

Circus pygargus (Montagu's Harrier)

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).

Contents

- Reported national population sizes and trends
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- Sources of reported national population data
- Species factsheet bibliography

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.

Circus pygargus (Montagu's Harrier)

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	
Armenia	80–140	<1	2013-2018	complete	0		2007-2018		?		2003-2018	deficient	
Austria	23–43	<1	2013-2018	complete	+		2007-2018	complete	+		1981-2018	complete	
Azerbaijan	200–500	<1	1996-2000	expert	0		2013-2019	expert	0		1980-2019	expert	
Belarus	3000–5000	4	2010-2018	partial	0	-10 to 10	2012-2019	expert	?		1980-2019	deficient	
Belgium	1–8	<1	2013-2018	complete	0		2008-2018	complete	0		1973-2018	partial	
Bosnia & HG	100–200	<1	2015-2018	complete	?	-10 to 10	2007-2018	complete	?		1980-2018	deficient	
Bulgaria	300–350	<1	2013-2018	partial	?		2000-2018	partial	+	1400 to 1600	1980-2018	partial	
Croatia	60–80	<1	2010-2015	expert	?		2007-2018	deficient	?		1980-2018	deficient	
Czechia	130–300	<1	2014-2017	complete	+		2004-2014	partial	+		1980-2018	partial	
Denmark	31	<1	2017-2017	complete	F		2004-2017	complete	F		1980-2017	complete	
Estonia	300–400	<1	2013-2017	partial	0	-25 to 19	2007-2018	partial	0	-68 to 51	1987-2018	partial	
Finland	1–10	<1	2013-2018	expert	0		2007-2018	expert	?		1986-2018	expert	
France	3900–5100	5	2000-2002	complete	-	-39 to -4	2005-2017	partial	?		1982-2011	deficient	
Georgia	38–370	<1	2013-2017	partial	+	-62 to 2360	2001-2017	partial	?				
Germany	430–450	<1	2012-2016	complete	+	19 to 58	2004-2016	complete	+		1985-2016	expert	
Greece	5–10	<1	2015	partial	-		2007-2018	partial	-		1980-2018	partial	
Hungary	49–60	<1	2015-2017	complete	-		2005-2017	complete	-	-25 to -18	1980-2018	partial	
Italy	260–380	<1	1995-2000	expert	?		2007-2018	deficient	+	5 to 30	1993-2018	expert	
Latvia	50–1100	<1	2016-2016	complete	?	-75 to 144	2014-2018	complete	?		1980-2018	deficient	
Lithuania	550–700	<1	2013-2018	partial	0	0	2013-2018	partial	+	900 to 1000	1980-2018	partial	
North Macedonia	100–140	<1	2014-2019	expert	0		2007-2018	expert	?		1980-2019		
Moldova		<1	2014-2017		?				?		1990-2018	deficient	
Netherlands	36–60	<1	2013-2017	complete	0	-23 to 31	2006-2017	complete	+	112 to 1187	1980-2017	complete	
Poland	3400–4500	4	2013-2018	complete	-	-59 to -14	2008-2018	complete	+	500 to 700	1980-2018	expert	
Portugal	300–1000	<1	2013-2018	partial	?		2007-2018	deficient	?		1980-2018	deficient	
Romania	20–50	<1	2013-2018	expert	F	-50 to 50	2007-2018	expert	?		1980-2018	deficient	
Russia	50000–80000	73	2008-2018	partial	-	0	2008-2018	partial	+	0	1980-2018	partial	
Serbia	10–30	<1	2013-2018	partial	+	30 to 49	2007-2018	complete	+	30 to 49	1980-2018	complete	
Slovakia	10–40	<1	2013-2018	partial	F		2007-2018	partial	F		1980-2018	partial	
Spain	4300–5500	6	2017	complete	-	-23 to -19	2007-2018	complete	-		1980-2018	partial	
Sweden	44–60	<1	2013-2018	complete	-	-25 to -5	2007-2018	complete	0	-20 to 20	1980-2018	complete	
Turkey	400–800	<1	2002-2012	expert	?		2002-2012	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	1500–2000	2	2010-2019	partial	-	-80 to -50	1996-2018	partial	-		1988-2018	partial	
United Kingdom	8	<1	2012-2016	complete	-		2001-2016	complete	+		1978-2016	complete	
EU28	14300–20200	19											
Europe	69700–110000	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

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.

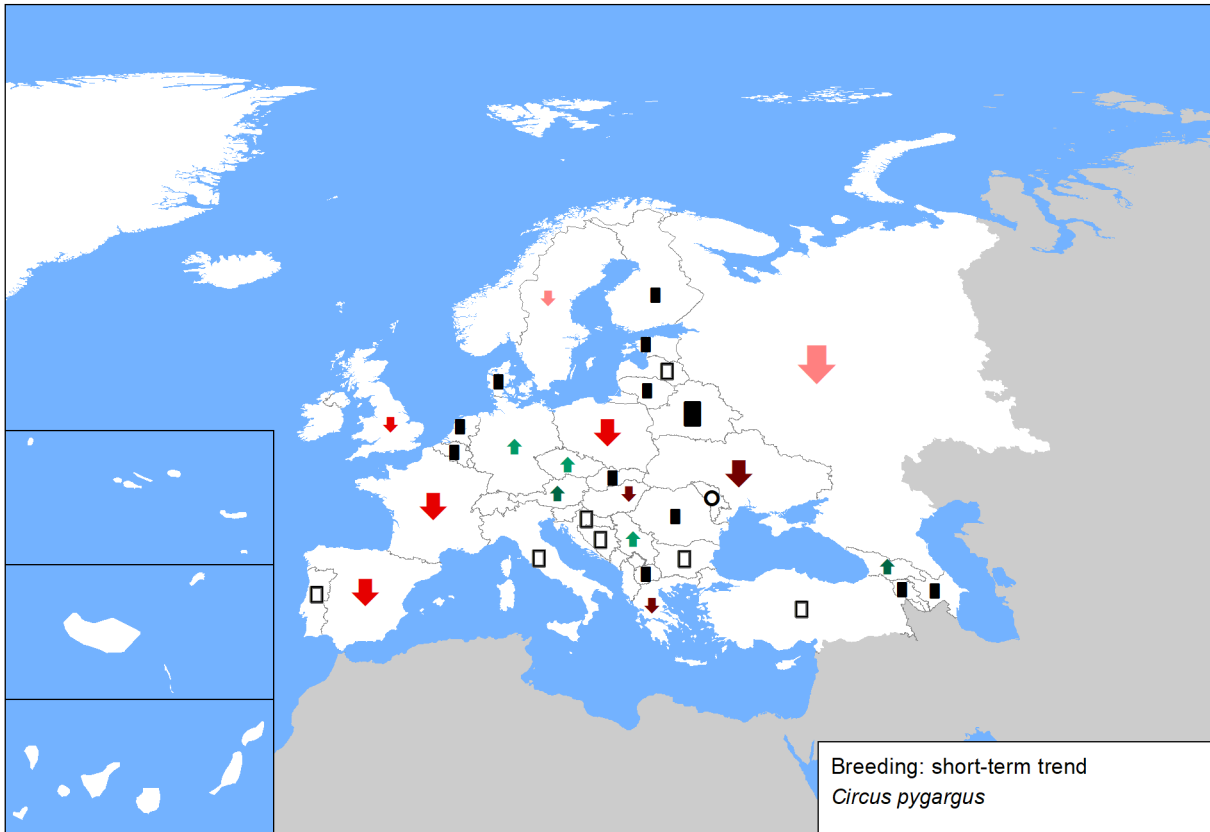
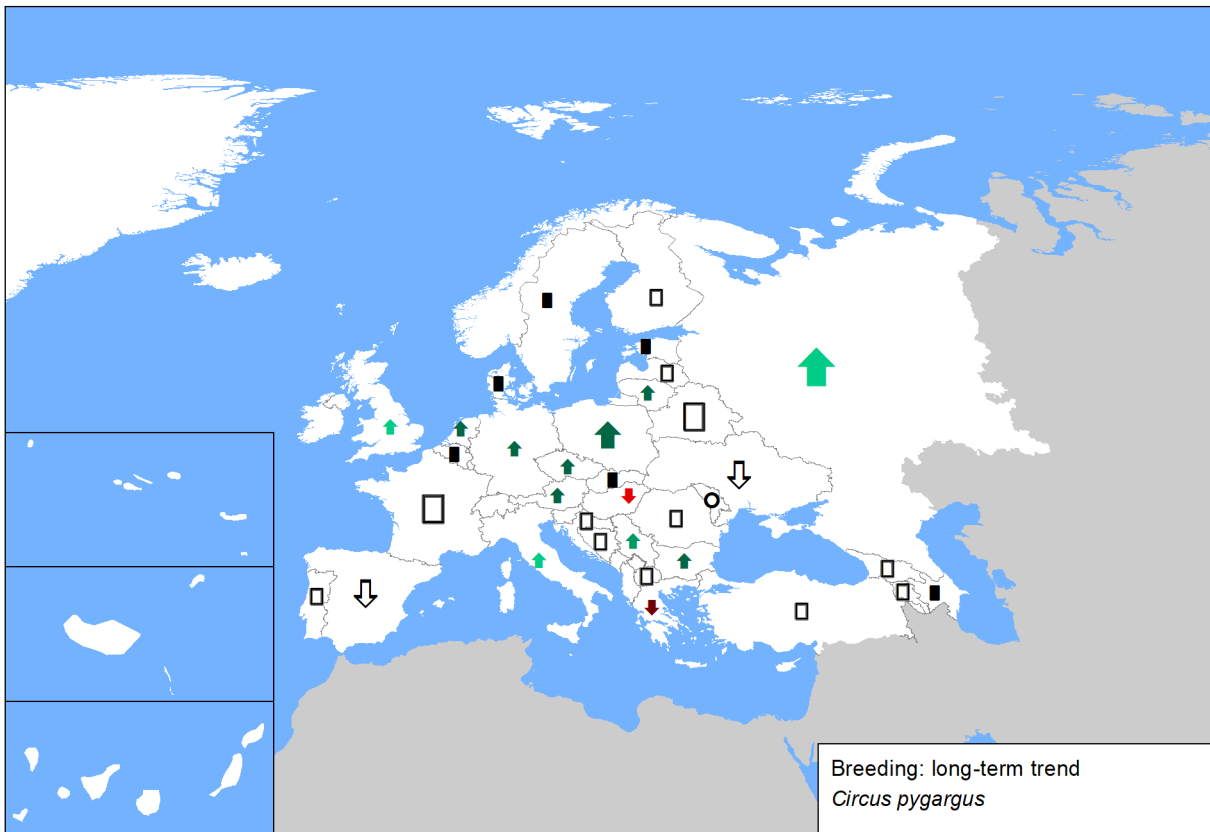


Figure 2. Breeding population sizes and long-term trends across Europe.



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Sources

Armenia

Breeding population size: TSE NGO
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: Sachslehner 2017 (up to 2015); Leopold Sachslehner unpublished data from species conservation projects 2016-2018; Hans-Martin Berg/BirdLife Austria, unpublished data (Parndorfer Platte and Hanság)
Breeding short-term trend: Sachslehner 2017 (up to 2015); Leopold Sachslehner unpublished data from species conservation projects 2016-2018; Hans-Martin Berg/BirdLife Austria, unpublished data (Parndorfer Platte and Hanság)
Breeding long-term trend: Sachslehner 2017 (up to 2015); Leopold Sachslehner unpublished data from species conservation projects 2016-2018; Dvorak, Ranner & Berg 1993 (Atlas of Austrian Breeding Birds); Hans-Martin Berg/BirdLife Austria, unpublished data (Parndorfer Platte and Hanság)

Azerbaijan

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

Belarus

Breeding population size: Research work of the National Academy of Sciences of the Republic of Belarus "Dynamics and predictive assessment of changes in the state of populations of the main resource and biocenotically most important bird species in Belarus"
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: 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: Angelov, I., S. Stoychev, E. Stoynov 2007. Montagu's Harrier (<i>Circus pygargus</i>). - In: Iankov, P. (ed.) 2007. Atlas of the breeding birds in Bulgaria. BSPB, Conservation Series, Book 10.; National Art. 12 reporting database 2013-2018; Golemansky V. (ed.) 2011. Red Data Book of Bulgaria. Vol. 2, Animals. http://e-coddb.bas.bg/rdb/en/vol2/ Kostadinova, I., M. Gramatikov (eds.) 2007. Important Bird Areas in Bulgaria and Natura 2000. Bulgarian Society for the Protection of Birds, Conservation Series, Book 11. Sofia, BSPB BSPB Bird Database
Breeding short-term trend: Angelov, I., S. Stoychev, E. Stoynov 2007. Montagu's Harrier (<i>Circus pygargus</i>). - In: Iankov, P. (ed.) 2007. Atlas of the breeding birds in Bulgaria. BSPB, Conservation Series, Book 10.; National Art. 12 reporting database 2013-2018; Kostadinova, I., M. Gramatikov (eds.) 2007. Important Bird Areas in Bulgaria and Natura 2000. Bulgarian Society for the Protection of Birds, Conservation Series, Book 11. Sofia, BSPB, p. BSPB Bird Database
Breeding long-term trend: Angelov, I., S. Stoychev, E. Stoynov 2007. Montagu's Harrier (<i>Circus pygargus</i>). - In: Iankov, P. (ed.) 2007. Atlas of the breeding birds in Bulgaria. BSPB, Conservation Series, Book 10. Simeonov, S. 1985. Montagu's Harrier (<i>Circus pygargus</i>) - In: Red Data Book of Bulgaria, Vol. 2, S. BAS. Niagolov, K. 1987. On the breeding Montagu's Harrier (<i>Circus pygargus</i>). - In: Recent achievements of Bulgarian Zoology, Sofia, Bulgarian Academy of Sciences, 163-166. Milchev B. 1991. A new nesting place of <i>Circus pygargus</i> (L.) in Bulgaria.- Ecology. Sofia. 24: 53-57 Angelov, I., S. Stoychev, E. Stoynov 2007. Montagu's Harrier (<i>Circus pygargus</i>). - In: Iankov, P. (ed.) 2007. Atlas of the breeding birds in Bulgaria. BSPB, Conservation Series, Book 10. Kostadinova, I., M. Gramatikov (eds.) 2007. Important Bird Areas in Bulgaria and Natura 2000. Bulgarian Society for the Protection of Birds, Conservation Series, Book 11. Sofia, BSPB, p. BSPB Bird Database

Croatia

Breeding population size: Tutiš, V., Kralj, J., Radović, D., Čiković, D., Barišić, S. (ur.) (2013): Crvena knjiga ptica Hrvatske. Ministarstvo zaštite okoliša i prirode, Državni zavod za zaštitu prirode, Zagreb, 258 str. Zavod za ornitologiju (Sanja Barišić, Davor Čiković, Jelena Kralj, Goran Sušić, Vesna Tutiš), Dragan Radović, Ivan Budinski, Robert Crnković, Antun Delić, Dubravko Dender, Vlatka Dumbović, Ivan Darko Grića, Bariša Ilić, Luka Jurinović, Davor Krnjeta, Krešimir Leskovar, Duje Lisičić, Ivica Lolić, Gordana Lukač, Kristijan Mandić, Krešimir Mikulić, Tibor Mikuska, Gvido Piasevoli, Andrej Radalj, Zlatko Ružanović, Vlatka Ščetarić, Mirko Šetina, Adrian Tomik (2015): Procjene brojnosti za SPA područja. Državni zavod za zaštitu prirode, Zagreb
Breeding short-term trend: Tutiš, V., Kralj, J., Radović, D., Čiković, D., Barišić, S. (ur.) (2013): Crvena knjiga ptica Hrvatske. Ministarstvo zaštite okoliša i prirode, Državni zavod za zaštitu prirode, Zagreb, 258 str.
Breeding long-term trend: Tutiš, V., Kralj, J., Radović, D., Čiković, D., Barišić, S. (ur.) (2013): Crvena knjiga ptica Hrvatske. Ministarstvo zaštite okoliša i prirode, Državni zavod za zaštitu prirode, Zagreb, 258 str.

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Czechia

Breeding population size: Šťastný et Bejček in prep. - Atlas hnízdního rozšíření ptáků ČR 2014-2017 Národní strategie ochrany dravců a sov ČR. Praha 2017 (manuscript)

Breeding short-term trend: Národní strategie ochrany dravců a sov ČR. Praha 2017 (manuscript)

Breeding long-term trend: Národní strategie ochrany dravců a sov ČR. Praha 2017 (manuscript) expert opinion

Denmark

Breeding population size: Nielsen, R.D., Holm, T.E., Clausen, P., Bregnballe, T., Clausen, K.K., Petersen, I.K., Sterup, J., Balsby, T.J.S., Pedersen, C.L., Mikkelsen, P. & Bladt, J. (2019). Fugle 2012-2017. NOVANA. Aarhus Universitet, DCE – Nationalt Center for Miljø og Energi. - Videnskabelig rapport nr. 314. <http://dce2.au.dk/pub/SR314.pdf> and <http://novana.au.dk/fugle/>

Breeding short-term trend: Nielsen, R.D., Holm, T.E., Clausen, P., Bregnballe, T., Clausen, K.K., Petersen, I.K., Sterup, J., Balsby, T.J.S., Pedersen, C.L., Mikkelsen, P. & Bladt, J. (2019). Fugle 2012-2017. NOVANA. Aarhus Universitet, DCE – Nationalt Center for Miljø og Energi. - Videnskabelig rapport nr. 314. <http://dce2.au.dk/pub/SR314.pdf> and <http://novana.au.dk/fugle/>

Breeding long-term trend: Nielsen, R.D., Holm, T.E., Clausen, P., Bregnballe, T., Clausen, K.K., Petersen, I.K., Sterup, J., Balsby, T.J.S., Pedersen, C.L., Mikkelsen, P. & Bladt, J. (2019). Fugle 2012-2017. NOVANA. Aarhus Universitet, DCE – Nationalt Center for Miljø og Energi. - Videnskabelig rapport nr. 314. <http://dce2.au.dk/pub/SR314.pdf> and <http://novana.au.dk/fugle/>

Estonia

Breeding population size: Estonian Working Group on Bird Status and Numbers

Breeding short-term trend: [1] Estonian Working Group on Bird Status and Numbers [2] Monitoring of raptors. http://seire.keskkonnainfo.ee/index.php?option=com_content&view=article&id=2059&Itemid=372

Breeding long-term trend: [1] Estonian Working Group on Bird Status and Numbers [2] Monitoring of raptors. http://seire.keskkonnainfo.ee/index.php?option=com_content&view=article&id=2059&Itemid=372

Finland

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

Breeding short-term trend: Meller, K., Björklund, H., Saurola, P. & Valkama, J. 2019: Kuuma kesä suosi haukkoja — myyräkato masensi pöllöjä. – Linnut-vuosikirja 2018: 80-95. (in Finnish with English summary). Björklund, H., Saurola, P. & Valkama, J. 2018: Breeding and population trends of common raptors and owls in Finland in 2017. – Linnut-vuosikirja 2017: 56–69. (in Finnish with English summary).

Breeding long-term trend: Meller, K., Björklund, H., Saurola, P. & Valkama, J. 2019: Kuuma kesä suosi haukkoja — myyräkato masensi pöllöjä. – Linnut-vuosikirja 2018: 80-95. (in Finnish with English summary). Björklund, H., Saurola, P. & Valkama, J. 2018: Breeding and population trends of common raptors and owls in Finland in 2017. – Linnut-vuosikirja 2017: 56–69. (in Finnish with English summary).

France

Breeding population size: Le Rest, K., Pinaud, D. & Bretagnolle, V. 2015. Volunteer-based surveys offer enhanced opportunities for biodiversity monitoring across broad spatial extent. *Ecological Informatics* 30, 313-317 <https://doi.org/10.1016/j.ecoinf.2015.08.007>; LPO - CNRS 2012. Observatoire rapaces - programme de suivi des populations de rapaces nicheurs diurnes en France.. http://observatoire-rapaces.lpo.fr/index.php?m_id=1; Thiollay, J.-M. & Bretagnolle, V. 2004. Rapaces nicheurs de France, Distribution, effectifs et conservation, Delachaux et Niestlé, Paris. 175 p. ; Le Rest, K. 2013. Méthodes statistiques pour la modélisation des facteurs influençant la distribution et l'abondance de populations : application aux rapaces diurnes nichant en France. . Thèse Biologie de l'environnement, des populations, écologie. , Université de Poitiers 153 p. <http://nuxeo.edel.univ-poitiers.fr/nuxeo/site/esupversions/30137e63-b283-4cdd-b432-4b098e4348fc>

Breeding short-term trend: Le Rest K. et al. 2015. Volunteer-based surveys offer enhanced opportunities for biodiversity monitoring across broad spatial extent.. *Ecological informatics*, 313-317 ; LPO - CNRS 2012. Observatoire rapaces - programme de suivi des populations de rapaces nicheurs diurnes en France.. http://observatoire-rapaces.lpo.fr/index.php?m_id=1; Le Rest, K. 2013. Méthodes statistiques pour la modélisation des facteurs influençant la distribution et l'abondance de populations : application aux rapaces diurnes nichant en France. . Thèse Biologie de l'environnement, des populations, écologie. , Université de Poitiers 153 p. <http://nuxeo.edel.univ-poitiers.fr/nuxeo/site/esupversions/30137e63-b283-4cdd-b432-4b098e4348fc>

Breeding long-term trend: Thiollay J.-M., Terrasse J.-F. 1984. Estimation des effectifs de rapaces nicheurs diurnes et non rupestres en France. Enquête FIR-UNAO 1979-1982. , FIR & UNAO, Paris 177 p. ; LPO - CNRS 2012. Observatoire rapaces - programme de suivi des populations de rapaces nicheurs diurnes en France.. http://observatoire-rapaces.lpo.fr/index.php?m_id=1

Georgia

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

Breeding short-term trend: Abuladze, A.V. 2008. Изменения видового состава и численности хищных птиц Грузии в 1975-2007 гг. [Changes in the species composition and numbers of the birds of prey in Georgia in 1975-2007] // Research and Conservation of the Raptors in Northern Eurasia. [Materials of the 5th Conference on Raptors of Northern Eurasia, Ivanovo, 4-7 February 2008]. Ivanovo, Publishing House «Ivanovo State University» 2008: 162-166 (in Russian). Edisherashvili, G. 2011. Birds of Prey and Owls of the Shida Kartli Region, Georgia // Materials of the International Conf. „Birds of Prey and Owls in Caucasus“. Tbilisi, Abastumani – Georgia; 26th-29th October 2011: 16-18. Galvez, R.A., Gavashelishvili, L., Javakhishvili, Z. 2005. Raptors and Owls of Georgia (Field guide). Tbilisi, GCCW & Buneba Print Publishing. Tbilisi: 128 pp. (in English & in Georgian); EBBA Georgia

Germany

Breeding population size: Monitoring seltener Brutvögel (<http://www.dda-web.de/index.php?cat=monitoring&subcat=ga&subsubcat=kontakt>)

Breeding short-term trend: Monitoring seltener Brutvögel (<http://www.dda-web.de/index.php?cat=monitoring&subcat=ga&subsubcat=kontakt>)

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

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Greece

Breeding population size: 1) Λεγάκις, Α. & Μαργακού, Π. (επιμ.). 2009. Το Κόκκινο Βιβλίο των Απειλούμενων Ζώων της Ελλάδας. Ελληνική Ζωολογική Εταιρεία, Αθήνα, 528 σελ. 2) Δημαλέξης, Τ., Καστριτής, Θ., Γρίβας, Κ., Μανωλόπουλος, Α., Καρδακάρη, Ν., Κακαλής, Λ., Ξηρουχάκης, Σ., Τσαϊτουρίδης, Χ., Παρραζογλου, C. & Baron, B. 2009. Προσδιορισμός συμβατών δραστηριοτήτων σε σχέση με τα είδη χαρακτηρισμού των Ζωνών Ειδικής Προστασίας της ορνιθοπανίδας. Παραδοτέο 8. Οδηγός οικολογικών απαιτήσεων, απειλών και ενδεδειγμένων μέτρων για τα είδη χαρακτηρισμού. 3) Βλάχος Χ., Μπίρτσας Π., Θωμαΐδης Χ., Χατζηνίκος Ε., Μποντζώρλος Β., Μπραζιώτης Σ., Κόντος Κ., Βλαχάκη Δ., Δεδουσοπούλου Ε., Κιούσης Δ., Ξένος Α., Στεφάνου Λ.Μ., Κασάμπαλης Δ., και Μελικώκη Κ. (Συντονιστές έκδοσης). 2015. Γ' Φάση της Μελέτης 9 «Εποπτεία και Αξιολόγηση της Κατάστασης Διατήρησης Ειδών Ορνιθοπανίδας στην Ελλάδα» ΥΠΑΠΕΝ, Αθήνα, Σύμπραξη Γραφείων Μελετών «Φ.ΦΑΣΟΥΛΑΣ-N.MANTZIOS» Ε.Ε. – ΡΟΔΟΥΛΑ ΚΩΝΣΤΑΝΤΙΝΙΔΟΥ ΤΟΥ ΓΕΩΡΓΙΟΥ – "ΑΘ.ΤΖΑΚΟΠΟΥΛΟΣ ΚΑΙ ΣΙΑ" Ε.Ε.», Θεσσαλονίκη.

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). 2) Λεγάκις, Α. & Μαργακού, Π. (επιμ.). 2009. Το Κόκκινο Βιβλίο των Απειλούμενων Ζώων της Ελλάδας. Ελληνική Ζωολογική Εταιρεία, Αθήνα, 528 σελ. 3) Natura Viewer (<http://natura2000.eea.europa.eu/#>). 4) Δημαλέξης, Τ., Καστριτής, Θ., Γρίβας, Κ., Μανωλόπουλος, Α., Καρδακάρη, Ν., Κακαλής, Λ., Ξηρουχάκης, Σ., Τσαϊτουρίδης, Χ., Παρραζογλου, C. & Baron, B. 2009. Προσδιορισμός συμβατών δραστηριοτήτων σε σχέση με τα είδη χαρακτηρισμού των Ζωνών Ειδικής Προστασίας της ορνιθοπανίδας. Παραδοτέο 8. Οδηγός οικολογικών απαιτήσεων, απειλών και ενδεδειγμένων μέτρων για τα είδη χαρακτηρισμού. 5) Πορτόλου, Δ., Μπουρδάκης, Σ., Βλάχος, Χ., Καστριτής, Θ. & Δημαλέξης, Τ. (επιμ.). 2009. Οι Σημαντικές Περιοχές για τα Πουλιά της Ελλάδας: Περιοχές Προτεραιότητας για τη Διατήρηση της Βιοποικιλότητας. Ελληνική Ορνιθολογική Εταιρεία, Αθήνα. 6) Βλάχος Χ., Μπίρτσας Π., Θωμαΐδης Χ., Χατζηνίκος Ε., Μποντζώρλος Β., Μπραζιώτης Σ., Κόντος Κ., Βλαχάκη Δ., Δεδουσοπούλου Ε., Κιούσης Δ., Ξένος Α., Στεφάνου Λ.Μ., Κασάμπαλης Δ., και Μελικώκη Κ. (Συντονιστές έκδοσης). 2015. Γ' Φάση της Μελέτης 9 «Εποπτεία και Αξιολόγηση της Κατάστασης Διατήρησης Ειδών Ορνιθοπανίδας στην Ελλάδα» ΥΠΑΠΕΝ, Αθήνα, Σύμπραξη Γραφείων Μελετών «Φ.ΦΑΣΟΥΛΑΣ-N.MANTZIOS» Ε.Ε. – ΡΟΔΟΥΛΑ ΚΩΝΣΤΑΝΤΙΝΙΔΟΥ ΤΟΥ ΓΕΩΡΓΙΟΥ – "ΑΘ.ΤΖΑΚΟΠΟΥΛΟΣ ΚΑΙ ΣΙΑ" Ε.Ε.», Θεσσαλονίκη.

Breeding long-term trend: 1) BirdLife International (2004) Birds in Europe: Population estimates, trends and conservation status. Cambridge, UK: BirdLife International (BirdLife Conservation Series No. 12). 2) Λεγάκις, Α. & Μαργακού, Π. (επιμ.). 2009. Το Κόκκινο Βιβλίο των Απειλούμενων Ζώων της Ελλάδας. Ελληνική Ζωολογική Εταιρεία, Αθήνα, 528 σελ. 3) Natura Viewer (<http://natura2000.eea.europa.eu/#>). 4) Δημαλέξης, Τ., Καστριτής, Θ., Γρίβας, Κ., Μανωλόπουλος, Α., Καρδακάρη, Ν., Κακαλής, Λ., Ξηρουχάκης, Σ., Τσαϊτουρίδης, Χ., Παρραζογλου, C. & Baron, B. 2009. Προσδιορισμός συμβατών δραστηριοτήτων σε σχέση με τα είδη χαρακτηρισμού των Ζωνών Ειδικής Προστασίας της ορνιθοπανίδας. Παραδοτέο 8. Οδηγός οικολογικών απαιτήσεων, απειλών και ενδεδειγμένων μέτρων για τα είδη χαρακτηρισμού. 5) Πορτόλου, Δ., Μπουρδάκης, Σ., Βλάχος, Χ., Καστριτής, Θ. & Δημαλέξης, Τ. (επιμ.). 2009. Οι Σημαντικές Περιοχές για τα Πουλιά της Ελλάδας: Περιοχές Προτεραιότητας για τη Διατήρηση της Βιοποικιλότητας. Ελληνική Ορνιθολογική Εταιρεία, Αθήνα. 6) Βλάχος Χ., Μπίρτσας Π., Θωμαΐδης Χ., Χατζηνίκος Ε., Μποντζώρλος Β., Μπραζιώτης Σ., Κόντος Κ., Βλαχάκη Δ., Δεδουσοπούλου Ε., Κιούσης Δ., Ξένος Α., Στεφάνου Λ.Μ., Κασάμπαλης Δ., και Μελικώκη Κ. (Συντονιστές έκδοσης). 2015. Γ' Φάση της Μελέτης 9 «Εποπτεία και Αξιολόγηση της Κατάστασης Διατήρησης Ειδών Ορνιθοπανίδας στην Ελλάδα» ΥΠΑΠΕΝ, Αθήνα, Σύμπραξη Γραφείων Μελετών «Φ.ΦΑΣΟΥΛΑΣ-N.MANTZIOS» Ε.Ε. – ΡΟΔΟΥΛΑ ΚΩΝΣΤΑΝΤΙΝΙΔΟΥ ΤΟΥ ΓΕΩΡΓΙΟΥ – "ΑΘ.ΤΖΑΚΟΠΟΥΛΟΣ ΚΑΙ ΣΙΑ" Ε.Ε.», Θεσσαλονίκη.

Hungary

Breeding population size: National park directorates' databases (Annual survey of colonially breeding and strictly protected bird species) <http://map.mme.hu/maps/map2>

Breeding short-term trend: Turny et al. (2014): Hamvas réthéja (Circus pygargus) állományadatok 2013-2014-ből. Heliaca 2016: 34–41. Haraszthy L. (szerk.) (2014): Natura 2000 fajok és élőhelyek Magyarországon. Pro Vértés Közalapítvány, Csákvár. p. 556-558. National park directorates' databases (Annual survey of colonially breeding and strictly protected bird species) <http://map.mme.hu/maps/map2>

Breeding long-term trend: Haraszthy L. (szerk.) (1984): Magyarország fészkelő madarai. Natura, Budapest. 247 p. Tóth, L. (2004) : A hamvas réthéja (Circus pygargus Linnaeus, 1758) elterjedése, állomány nagysága és védelme a múltban és napjainkban Magyarországon. Természetvédelmi közlemények: Magyar Biológiai Társaság. Környezet- és Természetvédelmi Szakosztály 2004/ 11. 541–549 Fatér I. (2005): Hamvas réthéja-védelmi Program–2005 – Heliaca 2005: 29–33. Turny et al. (2014): Hamvas réthéja (Circus pygargus) állományadatok 2013-2014-ből. Heliaca 2016: 34–41. Haraszthy L. (szerk.) (2014): Natura 2000 fajok és élőhelyek Magyarországon. Pro Vértés Közalapítvány, Csákvár. p. 556-558. National park directorates' databases (Annual survey of colonially breeding and strictly protected bird species) <http://map.mme.hu/maps/map2>

Italy

Breeding population size: Brichetti P., Fracasso G., 2018. The Birds of Italy. Vol. I. Anatidae-Alcidae. Ed. Belvedere, Latina (Italy), "historia naturae" (6), pp. 512.

Breeding short-term trend: No recent data available - Brichetti P., Fracasso G., 2018. The Birds of Italy. Vol. I. Anatidae-Alcidae. Ed. Belvedere, Latina (Italy), "historia naturae" (6), pp. 512.

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.

Latvia

Breeding population size: Avotins jun., A., Reihmanis, J. 2018. [Background monitoring scheme for Birds of Prey and Owls in Latvia. Final report for the year 2018.] (in Latvian) Latvian Ornithological society

Breeding short-term trend: Avotins jun., A., Reihmanis, J. 2018. [Background monitoring scheme for Birds of Prey and Owls in Latvia. Final report for the year 2018.] (in Latvian) Latvian Ornithological society

Breeding long-term trend: No data available.

Lithuania

Breeding population size: Expert working group of the Lithuanian Ornithological Society (lod@birdlife.lt) 2015-2018. Lietuvos perinčių paukščių atlaso duomenų bazė (Lithuanian Breeding Birds Atlas Database). Vilnius. Ministry of Environment of the Republic of Lithuania. 2012. Status and trends of bird populations (Article 12, Birds Directive 2009/147/EC) National Summary 2008-2012 Lithuania. Ministry of Environment of the Republic of Lithuania. 2016-2018. Leidinio "Lietuvos raudonoji knyga" parengimo paslaugos (Red data book of Lithuania). (Agreement No VPS-2016-104-ES)

Breeding short-term trend: Expert working group of the Lithuanian Ornithological Society (lod@birdlife.lt) 2015-2018. Lietuvos perinčių paukščių atlaso duomenų bazė (Lithuanian Breeding Birds Atlas Database). Vilnius. Ministry of Environment of the Republic of Lithuania. 2012. Status and trends of bird populations (Article 12, Birds Directive 2009/147/EC) National Summary 2008-2012 Lithuania. Ministry of Environment of the Republic of Lithuania. 2016-2018. Leidinio "Lietuvos raudonoji knyga" parengimo paslaugos (Red data book of Lithuania). (Agreement No VPS-2016-104-ES)

Circus pygargus (Montagu's Harrier)

Lithuania

Breeding long-term trend: Logminas, V. (ed.). 1991. Lietuvos fauna: paukščiai. Vilnius: „Mokslas“. Kurlavičius, P. (ed.) 2006. Lietuvos perinčių paukščių atlasas. Kaunas: „Lututė“. 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). Raudonikis L. 2004. Important Bird Areas of the European Union Importance in Lithuania. Lithuanian Ornithological Society & Institute of Ecology of Vilnius University. Lutute, Vilnius. Jusys, V., Karalius, S., Raudonikis, L. 2012. Lietuvos paukščių pažinimo vadovas. Kaunas: „Lututė“. Ministry of Environment of the Republic of Lithuania. 2012. Status and trends of bird populations (Article 12, Birds Directive 2009/147/EC) National Summary 2008-2012 Lithuania. Expert working group of the Lithuanian Ornithological Society (lod@birdlife.lt) 2015-2018. Lietuvos perinčių paukščių atlaso duomenų bazė (Lithuanian Breeding Birds Atlas Database). Vilnius. Ministry of Environment of the Republic of Lithuania. 2016-2018. Leidinio "Lietuvos raudonoji knyga" parengimo paslaugos (Red data book of Lithuania). (Agreement No VPS-2016-104-ES)

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

Moldova

Breeding short-term trend: SPPN expert opinion (sppn.moldova@gmail.com)

Breeding long-term trend: SPPN expert opinion (sppn.moldova@gmail.com)

Netherlands

Breeding population size: Sovon NEM (Sovon, CBS and provinces) and Bird atlas (Sovon 2018)

Breeding short-term trend: NEM (Sovon, RWS, CBS, provinces)

Breeding long-term trend: Sovon

Poland

Breeding population size: Królikowska N., Krupiński D., Kuczyński L. 2017. Combining data from multiple sources to design a raptor census - the first national survey of the Montagu's Harrier *Circus pygargus* in Poland. Bird Conservation International 28: 350-362; State Environmental Monitoring / Chief Inspectorate of Environmental Protection (survey: MPD - Raptor Survey)

Breeding short-term trend: State Environmental Monitoring / Chief Inspectorate of Environmental Protection (survey: MPD)

Breeding long-term trend: Tucker G.M., Heath M.F. 1994. Birds in Europe: their conservation status. BirdLife International, Cambridge, UK.; BirdLife International 2004. Birds in Europe: population estimates, trends and conservation status. BirdLife International, Cambridge, UK; To

Portugal

Breeding population size: eBird (2019). eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available: <http://www.ebird.org/portugal/home>. (Accessed: October 22, 2018).

Romania

Breeding population size: Ornitodata (Romanian Ornithological Society) Database, OpenBirdMaps (Milvus Group) Database, Rombird (Romanian Rarity Commission) 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: Melnikov 2017; Kalyakin et al. 2019; Sarychev unpublished. vssar@yandex.ru

Breeding long-term trend: Bogomolov 2000; Melnikov et al. 2009; 2017; Kalyakin et al. 2019

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. Jozef Chavko: Súhrnná správa o výsledkoch monitoringu hniezdenia vybraných populácií dravých vtákov realizovaného členmi OZ Ochrana dravcov na Slovensku v rokoch 2000 až 2011. Časopis BUTEO, ročníky 1/1986 až 13/2003 (vydávala RPS) Karaska D., Trnka A., Krištin A., Ridzoň J.: Chránené vtáčí územia Slovenska. ŠOP SR Banská Bystrica, 2015. DANKO Š., CHAVKO, J., 2002: Kaňa populavá, s. 183-184 In: Danko, Š., Darolová, A., Krištin, A. (ed.), 2002: Rozšírenie vtákov na Slovensku. VEDA, 688 p.

Breeding short-term trend: Coordinatory group for reporting 2019, AVES-Symfony Database 2013-2018, KIMS Database 2013-2018. Danko Štefan, Darolová Alžbeta, Krištin Anton: Rozšírenie vtákov na Slovensku. VEDA, vyd. SAV Bratislava, 2002. Jozef Chavko: Súhrnná správa o výsledkoch monitoringu hniezdenia vybraných populácií dravých vtákov realizovaného členmi OZ Ochrana dravcov na Slovensku v rokoch 2000 až 2011. Časopis BUTEO, ročníky 1/1986 až 13/2003 (vydávala RPS)

Circus pygargus (Montagu's Harrier)

Slovakia

Breeding long-term trend: Coordinatory group for reporting 2019, AVES-Symfony Database 2013-2018, KIMS Database 2013-2018. Danko Štefan, Darolová Alžbeta, Krištín Anton: Rozšírenie vtákov na Slovensku. VEDA, vyd. SAV Bratislava, 2002. Jozef Chavko: Súhrnná správa o výsledkoch monitoringu hniezdenia vybraných populácií dravých vtákov realizovaného členmi OZ Ochrana dravcov na Slovensku v rokoch 2000 až 2011. Časopis BUTEO, ročníky 1/1986 až 13/2003 (vydávala RPS)

Spain

Breeding population size: SEO/BirdLife (en preparación). El aguilucho cenizo y el aguilucho pálido en España. Población en 2017 y método de censo. Madrid. (<https://www.seo.org/2018/07/06/descienden-las-poblaciones-de-aguilucho-cenizo-y-aguilucho-palido-en-espana-en-los-ultimos-10-anos/>)

Breeding short-term trend: Información proporcionada por las Comunidades Autónomas. SEO/BirdLife (en preparación). El aguilucho cenizo y el aguilucho pálido en España. Población en 2017 y método de censo. Madrid. (<https://www.seo.org/2018/07/06/descienden-las-poblaciones-de-aguilucho-cenizo-y-aguilucho-palido-en-espana-en-los-ultimos-10-anos/>)

Breeding long-term trend: 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) Purroy, F.J. (Coord.) (1997). Atlas de las aves de España (1975-1995). SEO/BirdLife. Lynx Edicions. Barcelona. 583 pp. Tucker, G.M. & Heath, M.F. (1994). Birds in Europe: their conservation status BirdLife International (BirdLife Conservation Series nº 3).

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: Species observation system, www.artportalen.se

Breeding long-term trend: BirdLife Sverige annual reports

Turkey

Breeding population size: Güven Eken, Emrah Coban 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-

Ukraine

Breeding population size: 1. Полуда А.М. Лунь лучний// Червона книга України. Тваринний світ. - К., 2009. С. 422. 2. Милобог Ю.В. Соколоподібні (Falconiformes) степової зони України: видовий склад, територіальний розподіл, динаміка чисельності та охорона: Автореф. дис... канд. біол. наук. К., 2012. 24 с.

Breeding short-term trend: 1. Полуда А.М. Лунь лучний// Червона книга України. Тваринний світ. - К., 1996. С. 422. 2. Милобог Ю.В. Соколоподібні (Falconiformes) степової зони України: видовий склад, територіальний розподіл, динаміка чисельності та охорона: Автореф. дис... канд. біол. наук. К., 2012. 24 с.

Breeding long-term trend: 1. Полуда А.М. Лунь лучний// Червона книга України. Тваринний світ. - К., 1996. С. 422. 2. Милобог Ю.В. Соколоподібні (Falconiformes) степової зони України: видовий склад, територіальний розподіл, динаміка чисельності та охорона: Автореф. дис... канд. біол. наук. К., 2012. 24 с.

United Kingdom

Breeding population size: RBBP; Holling, M. & the Rare Breeding Birds Panel. 2018. Rare breeding birds in the United Kingdom in 2016. British Birds 111: 644-694.

Breeding short-term trend: RBBP; Holling, M. & the Rare Breeding Birds Panel. 2018. Rare breeding birds in the United Kingdom in 2016. British Birds 111: 644-694.

Breeding long-term trend: RBBP; Holling, M. & the Rare Breeding Birds Panel. 2018. Rare breeding birds in the United Kingdom in 2016. British Birds 111: 644-694.

Bibliography

- 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.
- Brown, L.H., Urban, E.K. and Newman, K. 1982. *The Birds of Africa, Volume I*. Academic Press, London.
- Ferguson-Lees, J. and Christie, D.A. 2001. *Raptors of the World*. Christopher Helm, London.
- Orta, J., E. de Juana, P. F. D. Boesman, J. S. Marks, and E. F. J. Garcia. 2020. Montagu's Harrier (*Circus pygargus*), version 1.0. In: del Hoyo, J., Elliott, A., Sargatal, J., Christie, D.A. and de Juana, E (eds), *Handbook of the Birds of the World Alive*, Cornell Lab of Ornithology,, Ithaca, NY, USA.
- STRIX. 2012. Developing and testing the methodology for assessing and mapping the sensitivity of migratory birds to wind energy development. BirdLife International, Cambridge.
- Snow, D.W. and Perrins, C.M. 1998. *The Birds of the Western Palearctic, Volume 1: Non-Passerines*. Oxford University Press, Oxford.
- Trierweiler, C. 2010. Travels to feed and food to breed: The annual cycle of a migratory raptor, Montagu's harrier, in a modern world. University of Groningen.
- Trierweiler, Ch., Koks B. J., Drent, R. H., Exo, K., Komdeur, J., Dijkstra, C., Bairlein, F. 2007. Satellite tracking of two Montagu's Harriers (*Circus pygargus*): Dual pathways during autumn migration. *Journal of Ornithology* 148(4): 513-516.
- del Hoyo, J., Elliott, A. and Sargatal, J. (eds). 1994. *Handbook of the Birds of the World, vol. 2: New World Vultures to Guinea-fowl*. Lynx Edicions, Barcelona, Spain.