

***Parus major* (Great Tit)**

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.

Parus major (Great Tit)

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	30,000-50,000	<1	2002-2012	medium	F	5-10	2002-2012	medium	0	0	1980-2012	medium	
Andorra	500-1,000	<1	1999-2001	poor	?				?				
Armenia	50,000-120,000	<1	2002-2012	medium	?				?				
Austria	700,000-1,000,000	1	2001-2012	medium	0	0	2000-2011	medium	?				
Azerbaijan	200,000-400,000	<1	1996-2000	poor	?				?				
Belarus	1,500,000-1,700,000	2	2001-2012	medium	0	0	2001-2012	medium	0	0	1980-2012	medium	
Belgium	100,000-500,000	<1	2008-2012	poor	+	0-16	2000-2012	medium	0	0	1973-2012	medium	
Bosnia & HG	500,000-800,000	1	2010-2014	poor	?				?				
Bulgaria	800,000-1,300,000	1	2005-2012	medium	0	0	2000-2012	medium	0	0	1980-2012	poor	
Croatia	1,500,000-2,500,000	2	2014	medium	?				?				
Cyprus	50,000-150,000	<1	2006-2013	medium	+	50-100	2001-2013	medium	?				
Czech Rep.	3,330,000-6,660,000	6	2012	medium	+	6-22	2000-2012	good	0	0	1982-2012	good	
Denmark	700,000	1	2011	medium	0	0	1999-2011	good	-	20-33	1980-2011	good	
Estonia	300,000-400,000	<1	2008-2012	medium	0	0-10	2001-2012	medium	0	0-10	1980-2012	medium	
Finland	1,600,000-2,000,000	2	2006-2012	good	+	8-27	2001-2012	good	+	83-117	1983-2012	good	
France	4,200,000-8,400,000	7	2008-2012	medium	+	16	2001-2011	good	+	34	1989-2011	medium	
Georgia	Present	<1			?				?				
Germany	4,800,000-6,750,000	7	2005-2009	medium	0	0	1998-2009	good	0	0	1990-2009	good	
Greece	870,000-1,080,000	1	2007-2013	good	0	0	2007-2013	medium	?				
Hungary	1,330,000-1,610,000	2	2000-2012	medium	+	31-65	1999-2012	medium	?				
Rep. Ireland	580,227-1,335,580	1	2006-2011	good	+	36-64	1998-2011	good	?				
Italy	1,000,000-2,000,000	2	2011	poor	+	10-20	2000-2012	medium	+	10-20	1990-2012	poor	
Kosovo	200,000-300,000	<1	2009-2014	medium	?				?				
Latvia	583,085-748,316	1	2012	good	+	28-112	2005-2012	good	+	35-250	1995-2012	medium	
Liechtenstein	700-1,000	<1	2009-2014	medium	0	0	2003-2014	medium	0	0	1980-2014	medium	
Lithuania	350,000-600,000	1	2008-2012	medium	0	0	2001-2012	medium	0	0	1980-2012	medium	
Luxembourg	40,000-50,000	<1	2008-2012	medium	?				?				
FYRO Macedonia	100,000-500,000	<1	2001-2012	poor	?				?				
Moldova	80,000-100,000	<1	2000-2010	medium	0	0	2000-2010	medium	0	0	1980-2010	medium	
Montenegro	200,000-400,000	<1	2002-2012	poor	?				?				
Netherlands	583,846-700,615	1	2008-2011	medium	+	13-26	2002-2011	medium	+	21-49	1984-2011	medium	
Norway	1,000,000-1,250,000	1	2013	poor	0	0	2006-2013	good	0	0	1980-2013	good	

Parus major (Great Tit)

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	
Poland	3,700,000-4,500,000	5	2008-2012	good	+	10-30	2000-2012	good	?				
Portugal	1,000,000-5,000,000	3	2008-2012	medium	0	0	2004-2011	medium	?				
Romania	3,100,000-6,200,000	5	2010-2013	medium	+	1-12	2001-2013	medium	?				
Russia	12,000,000-16,000,000	17	2000-2008	medium	0	0	2000-2012	medium	0	0	1980-2012	medium	
Serbia	670,000-900,000	1	2008-2012	medium	0	0	2000-2012	medium	0	0	1980-2012	medium	
Slovakia	1,500,000-3,000,000	3	2002	medium	0	0	2000-2012	medium	0	0	1980-2012	medium	
Slovenia	500,000-700,000	1	2002-2012	medium	0	0-10	2001-2012	medium	0	0	1980-2012	medium	
Spain	5,785,000-7,565,000	8	2004-2006	good	+	28	1998-2012	good	+		1980-2012	poor	
Sweden	1,608,000-3,547,000	3	2008-2012	medium	+	16-28	2001-2012	good	0	0	1980-2012	good	
Switzerland	400,000-600,000	1	2008-2012	medium	+	15-32	2001-2012	good	+	17-52	1990-2012	medium	
Turkey	2,000,000-7,000,000	5	2013	medium	0	0	2000-2012	medium	0	0-19	1990-2013	poor	
Ukraine	3,000,000-4,000,000	4	2000	medium	F	0-5	1998-2010	medium	0	0-2	1980-2010	medium	
United Kingdom	2,600,000	3	2009	medium	+	32	1998-2010	good	+	61	1980-2010	good	
EU27	41,700,000-69,100,000	65			Increasing								
Europe	65,100,000-106,000,000	100			Increasing								

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.

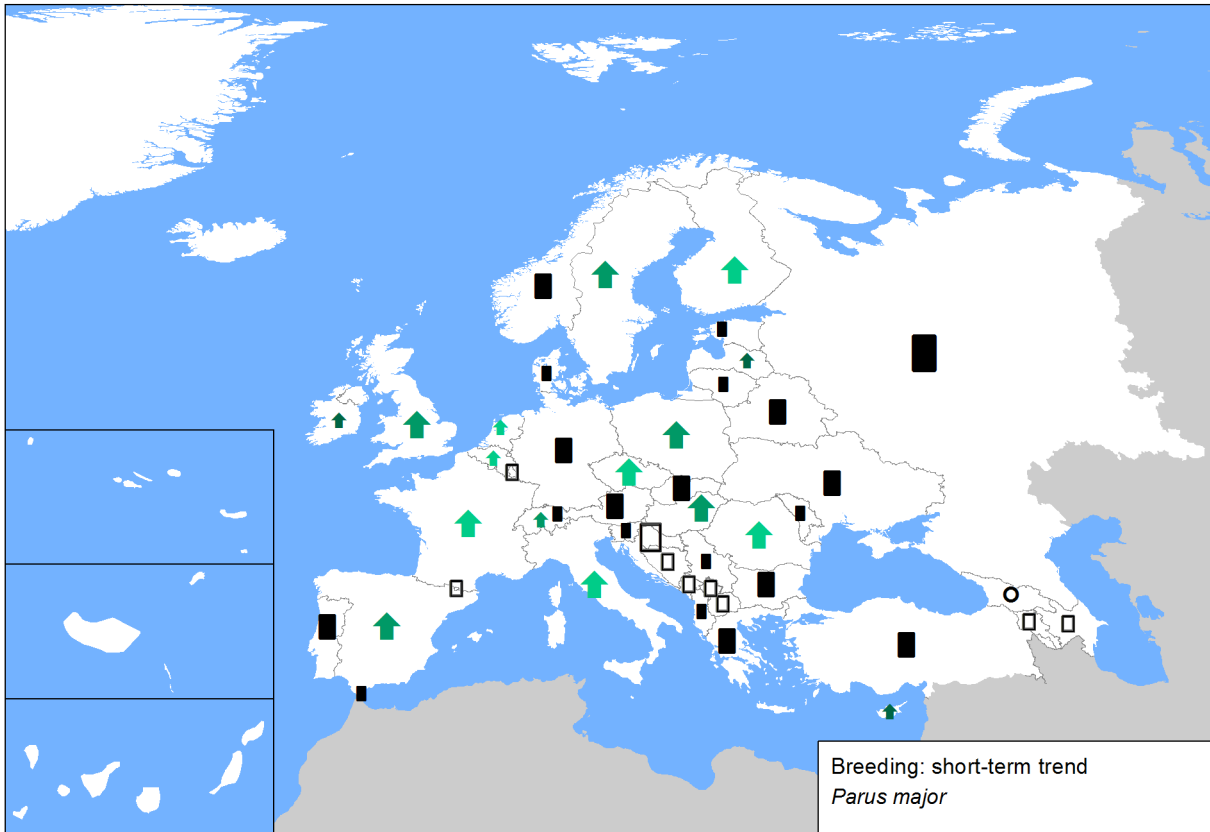
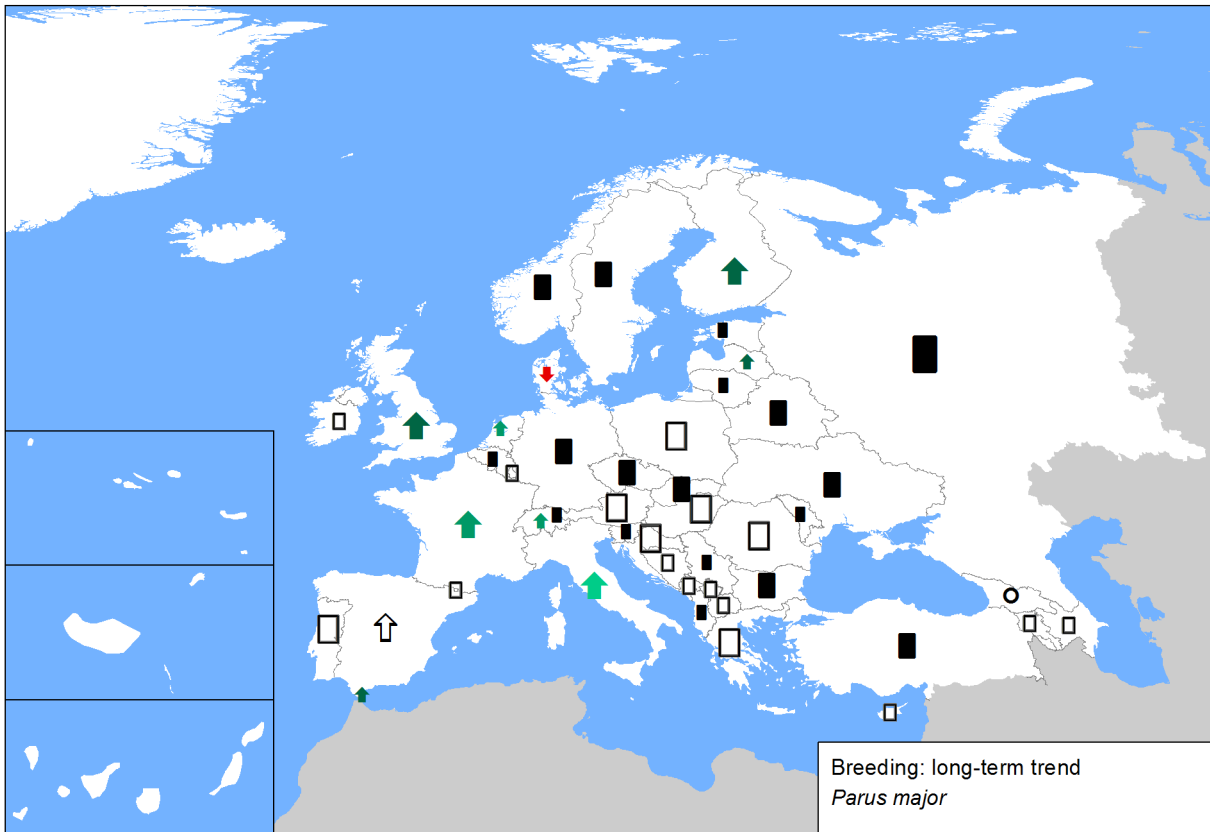


Figure 2. Breeding population sizes and long-term trends across Europe.



Sources

Albania

Breeding population size: Bino pers. obs.

Breeding short-term trend: Bino pers. obs.

Breeding long-term trend: Bino pers. obs.

Andorra

Breeding population size: BirdLife International 2004

Armenia

Breeding population size: ASPB data

Austria

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

Breeding population size: BirdLife International 2004

Belarus

Breeding population size: Zhuravliev D.V. - personal communication

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

Belgium

Breeding population size: Data Breeding Bird atlas Wallonia (Jacob et al 2010), Brussels (Weiserbs 2012) and Flanders (Vermeersch et al 2004) in combination with trend data.

Breeding short-term trend: Common bird monitoring schemes

Breeding long-term trend: Comparison between 2008-2012 estimate and Devillers, 1989 (Atlas of the Belgian Breeding Bird) population estimate

Bosnia and Herzegovina

Breeding population size: unpublsh data

Bulgaria

Breeding population size: BSPB Bird Database; 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.; Nankinov, D. 2009. Studies on Fauna of Bulgaria, Birds - Aves, Passeriformes, Sofia, ETO, 407 p. (in Bulgarian)

Breeding short-term trend: BSPB Bird Database; 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.; Nankinov, D. 2009. Studies on Fauna of Bulgaria, Birds - Aves, Passeriformes, Sofia, ETO, 407 p. (in Bulgarian); Nankinov, D., A. Dutsov, B. Nikolov, B. Borisov, G. Stoyanov, G. Gradev, D. Georgiev, D. Popov, D. Domuschiev, D. Kirov, E. Tilova, I. Nikolov, I. Ivanov, K. Dichev, K. Popov, N. Karaivanov, N. Todorov, P. Shurulinkov, R. Stanchev, R. Aleksov, R. Tsonev, S. Dalakchieva, S. Ivanov, S. Marin, S. Staikov, S. Nikolov & H. Nikolov. 2004. Breeding totals of the ornithofauna in Bulgaria, 2004. Green Balkans, Plovdiv. 32 pp.

Breeding long-term trend: BSPB Bird Database; 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.; Nankinov, D. 2009. Studies on Fauna of Bulgaria, Birds - Aves, Passeriformes, Sofia, ETO, 407 p. (in Bulgarian)

Croatia

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

Breeding population size: Unpublished analysis of monitoring data for the W of Cyprus by proff Derek Pomeroy; 2013 Common Birds Monitoring programme set up by BirdLife Cyprus, with relevant line transect survey data analysed using DISTANCE programme; Also similar analysis of field data from surveys carried out in some SPAs by Game & Fauna Service.

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). These programmes were merged and expanded in 2013 under a Common Birds Monitoring programme managed by BirdLife Cyprus. This analysis has been detailed in a September 2013 report by BirdLife Cyprus to the Cyprus government, under a contract to produce the Farmland Birds Index for Cyprus.

Breeding long-term trend: Recent data as above, but no systematic data is available for before 2006.

Czech Republic

Breeding population size: STASTNY K., BEJCEK V. & HUDEC K. 2006: Atlas hnízdního rozšíření ptáku v České republice. Aventinum Praha. JPSP: <http://jpsp.birds.cz/vysledky.php?taxon=807>

Parus major (Great Tit)

Czech Republic

Breeding short-term trend: JPSP: <http://jpsp.birds.cz/vysledky.php?taxon=807>

Breeding long-term trend: JPSP: <http://jpsp.birds.cz/vysledky.php?taxon=807>

Denmark

Breeding population size: BIRDLIFE INTERNATIONAL (2004) Birds in Europe: population estimates, trends and conservation status. Wageningen, The Netherlands: BirdLife International. (BirdLife Conservation Series No. 12) Heldbjerg, H. & Lerche-Jørgensen, M. (2012): Overvågning af de danske almindlige fuglearter i Danmark 1975-2011. Årsrapport for Punkttællingsprojektet. Dansk Ornitologisk Forening. (The Danish Point Count Census for breeding birds during the period 1999-2011)

Breeding short-term trend: Heldbjerg, H. & Lerche-Jørgensen, M. (2012): Overvågning af de danske almindlige fuglearter i Danmark 1975-2011. Årsrapport for Punkttællingsprojektet. Dansk Ornitologisk Forening. (The Danish Point Count Census for breeding birds during the period 1999-2011)

Breeding long-term trend: Heldbjerg, H. & Lerche-Jørgensen, M. (2012): Overvågning af de danske almindlige fuglearter i Danmark 1975-2011. Årsrapport for Punkttællingsprojektet. Dansk Ornitologisk Forening. (The Danish Point Count Census for breeding birds during the period 1980-2011)

Estonia

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

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

Breeding population size: <http://www.atlas-ornitho.fr/>

Breeding short-term trend: <http://vigienature.mnhn.fr/page/mesange-charbonniere>

Breeding long-term trend: <http://vigienature.mnhn.fr/page/mesange-charbonniere>

Georgia

Breeding population size: BirdLife International 2004

Germany

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

Breeding population size: Hellenic Common Birds Monitoring Scheme database, Hellenic Ornithological Society

Breeding short-term trend: Hellenic Common Birds Monitoring Scheme database, Hellenic Ornithological Society

Hungary

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.

Republic of Ireland

Breeding population size: Crowe, O., Musgrove, A.J. & O'Halloran, J. (2014). Generating population estimates for common and widespread breeding birds in Ireland. *Bird Study* 61 (1) 82 - 90.

Breeding short-term trend: Crowe, O. (2013). Calculation of short-term trends for Common and Widespread Breeding Birds for Article 12 Reporting. Unpublished report.

Breeding long-term trend: Baillie, S.R., Marchant, J.H., Leech, D.I., Massimino, D., Eglington, S.M., Johnston, A., Noble, D.G., Barimore, C., Kew, A.J., Downie, I.S., Risely, K. & Robinson, R.A. (2013) *BirdTrends 2012: trends in numbers, breeding success and survival for UK breeding birds*. BTO Research Report No. 644. BTO, Thetford. <http://www.bto.org/birdtrends>. 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. Crowe, O. (2013) Calculation of short-term trends for Common and Widespread Breeding Birds for Article 12 Reporting. Unpublished report. Expert opinion: O. Crowe, BirdWatch Ireland, <http://birdwatchireland.ie/>. Sharrock, J.T.R. (1976) *The Atlas of Breeding Birds in Britain and Ireland*. T. & AD Poyser.

Italy

Breeding population size: Brichetti P & Fracasso G. 2011. *Ornitologia italiana*. Vol.7 (Paridae-Corvidae). Alberto Perdisa Editore, Bologna

Breeding short-term trend: Rete Rurale Nazionale & LIPU 2013. Uccelli comuni in Italia. Gli andamenti di popolazione dal 2000 al 2012

Breeding long-term trend: Rete Rurale Nazionale & LIPU 2013. Uccelli comuni in Italia. Gli andamenti di popolazione dal 2000 al 2012 BirdLife International 2004. Birds in Europe: population estimates, trends and conservation status Cambridge, UK: BirdLife International. BirdLife Conservation Series No. 12

Parus major (Great Tit)

Kosovo

Breeding population size: NGO "Finch" (2014)

Latvia

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.]. 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: Aunins A. 2006. [Ensuring continuity and compatibility of bird monitoring data regarding changes in the Biodiversity monitoring section of the National Monitoring programme]. 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.

Liechtenstein

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 (1986) Die Vogelwelt des Fürstentums Liechtenstein unter Berücksichtigung der benachbarten Gebiete; Teil III: Passeriformes. Ber. Bot.-Zool. Ges. Liechtenstein-Sargans-Werdenberg, Band 15, S. 37-82.; Willi, G. (2006) Die Vögel des Fürstentums Liechtenstein. Amtlicher Lehrmittelverlag, Vaduz (Naturkundliche Forschung im Fürstentum Liechtenstein, Bd. 22.

Lithuania

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

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

Breeding population size: M. Veleviski, unedited data

Moldova

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.

Breeding long-term trend: Burfield I., Bommel van F., Birds in Europe. Population estimates, trends and conservation status. BirdLife International. Oxford, 2004. 374p. Zubcov, N., Birds of Moldova // The Birds of the Western Palearctic. Oxford University Press, Oxford. 1998, 1850 p.

Montenegro

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, 36-120. Novi Sad

Netherlands

Breeding population size: NEM, Sovon en CBS, SOVON (2002)

Breeding short-term trend: NEM, Sovon en CBS, Boele et al. (2013)

Breeding long-term trend: NEM, Sovon en CBS

Norway

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

Breeding short-term trend: Kålås, J.A., Husby, M., Nilsen, E.B., & Vang, R. 2014. Bestandsvariasjoner for terrestriske fugler i Norge 1996-2013. Norsk Ornitologisk Forening Rapport 4 / 2014.

Breeding long-term trend: Kålås, J.A., Husby, M., Nilsen, E.B., & Vang, R. 2014. Bestandsvariasjoner for terrestriske fugler i Norge 1996-2013. Norsk Ornitologisk Forening Rapport 4 / 2014.

Poland

Breeding population size: Chodkiewicz T., Kuczyński L., Sikora A., Ławicki Ł., Chylarecki P., Neubauer G., Meissner W., Rohde Z. 2013. Opracowanie raportu dla Komisji Europejskiej z wdrażania Dyrektywy Ptasiej w Polsce w zakresie Monitoringu Ptaków Polski w Państwowym Monitoringu Środowiska. Sprawozdanie dla Głównego Inspektoratu Ochrony Środowiska. OTOP, Marki.

Parus major (Great Tit)

Poland

Breeding short-term trend: MPPL: Chylarecki P. 2013. Czynniki kształtujące zmiany liczebności pospolitych ptaków Polski w latach 2000-2012. MiIZ PAN Warszawa. Bogucki. Wyd. Nauk. 1-126; Chodkiewicz T., Woźniak B., Chylarecki P. 2012. Monitoring Pospolitych Gatunków Ptaków. In: Podsumowanie sezonu lęgowego Monitoringu Ptaków Polski w 2012 r. OTOP, MiIZ, KOO, SOS: 29-45 (source: http://monitoringptakow.gios.gov.pl/raporty?file=files/pliki/raporty_faza4/RaportMPP4_etap1_zad2%264_wiosna2012.pdf)

Portugal

Breeding population size: Equipa Atlas (2008). Atlas das Aves Nidificantes em Portugal (1999-2005). Instituto da Conservação da Natureza e da Biodiversidade, Sociedade Portuguesa para o Estudo das Aves, Parque Natural da Madeira e Secretaria Regional do Ambiente e do Mar. Assírio e Alvim. Lisboa; Programa Censos de Aves Comuns (CAC)

Breeding short-term trend: Programa Censos de Aves Comuns (CAC)

Romania

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

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., unpublished. vssar@yandex.ru Belik V.P. 2005. Cadastre of breeding avifauna of South Russia. Strepet 3, no. 1-2: 5-37 (in Russian).

Breeding short-term trend: Preobrazhenskaya E.S. 2007. Population dynamics of forest wintering birds in the East European Plain and the Ural. - Dynamics of the birds density in terrestrial landscapes. Proc. of the Russian scientific conference. Moscow: 39-59 (in Russian). Preobrazhenskaya E.S., Stopalova O.A. (compilers). 2012. Results of winter counts of birds in Russia and adjacent regions, 26. Moscow: 55 p. Preobrazhenskaya E.S., Stopalova O.A. (compilers). 2013. Results of winter counts of birds in Russia and adjacent regions, 27. Moscow: 60 p. Preobrazhenskaya E.S., unpublished. vooop21@rambler.ru Khohlova T.Yu., Artemiev A.V. 2007. The main results of the long-term ornithological monitoring in the zone of concentration of birds' ranges in northwest Russia (Karelia, Zaonezhye). - Dynamics of the birds density in terrestrial landscapes. Proc. of the Russian scientific conference. Moscow: 60-74 (in Russian). Rykova S.Yu. 2007. Dynamics of number mass species of birds of Pinega reserve. - Dynamics of the birds density in terrestrial landscapes. Proc. of the Russian scientific conference. Moscow: 75-82 (in Russian). Belik V.P., unpublished. vpbelik@mail.ru Shepel A.I., unpublished. shai53@mail.ru Yakovleva M.V., unpublished. kivach-bird@rambler.ru Sarychev V.S., unpublished. vssar@yandex.ru Belik V.P. 2005. Cadastre of breeding avifauna of South Russia. Strepet 3, no. 1-2: 5-37 (in Russian).

Breeding long-term trend: Preobrazhenskaya E.S. 2007. Population dynamics of forest wintering birds in the East European Plain and the Ural. - Dynamics of the birds density in terrestrial landscapes. Proc. of the Russian scientific conference. Moscow: 39-59 (in Russian). Preobrazhenskaya E.S., unpublished. vooop21@rambler.ru Khohlova T.Yu., Artemiev A.V. 2007. The main results of the long-term ornithological monitoring in the zone of concentration of birds' ranges in northwest Russia (Karelia, Zaonezhye). - Dynamics of the birds density in terrestrial landscapes. Proc. of the Russian scientific conference. Moscow: 60-74 (in Russian). Rykova S.Yu. 2007. Dynamics of number mass species of birds of Pinega reserve. - Dynamics of the birds density in terrestrial landscapes. Proc. of the Russian scientific conference. Moscow: 75-82 (in Russian). Shepel A.I., unpublished. shai53@mail.ru Yakovleva M.V., unpublished. kivach-bird@rambler.ru Sarychev V.S., unpublished. vssar@yandex.ru Belik V.P. et al. 2003. Recent population trends of breeding birds in the Southern Russia. - Strepet 1: 10-30 (in Russian).

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

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

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

Spain

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 en 2012. 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-SEGUIMIENTO-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

Parus major (Great Tit)

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. Sveriges Ornitologiska Förening, Halmstad.

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

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

Switzerland

Breeding population size: Original estimate: 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. Swiss Ornithological Institute: Updated based on population trend.

Breeding short-term trend: Swiss Ornithological Institute. <http://www.vogelwarte.ch/monitoring-common-breeding-birds.html>. Min Max refer to 95% Confidence interval.

Breeding long-term trend: Swiss Ornithological Institute. <http://www.vogelwarte.ch/monitoring-common-breeding-birds.html>. Data before 1999 from less standardised survey. Min Max refer to 95% Confidence interval.

Turkey

Breeding population size: Zeynel Arslangündoğdu, Cemil Gezgin personal communication. Arslangündoğdu Z.2005. İstanbul Belgrad Ormanının Ornitofaunası Üzerinde Araştırmalar (Studies on the Ornitofauna of Istanbul Belgrade Forests). İ.Ü Fenbilimleri Enstitüsü. Phd Thesis. 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: 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

Breeding population size: 1. Hagemajier W.J.M., Blair M.J. The EBCC Atlas of European Breeding Birds: Their Distribution and Abundance. Poyser. - London. 1997. 903 p. 2. 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. 3. European birds populations; Estimates and trends Compiled by M. Heath, C. Borggreve, N. Peet, W. Hagemajier/ BirdLife International/EBCC. 2000. Cambridge, UK: BirdLife Conservation Series N10, 160 p. 4. Горбань І. Оцінка чисельності гніздових птахів України. Вісник Львівського університету. Серія біологічна. Випуск 34. 2003. с. 147 – 158.

Breeding short-term trend: 1. Бокотей А.А., Дзюбенко Н.В., Горбань І.М. та інші. Гніздова орнітофауна басейну Верхнього Дністра. – Львів: ЛНУ, 2010. – 400 с. 2. Dombrowski A., Piotrowska M., Gorban I., Nikiforov M. Status and threats to avifauna. (Eds. Dombrowski A., & Z. Glowacki, та інші). Bug river valleys the ecological corridor: state-threats-protection. IUCN European Programme. Warsaw. 2002. S. 87-102. 3. Горбань І.М. Рідкісні види птахів Шацького національного парку. // Вісник Львівського університету. Серія біологічна. Вип. 29. 2002. С.188-199.

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. European birds populations; Estimates and trends Compiled by M. Heath, C. Borggreve, N. Peet, W. Hagemajier/ BirdLife International/EBCC. 2000. Cambridge, UK: BirdLife Conservation Series N10, 160 p. 5. Горбань І.М., Бокотей А.А. Вплив трансформаційних процесів на фауну та населення птахів басейну Верхнього Дністра. Дослідження басейнової екосистеми Верхнього Дністра. Збірник наукових праць. 2000. С.145 – 155. 6. Горбань І. Оцінка чисельності гніздових птахів України. Вісник Львівського університету. Серія біологічна. Випуск 34. 2003. с. 147 – 158. 7. Birds in Europe: Population Estimates, Trends and Conservation Status. BirdLife Conservation Series 12; 2004. 374 p. 8. Бокотей А.А., Дзюбенко Н.В., Горбань І.М. та інші. Гніздова орнітофауна басейну Верхнього Дністра. – Львів: ЛНУ, 2010. – 400 с.

United Kingdom

Breeding population size: Gibbons, D.W., Reid, J.B. & Chapman, R.A. 1993. The New Atlas of Breeding Birds in Britain and Ireland: 1988–1991. Poyser, London. 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: Baillie, S.R., Marchant, J.H., Leech, D.I., Massimino, D., Eglington, S.M., Johnston, A., Noble, D.G., Barimore, C., Kew, A.J., Downie, I.S., Risely, K. & Robinson, R.A. (2013). BirdTrends 2012: trends in numbers, breeding success and survival for UK breeding birds. Research Report 644. BTO, Thetford. <http://www.bto.org/birdtrends>

Bibliography

Gosler, A., Clement, P. and Christie, D.A. 2013. Great Tit (*Parus major*). 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/59900> on 17 March 2015).

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

Visser, M.E., van Noordwijk, A.J., Tinbergen, J.M. and Lessells, C.M. 1998. Warmer springs lead to mistimed reproduction in Great Tits (*Parus major*). *Proceedings of the Royal Society of London B*. 265: 1867-1870.

Visser M.E., Holleman L.J.M and Gienapp, P. 2006. Shifts in caterpillar biomass phenology due to climate change and its impact on the breeding biology of an insectivorous bird. *Oecologia* 147: 164-172.