

***Columba livia* (Rock Dove)**

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).

Contents

Reported national population sizes and trends	p. 2
Trend maps of reported national population data	p. 4
Sources of reported national population data	p. 6
Species factsheet bibliography	p. 11

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.

Columba livia (Rock Dove)

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

Country (or territory) ²	Population estimate				Short-term population trend ⁴				Long-term population trend ⁴				Subspecific population (where relevant)
	Size (pairs) ³	Europe (%)	Year(s)	Quality	Direction ⁵	Magnitude (%) ⁶	Year(s)	Quality	Direction ⁵	Magnitude (%) ⁶	Year(s)	Quality	
Albania	1,000-3,000	<1	2002-2012	poor	-	5-10	2002-2012	poor	-	10-20	1980-2012	poor	C. l. livia and domestica
Andorra	50-249	<1	2001	poor	?				?				C. l. livia and domestica
Armenia	1,000-2,500	<1	2002-2012	medium	?				?				C. l. livia and domestica
Austria	25,000-40,000	<1	2001-2012	medium	0	0	2000-2011	medium	?				C. l. livia and domestica
Azerbaijan	100,000-500,000	1	2014	poor	0.0	0	2000-2014		+		1980-2014	poor	C. l. livia and domestica
Belarus	1,200,000-1,500,000	9	2008-2012	medium	0	0	2001-2012	medium	0	0	1980-2012	medium	C. l. livia and domestica
Belgium	Present	<1			?				?				C. l. livia and domestica
Bosnia & HG	300,000-500,000	2	2010-2014	poor	?				?				C. l. livia and domestica
Bulgaria	250,000-500,000	2	2005-2012	poor	+	10-40	2000-2012	medium	+	10-40	1980-2012	poor	C. l. livia and domestica
Croatia	700,000-1,000,000	5	2014	poor	?				?				C. l. livia and domestica
Cyprus	2,000-7,000	<1	2009-2013	poor	0	0	2001-2013	medium	-	10-30	1980-2012	poor	C. l. livia and domestica
Czech Rep.	800,000-1,600,000	7	2001-2003	good	?				0	0	1985-2003	good	C. l. livia and domestica
Denmark	40,000	<1	2011	poor	?				?				C. l. livia and domestica
DK: Faroe Is	600	<1	2014	medium	?				?				C. l. livia and domestica
Estonia	40,000-80,000	<1	2008-2012	poor	0	0-10	2001-2012	poor	-	20-50	1980-2012	poor	C. l. livia and domestica
Finland	20,000-38,000	<1	2006-2012	good	0	0	2001-2012	medium	?				C. l. livia and domestica
France	800-2,000	<1	1998-2000	medium	?				?				C. l. livia and domestica
Georgia	Present	<1			?				?				C. l. livia and domestica
Germany	170,000-275,000	1	2005-2009	medium	F	0	1998-2009	good	F	0	1990-2009	good	C. l. livia and domestica
Greece	10,000-30,000	<1	2008-2012	poor	?				?				C. l. livia and domestica
Hungary	146,000-379,000	2	2000-2012	medium	?				?				C. l. livia and domestica
Iceland	50-250	<1	2000	poor	+	30-50	2000-2010	poor	+	30-50	2000-2010	poor	C. l. livia and domestica
Rep. Ireland	1,000-5,000	<1	2008-2011	poor	0	0	1998-2011	medium	+	0-50	1972-2011	poor	C. l. livia and domestica
Italy	3,000-7,000	<1	2006	poor	?				?				C. l. livia and domestica
Kosovo	200-400	<1	2009-2014	medium	?				?				C. l. livia and domestica
Latvia	17,039-56,149	<1	2012	medium	F	0-300	2005-2012	poor	-	56-95	1994-2010	poor	C. l. livia and domestica
Liechtenstein	50-70	<1	2009-2014	medium	0	0	2003-2014	medium	0	0	1980-2014	medium	C. l. livia and domestica
Lithuania	200,000-400,000	2	2008-2012	medium	-	10-30	2001-2012	medium	-	10-30	1980-2012	medium	C. l. livia and domestica
Luxembourg	1,000-2,000	<1	2008-2012	medium	-	20-50	2000-2012	poor	-	40-70	1980-2012	poor	C. l. livia and domestica
FYRO Macedonia	20,000-100,000	<1	2001-2012	poor	?				?				C. l. livia and domestica
Malta	1,000-5,000	<1	2000	poor	?				?				C. l. livia and domestica
Moldova	7,000-8,700	<1	2000-2010	medium	F	0	2000-2010	medium	F	0	1980-2010	medium	C. l. livia and domestica

Columba livia (Rock Dove)

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

Country (or territory) ²	Population estimate				Short-term population trend ⁴				Long-term population trend ⁴				Subspecific population (where relevant)
	Size (pairs) ³	Europe (%)	Year(s)	Quality	Direction ⁵	Magnitude (%) ⁶	Year(s)	Quality	Direction ⁵	Magnitude (%) ⁶	Year(s)	Quality	
Montenegro	500-1,000	<1	2002-2012	medium	?				?				C. l. livia and domestica
Netherlands	Present	<1			?				?				C. l. livia and domestica
Norway	10,000-20,000	<1	2013	poor	?				?				C. l. livia and domestica
Poland	100,000-250,000	1	1992-2004	poor	?				?				C. l. livia and domestica
Portugal	Present	<1	2002		?				?				C. l. livia and domestica
PT: Azores	32,580-382,963	1	2008-2012	poor	?				?				C. l. livia and domestica
PT: Madeira	10,000-50,000	<1	2009-2012	medium	?				?				C. l. livia and domestica
Romania	325,000-750,000	3	2010-2013	medium	?				?				C. l. livia and domestica
Russia	2,500,000-6,000,000	25	2000-2008	poor	?				-	5-30	1980-2012	medium	C. l. livia and domestica
Serbia	250,000-300,000	2	2008-2012	medium	0	0	2000-2012	medium	0	0	1980-2012	medium	
Slovakia	100,000-1,000,000	2	2002	poor	-	5-10	2000-2012	good	-	5-10	1980-2012	poor	C. l. livia and domestica
Slovenia	18,000-30,000	<1	2002-2012	good	0	0-10	2001-2012	medium	0	0-10	1980-2012	poor	C. l. livia and domestica
Spain	2,410,000-4,530,000	21	2004-2006	good	0	0	1998-2012	good	0	0	1980-2012	medium	C. l. livia and domestica
ES: Canary Is	20,000-100,000	<1	1997-2003	poor	?				?				C. l. livia and domestica
Sweden	25,000-125,000	1	2008-2012	poor	0	0	2001-2012	good	0	0	1980-2012	good	C. l. livia and domestica
Switzerland	20,000-40,000	<1	2008-2012	medium	?				?				C. l. livia and domestica
Turkey	400,000-800,000	4	2013	poor	0	0	2000-2012	poor	-	0-19	1990-2013	poor	C. l. livia and domestica
Ukraine	300,000-500,000	2	2000	medium	F	10-20	2001-2012	medium	F	10-25	1980-2012	medium	C. l. livia and domestica
United Kingdom	450,000-650,000	3	2009	medium	+		1998-2010	medium	+		1970-2008	medium	C. l. livia and domestica
EU27	5,220,000-11,300,000	49			Stable								
Europe	11,000,000-22,600,000	100			Unknown								

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 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.

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

⁶ 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.

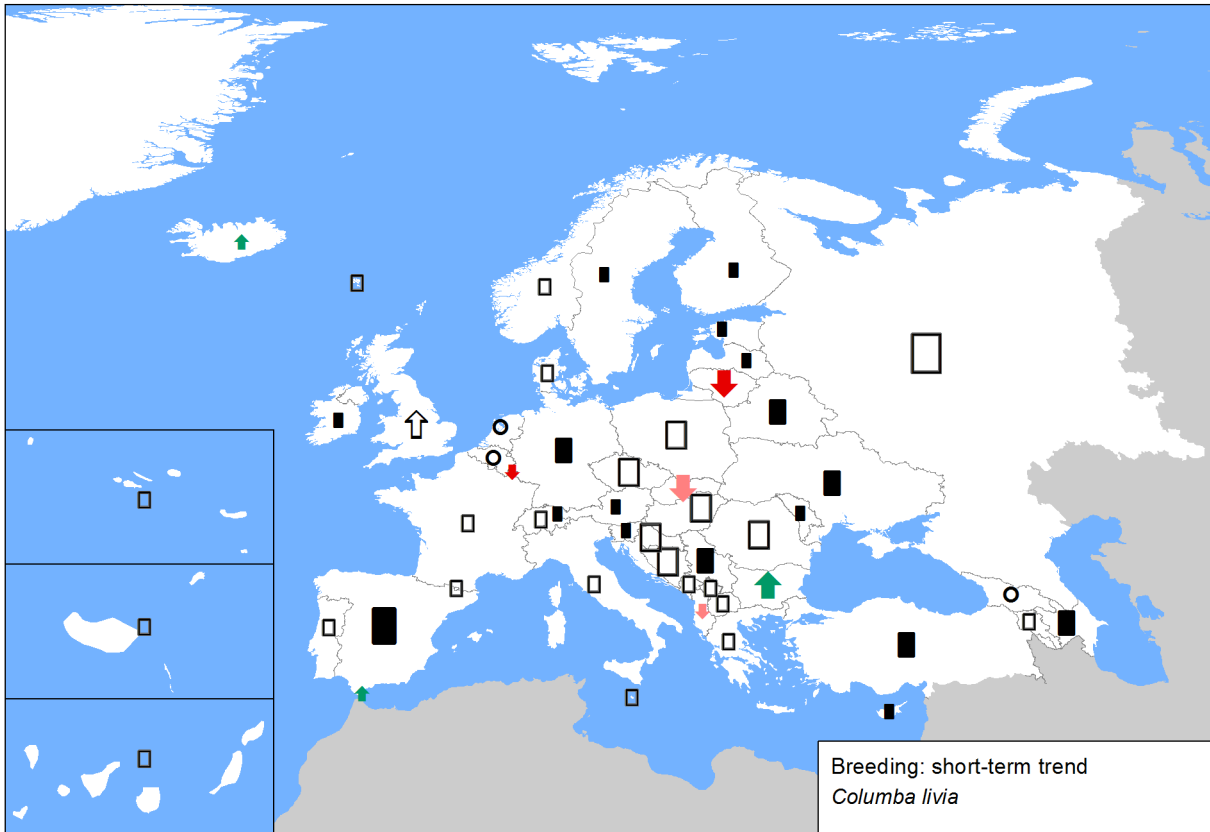
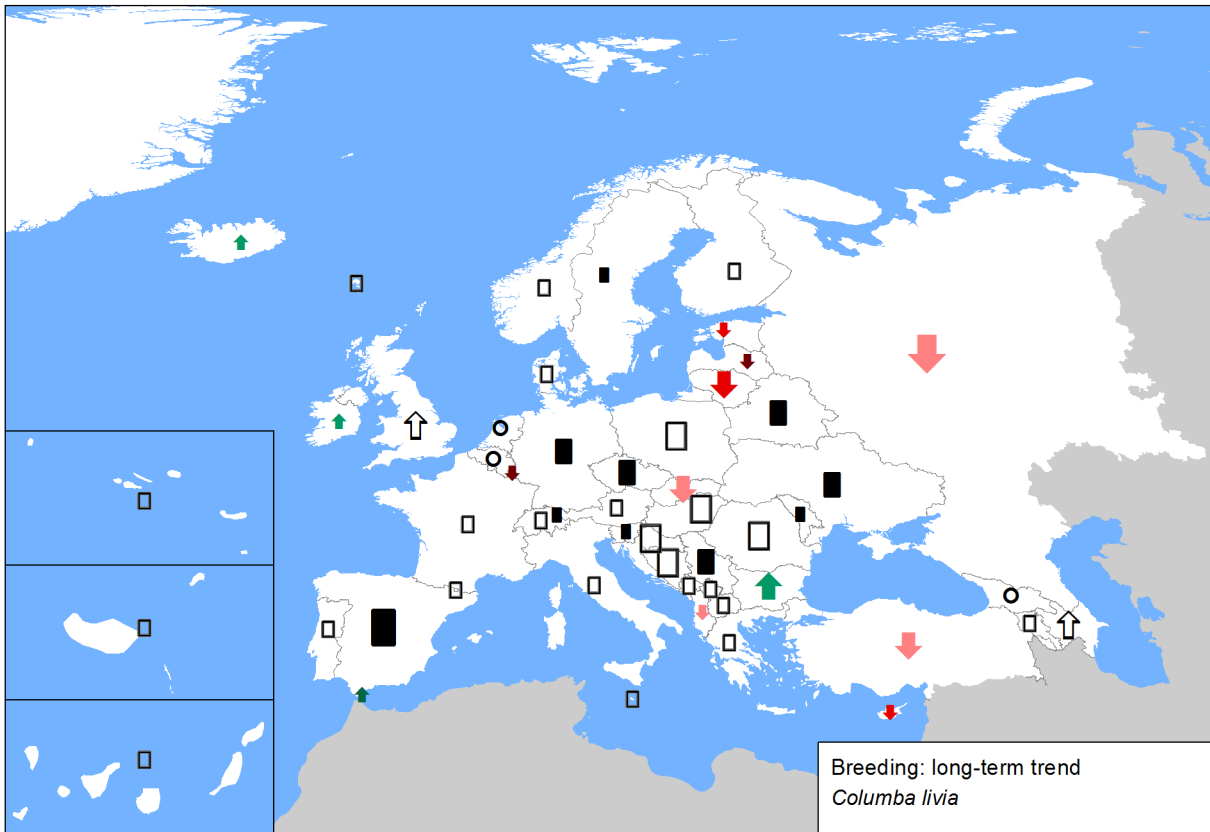


Figure 2. Breeding population sizes and long-term trends across Europe.



Sources

Albania: *C. I. livia* and domestica

Breeding population size: Bino pers. obs.

Breeding short-term trend: Bino pers. obs.

Breeding long-term trend: Bino pers. obs.

Andorra: *C. I. livia* and domestica

Breeding population size: BirdLife International 2004

Armenia: *C. I. livia* and domestica

Breeding population size: ASPB data

Austria: *C. I. livia* and domestica

Breeding population size: BirdLife Austria, extrapolation on the basis of available unpublished and published population and density data

Breeding short-term trend: N. Teufelbauer based on data from the Austrian Common Breeding Bird Monitoring

Azerbaijan: *C. I. livia* and domestica

Breeding population size: AOS data base

Breeding short-term trend: AOS data base

Breeding long-term trend: AOS data base

Belarus: *C. I. livia* and domestica

Breeding population size: Yakovets N.N. - personal communication

Breeding short-term trend: Yakovets N.N. - personal communication

Breeding long-term trend: Nikiforov M.E., Kozulin A.V., eds. Belarussian birds at the beginning of XXI century: status, numbers, distribution. - 1997. - Minsk. - 187 p.

Belgium: *C. I. livia* and domestica

Bosnia and Herzegovina: *C. I. livia* and domestica

Breeding population size: unpublsh data

Bulgaria: *C. I. livia* and domestica

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. (In Bulgarian and English) BSPB 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. (In Bulgarian and English) P.Shurulinkov-own unpublished data

Breeding long-term trend: Simeonov S., T.Michev, D.Nankinov 1990 Fauna of Bulgaria.vol.20 Aves-part 1.BAS,Sofia. 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. (In Bulgarian and English) BSPB database

Croatia: *C. I. livia* and domestica

Breeding population size: BiE III Work group, Croatia

Breeding short-term trend: BiE III Work group, Croatia

Breeding long-term trend: BiE III Work group, Croatia

Cyprus: *C. I. livia* and domestica

Breeding population size: BirdLife Cyprus 2013 pilot Atlas survey work; Analysis of recent BirdLife Cyprus bird sightings records reported in the society's annual reports; Game & Fauna Service bag statistics.

Breeding short-term trend: Analysis of records from line transect survey data for the period 2006-2013 using TRIM software. The data was from line transect surveys carried out under three different but compatible common birds survey programmes (one a 2006-12 pilot programme set up by BirdLife Cyprus and the other a 2006-11 W Cyprus programme operated by Proff Derek Pomeroy)

Breeding long-term trend: Recent data as above, but no systematic data is available for before 2006; Bird sightings records as published in BirdLife Cyprus annual reports; Flint & Stewart BOU Checklist no.6 (1992) The Birds of Cyprus

Czech Republic: *C. I. livia* and domestica

Breeding population size: STASTNY K., BEJCEK V. & HUDEC K. 2006: Atlas hnízdního rozšíření ptaku v České republice. Aventinum Praha.

Breeding long-term trend: STASTNY K., BEJCEK V. & HUDEC K. 2006: Atlas hnízdního rozšíření ptaku v České republice. Aventinum Praha.

Denmark: *C. I. livia* and domestica

Breeding population size: Ekspertvurdering foretaget af Dansk Ornitologisk Forening på baggrund af tidligere publicerede oplysninger, modtagne oplysninger og data i www.dofbasen.dk (Knud N. Flensted)

Breeding short-term trend: Ekspertvurdering foretaget af Dansk Ornitologisk Forening på baggrund af tidligere publicerede oplysninger, modtagne oplysninger og data i www.dofbasen.dk (Knud N. Flensted)

Columba livia (Rock Dove)

Denmark: *C. I. livia* and *domestica*

Breeding long-term trend: Ekspertvurdering foretaget af Dansk Ornitologisk Forening på baggrund af tidligere publicerede oplysninger, modtagne oplysninger og data i www.dofbasen.dk (Knud N. Flensted)

DK: Faroe Is: *C. I. livia* and *domestica*

Breeding population size: Hammer et al. (2014) Færøsk trækfugleatlas [Faroeese bird migration atlas]. Fróðskapur / Faroe University Press, Tórshavn.

Estonia: *C. I. livia* and *domestica*

Breeding population size: 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: http://www.eoy.ee/hirundo/file_download/149/Elts_et_al_2013_2.pdf

Breeding short-term trend: 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: http://www.eoy.ee/hirundo/file_download/149/Elts_et_al_2013_2.pdf

Breeding long-term trend: 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: http://www.eoy.ee/hirundo/file_download/149/Elts_et_al_2013_2.pdf

Finland: *C. I. livia* and *domestica*

Breeding population size: Bird monitoring schemes of the Finnish Museum of Natural History, University of Helsinki.

Breeding short-term trend: Bird monitoring schemes of the Finnish Museum of Natural History, University of Helsinki.

Breeding long-term trend: Bird monitoring schemes of the Finnish Museum of Natural History, University of Helsinki.

France: *C. I. livia* and *domestica*

Breeding population size: Sanchis, F. 2011 Inventaire des colonies littorales de pigeon biset en Corse, 24-25 ROCAMORA, G. & YEATMAN-BERTHELOT, D. 1999 Oiseaux menacés et à surveiller en France. Liste rouge et recherche de priorités. Populations. Tendances. Conservations, Société d'Etudes Ornithologiques de France/Ligue pour la Protection des Oiseaux, Paris, 598 p. BIRDLIFE INTERNATIONAL 2004 Birds in Europe : population estimates, trends and conservation status, Cambridge, 374 p.

Breeding short-term trend: Pas de référence bibliographique disponible

Breeding long-term trend: Pas de référence bibliographique disponible

Georgia: *C. I. livia* and *domestica*

Breeding population size: BirdLife International 2004

Germany: *C. I. livia* and *domestica*

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

Breeding short-term trend: Monitoring häufiger Brutvögel

Breeding long-term trend: Monitoring häufiger Brutvögel

Greece: *C. I. livia* and *domestica*

Breeding population size: Hellenic Ornithological Society database

Hungary: *C. I. livia* and *domestica*

Breeding population size: National common bird monitoring scheme (MMM) database. Szép, T., Nagy, K., Nagy, Zs. & Halmos, G. (2012): Population trends of common breeding and wintering birds in Hungary, decline of long-distance migrant and farmland birds during 1999-2012. *Ornis Hungarica* 2012. 20(2): 13-63.

Breeding short-term trend: National common bird monitoring scheme (MMM) database. Szép, T., Nagy, K., Nagy, Zs. & Halmos, G. (2012): Population trends of common breeding and wintering birds in Hungary, decline of long-distance migrant and farmland birds during 1999-2012. *Ornis Hungarica* 2012. 20(2): 13-63.

Breeding long-term trend: MME Nomenclator Bizottság (2008): Magyarország madarainak névjegyzéke. Nomenclator avium Hungariae. Magyar Madártani és Természetvédelmi Egyesület, Budapest. P. 278. Magyar, G., Hadarics, T., Waliczky, Z., Schmidt, A., Nagy, T. & Bankovics, A. (1998): Nomenclator avium Hungariae. Magyarország madarainak névjegyzéke. KTM Természetvédelmi Hivatal Madártani Intézete – Magyar Madártani és Természetvédelmi Egyesület – Winter Fair, Budapest – Szeged. P. 202.

Iceland: *C. I. livia* and *domestica*

Breeding population size: The Icelandic Institute of Natural History 2000

Breeding short-term trend: The Icelandic Institute of Natural History

Breeding long-term trend: The Icelandic Institute of Natural History

Republic of Ireland: *C. I. livia* and *domestica*

Breeding population size: BirdLife International (2004) Birds in Europe: population estimates, trends and conservation status. Cambridge, UK: BirdLife International. (BirdLife Conservation Series No. 12). Balmer, D., Gillings, S., Caffrey, B., Swan, B., Downie, I. & Fuller, R. (2013) Bird Atlas 2007-11 The breeding and wintering birds of Britain and Ireland. British Trust for Ornithology.

Breeding short-term trend: Countryside Bird Survey unpublished data.

Breeding long-term trend: Balmer, D., Gillings, S., Caffrey, B., Swan, B., Downie, I. & Fuller, R. (2013) Bird Atlas 2007-11 The breeding and wintering birds of Britain and Ireland. British Trust for Ornithology. Sharrock, J.T.R. (1976) The Atlas of Breeding Birds in Britain and Ireland. T. & AD Poyser.

Italy: *C. I. livia* and *domestica*

Breeding population size: Brichetti P & Fracasso G. 2006. Ornitologia italiana. Vol.3 (Stercorariidae-Caprimulgidae). Alberto Perdisa Editore, Bologna

Breeding short-term trend: Peronace V, Cecere JG, Gustin M & Rondinini C. 2012. Lista Rossa 2011 degli Uccelli Nidificanti in Italia. Avocetta 36: 11-58

Breeding long-term trend: Peronace V, Cecere JG, Gustin M & Rondinini C. 2012. Lista Rossa 2011 degli Uccelli Nidificanti in Italia. Avocetta 36: 11-58

Columba livia (Rock Dove)

Kosovo: C. I. livia and domestica

Breeding population size: NGO "Finch" (2014)

Latvia: C. I. livia and domestica

Breeding population size: Calculation based on data collected in Latvian Breeding bird monitoring scheme: Aunins A., Keišs O. 2012. [Monitoring for the Farmland Bird Population Index. Final report for the year 2012.] (in Latvian) Latvian Ornithological society, 47 pp

Breeding short-term trend: Aunins A. 2012. [Changes in the Abundance of Common Birds in Latvia during the Previous Seven Years]. Putni Dabā 2013/1, 10 - 13. Aunins A., Keišs O. 2012. [Monitoring for the Farmland Bird Population Index. Final report for the year 2012.]. Latvian Ornithological society, 47 pp.

Breeding long-term trend: Kerus V. 2011. Latvijas ligzdojoso putnu stavokla parmainas laika no 1980. līdz 2010. gadam. Promocijas darbs. Rīga: Latvijas Universitāte Strazds M., Priednieks J., Vaverins G. 1994. Latvijas putnu skaits. – Putni daba, 4: 3–18.

Liechtenstein: C. I. livia and domestica

Breeding population size: Willi, G. (2014) Unpublished collection data

Breeding short-term trend: Willi, G. (2006) Die Vögel des Fürstentums Liechtenstein. Amtlicher Lehrmittelverlag, Vaduz (Naturkundliche Forschung im Fürstentum Liechtenstein, Bd. 22.

Breeding long-term trend: Willi, G. & M.F. Broggi (1985) Die Vogelwelt des Fürstentums Liechtenstein unter Berücksichtigung der benachbarten Gebiete; Teil II: Galliformes (Hühnervögel) – Piciformes (Spechtvögel). Ber. Bot.-Zool. Ges. Liechtenstein-Sargans-Werdenberg, Band 14, S. 103-143.; Willi, G. (2006) Die Vögel des Fürstentums Liechtenstein. Amtlicher Lehrmittelverlag, Vaduz (Naturkundliche Forschung im Fürstentum Liechtenstein, Bd. 22.

Lithuania: C. I. livia and domestica

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. Kurlavičius, P. (ed.) 2006. Lietuvos perinčių paukščių atlasas. Kaunas: „Lututė“, 256 p. Raudonikis L. 2004. Lithuania. In: Birds in Europe: population estimates, trends, and conservation status. BirdLife International, BirdLife Conservation Series No12, Cambridge, UK.

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.

Luxembourg: C. I. livia and domestica

Breeding population size: LUXOR (2013): NATUR&EMWELT - BIRD-DATABASE, LUXEMBOURG Recorder (2013): database, Musée national d'histoire naturelle, Luxembourg Lorgé P., E. Melchior (2010): Die Vögel Luxemburgs. LNVL, Luxembourg. ISBN: 978-2-919920-01-3

Breeding short-term trend: LUXOR (2013): NATUR&EMWELT - BIRD-DATABASE, LUXEMBOURG Recorder (2013): database, Musée national d'histoire naturelle, Luxembourg Lorgé P., E. Melchior (2010): Die Vögel Luxemburgs. LNVL, Luxembourg. ISBN: 978-2-919920-01-3

Breeding long-term trend: LUXOR (2013): NATUR&EMWELT - BIRD-DATABASE, LUXEMBOURG Recorder (2013): database, Musée national d'histoire naturelle, Luxembourg Lorgé P., E. Melchior (2010): Die Vögel Luxemburgs. LNVL, Luxembourg. ISBN: 978-2-919920-01-3

The Former Yugoslav Republic of Macedonia: C. I. livia and domestica

Breeding population size: M. Velevski, unedited data

Malta: C. I. livia and domestica

Breeding population size: Sultana, J.; Borg, J.J.; Gauci, C. & Falzon, V. (2011): The Breeding Birds of Malta. Malta: BirdLife Malta & BDL Publishing.

Moldova: C. I. livia and domestica

Breeding population size: The Atlas of the Breeding Birds of Republic of Moldova. 2010. 100p.

Breeding short-term trend: The Atlas of the Breeding Birds of Republic of Moldova. 2010. 100p. Munteanu A., Zubcov, N., Cozari T. Păsări. Lumea animală. Știința, 2006, Vol. 3, 220p.

Breeding long-term trend: 3. Munteanu A., Zubcov, N., Cozari T. Păsări. Lumea animală. Știința, 2006, Vol. 3, 220p. 1.Аверин Ю. В., Ганя И.М., Успенский Г. Птицы Молдавии, том 2, Кишинев,1971, 2.Burfield I., Bommel van F., Birds in Europe. Population estimates, trends and conservation status. BirdLife International. Oxford, 2004. 374p.

Montenegro: C. I. livia and domestica

Breeding population size: Puzovic, S., Simic, D., Saveljić, D., Gergelj, J., Tucakov, M., Stojnic, N., Hulo, I., Ham, I., Vizi, O., Sciban, M., Ruzic, M., Vucanovic, M., Jovanovic, T. (2004): Birds of Serbia and Montenegro – Size of nesting populations. I trends: 1990-2002. Ciconia 12,

Netherlands: C. I. livia and domestica

Norway: C. I. livia and domestica

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

Poland: C. I. livia and domestica

Breeding population size: Chylarecki P., Sikora A. 2007. Ocena liczebności gatunków lęgowych w Polsce. W: Sikora A., Rohde Z., Gromadzki M., Neubauer G., Chylarecki P. (red.). Atlas rozmieszczenia ptaków lęgowych Polski 1985–2004. Bogucki Wyd. Nauk., Poznań, s. 34–41; BirdLife International 2004. Birds in Europe: population estimates, trends and conservation status. Cambridge, UK: BirdLife International. BirdLife International Series No. 12.

Portugal: C. I. livia and domestica

PT: Azores: C. I. livia and domestica

Breeding population size: Dados CAC Açores, extração de dados 2008-2012 (Não publicado)

Columba livia (Rock Dove)

PT: Madeira: C. I. livia and domestica

Breeding population size: Equipa Atlas, 2013 - http://www.atlasdasaves.netmadeira.com/index.php?option=com_content&view=article&id=145&Itemid=66 =pt

Romania: C. I. livia and domestica

Breeding population size: Romanian Commonbird Monitoring Programme, 2007-2012 SOR database, Milvus database

Breeding short-term trend: Romanian Commonbird Monitoring Programme, 2007-2012 SOR database, Milvus database

Breeding long-term trend: Romanian Commonbird Monitoring Programme, 2007-2012 SOR database, Milvus database

Russia: C. I. livia and domestica

Breeding population size: Ravkin E.S., Ravkin Yu.S. 2005. Birds of Northern Eurasian plains: numbers, distribution, spatial organization of communities. Novosibirsk, Nauka: 304 p. (in Russian). Numerov A.D. 1996. Class Birds Aves. – Natural resources of Voronezh Region. Vertebrate Animals. Cadaster. Voronezh, Biomik: 48-159 (in Russian). Sarychev V.S. (ed.) 2009. Vertebrates of Lipetsk Region. Voronezh: 494 p. Sarychev V.S., unpublished. vssar@yandex.ru Belik V.P. 2005. Cadastre of breeding avifauna of South Russia. Strep 3, no. 1-2: 5-37 (in Russian). Bobenko O.A. 2014. Present abundance of doves and pigeons in Stavropolsky Krai. - Russian Ornithological Magazine, express-issue 23 (955): 62-63 (in Russian). Borodin O.V., Smirnova S.L., expert opinion. spinus73@mail.ru

Breeding short-term trend: Preobrazhenskaya E.S. 2009. Numbers of some rare bird species in Unzha taiga and their changes in 1978-2009. - Rare bird species of Non-Chernozem Centre of Russia. Proc. of IVth Conference. Moscow: 43-49 (in Russian). Bobenko O.A. 2014. Present abundance of doves and pigeons in Stavropolsky Krai. - Russian Ornithological Magazine, express-issue 23 (955): 62-63 (in Russian). Shepel A.I., unpublished. shai53@mail.ru Yakovleva M.V., unpublished. kivach-bird@rambler.ru Sarychev V.S. (ed.) 2009. Vertebrates of Lipetsk Region. Voronezh: 494 p. Sarychev V.S., unpublished. vssar@yandex.ru

Breeding long-term trend: Preobrazhenskaya E.S. 2009. Numbers of some rare bird species in Unzha taiga and their changes in 1978-2009. - Rare bird species of Non-Chernozem Centre of Russia. Proc. of IVth Conference. Moscow: 43-49 (in Russian). Kivach-bird@rambler.ru Sarychev V.S. (ed.) 2009. Vertebrates of Lipetsk Region. Voronezh: 494 p. Sarychev V.S., unpublished. vssar@yandex.ru Belik V.P. 2005. Cadastre of breeding avifauna of South Russia. Strep 3, no. 1-2: 5-37 (in Russian). Borodin O.V., Smirnova S.L., expert opinion. spinus73@mail.ru

Serbia

Breeding population size: BPSSS (2014) Unpublished data

Breeding short-term trend: BPSSS (2014) Unpublished data

Breeding long-term trend: BPSSS (2014) Unpublished data

Slovakia: C. I. livia and domestica

Breeding population size: Danko Štefan, Darolová Alžbeta, Krištín Anton: Rozšírenie vtákov na Slovensku. VEDA, vyd. SAV Bratislava, 2002.

Breeding short-term trend: Danko Štefan, Darolová Alžbeta, Krištín Anton: Rozšírenie vtákov na Slovensku. VEDA, vyd. SAV Bratislava, 2002.

Breeding long-term trend: Danko Štefan, Darolová Alžbeta, Krištín Anton: Rozšírenie vtákov na Slovensku. VEDA, vyd. SAV Bratislava, 2002.

Slovenia: C. I. livia and domestica

Breeding population size: Mihelič, T. (2013): Novi ornitološki atlas gnezdilk Slovenije 2002-2010. Internetna baza podatkov. Spletna stran: <http://www.ptice.si/atlas>. Društvo za opazovanje in proučevanje ptic Slovenije, DOPPS - BirdLife Slovenija. Ljubljana.

Breeding short-term trend: Krmecl, P. & Figelj, J. (2013): Monitoring splošno razširjenih vrst ptic za določitev slovenskega indeksa ptic kmetijske krajine - poročilo za leto 2013. – DOPPS, Ljubljana. http://www.natura2000.gov.si/uploads/tx_library/SIPKK_2013_1.pdf Mihelič, T. (2013): Novi ornitološki atlas gnezdilk Slovenije 2002-2010. Internetna baza podatkov. Spletna stran: <http://www.ptice.si/atlas>. Društvo za opazovanje in proučevanje ptic Slovenije, DOPPS - BirdLife Slovenija. Ljubljana.

Breeding long-term trend: Mihelič, T. (2013): Novi ornitološki atlas gnezdilk Slovenije 2002-2010. Internetna baza podatkov. Spletna stran: <http://www.ptice.si/atlas>. Društvo za opazovanje in proučevanje ptic Slovenije, DOPPS - BirdLife Slovenija. Ljubljana. Geister, I. (1995): Ornitološki atlas Slovenije. DZS, Ljubljana

Spain: C. I. livia and domestica

Breeding population size: Carrascal, L.M. & D. Palomino (2008). Las aves comunes reproductoras en España. Población en 2004-2006. (Seguimiento de Aves, 19). SEO/BirdLife. Madrid. 202 pp. http://www.magrama.gob.es/es/biodiversidad/temas/inventarios-nacionales/19_paseriformes_2004_2006_tcm7-218232.pdf

Breeding short-term trend: SEO/BirdLife (2013). Resultados del programa Sacre de SEO/BirdLife. SEO/BirdLife. Madrid. Información obtenida a partir de la Base de Datos del Inventario de especies terrestres. Seguimiento de Aves SACRE. (Ministerio de Agricultura, Alimentación y Medio Ambiente). http://www.magrama.gob.es/es/biodiversidad/temas/inventarios-nacionales/inventario-especies-terrestres/tendencia_aves_comunes_espania.aspx Gráfica de la tendencia poblacional: http://www.magrama.gob.es/es/biodiversidad/temas/inventarios-nacionales/inventario-especies-terrestres/ieet_aves_sist_seg_tendencia_comunes_esp.aspx <http://www.seo.org/RESULTADOS-SEGUIIMIENTO-DE-AVES/>

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. http://www.magrama.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.

ES: Canary Is: C. I. livia and domestica

Breeding population size: Martín, A. & J. A. Lorenzo. 2001. Aves del Archipiélago Canario. Francisco Lemus Editor. La Laguna. 787 pp. Lorenzo, J.A. 2007 (ed). Atlas de las Aves Nidificantes en el Archipiélago Canario (1997-2003). Dirección General de Conservación de la Naturaleza-Sociedad Española de Ornitología. Madrid. 520 pp.

Breeding short-term trend: Martín, A. & J. A. Lorenzo. 2001. Aves del Archipiélago Canario. Francisco Lemus Editor. La Laguna. 787 pp. Lorenzo, J.A. 2007 (ed). Atlas de las Aves Nidificantes en el Archipiélago Canario (1997-2003). Dirección General de Conservación de la Naturaleza-Sociedad Española de Ornitología. Madrid. 520 pp.

Breeding long-term trend: Martín, A. & J. A. Lorenzo. 2001. Aves del Archipiélago Canario. Francisco Lemus Editor. La Laguna. 787 pp. Lorenzo, J.A. 2007 (ed). Atlas de las Aves Nidificantes en el Archipiélago Canario (1997-2003). Dirección General de Conservación de la Naturaleza-Sociedad Española de Ornitología. Madrid. 520 pp.

Sweden: C. I. livia and domestica

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. Unpublished.

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

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

Columba livia (Rock Dove)

Switzerland: C. I. livia and domestica

Breeding population size: Schmid, H., R. Luder, B. Naef-Daenzer, R. Graf & N. Zbinden (1998): Schweizer Brutvogelatlas. Verbreitung der Brutvögel in der Schweiz und im Fürstentum Liechtenstein 1993-1996/Atlas des oiseaux nicheurs de Suisse. Distribution des oiseaux nicheurs en Suisse et au Liechtenstein en 1993-1996. Schweizerische Vogelwarte/Station ornithologique suisse, Sempach.

Breeding short-term trend: Swiss Ornithological Institute

Breeding long-term trend: Swiss Ornithological Institute

Turkey: C. I. livia and domestica

Breeding population size: Birdlife International (2004) Birds in Europe: population estimates, trends and conservation status, Cambridge UK: Birdlife International (Birdlife Conservation series no: 12) www.kusbank.org 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-

Breeding short-term trend: Doğa Derneği, Eken G., Bozdoğan M., İsfendiyaroğlu S., Kılıç D.T., Lise Y. (2006) Key Biodiversity Areas of Turkey (Türkiye'nin Önemli Doğa Alanları) Doğa Derneği, Ankara, KILIÇ, T., EKEN, G. 2004, Türkiye'nin Önemli Kuş Alanları Güncellemesi, Doğa Derneği. Ankara.

Breeding long-term trend: Birdlife International (2004) Birds in Europe: population estimates, trends and conservation status, Cambridge UK: Birdlife International (Birdlife Conservation series no: 12)

Ukraine: C. I. livia and domestica

Breeding population size: 1. Tucker G.M., Heath M.F. Birds in Europe: their conservation status. - Cambridge. U.K. Bird Life Conservation Series № 3. 1994. 600 p. 2. Hagemajier W.J.M., Blair M.J. The EBCC Atlas of European Breeding Birds: Their Distribution and Abundance. Poyser. - London. 1997. 903 p. 3. Heath M.F., Evans M.I. Important birds areas in Europe. Priority sites for conservation. // Southern Europe. BirdLife International. - Cambridge. Vol.2., 2000. P. 691-724. 4. Experts: I. Gorban

Breeding short-term trend: 1. Горбань І. Оцінка чисельності гніздових птахів України. Вісник Львівського університету. Серія біологічна. Випуск 34. 2003. с. 147 – 158. 2. Experts: I. Gorban

Breeding long-term trend: 1. Tucker G.M., Heath M.F. Birds in Europe: their conservation status. - Cambridge. U.K. Bird Life Conservation Series № 3. 1994. 600 p. 2. Hagemajier W.J.M., Blair M.J. The EBCC Atlas of European Breeding Birds: Their Distribution and Abundance. Poyser. - London. 1997. 903 p. 3. Heath M.F., Evans M.I. Important birds areas in Europe. Priority sites for conservation. // Southern Europe. BirdLife International. - Cambridge. Vol.2., 2000. P. 691-724. 4. Experts: I. Gorban

United Kingdom: C. I. livia and domestica

Breeding population size: Newson, S.E., Evans, K.L., Noble, D.G., Greenwood, J.J.D. & Gaston, K.J. 2008. Use of distance sampling to improve estimates of national population sizes for common and widespread breeding birds in the UK. Journal of Applied Ecology 45: 1330–1338. Musgrove, A.J., Aebischer, N.J., Eaton, M.A., Hearn, R.D., Newson, S.E., Noble, D.G., Parsons, M., Risely, K. & Stroud, D.A. 2013. Population estimates of birds in Great Britain and the United Kingdom. British Birds 106: 64-100.

Breeding short-term trend: BTO/JNCC/RSPB Breeding Bird Survey data: Risely, K., Massimino, D., Johnston, A., Newson, S.E., Eaton, M.A., Musgrove, A.J., Noble, D.G., Procter, D. & Baillie, S.R. 2012. The Breeding Bird Survey 2011. BTO Research Report 624. British Trust for Ornithology, Thetford. <http://www.bto.org/sites/default/files/u16/downloads/reports/bbsreport11.pdf>

Breeding long-term trend: Sharrock, J.T.R. 1976. The Atlas of Breeding Birds in Britain and Ireland. Berkhamsted, T. & A.D. Poyser. Newson, S.E., Evans, K.L., Noble, D.G., Greenwood, J.J.D. & Gaston, K.J. 2008. Use of distance sampling to improve estimates of national population sizes for common and widespread breeding birds in the UK. Journal of Applied Ecology 45: 1330–1338.

Bibliography

Baptista, L.F., Trail, P.W. and Horblit, H.M. 1997. Rock Dove (*Columba livia*). In: del Hoyo, J., Elliott, A., Sargatal, J., Christie, D.A. and de Juana, E. (eds.) 2013. *Handbook of the Birds of the World Alive*. Lynx Edicions, Barcelona. (retrieved from <http://www.hbw.com/node/54097> on 6 October 2014).

Johnston, R. F., Siegel-Causey, D., and Johnson, S. G. 1988. European populations of the rock dove *Columba livia* and genotypic extinction. *American Midland Naturalist*, 1-10.