): database, Musée national d'histoire naturelle, Luxembourg Biver, G. (2013): Waterbird count - recensement hivernal des oiseaux d'eau 2009-2012. Regulus Wissenschaftliche Berichte, 28: 43-58. Konter A. (2010): Wasservogel an der Sauer im Raum Echternach: Bestand und Ausblick. Wissenschaftliche Berichte, 25: 41-55 (<http://www.luxnatur.lu/publi/wb25001144.pdf>) Lorgé P., E. Melchior (2010): Die Vögel Luxemburgs. LNVL, Luxembourg. ISBN: 978-2-919920-01-3

**Winter long-term trend:** LUXOR (2013): NATUR&EMWELT - BIRD-DATABASE, LUXEMBOURG Recorder (2013): database, Musée national d'histoire naturelle, Luxembourg Konter A. (2010): Wasservogel an der Sauer im Raum Echternach: Bestand und Ausblick. Wissenschaftliche Berichte, 25: 41-55 (<http://www.luxnatur.lu/publi/wb25001144.pdf>) Lorgé P., E. Melchior (2010): Die Vögel Luxemburgs. LNVL, Luxembourg. ISBN: 978-2-919920-01-3

### The Former Yugoslav Republic of Macedonia

**Breeding population size:** Vasić, V. 2010. Lists of birds of the National park Galičica. Page 245. Public enterprise National park "Galičica," Ohrid

**Breeding short-term trend:** Vasić, V. 2010. Lists of birds of the National park Galičica. Page 245. Public enterprise National park "Galičica," Ohrid

**Breeding long-term trend:** Probably stable; although recent records on Lake Ohrid (Škorpiková, V., V. Prášek, and M. Valášek. 2006. Ornithological notes from Macedonia in 2006. Ciconia 15:30–45) are indicative for an increase, it has actually been breeding on the Lake at least since 1980ies (S. Hristovski, pers. comm)

**Winter population size:** Wetlands International database and unpublished data of the Macedonian Ecological Society



## *Mergus merganser* (Goosander)

### The Former Yugoslav Republic of Macedonia

**Winter short-term trend:** Wetlands International database and unpublished data of the Macedonian Ecological Society

**Winter long-term trend:** Wetlands International database and unpublished data of the Macedonian Ecological Society

### 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:** Аверин Ю. В., Ганя И.М., Успенский Г. Птицы Молдавии, Кишинев, 1981, 240p

### Montenegro

**Winter population size:** IWC reports (2003-2012): Dubak, Vešović, N., Jovičević, M., Vizi O., Vizi, A.

### Netherlands: *M. m. merganser*, other populations

**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:** Shimmings P. & Øien, I.J. 2015. Bestandsestimater og trender for norske hekkefugler. NOF-rapport 2015-2.

**Winter population size:** Svorkmo-Lundberg, T., Bakken, V., Helberg, M., Mørk, K., Røer, J.E. & Sæbø, S. 2006. Norsk VinterfuglAtlas. Fuglenes utbredelse, bestandsstørrelse og økologi vinterstid. Norsk Ornitologisk Forening, Trondheim. 496 pp.

### Poland: *M. m. merganser*, other populations

**Breeding population size:** Compilation of regional figures: KRAINA ŚWIĘTOKRZYSKA (Towarzystwo Badań i Ochrony Przyrody, R. Maniarski, M. Jantarski i inni), KUJAWY (P. Zieliński i inni), LUBELSZCZYŻNA (Lubelskie Towarzystwo Ornitologiczne, M. Urban, P. Szweczyk, P. Stachyra), MAŁOPOLSKA (M. Ciach, R. Bobrek, T. Wilk), MAZOWSZE (Mazowiecko-Świętokrzyskie Towarzystwo Ornitologiczne: S. Chmielewski, A. Dombrowski, A. Gołowski, H. Kot), PODLASIE (T. Tumiel, G. Grygoruk), POMORZE (Ł. Ławicki, A. Sikora), ŚLĄSK (P. Kołodziejczyk i inni), ŚLĄSK GÓRNY (J. Betteja), WARMIA I MAZURY (D. Czaścikiewicz, K. Jankowski, M. Szymkiewicz, A. Sikora), WIELKOPOLSKA (P. Wylegała, L. Kuczyński), ZIEMIA LUBUSKA (P. Czechowski, S. Rubacha, P. Baranowski, M. Jankowski, R. Kruszyk, M. Leszczyński, M. Prange, J. Udolf), ZIEMIA ŁÓDZKA (T. Janiszewski, Z. Wojciechowski, P. Minias, R. Włodarczyk, B. Lesner, M. Wężyk),

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**Breeding population size:** SOR database

**Breeding short-term trend:** BirdLife International (2004) Birds in Europe: population estimates, trends and conservation status. Cambridge, UK Papp T., Fântână C. – editori 2008, Ariele de Importanță Avifaunistică din România, Publicație Comună a Societății Ornitologice Române și a Asociației „Grupul Milvus”

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

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## Mergus merganser (Goosander)

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<b>Breeding population size:</b> BPSSS (2014) Unpublished data
<b>Breeding short-term trend:</b> BPSSS (2014) Unpublished data
<b>Breeding long-term trend:</b> BPSSS (2014) Unpublished data
<b>Winter population size:</b> Šćiban M, Đapić D, Sekereš O, Đorđević I, Ružić M, Stanković D, Radišić D, Gergelj J, Janković M, Radaković M, Rudić B, Agošton A, Dajović M. & Simić D. (2011): Rezultati Međunarodnog cenzusa ptica vodenih staništa u Srbiji 2012. godine. Ciconia 20: 120–1
<b>Winter short-term trend:</b> Šćiban M, Đapić D, Sekereš O, Đorđević I, Ružić M, Stanković D, Radišić D, Gergelj J, Janković M, Radaković M, Rudić B, Agošton A, Dajović M. & Simić D. (2011): Rezultati Međunarodnog cenzusa ptica vodenih staništa u Srbiji 2012. godine. Ciconia 20: 120–1
<b>Winter long-term trend:</b> BPSSS (2014) Unpublished data

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<b>Breeding short-term trend:</b> Ridzoň, J., Karaska, D., Darolová, A.
<b>Breeding long-term trend:</b> Danko Štefan, Darolová Alžbeta, Krištin Anton: Rozšírenie vtákov na Slovensku. VEDA, vyd. SAV Bratislava, 2002.
<b>Winter population size:</b> Slabeyová K., Ridzoň J., Karaska D., Topercer J. & Darolová A. 2011: Správa zo zimného sčítania vodného vtáctva na Slovensku 2009/10, SOS/ BirdLife Slovensko, Bratislava, 160 s.
<b>Winter short-term trend:</b> Slabeyová K., Ridzoň J., Karaska D., Topercer J. & Darolová A. 2011: Správa zo zimného sčítania vodného vtáctva na Slovensku 2009/10, SOS/ BirdLife Slovensko, Bratislava, 160 s.
<b>Winter long-term trend:</b> Slabeyová K., Ridzoň J., Karaska D., Topercer J. & Darolová A. 2011: Správa zo zimného sčítania vodného vtáctva na Slovensku 2009/10, SOS/ BirdLife Slovensko, Bratislava, 160 s.

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<b>Breeding population size:</b> 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.
<b>Breeding short-term trend:</b> Mihelič, T. (2013): Novi ornitološki atlas gnezdičk Slovenije 2002-2010. Internetna baza podatkov. Spletna stran: <a href="http://www.ptice.si/atlas">http://www.ptice.si/atlas</a> . Društvo za opazovanje in proučevanje ptic Slovenije, DOPPS - BirdLife Slovenija, Ljubljana.
<b>Breeding long-term trend:</b> Mihelič, T. (2013): Novi ornitološki atlas gnezdičk Slovenije 2002-2010. Internetna baza podatkov. Spletna stran: <a href="http://www.ptice.si/atlas">http://www.ptice.si/atlas</a> . Društvo za opazovanje in proučevanje ptic Slovenije, DOPPS - BirdLife Slovenija, Ljubljana.
<b>Winter population size:</b> <a href="http://www.natura2000.gov.si/index.php?id=211">http://www.natura2000.gov.si/index.php?id=211</a> Božič, L. (2008): Monitoring populacij izbranih vrst ptic – zimsko štetje vodnih ptic 2002-2008. Končno poročilo. Društvo za opazovanje in proučevanje ptic Slovenije, Ljubljana. 167 str. Božič, L. (2009): Monitoring populacij izbranih vrst ptic – Rezultati zimskega štetja vodnih ptic 2009, rezultati popisov preleta ujed v jesenski sezoni 2008. 2. vmesno poročilo. Društvo za opazovanje in proučevanje ptic Slovenije, Ljubljana. 35 str. Božič, L. (2010): Monitoring populacij izbranih ciljnih vrst ptic – zimsko štetje vodnih ptic 2010. Končno poročilo. Društvo za opazovanje in proučevanje ptic Slovenije, Ljubljana. 28 str. Božič, L. (2011): Monitoring populacij izbranih ciljnih vrst ptic – zimsko štetje vodnih ptic 2011. Končno poročilo. Društvo za opazovanje in proučevanje ptic Slovenije, Ljubljana. 28 str. BOŽIČ, L. (2008A): Rezultati januarskega štetja vodnih ptic leta 2008 v Sloveniji. – Acrocephalus 29 (136): 39–49. BOŽIČ, L. (2008B): Rezultati januarskega štetja vodnih ptic leta 2009 v Sloveniji. – Acrocephalus 29 (138/139): 169–179. BOŽIČ, L. (2010): Rezultati januarskega štetja vodnih ptic leta 2010 v Sloveniji. – Acrocephalus 31 (145/146): 131–141. BOŽIČ, L. (2011): Rezultati januarskega štetja vodnih ptic leta 2011 v Sloveniji. – Acrocephalus 32 (148/149): 67–77. BOŽIČ, L. (2012): Rezultati januarskega štetja vodnih ptic leta 2012 v Sloveniji. – Acrocephalus 33 (152/153): 109–119.
<b>Winter short-term trend:</b> DOPPS
<b>Winter long-term trend:</b> SOVINČ, A. (1994): Zimski ornitološki atlas Slovenije. – Tehniška založba Slovenije, Ljubljana. ŠTUMBERGER, B. (2000): Reka Drava. pp. 149–159. V: Polak, S. (ur.): Mednarodno pomembna območja za ptice v Sloveniji. Monografija DOPPS št. 1. – DOPPS, Ljubljana.

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<b>Breeding population size:</b> 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. Sveriges Ornitologiska Förening, Halmstad.
<b>Breeding short-term trend:</b> Swedish Bird Survey (Svensk Fågeltaxering), Lund University.
<b>Breeding long-term trend:</b> Swedish Bird Survey (Svensk Fågeltaxering), Lund University.
<b>Winter population size:</b> Swedish Bird Survey (Svensk Fågeltaxering), Lund University.
<b>Winter short-term trend:</b> Swedish Bird Survey (Svensk Fågeltaxering), Lund University.
<b>Winter long-term trend:</b> Swedish Bird Survey (Svensk Fågeltaxering), Lund University.

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<b>Breeding population size:</b> Keller, V. & J. Gremaud (2003): Der Brutbestand des Gänsesägers Mergus merganser in der Schweiz 1998. Ornithol. Beob. 100: 227-246. Swiss Ornithological Institute: updated based on range extension
<b>Breeding short-term trend:</b> Swiss Ornithological Institute: <a href="http://www.vogelwarte.ch/information-service-monitoring-rare-breeding-and-visiting-birds.html">http://www.vogelwarte.ch/information-service-monitoring-rare-breeding-and-visiting-birds.html</a> Site-occupancy modelling based on „semi-standardised“ chance observations. Percentage change based on linear regression. Min Max refer to 95% Confidence interval.
<b>Breeding long-term trend:</b> Swiss Ornithological Institute: <a href="http://www.vogelwarte.ch/information-service-monitoring-rare-breeding-and-visiting-birds.html">http://www.vogelwarte.ch/information-service-monitoring-rare-breeding-and-visiting-birds.html</a> Site-occupancy modelling based on „semi-standardised“ chance observations. Percentage change based on linear regression. Min Max refer to 95% Confidence interval.
<b>Winter population size:</b> Swiss Ornithological Institute. Winter waterbird census (January). <a href="http://www.vogelwarte.ch/monitoring-wintering-waterbirds.html">http://www.vogelwarte.ch/monitoring-wintering-waterbirds.html</a> Min Max of total count
<b>Winter short-term trend:</b> Swiss Ornithological Institute. Winter waterbird census (January). <a href="http://www.vogelwarte.ch/monitoring-wintering-waterbirds.html">http://www.vogelwarte.ch/monitoring-wintering-waterbirds.html</a> Min Max refer to 95% Confidence interval.
<b>Winter long-term trend:</b> Swiss Ornithological Institute. Winter waterbird census (January). <a href="http://www.vogelwarte.ch/monitoring-wintering-waterbirds.html">http://www.vogelwarte.ch/monitoring-wintering-waterbirds.html</a> Min Max refer to 95% Confidence interval.

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