Circaetus gallicus (Short-toed Snake-eagle)

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

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.

Table 1. Reported national breeding population size and trends in Europe[1].

Country (or territory)[2]	Population estimate				Short-term population trend[5]				Long-term population trend[5]				Subspecific population (where relevant)
	Size (pairs)[3]	Europe (%)	Year(s)	Method[4]	Direction[6]	Magnitude (%)[7]	Year(s)	Method[4]	Direction[6]	Magnitude (%)[7]	Year(s)	Method[4]	
Albania	30–80	<1	2007-2018	partial	-	-25 to -6	2007-2018	partial	-	-40 to -25	1980-2018	expert	
Andorra	1–4	<1	2014-2017	expert	?		2011-2018	deficient	?				
Armenia	18–25	<1	2013-2018	complete	0		2007-2018		0		2003-2018	complete	
Azerbaijan	100–500	2	1996-2000	expert	?		2013-2019	expert	?		1980-2019	expert	
Belarus	530–700	5	2010-2018	partial	0	-10 to 10	2012-2019	expert	?		1980-2019	deficient	
Bosnia & HG	200–300	2	2015-2018	complete	?	-10 to 10	2007-2018	complete	+	30 to 40	1980-2018	expert	
Bulgaria	300–450	3	2013-2018	partial	+	10 to 30	2000-2018	partial	+	1 to 5	1980-2018	expert	
Croatia	110–140	1	2010-2015	expert	?		2007-2018	deficient	?		1980-2018	deficient	
Estonia	0–2	<1	2013-2017	expert	0	-10 to 10	2006-2017	expert	0	-10 to 10	1980-2017	expert	
France	2400–2900	21	2016-2017	expert	+	31 to 87	2007-2017	partial	+	100 to 500	1980-2017	expert	
Georgia	110–1200	3	2013-2017	partial	+	348 to 7282	2005-2017	partial	?				
Greece	350–600	4	2015	partial	+		2007-2018	partial	+		1980-2018	partial	
Hungary	41–45	<1	2015-2017	complete	0		2007-2018	complete	-	-59 to -55	1985-2018	expert	
Italy	620–1100	6	2015	expert	+	75 to 85	2006-2013	expert	+	155 to 215	1993-2018	expert	
Kosovo	10–15	<1	2007-2019	expert	+		2007-2018	partial	?		1990-2018	partial	
Latvia	1–3	<1	2013-2017	expert	-	-41 to -1	2012-2017	partial	-	-81 to -73	1980-2017	partial	
Lithuania	2–7	<1	2013-2018	partial	0	0	2013-2018	expert	0	0	1980-2018	expert	
North Macedonia	120–150	1	2014-2019	expert	0		2007-2018	expert	?		1980-2019		
Moldova	4–6	<1	2014-2017	partial	+		2007-2018	partial	0		1990-2018	expert	
Montenegro	40–60	<1	2002-2012	expert	0		2007-2018	expert	?				
Poland	2–5	<1	2013-2018	complete	0		2007-2018	complete	-	-90 to -75	1980-2018	expert	
Portugal	500–1000	6	2013-2018	partial	?		2007-2018	deficient	?		1980-2018	deficient	
Romania	540–1200	6	2013-2014	complete	?		2007-2018	deficient	?		1980-2018	deficient	
Russia	500–700	5	2008-2018	partial	+	0	2008-2018	partial	+	1	1980-2018	partial	
Serbia	110–180	1	2013-2018	partial	+	10 to 29	2007-2018	complete	+	30 to 49	1980-2018	complete	
Slovakia	3–8	<1	2013-2018	expert	-	-30 to -10	2007-2018	expert	-	-75 to -50	1980-2018	expert	
Slovenia	9–20	<1	2002-2017	expert	?		2002-2017	deficient	?		1980-2017	deficient	
Spain	2000–3000	20	2009-2018	partial	0		1998-2018	partial	0		1980-2018	expert	
Turkey	1000–1500	10	2002-2012	partial	?		2002-2012	deficient	?		1980-2013	deficient	
Ukraine	250–300	2	2009-2019	partial	0	0	1996-2018	partial	0	0	1988-2018	partial	
EU28	6800–10400	68											
Europe	**9900–16000**	**100**											

Circaetus gallicus (Short-toed Snake-eagle)

Table 1. Reported national breeding population size and trends in Europe[1].

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]	

[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 (≥50%)
- Moderate increase (20–49%)
- Small increase (<20%)
- Increase of unknown magnitude
- Large decrease (≥50%)
- Moderate decrease (20–49%)
- Small decrease (<20%)
- 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: ≥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.

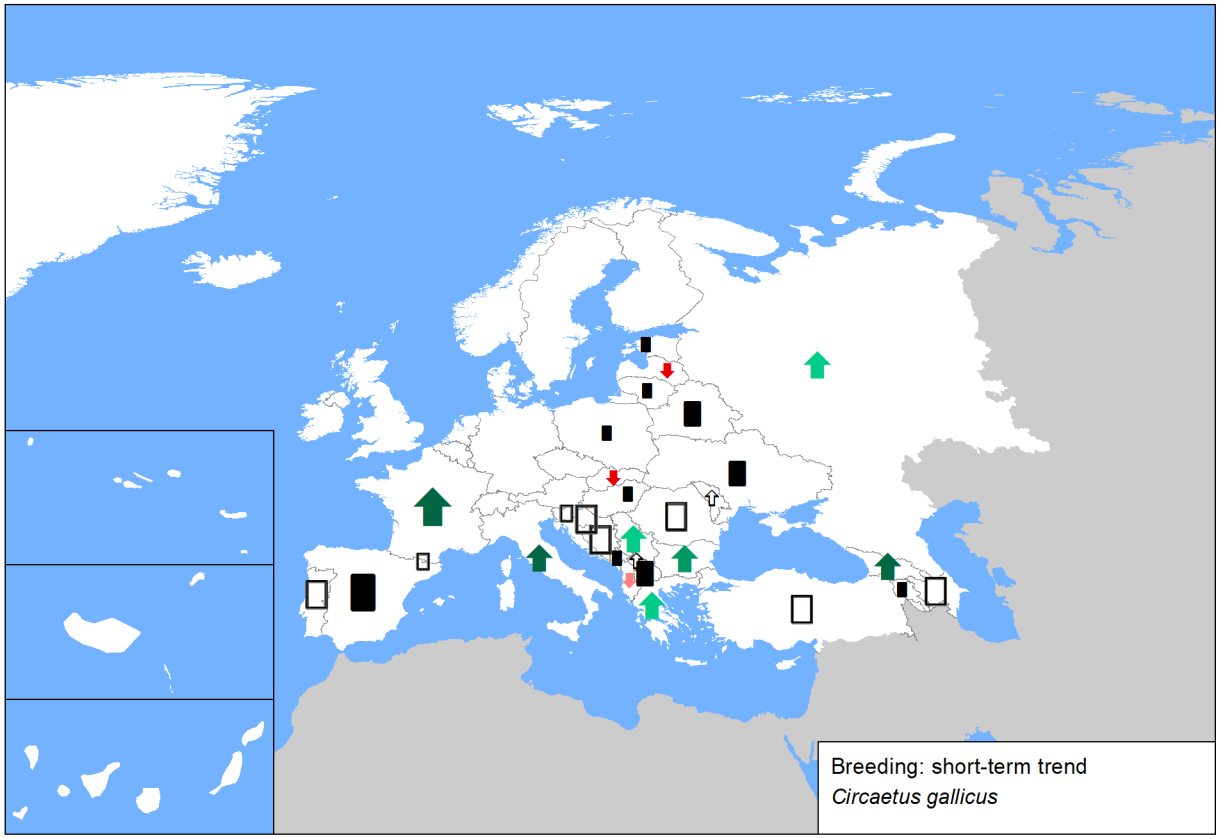
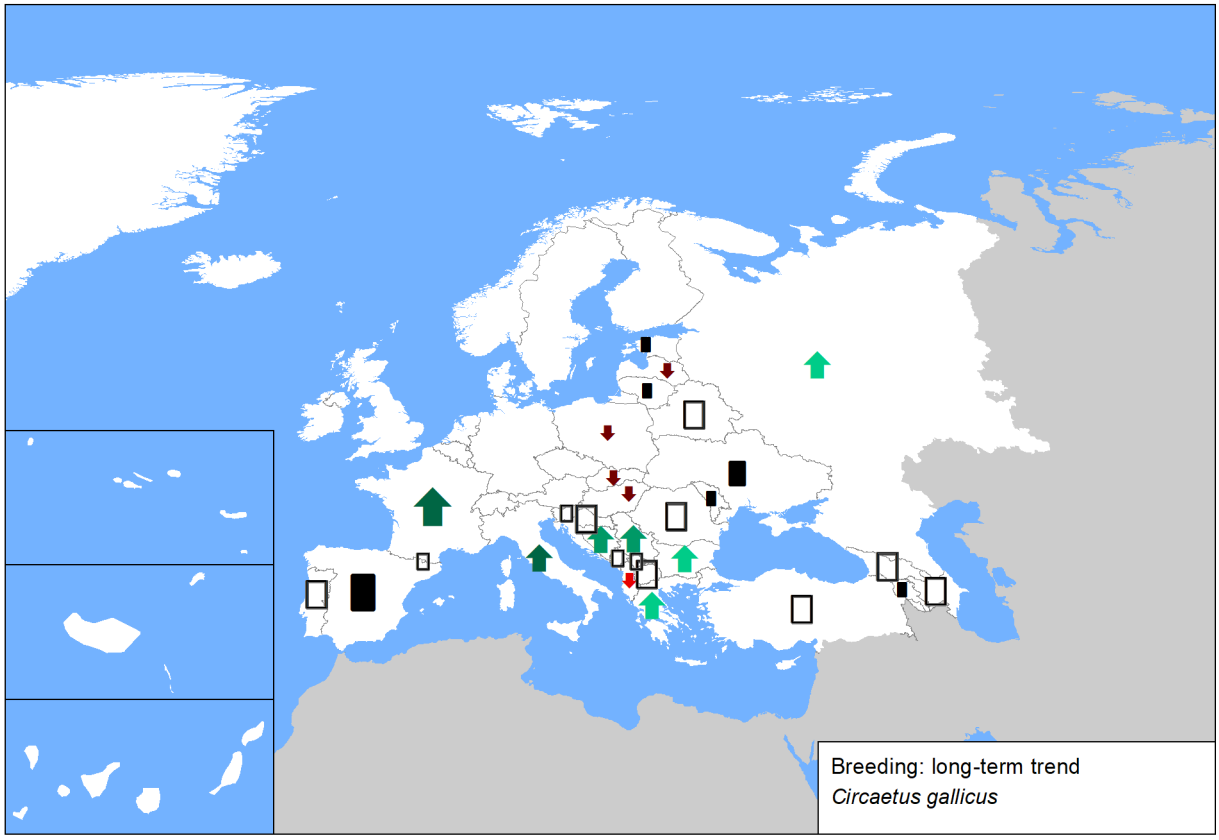


Figure 2. Breeding population sizes and long-term trends across Europe.



Sources

Albania

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

Andorra

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

Armenia

Breeding population size: TSE NGO
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.

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: Dombrovski V.Ch., Ivanovski V.V. New data on numbers and distribution of birds of prey breeding in Belarus. //Acta Zoologica Lithuania. - 2005. - V.15, No3. - P.218-227 Fedyushin A.V., Dolbik M.S. Birds of Belarus. 1967. - Minsk, Nauka I technika. - 317p. Dombrovski V.Ch. – personal communication

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)
Breeding long-term trend: Puzović, S., Marinković S., 2000: Orao zmijar (Circaetus gallicus). U: Puzović, S., 2000 (eds): Atlas ptica grabljivica Srbije. Zavod za zaštitu prirode Srbije, Beograd, pp: 69-74, , reports for EBBA2

Bulgaria

Breeding population size: Iankov, P. (ed.) 2007 Atlas of Breeding Birds in Bulgaria. Bulgarian Society for the Protection of Birds, Conservation Series, Book 10, Sofia, BSPB, 679 p.; National Art. 12 reporting database 2013-2018; Golemansky V. (ed.) 2011. Red Data Book of Bulgaria. Vol. 2, Animals. http://e-ecodb.bas.bg/rdb/en/vol2/ BSPB Bird Database
Breeding short-term trend: Iankov, P. (ed.) 2007 Atlas of Breeding Birds in Bulgaria. Bulgarian Society for the Protection of Birds, Conservation Series, Book 10, Sofia, BSPB, 679 p.; National Art. 12 reporting database 2013-2018; Golemansky V. (ed.) 2011. Red Data Book of Bulgaria. Vol. 2, Animals. Http://e-ecodb.bas.bg/rdb/en/vol2/ BSPB Bird Database
Breeding long-term trend: Iankov, P. (ed.) 2007 Atlas of Breeding Birds in Bulgaria. Bulgarian Society for the Protection of Birds, Conservation Series, Book 10, Sofia, BSPB, 679 p. Botev, B. (ed.) 1985. Red Data Book of Bulgaria, Vol. 2, Animals, Sofia, BAS, 183 p. Golemansky V. (ed.) 2011. Red Data Book of Bulgaria. Vol. 2, Animals. Http://e-ecodb.bas.bg/rdb/en/vol2/ BSPB Bird Database

Croatia

Breeding population size: Tutiš, V., Kralj, J., Radović, D., Ćiković, 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 Ćiković, Jelena Kralj, Goran Sušić,Vesna Tutiš), Dragan Radović, Ivan Budinski, Robert Crnković, Antun Delić, Dubravko Dender, Vlatka Dumbović, Ivan Darko Grlica, Bariša Ilić, Luka Jurinović, Davor Krnjeta, Krešimir Leskovar, Duje Lisičić, Ivica Lolić, Gordan Lukač. Kristijan Mandić, Krešimir Mikulić, Tibor Mikuska, Gvido Piasevoli, Andrej Radalj, Zlatko Ružanović, Vlatka Šćetarić, 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., Ćiković, 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., Ćiković, D., Barišić, S. (ur.) (2013): Crvena knjiga ptica Hrvatske. Ministarstvo zaštite okoliša i prirode, Državni zavod za zaštitu prirode, Zagreb, 258 str.

Estonia

Breeding population size: Estonian Working Group on Bird Status and Numbers
Breeding short-term trend: Estonian Working Group on Bird Status and Numbers
Breeding long-term trend: Estonian Working Group on Bird Status and Numbers

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; 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 Poitiers153 p. http://nuxeo.edel.univ-poitiers.fr/nuxeo/site/esupversions/30137e63-b283-4cdd-b432-4b098e4348fc; 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.

Breeding short-term trend: 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; 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 Poitiers153 p. http://nuxeo.edel.univ-poitiers.fr/nuxeo/site/esupversions/30137e63-b283-4cdd-b432-4b098e4348fc; 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

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, Paris177 p. ; 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; 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 Poitiers153 p. http://nuxeo.edel.univ-poitiers.fr/nuxeo/site/esupversions/30137e63-b283-4cdd-b432-4b098e4348fc; 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, Ilia state university, NGO "psovi".

Breeding short-term trend: 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). 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).EBBA Georgia

Greece

Breeding population size: 1) BirdLife International (2004) Birds in Europe:Population estimates, trends and conservation status. Cambridge, UK: Birdlife International (Birdlife Conservation Series No. 12). 2) Natura Viewer (http://natura2000.eea.europa.eu/#). 3) Δημαλέξης, Τ., Καστρίτης, Θ., Γρίβας, Κ., Μανωλόπουλος, Α., Καρδακάρη, Ν., Κακαλής, Λ., Ξηρουχάκης, Σ., Τσαϊτουρίδης, Χ., Papazoglou, C. & Barov, 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. 4) Πορτόλου, Δ., Μπουρδάκης, Σ., Βλάχος, Χ., Καστρίτης, Θ. & Δημαλέξης, Τ. (επιμ.).2009. Οι Σημαντικές Περιοχές για τα Πουλιά της Ελλάδας: Περιοχές Προτεραιότητας για τη Διατήρηση της Βιοποικιλότητας. Ελληνική Ορνιθολογική Εταιρεία, Αθήνα. 5) 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-Ν.ΜΑΝΤΖΙΟΣ" 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) Natura Viewer (http://natura2000.eea.europa.eu/#). 3) Δημαλέξης, Τ., Καστρίτης, Θ., Γρίβας, Κ., Μανωλόπουλος, Α., Καρδακάρη, Ν., Κακαλής, Λ., Ξηρουχάκης, Σ., Τσαϊτουρίδης, Χ., Papazoglou, C. & Barov, 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. 4) Πορτόλου, Δ., Μπουρδάκης, Σ., Βλάχος, Χ., Καστρίτης, Θ. & Δημαλέξης, Τ. (επιμ.).2009. Οι Σημαντικές Περιοχές για τα Πουλιά της Ελλάδας: Περιοχές Προτεραιότητας για τη Διατήρηση της Βιοποικιλότητας. Ελληνική Ορνιθολογική Εταιρεία, Αθήνα. 5) 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-Ν.ΜΑΝΤΖΙΟΣ" Ε.Ε. – ΡΟΔΟΥΛΑ ΚΩΝΣΤΑΝΤΙΝΙΔΟΥ ΤΟΥ ΓΕΩΡΓΙΟΥ – "ΑΘ.ΤΖΑΚΟΠΟΥΛΟΣ ΚΑΙ ΣΙΑ" Ε.Ε.», Θεσσαλονίκη.

Breeding long-term trend: 1) Handrinos,G., & Akriotis, T., (1997) The birds of Greece. C. Helm, A & C Black, London. 2) BirdLife International (2004) Birds in Europe:Population estimates, trends and conservation status. Cambridge, UK: Birdlife International (Birdlife Conservation Series No. 12). 3) Natura Viewer (http://natura2000.eea.europa.eu/#). 4) Δημαλέξης, Τ., Καστρίτης, Θ., Γρίβας, Κ., Μανωλόπουλος, Α., Καρδακάρη, Ν., Κακαλής, Λ., Ξηρουχάκης, Σ., Τσαϊτουρίδης, Χ., Papazoglou, C. & Barov, 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., Καστρίτης, Θ. & Δημαλέξης, Τ. (επιμ.).2009. Οι Σημαντικές Περιοχές για τα Πουλιά της Ελλάδας: Περιοχές Προτεραιότητας για τη Διατήρηση της Βιοποικιλότητας. Ελληνική Ορνιθολογική Εταιρεία, Αθήνα. 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-Ν.ΜΑΝΤΖΙΟΣ" 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: Haraszthy L. (szerk.) (2014): Natura 2000 fajok és élőhelyek Magyarországon. Pro Vértes Közalapítvány, Csákvár. p. 548-551. 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.) (2014): Natura 2000 fajok és élőhelyek Magyarországon. Pro Vértes Közalapítvány, Csákvár. p. 548-551. National park directorates' databases (Annual survey of colonially breeding and strictly protected bird species) http://map.mme.hu/maps/map2

Italy

Breeding population size: Premuda G., Belosi A., Viviani F., Franchini M., 2015. Short-toed Eagle Circaetus gallicus population monitoring at the Apuane Alps migration watch-site (Tuscany). Avocetta 39: 5-12 (2015)

Breeding short-term trend: Premuda et al. 2015

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

Kosovo

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

Latvia

Breeding population size: Unpublished data for European Breeding Bird Atlas (2013-2017); Expert: Andris Dekants, andris.dekants@lob.lv
Breeding short-term trend: Unpublished data for European Breeding Bird Atlas (2013-2017); Expert: Andris Dekants, andris.dekants@lob.lv
Breeding long-term trend: Priednieks J., Strazds M., Strazds A., Petrins A. 1989. Latvian Breeding Bird Atlas 1980-1984. Riga: Zinatne Unpublished data for European Breeding Bird Atlas (2013-2017); Expert: Andris Dekants, andris.dekants@lob.lv

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)
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 Cencus 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 population size: Moldova`s contribution for the second European Breeding Bird Atlas (EBBA2)
Breeding short-term trend: SPPN expert opinion (sppn.moldova@gmail.com)
Breeding long-term trend: SPPN expert opinion (sppn.moldova@gmail.com)

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

Poland

Breeding population size: The Polish Avifaunistic Commission, http://komisjafaunistyczna.pl/; expert knowledge
Breeding short-term trend: Stawarczyk T., Cofta T., Kajzer Z., Lontkowski J., Sikora A. 2017. Rzadkie Ptaki Polski. Studio B&W Wojciech Janecki, Sosnowiec; The Polish Avifaunistic Commission http://komisjafaunistyczna.pl/
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: National Raptor Monitoring Programme, OpenBirdMaps (Milvus Group) Database
Breeding short-term trend: Ornitodata (Romanian Ornithological Society) Database, OpenBirdMaps (Milvus Group) Database, Rombird (Romanian Rarity Commission) Database
Breeding long-term trend: Ornitodata (Romanian Ornithological Society) Database, OpenBirdMaps (Milvus Group) Database, Rombird (Romanian Rarity Commission) Database

Russia

Breeding population size: Voltzit & Kalyakin 2013-2019; Database of the project on Atlas of breeding birds of European Russia
Breeding short-term trend: Belik 2014; 2020
Breeding long-term trend: Belik et al. 2003; Belik 2010; 2014; 2020

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, Krištín Anton: Rozšírenie vtákov na Slovensku. VEDA, vyd. SAV Bratislava, 2002. Chavko, J. Karaska D., Trnka A., Krištín A., Ridzoň J.: Chránené vtáčie územia Slovenska. ŠOP SR Banská Bystrica, 2015. Danko Š., Mihók J., Pčola Š. Hniezdenie a výskyty hadiara krátkoprstého (Circaetus gallicus)na východnom Slovensku. Tichodroma 19: 75–86 (2007).

Breeding short-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.

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.

Slovenia

Breeding population size: Mihelic T., Kmecl P., Denac K., Koce U., Vrezec A., Denac D. (eds.) (2019): Atlas ptic Slovenije. Popis gnezdilk 2002–2017. – DOPPS, Ljubljana.

Breeding short-term trend: Mihelic T., Kmecl P., Denac K., Koce U., Vrezec A., Denac D. (eds.) (2019): Atlas ptic Slovenije. Popis gnezdilk 2002–2017. – DOPPS, Ljubljana.

Breeding long-term trend: Mihelic T., Kmecl P., Denac K., Koce U., Vrezec A., Denac D. (eds.) (2019): Atlas ptic Slovenije. Popis gnezdilk 2002–2017. – DOPPS, Ljubljana. Geister I. (ed.) (1995): Ornitološki atlas Slovenije. – DZS, Ljubljana.

Spain

Breeding population size: Águila culebrera - Circaetus gallicus (2018). En: Guía de las aves de España. SEO/BirdLife, Madrid. (https://www.seo.org/ave/culebrera-europea/) Palomino, D. & Valls, J. (2011). Las rapaces forestales de España. Población reproductora en 2009-2010 y método de censo. SEO/BirdLife. Madrid, 153 pp. (https://www.seo.org/wp-content/uploads/2012/04/36_rapacesforestales.pdf)

Breeding short-term trend: Águila culebrera - Circaetus gallicus (2018). En: Guía de las aves de España. SEO/BirdLife, Madrid. (https://www.seo.org/ave/culebrera-europea/) Palomino, D. & Valls, J. (2011). Las rapaces forestales de España. Población reproductora en 2009-2010 y método de censo. SEO/BirdLife. Madrid, 153 pp. (https://www.seo.org/wp-content/uploads/2012/04/36_rapacesforestales.pdf)

Breeding long-term trend: De Juana, F. (1989). Situación actual de las rapaces diurnas (Orden Falconiformes) en España. Ecología, 3: 237-292. 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) Palomino, D. & Valls, J. (2011). Las rapaces forestales de España. Población reproductora en 2009-2010 y método de censo. SEO/BirdLife. Madrid, 153 pp. (https://www.seo.org/wp-content/uploads/2012/04/36_rapacesforestales.pdf) Purroy, F.J. (Coord.) (1997). Atlas de las aves de España (1975-1995). SEO/BidLife. Lynx Edicions. Barcelona. 583 pp.

Turkey

Breeding population size: Ferdi Akarsu personal communication (2019), 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. Домашевський С.В., Письменний К.А. Змієїд // Червона книга України. Тваринний світ. К., 2009. С. 425. 2. Письменний К.А., особ. повід.

Breeding short-term trend: 1. Домашевський С.В., Письменний К.А. Змієїд // Червона книга України. Тваринний світ. К., 2009. С. 425. 2. Письменний К.А., особ. повід.

Breeding long-term trend: 1. Домашевський С.В., Письменний К.А. Змієїд // Червона книга України. Тваринний світ. К., 2009. С. 425. 2. Письменний К.А., особ. повід.

Bibliography

Billerman, S.M., Keeney, B.K., Rodewald, P.G. and Schulenberg, T.S. (eds). 2020. Birds of the World. Cornell Laboratory of Ornithology, Ithaca.

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.

Clark, W.S. 1999. Plumage differences and taxonomic status of three similar Circaetus snake-eagles. Bulletin of the British Ornithologists' Club 119: 56-59.

Dowsett, R.J. and Forbes-Watson, A.D. 1993. Checklist of birds of the Afrotropical and Malagasy regions. Tauraco Press, Liège, Belgium.

Ferguson-Lees, J. and Christie, D.A. 2001. Raptors of the World. Christopher Helm, London.

Hagemeijer, E.J.M. and Blair, M.J. 1997. The EBCC atlas of European breeding birds: their distribution and abundance. T. and A.D. Poyser, London.

Kalyakin, M.V. and Voltzit, O.V. 2006. Atlas: birds of Moscow City and the Moscow region. Pensoft Publishers, Sofia.

Radovic, D., Kralj, J., Tutis, V. and Cikovic, D. 2003. Red data book of birds of Croatia. Ministarstvo zastite okolisa i prostornog uredenja, Zagreb.

STRIX. 2012. Developing and testing the methodology for assessing and mapping the sensitivity of migratory birds to wind energy development. BirdLife International, Cambridge.

Sibley, C.G. and Monroe, B.L. 1990. Distribution and Taxonomy of Birds of the World. Yale University Press, New Haven, USA.

Sibley, C.G. and Monroe, B.L. 1993. A supplement to 'Distribution and Taxonomy of Birds of the World'. Yale University Press, New Haven, USA.

Snow, D.W. and Perrins, C.M. 1998. The Birds of the Western Palearctic, Volume 1: Non-Passerines. Oxford University Press, Oxford.

Tucker, G.M. and Heath, M.F. 1994. Birds in Europe: Their Conservation Status. BirdLife International, Cambridge, U.K.

del Hoyo, J., Elliott, A. and Sargatal, J. (eds). 1994. Handbook of the Birds of the World, vol. 2: New World Vultures to Guineafowl. Lynx Edicions, Barcelona, Spain.