



THE IUCN RED LIST
OF THREATENED SPECIES™



***Tadorna ferruginea* (Ruddy Shelduck)**

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
Trend maps of reported national population data
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.

Tadorna ferruginea (Ruddy Shelduck)

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

Country (or territory) ²	Population estimate				Short-term population trend ⁵				Long-term population trend ⁵				Subspecific population (where relevant)
	Size (pairs) ³	Europe (%)	Year(s)	Method ⁴	Direction ⁶	Magnitude (%) ⁷	Year(s)	Method ⁴	Direction ⁶	Magnitude (%) ⁷	Year(s)	Method ⁴	
Albania	0	<1	2007-2018	partial	-	-100 to 0	2007-2018	partial	-	-100 to 0	1980-2018	expert	
Armenia	110–190	<1	2013-2018	complete	F		2007-2018		-	-20 to -5	2003-2018	partial	
Azerbaijan	1000–5000	10	1996-2019	expert	+		2013-2019	expert	?		1980-2019	partial	
Bulgaria	40–120	<1	2013-2018	partial	+	10 to 20	2001-2018	expert	-	-50 to -30	1980-2018	expert	
Georgia	140–1500	2	2013-2017	partial	?			deficient	?				
Greece	60–80	<1	2015	partial	+		2007-2018	partial	+		1980-2018	partial	
Moldova	5–10	<1	2014-2017	partial	+		2007-2018	partial	+		1990-2018	expert	
Romania	60–600	<1	2013-2018	expert	+	1 to 20	2013-2018	expert	+	1 to 50	1980-2019	expert	
Russia	6000–9000	32	2008-2019	partial	?		2008-2018	partial	?		1980-2018	partial	
ES: Canary Is	60–70	<1	2018-2018	complete	+	767 to 3450	2007-2018	partial	+	985 to 2300	1980-2018	partial	
Turkey	10000–15000	53	2002-2012	expert	?		2008-2019	deficient	?		1980-2013	deficient	
Ukraine	300–500	2	2014-2018	partial	+	20 to 40	2007-2018	partial	F	10 to 50	1980-2018	partial	
United Kingdom	1	100	2010-2014	expert	-		2005-2016	complete	-		1993-2016	complete	non-native populations
EU28	230–870	2											
Europe	1	100											
Europe	17700–32100	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) Deficient: 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.

Tadorna ferruginea (Ruddy Shelduck)

Table 2. Reported national wintering population sizes and trends in Europe¹. Note that some countries within the species' wintering range did not report any data, and that only minimum totals are presented, to avoid double-counting of birds moving between countries.

Country (or territory) ²	Population estimate				Short-term population trend ⁵				Long-term population trend ⁵				Subspecific population (where relevant)
	Size (individuals) ³	Europe (%)	Year(s)	Method ⁴	Direction ⁶	Magnitude (%) ⁷	Year(s)	Method ⁴	Direction ⁶	Magnitude (%) ⁷	Year(s)	Method ⁴	
Armenia	500–1000	1	2013-2018	partial	0		2007-2018		?		2003-2018	deficient	
Azerbaijan	20000–50000	55	1996-2019	partial	+		2010-2019	partial	+		1980-2019	expert	
Bulgaria	20–360	<1	2013-2018	partial	F		2001-2018	expert	+	5 to 25	1980-2018	expert	
Cyprus	0–45	<1	2013-2018	partial	+	0 to 13	2007-2018	partial	+	5 to 100	1980-2018	expert	
Greece	80–1700	<1	2013-2018	complete	F		2007-2018	expert	?		1980-2018	deficient	
Netherlands	80–120	100	2013-2015	complete	-	-78 to -34	2004-2015	complete	+	128 to 568	1981-2015	complete	
Serbia	3	<1	2013-2018	complete	?		2013-2018	deficient	?		1980-2018	deficient	
Turkey	16800–31300	40	2013-2019	complete	?		2008-2019	deficient	?		1980-2019	deficient	
Ukraine	700–3500	3	2010-2017	complete	+		2007-2018	complete	+		1980-2018	complete	
EU28	100–2100	<1											
Europe	80–120	100											
Europe	38100–87900	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) Deficient: 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%) | ↓ Large decrease (≥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: ≥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.

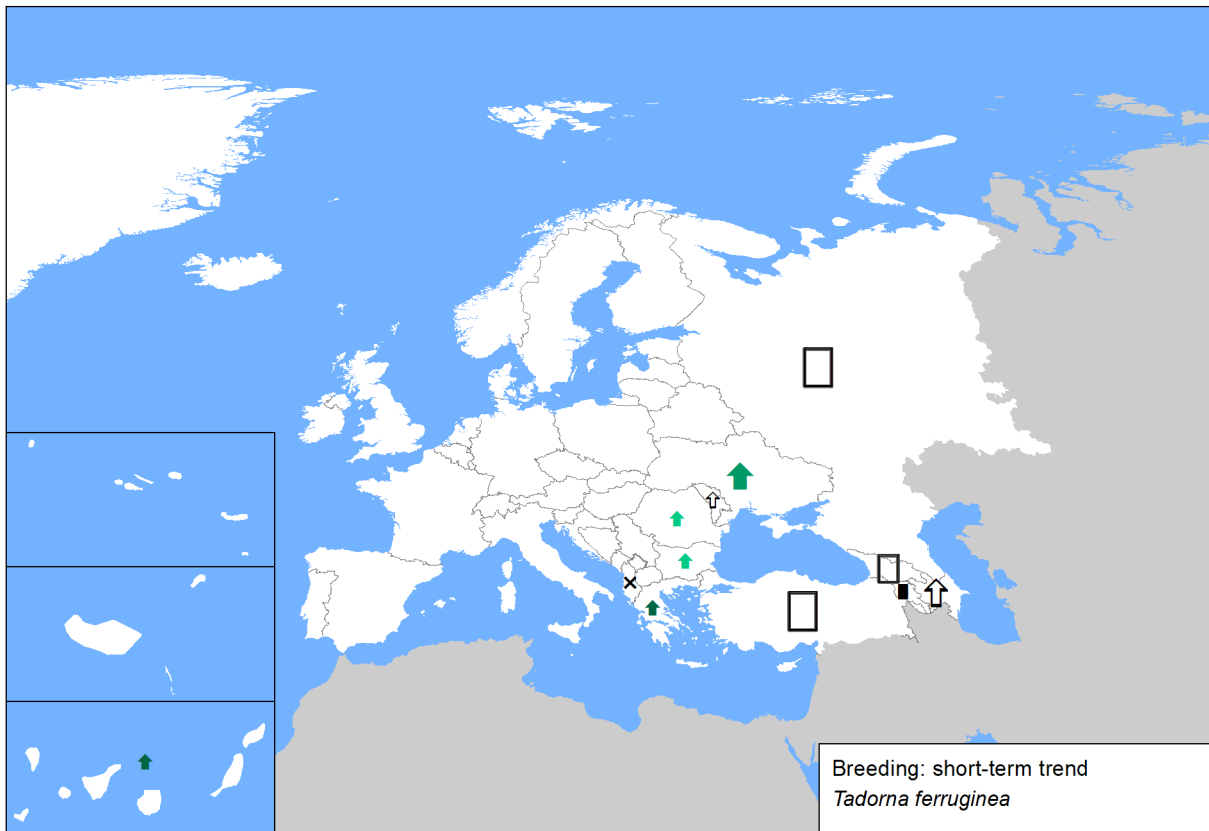


Figure 2. Breeding population sizes and long-term trends across Europe.

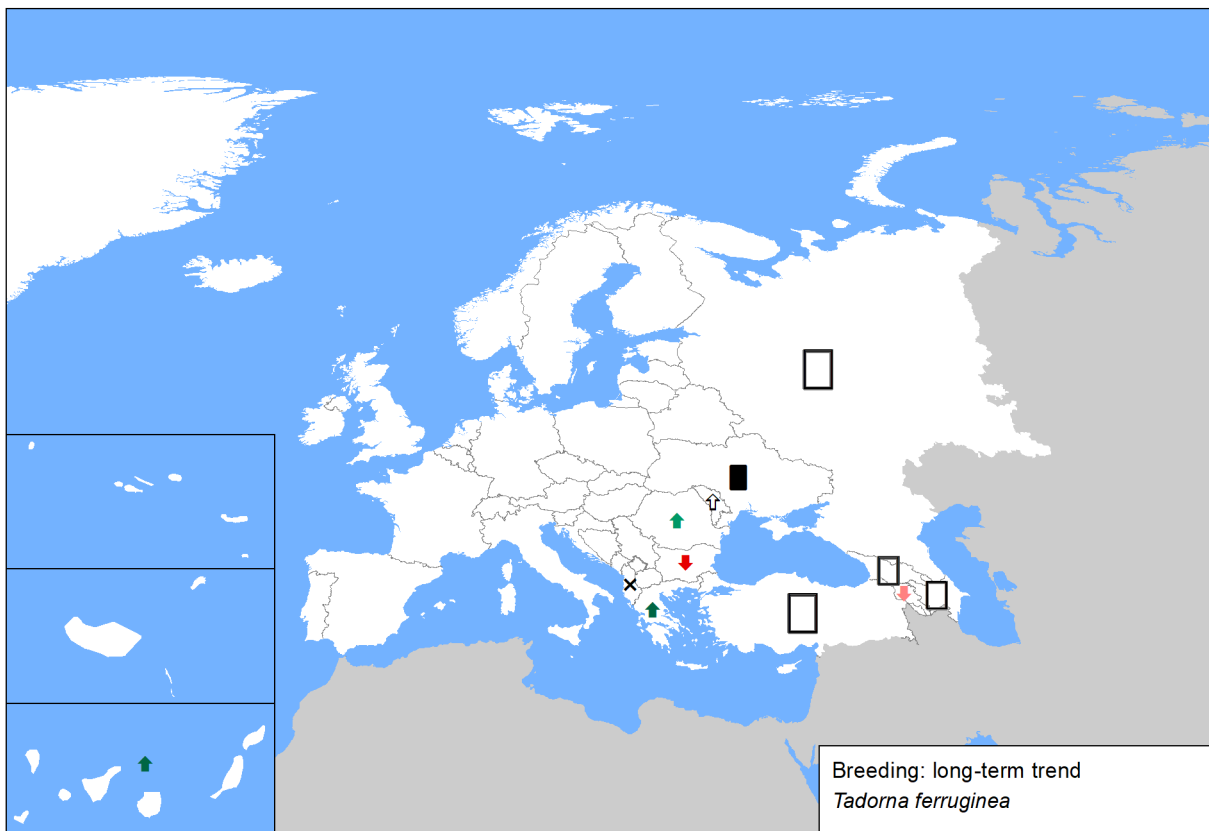


Figure 3. Reported wintering population sizes and short-term trends across Europe. Note that some countries within the species' wintering range did not report any data.

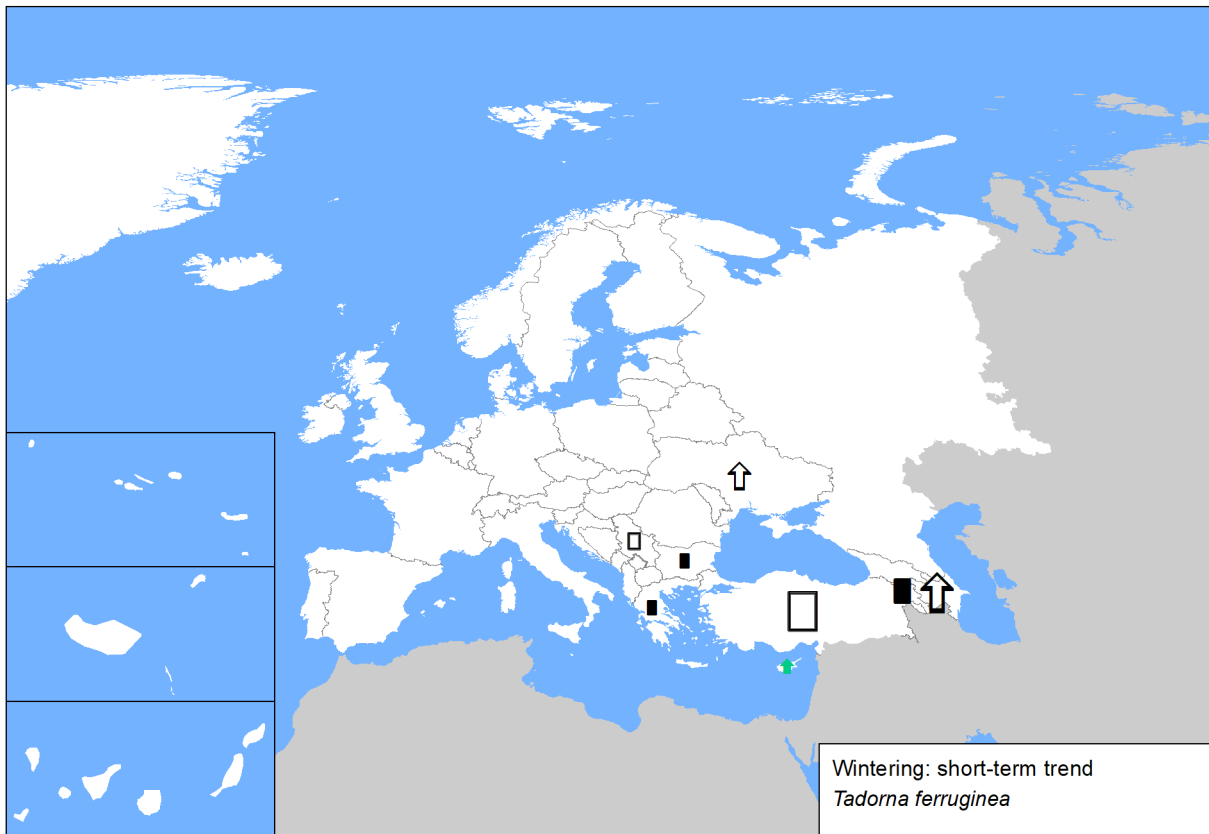
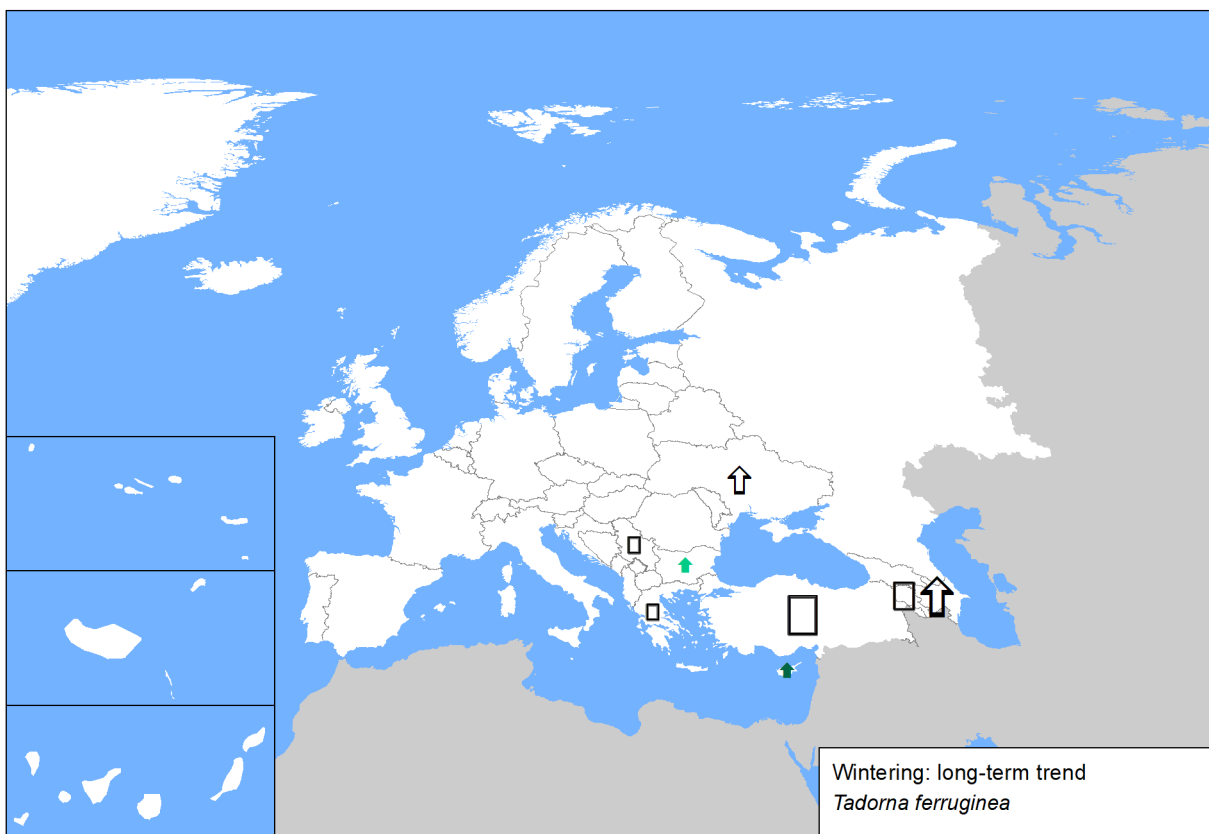


Figure 4. Reported wintering population sizes and long-term trends across Europe. Note that some countries within the species' wintering range did not report any data.



Tadorna ferruginea (Ruddy Shelduck)

Sources

Albania

Breeding population size: Bino & Xeka 2020 in EBBA 2
Breeding short-term trend: Bino & Xeka pers. obs.
Breeding long-term trend: Bino pers. obs.

Armenia

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

Azerbaijan

Breeding population size: AOS data base
Breeding short-term trend: AOS data base
Breeding long-term trend: AOS Data Base
Winter population size: AOS data base
Winter short-term trend: AOS Data Base
Winter long-term trend: AOS Data Base

Bulgaria

Breeding population size: Ilieva, M., Zehindjiev, P., Kutsarov, I., Georgiev, D.. 2007. <i>Tadorna ferruginea</i> . In: Iankov, P. (Ed.) Atlas of breeding birds in Bulgaria. Bulgarian Society for the Protection of Birds Conservation series, Book 10, BSPB, Sofia.; National Art. 12 reporting database 2013-2018; Nankinov, D. et al. Breeding totals of the ornithofauna in Bulgaria. Green Balkans, Plovdiv, 2004. Zehindjiev, P., Bogdanova, M., Bedev, K. Red Data Book of the Republic of Bulgaria. Vol. 2, Animals.
Breeding short-term trend: Ilieva, M., Zehindjiev, P., Kutsarov, I., Georgiev, D.. 2007. <i>Tadorna ferruginea</i> . In: Iankov, P. (Ed.) Atlas of breeding birds in Bulgaria. Bulgarian Society for the Protection of Birds Conservation series, Book 10, BSPB, Sofia.; National Art. 12 reporting database 2013-2018; Nankinov, D. et al. Breeding totals of the ornithofauna in Bulgaria. Green Balkans, Plovdiv, 2004. Zehindjiev, P., Bogdanova, M., Bedev, K. Red Data Book of the Republic of Bulgaria. Vol. 2, Animals.
Breeding long-term trend: Ilieva, M., Zehindjiev, P., Kutsarov, I., Georgiev, D.. 2007. <i>Tadorna ferruginea</i> . In: Iankov, P. (Ed.) Atlas of breeding birds in Bulgaria. Bulgarian Society for the Protection of Birds Conservation series, Book 10, BSPB, Sofia. Nankinov, D. et al. Breeding totals of the ornithofauna in Bulgaria. Green Balkans, Plovdiv, 2004. Zehindjiev, P., Bogdanova, M., Bedev, K. Red Data Book of the Republic of Bulgaria. Vol. 2, Animals.
Winter population size: Wetlands International (2019): Submitted IWC data for Bulgaria for period 2013-2018.; National Art. 12 reporting database 2013-2018; National workshop of experts, Sofia 27-29.8.2019; Golemansky V. (ed.) 2011. Red Data Book of the Republic of Bulgaria. Digital edition, Vol. 2, Animals. BAS-MOEWS, Sofia, http://ecodb.bas.bg/rdb/en/vol2 ;
Winter short-term trend: Ilieva, M., Zehindjiev, P., Kutsarov, I., Georgiev, D.. 2007. <i>Tadorna ferruginea</i> . In: Iankov, P. (Ed.) Atlas of breeding birds in Bulgaria. Bulgarian Society for the Protection of Birds Conservation series, Book 10, BSPB, Sofia.; National Art. 12 reporting database 2013-2018; Nankinov, D. et al. Breeding totals of the ornithofauna in Bulgaria. Green Balkans, Plovdiv, 2004. Zehindjiev, P., Bogdanova, M., Bedev, K. Book of the Republic of Bulgaria. Vol. 2, Animals.
Winter long-term trend: Ilieva, M., Zehindjiev, P., Kutsarov, I., Georgiev, D.. 2007. <i>Tadorna ferruginea</i> . In: Iankov, P. (Ed.) Atlas of breeding birds in Bulgaria. Bulgarian Society for the Protection of Birds Conservation series, Book 10, BSPB, Sofia. Nankinov, D. et al. Breeding totals of the ornithofauna in Bulgaria. Green Balkans, Plovdiv, 2004. Zehindjiev, P., Bogdanova, M., Bedev, K. Book of the Republic of Bulgaria. Vol. 2, Animals.

Cyprus

Winter population size: Monthly waterbird counts by BirdLife Cyprus and Game & Fauna Service, as published in BirdLife Cyprus monthly checklists and also by the Game & Fauna Service; Analysis of recent BirdLife Cyprus bird sightings records reported in the society's annual reports.
Winter short-term trend: Monthly waterbird counts by BirdLife Cyprus and Game & Fauna Service, as published in BirdLife Cyprus monthly checklists and also by the Game & Fauna Service; Analysis of recent BirdLife Cyprus bird sightings records reported in the society's annual reports.
Winter long-term trend: More recent records (2000 onwards) as above, pre-2000 records based on birdwatching records as reported in BirdLife Cyprus annual reports

Georgia

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

Greece

Breeding population size: 1) Λεγάκης, Α. & Μαραγκού, Π. (επιμ.). 2009. Το Κόκκινο Βιβλίο των Απειλούμενων Ζώων της Ελλάδας. Ελληνική Ζωολογική Εταιρεία, Αθήνα, 528 σελ. Available at: http://www.ypeka.gr/LinkClick.aspx?fileticket=TPsw%2b3PNVX8%3d&tabid=518&language=el-GR 2) Δημηλάξης, Τ., Καστριτής, Θ., Γρίβας, Κ., Μανωλόπουλος, Α., Καρδακάρη, Ν., Κακαλής, Λ., Ξηρουακάκης, Σ., Τσαϊτουρίδης, Χ., Παραιοζογλου, 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. 3) Πορτόλου, Δ., Μπουρδάκης, Σ., Βλάχος, Χ., Καστριτής, Θ. & Δημηλάξης, Τ. (επιμ.). 2009. Οι Σημαντικές Περιοχές για τα Πουλιά της Ελλάδας: Περιοχές Προτεραιότητας για τη Διατήρηση της Βιοποικιλότητας. Ελληνική Ορνιθολογική Εταιρεία, Αθήνα. 4) Βλάχος Χ., Μπίρτσας Π., Θωμαΐδης Χ., Χατζηνίκος Ε., Μποντζώρολος Β., Μπραζιλιώτης 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 «Ποιότητα 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.

Tadorna ferruginea (Ruddy Shelduck)

Greece

<p>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. & Μαραγκού, 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., Καστρίτης, Θ., Γρίβας, Κ., Μανωλόπουλος, Α., Καρδακάρη, Ν., Κακαλής, Λ., Ξηρουχάκης, Σ., Τσαϊτουρίδης, Χ., Παρζοζούλου, 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., 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. 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-Ν.ΜΑΝΤΖΙΟΣ" Ε.Ε. – ΡΟΔΟΥΛΑ ΚΩΝΣΤΑΝΤΙΝΙΔΟΥ ΤΟΥ ΓΕΩΡΓΙΟΥ – "ΑΘ.ΤΖΑΚΟΠΟΥΛΟΣ ΚΑΙ ΣΙΑ" Ε.Ε.», Θεσσαλονίκη.</p>
<p>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) Λεγάκις, Α. & Μαραγκού, Π. (επιμ.). 2009. Το Κόκκινο Βιβλίο των Απειλούμενων Ζώων της Ελλάδας. Ελληνική Ζωολογική Εταιρεία, Αθήνα, 528 σελ. 4) Natura Viewer (http://natura2000.eea.europa.eu/#). 5) Δημαλέξης, Τ., Καστρίτης, Θ., Γρίβας, Κ., Μανωλόπουλος, Α., Καρδακάρη, Ν., Κακαλής, Λ., Ξηρουχάκης, Σ., Τσαϊτουρίδης, Χ., Παρζοζούλου, 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. 6) 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. 7) 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. 7) Handrinos, G., & Akriotis T., (1997) The birds of Greece. C. Helm, A & Black, London.</p>
<p>Winter population size: 1) Midwinter Counts Database (1967 - 2019), Hellenic Ornithological Society 2) BirdLife International (2017). European birds of conservation concern: populations, trends and national responsibilities. Cambridge. UK: BirdLife International. ISBN 978-1-912086-00-9, 3) Portolou, D., Bourdakis, S., Vlachos, C., Kastritis, T., and Dimalexis. T. (eds.) 2009. Important Bird Areas of Greece: Priority sites for conservation. Hellenic Ornithological Society. Athens.</p>
<p>Winter short-term trend: 1) Midwinter Counts Database (1967 - 2019), Hellenic Ornithological Society 2) BirdLife International (2017). European birds of conservation concern: populations, trends and national responsibilities. Cambridge. UK: BirdLife International. ISBN 978-1-912086-00-9, 3) Portolou, D., Bourdakis, S., Vlachos, C., Kastritis, T., and Dimalexis. T. (eds.) 2009. Important Bird Areas of Greece: Priority sites for conservation. Hellenic Ornithological Society. Athens. 4) Evros Delta Management Authority data</p>
<p>Winter long-term trend: No data available</p>

Moldova

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

Netherlands: non-native populations

<p>Winter population size: Sovon Bird atlas (Sovon 2018)</p>
<p>Winter short-term trend: NEM waterbird monitoring scheme (Sovon, RWS, CBS, provinces), NDFF</p>
<p>Winter long-term trend: NEM waterbird monitoring scheme (Sovon, RWS, CBS, provinces), NDFF</p>

Romania

<p>Breeding population size: Ornitodata (Romanian Ornithological Society) Database, OpenBirdMaps (Milvus Group) Database, Rombird (Romanian Rarity Commission) Database</p>
<p>Breeding short-term trend: Ornitodata (Romanian Ornithological Society) Database, OpenBirdMaps (Milvus Group) Database, Rombird (Romanian Rarity Commission) Database</p>
<p>Breeding long-term trend: Ornitodata (Romanian Ornithological Society) Database, OpenBirdMaps (Milvus Group) Database, Rombird (Romanian Rarity Commission) Database</p>

Russia

<p>Breeding population size: Sokolov & Popovkina in press; Database of the project on Atlas of breeding birds of European Russia</p>
<p>Breeding short-term trend: Belik & Gugueva 2016; Sokolov et al. 2014</p>
<p>Breeding long-term trend: Zavjalov et al. 2004; Belik et al. 2003; Belik & Gugueva 2016; Sarychev unpublished. vssar@yandex.ru; Frolov et al. 2003</p>

Serbia

<p>Winter population size: IWC database</p>
<p>Winter short-term trend: IWC database</p>
<p>Winter long-term trend: IWC database; Bioras database http://www.bioras.petnica.rs/home.php</p>

ES: Canary Is

<p>Breeding population size: Lorenzo, J.A., Cabrera, M. & González, C. (2014). Seguimiento de las poblaciones de cerceta pardilla (<i>Marmaronetta angustirostris</i>) en Fuerteventura y tarro canelo (<i>Tadorna ferruginea</i>) en Lanzarote, Fuerteventura, Gran Canaria y Tenerife. Memoria técnica. SEO/BirdLife y Dirección General de Protección de la Naturaleza del Gobierno de Canarias. 102 pp. + anexos. SEO/BirdLife. (2018). Censos de aves acuáticas reproductoras, estatus y tendencia de sus poblaciones en Canarias (temporada de 2018). Gobierno de Canarias y SEO/BirdLife. 87 pp. + anexos.</p>
--

Tadorna ferruginea (Ruddy Shelduck)

ES: Canary Is

Breeding short-term trend: Lorenzo, J.A. (2007) (Ed). Atlas de las Aves Nidificantes en el Archipiélago Canario (1997-2003). Dirección General de Conservación de la Naturaleza-Sociedad Española de Ornitología. Madrid. 520 pp. Lorenzo, J.A. & Cabrera, M. (2008). El tarro canelo. En Ballesteros, G., Cabrera, M., Echevarrias, J.L., Lorenzo, J.A., Raya, C., Torres-Esquivias, J.A. & Viedma, C. Tarro canelo, cerceta pardilla, porrón pardo, malvasía cabeciblanca y focha moruna en España. Población en 2007 y método de censo. SEO/BirdLife. Madrid. Lorenzo, J.A., Cabrera, M. & González, C. (2014). Seguimiento de las poblaciones de cerceta pardilla (*Marmaronetta angustirostris*) en Fuerteventura y tarro canelo (*Tadorna ferruginea*) en Lanzarote, Fuerteventura, Gran Canaria y Tenerife. Memoria técnica. SEO/BirdLife y Dirección General de Protección de la Naturaleza del Gobierno de Canarias. 102 pp. + anexos. SEO/BirdLife. (2018). Censos de aves acuáticas reproductoras, estatus y tendencia de sus poblaciones en Canarias (temporada de 2018). Gobierno de Canarias y SEO/BirdLife. 87 pp. + anexos.

Breeding long-term trend: Lorenzo, J.A. (2007) (Ed). Atlas de las Aves Nidificantes en el Archipiélago Canario (1997-2003). Dirección General de Conservación de la Naturaleza-Sociedad Española de Ornitología. Madrid. 520 pp. Lorenzo, J.A. & Cabrera, M. (2008). El tarro canelo. En Ballesteros, G., Cabrera, M., Echevarrias, J.L., Lorenzo, J.A., Raya, C., Torres-Esquivias, J.A. & Viedma, C. Tarro canelo, cerceta pardilla, porrón pardo, malvasía cabeciblanca y focha moruna en España. Población en 2007 y método de censo. SEO/BirdLife. Madrid. Lorenzo, J.A., Cabrera, M. & González, C. (2014). Seguimiento de las poblaciones de cerceta pardilla (*Marmaronetta angustirostris*) en Fuerteventura y tarro canelo (*Tadorna ferruginea*) en Lanzarote, Fuerteventura, Gran Canaria y Tenerife. Memoria técnica. SEO/BirdLife y Dirección General de Protección de la Naturaleza del Gobierno de Canarias. 102 pp. + anexos. Martín, A., Hernández, M.A., Lorenzo, J.A., Nogales, M. & González, C. (2000). Las palomas endémicas de Canarias. Viceconsejería de Medio Ambiente del Gobierno de Canarias y SEO/BirdLife. 191 pp. 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.miteco.gob.es/es/biodiversidad/temas/inventarios-nacionales/36-rapacesforestales_tcm30-207977.pdf) SEO/BirdLife. (2018). Censos de aves acuáticas reproductoras, estatus y tendencia de sus poblaciones en Canarias (temporada de 2018). Gobierno de Canarias y SEO/BirdLife. 87 pp. + anexos.

Turkey

Breeding population size: Ömer Döndüren 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-

Winter population size: Ebird Database and Midwinter Fowl Counts (2013-2018), Birdlife Estimate

Winter short-term trend: Midwinter bird counts 2012-2019

Winter long-term trend: Midwinter bird counts 1980-2019 and Historical Records come from OSME and other midwinter counts

Ukraine

Breeding population size: 1. Лисенко В.І. (2009): Огар. - Червона книга України. Тваринний світ. К.: Глобалконсалтинг. 409. 2. Банік М.В. (2013): Огар. - Червона книга Харківської області. Тваринний світ. Харків: ХНУ імені В.Н. Каразіна. 291. 3. Бескаравайный М.М. (2015): Огарь. - Красная книга Республики Крым. Животные. Симферополь: ООО «ИТ «АРИАЛ». 312. 4. Пилипенко Д.В., Власенко В.Н. (2017): Огар. - Червона книга Донецької області. Тваринний світ. Вінниця: Вінницька обласна друкарня. 290. 58. Матеріали до 4-го видання Червоної книги України. Тваринний світ. Київ, 2018. Т. 1. 442 с. Т. 2. 454 с.

Breeding short-term trend: 1. Лисенко В.І. (2009): Огар. - Червона книга України. Тваринний світ. К.: Глобалконсалтинг. 409. 2. Банік М.В. (2013): Огар. - Червона книга Харківської області. Тваринний світ. Харків: ХНУ імені В.Н. Каразіна. 291. 3. Бескаравайный М.М. (2015): Огарь. - Красная книга Республики Крым. Животные. Симферополь: ООО «ИТ «АРИАЛ». 312. 4. Пилипенко Д.В., Власенко В.Н. (2017): Огар. - Червона книга Донецької області. Тваринний світ. Вінниця: Вінницька обласна друкарня. 290. 58. Матеріали до 4-го видання Червоної книги України. Тваринний світ. Київ, 2018. Т. 1. 442 с. Т. 2. 454 с.

Breeding long-term trend: 1. Hagemeijer W.J.M., Blair M.J. The EBCC Atlas of European Breeding Birds: Their Distribution and Abundance. Poyser. London. 1997. 903 p. 2. Горбань І. (2003): Оцінка чисельності гніздових птахів України. - Вісн. Львів. ун-ту. Сер. біол. 34: 147-158. 3. Зубко В.Н., Мезинов А.С. (2003): О разлетах огаря из заповедника "Аскания-Нова". - Заповідна справа в Україні. 9 (1): 46-51. 4. Birds in Europe: Population Estimates, Trends and Conservation Status. BirdLife Conservation Series 12, 2004. 374 p. 5. Лисенко В.І. (2009): Огар. - Червона книга України. Тваринний світ. К.: Глобалконсалтинг. 409. 6. Банік М.В. (2013): Огар. - Червона книга Харківської області. Тваринний світ. Харків: ХНУ імені В.Н. Каразіна. 291. 7. Бескаравайный М.М. (2015): Огарь. - Красная книга Республики Крым. Животные. Симферополь: ООО «ИТ «АРИАЛ». 312. 8. Пилипенко Д.В., Власенко В.Н. (2017): Огар. - Червона книга Донецької області. Тваринний світ. Вінниця: Вінницька обласна друкарня. 290. 9. Матеріали до 4-го видання Червоної книги України. Тваринний світ. Київ, 2018. Т. 1. 442 с. Т. 2. 454 с.

Winter population size: Mezinov, A.S. 2014. The current distribution of Ruddy Shelduck (*Tadorna ferruginea*) in Ukraine. In Banik, M.V., Ateasova, T.A. (eds.). Birds of Seversky Donets river basin. Iss. 12. Kharkiv national university, Kharkiv. 143-158 (in Russ.).

Winter short-term trend: 1. Mezinov, A.S. 2014. The current distribution of Ruddy Shelduck (*Tadorna ferruginea*) in Ukraine. In Banik, M.V., Ateasova, T.A. (eds.). Birds of Seversky Donets river basin. Iss. 12. Kharkiv national university, Kharkiv. 143-158 (in Russ.). 2. Dyadycheva, E.A., Chernichko, I.I., Chernichko, R.I. 2017. The current state of the bird species listed in the Red Data Book of Ukraine in Priazovsky national park. In Nature conservation in steppe zone of Ukraine: 241-250 (in Russ.). (Ser. Conservation Biology in Ukraine. Iss. 2., vol.2).

Winter long-term trend: Mezinov, A.S. 2014. The current distribution of Ruddy Shelduck (*Tadorna ferruginea*) in Ukraine. In Banik, M.V., Ateasova, T.A. (eds.). Birds of Seversky Donets river basin. Iss. 12. Kharkiv national university, Kharkiv. 143-158 (in Russ.).

United Kingdom: non-native populations

Breeding population size: Holling, M. & the Rare Breeding Birds Panel (2014). Non-native breeding birds in the UK, 2009-11. British Birds 107: 122-147. Holling, M. & the Rare Breeding Birds Panel. (2017). Non-native breeding birds in the UK, 2012-2014. British Birds 109: 92-108.

Breeding short-term trend: Frost, T.M., Austin, G.E., Calbrade, N.A., Mellan, H.J., Hearn, R.D., Stroud, D.A., Wotton, S.R. & Balmer, D.E. (2018). Waterbirds in the UK 2016/17: The Wetland Bird Survey. BTO, RSPB and JNCC, in association with WWT. British Trust for Ornithology, Thetford. 40 pp.

Breeding long-term trend: Frost, T.M., Austin, G.E., Calbrade, N.A., Mellan, H.J., Hearn, R.D., Stroud, D.A., Wotton, S.R. & Balmer, D.E. (2018). Waterbirds in the UK 2016/17: The Wetland Bird Survey. BTO, RSPB and JNCC, in association with WWT. British Trust for Ornithology, Thetford. 40 pp.

Bibliography

- Balmaki, B. and Barati, A. 2006. Harvesting status of migratory waterfowl in northern Iran: a case study from Gilan Province. In: Boere, G., Galbraith, C. and Stroud, D. (eds), *Waterbirds around the world*, pp. 868-869. The Stationary Office, Edinburgh, UK.
- 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.
- Brazil, M. 2009. *Birds of East Asia: eastern China, Taiwan, Korea, Japan, eastern Russia*. Christopher Helm, London.
- Brown, L.H., Urban, E.K. and Newman, K. 1982. *The Birds of Africa, Volume I*. Academic Press, London.
- Carboneras, C. and Kirwan, G.M. 2014. Ruddy Shelduck (*Tadorna ferruginea*). In: del Hoyo, J., Elliott, A., Sargatal, J., Christie, D.A. and de Juana, E. (eds), *Handbook of the Birds of the World Alive*, Lynx Edicions, Barcelona.
- Cramp, S. and Simmons, K.E.L. 1977. *Handbook of the birds of Europe, the Middle East and Africa. The birds of the western Palearctic, vol. I: ostriches to ducks*. Oxford University Press, Oxford.
- Delany, S. and Scott, D. 2006. *Waterbird population estimates*. Wetlands International, Wageningen, The Netherlands.
- Green, A. J.; El Hamzaoui, M.; El Agbani, M. A.; Franchimont, J. 2002. The conservation status of Moroccan wetlands with particular reference to waterbirds and to changes since 1978. *Biological Conservation* 104: 71-82.
- Johnsgard, P.A. 1978. *Ducks, geese and swans of the World*. University of Nebraska Press, Lincoln and London.
- Kear, J. 2005. *Ducks, geese and swans volume 1: general chapters; species accounts (Anhima to Salvadorina)*. Oxford University Press, Oxford, U.K.
- Kreuzberg-Mukhina, E. A. 2006. The effect of habitat change on the distribution of waterbirds in Uzbekistan and the possible implications of climate change. In: Boere, G.; Galbraith, C., Stroud, D (ed.), *Waterbirds around the world*, pp. 277-282. The Stationary Office, Edinburgh, UK.
- Madge, S. and Burn, H. 1988. *Wildfowl*. Christopher Helm, London.
- Melville, D.S. and Shortridge, K.F. 2006. Migratory waterbirds and avian influenza in the East Asian-Australasian Flyway with particular reference to the 2003-2004 H5N1 outbreak. In: G. Boere, C. Galbraith & D. Stroud (eds), *Waterbirds around the World*, pp. 432-438. The Stationery Office, Edinburgh, U.K.
- Owen, M.; Callaghan, D.; Kirby, J. 2006. *Guidelines on Avoidance of Introductions of Non-native Waterbird Species*. Bonn, Germany.
- Popovkina, A. B. 2006. Conflicting trends in Ruddy Shelduck *Tadorna ferruginea* populations: a myth or reality? In: Boere, G.; Galbraith, C., Stroud, D. (ed.), *Waterbirds around the world*, pp. 480-481. The Stationary Office, Edinburgh, UK.
- Quan, R. C.; Wen, X.; Tang, X.; Peng, G. H.; Huang, T. F. 2001. Habitat use by wintering Ruddy Shelduck at Lashihai Lake, Lijiang, China. *Waterbirds* 24(3): 402-406.
- Scott, D.A. and Rose, P.M. 1996. *Atlas of Anatidae populations in Africa and western Eurasia*. Wetlands International, Wageningen, Netherlands.

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

Zubko, V.; Havrilenko, V.; Semenov, N. 2001. Restoration of the Ruddy Shelduck *Tadorna ferruginea* population in "Ascania Nova" nature reserve (Southern Ukraine). *Acta Ornithologica* (Warsaw) 36(1): 97-100.

del Hoyo, J., Elliot, A. & Sargatal, J. (ed.). 1992. Handbook of the Birds of the World, Vol. 1: Ostrich to Ducks. Lynx Edicions, Barcelona, Spain.