

MARCH 2024

CONSERVATION STATUS REPORT



BIRDLIFE MALTA

TURTLE DOVE
GAMIEMA
STREPTOPELIA TURTUR

1- Introduction

The Turtle-dove is a medium-sized dove. Has orange-brown feathers on wing, pinkish chest, striped patch on neck and grayish head. In flight, is whitish from below with striking tail pattern. In Europe it breeds in open low land, woods and agricultural areas. It nests in trees. It breeds in all of Europe except in the far north, and is found breeding also in North African countries. This species is a migratory bird migrates to south of the Sahara in autumn and returns in spring. Turtle-dove diet consists of seed, fruit and even small insects.



2- Malta & the Turtle-dove (history of hunting in Malta)

The Turtle-dove is a common and regular migrant. Most migrants arrive at night, while some arrive in the early hours of morning in flocks. It is known that in the past Turtle-doves were seen in larger numbers with flocks even reaching several hundred. In the past, the European Turtle-dove was a common breeding bird species in the Maltese islands (Keller et al. 2020, Raine et al. 2009). However, it is currently classified as an irregular breeder (Epsilon 2019). In contrast, in neighboring territories like Sicily and Pantelleria, where it is not hunted during spring, the Turtle-dove is considered a regular breeding bird (Keller et al. 2020). The same applies to adjacent regions in Northern Africa, such as Algeria, Tunisia, and Libya (BirdLife International 2024). Given that suitable breeding habitat for Turtle-doves still exists in the Maltese islands, it is highly likely that the species would re-establish a viable breeding population if the birds arriving during their pre-nuptial migration were not disrupted or harvested due to spring hunting seasons.

3- The EU Birds Directive

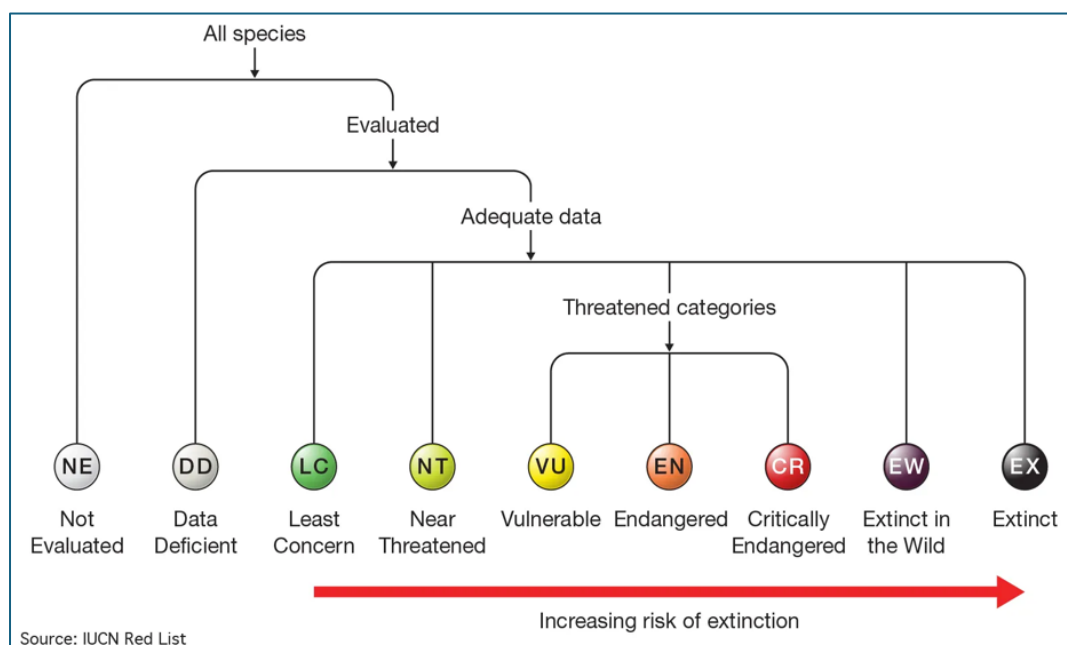
The European Turtle-dove is hunted in around ten EU Member States, including Malta, under respective national legislation and, as specified in Annex II/part B of the EU's Birds Directive 2009/147/EC, hunting has to take place outside the spring migration and breeding periods and should comply with the principles of wise use and ecologically balanced control of the species (Fisher et al., 2018). It is prohibited to deliberately damage or destroy their nests and eggs. The birds themselves are protected against deliberate disturbance, especially during the period of breeding and rearing young.

The EU Birds Directive article 7(4) clearly prohibits spring hunting while in article 7(1) it also prohibits any hunting that jeopardises conservation efforts. (these efforts are explained further on in this report)

4- IUCN Status

The International Union for Conservation of Nature (IUCN) is an international organization working in the field of nature conservation and sustainable use of natural resources. Founded in 1948, IUCN has become the global authority on the status of the natural world and the measures needed to safeguard it. It is involved in data gathering and analysis, research, field projects, advocacy, and education. IUCN's mission is to "influence, encourage and assist societies throughout the world to conserve nature and to ensure that any use of natural resources is equitable and ecologically sustainable".

The categories of status of species start from the most devastating one being "Extinct" and the entire list is as follows in order of concern:



In 2015 the Turtle-dove status has been up-listed to Vulnerable at both Global and European Level. This was a result of data showing continuous decline. The species declined by 83% since 1980 (according to the European Bird Census Council (EBCC, 2023) with the decline in the latest ten years (2013 – 2022) being 5%.



5- Article 12 Reporting

Article 12 of the Birds Directive requires Member States to report about the progress made with the implementation of the Birds Directive. Prior to the reporting period 2008-2012 the Commission in agreement with Member States had revised the reporting procedure in order to focus the reporting on data related to the status of bird populations, thereby streamlining the reporting with the reporting under Article 17 of the Habitats Directive. The Article 12 report contains information on status and trends of bird populations together with information on main pressures and threats.

The article 12 reporting has cycles of 5 years with the latest being 2013-2018. The EU breeding population trend of the European Turtle-dove continues to Decrease in both the short-term and in the long-term.

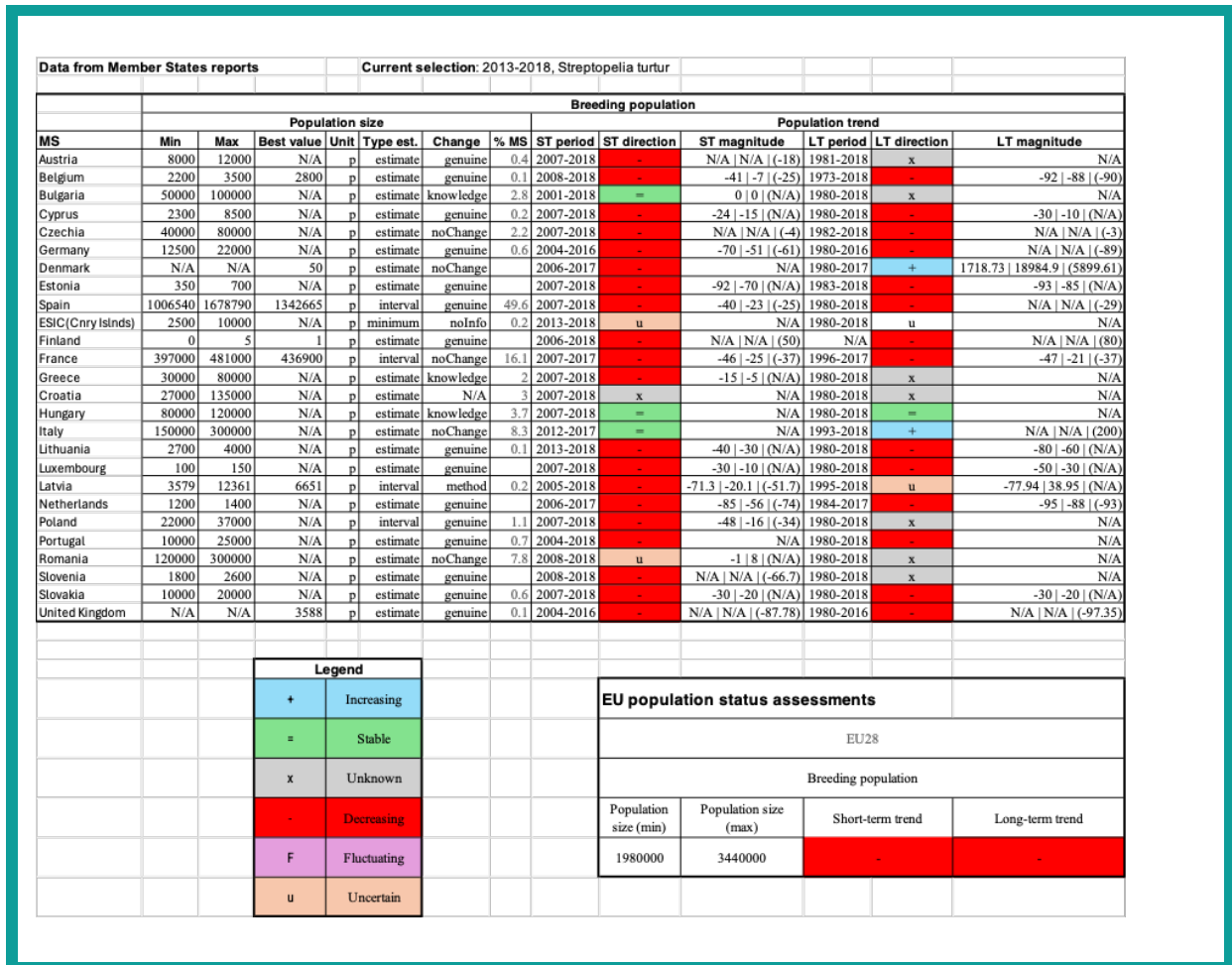


figure 1

6- PECBMS/EBCC

According to the European Bird Census Council (EBCC, 2023), the Pan-European population of the Turtle-dove has declined by 83% since 1980 (long-term trend: 1980–2022) (Figure 16) and by 5% during the current (2013–2022) 10-year trend. (figure 2)

European Turtle-dove long-term & short-term percentage trend change (2012–2023)						
Year (EBCC update)	Long-term Trend 1980 (%)	Long-term Slope	% Annual change*	10-year Trend (%)	10-year Slope	% Annual change*
2012	-73	0.9611	-3.89%	-29	0.9884	-1.16%
2013	-74	0.961	-3.90%	-30	0.9879	-1.21%
2014	-77	0.9607	-3.93%	-21	0.9712	-2.88%
2015	-78	0.96	-4.00%	-29	0.9629	-3.71%
2016	-79	0.9597	-4.03%	-28	0.9632	-3.68%
2017	-78	0.9597	-4.03%	-15	0.9686	-3.14%
2018	-80	0.9609	-3.91%	-29	0.9676	-3.24%
2019	-80	0.9611	-3.89%	-17	0.9781	-2.19%
2020	N/A	N/A	N/A	N/A	N/A	N/A
2021	-82	0.9616	-3.84%	-12	0.988	-1.20%
2022	-85	0.9616	-3.84%	-17	0.9834	-1.66%
2023	-83	0.962	-3.80%	-5	0.9867	-1.33%

Data sources: EBCC updates (2012–2023)

List of Countries: Austria | Belgium-Wallonia | Bulgaria | Croatia | Cyprus | Czech Republic | Estonia | France | Germany | Greece | Hungary | Italy | Lithuania | Netherlands | Poland | Portugal | Romania | Slovakia | Slovenia | Spain | United Kingdom.

* Multiplicative trend over a time period considered, reflects average percentage change per year. If the slope value is 1, there is no trend. If > 1, there is a positive trend, if < 1, trend is negative. For instance, 1.08 means 8% increase per year, 0.93 means 7% decline per year (EBCC).

figure 2

PECBMS work with flyways data and has two distinct flyways namely the Western Flyway and the Central Eastern Flyway. The data is collected yearly and hence is more appropriate than the Article 12 reporting which, due to its cycle, is rather outdated.

During the last Task Force for the Recovery of Birds meeting referring to PECBMS data, it was highlighted in the March 2023 Technical Update (Carboneras et al 2023:3), that:

- Updated estimates of population size and trends including up to the breeding season of 2021 (PECBMS) indicate sustained declines

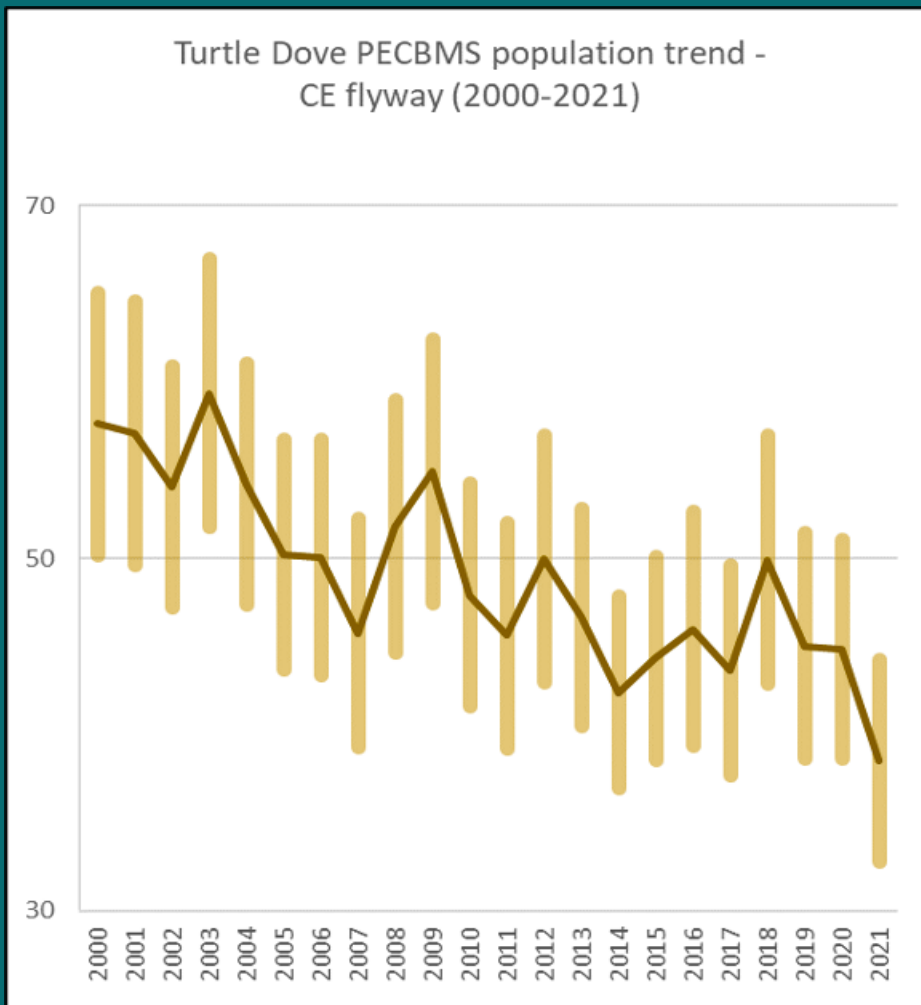
continuing in the central-eastern flyway, with population at lowest level since 2003.

- There is no evidence of population stability in the central-eastern flyway and no new demographic data from central-eastern flyway areas allowing to implement a flyway-specific population model. A temporary suspension of hunting in 2023 is recommended again.
- New estimates of total population size (PECBMS) provide quantification of population size losses and will contribute to setting objectives for population recovery in the future.



The following self-explanatory three figures have been presented in the March 2023 Technical Update (Carboneras et al 2023:3)

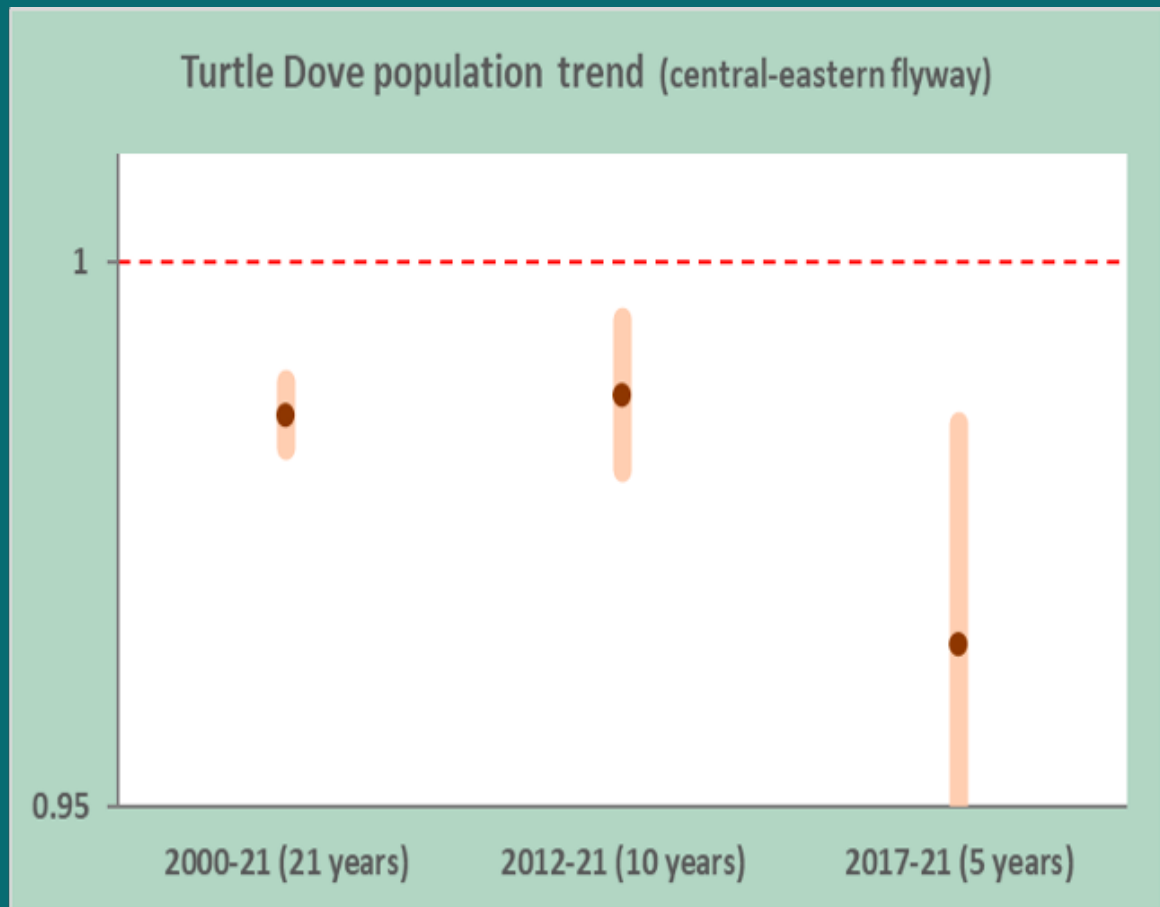
figure 3



Turtle-dove population trend in the central-eastern flyway. Numbers represent proportional values in relation to a reference value, set at 100 in 1980. However, the dataset is representative of the flyway only after 2000, when available data covered >50% of the population. Bars indicate standard error.

Data: PECBMS (February 2023).

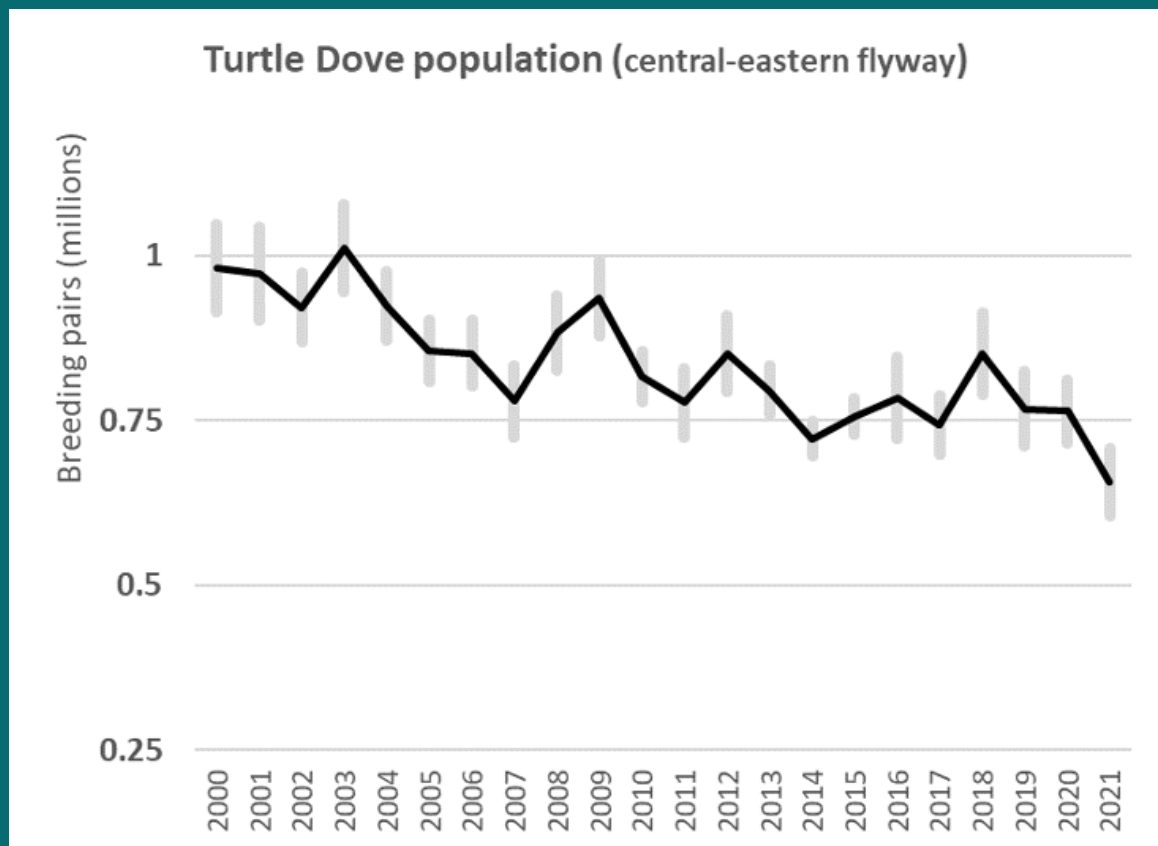
figure 4



Central-eastern flyway multiplicative slopes for three periods corresponding to the last 21 years (2000-2021; left), last 10 years (2012-2021; centre) and last 5 years (2015-2020; right) with their standard error. The red dotted line marks population stability ($\lambda = 1$).

Data: PECBMS (February 2023).

figure 5



Estimates of Turtle-dove breeding population size along the European part of the central-eastern flyway 2000-2021, inferred by applying PECBMS indices of variation at national level to the population size reported by national authorities in the latest Art. 12 process. Error bars indicate standard error of the estimates.

Data: PECBMS (February 2023).

7- The Precautionary Principle

The precautionary principle enables decision-makers to adopt precautionary measures when scientific evidence about an environmental or human health hazard is uncertain. It first emerged during the 1970s and has since been enshrined in a number of international treaties on the environment, in the Treaty on the Functioning of the European Union and the national legislation of certain Member States. This principle is an approach that protects human health and the environment. Different stakeholders, experts and jurisdictions apply different definitions of the principle, mainly depending on the degree of scientific uncertainty required for the authorities to take action.

When a bird is in an unfavourable status and data is used to decide whether to allow an action that could possibly harm the species, the precautionary principle needs to be adopted. In the case of data used to determine whether a hunting season during spring, and hence a derogation from the Eu Birds Directive, should be applied or not, the precautionary principle must be adopted.

With the adoption of this principle the concept of best available data needs to be carefully analysed and not simply accepted as the best data to use. Malta is using Article 12 Reporting dated 2018 against the more recent data by PECBMS simply because with PECBMS one must look at the entire flyway as the reference population while the Article 12 reporting gives the data per country. When doing so Malta is disregarding the vulnerable status of this species and avoids the precautionary principle.

Malta uses this because it adopts the methodology of selecting individual countries that historically have had ring recoveries in connection with Malta. This methodology is not correct to use when the species concerned is in an unfavourable status and hence the precautionary principle adopted. This methodology is heavy on various assumptions which are explained in the next sections.

8- The Assumptions of using Ring Recoveries & Satellite Tracking to determine a Reference Population

In this section there will be references to the last two documents issued by the Wild Birds Regulation Unit in February 2023 and in February 2024 “Report on the Conservation Status of the European Turtle-dove (*Streptopelia turtur*) and Common Quail (*Coturnix coturnix*)”. In the 2023’s report, the section being referred to is on page 35 item 2.18 while in 2024’s report it is on page 43 item 2.32.

The WBRU’s reports look at 37 ring recoveries of Turtle-doves in Malta with foreign country rings. The data it refers to is not being contested and is seen in figure 6.

figure 6

		RING RECV	%
EU MEMBER STATES	ITALY	19	51.35%
	CZECH REP	9	24.32%
	HUNGARY	3	8.11%
	GERMANY	2	5.41%
	POLAND	1	2.70%
	FRANCE	1	2.70%
	CROATIA	1	2.70%
	AUSTRIA	1	2.70%
	TOTAL	37	

Apart from the ring recoveries, the 2023 and 2024 reports also add satellite tracking data since 2016. Here it only looks at the countries where the bird being tracked was last during the breeding season.

From the list of the 2024 report in figure 7, one can see that satellite tracking data adds three new countries, a point mentioned again further below. It is relevant to point that from the 26 tracked birds in the list, 9 were released after being bred in captivity.

Figure 7 shows data from the 2024 report

	Satellite tracked birds			
	wild	captive bred	total	%
ITALY	13	7	20	76.92%
SLOVAKIA	1		1	3.85%
BULGARIA	1	2	3	11.54%
ROMANIA	1		1	3.85%
HUNGARY	1		1	3.85%
TOTAL	17	9	26	

The exercise done in these reports does not stop at identifying the countries that are showing a link through ring recoveries and satellite tracking, but it also gives a percentage per country. This point will be tackled further down. The data used in the reports combine both the ring recoveries and the satellite tracking data. It also looks only at data of countries that are members in the European Union. Figure 8 shows the data from the 2024 report.

figure 8

	ring recv	sat data	total	%
ITALY	19	20	39	61.90%
CZECH REP	9	0	9	14.29%
HUNGARY	3	1	4	6.35%
GERMANY	2	0	2	3.17%
POLAND	1	0	1	1.59%
FRANCE	1	0	1	1.59%
CROATIA	1	0	1	1.59%
AUSTRIA	1	0	1	1.59%
SLOVAKIA	0	1	1	1.59%
BULGARIA	0	3	3	4.76%
ROMANIA	0	1	1	1.59%
TOTAL	37	26	63	

The first assumption

While a bird ringed in one country and recovered in another shows a clear link of the path between the two countries, it does not necessarily mean that the bird was ringed in the country it breeds. To make it easier to understand an example would be appropriate. A Turtle-dove that was ringed in Italy in September of a year and recovered in Malta some years

after, does not mean that the bird bred or hatched in Italy. The bird could have bred further north or east of Italy and was migrating through Italy when it was ringed. In its report, the WBRU is assuming that all recoveries were birds that were ringed in the country they breed.

The second & third assumptions

Possibly the most important assumption of them all is that with looking at ringing recoveries, and possible satellite tracked birds, to determine the reference population one is assuming that birds from countries that have not had any ringing recoveries or satellite tracked birds going there, do not migrate over Malta. This is an assumption that eliminates populations of countries that don't have any historical records so far, such as Estonia, Latvia, Lithuania, and Slovenia amongst some others.

One must keep in mind that ringing efforts differ a lot between one country to another along with the fact that northern countries would not have as much influx of bird numbers during migration such as let say Italy. This is because the northern countries are the start or end of migration flyways, while those flying over Italy, and even Malta for that case, are in larger numbers as such countries experience migrations from/to different country populations in Europe.

In fact in the WBRU report of 2024, in page 46 table 14 that shows reference population calculations of 2004 and 2008-2012, one can realise that it did not contain data of Bulgaria, Slovakia and Romania. On the other hand, in page 47 table 15 that shows reference population calculations of 2013-2018, these three countries are listed. This is because the ring recoveries or satellite tracks of these countries came about after 2012.

What was assumed to be a country that does not form part of the reference population of Malta, was actually proven otherwise after 2012, when birds were recovered from these countries.

Here one can also find another assumption, hence the third assumption. In the 2024 report it is also assuming that if a recovery happens after 2012, then the birds from that country only started migrating over Malta after that year. This is a wrong assumption and if a bird is recovered today from a 'new' country, then all the past data needs to be amended to reflect it. This is for the purpose of this argument only, because as explained earlier, and in this section, the methodology of deciding on reference population from ring recoveries and satellite tagging is not correct when using the precautionary principle due to the many assumptions.

The fourth assumption

The fourth assumption relates to the percentage used in the reports that is derived from the number of birds linked to one country through ring recoveries and satellite tracking and the total number of such data. The table in figure 8 above shows that there were 63 different data. As an example, one can note that 39 of these were from Italy and 1 was from Slovakia. This means that 61.9% of the data we have refer to Italy while 1.59% of the data refer to Slovakia.

So far there is nothing really incorrect but what brings this data to the fourth assumption is the fact that just because each country has a percentage of the whole data held as explained above, the reports conclude and assume that this relates to the actual percentage of birds that would migrate over Malta.

To look at the same examples of Italy and Slovakia, WBRU's report assumes that we have 61.9% of Italy's population that migrates over Malta and only 1.59% of Slovakia's population migrating over Malta. This assumption is clearly seen in the 2024 report on page 47 Table 15. These percentages are so inaccurate and incorrect that they can change if there are new ring recoveries or new satellite tracking data.

In fact, if one compares the "Report on the Conservation Status of the European Turtle-dove (*Streptopelia turtur*) and Common Quail (*Coturnix coturnix*)" issued by WBRU of 2023 with that of 2024, the percentages have

changed since there was new data in between. While the 2023 report on page 44 Table 13 was giving us figures assuming that for example that 53.1% of Italy's population and 2% of Slovakia's population migrate over Malta, in the 2024 report of the same data on page 47 Table 15 these change to 61.9% of Italy's population and 1.59% of Slovakia's population migrate over Malta.

The fifth assumption

This assumption relies on the fact that 9 of the satellite tracked birds were captive bred (figure 7). There is the possibility that these birds do not follow routes from imprinting. For these birds bred in captivity they should consider Malta as their breeding grounds and when they were released, they might have 'migrated' for several reasons and not simply to breed. The assumption that a captive bred specimen is equal to a wild bird to give relevant data, is ideally avoided.

9- The Present Conservation Efforts

The "Report on the Conservation Status of the European Turtle-dove (*Streptopelia turtur*) and Common Quail (*Coturnix coturnix*)" issued by WBRU in 2024 gives a very clear account of the conservation efforts presently embarked on at EU level. It mentions the International Species Action Plan with a ten-year goal to 2028 on page 29 and lists the Conservation Objectives and the Threats. On page 30 it mentions the Conservation Action of IUCN which is now also part of the Int Species Action Plan too. The NADEG Task Force on the Recovery of Birds is mentioned on page 33. The Task Force for the Recovery of Birds is presently the main driving force to adopt conservation measures and actions to help in the recovery of the Turtle-dove. In table 9, also on page 33, the report shows the progress of the discussions about, and actions in, the Central Eastern Flyway. In March

2022 the Eu Commission was requesting a zero harvest (in Autumn) but in November 2022 only Romania and some Italian regions took this on board. The rest adopted a reduced quota of 50% of the birds harvested during the period 2013-2018 as recommended in 2021. The chair of the meeting in November 2022 noted the very worrying issue that Malta re opened a spring hunting season for this species. In March 2023 the studies showed further declines in the CE Flyway leading the EU Commission to recommend again a zero-harvest approach since the reduction in quotas was not yielding results. In December 2023 the EU Commission stated that the moratorium should have been implemented in 2022 and that unless studies show the population of the Turtle-dove has increased to a favourable status, the zero-harvest recommendation will remain.

The WBRU report of 2024 also gives a good account of all the Technical Updates of the Turtle-dove population data and trends showing the declines. This data comes from PECBMS and section 6 further above in this report shows the results.

It is clear from the TFRB meetings that there is big concern from the EU Commission with regards to the spring hunting season of Turtle-doves in Malta, apart from the fact that the Commission has initiated legal action on this derogation already. This concern comes from the fact that while the EU Commission through the TFRB is pushing for a zero harvest across the EU Member States that hunt this bird in autumn, Malta derogates to hunt the species in spring.

10- Autumn is a Satisfactory Solution

It is good to note that five member states in the Central Eastern Flyway including Malta had opted to reduce the quota by 50% of what was harvested between 2013 and 2018, rather than a zero harvest as recommended by the EU Commission. While all the other four countries

opened the lower quota during an autumn hunting season, Malta opted to split this quota (2500) and placed 20% in autumn (500) and 80% in spring (2000).

While in the past when hunters in Malta used to have large quotas, one could possibly tend to agree that autumn does not constitute a satisfactory alternative solution. To the contrary, in the past two years with a quota of 2,500 Turtle-doves this statement holds no water. Latest studies commissioned by the government show that during the months of September and October in 2020 an amount of 24,319 Turtle-doves migrated over the islands while in 2021 the figure was 15,278. This shows that with an average of 19,798 birds each year the quota was only 12.6%. This shows that autumn migration offers a satisfactory solution for Turtle-dove hunting and with the dense number of hunters there is nothing that proves otherwise.

11- The Moratorium of Spring Hunting on Turtle-doves

Malta had spring hunting seasons on Turtle-doves when the species was not yet classified as Vulnerable. As stated earlier on, in June 2015 the IUCN classified the Turtle-dove's status as Vulnerable. Malta was pressured not to open another hunting season in spring but still opened a on in spring 2016.

On 20 April 2016, the IUCN wrote to the EU Commissioner for the Environment Karmenu Vella showing serious concern over Malta's derogation from the EU Birds Directive. The Government declared a moratorium on this vulnerable species in May 2016. In view of this from 2017 until 2021, the spring hunting season was opened for Common Quail (*Coturnix coturnix*) only even if the timing was deliberately placed during the peak migrations of the Turtle-dove.

In 2022, the Government of Malta lifted the moratorium and opened a hunting season in spring for Turtle-doves against any sense of

conservation towards this species. there was no valid reason to lift this moratorium mainly because since the date when the moratorium was declared, the status of the Turtle-dove did not improve but on the contrary, as clearly explained in previous sections of this report, it continued to worsen, and populations declined further.

Conclusion

In this report one can draw a clear conclusion that Malta should not open any other spring hunting seasons on the Turtle-dove. The summary of reasons being:

I.	The EU Birds Directive prohibits hunting in spring.
II.	The EU Directive also prohibits hunting on species that has several conservation actions directed to it for it to recover.
III.	The Turtle-dove is in decline across the EU, in particular across the Central Eastern Flyway, and there are several conservation efforts being recommend by the Eu Commission and experts alike.
IV.	Malta already has an infringement procedure initiated against it by the Eu Commission.
V.	Malta has justified the past two spring hunting seasons and is doing the same for 2024 by using data that is not focused on the entire flyway but by selecting countries it considers or assumes to be the reference population.

	This method, as shown in this report, does not use the latest data and has several assumptions some of which already proven wrong.
VI.	When a bird is in a vulnerable status countries need to adopt the Precautionary Principle and avoid such assumptions.
VII.	Subsidiary Legislation 549.57 “Framework for Allowing a Derogation Opening a Spring Hunting Season for Turtle-dove and Quail Regulations” states that the Government should consider the conservation status of the species and also that it shall not open the spring hunting season when the hunting for the two species concerned during the previous autumn hunting season may be considered as having constituted a satisfactory solution in terms of Article 9(1) of Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds
VIII.	Autumn hunting season is a satisfactory solution removing the need of seeking an alternative solution for this species to be shot during the important and crucial period of spring.
IX.	There was no valid reason scientific or otherwise to lift the moratorium of spring hunting of Turtle-doves in 2022.

In view of the points mentioned in this report and summarised in its conclusions Malta should once again implement a moratorium on spring hunting of Turtle-doves while it should seriously consider a zero harvest all year round.

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BirdLife Malta is a non-governmental organisation working to conserve birds and their habitats in the Maltese Islands.

Established in 1962, BirdLife Malta is the oldest environmental NGO in Malta. As a partner organisation of BirdLife International, we form part of a network of 120 NGOs worldwide, and with the aim of creating a united voice, we speak out for local and international wildlife. Our primary objective of conserving birds and habitats is achieved through our work in a variety of fields including research, education and campaigning.

Our mission

The mission of BirdLife Malta is to conserve wild birds, their habitats and biodiversity, working with people towards sustainability in the use of natural resources. For more than 60 years, BirdLife Malta has been an advocate for the protection of Maltese wildlife. We engage Maltese people in their natural environment, and ensure a natural legacy is left for the next generation.