ANNEX I

Update on the Conservation Status of the Golden Plover (*Pluvialis apricaria altifrons*) and Song Thrush (*Turdus philomelos*)

Wild Birds Regulation Unit
Parliamentary Secretariat for Agriculture, Fisheries and Animal Rights
Ministry for Sustainable Development, the Environment and Climate Change

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Contents

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

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:

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 that 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)

Executive Summary

This report provides an update on the conservation status of the Golden Plover and Song Thrush for review by the Malta Ornis Committee, in conjunction with the potential application of a derogation under Article 9 of the EC Birds Directive, concerning the opening of an autumn 2015 season for the live-capturing of Golden Plover (*Pluvialis apricaria altifrons*) and Song Thrush (*Turdus philomelos*).

The conservation status of the Golden Plover and the Song Thrush is reviewed on the basis of current scientific literature, which also provides details of population size, mortality rates and migratory routes. An assessment of the Golden Plover at sub-species level is also provided. It is shown that Golden Plovers migrating over the Maltese Islands are the sub-species *Pluvialis apricaria altifrons* from the Northeast European (or West Continental) population and that the moderate historical decline refers to the nominate *P. apricaria apricaria*, which does not pass through Malta. The current update shows that both *Pluvialis apricaria altifrons* and *Turdus philomelos* continue to have a Favourable Conservation Status at the Global, Pan-European and EU levels.

It should be noted that the national bag limit for Golden Plover as established in the 2012 Framework Regulations (SL 504.113) was 1,150 individuals. However, this erroneously included the entire EU population, including populations of the nominate *P. apricaria apricaria* which does not migrate over Malta. Considering that the correct reference population is the EU component of the West Continental (Northeast European) population of *Pluvialis apricaria altifrons* (Finnish and Swedish populations only), the 1% threshold and hence the national bag limit was revised in 2014 via S.L. 504.123 (L.N. 251/14). The revised maximum bag limit of 700 Golden Plovers is 39.13% less than that the limit established prior to 2014 (n=1,150).

Should a derogation to allow the live-capturing of Golden Plover and Song Thrush be applied in autumn 2015, it is recommended that the general conditions stipulated by S.L. 504.113[1] (Framework for Allowing a Derogation Opening an Autumn Live-Capturing Season for Song Thrush and Golden Plover Regulations) and S.L. 504.123[2] (Notice of Derogation) are retained, including the following dates and national bag limits:

- **Song Thrush**: from 20 October 2015 to 31 December 2015 (National Bag Limit: 5,000)
- **Golden Plover**: from 20 October 2015 to 31 December 2015 (National Bag Limit: 700)

[1] L.N. 303/12 - Conservation of Wild Birds (Framework for Allowing a Derogation Opening an Autumn Live-Capturing Season for Song Thrush and Golden Plover) Regulations, 2012, as amended by L.N. 279/13, L.N. 254/14 and L.N. 289/14.

[2] L.N. 251/14 - Conservation of Wild Birds (Declaration on a Derogation for a 2014 Autumn Live-Capturing Season) Regulations, 2014.

(1) Conservation status of Golden Plover (*Pluvialis apricaria s.l.*)

Non-SPEC[E] (1994: 4) Status: (Secure); Criteria: —
European IUCN Red List Category: —; Criteria: — (BirdLife International, 2004)

The Golden Plover (*Pluvialis apricaria s.l.*) is a medium-sized Palaearctic 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 flood-lands. 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).

Global and pan-European distribution

"The total European breeding population size of this species [*Pluvialis apricaria s.l.*] is 460,000–740,000 pairs, constituting more than half of the global total (BirdLife International, 2004). The total wintering population in Europe and North Africa is in excess of 2.2. million birds (Wetlands International, 2006). The largest breeding populations within EU Member States are in Sweden (11–12%), Finland (9–11%) and the UK (8%). While the Swedish population declined during 1990–2000, the Finnish population increased by a similar amount. The greatest declines have been of the nominate *Pluvialis apricaria apricaria* relict populations in Denmark and Lithuania. The Estonian, Latvian and German populations of the nominate species have, however, been stable (BirdLife International, 2004).

According to Birdlife International (2004), the overall wintering population trend for this species in the European Union is showing a "*moderate increase*", while the breeding population trend (1990–2000) is "*unknown*". It is unknown mainly because of lack of knowledge of the trend in Iceland, which has by far the largest population, holding 42–54% of the European total (Norway has the next largest population with 11–14% of the total) [vide Table 1 which also defines the *apricaria* and *altifrons* country of origin]. In contrast, the UK wintering population has shown a marked increase over the same period, but this includes birds from the Icelandic and West Continental populations as well as the breeding nominate race *Pluvialis apricaria apricaria*. The French wintering population is probably increasing (EC, 2009).[6]

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

Population	***altifrons* (Iceland & Faeroes)**	***altifrons* (NW Europe)**	***altifrons* (N–C Siberia)**	***apricaria* (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).

[6] EC 2009: European Union Management Plan for the Golden Plover (*Pluvialis apricaria*) 2009 – 2011 (available at: http://ec.europa.eu/environment/nature/conservation/wildbirds/hunting/docs/Golden%20Plover%20EU_MP.pdf).

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 Plover, this species is hunted in at least 4 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 Portugal[7]. The species has a large range[8], with an estimated global extent of occurrence of 1,000,000–10,000,000 km^2. It has a large global population, including estimated 1,600,000–2,000,000 individuals in Europe (Wetlands International 2006[9]).

According to the latest *Birdlife Species Factsheet* given that this species has an extremely large range, it does not approach the thresholds for 'Vulnerable' under the range size criterion, or under the population trend criterion, or under the population size criterion. For these reasons BirdLife International evaluates this species as 'Least Concern' at the Global level. Although the pan-European population of the Golden Plover has a Favourable conservation status (provisionally listed as Secure by BirdLife International, 2004), it has an "*unfavourable conservation status within the EU due to its moderate historical decline in its EU breeding population*" (EC, 2009).

Cramp and Simmons (1983)[10] state that the Golden Plover is thought to include 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. The species (*Pluvialis apricaria s.l.*) is provisionally listed as secure at pan-European level (Birdlife International, 2004), but has an Unfavourable Status in the EU (EC 2009). Delany *et. al*. (2007)[11] indicate that the *altifrons* population is divided into three sub-populations, of which the Northeast European (West Continental) is the one that migrates to Malta (breeds in North Norway and 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) Second Conservation 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 only 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); (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 and Germany, and wintering in Northwest Europe.

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[7] EC 2009: *European Union Management Plan for Golden Plover 2009–2011*, Table 4, page 17.
[8] According to Avibirds.com - *European Bird Guide On Line.*
[9] Wetlands International (2006). - Waterbird Population Estimates – Fourth Edition. Wetlands International, Wageningen, the Netherlands.
[10] Cramp, S., cf. ed. 1983. The Birds of the Western Palearctic. Vol. III 'Waders to Gulls. (Pluvialis apricaria Golden Plover pp 201-216). Oxford University Press.
[11] 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.

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 the *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 the *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 literature, therefore, the population of the sub-species which is declining is the *P. a. apricaria*, whereas the other populations / groups (*P. apricaria altifrons*) found in Europe are stable.

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 also be noted that this moderate decline is related to the nominate *Pluvialis apricaria apricaria* population which does not migrate through Malta (see Figs. 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 217,000 breeding pairs at pan-European Level. This West Continental population includes breeding pairs whose range includes EU Member States as well as Russia and Norway, as specified in the EU Management Plan for this species.

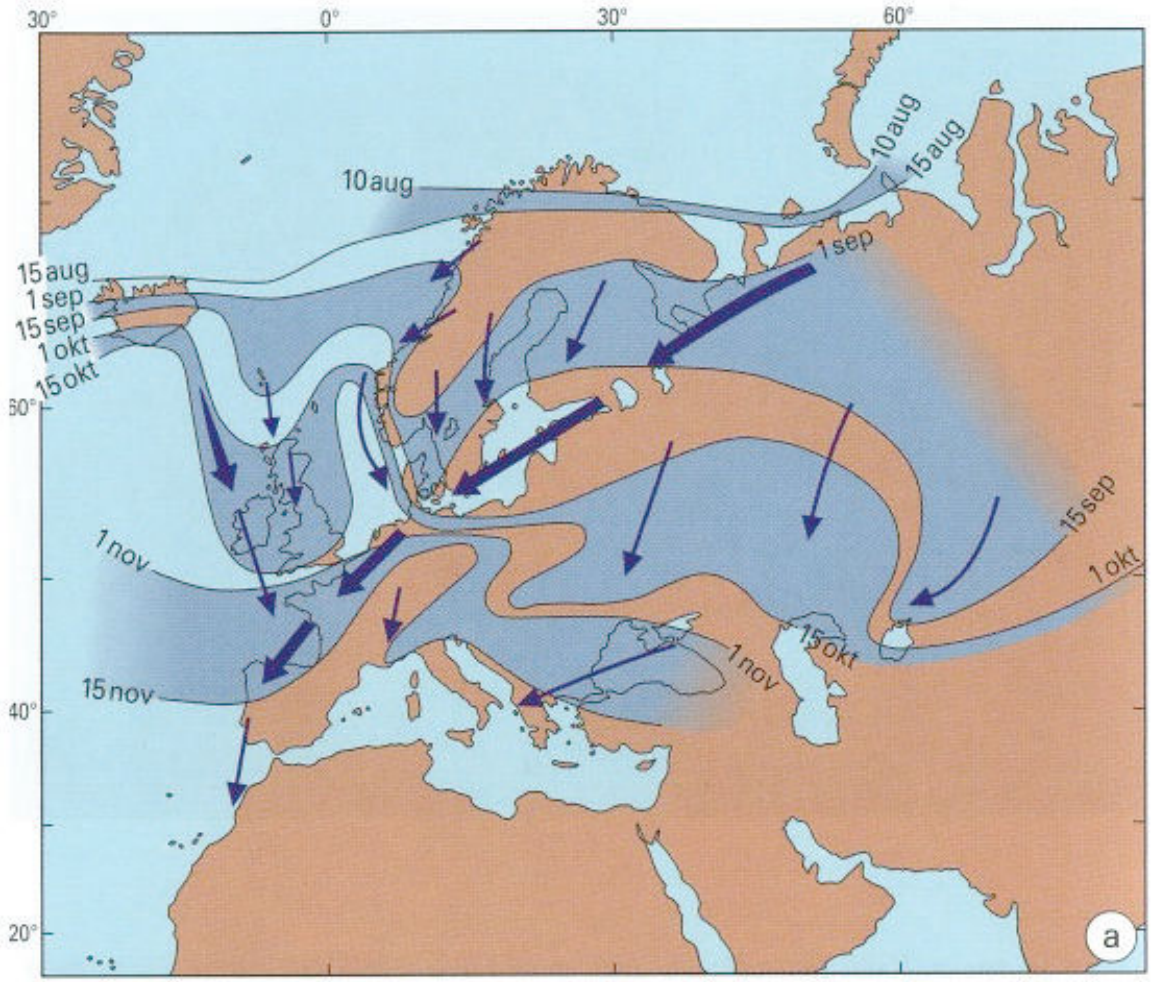

Fig. 1: Outline of the timing and geography of the southward migration of Golden Plovers. Arrows indicate the most important migration routes, and size of arrow is an indication of migration intensity. Source: Jukema *et al.* 2001. In: Gillings, S (2005) International workshop on passage and wintering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

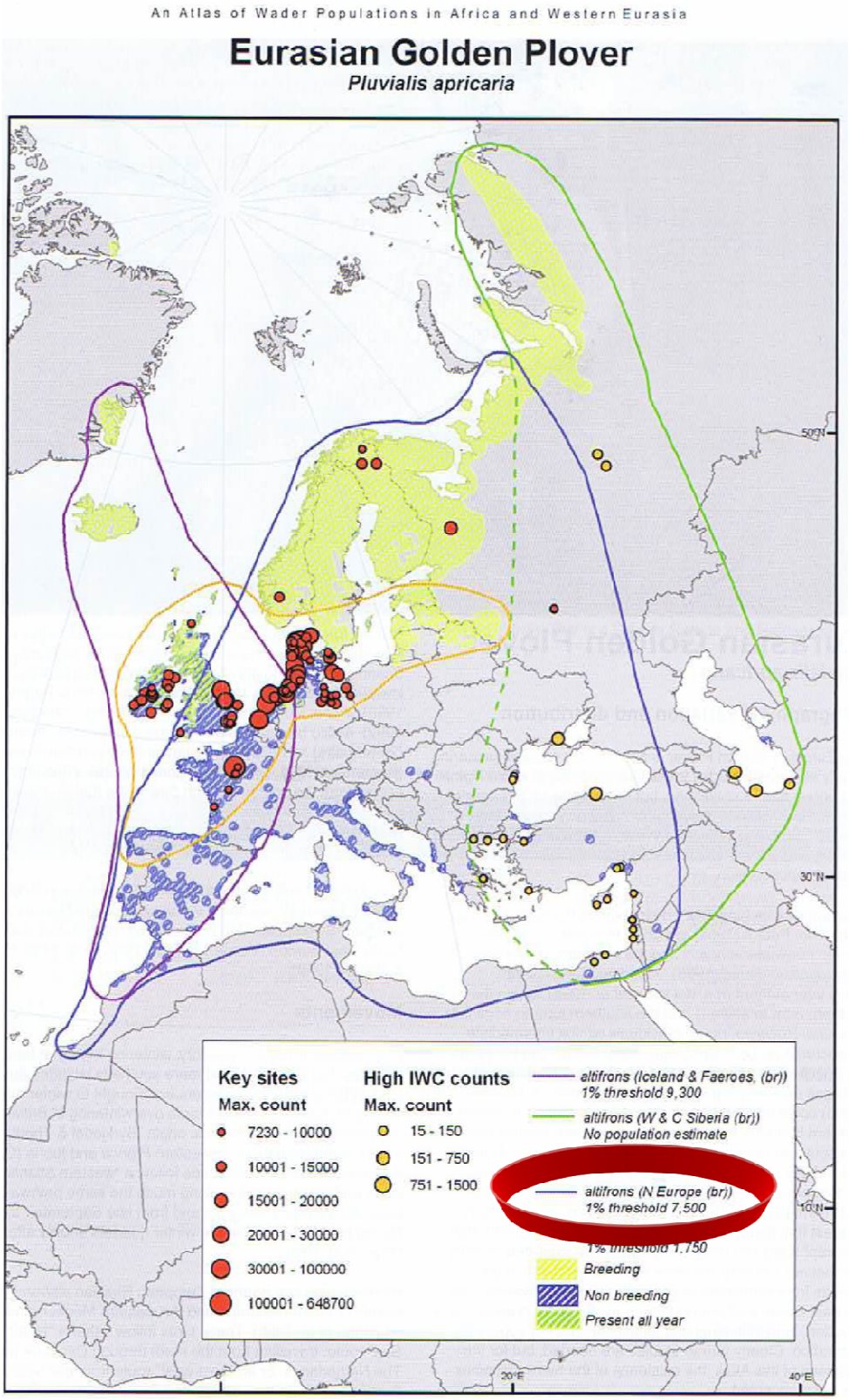

Fig. 2: Migratory flyways of *Pluvialis apricaria altifrons*. Source: An Atlas of Wader Populations in Africa and Western Eurasia (p. 180)

Update of the conservation status of *Pluvialis apricaria altifrons* (Northeast European population)

According to the latest dataset available from the European Bird Census Council[12] (EBCC, 2014) at the time the conservation status of the Golden Plover (*Pluvialis apricaria*) was updated (April 2015), **there was a significant decline in the Northeast European (West Continental) population** (Norway, Sweden and Finland), particularly in the short-term trend, when compared with the previous (2013) EBCC update.

In the short-term trend (1990–2012) the decline was from +121% to +2% (-119% decline) and from +24% to -12% (-36% decline) in the long-term (1980–2012) trend. The previous assessment for *Pluvialis apricaria* population by EBCC[13] (2013 update) was Stable for the long-term trend (1980–2011) and Moderate Increase for the short-term trend (1990–2011). It should be noted that contrary to previous EBCC updates, the latest population trends were not published in the form of a leaflet which, apart from the magnitude change, also provides the short- and long-term trend classifications for a selected component of avian species at pan-European level.

Notwithstanding, based on the data provided by the latest (2014) EBCC update, the overall change at pan-European level between 2011 and 2012 was +0.16% in the long-term slope and +0.21% in the short-term slope, implying that the extent of decline from the current to the previous reporting period, although quite significant when compared with the previous EBCC update, still classifies the Golden Plover population within the Stable category (Table 2). Figure 3 is an extract from the EBCC 2014 update, which confirms that the population trend category for *Pluvialis apricaria* is Stable with "no significant increase or decline, and most probable trends are less than 5% per year". It should be noted that the "List of Countries" contributing to this update are Norway, Sweden and Finland, which collectively represent the Northeast European population of *Pluvialis apricaria altifrons*.

Table 2	**Golden Plover long-term and short term percentage trend change (2011–2012)**							
Year	**Species**	**Trend 1980 (%)**	**Long-term Slope (SE)**	**% change**	**Trend 1990 (%)**	**Short-term Slope (SE)**	**% change**	**Habitat**
2010	*Pluvialis apricaria*	-8	0.9937	-0.63%	+61	1.0114	+1.14%	oth
2011	*Pluvialis apricaria*	+24	0.9979	-0.21%	+121	1.0174	+1.74%	oth
2012	*Pluvialis apricaria*	-12	0.9995	-0.05%	+2	1.0195	+1.95%	oth
			Overall change (2011–2012)	**+0.16%**			**+0.21%**	
			Trend Classification	**Stable**			**Stable**	
Data sources: EBCC (2012–2014 updates)								

[12] http://www.ebcc.info/index.php?ID=557

[13] *Population Trends of Common European Breeding Birds 2012*. Available at: http://www.ebcc.info/wpimages/video/Leaflet2013.pdf

Eurasian Golden Plover (*Pluvialis apricaria*)

Population index (%) 1981 - 2012, Europe.
Trend classification: *Stable* (explanation)
Note: Index for early period may be unrepresentative due to limited geographical coverage and needs to be treated with caution.

List of Countries

Source of the data: EBCC/RSPB/BirdLife/Statistics Netherlands

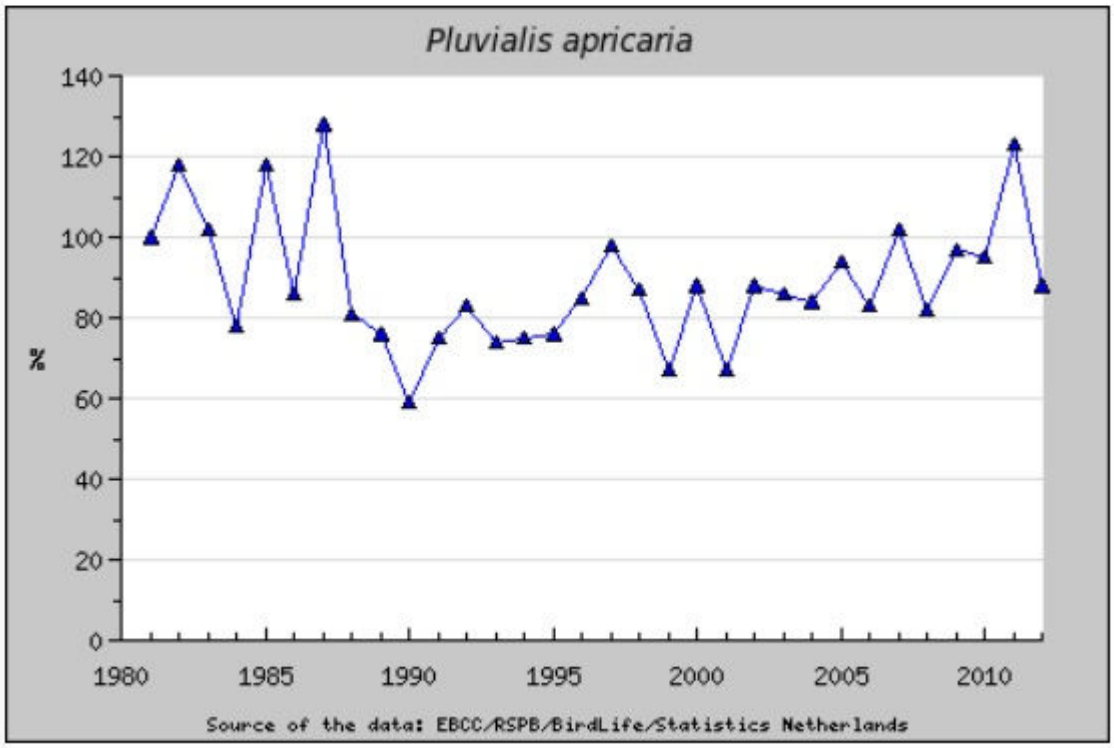

Fig. 3: Long-term trend classification for *Pluvialis apricaria*. Source: EBCC (2014 update) available at: http://www.ebcc.info/index.php?ID=557.

"List of Countries":
Finland 1981 - 2012
Norway 2006 - 2012
Sweden 1998 - 2012

There are no breeding records of the Golden Plover in Malta. Table 3 lists the live-capturing data for Golden Plover in Malta and Gozo during the autumn/winter seasons from 2006 to 2014.

Table 3 *Carnet de Chasse* live-capturing data for Golden Plover (2006–2013)

Species	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total	Average
Golden Plover	319	44	503[1]	414	1769	52	25[2]	158[3]	476[4]	3760	418

Source: *Carnet de Chasse* (CdC) data, Environment Protection Directorate (Malta Environment and Planning Authority)

[1] Jan 2008 (16) + Oct–Dec 2008 (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).

(i) Reference population

On the basis of current literature, the reference population of the Golden Plover for Malta is 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%)

Based on a total ranging from 217,000 to 362,000 breeding pairs, as specified in the EU Management plan, the Northeast European breeding population of the Golden Plover (*P. a. altifrons*) **within the EU territory** is as follows:

- Finland (47,740–79,640)
- Sweden (36,890–61,540)

This results in a reference population of **84,630 minimum breeding pairs**, based on the most up-to-date breeding pair estimates as specified in the EU Management Plan for this species. Table 4 provides a direct comparison between the breeding population estimates of the reference population (Finland and Sweden) and other breeding populations within the EU territory.

Table 4 **Golden Plover EU Breeding Population** (grey shading represents the West Continental component population of *Pluvialis apricaria altifrons*)

Country	Breeding Pairs (Min - Max)		Trend	Mag. % (Max - Min)		Max % Change (Min Pairs)	Max % Change (Max Pairs)	Max % Change (Average Pairs)
Denmark	4	5	Decline	50	79	-3	-4	-4
Estonia	3,000	5,000	Stable	0	19	-	-	-
Finland	40,000	80,000	Increase	10	10	4,000	8,000	6,000
Germany	22	22	Stable	0	19	-	-	-
Ireland	200	400	Decline	30	49	-98	-196	-147
Latvia	350	450	Stable	0	19	-	-	-
Lithuania	40	50	Decline	0	19	-8	-10	-9
Sweden	50,000	90,000	Decline	0	9	-4,500	-8,100	-6,300
UK	38,400	59,400	Decline	12	12	-4,608	-7,128	-5,868
Total	132,016	235,327				-5,217	-7,437	-6,327
			Percentage change			**-3.95%**	**-3.16%**	**-3.44%**
			Trend (EU Population)			**Stable**	**Stable**	**Stable**

Source: BirdLife International (2004)

For the purpose of calculating the "small numbers" criterion in relation to the relevant "population concerned" (the reference population), Table 5 below shows the minimum number of breeding pairs of *Pluvialis apricaria altifrons*, together with other relevant information required for calculating the 1% mortality threshold.

Table 5 Minimum breeding population and mortality rate

	Golden Plover (*Pluvialis apricaria altifrons*)	Source
Minimum breeding population – pairs (West Continental population of *Pluvialis apricaria altifrons* within the EU territory only)	84,630	EU Management Plan (2009–2011)
Mortality rate – juveniles	53.33%	Kompendium der Vogel Mitteleuropas (KVM) and Birds Western Palearctic (BWP); as quoted in the "Guide to sustainable hunting under the Birds Directive".
Mortality rate – adults	33.7%	KVM and BWP
Breeding rate (young per pair)	3.64	Golden Plover: European Management Plan-2009/2011, Technical Report-2009-034, Golden Plover.

(ii) Calculation of 1% mortality rate and "small numbers"

Golden Plover (*P. apricaria altifrons*)
Minimum breeding success 3.64 birds per pair (84,630 x 3.64) = 308,053
Mortality rate of 1st year birds (308,053 x 53.33%) = 164,285
Mortality rate of adults (169,260 x 33.7%) = 57,041
Total annual mortality (164,285 + 57,041) = 221,326
1% of total annual mortality (221,326 x 1%) = 2,213

Total potential Golden Plover harvest figure is: 2,213 = 738 (figure divided by three to account for the fact that only a fraction of the bird reference population actually fly over Malta).

(iii) Autumn seasonal bag limit in relation to "small numbers"

Based on the 1% mortality rate, the "small numbers" calculation with respect to the autumn 2015 seasonal bag limit would amount to 738 Golden Plovers. However, it is proposed that the previous season's bag limit of 700 Golden Plovers is retained should a derogation to open an autumn live-capturing season for Golden Plover and Song Thrush is applied in 2015.

- **Golden Plover** – maximum national bag limit of **700** birds.

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

Non-SPEC^{E} (1994: 4) Status: Secure; Criteria: —
European IUCN Red List Category: —; Criteria: — (BirdLife International, 2004)

The Song Thrush (*Turdus philomelos*) is a huntable bird species which is listed under Annex II(b) of the Birds Directive. It has an extremely large distribution range 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 pan-European population numbers 20–36 million, including the large Russian population of 6–10 million (Birdlife International, 2004).[14]

Global and pan-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[15] states that the Song Thrush is a regular breeder and a common passage migrant with the first migrant thrushes occurring from late August, but high frequencies are 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.

According to the latest *Birdlife Species Factsheet*[16] this species has an extremely large range, and hence does not approach the thresholds for Vulnerable under the range size criterion, under the population trend criterion, or under the population size criterion. For these reasons BirdLife International also evaluates this species as 'Least Concern' at the Global level. The latest dataset available from the European Bird Council Census (EBCC, 2014)[17] at the time the conservation status of the Song Thrush (*Turdus philomelos*) was updated (April 2015), lists this species trend classification as **Moderate Increase** for both its long-term (1980–2012) and short-term (1990–2012) trends.

Figure 4 is an extract from the EBCC 2014 update, which confirms that the population trend category for *Turdus philomelos* is within the Moderate Increase category with "no significant increase or decline, and most probable trends are less than 5% per year".

[14] Birds in Europe: Population estimates, trends and conservation status *(BirdLife International 2004).*
[15] *Atlante della Migrazione degli Uccelli in Italia*, Vol 2-190-236, p. 235.
[16] http://www.birdlife.org/datazone/speciesfactsheet.php?id=6407
[17] http://www.ebcc.info/index.php?ID=557

Song Thrush (*Turdus philomelos*)

Population index (%) 1980 - 2012, Europe.
Trend classification: *Moderate increase* (explanation)

List of Countries

Source of the data: EBCC/RSPB/BirdLife/Statistics Netherlands

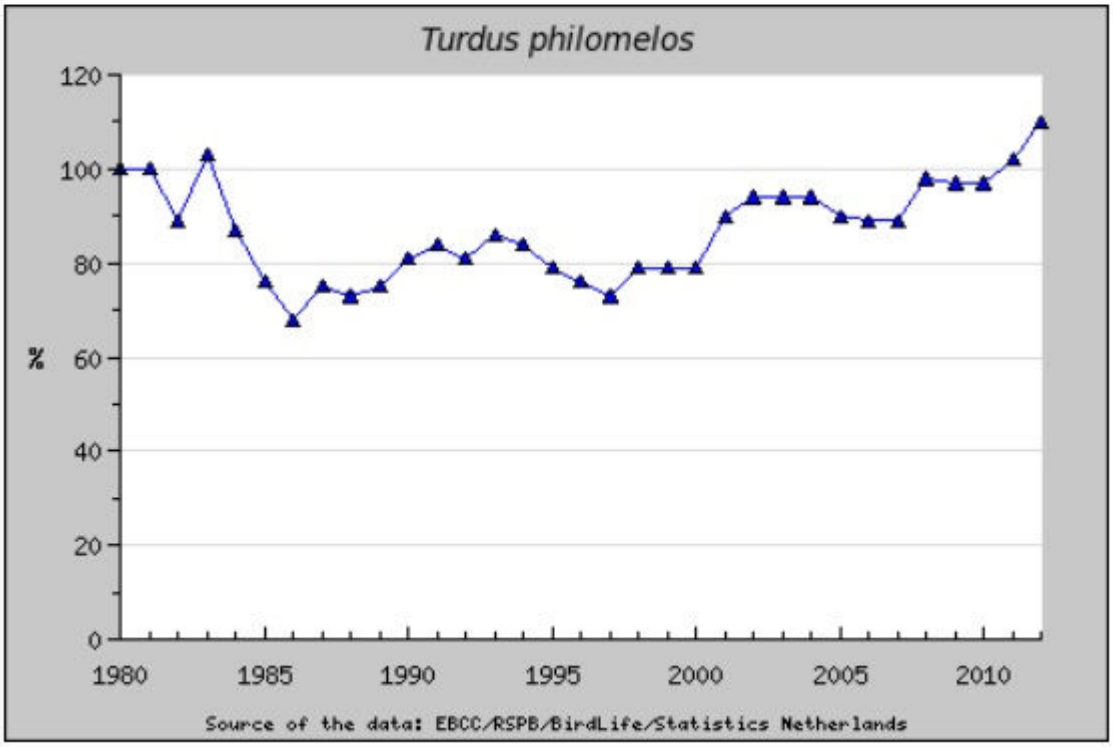

Fig. 4: Long-term trend classification for *Turdus philomelos*. Source: EBCC (2014 update) available at: http://www.ebcc.info/index.php?ID=557.

"List of Countries":

Austria	1998 - 2012
Belgium-Brussels	1992 - 2012
Belgium-Wallonia	1990 - 2012
Bulgaria	2005 - 2012
Czech Republic	1982 - 2012
Denmark	1976 - 2012
Estonia	1983 - 2012
Finland	1975 - 2012
France	1989 - 2012
Germany East	1991 - 2012
Germany West	1989 - 2012
Hungary	1999 - 2012
Italy	2000 - 2012
Latvia	2005 - 2012
Luxembourg	2009 - 2012
Netherlands	1984 - 2012
Norway	1996 - 2012
Poland	2000 - 2012
Republic of Ireland	1998 - 2012
Romania	2007 - 2012
Slovakia	2005 - 2012
Slovenia	2007 - 2012
Spain	1998 - 2012
Sweden	1975 - 2012
Switzerland	1999 - 2012
United Kingdom	1966 - 2012

Song Thrush distribution within the territory of the European Union

Table 6 and Table 7 provide an estimate of the breeding population of the Song Thrush within the EU territory and the wintering population size respectively.

Table 6 Breeding populations of Song Thrush within the EU

Country	Breeding population (pairs)	Years	Country	Breeding population (pairs)	Years
Austria	250,000–500,000	97-02	Italy	200,000–400,000	03
Belgium	20,000–100,000	01-02	Latvia	200,000–250,000	00
Bulgaria	200,000–800,000	99–02	Lithuania	(1,000,000–2,000,000)	99–01
Croatia	50,000–100.000	02	Luxemburg	5,000–8,000	02
Czech Republic	400,000–800,000	00	Netherlands	120,000–160,000	98–00
Denmark	200,000–300,0000	00	Poland	500,000–800,000	03
Estonia	200,000–400,000	98	Portugal	(100–1,000)	02
Finland	600,000–800,000	98–02	Romania	1,420,000–2,150,000	00
France	600,000–3,000,000	98–02	Slovakia	300,000–600,000	99
Germany	1,200,000–2,500.000	95–99	Slovenia	100,000–200,000	00
Greece	1,000–3,000	95–00	Spain	(100,000–250,000)	98–02
Hungary	270,000–410,000	99–02	Sweden	1,500,000–3,000,000	00
Ireland (Rep.)	250,000–500,000	01	UK	1,144,000–1,144,000	00
Total Minimum Breeding Pairs				**10,830,100**	

Data Source: BirdLife International (2004) ***Birds in Europe: Population estimates, trends and conservation status.*** Available at < http://www.birdlife.org/datazone/speciesfactsheet.php?id=6407#FurtherInfo> Accessed 25 July 2013.

Table 7 Song Thrush (*Turdus philomelos*) wintering population size

Country	Wintering Visitors	Year(s)
Austria	a few	2002
Belgium	Regular	1995–2000
Bulgaria	Regular	1997–2001
Cyprus	Regular	1994–2002
Czech Republic	Regular	1999–2000
Estonia	Occasional	1998
France	Regular	1998–2002
Germany	a few	1995–2000
Greece	Regular	2000
Rep. of Ireland	Regular	1994–2000
Italy	Regular	2002
Luxembourg	a few	1999–2002
Malta	a few	1999–2002
Portugal	Regular	1990–2002
Slovenia	Regular	2000
Spain	Regular	1990–2000
UK	Regular	1990–2001

Data Source: BirdLife International (2004) ***Birds in Europe: Population estimates, trends and conservation status.*** Available at < http://www.birdlife.org/datazone/speciesfactsheet.php?id=6407#FurtherInfo> Accessed 25 July 2013.

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). There is no record of the Song Thrush ever breeding in Malta. Table 8 lists the live-capturing data for Song Thrush in Malta and Gozo during the autumn/winter seasons from 2006 to 2013. According to the *Carnet de Chasse* (CdC) data, the following number of Song Thrushes were captured in Malta during the autumn seasons of the years indicated.

Table 8 *Carnet de Chasse* live-capturing data for Song Thrush (2006–2014)

Species	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total	Average
Song Thrush	420	10	552	1,199	5,027	2,069	44[1]	135	292	9,748	1,083

Source: *Carnet de Chasse* (CdC) data, Environment Protection Directorate (Malta Environment and Planning Authority)

[1] The 2012 and 2013 figures represent the SMS data for the period 20th October to 31st December 2012.

Based on current literature, it can be clearly deduced that the Song Thrush (*Turdus philomelos*) enjoys a Favourable Conservation throughout its range.

(i) Reference Population

Table 9 below shows the minimum number of breeding pairs of *Turdus philomelos*, together with other relevant information required for the calculation of "small numbers".

Table 9 Minimum breeding population and mortality rate

	Song Thrush (*Turdus philomelos*)	Source
Minimum breeding population – pairs	10,830,100	Birdlife International Species Factsheet & *Atlante della Migrazione degli Uccelli in Italia* (Ringed Records)
Mortality rate – juveniles	56%	Kompendium der Vogel Mittleeuropas – KVM / Birds of the Western Palaearctic, British Trust for Ornithology (BTO)
Mortality rate - Adults	43.3%	KVM and BTO
Breeding rate (young per pair)	4	Birdlife International (2004)

In the absence of ring recoveries in Malta, the reference population of the Song Thrush shall thus be considered to be 10,830,100 breeding pairs (the entire minimum breeding population at EU level but, as shown below, the 1% threshold is subdivided by three given that Malta is located along the easternmost fringes of the central European flyway, which is one of three principal flyways).

(ii) Calculation of 1% mortality rate and "small numbers"

Song Thrush (*Turdus philomelos*)
Minimum breeding success 4 birds per pair (10,830,100 x 4) = 43,320,400
Mortality rate of 1st year birds (43,320,400 x 56%) = 24,259,424

Mortality rate of adults (21,660,200 x 43.3%) = 9,378,867
Total annual mortality (24,259,424 + 9,378,867) = 33,638,291
1% of total annual mortality (33,638,291 x 1%) = 336,383

Total potential Song Thrush harvest figure is: 336,383 = 112,128 (figure divided by three to account for the fact that only a fraction of the bird reference population actually fly over Malta).

(iii) Autumn seasonal bag limit in relation to "small numbers"

Based on the 1% mortality rate, the "small numbers" calculation with respect to the autumn 2014 proposed seasonal bag limit would amount to 112,128 Song Thrushes. However, it should be noted that the average number of Song Thrushes captured with clap-nets over an eight-year period (2006–2013) is less than 2,000 (Table 8). Therefore, it is proposed that the previous season's bag limit of 5,000 Song Thrushes is retained should a derogation to open an autumn live-capturing season for Golden Plover and Song Thrush is applied in 2015.

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