

Conservation status of European Golden Plover (*Pluvialis apricaria altifrons*) and Song Thrush (*Turdus philomelos*)

2024 update

Wild Birds Regulation Unit

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Key to conservation status codes

Category	European species of global conservation concern	Conservation status in Europe	Global population or range concentrated in Europe
SPEC 1	Yes	–	–
SPEC 2	No	Unfavourable	Yes
SPEC 3	No	Unfavourable	No
Non-SPEC^E	No	Favourable	Yes
Non-SPEC	No	Favourable	No

Source: BirdLife International (2004: xiii)

Categories of Species of European Conservation Concern (SPECs) and Non-SPECs

<p>Each species is initially assessed against the IUCN Red List Criteria (IUCN 2001) at a European level, and then against the additional criteria derived mainly from Birds in Europe I (Tucker and Heath 1994). All population size thresholds refer to minimum population estimates. In descending order of threat, a species is evaluated as:</p>	
Critically Endangered (CR)	if its European population meets any of the IUCN Red List Criteria (A to E) for Critically Endangered. Such species have an Unfavourable conservation status in Europe because they are considered to be facing an extremely high risk of extinction in the wild (IUCN 2001).
Endangered (EN)	if its European population meets any of the IUCN Red List Criteria (A to E) for Endangered. Such species have an Unfavourable conservation status in Europe because they are considered to be facing a very high risk of extinction in the wild (IUCN 2001).
Vulnerable (V)	if its European population meets any of the IUCN Red List Criteria (A to E) for Vulnerable. Such species have an unfavourable conservation status in Europe because they are considered to be facing a high risk of extinction in the wild (IUCN 2001).
Declining (D)	if its European population does not meet any IUCN Red List Criteria, but declined by more than 10% over 10 years (i.e. 1990–2000) or three generations, whichever is longer. Such species have an Unfavourable conservation status in Europe because they are unable to maintain their populations and/or natural ranges in the long-term. [Birds in Europe I classified species as SPECs if the size of their population or range declined between 1970–1990 by 20% or more in 33–65% of the population (or by 50% or more in 12–24% of the population). Given the shorter time period covered by Birds in Europe II, an overall decline exceeding 10% is comparable with this approach.]
Rare (R)	if its European population does not meet any IUCN Red List Criteria and is not Declining, but numbers fewer than 10,000 breeding pairs (or 20,000 breeding individuals or 40,000 wintering individuals), and is not marginal to a larger non-European population. Such species have an Unfavourable conservation status in Europe because the small size of their population renders them more susceptible to accelerated declines as a result of: break-up of social structure; loss of genetic diversity; large-scale population fluctuations and catastrophic chance events; existing or potential exploitation, persecution or disturbance by humans.
Depleted (H)	if its European population does not meet any IUCN Red List Criteria and is not Rare or Declining, but has not yet recovered from a moderate or large decline suffered during

	1970–1990, which led to its classification as Endangered, Vulnerable or Declining in Birds in Europe I. Such species have an Unfavourable conservation status in Europe because they have already undergone a population decline of the type that various directives, conventions and agreements intend to prevent, and have not yet recovered.
Localised (L)	if its European population does not meet any IUCN Red List Criteria and is not Declining, Rare or Depleted, but is heavily concentrated, with more than 90% of the European population occurring at 10 or fewer sites (as listed in Heath and Evans 2000). Such species have an Unfavourable conservation status in Europe because their dependence on a small number of sites renders them more susceptible to accelerated declines as a result of: large-scale population fluctuations and catastrophic chance events; existing or potential exploitation, persecution and disturbance by humans.
Secure (S)	if its European population does not meet any of the criteria listed above. Such species have a Favourable conservation status in Europe.
In addition, a species is considered to be:	
Data Deficient (DD)	if there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A species in this category may be well studied, and its biology well known, but appropriate data on its abundance and/or distribution in Europe are lacking. Data Deficient is therefore not a category of threat (IUCN 2001).
Not evaluated (NE)	if its European population has not yet been evaluated against the criteria.
Source: BirdLife International (2004: 8)	

Species trends in Birds in Europe (2004)

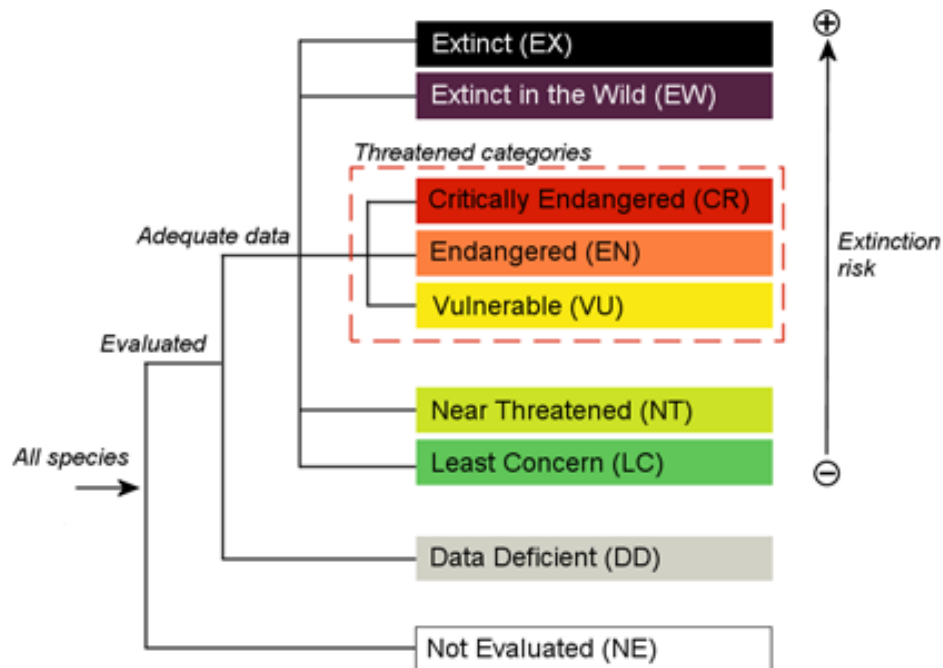
'Worst case' trend scenario 1990–2000	1990–2000 trend category	Criteria met
>30% decline	Large decline	IUCN Red List Criteria
10–29% decline	Moderate decline	Declining
<10% decline and <10% increase	Stable	-
10–29% increase	Moderate increase	-
>30% increase	Large increase	-
Unknown (insufficient data)	Unknown	-

Source: BirdLife International (2004)

IUCN Categories

EXTINCT (EX)	A taxon is Extinct when there is no reasonable doubt that the last individual has died. A taxon is presumed Extinct when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.
EXTINCT IN THE WILD (EW)	A taxon is Extinct in the Wild when it is known only to survive in cultivation, in captivity or as a naturalized population (or populations) well outside the past range. A taxon is presumed Extinct in the Wild when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.
CRITICALLY ENDANGERED (CR)	A taxon is Critically Endangered when the best available evidence indicates that it meets any of the criteria A to E for Critically Endangered (see Section V), and it is therefore considered to be facing an extremely high risk of extinction in the wild.
ENDANGERED (EN)	A taxon is Endangered when the best available evidence indicates that it meets any of the criteria A to E for Endangered (see Section V), and it is therefore considered to be facing a very high risk of extinction in the wild.
VULNERABLE (VU)	A taxon is Vulnerable when the best available evidence indicates that it meets any of the criteria A to E for Vulnerable (see Section V), and it is therefore considered to be facing a high risk of extinction in the wild.
NEAR THREATENED (NT)	A taxon is Near Threatened when it has been evaluated against the criteria but does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future.
LEAST CONCERN (LC)	A taxon is Least Concern when it has been evaluated against the criteria and does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened. Widespread and abundant taxa are included in this category.
DATA DEFICIENT (DD)	A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution are lacking. Data Deficient is therefore not a category of threat. Listing of taxa in this category indicates that more information is required and acknowledges the possibility that future research will show that threatened classification is appropriate. It is important to make positive use of whatever data are available. In many cases great care should be exercised in choosing between DD and a threatened status. If the range of a taxon is suspected to be relatively circumscribed, and a considerable period of time has elapsed since the last record of the taxon, threatened status may well be justified.
NOT EVALUATED (NE)	A taxon is Not Evaluated when it has not yet been evaluated against the criteria.

Structure of IUCN categories



Source: IUCN Red List Categories and Criteria Ver. 3.1 2nd edition. Available at: <https://portals.iucn.org/library/efiles/documents/RL-2001-001-2nd.pdf>

IUCN CRITERIA FOR CRITICALLY ENDANGERED, ENDANGERED AND VULNERABLE TAXA

CRITICALLY ENDANGERED (CR)	<p>A taxon is Critically Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing an extremely high risk of extinction in the wild:</p> <p>A. Reduction in population size based on any of the following:</p> <ol style="list-style-type: none"> 1. An observed, estimated, inferred or suspected population size reduction of $\geq 90\%$ over the last 10 years or three generations, whichever is the longer, where the causes of the reduction are clearly reversible AND understood AND ceased, based on (and specifying) any of the following: <ol style="list-style-type: none"> (a) direct observation (b) an index of abundance appropriate to the taxon (c) a decline in area of occupancy, extent of occurrence and/or quality of habitat (d) actual or potential levels of exploitation (e) the effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites. 2. An observed, estimated, inferred or suspected population size reduction of $\geq 80\%$ over the last 10 years or three generations, whichever is the longer, where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any of (a) to (e) under A1. 3. A population size reduction of $\geq 80\%$, projected or suspected to be met within the next 10 years or three generations, whichever is the longer (up to a maximum of 100 years), based on (and specifying) any of (b) to (e) under A1. 4. An observed, estimated, inferred, projected or suspected population size reduction of $\geq 80\%$ over any 10 year or three generation period, whichever is longer (up to a maximum of 100 years in the future), where the time period must include both the past and the future, and where the
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	<p>reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any of (a) to (e) under A1.</p> <p>B. Geographic range in the form of either B1 (extent of occurrence) OR B2 (area of occupancy) OR both:</p> <p>1. Extent of occurrence estimated to be less than 100 km², and estimates indicating at least two of a-c:</p> <p>a. Severely fragmented or known to exist at only a single location.</p> <p>b. Continuing decline, observed, inferred or projected, in any of the following: (i) extent of occurrence (ii) area of occupancy (iii) area, extent and/or quality of habitat (iv) number of locations or subpopulations (v) number of mature individuals.</p> <p>c. Extreme fluctuations in any of the following: (i) extent of occurrence (ii) area of occupancy (iii) number of locations or subpopulations (iv) number of mature individuals.</p> <p>2. Area of occupancy estimated to be less than 10 km², and estimate indicating at least two of a-c:</p> <p>a. Severely fragmented or known to exist at only a single location.</p> <p>b. Continuing decline, observed, inferred or projected, in any of the following: (i) extent of occurrence (ii) area of occupancy (iii) area, extent and/or quality of habitat (iv) number of locations or subpopulations (v) number of mature individuals.</p> <p>c. Extreme fluctuations in any of the following: (i) extent of occurrence (ii) area of occupancy (iii) number of locations or subpopulations (iv) number of mature individuals.</p> <p>C. Population size estimated to number fewer than 250 mature individuals and either:</p> <p>1. An estimated continuing decline of at least 25% within three years or one generation, whichever is longer, (up to a maximum of 100 years in the future) OR</p> <p>2. A continuing decline, observed, projected, or inferred, in numbers of mature individuals AND at least one of the following (a-b):</p> <p>Population structure in the form of one of the following: (i) no subpopulation estimated to contain more than 50 mature individuals, OR (ii) at least 90% of mature individuals in one subpopulation.</p> <p>b. Extreme fluctuations in number of mature individuals.</p> <p>D. Population size estimated to number fewer than 50 mature individuals.</p> <p>E. Quantitative analysis showing the probability of extinction in the wild is at least 50% within 10 years or three generations, whichever is the longer (up to a maximum of 100 years).</p>
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**ENDANGERED
(EN)**

A taxon is Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a very high risk of extinction in the wild:

Reduction in population size based on any of the following:

1. An observed, estimated, inferred or suspected population size reduction of $\geq 70\%$ over the last 10 years or three generations, whichever is the longer, where the causes of the reduction are clearly reversible AND understood AND ceased, based on (and specifying) any of the following:

- (a) direct observation
- (b) an index of abundance appropriate to the taxon
- (c) a decline in area of occupancy, extent of occurrence and/or quality of habitat
- (d) actual or potential levels of exploitation
- (e) the effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites.

2. An observed, estimated, inferred or suspected population size reduction of $\geq 50\%$ over the last 10 years or three generations, whichever is the longer, where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any of (a) to (e) under A1.

3. A population size reduction of $\geq 50\%$, projected or suspected to be met within the next 10 years or three generations, whichever is the longer (up to a maximum of 100 years), based on (and specifying) any of (b) to (e) under A1.

4. An observed, estimated, inferred, projected or suspected population size reduction of $\geq 50\%$ over any 10 year or three generation period, whichever is longer (up to a maximum of 100 years in the future), where the time period must include both the past and the future, AND where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any of (a) to (e) under A1.

B. Geographic range in the form of either B1 (extent of occurrence) OR B2 (area of occupancy) OR both:

1. Extent of occurrence estimated to be less than 5,000 km², and estimates indicating at least two of a-c:

- a. Severely fragmented or known to exist at no more than five locations.
- b. Continuing decline, observed, inferred or projected, in any of the following:
 - (i) extent of occurrence
 - (ii) area of occupancy
 - (iii) area, extent and/or quality of habitat
 - (iv) number of locations or subpopulations
 - (v) number of mature individuals.
- c. Extreme fluctuations in any of the following:
 - (i) extent of occurrence
 - (ii) area of occupancy
 - (iii) number of locations or subpopulations
 - (iv) number of mature individuals.

2. Area of occupancy estimated to be less than 500 km², and estimates indicating at least two of a-c:

- a. Severely fragmented or known to exist at no more than five locations.
- b. Continuing decline, observed, inferred or projected, in any of the following:
 - (i) extent of occurrence
 - (ii) area of occupancy
 - (iii) area, extent and/or quality of habitat
 - (iv) number of locations or subpopulations
 - (v) number of mature individuals.

	<p>c. Extreme fluctuations in any of the following:</p> <ul style="list-style-type: none"> (i) extent of occurrence (ii) area of occupancy (iii) number of locations or subpopulations (iv) number of mature individuals. <p>C. Population size estimated to number fewer than 2,500 mature individuals and either:</p> <ol style="list-style-type: none"> 1. An estimated continuing decline of at least 20% within five years or two generations, whichever is longer, (up to a maximum of 100 years in the future) OR 2. A continuing decline, observed, projected, or inferred, in numbers of mature individuals AND at least one of the following (a-b): <ul style="list-style-type: none"> a. Population structure in the form of one of the following: <ul style="list-style-type: none"> (i) no subpopulation estimated to contain more than 250 mature individuals, OR (ii) at least 95% of mature individuals in one subpopulation. b. Extreme fluctuations in number of mature individuals. <p>D. Population size estimated to number fewer than 250 mature individuals.</p> <p>E. Quantitative analysis showing the probability of extinction in the wild is at least 20% within 20 years or five generations, whichever is the longer (up to a maximum of 100 years).</p>
<p>VULNERABLE (VU)</p>	<p>A taxon is Vulnerable when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a high risk of extinction in the wild:</p> <p>Reduction in population size based on any of the following:</p> <ol style="list-style-type: none"> 1. An observed, estimated, inferred or suspected population size reduction of $\geq 50\%$ over the last 10 years or three generations, whichever is the longer, where the causes of the reduction are clearly reversible AND understood AND ceased, based on (and specifying) any of the following: <ul style="list-style-type: none"> (a) direct observation (b) an index of abundance appropriate to the taxon (c) a decline in area of occupancy, extent of occurrence and/or quality of habitat (d) actual or potential levels of exploitation (e) the effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites. 2. An observed, estimated, inferred or suspected population size reduction of $\geq 30\%$ over the last 10 years or three generations, whichever is the longer, where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any of (a) to (e) under A1. 3. A population size reduction of $\geq 30\%$ projected or suspected to be met within the next 10 years or three generations, whichever is the longer (up to a maximum of 100 years), based on (and specifying) any of (b) to (e) under A1. 4. An observed, estimated, inferred, projected or suspected population size reduction of $\geq 30\%$ over any 10 year or three generation period, whichever is longer (up to a maximum of 100 years in the future), where the time period must include both the past and the future, AND where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any of (a) to (e) under A1. <p>B. Geographic range in the form of either B1 (extent of occurrence) OR B2 (area of occupancy) OR both:</p> <ol style="list-style-type: none"> 1. Extent of occurrence estimated to be less than 20,000 km², and estimates indicating at least two of a-c: <ul style="list-style-type: none"> a. Severely fragmented or known to exist at no more than 10 locations.

	<p>b. Continuing decline, observed, inferred or projected, in any of the following:</p> <ul style="list-style-type: none"> (i) extent of occurrence (ii) area of occupancy (iii) area, extent and/or quality of habitat (iv) number of locations or subpopulations (v) number of mature individuals. <p>c. Extreme fluctuations in any of the following:</p> <ul style="list-style-type: none"> (i) extent of occurrence (ii) area of occupancy (iii) number of locations or subpopulations (iv) number of mature individuals. <p>2. Area of occupancy estimated to be less than 2,000 km², and estimates indicating at least two of a-c:</p> <p>a. Severely fragmented or known to exist at no more than 10 locations.</p> <p>b. Continuing decline, observed, inferred or projected, in any of the following:</p> <ul style="list-style-type: none"> (i) extent of occurrence (ii) area of occupancy (iii) area, extent and/or quality of habitat (iv) number of locations or subpopulations (v) number of mature individuals. <p>c. Extreme fluctuations in any of the following:</p> <ul style="list-style-type: none"> (i) extent of occurrence (ii) area of occupancy (iii) number of locations or subpopulations (iv) number of mature individuals. <p>C. Population size estimated to number fewer than 10,000 mature individuals and either:</p> <p>1. An estimated continuing decline of at least 10% within 10 years or three generations, whichever is longer, (up to a maximum of 100 years in the future) OR</p> <p>2. A continuing decline, observed, projected, or inferred, in numbers of mature individuals AND at least one of the following (a-b):</p> <p>a. Population structure in the form of one of the following:</p> <ul style="list-style-type: none"> (i) no subpopulation estimated to contain more than 1,000 mature individuals, OR (ii) all mature individuals in one subpopulation. <p>b. Extreme fluctuations in number of mature individuals.</p> <p>D. Population very small or restricted in the form of either of the following:</p> <p>1. Population size estimated to number fewer than 1,000 mature individuals.</p> <p>2. Population with a very restricted area of occupancy (typically less than 20 km²) or number of locations (typically five or fewer) such that it is prone to the effects of human activities or stochastic events within a very short time period in an uncertain future, and is thus capable of becoming Critically Endangered or even Extinct in a very short time period.</p> <p>E. Quantitative analysis showing the probability of extinction in the wild is at least 10% within 100 years.</p>
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Executive Summary

This report provides an update on the conservation status of the Golden Plover (*Pluvialis apricaria*) and Song Thrush (*Turdus philomelos*) for review and consideration by the Malta Ornithology Committee.

The conservation status of the two species is reviewed based on current available scientific literature, which also provides details on population size, mortality rates and migratory routes. Tracking (GPS) data from Song Thrushes and Golden Plovers fitted with a geolocator (satellite-tag) is included in this report. An assessment of the Golden Plover at sub-specific level is also provided.

Literature review based on the latest available ornithological publications and scientific evidence, including mapping of flyways at sub-specific level, shows that Golden Plovers migrating over the Maltese Islands are the sub-species *Pluvialis apricaria altifrons* from the Northeast European (West Continental) population and that the moderate historical decline refers to the nominate *P. apricaria apricaria*, which has a more restricted range and does not pass through Malta (Scott, 2002; Wetlands International, 2009). The GPS tracking data also corroborates the scientific literature, although further deployments are necessary to increase the sample size. The GPS tracking data (for period March 2023 to date) also shows that specimens from the Central Siberian population of the European Golden Plover pass through Malta.

The current update on population size and population trends, based on the most recently available scientific literature, shows that both *Pluvialis apricaria altifrons* and *Turdus philomelos* continue to have a **Favourable Conservation Status at the European, the EU28 and Malta's EU reference population levels.**

The assessment contains a review of the latest population trend estimates for both species, based on the current Birds Directive Article 12 report for period 2013–2018 as well as the latest Pan-European Common Birds Monitoring Scheme (PECMBS) wild bird indicators. The report also determines the applicable annual mortality rate of Malta's EU reference population for both species in accordance with the principles established in the European Commission's Guide to Sustainable Hunting under the Birds Directive¹.

¹ http://ec.europa.eu/environment/nature/conservation/wildbirds/hunting/docs/hunting_guide_en.pdf

1. Conservation status of European Golden Plover (*Pluvialis apricaria altifrons*)

The Golden Plover (*Pluvialis apricaria s.l.*) is a medium-sized Palearctic wader which breeds in continental arctic, arctic alpine and boreal tundra, but secondarily on temperate oceanic unenclosed upland moors and peat-land. In winter, the Golden Plover occupies harvest fields, stubbles, close grazed pastures, fallows and other farmland of open character including floodlands. Its breeding range extends from Iceland to Russia and its wintering quarters stretch from Morocco to Asia Minor including South Europe (Geroudet 1983; Cramp & Simmons 1983).

European population

The European population is estimated at 630,000–860,000 pairs, which equates to 1,300,000–1,750,000 individuals (BirdLife International, 2024²). The EU population is estimated at 207,000–338,000 pairs (EEA, 2020)³ and its status is **Secure**⁴.

The Golden Plover (*Pluvialis apricaria s.l.*) is a huntable species listed under Annex II/B of the Birds Directive. According to the EU Management Plan for the Golden Plover⁵, this species is hunted in at least four EU member states, including Portugal, Ireland, France and Malta. According to the Management Plan, over 62,000 Golden Plovers were known to have been bagged annually in France and over 32,000 in Portugal⁶.

This species has an extremely large range, with an estimated global extent of occurrence of 1,000,000–10,000,000 km² (Wetlands International 2006⁷). BirdLife International (2024) notes that on the basis of such large range (11,100,000 km²), this species does not approach the thresholds for Vulnerable under the range size criterion (Extent of Occurrence <20,000 km² combined with a declining or fluctuating range size, habitat extent/quality, or population size and a small number of locations or severe fragmentation). The population size is very large, and hence does not approach the thresholds for Vulnerable under the population size criterion (<10,000 mature individuals with a continuing decline estimated to be >10% in ten years or three generations, or with a specified population structure). For these reasons the species is evaluated by BirdLife International (2024) and IUCN⁸ as **Least Concern** with an increasing population trend.

Sub-specific assessment – a historical review of trends and geographical populations

Cramp and Simmons (1983)⁹ maintain that the Golden Plover includes two sub-species *Pluvialis apricaria apricaria* (nominate) breeding from Ireland and Britain to the Baltic States and *Pluvialis apricaria altifrons* breeding at higher altitudes from Iceland to north-central Siberia. Delany *et al.* (2007)¹⁰ indicate that the *altifrons* population is divided into three sub-populations, of which the Northeast European (West Continental) is the one that migrates over

² BirdLife International (2024) Species factsheet: *Pluvialis apricaria*. Downloaded from <http://www.birdlife.org> on 17/04/2024.

³ European Environment Agency (2020) Article 12 reports for the 2013-2018 reporting period (EU28) Available at: <http://bd.eionet.europa.eu/article12/summary?period=1&subject=A140>

⁴ <https://eunis.eea.europa.eu/species/1223>

⁵ European Union Management Plan 2009–2011 Golden Plover *Pluvialis apricaria*. Available at: https://ec.europa.eu/environment/nature/conservation/wildbirds/hunting/docs/Golden%20Plover%20EU_MP.pdf

⁶ EC 2009: *European Union Management Plan for Golden Plover 2009–2011*, Table 4, page 17.

⁷ Wetlands International (2006). - Waterbird Population Estimates – Fourth Edition. Wetlands International, Wageningen, the Netherlands.

⁸ <http://www.iucnredlist.org/details/22693727/0>

⁹ Cramp, S., ed. (1983). The Birds of the Western Palearctic. Vol. III 'Waders to Gulls. (*Pluvialis apricaria* Golden Plover pp 201-216). Oxford University Press.

¹⁰ Delany, S, Scott, D, Dodman T, and Stroud, D (eds) (2009) *2009 Atlas of Wader Populations in Africa and Western Eurasia*. Wetlands International, Wageningen, The Netherlands.

Malta (breeds from North Norway to Russia-east 70 degrees) and winters in west and south continental Europe, east Britain and north-west Africa (Morocco to Tunisia).

The Agreement on the Conservation of African–Eurasian Migratory Waterbirds (AEWA) Status Report indicates that the *Pluvialis apricaria altifrons* breeds widely at high altitudes in Western Eurasia from Iceland east to 100 degrees east in Western Siberia, and winters south to North Africa (occasionally to Senegal) and the South Caspian. *Pluvialis apricaria apricaria* breeds at more westerly latitudes in Britain, Ireland, Denmark and Germany, and is a short-distance migrant, most birds wintering fairly close to their breeding areas (Scott, 2002).

Considerable variation exists in most populations, and many authors consider the species to be monotypic. Four main breeding populations can be identified: (1) Icelandic and Faeroese breeders (*altifrons*), wintering mainly in Ireland, with smaller numbers in western Britain, France and Iberia, and a few to Northwest Africa; (2) a population of *altifrons* breeding from Northern Norway east to about 70 degrees east and wintering mainly in western and southern continental Europe and Northwest Africa (Morocco and Tunisia) [Malta’s reference population]; (3) population of *altifrons* breeding in Western Siberia east to 100 degrees east and wintering in the Caspian region band possibly Asia Minor and Eastern Mediterranean; and (4) southern breeders (*apricaria*) breeding in Britain, Ireland, Denmark (extirpated?) and Germany, and wintering in Northwest Europe (Table 1).

Table 1 Countries of origin of *Pluvialis apricaria altifrons* and *Pluvialis apricaria apricaria*

Population	<i>altifrons</i> (Iceland & Faeroes)	<i>altifrons</i> (NW Europe)	<i>altifrons</i> (N–C Siberia)	<i>apricaria</i> (UK/IR/DK/D)
Population size	☺	☺	☹☹	☹
Breeding location	☺☺	☺☺	☺	☺☺

Source: Adapted from Gillings, S (2005) Table 1: An assessment of the level of knowledge for developing a flyway conservation strategy for each breeding population of Eurasian Golden Plover (after Davidson *et al.* 1998). ☺☺ = very good; ☺ = good; ☹ = adequate; ☹ = poor, ☹☹ = very poor. International workshop on passage and wintering Eurasian Golden Plovers (p. 6).

AEWA and its Resolution 4.11 (see <http://tinyuri.com/aewares411>) also provides the distribution for *Pluvialis apricaria apricaria* as “*Britain, Ireland, Denmark, Germany and the Baltic*”, thereby excluding in a definitive way the Central Mediterranean region. The same applies for the ‘European Management Plan for the Golden Plover, 2009–2011’ (see <http://tinyuri.com/gp-eump>) which indicates that “*The nominate southern subspecies Pluvialis apricaria apricaria nests in Ireland, Great Britain, Denmark, Germany, Latvia, Lithuania and Estonia. This subspecies winters in North-West, from Ireland to South Britain, France and Iberia*”.

In this context, it should be noted that the sub-species that migrates over Malta in autumn is *Pluvialis apricaria altifrons* as can also be attested by Delany *et. al.* (2007). The authors maintain that “there is growing evidence that numbers of *altifrons* wintering in Europe are increasing” (Delany *et. al.*, 2007: 183). The publication also indicates that the nominate *Pluvialis apricaria apricaria* has a more restricted migratory distribution that excludes the Maltese Islands and nearby central regions in the Mediterranean. The European Union Management Plan (EC 2009) specifies that:

“*The Northern P. a. altifrons subspecies is generally split into three populations based on their different flyways that overlap in winter. They are defined as:*

- *Icelandic (or East Atlantic): breeds in Iceland, the Faeroe Islands and Greenland and winters in Ireland, West Britain, France, West Iberia and North-West Africa.*
- *Northeast European (or West Continental): breeds in North Norway and Russia (east to 70 degrees east) and winters in West and south continental Europe, East Britain and North-West Africa (Morocco and Tunisia).*
- *North Central Siberia population, breeds in North Central Siberia (east to 100 degrees east) and winters in the Caspian Region, Asia Minor and the Eastern Mediterranean.”*

According to Delany *et al.* (2007) *Pluvialis apricaria apricaria* is declining whereas *Pluvialis apricaria altifrons* is more or less stable (see also page 7, second paragraph, of *The European Union Management Plan 2009-2011 for Golden Plover*). On the basis of current available literature, therefore, the population of the sub-species with a historical decline is the *P. a. apricaria*, whereas the other populations / groups (*P. apricaria altifrons*) found in Europe are stable or increasing.

According to the EU Management Plan for the Golden Plover, approximately 50% of Golden Plover (*P. apricaria altifrons*) European population breeds in Iceland with a total of >300,000 breeding pairs (Thorup 2006, 930,000 individuals, Wetlands International 2006). Trends in this population are not well known, whereas the relatively small Faeroese population is declining. Approximately half of this population is found in Norway, 22% in Finland, 17% in Sweden and 9% in Russia with a total ranging from 217,000 to 362,000 breeding pairs. This population is considered stable (Wetlands International 2006). According to AEWA, while the *P. apricaria apricaria* is declining, *P. apricaria altifrons* is considered as stable and possibly increasing.

It should thus be noted that this moderate decline is related to the nominate *Pluvialis apricaria apricaria* population which does not pass through Malta (Figures 1 and 2). Golden Plovers that migrate over the Maltese Islands form part of the Northeast European (or West Continental) population (*P. apricaria altifrons*) which has a **minimum population of 172,089 breeding pairs at EU28 level** (Finland and Sweden only) – see Table 5.

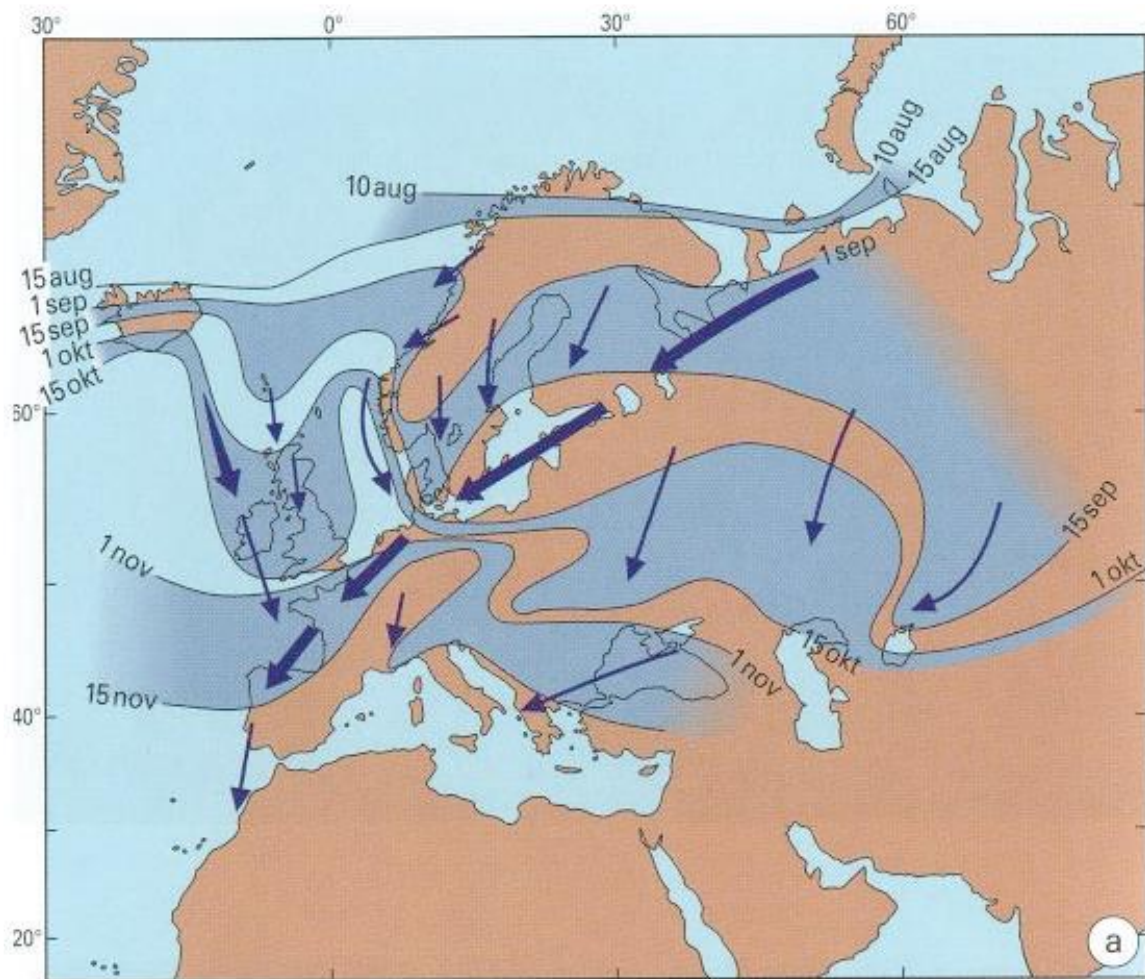


Figure 1: Outline of the timing and geography of the southward migration of Golden Plovers. Arrows indicate the most important migration routes, and size of arrow is an indication of migration intensity. Source: Jukema *et al.* 2001. In: Gillings, S (2005) International workshop on passage and wintering Eurasian Golden Plovers (p. 5).

Eurasian Golden Plover *Pluvialis apricaria*

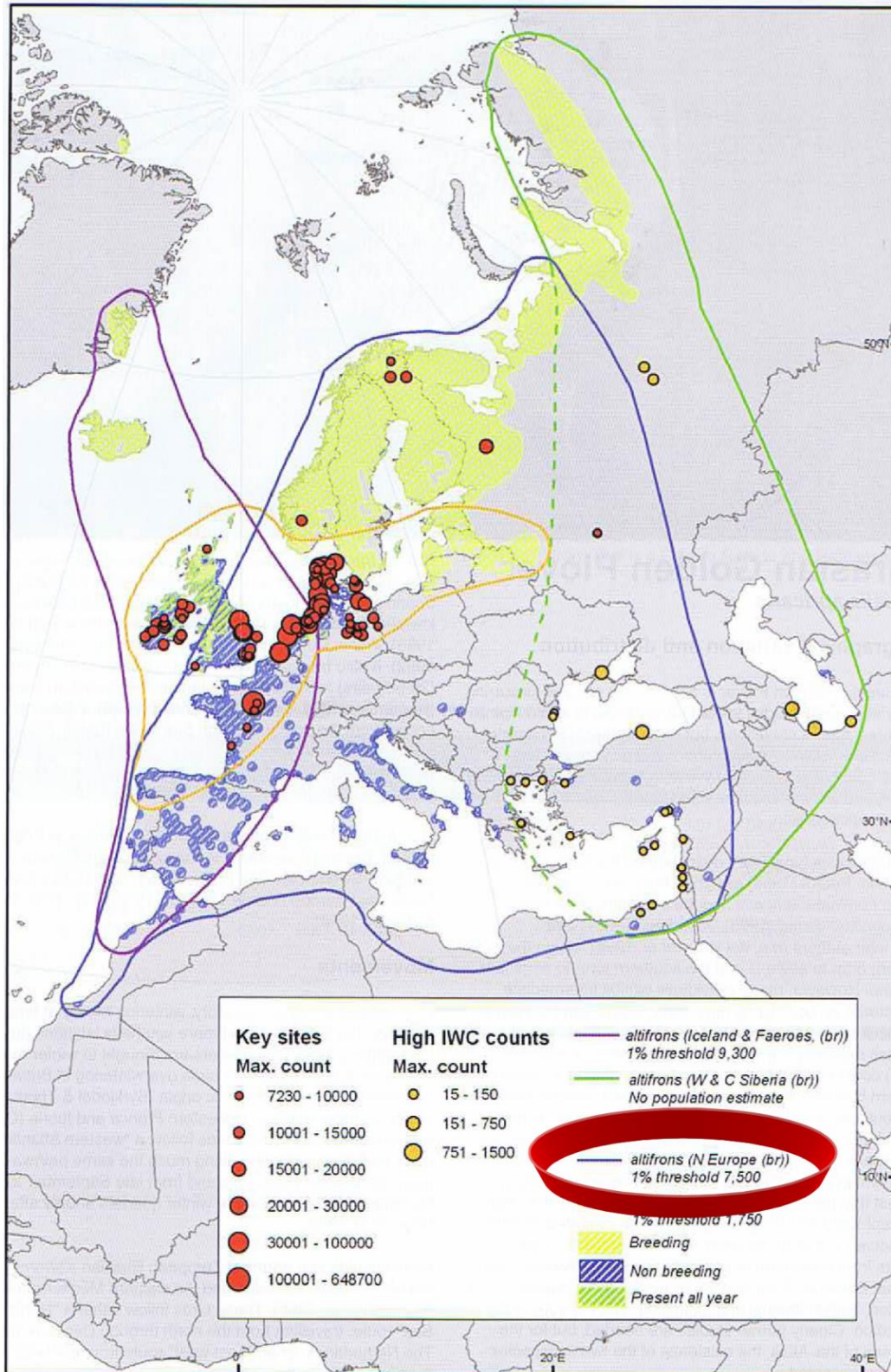


Figure 2: Migratory flyways of European (Eurasian) Golden Plover *Pluvialis apricaria*. Source: Wetlands International (2009) *An Atlas of Wader Populations in Africa and Western Eurasia* (p. 180). **Note orange boundary delineating the restricted migration pattern of nominate *Pluvialis apricaria apricaria*.**

Article 12 reports (2013–2018)

This update includes the current population trends and indices as reported by Member States in their Article 12 report for period 2013–2018¹¹. Within the territory of the European Union (EU28), the European Golden Plover has a breeding population size of 207,000–338,000 pairs (previously reported at 244,000–355,000 pairs during the 2008–2012 reporting cycle) and a breeding range size of 533,000km² (previously reported at 661,000km² during the 2008–2012 reporting cycle). The **breeding population** trend in the EU28 is **Stable in both the short-term and long-term** (EEA, 2020)¹².

Short-term and long-term trend directions and magnitudes reported for the EU for this taxon correspond to trends in PECBMS (2019), indicating a stable trend (0%) during 2008–2017 and a stable trend (-13%) during 1981–2017¹³.

The species has a wintering population size of 746,000–1,220,000 individuals (previously reported at 1,350,000–2,430,000 individuals during the 2008–2012 reporting cycle). The **wintering population** trends at EU level were reported as **declining in the short-term and increasing in the long-term**.

Wintering EU assessment: Short-term and long-term trend directions and magnitudes reported for the EU for this taxon do not correspond to trends in Wetlands International 2017 (<http://iwc.wetlands.org/static/files/0-IWC-trendanalysis-report-2017-final.pdf> and <http://iwc.wetlands.org/index.php/aewatrends>). In this instance, Wetlands International 2017 trends were however considered more representative alongside the Red List of British Birds (Stanbury *et al.*, 2017); thus, the EU population trend is likely declining (source: see footnote 13).

The EU population status of *Pluvialis apricaria* was assessed as **Secure**¹⁴, because the species does not meet any of the IUCN Red List criteria for threatened or Near Threatened, or the criteria for Depleted or Declining (the EU28 population or range has not declined by 20% or more since 1980)¹⁵.

Pan-European Common Birds Monitoring Scheme (2023 update)

It should be noted that since 2021, Estonia has been included in the “List of Countries” contributing to the latest European Bird Census Council (EBCC / PECBMS) updates, apart from Norway, **Sweden** and **Finland** (the latter two constituting Malta’s EU reference population). According to the EU Management Plan for this species, Estonia, which sustains a breeding population of 2,500–3,400 pairs (EEA, 2020) does not form part of the Northeast European population of *Pluvialis apricaria altifrons* (Malta’s EU reference population)¹⁶.

According to the latest dataset available from the European Bird Census Council¹⁷ (EBCC, 2023) at the time the conservation status of the Golden Plover (*Pluvialis apricaria*) was updated (August 2024), **there was an increase in the combined breeding population of**

¹¹ <https://nature-art12.eionet.europa.eu/article12/summary>

¹² European Environment Agency (2020) Article 12 reports for the 2013-2018 reporting period (EU28). Available at: https://nature-art12.eionet.europa.eu/article12/summary?period=3&subject=Pluvialis+apricaria&reported_name=

¹³ https://nature-art12.eionet.europa.eu/article12/summary/audittrail/?reported_name=&period=3&subject=Pluvialis+apricaria

¹⁴ <https://eunis.eea.europa.eu/species/1223>

¹⁵ <https://nature-art12.eionet.europa.eu/article12/summary/datasheet/?period=3&subject=Pluvialis+apricaria>

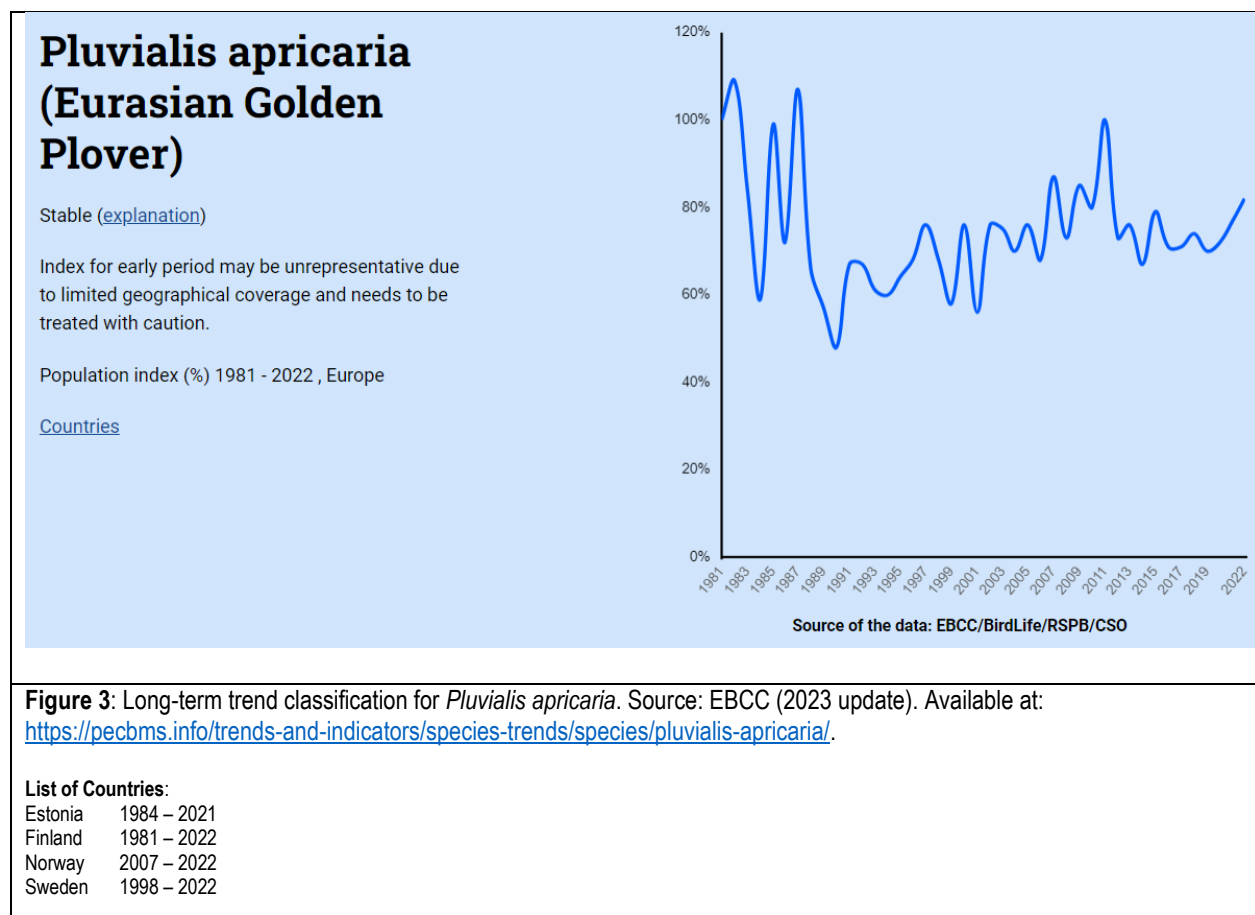
¹⁶ *The nominate southern subspecies P. a. apricaria nests in Ireland, Great Britain, Denmark, Germany, Latvia, Lithuania and Estonia. This subspecies winters in North-West Europe, from Ireland to South Britain, France and Iberia.* Source: EU Management Plan – Golden Plover (p.8).

¹⁷ *Trends of common birds in Europe, 2023 update.* Available at: <https://pecbms.info/trends-and-indicators/species-trends/species/pluvialis-apricaria/>

the contributing countries (Norway, Sweden, Finland and Estonia) both in the short-term and long-term trends, when compared with the previous EBCC update.

In the short-term trend [ten-year slope] (2013–2022), the increase was from +4% to +8% (**4% increase**) and from -23% to -17% (**6% increase**) in the long-term trend (1981–2022)¹⁸. The current EBCC assessment considers *Pluvialis apricaria* as **Stable**.

Figure 3 is an extract from the EBCC 2023 update, which confirms that the population trend category for *Pluvialis apricaria* remained **Stable** with “no significant increase or decline, and most probable trends are less than 5% per year”.



¹⁸ Comparison between the previous and current EBCC updates is for information purposes only. The EBCC updates provide composite data (combined data of all contributing countries) on the latest population trends at pan-European level, not at EU level—it includes data pertaining to countries that are not part of Malta’s EU reference population. Moreover, since the EBCC updates do not provide segregated data on population levels and trends for each contributing country, it is not possible to use EBCC’s composite data, even if combined at EU level only, to update the assessment of the species at Malta’s EU reference population level. The latest available data at EU level that is segregated by country, and hence available to the Maltese authorities to carry out an assessment of the status of the species at reference population level, is the one published by the European Environment Agency as part of the Birds Directive Article 12 reporting obligations for period [2013–2018](#).

The Golden Plover does not breed in Malta (neither in the wild, nor in captivity). Table 2 lists the live-capturing data for Golden Plover in Malta and Gozo from 2006 to December 2023.

Table 2 Live-capturing data for Golden Plover (2006–Dec2022)

Species	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total	Average
Golden Plover	319	44	503 ¹	414	1,769	52	25 ²	158 ³	476 ⁴	321 ⁵	297 ⁵	167 ⁵	233 ⁵	588 ⁶	797 ⁷	688 ⁸	727 ⁹	700 ¹⁰	8,278	460

Data sources:

2006–2012: *Carnet de Chasse* data, Environment Protection Directorate (MEPA).

2013–2023: Wild Birds Regulation Unit.

¹ Jan 2008 (n=16) + Oct–Dec 2008 (n=487)

² The 2012 figure represents the SMS data for the period 20th October to 31st December 2012 (i.e. excluding the period 1st January to 10th January 2013, n=8).

³ The 2013 figure represents the SMS data for the period 20th October to 31st December 2013 (i.e. excluding the period 1st January to 10th January 2014, n=58).

⁴ The 2014 figure represents the SMS data for the period 1st January to 10th January 2014 (n=58) and the game reporting data for the period 20th October to 31st December 2014 (n=418).

⁵ Game reporting data for the period 20th October to 31st December of the corresponding year.

⁶ Game reporting data for the period 1st November to 31st December of the corresponding year.

⁷ The 2020 figure represents the game reporting data for the period 1st January to 10th January 2020 (n=112) and the game reporting data for the period 1st November to 31st December 2020 (n=685).

⁸ The 2021 figure represents the game reporting data for the period 1st January to 4th January 2021 (n=15) [season closed on 4th January 2021 as soon as the national bag limit of 700 Golden Plovers was reached] and the game reporting data for the period 1st November to 31st December 2021 (n=673).

⁹ The 2022 figure represents the game reporting data for the period 1st January to 3rd January 2022 (n=27) [season closed on 3rd January 2022 as soon as the national bag limit of 700 Golden Plovers was reached] and the game reporting data for the period 1st November to 30th December 2022 (n=700). The 01 November 2022 – 10 January 2023 live-capturing season for Golden Plover was closed on 30th December 2022 as soon as the national bag limit of 700 Golden Plovers was reached.

¹⁰ The 2023 figure represents the game reporting data for the period 1st November to 23rd December 2023 (n=700). The 01 November 2023 – 10 January 2024 live-capturing season for Golden Plover was closed on 23rd December 2023 as soon as the national bag limit of 700 Golden Plovers was reached.

Reference population

The “small numbers” requirement, within the meaning of Article 9(1)(c) of the Birds Directive should be understood as “any sample of less than 1% of the total annual mortality of the population in question (average value) for those species which are not to be hunted and **a sample in the order of 1% for those species which may be hunted**. ‘Population in question’ is to be understood, with regard to migratory species, as the population of those regions from which come the main contingents passing through the region to which the derogation applies during its period of application”. Given that the Golden Plover qualifies as a huntable species under the Birds Directive (MT: Annex IIB), the “*small numbers*” requirement is understood as “*a sample in the order of 1% of the total annual mortality of the population in question*”.

As explained in the previous sections of this report, on the basis of the latest available scientific literature and satellite tracking data, the reference population of the Golden Plover for Malta forms part of the West Continental (Northeast European) population (*P. apricaria altifrons*). According to the EU Management Plan (2009–2011) for this species, this population is distributed as follows:

- Norway (c. 50%)
- Finland (22%)
- Sweden (17%)
- Russia (9%)

Malta’s EU reference population of the Golden Plover is Finland and Sweden.

Satellite tracking data

Although the flyways of Golden Plovers are mapped in established scientific literature (see Figures 1 and 2 above), as requested by the services of the European Commission in 2019, the Maltese authorities initiated a research project to assess the migratory routes of this species passing through Malta using satellite tracking devices (geolocators), hereinafter referred to as satellite-tags. The location of tagged specimens is monitored in real-time by the Maltese authorities using Argos satellite data repository to which a Movebank account has been linked. The Movebank account showing all GPS fixes was converted to a publicly visible research study in 2021.

A report on the outcome of each satellite-tagging period is prepared by the Wild Birds Regulation Unit (WBRU) and presented to the Ornithology Committee as part of the process when a request for renewal of the research derogation period is submitted to the Committee. A final report will be presented to the Committee following deployment of the last tag and subsequently published on WBRU’s website.

Phase 1 (Feb – Mar 2022)

The project commenced in February 2022. No Golden Plovers were caught during the first research derogation period (01 Feb – 31 Mar 2022).

Phase 2 (Nov 2022 – Mar 2023)

The satellite-tagging project was renewed by Ornithology Committee for period 29 November 2022 – 31 March 2023 (the commencement date was linked with the date of publication of the Government Notice¹⁹ since the Committee discussed the renewal after the proposed commencement date).

¹⁹ G.N. no. 1618/2022, dated 29 November 2022. Available at: <https://www.gov.mt/en/Government/DOI/Government%20Gazette/Documents/2022/11/Gaz%20Government%20Gazette%20-%2029th%20November.pdf>


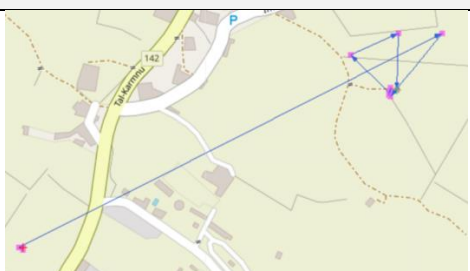

Five Golden Plovers were fitted with a satellite-tag during Phase 2. From a total of three specimens satellite-tagged during post-nuptial migration, one was shot during the open hunting season. The other two wintered in North Africa (Tunisia) and both subsequently bred in Sweden. The other two specimens were satellite-tagged during pre-nuptial migration and bred in Finland and Russia (Central Siberia) respectively.

Phase 3 (Oct 2023 – Mar 2024)

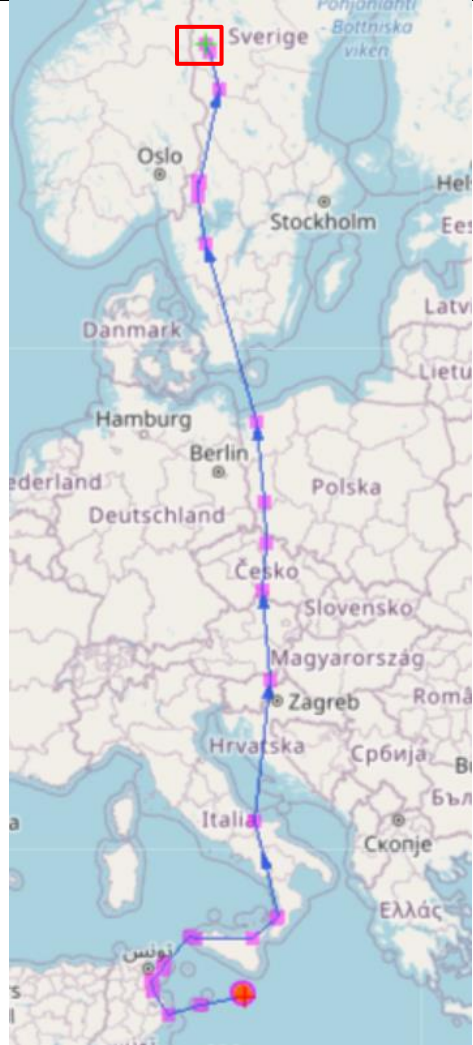
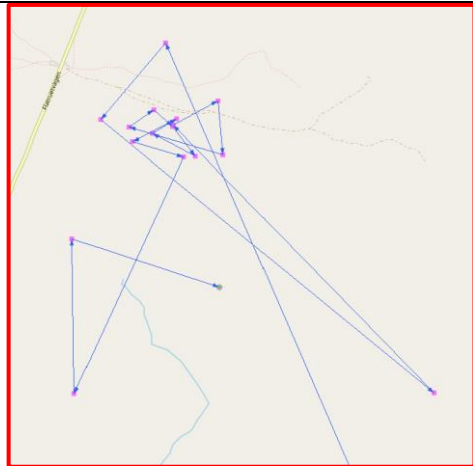
The project was renewed by Ornis Committee for period 20 October 2023 – 31 March 2024.²⁰


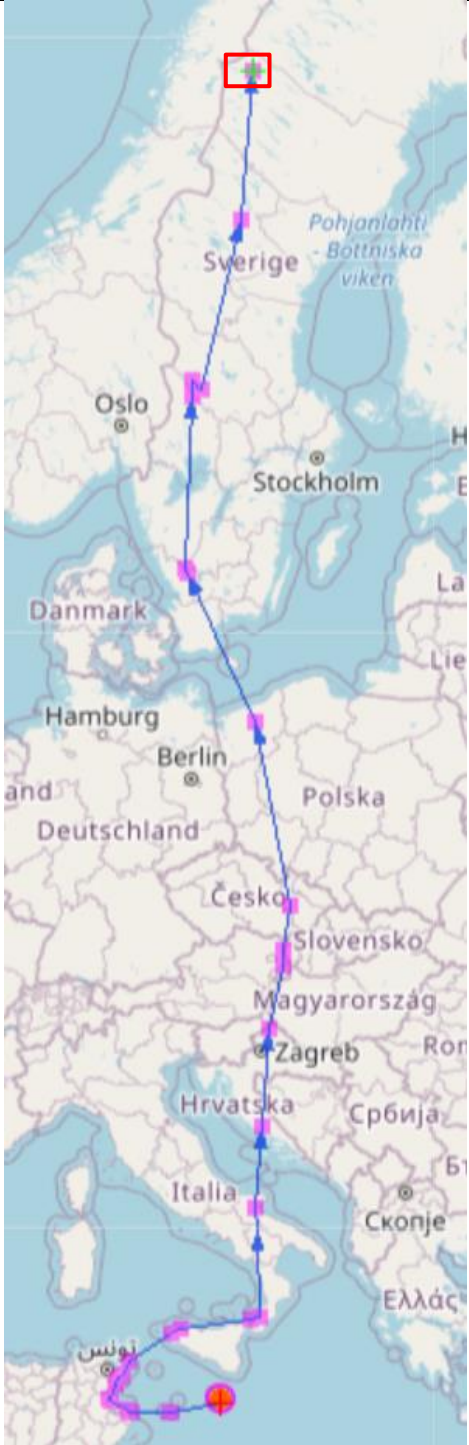
Ten Golden Plovers were fitted with a satellite-tag during Phase 3. From a total of nine specimens satellite-tagged during post-nuptial migration, two were confirmed shot during the open hunting season (tags returned to WBRU), another specimen was likely shot (tag not returned to WBRU) and another two specimens were either shot before GPS data transmission (after the third GPS fix) or congregated within a distance of less than one metre from each other resulting in tag failure. The other four wintered in North Africa (Tunisia) and subsequently bred in Sweden (n=1), Finland (n=1) and Norway (n=2). The fifth specimen was satellite-tagged during pre-nuptial migration and bred in Russia (Western Siberia).

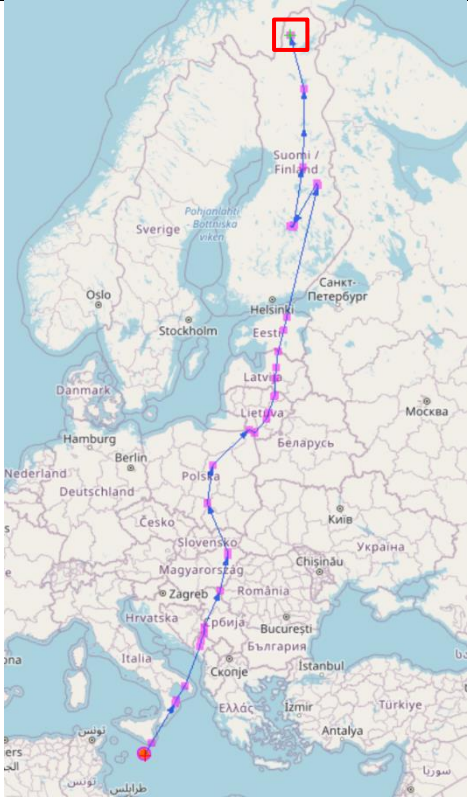


Table 3 includes maps showing the migratory routes of all tagged specimens, the locations of their wintering grounds (for specimens caught and satellite-tagged during post-nuptial migration) and the location of their breeding grounds following pre-nuptial migration. Figure 4 is a composite map showing the locations and flightpaths of all Golden Plovers fitted with a satellite-tag.


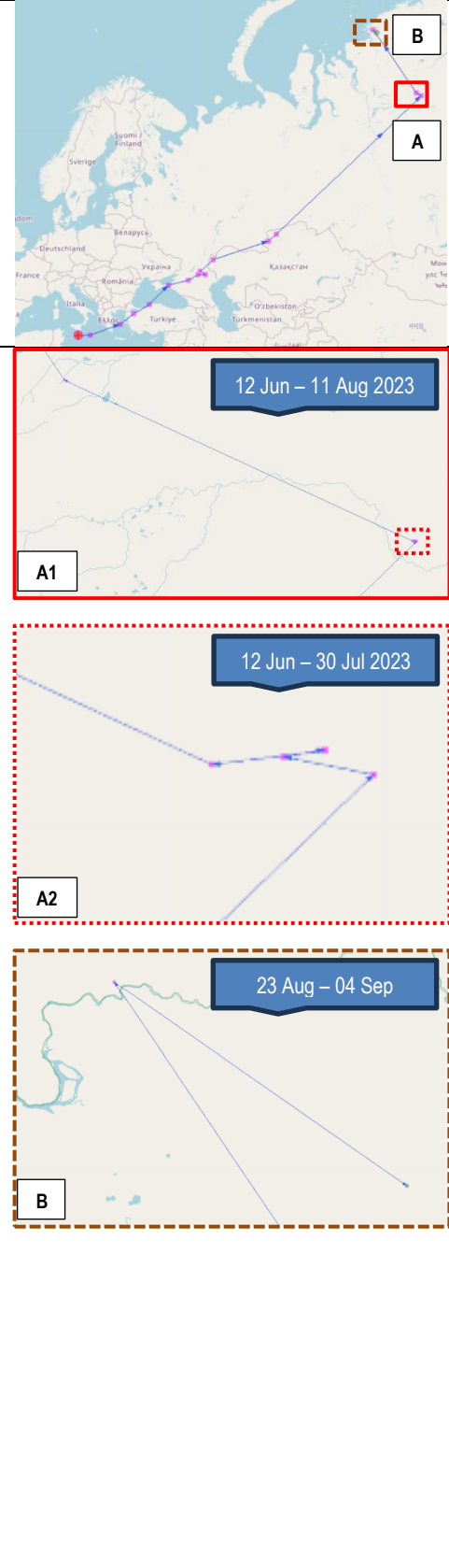
Table 3: GPS locations of Golden Plover tags from date of first deployment				
Species	Tag decimal id.	Location of GPS fixes (<i>italics</i> = date when tagged bold = date of last transmission)	Date	Map
<i>Pluvialis apricaria</i> 	208612	<i>Birżebbuġa, Malta</i> Birżebbuġa, Malta	16/12/2022 17/12/2022 (shot; tag returned to WBRU the following working day)	
<i>Pluvialis apricaria</i> 	208581	<i>Birżebbuġa, Malta</i> Birżebbuġa, Malta Filfla, Malta Lampedusa	30/12/2022 01/01/2023 02/01/2023 03/01/2023	


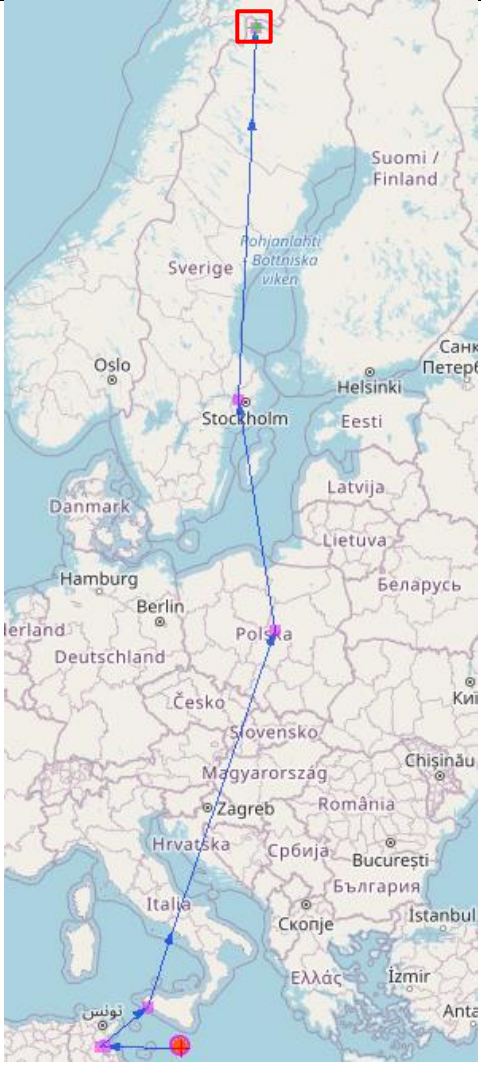
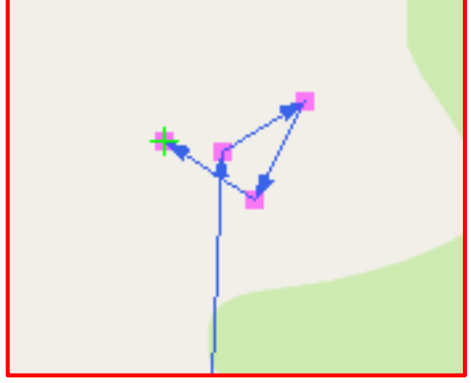

²⁰ G.N. no. 1110/2023, dated 11 August 2023. Available at: <https://www.gov.mt/en/Government/DOI/Government%20Gazette/Government%20Notices/Pages/2023/08/GovNotices1108.aspx>

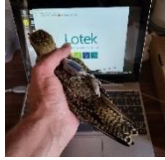

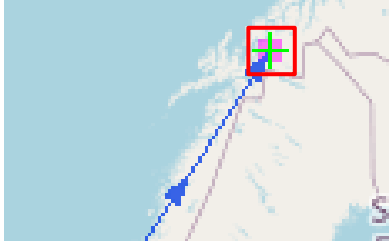
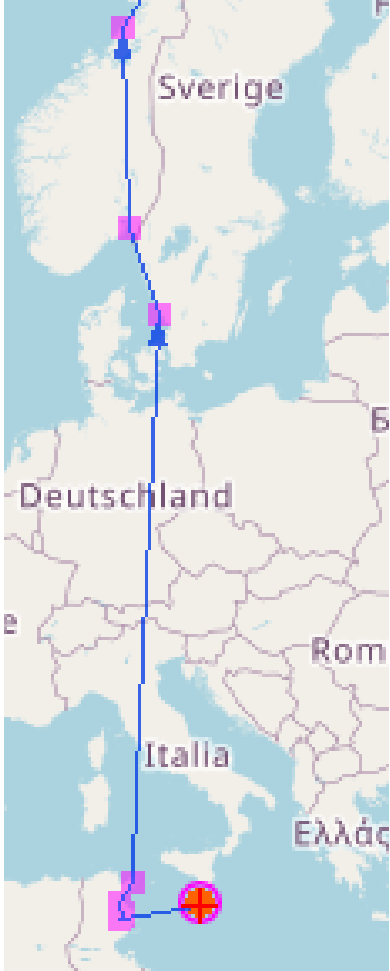
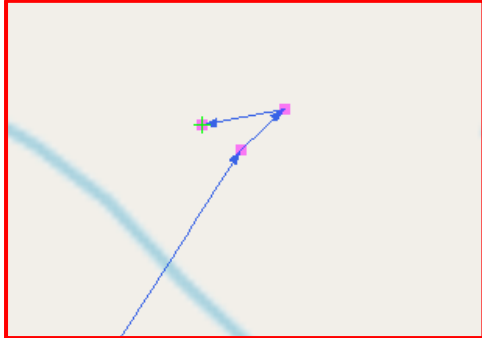
		Chebba, Tunisia	04/01/2023	
		Sidi Bou Ali, Tunisia	09/01/2023	
		Enfidha, Tunisia	12/01/2023	
		Bouficha, Tunisia	19/01/2023	
		Errmal, Tunisia	20/01/2023	
		Errmal, Tunisia	18/02/2023	
		Hammamet, Tunisia	22/02/2023	
		Menzel Temime, Tunisia	26/02/2023	
		Menzel Temime, Tunisia	09/03/2023	
		Haouaria, Tunisia	11/03/2023	
		Nabeul, Tunisia	13/03/2023	
		Marettimo, Sicily	15/03/2023	
		Favignana, Sicily	15/03/2023	
		Randazzo, Sicily	17/03/2023	
		Rombiolo, Italy	18/03/2023	
		San Gregorio d'Ippona, Italy	18/03/2023	
		Campobasso, Italy	20/03/2023	
		Rače, Slovenia	22/03/2023	
		Studená, Czechia	24/03/2023	
		Horka u Staré Paky, Czechia	26/03/2023	
		Gmina Brzeźnica, Poland	28/03/2023	
		Gmina Gryfice, Poland	31/03/2023	
		Grästorps Municipality, Sweden	01/04/2023	
		Årjäng Municipality, Sweden		
		Arvika Municipality, Sweden	03/04/2023	
		Arvika Municipality, Sweden	08/04/2023	
		Härjedalen, Sweden	08/05/2023	
		Falkvålen, Sweden	10/05/2023	
		Falkvålen, Sweden	14/05/2023	
			27/07/2023	
				


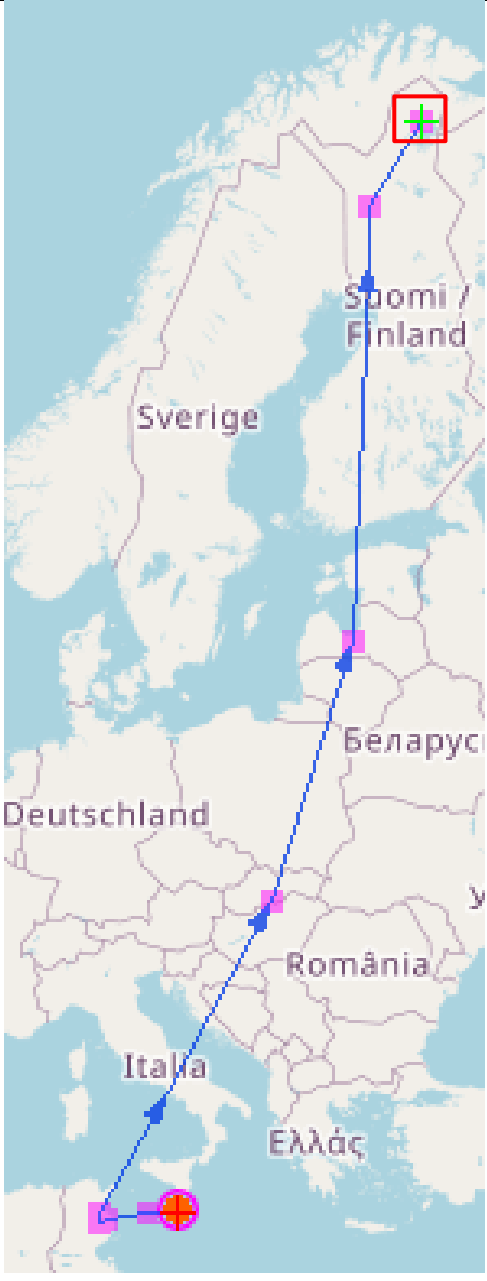
<p><i>Pluvialis apricaria</i></p> 	<p>208591</p>	<p><i>Birzebbuga, Malta</i></p>	<p>07/02/2023</p>	
		<p>Birzebbuga, Malta</p> <p>Lampedusa</p> <p>Mahdia, Tunisia</p> <p>Mahdia, Tunisia</p> <p>Moknine, Tunisia</p> <p>Kalaa Kebira, Tunisia</p> <p>Sebhika Kelbia, Tunisia</p> <p>Kondar, Tunisia</p> <p>Hammamet, Tunisia</p> <p>Bou Argoub, Tunisia</p> <p>Dar Chaabane El Fehri, Tunisia</p> <p>Korba, Tunisia</p> <p>Haouaria, Tunisia</p> <p>Trapani, Sicily</p> <p>Messina, Sicily</p> <p>Reggio Calabria, Italy</p> <p>Foggia, Italy</p> <p>Radonić, Croatia</p> <p>Središće ob Dravi, Slovenia</p> <p>Parndorf, Austria</p> <p>Ebenthal, Austria</p> <p>Čelechovice na Hané, Czechia</p> <p>Gmina Świdwin, Poland</p> <p>Hylte Municipality, Sweden</p> <p>Gislaved Municipality, Sweden</p> <p>Torsby Municipality, Sweden</p> <p>Malung, Sweden</p> <p>Malung, Sweden</p> <p>Strömsund Municipality, Sweden</p> <p>Sorsele Municipality, Sweden</p> <p>Sorsele Municipality, Sweden</p>	<p>07/02/2023</p> <p>09/02/2023</p> <p>10/02/2023</p> <p>18/02/2023</p> <p>20/02/2023</p> <p>22/02/2023</p> <p>24/02/2023</p> <p>26/02/2023</p> <p>28/02/2023</p> <p>02/03/2023</p> <p>06/03/2023</p> <p>08/03/2023</p> <p>10/03/2023</p> <p>12/03/2023</p> <p>14/03/2023</p> <p>14/03/2023</p> <p>16/03/2023</p> <p>16/03/2023</p> <p>18/03/2023</p> <p>20/03/2023</p> <p>22/03/2023</p> <p>24/03/2023</p> <p>26/03/2023</p> <p>28/03/2023</p> <p>30/03/2023</p> <p>01/04/2023</p> <p>10/04/2023</p> <p>08/05/2023</p> <p>10/05/2023</p> <p>12/05/2023</p> <p>26/07/2023</p>	




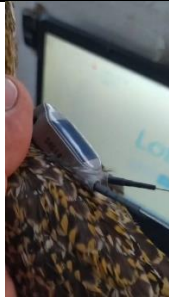
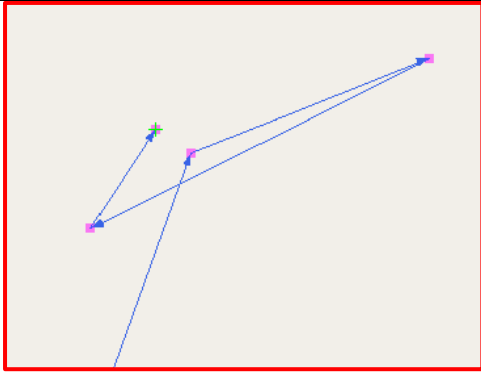
<i>Pluvialis apricaria</i>	208617	<i>Birzebbuga, Malta</i>	26/02/2023	
		Marsaskala, Malta	26/02/2023	
		Syracuse, Italy	26/02/2023	
		Crotone, Italy	26/02/2023	
		Lecce, Italy	26/02/2023	
		Ozriníci, Montenegro	28/02/2023	
		Novakovići, Montenegro	28/02/2023	
		Kaluđerovići, Serbia	02/03/2023	
		Hercegovačka Goleša, Serbia	02/03/2023	
		Zaovine, Serbia	04/03/2023	
		Tomnatic, Romania	06/03/2023	
		Tiszavasvári, Hungary	08/03/2023	
		Mezőzombor, Hungary	08/03/2023	
		Drochlin, Poland	10/03/2023	
		Konieczpol, Poland	10/03/2023	
		Dłużniewo Duże, Poland	12/03/2023	
		Makauskai, Lithuania	12/03/2023	
		Lebedžiūnai, Lithuania	20/03/2023	
		Krape, Latvia	22/03/2023	
		Kārļi, Latvia	24/03/2023	
		Naukšēni Parish, Latvia	26/03/2023	
		Sõrandu, Estonia	28/03/2023	
		Aukūla, Estonia	30/03/2023	
		Ristijärvi, Finland	01/04/2023	
		Ristijärvi, Finland	14/04/2023	
		Hyrnsalmi, Finland	16/04/2023	
		Pielavesi, Finland	18/04/2023	
		Pielavesi, Finland	22/04/2023	
		Tervo, Finland	24/04/2023	
		Keitele, Finland	26/04/2023	
		Tervo, Finland	08/05/2023	
		Pudasjärvi, Finland	10/05/2023	
		Pudasjärvi, Finland	12/05/2023	
		Sodankylä, Finland	14/05/2023	
		Northern Lapland, Finland	16/05/2023	
		Northern Lapland, Finland	29/07/2023	


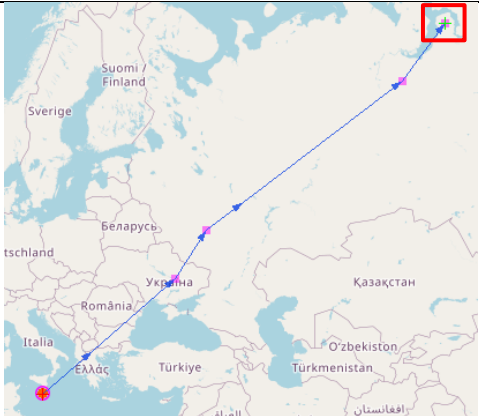

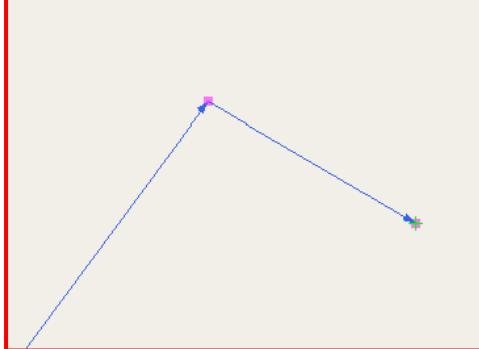
<p><i>Pluvialis apricaria</i></p> 	<p>208612 (re-used)</p>	<p><i>Birzebbuga, Malta</i></p> <p>Birzebbuga, Malta</p> <p>Mediterranean Sea (268km from eastern coast of Malta)</p> <p>Idrousa, Greece (10km NE from Andros Island)</p> <p>Beylik, Turkey</p> <p>Black Sea (33km from northern coast of Hatipler, Turkey)</p> <p>Temryuksky District, Russia</p> <p>Gorodovikovsky District, Russia</p> <p>Gorodovikovsky District, Russia</p> <p>Zavetinsky District, Russia</p> <p>Beloozerskii, Republic of Kalmykia, Russia</p> <p>Sarpinsky District, Republic of Kalmykia, Russia</p> <p>Dizhiembet, Zhanybek District, Kazakhstan</p> <p>Dizhiembet, Zhanybek District, Kazakhstan</p> <p>Zhiyenbat, Zhanybek District, Kazakhstan</p> <p>Zhiyenbat, Zhanybek District, Kazakhstan</p> <p>Grishenka, Denisov District, Kazakhstan</p> <p>Grishenka, Denisov District, Kazakhstan</p> <p>Kostanay District, Kazakhstan</p> <p>Evenkiysky District, Krasnoyarsk Krai (Siberia), Russia</p> <p>Evenkiysky District, Krasnoyarsk Krai (Siberia), Russia</p> <p>Taymyrsky Dolgano-Nenetsky District, Krasnoyarsk Krai (Siberia), Russia</p> <p>Krasnoyarsk Krai (Siberia), Russia</p>	<p>12/03/2023</p> <p>21/03/2023</p> <p>23/03/2023</p> <p>25/03/2023</p> <p>02/04/2023</p> <p>05/04/2023</p> <p>14/04/2023</p> <p>17/04/2023</p> <p>20/04/2023</p> <p>23/04/2023</p> <p>23/04/2023</p> <p>05/05/2023</p> <p>08/05/2023</p> <p>17/05/2023</p> <p>20/05/2023</p> <p>23/05/2023</p> <p>26/05/2023</p> <p>29/05/2023</p> <p>01/06/2023</p> <p>12/06/2023</p> <p>11/08/2023</p> <p>23/08/2023</p> <p>04/09/2023</p>	
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<p><i>Pluvialis apricaria</i></p> 	<p>208614</p>	<p><i>Birzebbuga, Malta</i></p>	<p>20/11/2023</p>		
		<p>Birzebbuga, Malta</p> <p>Balaoum, Tunisia</p> <p>Dar el Oussef, Tunisia</p> <p>Kondar, Tunisia</p> <p>Kondar, Tunisia</p> <p>El Alam, Tunisia</p> <p>Mazara del Vallo, Trapani, Italy</p> <p>Gmina Żychlin, Poland</p> <p>Färingsö, Sweden</p> <p>Abisko Östra, Sweden</p> <p>Abisko Östra, Sweden</p> <p>Abisko Östra, Sweden</p> <p>Abisko Östra, Sweden</p>	<p>22/11/2023</p> <p>23/11/2023</p> <p>24/11/2023</p> <p>19/12/2023</p> <p>13/01/2024</p> <p>07/02/2024</p> <p>03/03/2024</p> <p>28/03/2024</p> <p>22/04/2024</p> <p>16/05/2024</p> <p>10/06/2024</p> <p>05/07/2024</p> <p>30/07/2024</p>		
					
<p><i>Pluvialis apricaria</i></p> 	<p>208615</p>	<p><i>Birzebbuga, Malta</i></p>	<p>21/11/2023 (10:40am)</p>		<p>No GPS data</p>

<p><i>Pluvialis apricaria</i></p> 	<p>208616</p>	<p><i>Birzebbuga, Malta</i></p>	<p>21/11/2023 (02:50pm)</p>	<p>No GPS data</p>
<p><i>Pluvialis apricaria</i></p> 	<p>208618</p>	<p><i>Birzebbuga, Malta</i></p> <p><i>Birzebbuga, Malta</i></p> <p><i>Ech-Chahda Est, Tunisia</i></p> <p><i>Ouled Moulahem Ouest, Tunisia</i></p> <p><i>Sebkhet de Sidi El Hani, Tunisia</i></p>	<p>26/11/2023</p> <p>27/11/2023</p> <p>30/11/2023</p> <p>03/12/2023</p> <p>28/12/2023</p>	
		<p><i>Kroussia Ouest, Tunisia</i></p> <p><i>Kondar, Tunisia</i></p> <p><i>Damousse, Tunisia</i></p> <p><i>Falkenberg, Sweden</i></p> <p><i>Råde Municipality, Norway</i></p> <p><i>Steinsdalen, Norway</i></p> <p><i>Salangen Municipality, Sjøvegan, Norway</i></p> <p><i>Salangen Municipality, Sjøvegan, Norway</i></p> <p><i>Salangen Municipality, Sjøvegan, Norway</i></p>	<p>22/01/2024</p> <p>16/02/2024</p> <p>12/03/2024</p> <p>06/04/2024</p> <p>01/05/2024</p> <p>26/05/2024</p> <p>20/06/2024</p> <p>15/07/2024</p> <p>09/08/2024</p>	 

<p><i>Pluvialis apricaria</i></p> 	<p>208619</p>	<p><i>Birzebbuga, Malta</i></p>	<p>08/12/2023</p>	
		<p>Birzebbuga, Malta</p> <p>Linosa, Italy</p> <p>Bouhlale El Ali Nord, Tunisia</p> <p>Ech-Chahda Est, Tunisia</p> <p>Sidi El Heni Sud, Tunisia</p> <p>Bechachma, Tunisia</p> <p>Lučenec, Slovakia</p> <p>Olaine Municipality, Latvia</p> <p>Kittilä, Finland</p> <p>Inari, Finland</p> <p>Inari, Finland</p> <p>Inari, Finland</p>	<p>14/12/2023</p> <p>18/12/2023</p> <p>21/12/2023</p> <p>14/01/2024</p> <p>08/02/2024</p> <p>04/03/2024</p> <p>29/03/2024</p> <p>22/04/2024</p> <p>16/05/2024</p> <p>11/06/2024</p> <p>06/07/2024</p> <p>31/07/2024</p>	

<i>Pluvialis apricaria</i>	208620	<i>Birżebbuġa, Malta</i>	11/01/2024	
		Birżebbuġa, Malta	11/01/2024 (shot; tag returned to WBRU)	
<i>Pluvialis apricaria</i>	208626	<i>Żurrieq, Malta</i>	12/01/2024	
		Żurrieq, Malta	12/01/2024 (possibly shot; tag not returned to WBRU)	
<i>Pluvialis apricaria</i>	208629	<i>Birżebbuġa, Malta</i>	12/01/2024	
		Birżebbuġa, Malta	19/01/2024	
		Mezraia, Tunisia	13/02/2024	
		Sabkhet Sijoumi Sud, Tunisia	09/03/2024	
		Budzyń, Poland	03/04/2024	
		Larvik Municipality, Norway	28/04/2024	
		Kvaløya, Tromsø Municipality, Norway	23/05/2024	
		Kvaløya, Tromsø Municipality, Norway	17/06/2024	
		Kvaløya, Tromsø Municipality, Norway	12/07/2024	
		Kvaløya, Tromsø Municipality, Norway	06/08/2024	

<i>Pluvialis apricaria</i>	208621	<i>Birzebbuga, Malta</i>	13/01/2024	
		Birzebbuga, Malta	17/01/2024 (shot; tag returned to WBRU)	
<i>Pluvialis apricaria</i>	208624	<i>Birzebbuga, Malta</i>	14/03/2024	
		<i>Birzebbuga, Malta</i>	22/03/2024	
		Kulisheve, Dnipropetrovsk Oblast, Ukraine	15/04/2024	
		Domachi, Lipetsk Oblast, Russia	11/05/2024	
		Priuralsky District, Yamalo-Nenets Autonomous Okrug, Russia	04/06/2024	
		Tazovsky District, Yamalo-Nenets Autonomous Okrug, Russia	24/07/2024	
		Tazovsky District, Yamalo-Nenets Autonomous Okrug, Russia	19/08/2024	

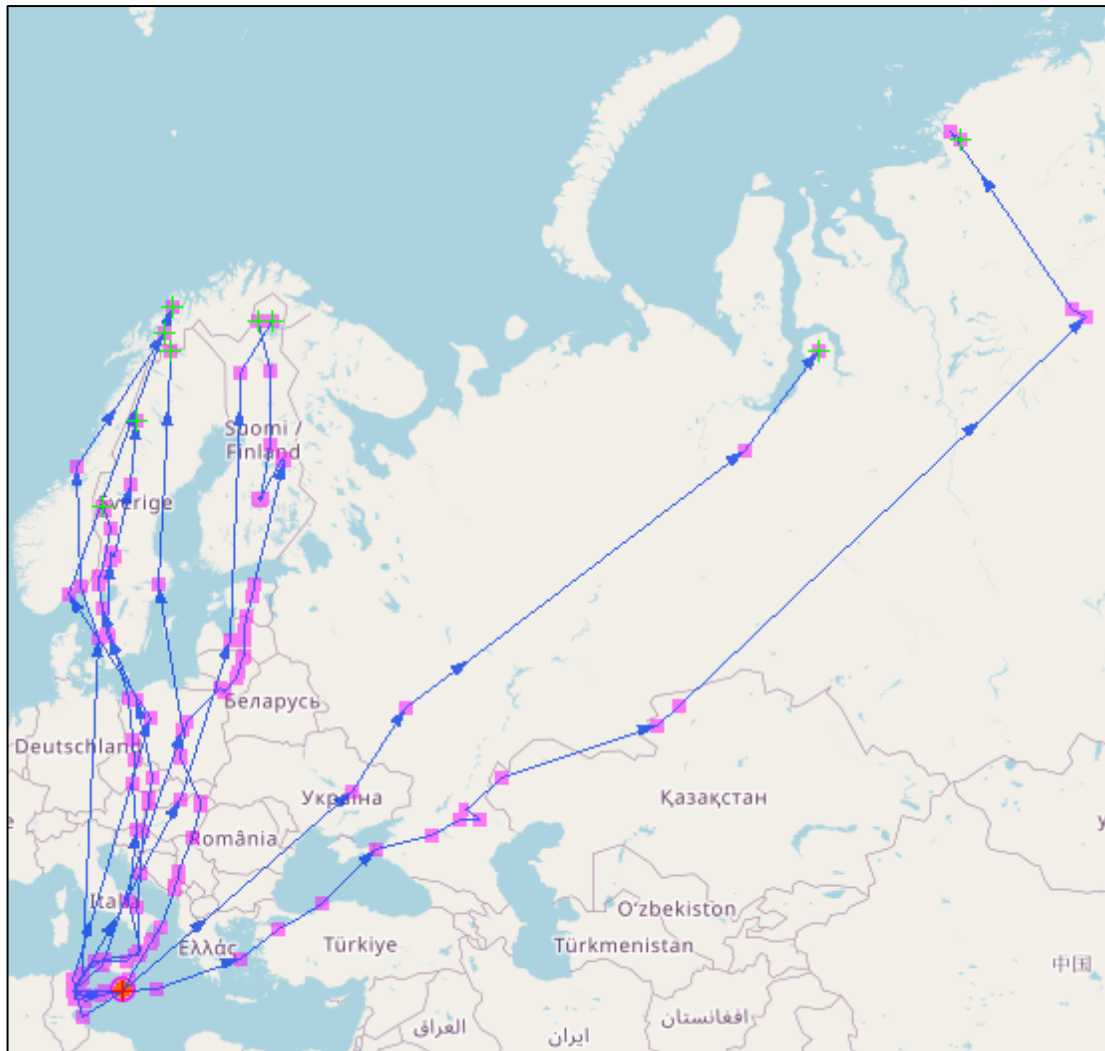


Figure 4: Composite map showing the locations and migration routes of all Golden Plovers fitted with a satellite-tag (GPS data for period 2022–2024). Source: movebank.org, study name “Migration of Golden Plovers and Song Thrushes”, study ID 1995912295.

Table 4 lists the last GPS locations recorded during the breeding season at the time this report was prepared.

Table 4: Golden Plover breeding territory			
Tag number	Last set of GPS fixes from overseas countries during the breeding season		Number of GPS fixes
	Location	Date(s)	
208581	Falkvålen, Sweden	14/05/2023 – 27/07/2023	18
208591	Sorsele Municipality, Sweden	12/05/2023 – 26/07/2023	19
208617	Northern Lapland, Finland	16/05/2023 – 29/07/2023	17
208612	Evenkiysky District, Krasnoyarsk Krai (Siberia), Russia	12/06/2023 – 30/07/2023	5
208614	Abisko Östra, Sweden	16/05/2024 – 30/07/2024	4

208618	Sjøvegan, Norway	20/06/2024 – 09/08/2024	3
208619	Inari, Finland	11/06/2024 – 31/07/2024	3
208629	Kvaløya, Norway	23/05/2024 – 06/08/2024	4
208624	Tazovsky District (Siberia), Russia	24/07/2024 – 19/08/2024	2

Population size

The latest Article 12 reports for the 2013–2018 reporting period specifies that the Northeast European breeding population of the Golden Plover (*P. a. altifrons*) within the EU territory (Finland and Sweden) ranges between 172,089–283,233 breeding pairs (previously reported at 203,000–290,000 breeding pairs during the 2008–2012 reporting cycle). Finland constitutes 44% whereas Sweden constitutes 39.7% of the EU28 population respectively. The breeding population of Finland and Sweden is distributed as follows:

- Finland: 89,089–143,233 pairs (best value: 121,726 pairs)
- Sweden: 83,000–140,000 pairs (best value: 110,000 pairs)

This results in a reference population of **172,089 minimum breeding pairs**, based on the current estimates as specified in Article 12 reports for the 2013–2018 reporting period. Table 5 provides a direct comparison between the breeding population estimates of the reference population (Finland and Sweden) and other breeding populations at EU28 level.

Table 5 Golden Plover EU28 Breeding Population (orange shading represents the West Continental component population of *Pluvialis apricaria altifrons* – Malta’s reference population)

Member State	% in EU28	Breeding Pairs (Min - Max)		Breeding Population Trend		Short-term % change (Max - Min)		Long-term % change (Max - Min)	
				Short term	Long term				
Denmark	0.2	N/A	N/A	Decreasing	Decreasing	N/A	N/A (-100)	N/A	N/A (-100)
Germany	0.1	0	2	Unknown	Decreasing	N/A	N/A	N/A	N/A (-86)
Estonia	1.1	2,500	3,400	Stable	Stable	1	8	12	27
Finland†	44	89,089	143,233	Stable	Stable	-11	26	-9	44
Ireland		84	98	Decreasing	Decreasing	N/A	N/A (-37.5)	-84	-82
Lithuania		35	45	Stable	Stable	N/A	N/A	N/A	N/A
Latvia	0.1	260	550	Stable	Stable	1.56	6.27	7	12
Sweden†	39.7	83,000	140,000	Stable	Increasing	0	28	10	40
UK	23.9	32,667	50,531	Stable	Increasing	-5.7	-5.7	+64	+64
Total		207,000	338,000	Stable	Stable				
						Trend (EU28 Population)		Secure	

Source: European Environment Agency (2020): Article 12 reports for the 2013–2018 reporting period; † Movebank satellite-tracking data (2022–2024): movebank.org, study name “Migration of Golden Plovers and Song Thrushes”, study ID 1995912295.

For the purpose of calculating the “small numbers” criterion in relation to the relevant “population concerned” (the reference population), Table 6 shows the **minimum** number of breeding pairs of *Pluvialis apricaria altifrons*, together with other relevant information required for calculating the 1% mortality threshold. According to the British Trust for Ornithology

(BTO)²¹, the typical lifespan of Golden Plover is four years and the annual mortality rate of adults is 27%, “based on a 50-year study in The Netherlands using colour-mark sightings” (Sandercock, 2003).

Table 6 Minimum breeding population and mortality rate – Malta’s EU reference population

	Golden Plover (<i>Pluvialis apricaria altifrons</i>)	Source
Minimum breeding population – pairs (Finland and Sweden only)	172,089	Article 12 reports for the 2013–2018 reporting period (EEA, 2020); Wetlands International (2009: 180); Movebank satellite-tracking data (2022–2024): movebank.org, study name “Migration of Golden Plovers and Song Thrushes”, study ID 1995912295.
Mortality rate – juveniles	53.33%	Das Kompendium der Vögel Mitteleuropas (KVM) / Birds of the Western Palearctic (BWP)
Mortality rate – adults	27%	BTO
Breeding rate (young per pair)	3.64	Golden Plover: European Management Plan-2009–2011, Technical Report-2009-034, Golden Plover.

Calculation of 1% mortality rate and “small numbers”

Golden Plover (*P. apricaria altifrons*)

Minimum breeding success 3.64 birds per pair (172,089 x 3.64) = 626,404

Mortality rate of 1st year birds (626,404 x 53.33%) = 334,061

Mortality rate of adults (344,178 x 27%) = 92,928

Total annual mortality (334,061 + 92,928) = 426,989

1% of total annual mortality (426,989 x 1%) = 4,270

Total potential Golden Plover national bag limit (1% of total annual mortality of [minimum] reference population size [main contingents]) is: $4,270 \div 3 = 1,423$ (figure divided by three to take into account the three principal flyways and the fact that *Pluvialis apricaria altifrons* is a broad-front migrant [Wetlands International, 2009]).

Autumn seasonal bag limit in relation to “small numbers”

Based on the 1% mortality rate (of the minimum population size), the “small numbers” calculation with respect to the national bag limit would amount to 1,423 Golden Plovers. However, it should be noted that the average number of Golden Plovers captured with clapnets during period 2006–2023 is 460 (Table 2). Thus, the previous season’s bag limit of 700 Golden Plovers should be retained if a derogation to open an autumn live-capturing season for this species is applied in 2024. This equates to 0.164% of the total annual mortality of the reference population (minimum population size), which is significantly less than the 1% threshold.

2. Golden Plover – maximum national bag limit of 700 birds.

²¹ Golden Plover *Pluvialis apricaria* Key Facts. British Trust for Ornithology. Available at: <https://app.bto.org/birdfacts/results/bob4850.htm>.

2. Conservation status of Song Thrush (*Turdus philomelos*)

The Song Thrush (*Turdus philomelos*) is a passerine species in the thrush family found in woodland and forest ecosystems. It is a huntable species, listed under Annex II/B of the Birds Directive and is present throughout Europe and the northern part of Asia eastwards of Lake Baikal. **The northern populations are migratory and winter in western and southern Europe.** The European population is estimated at 24.4 – 38.4 million breeding pairs. Europe forms c.65% of the global range. According to BirdLife International (2024)²², the global population size is estimated at 75 – (118)120 million individuals.

This species has an extremely large range (23,300,000 km²), and hence does not approach the thresholds for Vulnerable under the range size criterion (Extent of Occurrence <20,000 km² combined with a declining or fluctuating range size, habitat extent/quality, or population size and a small number of locations or severe fragmentation). The population trend appears to be increasing, and hence the species does not approach the thresholds for Vulnerable under the population trend criterion (>30% decline over ten years or three generations). The population size is extremely large, and hence does not approach the thresholds for Vulnerable under the population size criterion (<10,000 mature individuals with a continuing decline estimated to be >10% in ten years or three generations, or with a specified population structure). For these reasons the species is evaluated as Least Concern (BirdLife International, 2024).

Global and European distribution

It has been documented that most Song Thrushes from the northern and eastern parts of the European range migrate via three or four main routes in a south-westerly direction (Ashmole M.J., 1962; Busse P & Maksalon L, 1986). With reference to the central Mediterranean region, the Italian publication *Atlante della Migrazione degli Uccelli in Italia*²³ states that “the Song Thrush is a regular breeder in Italy and a common passage migrant with the first thrushes occurring from late August, but high frequencies reached from late September, with the largest influxes in October with a maximum reached in the last decade of the month and good numbers till early November”. With reference to the migratory pattern of this species, the authors note that:

“Autumn recoveries mainly involve northern and central Italy, where most records are on the western side. Much less data from lower latitudes, while on islands most observations are from southern Sardinia. The good sample of direct autumn recoveries indicates NE–SW movements, primarily from the Balkans^[24]. This main direction is similar to what [is] reported from more northern countries, like the UK, Norway, The Netherlands and Denmark. In our case Italy gets influxes from more eastern areas, with many birds entering through Friuli. Parallel routes towards our country are confirmed by the southernmost recoveries along the peninsula being referred to birds ringed in more eastern longitudes within the general ringing area.

The national sample of first-capture data indicates a progressive decline in average wing length during the autumn, suggesting an earlier passage of more northern populations... The importance of the Mediterranean as a wintering area for the species is confirmed by the many recoveries, mainly concentrated south of the Apennines and with a concentration of data in Sardinia, although this island might be also affected by earliest return movements... Average size of birds ringed in Italy during the winter months show a further seasonal decline in size

²² BirdLife International (2024) Species factsheet: *Turdus philomelos*. Downloaded from <http://www.birdlife.org> on 17/04/2024.

²³ Spina F. and Volponi S. (2008) *Atlante della Migrazione degli Uccelli in Italia*. Vol 2. Passeriformi (*Turdus philomelos*: pp.228–235).

²⁴ For the purpose of this conservation status report, the Balkans are limited to EU Member States: Bulgaria, Croatia, Greece, Romania and Slovenia.

till the central decade of December, followed by a new increase with the first decade of January, again suggesting early movements of birds of northern and eastern origin...Within a general framework of NE–SW Song Thrush movements across Europe, birds ringed in Italy move towards the coast of France, before reaching Mediterranean Iberia and North Africa, mainly in Algeria, later moving eastwards through Tunisia and flying back north via Sardinia and Corsica.” Spina & Volponi (2008: 235)

Cramp *et al.* (1988)²⁵ note that the Song Thrush is mostly resident but northern populations are partially or entirely migratory and that in contrast to other species such as Redwing (*Turdus iliacus*) and Fieldfare (*Turdus pilaris*), populations show strong affinity to regular wintering areas. The authors further note that:

“Most nominate philomelos from Fenno-Scandia, Germany, Switzerland, Poland, and [former] USSR are migratory, moving south-west or south-east through Europe to winter in southern England, France (mainly towards south-west), Spain and Portugal. Those from further north, especially first-year birds, winter furthest south to Canary Islands, Morocco, Algeria, Tunisia, Libya and Cyprus. Birds from Denmark, Netherlands, Belgium, and north-east France are partially resident with most others moving only short distances south or south-west, though considerable numbers from Netherlands winter in Britain and Ireland. Birds from Switzerland move south, with recoveries in southern France along Mediterranean coast into northern Italy, and in Corsica and Libya. Birds from east-central Europe winter correspondingly east of birds from Fenno-Scandia and western Europe: mainly in Italy, Yugoslavia, Greece, Balkans and Cyprus; also a very few recoveries in Balearics, Spain and Portugal.

Populations from further east presumably winter largely from eastern Mediterranean to Iran...In early part of winter, migrant populations from Britain, Belgium, Netherlands and Denmark are chiefly in north-west France, north of Scandinavian birds (in southern Spain and Portugal), but by January birds from Low Countries have also moved south-west into Iberia. Southward departures in autumn begin in August but main passage September to early November. Birds from Fenno-Scandia move south-west on broad front, fringe of movement (or birds drifted west) passing through eastern Britain. Siberian birds depart mid-September while populations further south remain until November, in southern central Asia, Kazakhstan, and Turkmenistan; rarely recorded on passage outside breeding range. Birds wintering around Mediterranean arrive mid-October with frequent influxes until mid-April. During severe weather over Europe, large-scale mid-winter arrivals occur regularly in North Africa.” Cramp *et al.* (1988: 990-992).

According to BirdLife International (2024) this species does not approach the thresholds for Vulnerable neither under the range size criterion, under the population trend criterion, nor under the population size criterion. For these reasons BirdLife International evaluates this species as Least Concern within both Europe and the EU28²⁶ with an increasing population trend. IUCN²⁷ also classifies this species as **Least Concern**.

²⁵ Cramp S. *et al* (1988) Handbook of the Birds of Europe, the Middle East and North Africa: The Birds of the Western Palearctic. Vol V: Tyrant Flycatchers to Thrushes. The Royal Society for the Protection of Birds.

²⁶ http://www.birdlife.org/datazone/userfiles/file/Species/erlob/summarypdfs/22708822_turdus_philomelos.pdf

²⁷ <http://www.iucnredlist.org/details/22708822/0>

Article 12 reports (2013–2018)

This update includes the current population trends and indices as reported by Member States in their Article 12 report for period 2013–2018²⁸. Within the territory of the European Union (EU28), the Song Thrush has a breeding population size of 12,200,000–20,500,000 pairs (previously reported at 12,700,000–21,900,000 pairs during the 2008–2012 reporting cycle) and a breeding range size of 3,100,000km² (previously reported at 3,520,000km² during the 2008–2012 reporting cycle). The **breeding population** trend in the EU28 is **Increasing in the short-term and Stable in the long-term** (EEA, 2020)²⁹. The EU population status is **Secure**³⁰.

Breeding population size estimate for Ireland converted to specified units (pairs) based on detection estimates in Crowe *et al.*, 2014 and expert opinion, and assuming a 2:1 ratio. In the absence of short-term and long-term trend magnitudes reported from Spain for this taxon, surrogate data were sourced from SACRE, 2018, indicating an increasing trend (59.1%) during 1998–2018. In the absence of a report from Romania for this taxon, surrogate data were sourced from the national Common Bird Monitoring Scheme in Romania 2017, indicating an uncertain trend during 2007–2016. Short-term and long-term trend magnitudes for this taxon in Czechia for the period given have been calculated and corrected from the average annual trends reported. Source: https://nature-art12.eionet.europa.eu/article12/summary/audittrail/?reported_name=&period=3&subject=Turdus+philomelos.

The EU population status of the Song Thrush was assessed as **Secure**, because the species does not meet any of the IUCN Red List criteria for threatened or Near Threatened, or the criteria for Depleted or Declining (the EU28 population or range has not declined by 20% or more since 1980). Data on the wintering population trends for this species was not available at the time this report was prepared (August 2023).

Pan-European Common Birds Monitoring Scheme (2022 update)

The latest dataset available from the European Bird Census Council (EBCC, 2023)³¹ at the time the conservation status of the Song Thrush (*Turdus philomelos*) was updated (August 2024), lists this species trend classification as **Moderate Increase**, defined as a “significant increase, but not significantly more than 5% per year” (Figure 5). When compared with the previous EBCC (2022) update, the short-term [ten-year (2013–2022)] trend **increased by 7%** [from +15% to +22%], whereas in the long-term trend (1980–2022) the population **decreased by 3%** (from +6% to +3%).³²

²⁸ <https://nature-art12.eionet.europa.eu/article12/summary>

²⁹ European Environment Agency (2020) Article 12 reports for the 2013–2018 reporting period (EU28). Available at: https://nature-art12.eionet.europa.eu/article12/summary?period=3&subject=Turdus+philomelos&reported_name=

³⁰ <https://eunis.eea.europa.eu/species/1334>

³¹ *Trends of common birds in Europe, 2023 update*. Available at: <https://pecbms.info/trends-and-indicators/species-trends/species/turdus-philomelos/>

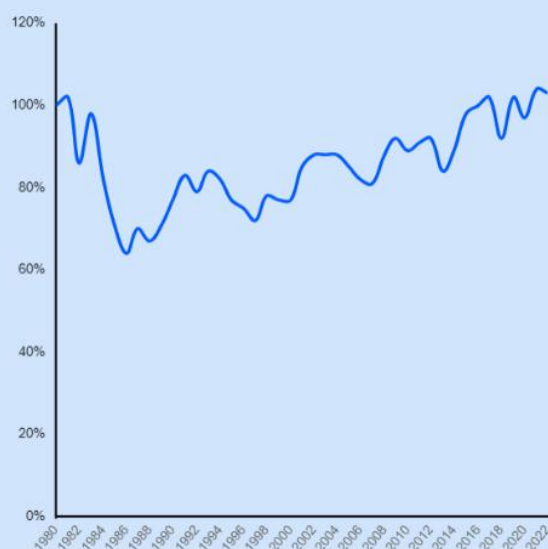
³² Comparison between the previous and current EBCC updates is for information purposes only. The EBCC updates provide composite data (combined data of all contributing countries) on the latest population trends at pan-European level, not at EU level—it includes data pertaining to countries that are not part of Malta’s EU reference population. Moreover, since the EBCC updates do not provide segregated data on population levels and trends for each contributing country, it is not possible to use EBCC’s composite data, even if combined at EU level only, to update the assessment of the species at Malta’s EU reference population level. The latest available data at EU level that is segregated by country, and hence available to the Maltese authorities to carry out an assessment of the status of the species at reference population level, is the one published by the European Environment Agency as part of the Birds Directive Article 12 reporting obligations for period [2013–2018](https://nature-art12.eionet.europa.eu/article12/summary).

Turdus philomelos (Song Thrush)

Moderate increase ([explanation](#))

Population index (%) 1980 - 2022, Europe

[Countries](#)



Source of the data: EBCC/BirdLife/RSPB/CSO

Figure 5: Long-term trend classification for *Turdus philomelos*. Source: EBCC (2023 update). Available at: <https://pecbms.info/trends-and-indicators/species-trends/species/turdus-philomelos/>.

List of Countries:

Austria	1998 - 2022
Belgium-Brussels	1992 - 2022
Belgium - Flanders	2007 - 2022
Belgium-Wallonia	1990 - 2022
Bulgaria	2005 - 2022
Czech Republic	1982 - 2022
Denmark	1976 - 2022
Estonia	1984 - 2022
Finland	1975 - 2022
France	1989 - 2021
Germany East	1991 - 2021
Germany West	1989 - 2021
Hungary	1999 - 2022
Italy	2000 - 2022
Latvia	2005 - 2022
Lithuania	1994 - 2022
Luxembourg	2010 - 2022
Netherlands	1984 - 2022
Norway	1996 - 2022
Poland	2000 - 2022
Republic of Ireland	1998 - 2022
Romania	2007 - 2022
Slovakia	2005 - 2021
Slovenia	2008 - 2022
Spain	1998 - 2022
Sweden	1975 - 2022
Switzerland	1999 - 2022
United Kingdom	1966 - 2022

Song Thrush distribution within the territory of the European Union (EU28)

It has been documented that most of the Song Thrush populations from the northern and eastern parts of the European range migrate via three or four main routes in a south westerly direction (Ashmole M.J., 1962, Busse P & Maksalon L., 1986). The Song Thrush breeds throughout the territory of the European Union (EU28), except Malta and Cyprus (and Gibraltar) (EEA, 2020). Table 7 provides an estimate of the breeding population of the Song Thrush within the EU28 (Article 12 reports for the 2013–2018 reporting period).

Table 7 Song Thrush EU28 Breeding Population

Member State	% in EU28	Breeding Pairs (Min - Max)		Breeding Population Trend		Short-term % change (Min - Max)		Long-term % change (Min - Max)	
				Short term	Long term				
Austria	2.7	350,000	550,000	Stable	Unknown	N/A	N/A (4)	N/A	N/A
Belgium	0.8	92,600	163,900	Decreasing	Decreasing	-35	-22	-54	-18
Bulgaria	2.0	150,000	500,000	Increasing	Stable	0	45	0	5
Croatia	4.8	600,000	1,000,000	Unknown	Unknown	N/A	N/A	N/A	N/A
Czechia	4.1	450,000	900,000	Increasing	Increasing	N/A	N/A (2)	N/A	N/A (1)
Germany	10.7	1,600,000	1,950,000	Increasing	Stable	8	24	N/A	N/A (5)
Denmark	2.3	384,280	384,280	Increasing	Stable	22.34	75.5	-7.06	32.87
Estonia	2.1	300,000	400,000	Stable	Stable	0	1	-13	10
Spain	3.1	369,672	663,714	Increasing	Increasing	N/A	N/A	N/A	N/A
Finland	6.4	980,844	1,175,381	Increasing	Increasing	12	28	13	46
France	9.1	1,000,000	2,000,000	Stable	Increasing	-3	11	6.1	24
Greece		1,000	3,000	Stable	Stable	N/A	N/A (0)	0	0
Hungary	2.4	366,000	430,000	Stable	Unknown	N/A	N/A	N/A	N/A
Ireland	N/A	687,965	1,028,321	Stable	Unknown	-8	0.3	N/A	N/A
Italy	1.2	100,000	300,000	Increasing	Stable	25	40	N/A	N/A
Lithuania	1.8	200,000	400,000	Stable	Stable	0	0	0	0
Luxembourg		5,000	8,000	Stable	Unknown	0	10	N/A	N/A
Latvia	3.1	430,769	617,919	Increasing	Increasing	3.8	41.7	130	131
Netherlands	0.9	110,000	180,000	Stable	Increasing	0	12	90	148
Poland	9.0	1,121,000	1,843,000	Increasing	Unknown	11	29	N/A	N/A
Portugal		5,000	10,000	Uncertain	Increasing	N/A	N/A	N/A	N/A
Romania	9.8	1,150,018	1,743,426	Uncertain	Unknown	-1	5	N/A	N/A
Sweden	11.7	1,157,000	2,703,000	Stable	Stable	-2	8	-9	7
Slovenia	1.3	138,400	276,900	Increasing	Unknown	N/A	N/A (33)	N/A	N/A
Slovakia	2.7	300,000	600,000	Stable	Stable	N/A	N/A	N/A	N/A
UK	7.9	1,308,420	1,308,420	Stable	Decreasing	N/A	N/A (7.06)	N/A	N/A (-10.98)
Total		12,200,000	20,500,000	Increasing	Stable				
						Trend (EU28 Population)		Secure	

Data source: European Environment Agency (2020): Article 12 reports for the 2013–2018 reporting period.

The Song Thrush does not breed in Malta (neither in the wild, nor in captivity). Table 8 below lists the live-capturing data for Song Thrush in Malta and Gozo from 2006 to 2023.

Table 8 **Live-capturing data for Song Thrush (2006–2023)**

Species	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total	Average
Song Thrush	420	10	552	1,199	5,027	2,069	44	135	292	248	230	183	511	722	651	1,006	1,014	1,286	15,599	867

Data sources:

2006–2012: *Carnet de Chasse* data, Environment Protection Directorate (MEPA).

2013–2023: Wild Birds Regulation Unit.

Reference Population

The “small numbers” requirement, within the meaning of Article 9(1)(c) of the Birds Directive should be understood as “any sample of less than 1% of the total annual mortality of the population in question (average value) for those species which are not to be hunted and **a sample in the order of 1% for those species which may be hunted**. ‘Population in question’ is to be understood, with regard to migratory species, as the population of those regions from which come the main contingents passing through the region to which the derogation applies during its period of application”. Given that the Song Thrush qualifies as a huntable species under the Birds Directive (MT: Annex IIB), the “*small numbers*” requirement is understood as “*a sample in the order of 1% of the total annual mortality of the population in question*”.

The Song Thrush shows a strong affinity to regular wintering areas (Cramp *et al*, 1988) and has a general framework of NE-NW movements across Europe (Spina & Volponi, 2008). Although there are no ring recoveries of this species in Malta, on the basis of this literature review, there is sufficient scientific data to ascertain that EU populations of Song Thrush migrating over Malta (NE-NW movements) come from the easternmost parts of the territory of the European Union, namely Romania, Bulgaria, Hungary and Slovakia (Table 7). This assertion is corroborated by satellite tracking data.

Satellite tracking data

As requested by the services of the European Commission in 2019, Malta initiated a research project to assess the migratory routes of this species using satellite tracking devices (geolocators). The location of tagged specimens is monitored in real-time by the Maltese authorities using Argos satellite data repository to which a Movebank account has been linked. The Movebank account showing all GPS fixes was converted to a publicly visible research study in 2021.

Phase 1 (08 Feb – 08 Mar 2022)

The first tagging effort took place during period February–March 2022. Three Song Thrushes were caught by BirdLife Malta licensed bird-ringers and fitted with a satellite-tag (and a scientific ring), two on 8 February and the other one on 8 March 2022. Tracking data from the first two specimens shows that one remained in Romania throughout the breeding season (05 April – 14 June 2022) whereas the second specimen appears to have remained in Belarus. However, since the last confirmed data associated with the second specimen was transmitted on 26 April 2022, it cannot be ascertained whether it remained in Belarus throughout the breeding season or whether it migrated further north in May. The third specimen was tracked within the same area in Malta where it was fitted with a satellite-tag during period 08 March – 22 March 2022. No additional tracking data was obtained from the third specimen after 22 March.

A report on the outcome of the satellite-tagging project is presented to the Ornis Committee when a request to renew the research derogation period is submitted.

Phase 2 (29 November 2022 – 31 March 2023)

Ornis Committee renewed the satellite-tagging project for period 29 November 2022 – 31 March 2023 (vide corresponding subsection under the section on Golden Plover for further details in this regard). During Phase 2 of the project, 11 Song Thrushes were caught by BirdLife Malta licensed bird-ringers and fitted with a satellite-tag (and a scientific ring). The deployment during this phase yielded detailed information on the wintering grounds of the tagged Song Thrushes in Malta yet failed to provide sufficient GPS data to confirm the location of their breeding grounds (only one fix per tag in early April 2023 in continental Europe following wintering period in Malta). Notwithstanding that the programmed GPS schedule was

not intensive, the tags' batteries were depleted soon after the specimens left Malta during the first week of April 2023.

Phase 3 (28 Feb – 03 Mar 2024)

The project was renewed for period Oct 2023 – March 2024. Only seven Song Thrush tags remained operative, which were all deployed by BirdLife Malta licensed bird-ringers between 28 February and 3 March 2024, inclusive of both dates. The remaining nine tags were decommissioned due to battery failure. The deployment period during this last phase was restricted to the post-nuptial migration period to maximise GPS fixes during the breeding season.

Main conclusions of the Song Thrush satellite-tagging project (2022–2024)

Wintering grounds (2022–2023 data only)

During Phase 1 and Phase 2 of the project, six Song Thrush tags out of a total of 14 deployed between 4 February 2022 and 10 March 2023 transmitted GPS fixes from continental Europe during pre-nuptial migration, after the specimens wintered in Malta (Table 9). The other tags did not transmit any data. The following table excludes data from the 2024 research period (Phase 3) since the seven specimens caught in 2024 were geotagged during the trailing end of the wintering period / start of post-nuptial migration (28 February – 3 March 2024).

Tag no.	Date tagged	Last GPS fix in Malta	First GPS fix overseas	Wintering period in Malta		
				(days)		
				Minimum	Maximum	Mean
208582	04/02/2022	22/02/2022	29/03/2022	18	53	36
208583	04/02/2022	22/03/2022	12/04/2022	46	67	57
208590	06/12/2022	18/03/2023	06/04/2023	102	121	112
208593	09/12/2022	18/03/2023	07/04/2023	99	119	109
208578	23/01/2023	05/02/2023	07/04/2023	13	74	44
208585	28/02/2023	18/03/2023	06/04/2023	18	37	28
Mean				49	79	64

The wintering location of the geotagged Song Thrushes was very restricted—all specimens remained in the same area where they were captured and satellite-tagged throughout the wintering period. As illustrated in Figure 6 further below, the flightpath taken by the geo-tagged Song Thrushes during pre-nuptial migration corroborates Spina and Volponi's (2008) observation of a *general framework of NE–SW Song Thrush movements across Europe*³³.

Breeding grounds (2022–2024 data)

The Song Thrush fitted with tag no. **208582** remained in Romania throughout the breeding season (05 April – 14 June 2022) whereas the specimen fitted with tag no. **208583** appears to have remained in Belarus. However, since the last confirmed data was transmitted on 26 April 2022, it cannot be ascertained whether the specimen remained in Belarus throughout the breeding season or whether it migrated further north in May.

Deployments in 2023 (Phase 2) did not yield conclusive data on the location of the specimens' breeding grounds since the tags' batteries ran out after the first GPS fix in continental Europe

³³ See p.12 of the Golden Plover and Song Thrush Conservation Status Report (2021 update), available at: <https://mgoz.gov.mt/en/Documents/WBRU/Reports%20and%20Statistics/consStaRepMay21GpSt.pdf>

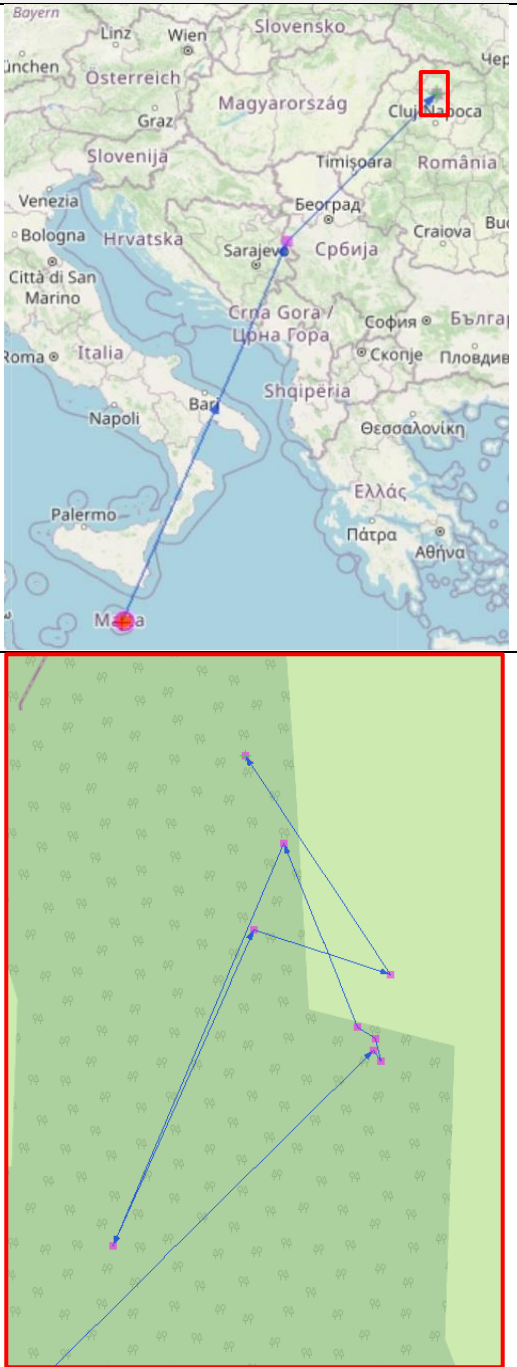
(Table 4, rows 2–6). Deployments during the last phase of the Song Thrush geo-tagging project (Phase 3 [2024]) yielded comprehensive data on the breeding grounds of six of out the seven geotagged specimens (Table 10, rows 7–9 and 11–13).

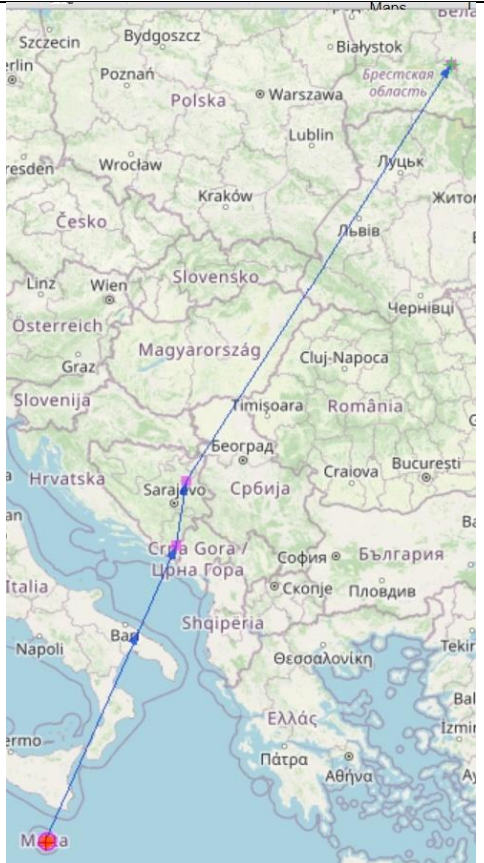

Table 10: Song Thrush breeding territory				
Tag number	Last set of GPS fixes from overseas countries during pre-nuptial and breeding period		Number of GPS fixes	Location of GPS fixes during breeding period
	Location	Date(s)		
208582	Romania	05/04/2022 – 14/06/2022	7	Romania
208583	Belarus	26/04/2022	1	<i>Inconclusive</i>
208590	Albania	06/04/2023	1	<i>Inconclusive</i>
208593	Greece	07/04/2023	1	<i>Inconclusive</i>
208578	Serbia	07/04/2023	1	<i>Inconclusive</i>
208585	North Macedonia	06/04/2023	1	<i>Inconclusive</i>
208598	Bulgaria	26/04/2024 – 01/06/2024	7	Bulgaria
208602	Bulgaria	26/04/2024 – 01/06/2024	7	Bulgaria
208605	Slovakia	08/05/2024 – 07/07/2024	9	Slovakia
208609	<i>No data</i>	–	–	–
208604	Hungary	26/04/2024 – 07/07/2024	10	Hungary
208600	Romania	26/03/2024 – 07/07/2024	8	Romania
208599	Ukraine	15/05/2024 – 07/07/2024	8	Ukraine

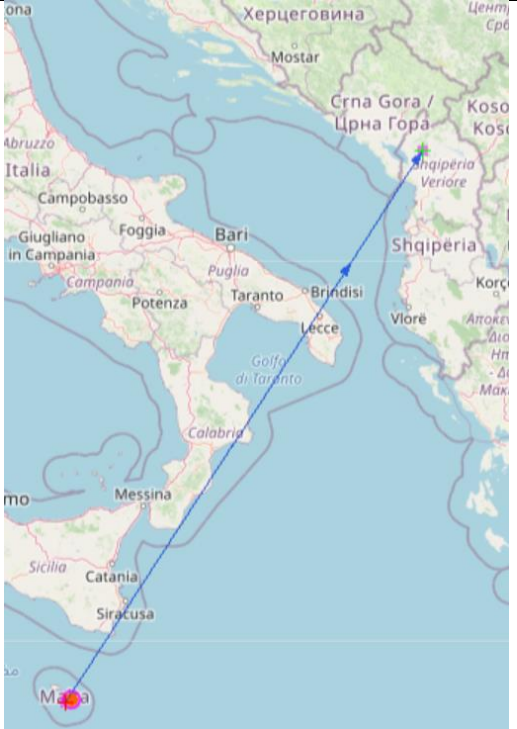
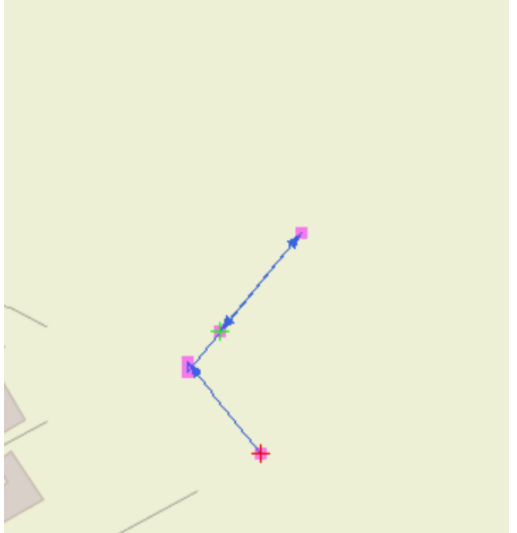
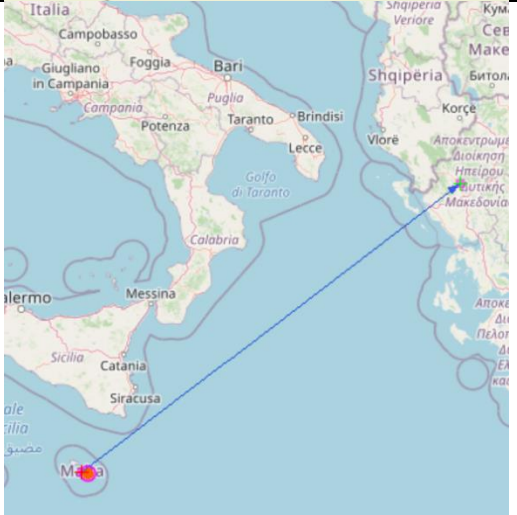
Table 11 below lists all Song Thrush GPS fixes recorded to date using Movebank online platform, including deployments from the previous reporting periods. Maps showing the migration route and last confirmed location (bold text) are also provided.

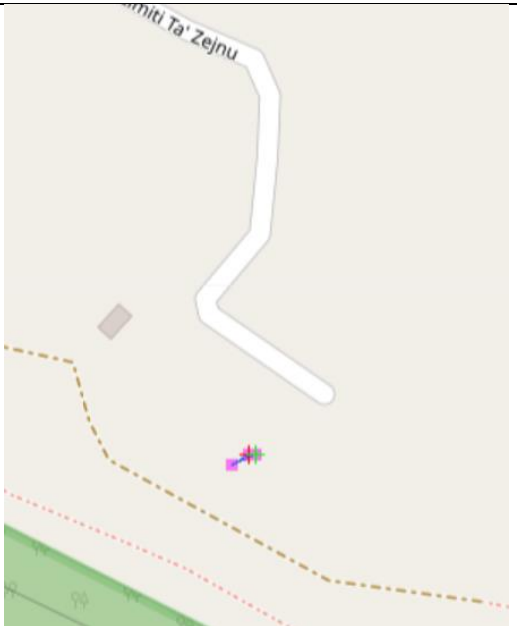

The GPS data from the deployments during Phase 1 and Phase 3 has shown that seven geo-tagged Song Thrushes bred in the following countries: two in Romania, two in Bulgaria, one in Slovakia, one in Hungary and one in Ukraine (refer to Table 12 further below: Malta’s Song Thrush EU reference population).

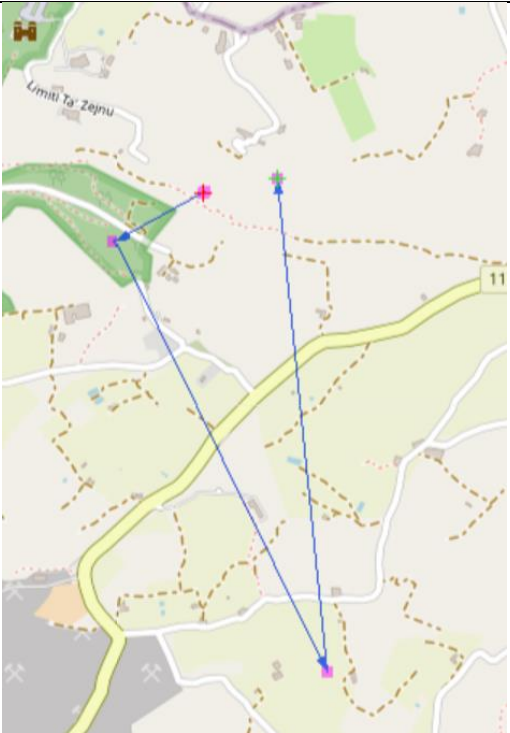
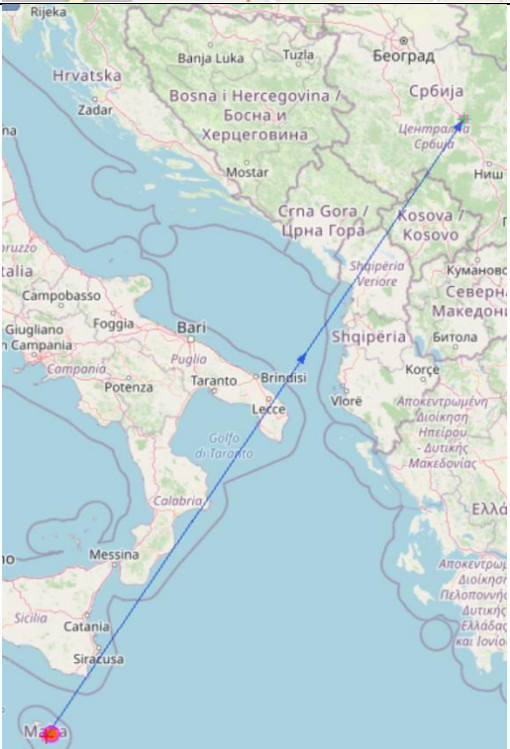
Table 11: GPS locations of Song Thrush tags from date of first deployment

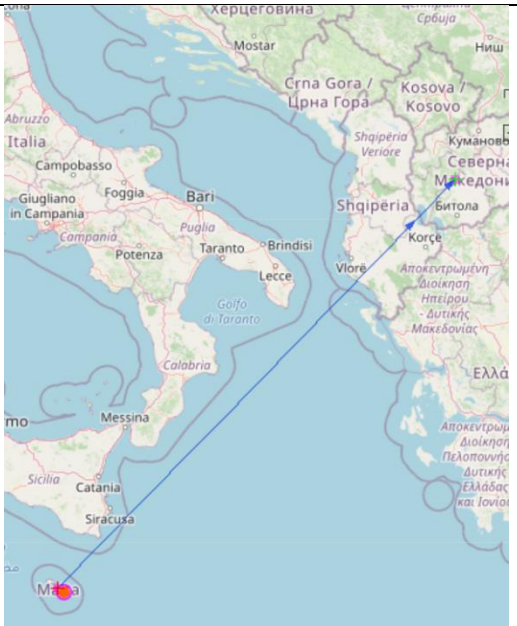
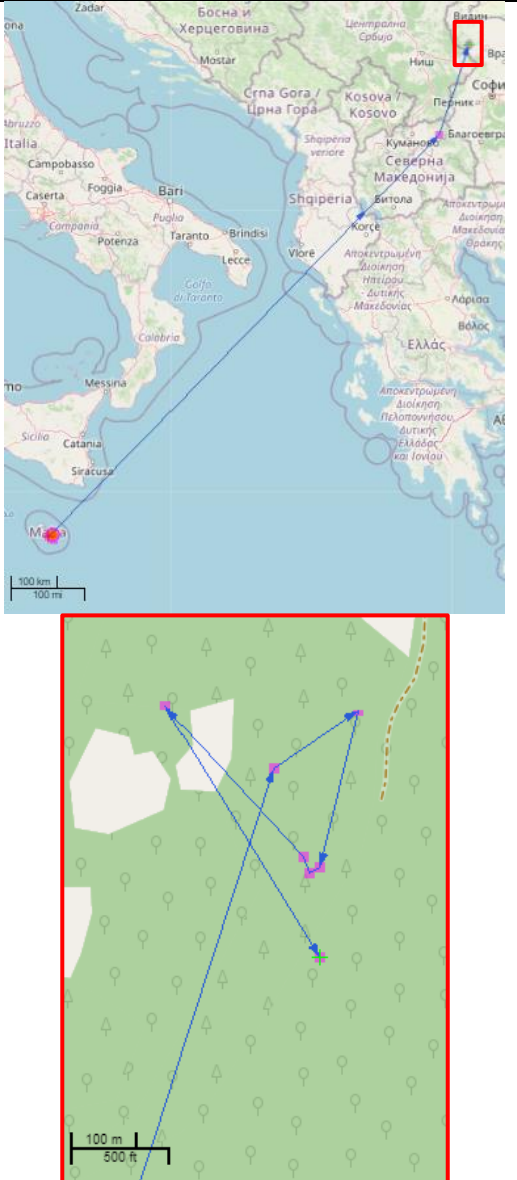
Species	BirdLife Malta ring no.	Tag decimal id.	Location of GPS fixes (italics = date when tagged bold = date of last transmission)	Date	Map
<i>Turdus philomelos</i>	CC4804	208582	<i>Buskett, Malta</i> Buskett, Malta Buskett, Malta Buskett, Malta Planina, Serbia Ileana, Romania Ileana, Romania Ileana, Romania Ileana, Romania Ileana, Romania Ileana, Romania	04/02/2022 08/02/2022 15/02/2022 22/02/2022 29/03/2022 05/04/2022 12/04/2022 26/04/2022 03/05/2022 10/05/2022 17/05/2022 14/06/2022	

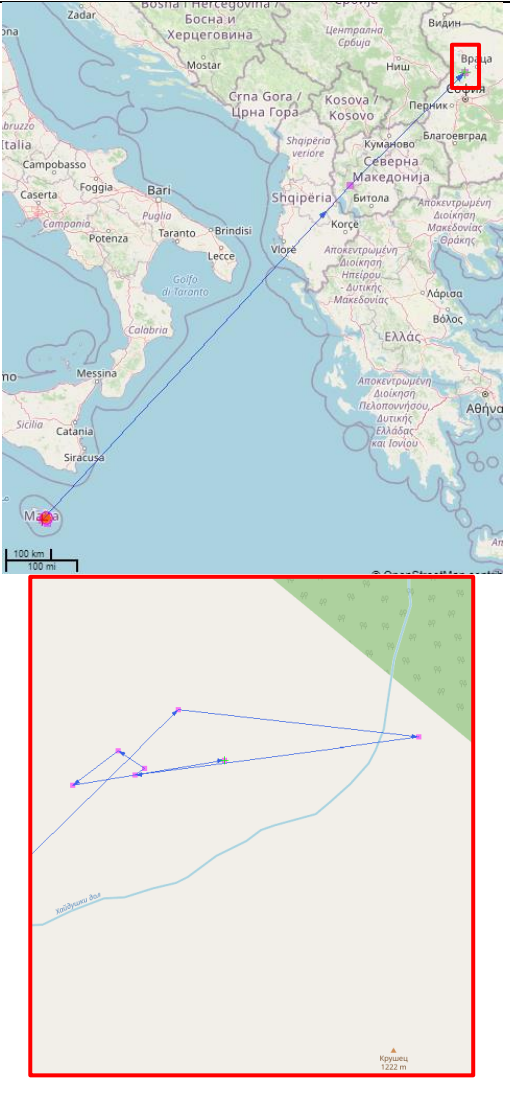
<p><i>Turdus philomelos</i></p>	<p>CC4756</p>	<p>208583</p>	<p><i>Buskett, Malta</i> <i>Girgenti, Malta</i> <i>Girgenti, Malta</i> <i>Buskett, Malta</i></p> <p>Baljci, Bosnia and Herzegovina</p> <p>Brgule, Bosnia and Herzegovina</p> <p>Kletsck District, Belarus</p>	<p>04/02/2022 08/02/2022 15/02/2022 22/02/2022 22/03/2022</p> <p>12/04/2022</p> <p>19/04/2022</p> <p>26/04/2022</p>	
<p><i>Turdus philomelos</i></p>	<p>CC4805</p>	<p>208586</p>	<p><i>Girgenti, Malta</i> <i>Girgenti, Malta</i> <i>Girgenti, Malta</i></p>	<p>01/03/2022 08/03/2022 15/03/2022 22/03/2022</p>	


<i>Turdus philomelos</i>	CC4772	208590	Buskett, Malta Buskett, Malta Buskett, Malta Buskett, Malta Likaj, Albania	06/12/2022 26/12/2022 05/01/2023 16/01/2023 18/03/2023 06/04/2023	
<i>Turdus philomelos</i>	CC5303	208589	Manikata, Malta	08/12/2022	No GPS data
<i>Turdus philomelos</i>	CC4808	208594	Girgenti, Malta Girgenti, Malta Girgenti, Malta Girgenti, Malta Girgenti, Malta	09/12/2022 26/12/2022 05/01/2023 16/01/2023 05/02/2023 25/02/2023	
<i>Turdus philomelos</i>	CC5605	208593	Żebbiegħ, Malta Mġarr, Malta Mġarr, Malta Mġarr, Malta Perama, Greece	09/12/2022 26/12/2022 05/01/2023 16/01/2023 18/03/2023 07/04/2023	

<i>Turdus philomelos</i>	CC4773	208595	Buskett, Malta	12/12/2022	No GPS data
<i>Turdus philomelos</i>	CC4774	208592	Buskett, Malta Buskett, Malta Buskett, Malta Buskett, Malta	12/12/2022 26/12/2022 05/01/2023 16/01/2023	
<i>Turdus philomelos</i>	CC4776	208597	Buskett, Malta Buskett, Malta Buskett, Malta Buskett, Malta	04/01/2023 05/01/2023 16/01/2023 04/02/2023	

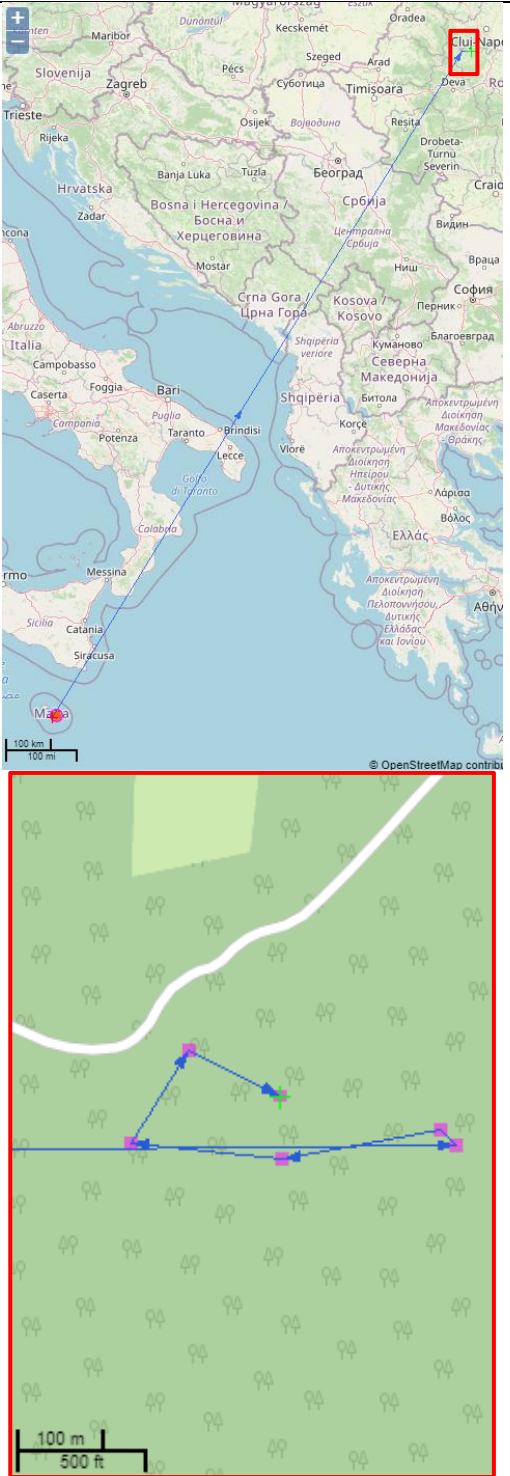
<p><i>Turdus philomelos</i></p>	<p>CC4777</p>	<p>208596</p>	<p>Buskett, Malta Buskett, Malta Buskett, Malta Buskett, Malta Buskett, Malta Buskett, Malta</p>	<p>16/01/2023 04/02/2023 05/02/2023 25/02/2023 06/03/2023 18/03/2023 06/04/2023</p>	
<p><i>Turdus philomelos</i></p>	<p>CC4358</p>	<p>208578</p>	<p>Buskett, Malta Buskett, Malta Bosnjane, Serbia</p>	<p>23/01/2023 04/02/2023 05/02/2023 07/04/2023</p>	

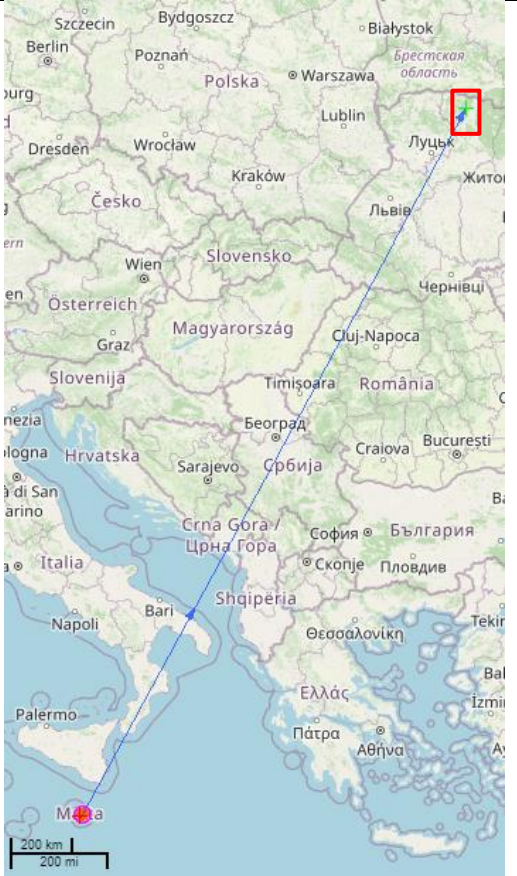
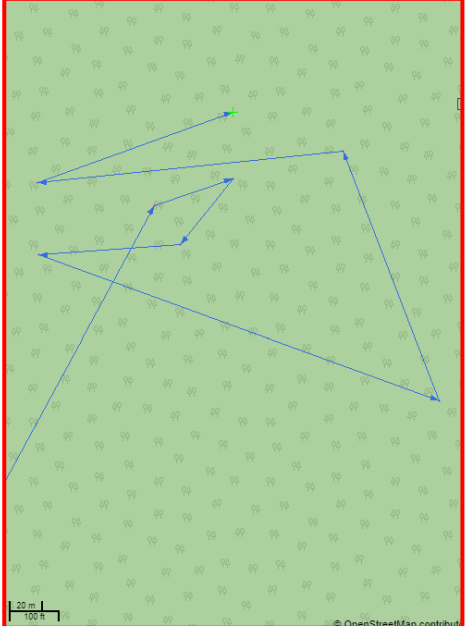
<i>Turdus philomelos</i>	CC3563	208585	<p><i>Simar, Malta</i> <i>Simar, Malta</i> <i>Mizieb, Malta</i> Debreshte, North Macedonia</p>	<p>28/02/2023 06/03/2023 18/03/2023 06/04/2023</p>	
<i>Turdus philomelos</i>	CC5355	208584	<i>Wied Ħarq Ħamiem, Malta</i>	10/03/2023	No GPS data
<i>Turdus philomelos</i>	CC4815	208598	<p><i>Buskett, Malta</i> <i>Buskett, Malta</i> <i>Buskett, Malta</i> <i>Kratovo, North Macedonia</i> <i>Chiprovtsi, Bulgaria</i> <i>Chiprovtsi, Bulgaria</i> <i>Chiprovtsi, Bulgaria</i> <i>Chiprovtsi, Bulgaria</i> <i>Chiprovtsi, Bulgaria</i> <i>Chiprovtsi, Bulgaria</i> Chiprovtsi, Bulgaria</p>	<p>28/02/2024 29/03/2024 30/03/2024 31/03/2024 14/04/2024 26/04/2024 08/05/2024 15/05/2024 16/05/2024 17/05/2024 20/05/2024 01/06/2024</p>	

<p><i>Turdus philomelos</i></p>	<p>CC4816</p>	<p>208602</p>	<p>Buskett, Malta Buskett, Malta Buskett, Malta Debarca, North Macedonia Svoge, Bulgaria Svoge, Bulgaria Svoge, Bulgaria Svoge, Bulgaria Svoge, Bulgaria Svoge, Bulgaria</p>	<p>29/02/2024 03/03/2024 26/03/2024 02/04/2024 14/04/2024 26/04/2024 08/05/2024 15/05/2024 16/05/2024 17/05/2024 20/05/2024 01/06/2024</p>	
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<p><i>Turdus philomelos</i></p>	<p>CC4817</p>	<p>208605</p>	<p><i>Buskett, Malta</i> <i>Buskett, Malta</i> <i>Buskett, Malta</i> <i>Buskett, Malta</i></p> <p>Rogatica Municipality, Bosnia and Herzegovina</p> <p>Békéssámson, Hungary</p> <p>Topofa, Slovakia Topofa, Slovakia Topofa, Slovakia Topofa, Slovakia Topofa, Slovakia Topofa, Slovakia Topofa, Slovakia Topofa, Slovakia</p>	<p>29/02/2024 29/03/2024 30/03/2024 31/03/2024 02/04/2024</p> <p>14/04/2024</p> <p>26/04/2024</p> <p>08/05/2024 15/05/2024 16/05/2024 17/05/2024 20/05/2024 01/06/2024 13/06/2024 25/06/2024 07/07/2024</p>	
<p><i>Turdus philomelos</i></p>	<p>CC4818</p>	<p>208609</p>	<p><i>Buskett, Malta</i></p>	<p>29/02/2024</p>	<p>No GPS data</p>

<i>Turdus philomelos</i>	CC4819	208604	Buskett, Malta	03/03/2024	
			Buskett, Malta	29/03/2024	
			Buskett, Malta	30/03/2024	
			Buskett, Malta	31/03/2024	
			Buskett, Malta	02/04/2024	
			Han Pijesak, Bosnia and Herzegovina	14/04/2024	
			Tállya, Hungary	26/04/2024	
			Nagyhuta, Hungary	08/05/2024	
			Kovácsvágás, Hungary	15/05/2024	
			Kovácsvágás, Hungary	16/05/2024	
Kovácsvágás, Hungary	17/05/2024				
Kovácsvágás, Hungary	20/05/2024				
Kovácsvágás, Hungary	01/06/2024				
Kovácsvágás, Hungary	13/06/2024				
Kovácsvágás, Hungary	25/06/2024				
Kovácsvágás, Hungary	07/07/2024				

<p><i>Turdus philomelos</i></p>	<p>CC4820</p>	<p>208600</p>	<p><i>Buskett, Malta</i> Bistra, Romania Posaga, Romania Posaga, Romania Posaga, Romania Posaga, Romania Posaga, Romania Posaga, Romania</p>	<p>03/03/2024 26/03/2024 14/04/2024 17/05/2024 20/05/2024 01/06/2024 13/06/2024 25/06/2024 07/07/2024</p>	
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<i>Turdus philomelos</i>	CC4821	208599	Buskett, Malta	03/03/2024	
			Buskett, Malta	29/03/2024	
			Buskett, Malta	30/03/2024	
			Girgenti, Malta	02/04/2024	
			Litvytsya, Rivne Oblast, Ukraine	15/05/2024	
			Litvytsya, Rivne Oblast, Ukraine	16/05/2024	
			Litvytsya, Rivne Oblast, Ukraine	17/05/2024	
Litvytsya, Rivne Oblast, Ukraine	20/05/2024				
Litvytsya, Rivne Oblast, Ukraine	01/06/2024				
Litvytsya, Rivne Oblast, Ukraine	13/06/2024				
Litvytsya, Rivne Oblast, Ukraine	25/06/2024				
Litvytsya, Rivne Oblast, Ukraine	07/07/2024				
					

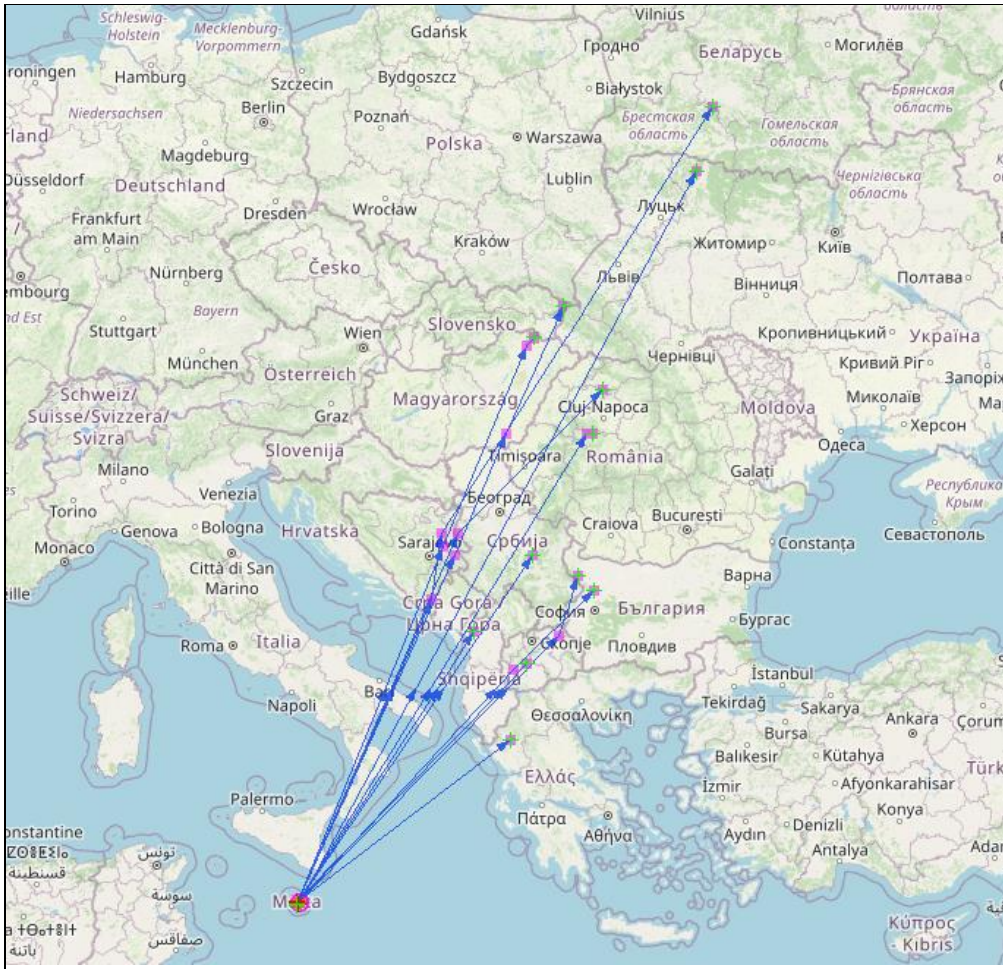


Figure 6: Composite map showing the locations and migration routes of all Song Thrushes fitted with a satellite-tag in Malta (GPS data for period 04/02/2022 – 07/07/2024). Note the general framework of NE movements of the tagged specimens during pre-nuptial migration.

Table 12 Malta's Song Thrush EU reference population (based on satellite-tracking data)[†] and current population trend (2013–2018)

Table 12 Malta's Song Thrush EU reference population (based on satellite-tracking data) [†] and current population trend (2013–2018)													Short-term (10-year trend)		Long-term	
Country	% in EU28	% of GPS-tracked Song Thrushes [†]	Breeding Pairs		Breeding Pairs as a % of GPS-tracked Song Thrushes [†] (Malta's EU reference population)		Short-term Trend	Mag. % change		Long-term Trend	Mag. % change		Change in number of breeding pairs			
			(Min – Max)	(Min – Max)	(Min – Max)	(Min – Max)		(Min – Max)	(Min – Max)		(Min – Max pairs)	(Min – Max pairs)				
Bulgaria	2.0%	33.3%	150,000	500,000	49,995	166,650	Increasing	0	45	Stable	0	5	0	74,993	0	8,333
Hungary	2.4%	16.7%	366,000	430,000	61,012	71,681	Stable	N/A	N/A	Unknown	N/A	N/A	N/A	N/A	N/A	N/A
Romania	8.0%	33.3%	1,510,018	1,743,426	503,289	581,084	Uncertain	-1	5	Unknown	N/A	N/A	-5,003	25,164	N/A	N/A
Slovakia	2.7%	16.7%	300,000	600,000	50,010	100,020	Stable	N/A	N/A	Stable	N/A	N/A	N/A	N/A	N/A	N/A
Total	15%	100%	2,326,018	3,273,426	664,306	919,435							-5,003	100,157	0	8,333
Data sources: European Environment Agency (2020): Article 12 reports for the 2013–2018 reporting period; Cramp et al (1988); Spina & Volponi (2008); [†] Movebank satellite-tracking data (2022–2024): movebank.org, study name "Migration of Golden Plovers and Song Thrushes", study ID 1995912295.							Percentage change					-0.76%	10.89%	0.00%	0.91%	
							Trend of Malta's Song Thrush EU reference population					Stable (<10% change)	Increasing (>10% change)	Stable (<20% change since 1980)	Stable (<20% change since 1980)	

Table 13 below shows the **minimum** number of Song Thrush breeding pairs, together with other relevant information required for the calculation of “small numbers”. According to the British Trust for Ornithology (BTO)³⁴, the typical lifespan of Song Thrush is three years, and the annual mortality rate of adults is 43.7% ± 0.7%, which tallies with that specified by the *Birds of the Western Palearctic (BWP)*.

Table 13 Minimum breeding population and mortality rate – Malta’s EU reference population

	Song Thrush (<i>Turdus philomelos</i>)	Source
Minimum breeding population – pairs (Bulgaria, Hungary, Romania, and Slovakia only)	664,306	Article 12 reports for the 2013–2018 reporting period (EEA, 2020); Cramp <i>et al</i> (1988); Spina & Volponi (2008); Movebank satellite-tracking data (2022–2024); movebank.org, study name “Migration of Golden Plovers and Song Thrushes”, study ID 1995912295.
Mortality rate – Juveniles	56%	Das Kompendium der Vögel Mitteleuropas (KVM) / Birds of the Western Palearctic (BWP)
Mortality rate – Adults	43.3%	BWP / British Trust for Ornithology (BTO)
Breeding rate (young per pair)	4	KVM / BWP / BTO

Calculation of 1% mortality rate and “small numbers”

Song Thrush (*Turdus philomelos*)

Minimum breeding success: 4 fledglings per pair (664,306 x 4) = 2,657,225

Mortality rate of 1st year birds: (2,657,225 x 56%) = 1,488,046

Mortality rate of adults: (1,328,612 x 43.3%) = 575,289

Total annual mortality: (1,488,046 + 575,289) = 2,063,335

1% of total annual mortality: (2,063,335 x 1%) = 20,633

Total potential Song Thrush national bag limit (1% of total annual mortality of [minimum] reference population [main contingents]) is **20,633**.

Autumn seasonal bag limit in relation to “small numbers”

Based on the 1% mortality rate (of the minimum population size), the “small numbers” calculation with respect to the national bag limit would amount to 20,633 Song Thrushes. However, it should be noted that the average number of Song Thrushes captured with clapnets during period 2006–2023 is 867 (Table 8). Thus, the previous season’s national bag limit of 5,000 Song Thrushes should be retained if a derogation to open an autumn live-capturing season for this species is applied in 2024. This equates to 0.242% (5,000/20,633) of the total annual mortality of the reference population (minimum population size), which is significantly less than the 1% threshold.

- **Song Thrush** – recommended maximum national bag limit of **5,000** birds.

³⁴ Song Thrush *Turdus philomelos* Key Facts. British Trust for Ornithology. Available at: <https://app.bto.org/birdfacts/results/bob12000.htm>.

3. Conclusion

European Golden Plover (*Pluvialis apricaria*)

The European (Eurasian) Golden Plover has an IUCN Least Concern classification at global level with an increasing population trend. At European Level, its IUCN classification is also Least Concern, with a stable population. According to the Article 12 report for reporting period 2013–2018, the EU breeding population status of Golden Plover is Stable in both the short-term and long-term trends (EEA, 2020).

It should be noted that since 2021, Estonia has been included in the “List of Countries” contributing to the latest European Bird Census Council (EBCC / PECBMS) updates, apart from Norway, **Sweden** and **Finland** (the latter two constituting Malta’s EU reference population). According to the EU Management Plan for this species, Estonia, which sustains a breeding population of 2,500–3,400 pairs (EEA, 2020) does not form part of the Northeast European population of *Pluvialis apricaria altifrons* (Malta’s EU reference population)³⁵.

According to the latest dataset available from the European Bird Census Council (EBCC, 2023) at the time the conservation status of the Golden Plover (*Pluvialis apricaria*) was updated (August 2024), **there was an increase in the combined breeding population of the contributing countries** (Norway, Sweden, Finland and Estonia) both in the short-term and long-term trends, when compared with the previous EBCC update.

In the short-term trend [ten-year slope] (2013–2022), the increase was from +4% to +8% (**4% increase**) and from -23% to -17% (**6% increase**) in the long-term trend (1981–2022)³⁶. The current EBCC assessment considers *Pluvialis apricaria* as **Stable**.

Malta’s EU reference population of *Pluvialis apricaria altifrons* (Finland and Sweden) remained stable in both the short-term and long-term trends.

Song Thrush (*Turdus philomelos*)

The Song Thrush has an IUCN Least Concern classification at global level with an increasing population trend. At European Level, its IUCN classification is also Least Concern with a stable population. According to the Article 12 report for reporting period 2013–2018, the EU breeding population status of Song Thrush is Increasing in the short-term trend and Stable in the long-term trend (EEA, 2020).

The latest dataset available from the European Bird Census Council (EBCC, 2023) at the time the conservation status of the Song Thrush (*Turdus philomelos*) was updated (August 2024), lists this species trend classification as **Moderate Increase**, defined as a “significant increase, but not significantly more than 5% per year”. When compared with the previous EBCC (2022) update, the short-term [ten-year (2013–2022)] trend **increased by 7%** [from +15% to +22%], whereas in the long-term trend (1980–2022) the population **decreased by 3%** (from +6% to +3%).³⁶

³⁵ *The nominate southern subspecies P. a. apricaria nests in Ireland, Great Britain, Denmark, Germany, Latvia, Lithuania and Estonia. This subspecies winters in North-West Europe, from Ireland to South Britain, France and Iberia.* Source: EU Management Plan – Golden Plover (p.8).

³⁶ Comparison between the previous and current EBCC updates is for information purposes only. The EBCC updates provide composite data (combined data of all contributing countries) on the latest population trends at pan-European level, not at EU level—it includes data pertaining to countries that are not part of Malta’s EU reference population. Moreover, since the EBCC updates do not provide segregated data on population levels and trends for each contributing country, it is not possible to use EBCC’s composite data, even if combined at EU level only, to update the assessment of the species at Malta’s EU reference population level. The latest available data at EU level that is segregated by country, and hence available to the Maltese authorities to carry out an assessment of the status of the species at reference population level, is the one published by the European Environment Agency as part of the Birds Directive Article 12 reporting obligations for period [2013–2018](#).

Malta's reference population of *Turdus philomelos* (Bulgaria, Hungary, Romania and Slovakia) is stable in both the short-term and long-term trends, with an increasing short-term (10-year) trend in the maximum number of breeding pairs.