

***Turdus torquatus* (Ring Ouzel)**

European Red List of Birds

Supplementary Material

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

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Recommended citation

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

Further information

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

Data requests and feedback

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

Turdus torquatus (Ring Ouzel)

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

Country (or territory) ²	Population estimate				Short-term population trend ⁵				Long-term population trend ⁵				Subspecific population (where relevant)
	Size (pairs) ³	Europe (%)	Year(s)	Method ⁴	Direction ⁶	Magnitude (%) ⁷	Year(s)	Method ⁴	Direction ⁶	Magnitude (%) ⁷	Year(s)	Method ⁴	
Albania	0–2	<1	2007-2018	partial	?		2007-2018	partial	-	-100 to -96	1980-2018	expert	
Andorra	130–230	<1	2014-2017	partial	?		2011-2018	complete	?				
Armenia	4600–6500	1	2013-2018	complete	0		2007-2018		?		2003-2018	deficient	
Austria	60000–80000	18	2013-2018	partial	0		2007-2018	complete	?		1981-2018	deficient	
Azerbaijan	1000–5000	<1	1996-2019	expert	?		2013-2019	expert	?		1980-2019	expert	
Belgium	1–10	<1	2013-2018	complete	0		2008-2018	expert	0		1973-2018	partial	
Bosnia & HG	1000–2000	<1	2015-2018	complete	?	-10 to 10	2007-2018	complete	?		1980-2018	deficient	
Bulgaria	15000–30000	5	2005-2018	partial	0	0	2000-2018	partial	0	0	1980-2018	partial	
Croatia	500–1000	<1	2014-2014	expert	?		2007-2018	deficient	?		1980-2018	deficient	
Czechia	1600–3200	<1	2014-2017	complete	?		2007-2018	deficient	?		1980-2018	deficient	
DK: Faroe Is	0–2	<1	1982	expert	?				?				
Finland	150–500	<1	2013-2018	partial	+	140 to 830	2007-2018	complete	?				
France	20000–30000	6	2013-2018	partial	?		2007-2017	expert	?		1989-2017	deficient	
Georgia	1500–15700	1	2013-2017	partial	?			deficient	?				
Germany	2300–4200	<1	2012-2016	expert	0		2004-2016	expert	0		1980-2016	expert	
Greece	50–100	<1	2015	partial	0		2007-2018	partial	0		1980-2018	partial	
Rep. Ireland	8–10	<1	2013-2019	partial	-	-67 to -40	2013-2018	partial	-	-84 to -80	2000-2018	partial	
Italy	10000–20000	4	2013-2018	expert	0		2012-2017	partial	0		1993-2018	expert	
Kosovo	400–600	<1	2007-2019	partial	+		2007-2018	partial	-		1990-2018	partial	
North Macedonia	1000–2500	<1	2014-2019	expert	0		2007-2018	expert	?		1980-2019		
Montenegro	100–300	<1	2002-2012	expert	0		2007-2018	expert	?				
Norway	10000–50000	6	2013-2018	expert	F		2013-2018	partial	?		1980-2018	partial	
Poland	1600–3200	<1	2013-2015	partial	?		2007-2018	deficient	?		1980-2018	deficient	
Romania	28700–109000	14	2013-2015	complete	?		2007-2018	deficient	?		1980-2018	deficient	
Russia	25000–50000	9	2008-2018	partial	0		2008-2018	expert	?		1980-2018	deficient	
Serbia	1500–2800	<1	2013-2018	partial	0	0	2007-2018	complete	0	0	1980-2018	complete	
Slovakia	2500–5000	<1	2013-2018	partial	-	-20 to -10	2007-2018	partial	-	-20 to -10	1980-2018	partial	
Slovenia	3000–5000	1	2002-2017	complete	?		2008-2018	deficient	?		1980-2018	deficient	
Spain	6000–7000	2	2003	partial	?		2007-2018	partial	0		1980-2018	partial	
Sweden	7700–10800	2	2013-2018	partial	+	25 to 75	2007-2018	partial	+	50 to 150	1980-2018	expert	
Switzerland	50000–75000	16	2013–2016	partial	0	-16 to 26	2007-2018	complete	-	-42 to -28	1990-2018	complete	
Turkey	10000–40000	5	2002-2012	expert	?		2008-2019	deficient	?		1980-2013	deficient	

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

Country (or territory) ²	Population estimate				Short-term population trend ⁵				Long-term population trend ⁵				Subspecific population (where relevant)
	Size (pairs) ³	Europe (%)	Year(s)	Method ⁴	Direction ⁶	Magnitude (%) ⁷	Year(s)	Method ⁴	Direction ⁶	Magnitude (%) ⁷	Year(s)	Method ⁴	
Ukraine	5000–10000	2	2014-2018	expert	F	10 to 20	2007-2018	expert	F	10 to 30	1980-2018	expert	
United Kingdom	5500–9500	2	2016	complete	+		2004-2016	complete	-		1970-2012	complete	
EU28	164000–318000	57											
Europe	276000–579000	100											

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

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

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

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

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

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

⁷ Trend magnitudes are rounded to the nearest integer.

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.

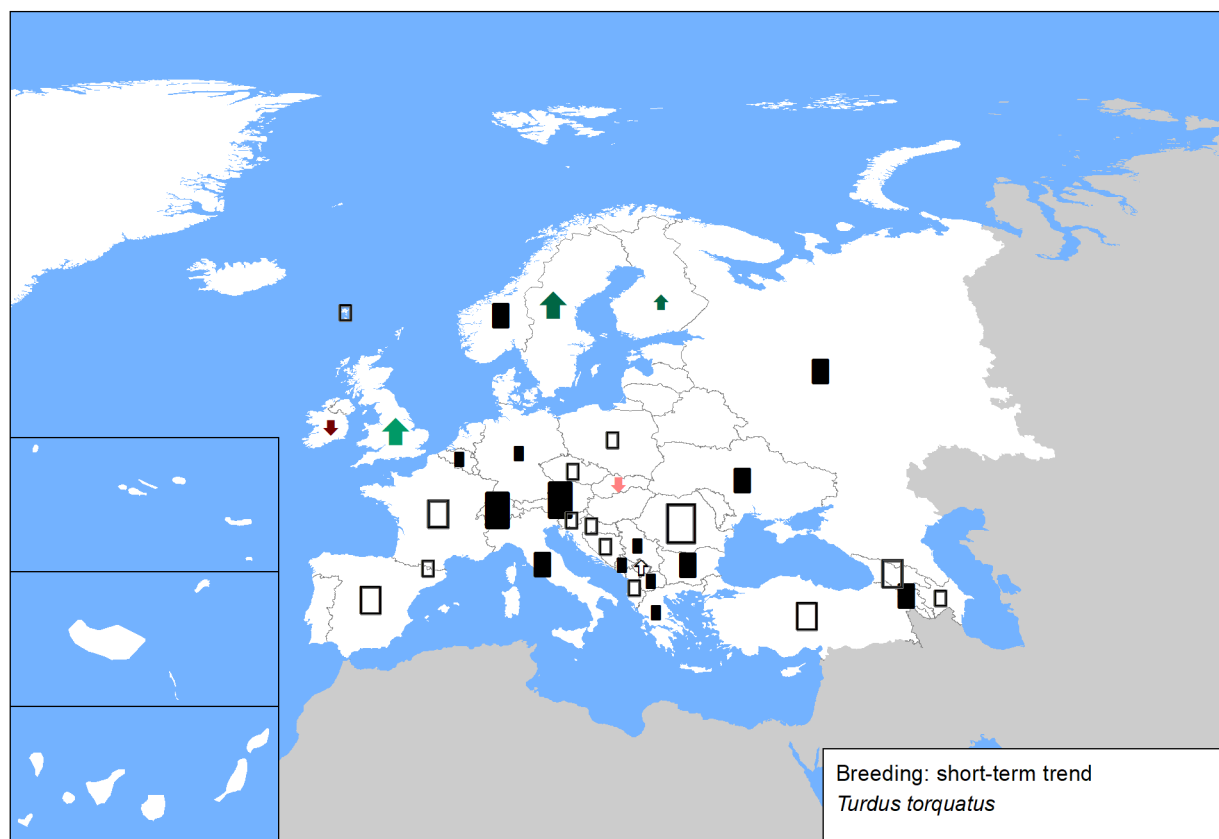
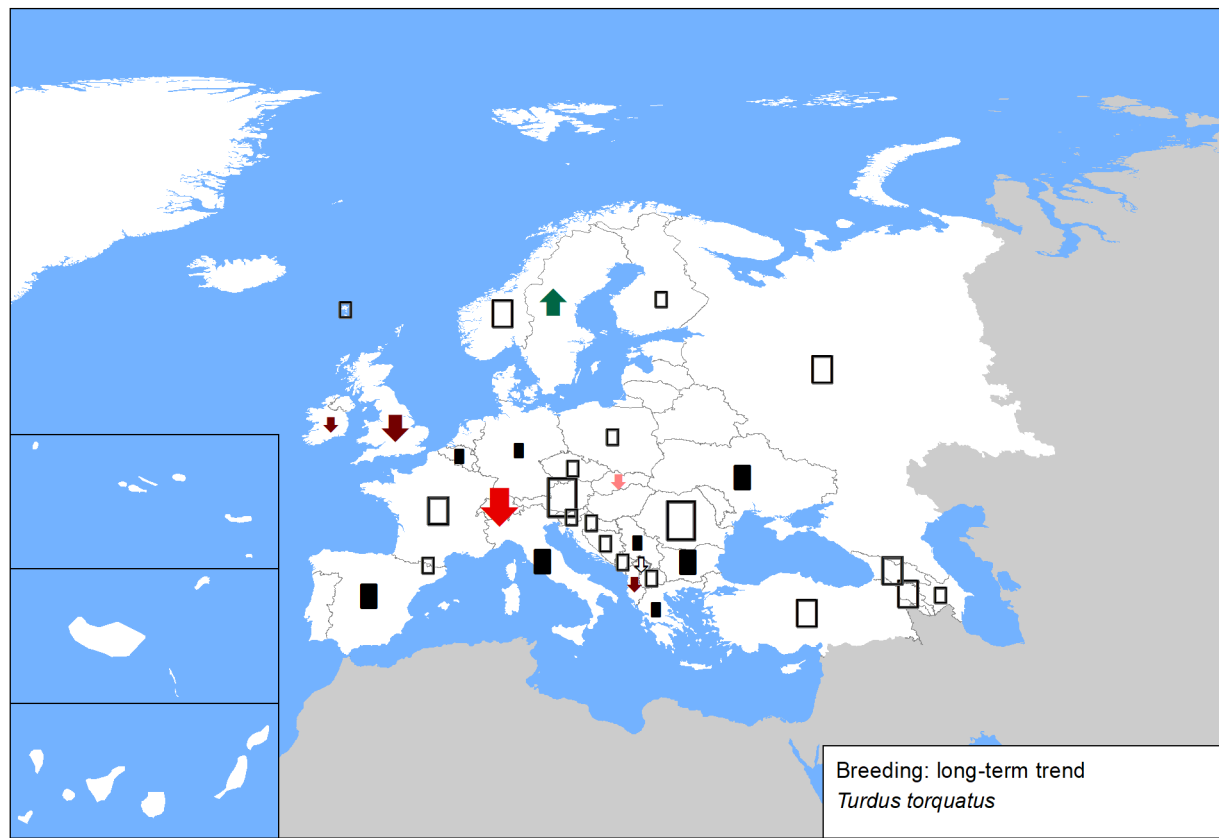


Figure 2. Breeding population sizes and long-term trends across Europe.



Sources

Albania

Breeding population size: Bino & Xeka pers. obs.
Breeding short-term trend: Bino & Xeka pers. obs.
Breeding long-term trend: Bino pers. obs.

Andorra

Breeding population size: Fieldwork EBBA2, published at "Guia dels ocells d'Andorra. J. Nicolau & C. Pladevall, 2018"
Breeding short-term trend: Common Bird Monitoring Scheme of Andorra (SOCA)

Armenia

Breeding population size: TSE NGO National Bird Monitoring data.
Breeding short-term trend: TSE (2020) The Atlas of the Breeding Birds in Armenia. In preparation.
Breeding long-term trend: TSE (2020) The Atlas of the Breeding Birds in Armenia. In preparation.

Austria

Breeding population size: BirdLife Austria, estimate based on a sample of breeding densities from different sites and habitats and corrected by the results of the Austrian breeding bird monitoring ("Brutvogelmonitoring") for 1998- 2018
Breeding short-term trend: BirdLife Austria, results of the Austrian Breeding bird monitoring ("Brutvogelmonitoring")
Breeding long-term trend: BirdLife Austria, unpublished

Azerbaijan

Breeding population size: BirdLife International 2004
Breeding short-term trend: AOS data base
Breeding long-term trend: AOS Data Base

Belgium

Breeding population size: Vermeersch G. et al. (2018, in press). Broedvogels in Vlaanderen in de periode 2013-2018. Rapporten van het Instituut voor Natuur- en Bosonderzoek (INBO), Brussel. / Paquet, J-Y., Anselin, A., Vermeersch, G., Derouaux, A., Devos, K. (2019, in prep.). Contribution of Belgium to EBCC European Breeding Bird Atlas 2. Internal Report.
Breeding short-term trend: Vermeersch G. et al. (2018, in press). Broedvogels in Vlaanderen in de periode 2013-2018. Rapporten van het Instituut voor Natuur- en Bosonderzoek (INBO), Brussel. / Paquet, J-Y., Anselin, A., Vermeersch, G., Derouaux, A., Devos, K. (2019, in prep.). Contribution of Belgium to EBCC European Breeding Bird Atlas 2. Internal Report.
Breeding long-term trend: Vermeersch G. et al. (2018, in press). Broedvogels in Vlaanderen in de periode 2013-2018. Rapporten van het Instituut voor Natuur- en Bosonderzoek (INBO), Brussel. / Paquet, J-Y., Anselin, A., Vermeersch, G., Derouaux, A., Devos, K. (2019, in prep.). Contribution of Belgium to EBCC European Breeding Bird Atlas 2. Internal Report.

Bosnia and Herzegovina

Breeding population size: Based on data for EBBA2
Breeding short-term trend: more individual articles e.g published in magazine Bilten mreže posmatrača ptica u Bosni i Hercegovini-see https://ptice.ba/bs/category/bilteni_/ , individual reports (e.g. for EBBA2, projects etc)

Bulgaria

Breeding population size: 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; Common birds monitoring scheme in Bulgaria (http://bspb.org/monitoring/bg/index.html) BSPB Bird Database
Breeding short-term trend: Iankov, P. (ed.) 2007 Atlas of Breeding Birds in Bulgaria. Bulgarian Society for the Protection of Birds, Conservation Series, Book 10, Sofia, BSPB, 679 p.; National Art. 12 reporting database 2013-2018;
Breeding long-term trend: Iankov, P. (ed.) 2007 Atlas of Breeding Birds in Bulgaria. Bulgarian Society for the Protection of Birds, Conservation Series, Book 10, Sofia, BSPB, 679 p.

Croatia

Breeding population size: BirdLife International 2015: European Red List of Birds. Luxembourg: Office for Official Publications of the European Communities.). http://datazone.birdlife.org/info/euroredlist
Breeding short-term trend: no data available
Breeding long-term trend: no data available

Czechia

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

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DK: Faroe Is

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

Finland

Breeding population size: Lehtinen, A., Below, A., Jukarainen, A., Laaksonen, T., Lehtinen, T., Mikkola-Roos, M., Pessa, J., Rajasärkkä, A., Rusanen, P., Sirkä, P., Tiainen, J. & Valkama, J. 2019: Suomen lintujen pesimäkantojen koot. – Linnut-vuosikirja 2018: 38-45.

Breeding short-term trend: Väisänen, R. A., Lehtinen, A. & Sirkä, P. 2018: Suomen pesivän maalinuston kannanvaihtelut 1975-2017. – Linnut-vuosikirja 2017: 16–31.

France

Breeding population size: Issa N. & Muller Y. 2015. Atlas des oiseaux nicheurs de France métropolitaine. LPO/SEOF/MNHN/Delachaux et Niestlé, Paris

Georgia

Breeding population size: EBBA Georgia, prepared by Sabuko-Society for nature conservation, Ilia state university, NGO "psovi".

Germany

Breeding population size: Gerlach et al. (in Vorb.): Vögel in Deutschland – 2019. Dachverband Deutscher Avifaunisten, Bundesamt für Naturschutz und Länderarbeitsgemeinschaft der Vogelschutzwarten, Münster.

Breeding short-term trend: Gerlach et al. (in Vorb.): Vögel in Deutschland – 2019. Dachverband Deutscher Avifaunisten, Bundesamt für Naturschutz und Länderarbeitsgemeinschaft der Vogelschutzwarten, Münster.

Breeding long-term trend: Gerlach et al. (in Vorb.): Vögel in Deutschland – 2019. Dachverband Deutscher Avifaunisten, Bundesamt für Naturschutz und Länderarbeitsgemeinschaft der Vogelschutzwarten, Münster.

Greece

Breeding population size: 1) BirdLife International (2004) Birds in Europe: Population estimates, trends and conservation status. Cambridge, UK: BirdLife International (BirdLife Conservation Series No. 12).

Breeding short-term trend: 1) BirdLife International (2004) Birds in Europe: Population estimates, trends and conservation status. Cambridge, UK: BirdLife International (BirdLife Conservation Series No. 12).

Breeding long-term trend: 1) Handrinos, G., & Akriotis, T., (1997) The birds of Greece. C. Helm, A & C Black, London. 2) BirdLife International (2004) Birds in Europe: Population estimates, trends and conservation status. Cambridge, UK: BirdLife International (BirdLife Conservation Series No. 12).

Republic of Ireland

Breeding population size: Crowe, O. (2019). Status of rare breeding birds in the Republic of Ireland 2013 - 2018. Unpublished report to the National Parks and Wildlife Service, Dublin, Ireland.

Breeding short-term trend: Crowe, O. (2019). Status of rare breeding birds in the Republic of Ireland 2013 - 2018. Unpublished report to the National Parks and Wildlife Service, Dublin, Ireland.

Breeding long-term trend: Crowe, O. (2019). Status of rare breeding birds in the Republic of Ireland 2013 - 2018. Unpublished report to the National Parks and Wildlife Service, Dublin, Ireland.

Italy

Breeding population size: Brichetti P & Fracasso G. 2008. Ornitologia italiana. Vol.5 (Turdidae-Cisticolidae). Alberto Perdisa Editore, Bologna

Breeding short-term trend: Extrapolated data by the average annual trend, from: Rete Rurale Nazionale & Lipu (2018). Uccelli comuni delle zone agricole in Italia. Aggiornamento degli andamenti di popolazione e del FBI per la Rete Rurale Nazionale dal 2000 al 2017. 16 pp.

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

Kosovo

Breeding population size: Qenan Maxhuni

Breeding short-term trend: Qenan Maxhuni

Breeding long-term trend: Puzovic, S. et al. (2004): Birds of Serbia and Montenegro – Size of nesting populations. I trends: 1990-2002. Ciconia 12

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

Montenegro

Breeding population size: Saveljić, D., Rubinić, B., Jovičević, M (2011): The study of indicator bird species on Durmitor in 2010, the assessment of the condition of their populations. Nature Protection 21 st Century: International Conference. Proceedings of the Conference. Book II, 341-349. Žabljak

Norway

Breeding population size: Shimmings P. & Øien, I.J. 2015. Bestandsestimer og trender for norske hekkefugler. NOF-rapport 2015-2.

Breeding short-term trend: Terrestrial monitoring programme - extensive (TOV-e)

Breeding long-term trend: Shimmings, P. & Øien, I.J. 2015. Bestandsestimer for norske hekkefugler. NOF Rapport 2-2015. 268 pp.

Poland

Breeding population size: Wilk T., Bobrek R., Pępkowska-Król A., Neubauer G., Kosicki J. 2016. Ptaki polskich Karpat - stan, zagrożenia, ochrona. OTOP, Marki.

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

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Poland

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

Romania

Breeding population size: Romanian Common Bird Monitoring Programme, Ornitodata (Romanian Ornithological Society) Database, OpenBirdMaps (Milvus Group) Database
Breeding short-term trend: Ornitodata (Romanian Ornithological Society) Database, OpenBirdMaps (Milvus Group) Database, Rombird (Romanian Rarity Commission) Database
Breeding long-term trend: Ornitodata (Romanian Ornithological Society) Database, OpenBirdMaps (Milvus Group) Database, Rombird (Romanian Rarity Commission) Database

Russia

Breeding population size: Voltzit & Kalyakin 2013-2019; Database of the project on Atlas of breeding birds of European Russia
Breeding short-term trend: Belik unpublished

Serbia

Breeding population size: EBBA2 project; Puzović, S., Radišić, D., Ružić, M., Rajković, D., Radaković, M., Pantović, U., Janković, M., Stojnić, N., Šćiban, M., Tucakov, M., Gergelj, J., Sekulić, G., Agošton, A. & Raković, M. 2015. Birds of Serbia: Breeding Population Estimates and Trends for the Period 2008-2013. Bird protection and study society of Serbia, and Department of Biology and Ecology, Faculty of Sciences, University of Novi Sad, Novi Sad.
Breeding short-term trend: Puzović, S., Radišić, D., Ružić, M., Rajković, D., Radaković, M., Pantović, U., Janković, M., Stojnić, N., Šćiban, M., Tucakov, M., Gergelj, J., Sekulić, G., Agošton, A. & Raković, M. 2015. Birds of Serbia: Breeding Population Estimates and Trends for the Period 2008-2013. Bird protection and study society of Serbia, and Department of Biology and Ecology, Faculty of Sciences, University of Novi Sad, Novi Sad.
Breeding long-term trend: Puzović, S., Radišić, D., Ružić, M., Rajković, D., Radaković, M., Pantović, U., Janković, M., Stojnić, N., Šćiban, M., Tucakov, M., Gergelj, J., Sekulić, G., Agošton, A. & Raković, M. 2015. Birds of Serbia: Breeding Population Estimates and Trends for the Period 2008-2013. Bird protection and study society of Serbia, and Department of Biology and Ecology, Faculty of Sciences, University of Novi Sad, Novi Sad.

Slovakia

Breeding population size: Coordinatory group for reporting 2019. Danko Štefan, Darolová Alžbeta, Krištin Anton: Rozšírenie vtákov na Slovensku. VEDA, vyd. SAV Bratislava, 2002.
Breeding short-term trend: Coordinatory group for reporting 2019, AVES-Symfony Database 2013-2018, KIMS Database 2013-2018. SOS/BS 2013; www.vtaky.sk
Breeding long-term trend: Coordinatory group for reporting 2019, AVES-Symfony Database 2013-2018, KIMS Database 2013-2018. SOS/BS 2013; www.vtaky.sk

Slovenia

Breeding population size: MIHELIČ T., KMECL P., DENAC K., KOCE U., VREZEC A., DENAC D. (eds.) (2019): Atlas ptic Slovenije. Popis gnezdišč 2002–2017. – DOPPS, Ljubljana.
Breeding short-term trend: There are no sources for this information.
Breeding long-term trend: There are no sources for this information.

Spain

Breeding population size: Martí, R. & del Moral, J.C. (Eds.) (2003). Atlas de las Aves Reproductoras de España. Dirección General de Conservación de la Naturaleza-Sociedad Española de Ornitología. Madrid, 733 pp. (https://www.miteco.gob.es/es/biodiversidad/temas/inventarios-nacionales/inventario-especies-terrestres/inventario-nacional-de-biodiversidad/ieet_aves_atlas.aspx) Purroy, F.J. (Coord.) (1997). Atlas de las aves de España (1975-1995). SEO/BidLife. Lynx Edicions. Barcelona. 583 pp.
Breeding short-term trend: Database of the 'Atlas de las aves reproductoras de España'. Updated version 2011 with data from SEO/Birdlife's monitoring programmes. In: Inventario Español de Especies Terrestres, Inventario Español del Patrimonio Natural y de la Biodiversidad. Ministerio de Agricultura, Alimentación y Medio Ambiente (2013). (https://www.miteco.gob.es/fr/biodiversidad/temas/inventarios-nacionales/inventario-especies-terrestres/ieet_aves_sist_seg_tendencia_comunes_esp.aspx) Información proporcionada por las Comunidades Autónomas. Martí, R. & del Moral, J.C. (Eds.) (2003). Atlas de las Aves Reproductoras de España. Dirección General de Conservación de la Naturaleza- Sociedad Española de Ornitología. Madrid, 733 pp. (https://www.miteco.gob.es/es/biodiversidad/temas/inventarios-nacionales/inventario-especies-terrestres/inventario-nacional-de-biodiversidad/ieet_aves_atlas.aspx)
Breeding long-term trend: Martí, R. & del Moral, J.C. (Eds.) (2003). Atlas de las Aves Reproductoras de España. Dirección General de Conservación de la Naturaleza-Sociedad Española de Ornitología. Madrid, 733 pp. (https://www.miteco.gob.es/es/biodiversidad/temas/inventarios-nacionales/inventario-especies-terrestres/inventario-nacional-de-biodiversidad/ieet_aves_atlas.aspx) Purroy, F.J. (Coord.) (1997). Atlas de las aves de España (1975-1995). SEO/BidLife. Lynx Edicions. Barcelona. 583 pp.

Sweden

Breeding population size: Ottosson, U., Ottvall, R., Elmberg, J., Green, M., Gustafsson, R., Haas, F., Holmqvist, N., Lindström, Å., Nilsson, L., Svensson, M., Svensson, S. & Tjernberg, M. 2012. Fåglarna i Sverige – antal och förekomst. SOF, Halmstad. Swedish Bird Survey. BirdLife Sverige, Annual Bird reports.
Breeding short-term trend: Svensk fågeltaxering - Swedish Bird Survey
Breeding long-term trend: Expert judgement based on regional inventories

Switzerland

Breeding population size: Knaus, P., S. Antoniazza, S. Wechsler, J. Guélat, M. Kéry, N. Strebel & T. Sattler (2018): Swiss Breeding Bird Atlas 2013–2016. Distribution and population trends of birds in Switzerland and Liechtenstein. Swiss Ornithological Institute, Sempach.
Breeding short-term trend: https://www.vogelwarte.ch/en/projects/population-trends/breeding-population-indices/
Breeding long-term trend: https://www.vogelwarte.ch/en/projects/population-trends/breeding-population-indices/

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Turkey

Breeding population size: Murat Bozdoğan, Soner Bekir personal communication (2019), Eken G., Bozdoğan M., İsfendiyaroğlu S., Kılıç D.T., Lise Y. (2006) Türkiye'nin Önemli Doğa Alanları. Doğa Derneği, Ankara. Birdlife International (2004) Birds in Europe: population estimates, trends and conservation status, Cambridge UK: Birdlife International (Birdlife Conservation series no: 12) 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-, Kılıç DT, Eken G. 2004. Türkiye'nin önemli kus alanları—2004 güncellemesi (Important bird areas in Turkey—2004 update). Ankara: Doga Dernegi.

Ukraine

Breeding population size: 1. Горбань І. (2003): Оцінка чисельності гніздових птахів України. - Вісн. Львів. ун-ту. Сер. біол. 34: 147-158. 2. Боярчук В.П. (2003): Дрізд гірський. - Птахи України під охороною Бернської конвенції. Київ. 324-325. 3. Birds in Europe: Population Estimates, Trends and Conservation Status. BirdLife Conservation Series 12, 2004. 374 p.

Breeding short-term trend: 1. Горбань І. (2003): Оцінка чисельності гніздових птахів України. - Вісн. Львів. ун-ту. Сер. біол. 34: 147-158. 2. Боярчук В.П. (2003): Дрізд гірський. - Птахи України під охороною Бернської конвенції. Київ. 324-325. 3. Birds in Europe: Population Estimates, Trends and Conservation Status. BirdLife Conservation Series 12, 2004. 374 p.

Breeding long-term trend: 1. Гузій А.І. (1992): Фауна і населення птахів ялицевих типів лісу Східних Бескид. - Беркут. 1: 8-29. 2. Hagemajjer W.J.M., Blair M.J. The EBCC Atlas of European Breeding Birds: Their Distribution and Abundance. Poyser. - London. 1997. 903 p. 3. Горбань І. (2003): Оцінка чисельності гніздових птахів України. - Вісн. Львів. ун-ту. Сер. біол. 34: 147-158. 4. Боярчук В.П. (2003): Дрізд гірський. - Птахи України під охороною Бернської конвенції. Київ. 324-325. 5. Birds in Europe: Population Estimates, Trends and Conservation Status. BirdLife Conservation Series 12, 2004. 374 p.

United Kingdom

Breeding population size: Baseline = Wotton, S.R., Stanbury, A., Douse, A. & Eaton, M.A. 2016. The status of the Ring Ouzel *Turdus torquatus* in the UK in 2012. Bird Study 63: 155-164. Extrapolated using BBS monitoring trend which suggests a slight increase since 2012. This is based on a fairly low sample but sample is now big enough to report a five-year BBS trend so it is valid to use it to update the 2012 estimate (this extrapolation is made from the corrected 2012 survey estimate which accounts for detectability).

Breeding short-term trend: BTO/JNCC/RSPB Breeding Bird Survey data: Harris, S.J., Massimino, D., Gillings, S., Eaton, M.A., Noble, D.G., Balmer, D.E., Procter, D., PearceHiggins, J.W. & Woodcock, P. 2018. The Breeding Bird Survey 2017. BTO Research Report 706 British Trust for Ornithology, Theford. <https://www.bto.org/sites/default/files/bbs-report-2017.pdf>

Breeding long-term trend: Sharrock, J.T.R. 1976. The Atlas of Breeding Birds in Britain and Ireland. Berkhamsted, T. & A.D. Poyser. Wotton, S.R., Stanbury, A., Douse, A. & Eaton, M.A. 2016. The status of the Ring Ouzel *Turdus torquatus* in the UK in 2012. Bird Study 63: 155-164.

Bibliography

Beale, C.M., Burfield, I.J., Sim, I.M.W., Rebecca, G.W., Pearce-Higgins, J.W. and Grant, M.C. 2006. Climate change may account for the decline in British Ring Ouzels *Turdus torquatus*. *Journal of Animal Ecology* 75: 826-835.

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

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

Burfield, I. J. 2002. *The breeding ecology and conservation of the Ring Ouzel *Turdus torquatus* in Britain*. Dissertation. Ph.D., University of Cambridge.

Collar, N., Christie, D.A. and de Juana, E. 2015. Ring Ouzel (*Turdus torquatus*). In: del Hoyo, J., Elliott, A., Sargatal, J., Christie, D.A. and de Juana, E. (eds), *Handbook of the Birds of the World Alive*, Lynx Edicions, Barcelona.

Hüppop, O. and Hüppop, K. 2003. North Atlantic Oscillation and timing of spring migration in birds. *Proceedings of the Royal Society of London Series B* 270: 233-240.

Jenni, L. and Kery, M. 2003. Timing of autumn bird migration under climate change: advances in long-distance migrants, delays in short-distance migrants. *Proceedings of the Royal Society of London Series B* 270(1523): 1467-1471.

Snow, D.W. and Perrins, C.M. 1998. *The Birds of the Western Palearctic, Volume 2: Passerines*. Oxford University Press, Oxford.