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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE
AND NATURAL HABITATS

Standing Committee

34th meeting
Strasbourg, 2-5 December 2014

Complaint on stand-by

Presumed illegal killing of birds in Malta

REPORT BY THE GOVERNMENT

*Document prepared by
The Parliamentary Secretariat for Agriculture, Fisheries & Animal Rights, Malta*

- JULY 2014 -

SEGRETARJAT PARLAMENTARI
GHALL-BIEDJA, SAJD U
DRITTIJET TAL-ANNIMALI



PARLIAMENTARY SECRETARIAT
FOR AGRICULTURE, FISHERIES
AND ANIMAL RIGHTS

Ms Ivana d'Alessandro
Secretary of the Bern Convention
Council of Europe
Biodiversity Unit
F-67075 Strasbourg Cedex

14 July 2014

COMPLAINT ON STAND-BY NO. 2012/7 PRESUMED ILLEGAL KILLING OF BIRDS IN MALTA

Dear Ms. D'Alessandro,

Reference is made to your letter dated 21 May 2014, through which you conveyed Bureau's concern over "poor enforcement", and "the worrying reports about illegal killings still widespread across the country". The Bureau furthermore requested an updated report about the output of 2014 spring season, enforcement of legislation, and checks of the bag limits.

You may recall that the Government of Malta has, on 27 November 2012, transmitted a formal response to the Secretariat of the Bern Convention (T-PVS/Files(2013)03), concerning the points raised for consideration by the Standing Committee in relation to the complaint in caption. This response provided Malta's detailed reaction to a number of substantive points raised, as well as a report on the implementation of a number of Standing Committee instruments. You may also recall that additional information was provided by the Government of Malta representatives during the Fourth Meeting of the Group of Experts on the Conservation of Birds in Tunis on 31 May 2013 and, most recently, on 10th March 2014, when the Maltese Government transmitted a detailed report on the enforcement situation during 2013 autumn season.

In this respect, as requested by the Bureau, the Government of Malta is pleased to submit a detailed report on the outcome of the 2014 spring season, enforcement of legislation, checks of the bag limits and other regulatory and enforcement parameters.

In particular, I would like to highlight a number of institutional, legal, administrative and enforcement improvements implemented by the Maltese authorities in preparation for, and during the limited period of the derogation. These improvements can be summarised as follows:

- Implementation of improved verification mechanisms for bag data reporting and collection, including the increased precision of the migration monitoring study in April 2014, the commitment to undertake a similar study in autumn 2014, more stringent legal requirements for reporting of autumn bag data, as well as substantially increased penalties and deterrents against non-compliance;
- Ongoing efforts to improve the quality and reliability of autumn bag data, including through the introduction of mandatory hunting licence return requirements, penalties for late returns, an exceptionally high rate of licence returns achieved in February 2014, and multiple levels of data extraction quality checks;

- Improvement in transparency in decision making and consultation: Discussions with stakeholders within the Malta Ornithology Committee, stepped-up communication with hunters and the public, a compliance promotion campaign in the media, regular public updates on the progress of enforcement operations, and prior consultations with the European Commission's Services;
- Thorough consideration of the conservation status of the species concerned, including transparent consultation with stakeholders;
- Drastic increase in legal deterrents and penalties for bird-related crime and hunting violations: Malta's penalty regime in this sector is objectively amongst the harshest in the EU;
- Drastic increase in enforcement deployment in the field, including doubling of field inspections in comparison with the same period in 2013, over five thousand individual spot-checks conducted on hunters and field inspections, improved coordination amongst enforcement agencies, and deployment of new technologies (drones) in surveillance operations;
- A documented decline in the number of serious hunting-related violations, particularly a reduction in the incidence of illegal shooting or trapping of protected species;
- A mature and robust multi-layered system of controls over hunting activity, including through special licensing requirements, SMS and *Carnet de Chasse* reporting obligations, restrictions pertaining to time and space and other controls; and

The Maltese authorities believe that the detailed information presented in the enclosed report will assist the Bureau in their objective assessment of Malta's compliance with its obligations under the Bern Convention.

In this context, Malta would greatly appreciate receiving the Bureau's feedback regarding the outcome of this assessment; and in particular it would greatly welcome receiving a formal confirmation as to whether the Bureau believes there are still further specific grounds for maintaining procedure related to *Complaint on stand-by No. 2012/7* open, or, should Malta's compliance be ascertained, that the above case may be definitively closed.

I would like to take this opportunity to reiterate Malta's unwavering commitment to fully adhere to the implementation of the provisions of the Bern Convention concerning the conservation of wild birds, and on behalf of the Maltese Government express our appreciation of the Secretariat's and Bureau's ongoing collaboration with the Maltese authorities in this regard.

In this regard, kindly transmit the enclosed report for the Bureau's consideration.

Yours Sincerely,

Roderick Galdes

Parliamentary Secretary for Agriculture, Fisheries and Animal Rights

Copy: Minister for Sustainable Development, the Environment and Climate Change
Permanent Secretary, Ministry for Sustainable Development, the Environment and Climate Change

Enclosed: Report on the Outcome of the 2014 Spring Hunting Season in Malta

REPORT ON THE OUTCOME OF THE 2014 SPRING HUNTING SEASON IN MALTA



*Alerted to the presence of an extremely rare Long-legged Buzzard (*Buteo rufinus*) by a member of the hunting community, Wild Birds Regulation Unit officials join NGO volunteers in maintaining a watch over the rare visitor on 19th April 2014. After roosting a few days in Malta to gather strength, amongst hundreds of other protected birds, including Harriers, Bee-eaters, Kestrels, Golden Orioles, Hoopoes, Swifts, Swallows, Cuckoos, Nightjars, Herons and European Rollers, the gracious raptor continued on its northern journey.*

June 2014

Wild Birds Regulation Unit

Parliamentary Secretariat for Agriculture, Fisheries and Animal Rights

Ministry for Sustainable Development, the Environment and Climate Change

1. Introduction

This report has been prepared in pursuance of the request, dated 21 May 2014, by the Bureau of the Bern Convention to submit, by 8th August 2014, a detailed report on the output of 2014 spring season, enforcement of legislation, and checks of the bag limits.. The report provides an overview of the various relevant aspects pertaining to the application of this derogation, including (i) extraction of the 2013 autumn bag data and the determination of whether to allow a 2014 spring hunting season and the determination of national spring bag limits in the event that a spring hunting season would be allowed; (ii) an assessment of the present conservation status of the two relevant species, that is, Quail (*Coturnix coturnix*) and Turtle Dove (*Streptopelia turtur*); (iii) the necessary preparatory measures and regulatory controls effected prior to and during the season; (iv) an assessment of the migratory influxes of the relevant species during the 2014 spring season; (v) the reported hunter catches; (vi) the enforcement efforts in place to ensure the strict supervision of hunting during the 2014 season; (vi) disclosed offences and corresponding enforcement action taken; and (vii) the legal and other management aspects of relevance.

2. Legal and policy basis for the application of a derogation permitting spring hunting in 2014

The derogation was applied on the basis 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, which states that “*Member States may derogate from the provisions of Articles 5 to 8 [of the same Directive], where there is no other satisfactory solution*” in line with a number of limited reasons, such as that stipulated by Article 9(1)(c): “*to permit, under strictly supervised conditions and on a selective*

basis, the capture, keeping or other judicious use of certain birds in small numbers". As regards the "no other satisfactory solution" criterion, the judgment delivered by the Court of Justice of the European Union (CJEU) on 10 September 2009, in case C-76/08, explicitly noted that "*hunting for Quail and Turtle Doves during the autumn hunting season cannot be regarded as constituting, in Malta, another satisfactory solution, so that the condition that there be no other satisfactory solution, laid down in Article 9(1) of the Directive, should, in principle, be considered met*"¹. This judgment therefore recognises the right to apply a derogation for spring hunting in Malta subject to the strict conditions laid down in Directive 2009/147/EC.

The Conservation of Wild Birds (Framework for Allowing a Derogation Opening a Spring Hunting Season for Turtle Dove and Quail) Regulations² (SL 504.94) establishes a series of parameters to be considered **prior to** any decision to apply a derogation, particularly the requirement to consider the previous autumn hunting bag data for Turtle Dove and Quail, and to consider the conservation status of the species concerned.

Consideration of the above two parameters is discussed in the following sections of this report.

3. Consideration of the 2013 autumn bag data for Turtle dove and Quail

The Malta Ornis Committee, established under Regulation 10 of the Conservation of Wild Birds Regulations (SL 504.71) considered a range of aspects pertaining to the extraction and verification of the 2013 autumn bag data.

At its sitting of 18 February 2014, the Committee discussed the existing autumn bag reporting and verification mechanisms currently in place. It was noted that Carnet de Chasse (CDC) is a widely used system for bag reports amongst Member States and includes a comprehensive mechanism through which individual data recording of species bagged during an open hunting season is provided. The current format of Malta's CDC has evolved over the years, so as to facilitate data collection from the hunters as much as possible in line with the recommendations³ made by the European Commission, the European Federation of Associations for Hunting and Conservation (FACE), and Birdlife International within the context of the Sustainable Hunting Initiative, with a view to improving coordination and maximising the potential for hunters to report and monitor catches. In line with these recommendations, the *Carnet de Chasse* is the main tool for the recording of up-to-date information on the status and trends of huntable bird species, which information is central to determining the effect and impact hunting may have on the dynamics of populations of huntable species.

It was furthermore noted that the CDC is considered as a more reliable tool than questionnaires with hunters or telephone interviews which are deployed in some countries. The CDC requirement also serves a dual function for monitoring and enforcement. On the one hand, the tool provides for the recording and monitoring of appropriate bag statistics, whilst on the other hand, the CDC also serves as the means of verification during field inspections, thus facilitating enforcement. The use of CDC is a legally binding obligation and is an integral part of the hunting licence.

The overall autumn bag verification mechanism comprises three inter-related components: (i) legal obligations to report data and deterrents against potential non-reporting; (ii) field enforcement at data entry point and (iii) data collection, extraction and quality control procedures at data processing stage.

i. Hunters' **legal obligations** to report their hunting activity through CDC are provided for in Regulation 12(6) of the Conservation of Wild Birds Regulations (S.L. 504.71), which were amended on 25 October 2013 in order to incorporate a clear legal requirement that the CDC is to be completed immediately upon hunting or taking a bird prior to leaving the hunting area. This provision was

¹ Case C-76/08 *Commission v Malta*, ECR I-8213, paragraph 63

² <http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=11570&l=1>

³ The overall objective is to ensure a common scheme for the collection of hunting bag statistics, along with their scientific interpretation and proper use. This initiative, which was formally launched in Athens on 3rd June 2006 has been developed by FACE in cooperation with BirdLife International, and several bodies such as the European Environment Agency. Information about this scheme can be accessed from <http://www.artemis-face.eu/>.

introduced to improve enforceability in the field. Regulation 12 furthermore stipulates licensing requirements (Regulation 12(1)), testing obligations (12(2)), renewal obligations (12(3)), reference to conditions of licence (12(4) and Schedule IV) and a clear obligation to return the licence within the stipulated deadline (12(5)). Both minimum and maximum penalties for non-compliance with the provisions of this Regulation have been increased to €500 (minimum fine) and €2,500 (maximum fine) in the case of a first conviction and the imposition of a fine ranging between €1,000 to €5,000 and/or, imprisonment for up to 2 years in the case of a subsequent conviction, as well as the mandatory revocation of the licence or permit for a period between 2 years and up to 5 years. In parallel, a system of administrative fines for non-compliance with reporting requirements was also introduced on 25 October 2013, whereby the failure to return a completed licence to the authorities within the period stipulated in the law incurs an automatic fine of €50, increasing by a further €20 for every subsequent week of non-return up to a maximum of €300, failing which the offender is referred to Court, and the minimum penalty upon conviction starts at €500. An automatic fine has also been introduced for failure to report every bird hunted or taken. This incurs an automatic fine of €50 per undeclared bird, up to a maximum of €250. Undeclared catches exceeding this number trigger prosecution before the Courts, with the minimum penalty starting at a fine of €500. Automatic administrative fines apply only in those cases where the administrative offence is not carried out in conjunction with any other offence under the abovementioned Regulations, in which case prosecution before the Courts and increased penalties would apply. The above new regulatory requirements have been extensively communicated to the hunting community through various means. It is clear that the increased legal deterrents against any potential non-compliance would by far exceed any hypothetical benefits of non-reporting.

ii. Field enforcement, at the data entry point is carried out by police officers through physical spot checks on individual hunters carried out in the field. During the 2013 autumn hunting season between 1 September 2013 and 30 January 2014, the police conducted a total of 7,619 field inspections and spot-checks on individual hunters, of which 6,902 inspections were conducted in Malta and 717 inspections took place in Gozo. Detailed data pertaining to physical spot-checks conducted during the 2013 Autumn season was reported to the Commission in April 2014. In this context, reference is made to the report submitted by the Maltese authorities in April 2014 entitled “State of Enforcement: Summary of the latest efforts to eradicate illegal killing, trapping and trade in wild birds in Malta”.

iii. Data collection, extraction and quality control procedures at data processing stage. The process of extracting turtle dove and quail data commenced immediately upon the close of the legal deadline for the return of licences. In 2014 the data extraction process was subjected to **four levels of quality checks**, which involved 3 quality checks by data operators (cross checking of batches by separate operators, and separately – by their supervisor), and one physical random sample check by the Wild Birds Regulation Unit, which reviewed data entries for 1,000 booklets or circa 9% of the total number collected. The process and its outcome are described in further detail in section 5 of this report.

4. Consideration of the conservation status of Turtle Dove and Quail

Prior to consideration of the derogation, the Government assessed the latest available scientific information regarding the conservation status of the two species in question, that is, *Coturnix coturnix* and *Streptopelia turtur*. In line with the “judicious use” requirement, this review of scientific data was undertaken in order to ascertain that the conservation status of these two species, would not be threatened by the application of a spring hunting derogation in 2014. A preliminary analysis was presented to the Malta Ornithology Committee on 18 February 2014. Further discussion of the analysis took place at a subsequent Malta Ornithology Committee meeting on 4 March 2014. The final analysis, which incorporates comments from the Malta Ornithology Committee, and in particular – the relevant submission made by Birdlife Malta in reaction to the initial assessment, is enclosed as Annex I to this report.

Although several recent literature sources were surveyed, the analysis did not reveal any significant new scientific insights pertaining to the conservation status of Turtle Dove and Quail since the assessment of available scientific data on the conservation status of these two species was undertaken in 2013 prior to the application of a derogation for spring hunting in Malta during that same year.

Both species are characterised by extremely large populations and geographical range. BirdLife International (2004) classifies the Pan-European populations of the Turtle Dove as having undergone a **moderate continuing decline** and the Quail as provisionally **Depleted**. The conservation status of the Turtle Dove is also reflected in the most recent update on the conservation status provided by the European Bird Census Council (EBCC, 2013a). According to this most recent dataset, the Turtle Dove is classified as being in **Moderate Decline** (EBCC, 2013a) and thus has an Unfavourable conservation status at the **Pan-European Level**. However, the Quail is not included in the Pan-European Common Bird Monitoring Scheme.

Within the EU territory (EU 28), the Turtle Dove population trend is also classified as **Moderate Decline** (Min Pairs: -25.08%; Max Pairs: -17.82%; Geomean: -20.50%) but the Quail population trend is **Stable** (Min Pairs: -1.81%; Max Pairs: -0.56%; Geomean: -0.98%). According to BirdLife International (2004), a change of not more than 10% in 10 years is considered as Stable.

The situation with respect to the **reference populations** of the two species, which form a subset of the EU population based on **ring recoveries in Malta** (Raine, 2007), is different. The minimum and maximum number of pairs of Turtle Dove and Quail originating from populations that have been proven, through ring recoveries, to migrate over Malta has remained **Stable** as follows: Turtle Dove reference population (Min Pairs: +0.13%; Max. Pairs: +1.88%); Quail reference population (Min Pairs: 0%; Max. Pairs 0%).

Since the populations of Turtle Dove and Quails that migrate over Malta have remained stable, and, in the case of Turtle Dove actually marginally increased, whilst the magnitude of the latest reported negative trends in the EU-28 population status is relatively insignificant, it was concluded that, in the absence of other evidence, there appears to be no scientifically justified reason to warrant a reassessment of the conclusions reached in previous years. Furthermore, it was noted that there is no clear scientific evidence that the limited hunting of these species in Malta would influence population trends elsewhere in the EU.

5. Determination of the 2014 spring hunting bag limit

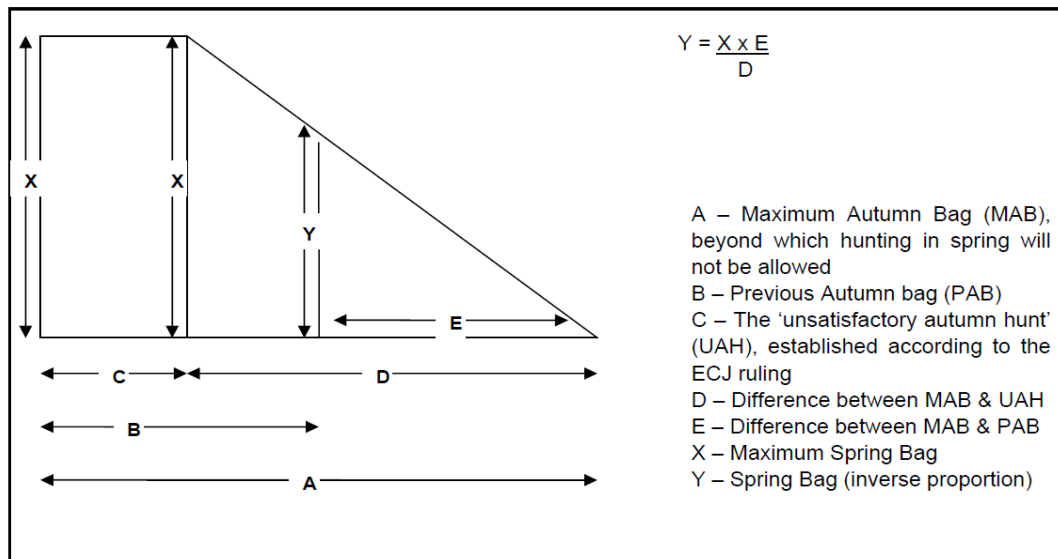
Regulation 5 of the Framework Regulations (SL 504.94⁴) stipulates the requirement for the establishment of an overall bag limit for a spring hunting season for Quail and for Turtle Dove, on the basis of figures contained in Annex 1 to the same Regulations. The same Regulations also stipulate the requirement of taking into consideration the conservation status of the two species concerned and the maintenance of the population of both species at a satisfactory level when establishing the overall bag limit. Regulation 5 also provides for the requirement of establishing seasonal and daily bag limits per hunting licence.

The Regulations also establish that, should a spring hunting season be declared open, the overall national spring hunting limits would be set at not more than a ceiling limit of 5,000 for Quail and 11,000 for Turtle Dove, based on the principle of 1% of the total annual mortality of each of the species respectively. They also establish that a spring hunting season will not be opened in cases where the number of birds hunted during the previous autumn season reaches 20,000 in the case of Quail and 21,000 in the case Turtle Dove, with each species considered separately. Furthermore it should be noted that:

- (i) the maximum bag limit for a spring hunting derogation may be fully allowed in cases when the number of Quail or Turtle Dove hunted during the previous autumn season does not exceed 10,000 for each species respectively, and that
- (ii) the maximum bag limit for a spring hunting derogation should be reduced by inverse proportion to the number of birds hunted in excess of 10,000 for each species in the previous autumn season. These principles translate into the formula shown in Figure 1.

⁴ <http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=11570&l=1>

Figure 1: Formula for the calculation of inverse proportion, applicable in those cases when the previous autumn bag is between 10,000 and 21,000 for Turtle Dove, and 10,000 and 20,000 for Quail.



In 2013 there were 10,855 persons licenced to hunt birds on land and at sea. A total of 10,517 *Carnet de Chasse* booklets were returned by the deadline imposed by law, that is by 13 February 2014; whilst a further 338 persons were subjected to an administrative fine for late return (€50, increasing by €20 for each week of non-return). Of these, 303 persons paid the fine before 3 March 2014 and returned their *Carnet de Chasse* booklet. Thus the total number of returns stood at 10,855 (99.6% of hunters). Only 35 booklets were not returned. This figure shows a marked improvement in the number of returned licences with a decrease by 32 times the number of unreturned licences recorded last year.

The process of extracting turtle dove and quail data commenced immediately upon closure of the deadline imposed by law for the return of licences. In 2014 the process was subjected to four stages of quality checks, which involved 3 quality checks by data operators and one physical random sample check by the Wild Birds Regulation Unit, which reviewed data entries for 1,000 booklets or *circa* 9% of the total number collected. The final checked count stood at 7,106 turtle doves and 4,342 quails. A further 1,501 entries pertained to undetermined species (neither Turtle Doves nor Quail). The “undetermined species” count was apportioned in proportion to the number of Turtle Doves and Quail. A ratio of 1.6 Turtle Doves (n=917) to 1 Quail (n=584) was subsequently worked out, and thus the final number stood at 8,023 Turtle Dove and 4,926 Quail.

These figures were compared to those reported in previous years (2002 – 2012) and it was noted that, despite substantial fluctuations from one year to the next, the figures reported for 2013 are within the normal distribution range. It was also noted that 7,904 hunters, or *circa* 73% of all registered hunters did not report any turtle dove or quail catches during the 2013 autumn season, which is consistent with the same metric reported for previous years, reflecting biogeographical limitations over distribution of migrating Turtle Doves and Quails over the Maltese Islands in autumn.

Since the total bag for the autumn 2013 hunting season was 8,023 Turtle Dove and 4,926 Quail, the maximum limits of birds hunted in autumn established by the Regulations in question (20,000 for Quail / 21,000 for Turtle Dove), which would have resulted in a situation where the spring hunting season could not be opened, were not reached. On the contrary, the numbers hunted did not exceed 10,000 in the case of either species. For this reason, the maximum bag limit allowed by law could therefore be applied.

Based on the above, the 2014 overall bag limit was thus set at 11,000 for Turtle Dove and 5,000 for Quail on condition that the season would be terminated immediately should this national overall bag limit be reached before 30 April 2014. Each Spring Hunting Licence established a daily bag limit of two (2) birds and a seasonal bag limit of four (4) birds per licence, or however many below that number might have been hunted before the season closed.

6. Changes to the legal framework enacted in March 2014

On 28 March 2014, the Maltese Government published the Conservation of Wild Birds (Amendment) Regulations (LN110 of 2014, amending SL 504.71), **which increased the penalties for illegal shooting or taking of protected birds ten-fold**. Thus, as from 28 March 2014, any person convicted of any targeting of protected species listed in Schedules I and IX of these Regulations, but excluding those listed as “hunnable species” in Schedule II, even in the case of a first time offence, will automatically incur a penalty comprising of a fine of €5,000, and / or imprisonment for one year, as well as the permanent revocation licence or ban from obtaining a hunting or trapping licence, and confiscation of the *corpus delicti*. In the case of a second or subsequent offence, the applicable penalty will go up to €10,000, confiscation, and / or imprisonment for two years. These amendments have effectively rendered Malta’s legal deterrents against illegal targeting of protected species as amongst the harshest in the EU.

On 21 March 2014 the Maltese Government also published Legal Notice 86 of 2014 which amended the Conservation of Wild Birds (Framework for Allowing a Derogation Opening a Spring Hunting Season for Turtledove and Quail) Regulations (SL 504.94). The nature and purpose of the amendments were, prior to their publication, notified and explained to European Commission during the bilateral meeting of 11 March 2014. The amendments were as follows:

- A change in the institutional responsibility for the granting of special licences and implementation of these Regulations from the Malta Environment and Planning Authority to the Wild Birds Regulation Unit.
- The removal of the 48-hour period within which hunters were required to apply for a spring hunting licence. This amendment was introduced for practical administrative reasons since the 48 hour timeframe was very difficult to implement in practice and had no practical supervisory or enforcement value.
- An adjustment to the permitted time during which hunting could be practiced during the period of the derogation. Under this amendment, the permitted hunting hours during weekdays (Monday to Friday) were reduced from 3pm to 2pm, whilst hunting on Sundays and during one public holiday was allowed until noon only. Furthermore, the 2014 season was shortened by two days, in comparison with the 2013 season, which resulted in the total number of hours during which hunting was permitted being reduced in comparison with the total number of hours in 2013. These amendments were implemented in order to achieve a more even spread of hunting hours during the season and to relieve the economic burden of having a large number of hunters apply for vacation leave during the season, whilst, at the same time ensuring that the overall intensity of the hunting effort (the total number of permitted hours) did not increase. A comparison of 2013 and 2014 hunting hours is included in Table 1.

Table 1: Comparison of 2013 and 2014 hunting hours (for clear comparison, a common starting hour was assumed to be 4am throughout the season)

2013			2014		
Date	Permitted hours	Total permitted hours	Date	Permitted hours	Total permitted hours
Wednesday 10th April	2hrs before sunrise until 3 pm	11	Thursday 10th April	Closed season	0
Thursday 11th April	2hrs before sunrise until 3 pm	11	Friday 11th April	Closed season	0
Friday 12th April	2hrs before sunrise until 3 pm	11	Saturday 12th April	2 hrs before sunrise until 1200	8
Saturday 13th April	2 hrs before sunrise until 1200	8	Sunday 13th April	2 hrs before sunrise until 1200	8
Sunday 14th April	Not permitted	0	Monday 14th April	2hrs before sunrise until 2 pm	10

Monday 15th April	2hrs before sunrise until 3 pm	11		Tuesday 15th April	2hrs before sunrise until 2 pm	10
Tuesday 16th April	2hrs before sunrise until 3 pm	11		Wednesday 16th April	2hrs before sunrise until 2 pm	10
Wednesday 17th April	2hrs before sunrise until 3 pm	11		Thursday 17th April	2hrs before sunrise until 2 pm	10
Thursday 18th April	2hrs before sunrise until 3 pm	11		Friday 18th April	2 hrs before sunrise until 1200	8
Friday 19th April	Not permitted	0		Saturday 19th April	2 hrs before sunrise until 1200	8
Saturday 20th April	2 hrs before sunrise until 1200	8		Sunday 20th April	2 hrs before sunrise until 1200	8
Sunday 21st April	Not permitted	0		Monday 21st April	2hrs before sunrise until 2 pm	10
Monday 22nd April	2hrs before sunrise until 3 pm	11		Tuesday 22nd April	2hrs before sunrise until 2 pm	10
Tuesday 23rd April	2hrs before sunrise until 3 pm	11		Wednesday 23rd April	2hrs before sunrise until 2 pm	10
Wednesday 24th April	2hrs before sunrise until 3 pm	11		Thursday 24th April	2hrs before sunrise until 2 pm	10
Thursday 25th April	2hrs before sunrise until 3 pm	11		Friday 25th April	2hrs before sunrise until 2 pm	10
Friday 26th April	2hrs before sunrise until 3 pm	11		Saturday 26th April	2 hrs before sunrise until 1200	8
Saturday 27th April	2 hrs before sunrise until 1200	8		Sunday 27th April	2 hrs before sunrise until 1200	8
Sunday 28th April	Not permitted	0		Monday 28th April	2hrs before sunrise until 2 pm	10
Monday 29th April	2hrs before sunrise until 3 pm	11		Tuesday 29th April	2hrs before sunrise until 2 pm	10
Tuesday 30th April	2hrs before sunrise until 3 pm	11		Wednesday 30th April	2hrs before sunrise until 2 pm	10
Total		178		Total		176

On 21 March 2014 the Government also published Legal Notice 87 of 2014 declaring the opening of a 2014 Spring Hunting Season for Turtle Dove and Quail. By means of this Legal Notice, the 2014 Spring Hunting Season was declared open from Saturday 12 April 2014 to Wednesday 30 April 2014, both dates included. The Legal Notice also stipulated an individual daily bag limit of 2 birds per licence, an individual season's bag limit of 4 birds per licence and the maximum national quota of 5,000 Quails and 11,000 Turtle Doves.

7. Issuance of spring hunting licences

Applications for a special spring hunting licence were received during a 6-day period between Monday 24 and Saturday 29 March 2014. Applicants had to complete an application form and had to present a valid *Carnet de Chasse* together with ID documentation. Applicants also had to provide a mobile phone number which was subsequently registered within the SMS reporting system. Applications received after the closing date of 29 March 2014 were rejected.

The Wild Birds Regulation Unit received a total of 9,806 formal applications to obtain a spring hunting licence. Of these, eight applications were considered to be invalid, either because the applicants did not hold a valid 2014 hunting licence (licence to carry a firearm for the purpose of bird hunting on land) or because the applicants failed to fulfil one or more of the conditions required for the purposes of the application, by the closing date of the spring hunting licence application (29 March 2014). Thus, and as indicated in Table 2 below, a total of 9,798 spring hunting licences were issued for

the 2014 spring hunting season, of which 9,754 were physically collected before the end of the season, representing a marginal 3% increase over the number of licensees in 2013 (9,437).

Table 2: Issuance of spring hunting licences (2014). (Data source: Wild Birds Regulation Unit)

	Malta	Gozo	Total
Number of applicants	8,285	1,521	9,806
Number of non-eligible applicants	6	2	8
Number of licences issued	8,279	1,519	9,798
Number of uncollected licences	41	3	44
Number of licensed hunters	8,238	1,516	9,754

Spring hunting licence conditions were established as per provisions of the abovementioned Framework Regulations (SL 504.94⁵) and the provisions of SL 504.117⁶. Additionally, all licensed hunters were required to abide by the regulations laid down in the Conservation of Wild Birds Regulations (SL 504.71⁷). A copy of the spring hunting licence is attached in Annex 2 to this report, including details of the licence conditions.

Hunters were required to carry their spring hunting licence at all times. They were also expected to immediately report their catches through an SMS system and through their *Carnet de Chasse* before leaving the hunting zone, abide by the time restrictions, and respect the daily bag limit of 2 birds and a season bag limit of 4 birds. These conditions were strictly monitored, supervised and enforced, as described in the enforcement section of this report.

8. SMS data

As per Regulation 5(d) of the Framework Regulations (SL 504.94⁸), hunters in possession of the spring hunting licence were obliged to send a blank text message (SMS) via their mobile phones immediately after shooting a bird. Shot Turtle Doves were to be reported on the number 99180020, whilst shot Quails were to be reported on the number 99180021. Hunters were also required to document shot birds on their *Carnet de Chasse* document before leaving the hunting zone.

Prior to the commencement of the season, the Wild Birds Regulation Unit carried out an intense information campaign to promote awareness of hunting regulations and enforce compliance with the legal obligations, including the hunters' reporting obligations. Meetings were held with all hunting organisations, to encourage dissemination of regulatory information amongst their members, and with several hundred individual hunters to explain regulations and to promote zero-tolerance to non-compliance. In addition, a series of TV spots were aired daily for the duration of the season on 3 national TV stations. Moreover, hunters in possession of a spring hunting licence were also reminded of their legal obligations via 3 bulk SMS' sent on 18, 25 and 27 April 2014.

During the period of the derogation, the Wild Birds Regulation Unit made use of the Malta Environment and Planning Authority (MEPA)'s system for the daily logging of SMS reports. These reports were monitored daily throughout the season, with a view to keeping track of a number of variables, including (i) the total number of birds per species caught per day, (ii) cumulative totals, and (iii) daily and seasonal bag limits per licence. Furthermore, MEPA deployed a filtering / verification system which ensured that the mobile phone numbers from which SMS reports were received actually corresponded to pre-registered mobile phone numbers of registered licence holders. Any unclear or dubious entries, or any SMS' received from unregistered numbers were followed up individually and sorted accordingly. The relevant data for Turtle Dove is presented in Table 3 and Figure 2, with data for Quail presented in Table 4 and Figure 3.

⁵ <http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=11570&l=1>

⁶ <http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=12044&l=1>

⁷ <http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=11548&l=1>

⁸ <http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=11570&l=1>

Table 3: Shot Turtle Doves (as reported through the SMS system). The cumulative total is indicated in bold. (Data source: Wild Birds Regulation Unit)

Date	Daily total	Cumulative total
Sat 12 th April	13	13
Sun 13 th April	7	20
Mon 14 th April	7	27
Tue 15 th April	4	31
Wed 16 th April	26	57
Thu 17 th April	13	70
Fri 18 th April	7	77
Sat 19 th April	39	116
Sun 20 th April	83	199
Mon 21 st April	265	464
Tue 22 nd April	250	714
Wed 23 rd April	212	926
Thu 24 th April	182	1108
Fri 25 th April	296	1404
Sat 26 th April	739	2143
Sun 27 th April	281	2424
Mon 28 th April	580	3004
Tue 29 th April	423	3427
Wed 30 th April	704	Total: 4,131

Figure 2: Daily and cumulative total Turtle Doves shot over the spring hunting season – as reported through the SMS system. (Data source: Wild Birds Regulation Unit)

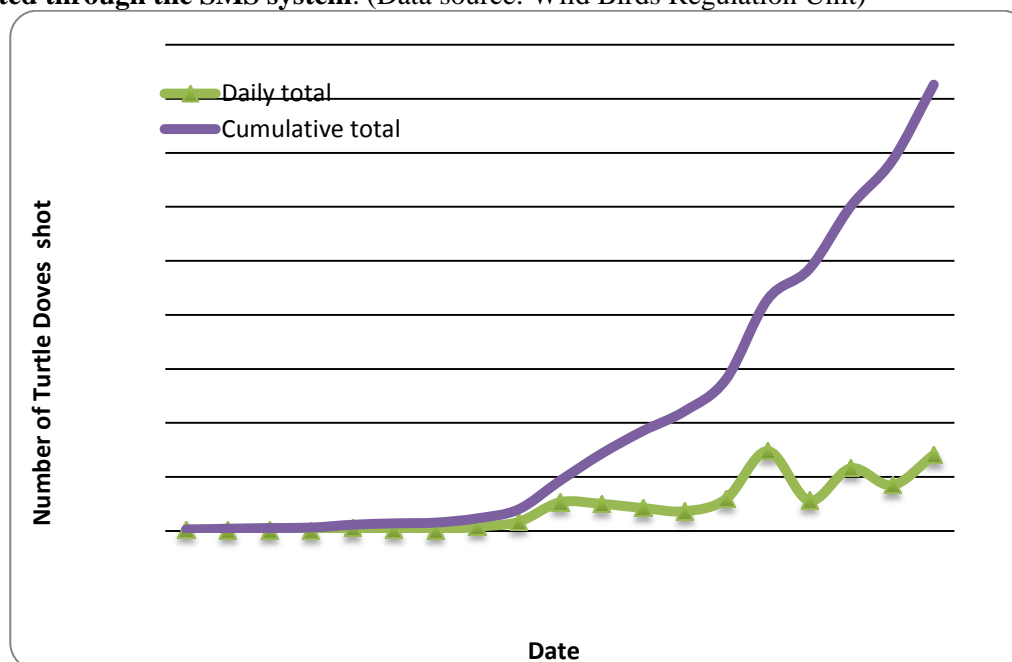
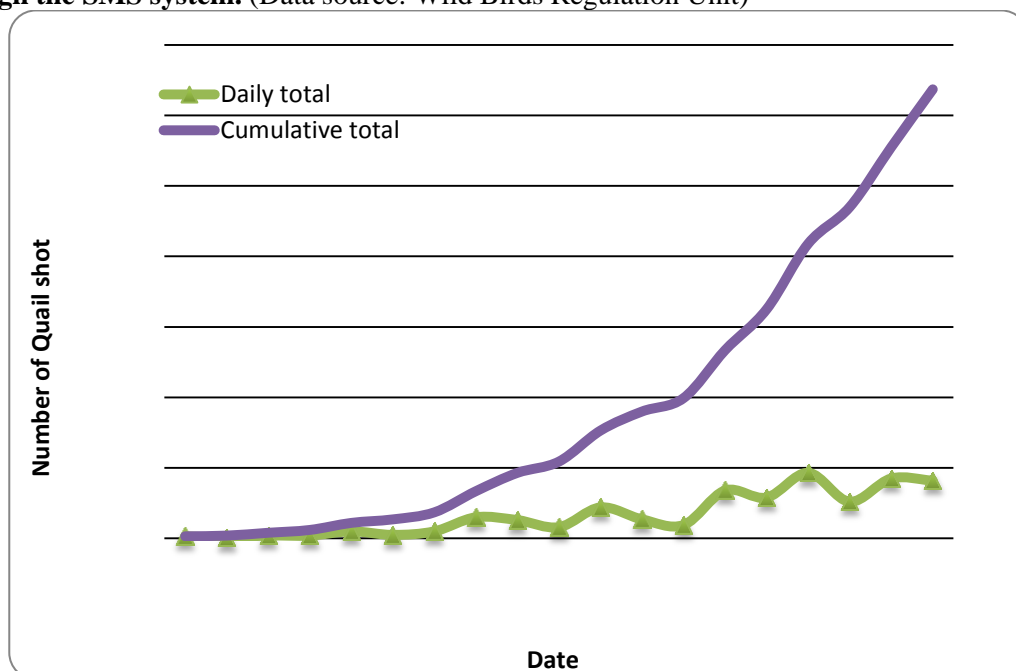


Table 4: Shot Quail (as reported through the SMS system). The cumulative total is indicated in bold.

(Data source: Wild Birds Regulation Unit)

Date	Daily total	Cumulative total
Sat 12 th April	3	3
Sun 13 th April	1	4
Mon 14 th April	4	8
Tue 15 th April	4	12
Wed 16 th April	10	22
Thu 17 th April	5	27
Fri 18 th April	10	37
Sat 19 th April	30	67
Sun 20 th April	26	93
Mon 21 st April	16	109
Tue 22 nd April	44	153
Wed 23 rd April	27	180
Thu 24 th April	19	199
Fri 25 th April	68	267
Sat 26 th April	58	325
Sun 27 th April	93	418
Mon 28 th April	52	470
Tue 29 th April	85	555
Wed 30 th April	82	Total: 637

Figure 3: Daily and cumulative total Quail shot over the spring hunting season – as reported through the SMS system. (Data source: Wild Birds Regulation Unit)



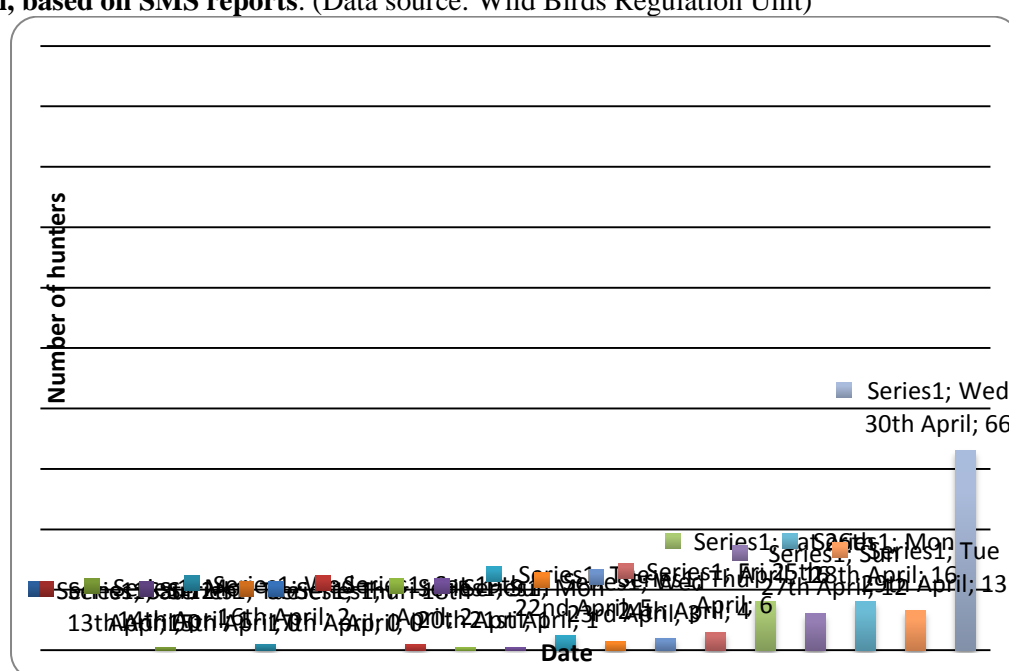
As was also the case in previous years, in neither case did the total number of birds reported shot exceed the national overall bag limits; on the contrary, the totals based on reported figures are substantially lower than these limits. In the case of Turtle Dove, the total number of 4,131 shot birds amounts to *circa* 37.55% of the total bag limit permitted by law. In the case of Quail, the total number of 637 shot birds equates to *circa* 12.74% of the limit permitted by law.

Table 5 provides data on the number of birds caught by hunters. There were a total of 3,094 hunters who caught between one and four birds during the 2014 spring hunting season. As indicated in Figure 4 below, the individual daily bag limit of two birds was reached on 148 occasions, spread across a total of 14 days across the season, with two days during the first week (12–18 April) and daily throughout the second (19–25 April) and final week (24–30 April).

Table 5: Number of caught birds per number of hunters (Data source: Wild Birds Regulation Unit)

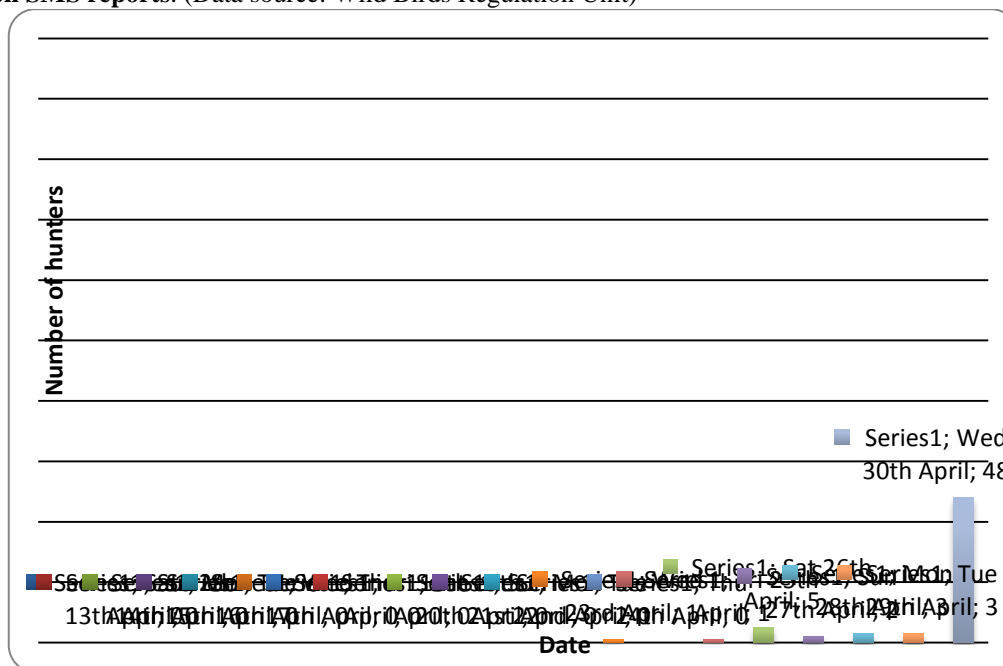
Number of birds caught	Number of hunters
0	6,659
1	1,902
2	778
3	351
4	63
Total hunters catching 1–4 birds	3,094

Figure 4: Number of hunters reaching daily bag limit of two birds during the spring hunting season, based on SMS reports. (Data source: Wild Birds Regulation Unit)



A total of 63 hunters reached their seasonal daily limit of four birds, as follows: two hunters during the second week (19–25 April) and 61 hunters during the last week (24–30 April) of the season (Figure 5).

Figure 5: Number of hunters reaching seasonal bag limit of four birds during the spring hunting season, based on SMS reports. (Data source: Wild Birds Regulation Unit)



All hunters who have reached their season's bag limit of four birds before close of the season have been notified by SMS that no further hunting activity was permitted in accordance with the law.

One hunter reported a catch of 5 birds, thus exceeding the allowed season's bag limit. The hunter's case was referred to the police for investigation and prosecution in Court.

9. Spring migration study

As was also the case in previous years, an independent scientific study was carried out in April 2014, in order to obtain an estimate of migratory influxes of Turtle Dove and Quail over the derogation period. The study, carried out by Ecoserv (2014), was commissioned by the Wild Birds Regulation Unit, with its stated objectives being the following: *To survey and scientifically monitor the daily influx of the Turtle Dove and Common Quail; to estimate the overall presence (influx) of these two species per day and for the whole study period.* The geographical scope of the study extended across the three inhabited islands of the Maltese archipelago (that is, Malta, Gozo and Comino), with data gathered between 10 and 30 April, 2014. A full copy of the report in question is attached in Annex 3, with key conclusions summarised below.

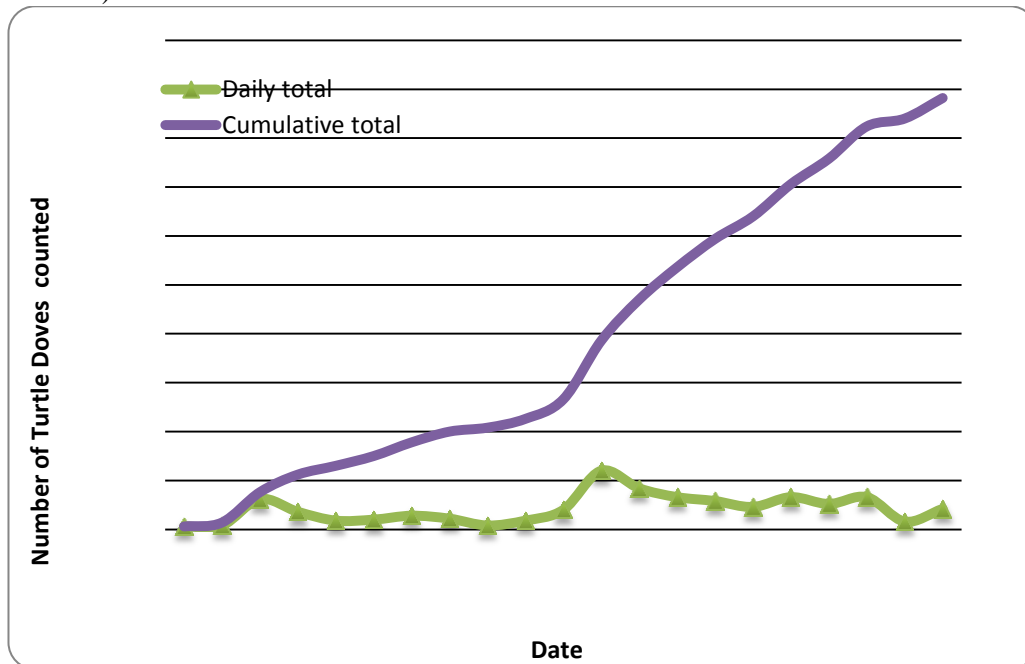
The methodology used for this study was identical to the methodology used for similar studies conducted in 2011, 2012 and 2013, except for the increase in the number of observation stations manned per day (increased from 8 to 10 stations), which therefore increased the precision of the study. Twenty-eight monitoring stations were set up across the Maltese Islands, with counts obtained from ten different sites each day. This represents four additional monitoring stations overall and two additional sites per day when compared with the 2013 independent migration study, as requested by the Wild Birds Regulation Unit. Two trained observers were posted to each station, in order to conduct counts of individuals of *Coturnix coturnix* and *Streptopelia turtur*. Each group of ten sites was surveyed once every three days, such that over a three-day period, all 28 sites would have been surveyed. Given that the study was mainly intended to quantify the influx of migrating individuals, field sites were located at strategic locations along the coast, which locations would be expected to serve as stop-over points for migrating individuals. Counts obtained across this network of observation stations over the survey period are given in Table 6 below.

Table 6: Total daily counts of Turtle Dove and Quail compiled through the spring migration study. (Data source: Ecoserv, 2014)

Date	Total daily counts	
	Turtle Dove	Quail
Thu 10 th April	3	7
Fri 11 th April	4	1
Sat 12 th April	31	2
Sun 13 th April	18	2
Mon 14 th April	9	5
Tue 15 th April	10	1
Wed 16 th April	14	0
Thu 17 th April	11	4
Fri 18 th April	4	0
Sat 19 th April	9	4
Sun 20 th April	20	3
Mon 21 st April	60	3
Tue 22 nd April	42	2
Wed 23 rd April	33	2
Thu 24 th April	29	1
Fri 25 th April	23	3
Sat 26 th April	33	6
Sun 27 th April	26	3
Mon 28 th April	33	2
Tue 29 th April	8	0
Wed 30 th April	21	2

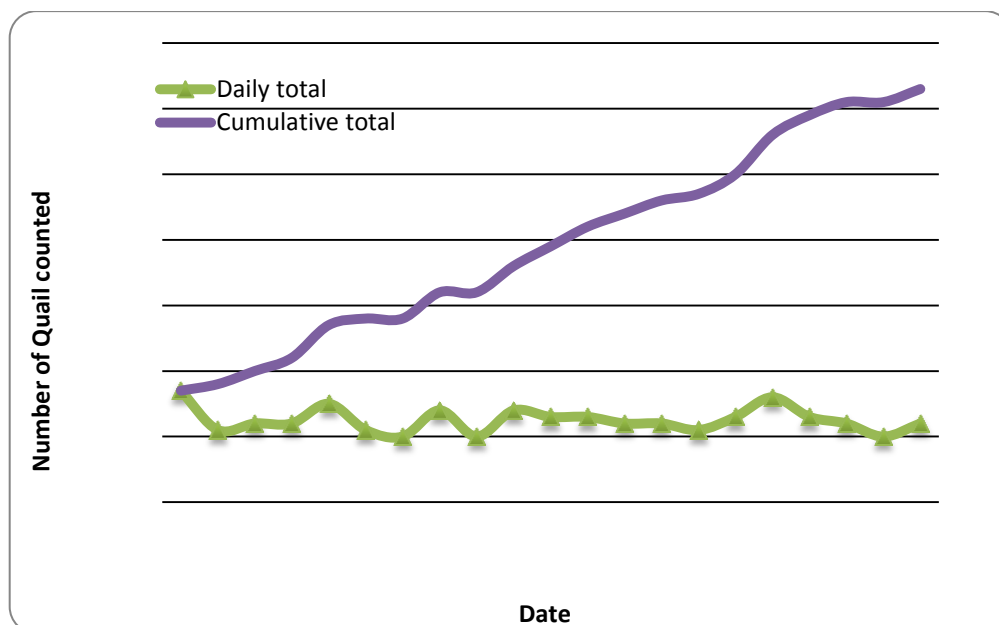
In the case of Turtle Dove, daily counts at different sites varied from a minimum of 0 to a maximum of 29, whereas the total daily counts varied from a minimum of 3 to a maximum of 60 (Table 7 and Figure 6). These counts show a similar trend to those recorded by Thomaidis (2010) in spring 2008 and 2009, and by Ecoserv in 2012 and 2013 for the same survey period, although no very high mean counts as recorded in 2008 and in 2009 were recorded during the 2014 survey (Ecoserv, 2014). As also noted by Ecoserv (2014), based on comparisons between the results of this study and results from previous studies (conducted in 2008, 2009, 2012 and 2013), it would appear that the general pattern has remained constant, with steady migratory influxes during the last two weeks of April.

Figure 6: Total daily counts of Turtle Dove compiled through the spring migration study. (Data source: Ecoserv)



In the case of Common Quail, daily counts at different sites varied from a minimum of 0 to a maximum of 5 whereas the total daily counts varied from a minimum of 0 to a maximum of 7 (Table 7 and Figure 7). The daily mean counts recorded during the 2014 survey are overall lower than those obtained in 2009 (Thomaidis, 2010) but comparable to those obtained in 2008 (Thomaidis, 2010), and by Ecoserv in 2012 and 2013 for the same dates (10–30 April), except that “no marginal peaks (with a mean count >2) as recorded in 2008, 2009 and 2012 were recorded during the present survey” (Ecoserv, 2014).

Figure 7: Total daily counts of Common Quail compiled through the spring migration study. (Data source: Ecoserv)



The data from the survey was extrapolated to obtain an estimate of the total number of *Streptopelia turtur* and *Coturnix coturnix* that may have migrated over Malta on each day of the study period (Table 11 and Figure 8). Whilst it is emphasised that these estimates should be treated with caution, given inherent limitations and assumptions which are detailed in the spring migration report, mean daily influxes calculated from the study are approximately 1,187 Turtle Dove per day and 1,799

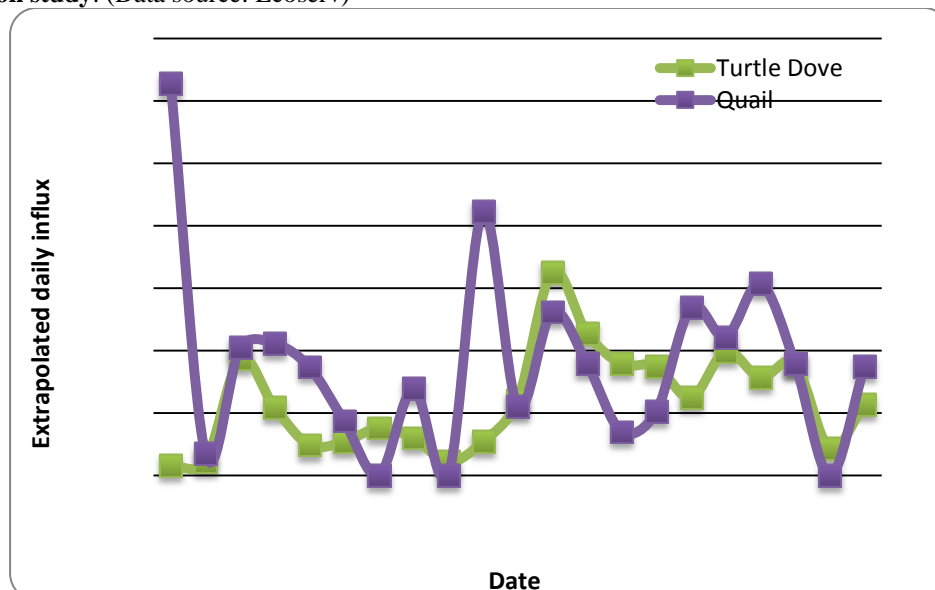
Quail per day. These figures are derived from estimated total seasonal influxes (over the survey period) of 24,921 Turtle Dove and 37,771 Quail (Ecoserv, 2014). Daily estimated influxes of Turtle Dove varied between a low of 163 individuals (on 10 April), and a high of 3,255 individuals (on 21 April), whilst those for Quail varied between a low of 0 (on 16, 18 and 29 April) and a high of 6,277 (on 10 April).

The total estimated influx of 24,921 Turtle Doves in 2014 is less than the corresponding estimate for 2013 (n=42,521) and 2012 (n=57,160), but higher than the estimate for 2011 (n=18,057). The estimated total influx of 37,771 Quails in 2014 is lower than estimated influx in 2013 (n=67,460) but higher than in 2012 (n=35,018) and 2011 (n=22,699).

Table 7: Estimated influxes of migratory individuals (Data source: Ecoserv)

Date	Total extrapolated daily influx	
	Turtle Dove	Quail
Thu 10 th April	163	6277
Fri 11 th April	217	347
Sat 12 th April	1868	2049
Sun 13 th April	1085	2113
Mon 14 th April	488	1737
Tue 15 th April	542	873
Wed 16 th April	759	0
Thu 17 th April	597	1390
Fri 18 th April	217	0
Sat 19 th April	542	4227
Sun 20 th April	1205	1107
Mon 21 st April	3255	2620
Tue 22 nd April	2278	1793
Wed 23 rd April	1790	695
Thu 24 th April	1748	1025
Fri 25 th April	1248	2690
Sat 26 th April	1989	2214
Sun 27 th April	1567	3074
Mon 28 th April	1790	1793
Tue 29 th April	434	0
Wed 30 th April	1139	1747
Total	24,921	37,771

Figure 8: Extrapolated daily influxes of Turtle Dove and Common Quail, compiled through the spring migration study. (Data source: Ecoserv)



10. Comparison between migratory study data & SMS reports

In order to validate the SMS reporting system (discussed in Section 6 above), data obtained from the latter was compared with the counts and estimates generated through the 2014 spring migration study (discussed in Section 7 above).

The spring 2014 migration study recorded a peak influx of Turtle Dove on 21 April 2014 (n=60) and 22 April 2014 (n=42). A similar peak was recorded in the SMS reports of shot Turtle Doves, as can be noted in Figures 9 and 10 below, which also illustrate that the two **trend lines** closely mirror each other, although the **magnitude of correlation** varied, due to limitation of the migration study. For visual representation purposes, in order to allow a close comparison of the trends, Figure 10 plots observed counts multiplied by 10.

For Quail, the spring migration study did not record any migration peaks (with a mean count >2) although the maximum number of SMSs received for Quail was on 27 April 2014. Figures 11 and 12 provide a comparison between the trend lines for Quail for the spring migration study and SMS reports, which closely mirror each other. For visual representation purposes, in order to allow a close comparison of the trends, Figure 12 plots observed counts multiplied by 10.

Figure 9: Comparison of the number of Turtle Doves reported shot through the SMS system with the number of Turtle Dove counted during the spring migration study. (Data source: Wild Birds Regulation Unit /Ecoserv)

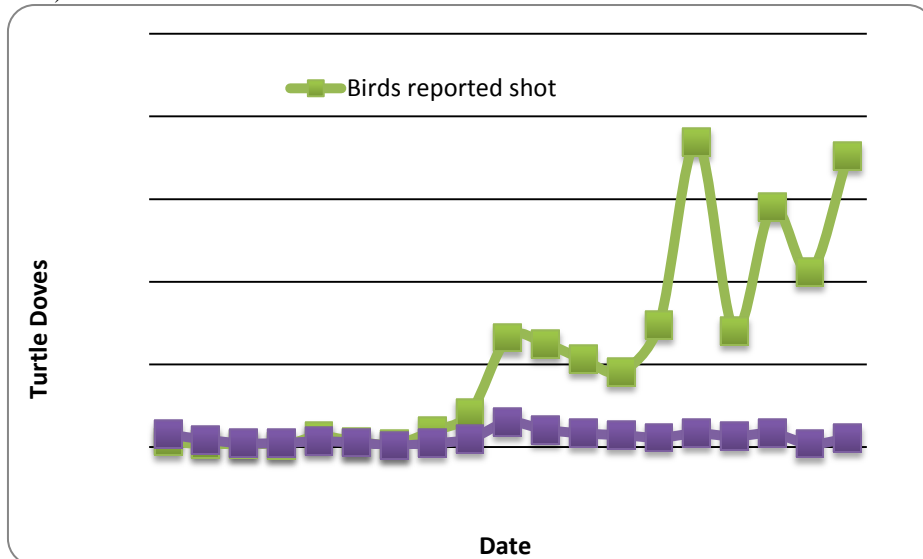


Figure 10: Comparison of the number of Turtle Doves reported shot through the SMS system with the number of Turtle Dove counted during the spring migration study (daily counts x 10). (Data source: Wild Birds Regulation Unit/Ecoserv)

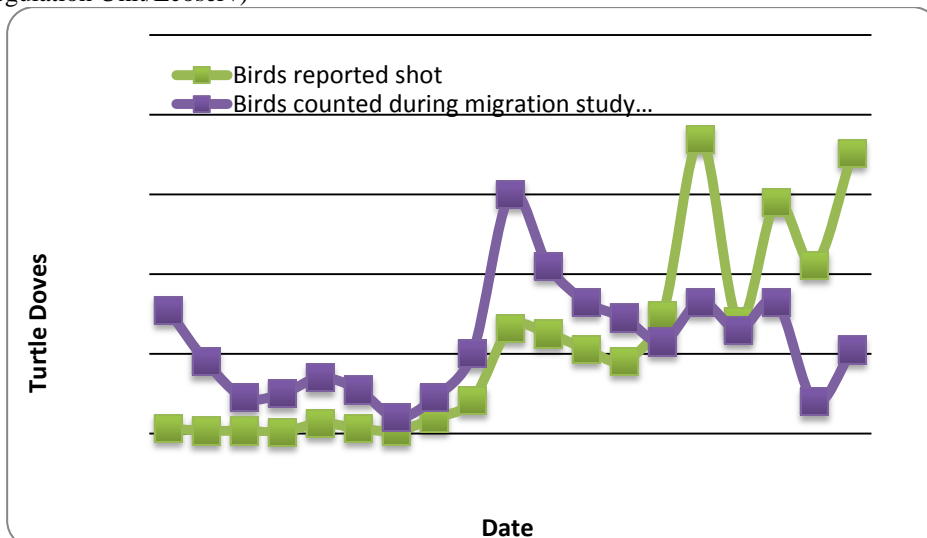


Figure 11: Comparison of the number of Quails reported shot through the SMS system with the number of Quails counted during the spring migration study. (Data source: Wild Birds Regulation Unit /Ecoserv)

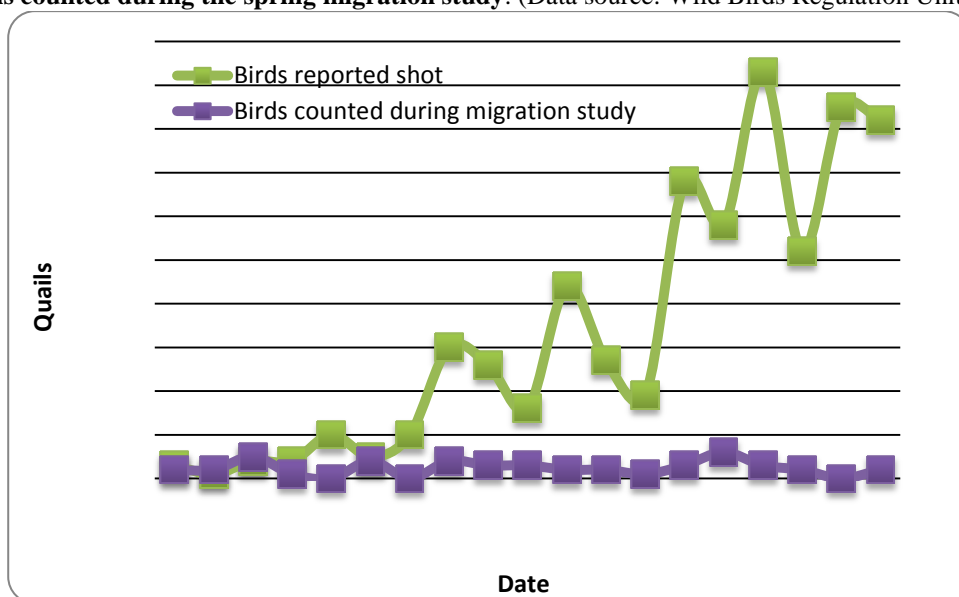
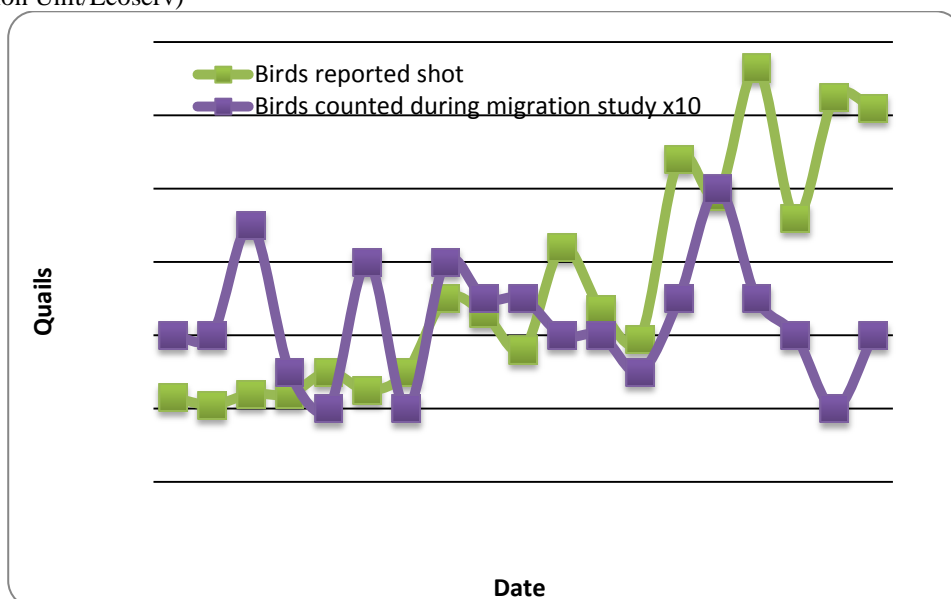


Figure 12: Comparison of the number of Quails reported shot through the SMS system with the number of Quails counted during the spring migration study (daily counts x 10). (Data source: Wild Birds Regulation Unit/Ecoserv)



11. Enforcement efforts

As described in detail below, the intensity of the enforcement effort, the level of preparation, communication and coordination amongst the different enforcement players in the field was nothing short of exemplary and is simply unprecedented both in Malta and possibly elsewhere in Europe.

The Framework Regulations (SL 504.94⁹) stipulate that a minimum of seven (7) enforcement officers for every 1,000 licenced hunter are required to be deployed. A total of 9,754 hunters were in possession of a spring hunting licence in 2014 and therefore 68 enforcement personnel were needed in accordance with national legislation to supervise the derogation period (roughly 58 officers in Malta and 10 in Gozo). However, as was the case in 2013, the Government opted to increase the enforcement effort beyond this legal requirement, in order to ensure the strict supervision of the spring hunting season, as required by the Birds Directive.

⁹ <http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=11570&l=1>

In 2014, the level of field enforcement deployment was unprecedented. Field surveillance and patrols were deployed from within the Administrative Law Enforcement (ALE) section of the Malta Police Force, with additional support from divisional police forces (from the 11 district police areas), from the Mounted Police Section and from the Armed Forces of Malta.

Overall, between 71 and 100 officers were deployed **in the field at any one time** during the morning shift between 05:00 hours and 15:00 hours; while during the afternoon shift, between 15:00 and 21:30 hours, the maximum field deployment ranged from 39 to 45 officers. Night patrols of 4 officers were deployed on specific nights (28th and 29th of April 2014) to monitor significant roosts of protected birds.

The total maximum daily deployment is summarised in Table 8 below.

Table 8: Total maximum field deployment in Malta and Gozo		
Date	Officers deployed: 0500 hrs - 1500 hrs	Officers deployed: 1500 hrs - 2130 hrs
12/04/2014	73	41
13/04/2014	71	39
14/04/2014	75	41
15/04/2014	74	41
16/04/2014	88	42
17/04/2014	93	42
18/04/2014	79	41
19/04/2014	83	41
20/04/2014	71	45
21/04/2014	88	42
22/04/2014	100	42
23/04/2014	86	41
24/04/2014	95	42
25/04/2014	80	42
26/04/2014	92	45
27/04/2014	79	41
28/04/2014	84	45
29/04/2014	94	41
30/04/2014	88	41

The minimum daily deployment is presented in Table 9 below.

Table 9: Total minimum field deployment in Malta and Gozo		
Date	Officers deployed: 0500 hrs - 1500 hrs	Officers deployed: 1500 hrs - 2130 hrs
12/04/2014	69	39
13/04/2014	69	39
14/04/2014	69	39
15/04/2014	69	39
16/04/2014	71	41
17/04/2014	71	41
18/04/2014	71	41
19/04/2014	71	41
20/04/2014	71	41
21/04/2014	71	41
22/04/2014	71	41
23/04/2014	71	41
24/04/2014	71	41
25/04/2014	71	41
26/04/2014	71	41
27/04/2014	71	41
28/04/2014	71	41
29/04/2014	71	41
30/04/2014	71	41

Deployment in Malta is summarised in the following table:

Table 10: Number of officers in the field (Malta)

	Malta									
	Morning shift 0500 – 1500					Afternoon and evening shift 1500 - 2130				
Date	ALE and AFM¹⁰	District officers	UAV¹¹ specialists	Max	Min	ALE and AFM	District officers	UAV specialists	Max	Min
12/04/2014	63	2	2	67	63	33		2	35	33
13/04/2014	63	2		65	63	33			33	33
14/04/2014	63	4	2	69	63	33		2	35	33
15/04/2014	63	5		68	63	33		2	35	33
16/04/2014	63	17		80	63	33		1	34	33
17/04/2014	63	22		85	63	33		1	34	33
18/04/2014	63	8		71	63	33			33	33
19/04/2014	63	12		75	63	33			33	33
20/04/2014	63	0		63	63	37			37	33
21/04/2014	63	16	1	80	63	33		1	34	33
22/04/2014	63	29		92	63	33		1	34	33
23/04/2014	63	15		78	63	33			33	33
24/04/2014	63	23	1	87	63	33		1	34	33
25/04/2014	63	9		72	63	33		1	34	33
26/04/2014	63	21		84	63	33	4		37	33
27/04/2014	63	8		71	63	33			33	33
28/04/2014	63	13		76	63	37			37	33
29/04/2014	63	23		86	63	33			33	33
30/04/2014	63	17		80	63	33			33	33

Deployment in Gozo is summarised in Table 11 below:

¹⁰ Administrative Law Enforcement Unit and Armed Forces of Malta

¹¹ Unmanned Aerial Surveillance Vehicle

Table 11: Number of officers in the field (Gozo)

Date	Gozo			
	Morning shift 0500 – 1500		Afternoon and evening shift 1500 - 2130	
	Max	Min	Max	Min
12/04/2014	6	6	6	6
13/04/2014	6	6	6	6
14/04/2014	6	6	6	6
15/04/2014	6	6	6	6
16/04/2014	8	8	8	8
17/04/2014	8	8	8	8
18/04/2014	8	8	8	8
19/04/2014	8	8	8	8
20/04/2014	8	8	8	8
21/04/2014	8	8	8	8
22/04/2014	8	8	8	8
23/04/2014	8	8	8	8
24/04/2014	8	8	8	8
25/04/2014	8	8	8	8
26/04/2014	8	8	8	8
27/04/2014	8	8	8	8
28/04/2014	8	8	8	8
29/04/2014	8	8	8	8
30/04/2014	8	8	8	8

Additionally, hunting marshals were deployed by the Federation for Hunting and Conservation (FKNK), whilst over 60 members of environmental non-governmental organisations (NGOs) (including BirdLife Malta and the Committee Against Bird Slaughter (CABS)) also maintained a close watch for any irregularities throughout the season.

Prior to commencement of the season, enforcement officers received specialised training delivered by officials of the Special Enforcement Branch of the Wild Birds Regulation Unit. The training course was attended by over 60 members of enforcement personnel, who received a detailed briefing on:

- The legal framework concerning conservation of wild birds
- Legal requirements pertaining to spring hunting season
- Monitoring and surveillance techniques and approaches
- Basic species identification skills
- Inspections

- Hotspots and areas requiring particular attention
- Potential law enforcement evasion techniques deployed by poachers



Official of the Specialist Enforcement Branch of the Wild Birds Regulation Unit delivering training to enforcement officers on 10 April 2014

Furthermore, commanding officers received a specialised briefing organised by the Wild Birds Regulation Unit on the objectives of the enforcement operation which were defined as follows:

- To ensure continuous deployment presence in the countryside to deter any potential abuse from occurring in the first place;
- To ensure that no illegal targeting of species other than turtle dove or quail occurs, and that any detected incidents of abuse are dealt with swiftly and effectively (i.e. apprehension of suspects and gathering sufficient field evidence to enable swift prosecution);
- To ensure that the general prohibitions and parameters related to open season are enforced (that is, no hunting in prohibited areas, outside permitted hours, using prohibited means like bird callers, semi-automatic or automatic weapons with a magazine capable of holding more than two rounds of ammunition, hunting without a valid spring hunting licence, etc);
- To ensure that specific regulations applicable to the spring hunting derogation are enforced (enforcement of bag limits, spot-checks to determine that bags have been duly reported in the *carnet de chasse* and through SMS, etc).

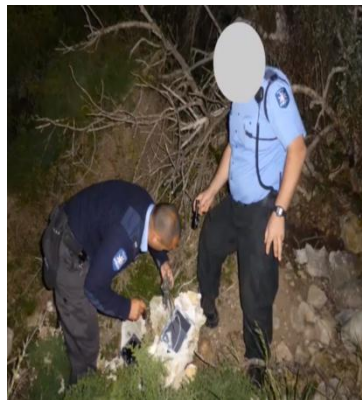
The enforcement operation throughout the season deployed a mix of the following approaches and techniques:

- a) **Vehicular patrols** concentrated in non-extensive pre-allocated areas that collectively ensure sufficient coverage of the countryside, particularly around the priority surveillance areas;
- b) **Foot patrols** by uniformed officers (both the Armed Forces of Malta and ALE) within particular locations, especially those areas with difficult vehicular access;
- c) **Stationary observation posts** manned by **uniformed** and **plain clothes** personnel. Stationary observation posts were located at vantage points within priority surveillance areas;
- d) **Spot checks and roadblocks** at strategic vehicular entry and exit points. The aim of the spot checks is two-fold: (1) to detect the possession of illegally shot protected birds or other illegal material and (2) to enforce bag limit and *carnet de chasse* / SMS reporting requirements.
- e) Deployment of **covert surveillance** backed up by mobile units especially in response to large influxes of protected birds or to ensure sufficient surveillance of particular hotspots known for targeting of protected birds. These were carried out by: (1) physical direct surveillance from covert fixed point positions, and (2) use of unmanned aerial surveillance vehicles (drones) in protected or inaccessible areas.

The Maltese authorities paid particular attention to collaboration with the numerous NGO volunteers who were present in the countryside during the season. These volunteers aided the overall enforcement effort by:

- Acting as a deterrent to illegal hunting by virtue of their presence in the countryside;
- Submitting vital day to day information about the presence of birds and alerting the authorities to the presence of high risk species or high risk sites such as roosting sites;
- Acting as ocular witnesses to illegal hunting incidents, and reporting such incidents to the authorities;
- Gathering of video/photographic evidence of poaching and making available such evidence to the enforcement authorities.

In order to strengthen cooperation with NGOs on these activities, enforcement personnel maintained operational liaison with representatives of the NGOs, whilst the NGOs were instructed to forward reports of illegal activities to the Police General Headquarters control room. The PGHQ control room, in turn, relayed all received information to designated communication focal points within each detachment active in the field. The Administrative Law Enforcement Unit of the police assumed the overall operational coordinating role amongst the various detachments. Liaison with the NGOs was also maintained through the Wild Birds Regulation Unit, whose officials coordinated closely with the police and also conducted their own inspections and patrols, as well as provided operational and specialised assistance to the police on a 24/7 basis.



A joint CABS – Malta Police operation to dismantle illegal bird callers on 29 April 2014 (photo: Committee Against Bird Slaughter)

The public were kept informed of the progress of the enforcement operation through a series of four press releases published every 3-4 days throughout the season. A final press release was published after the closure of the spring hunting season on 3 May 2014. These press releases are available online and may be accessed through the following link: <http://msdec.gov.mt/en/Pages/WBRU/News.aspx>.

Between 12 April and 30 April 2014, enforcement officers carried out a total of **2,819 field inspections** and **2,195 physical spot checks** upon individual hunters, cumulatively amounting to **5,014 inspections and spot-checks**, which is **more than double the number of inspections conducted in 2013**, and almost five times more than the number of inspections carried out during the 2012 spring hunting season. This intensity of inspections was unprecedented.



A joint Police – Armed Forces of Malta foot patrol

Further inspections were also carried out after the closure of the spring hunting season (that is, after 30 April 2014), in order to ensure that no further hunting activity was taking place. However, since this report is specifically concerned with the derogation period, the statistics being discussed in this and the subsequent section pertain only to the abovementioned dates of the spring hunting season (12-30 April 2014).

During inspections, police forces were responsible for ensuring the lawful operation of hunting practices. Police officers were, *inter alia*, instructed to:

- Verify that hunters were in possession of all requisite documents;
- Verify that the *Carnet de Chasse* records were in accordance with regulations;
- Ensure compliance with the provisions of the Conservation of Wild Birds Regulations (SL 504.71), including through appropriate handling of firearms and the Framework Regulations (SL 504.94¹²) and the Regulations opening the spring 2014 season (SL 504.117¹³);
- Ensure that no species, other than Turtle Dove and/or Quail, were being hunted; and
- Ensure compliance with bag limits and time restrictions.

The following table summarises the number of physical spot-checks conducted on individual hunters during each day of the season.

Table 12: Spot checks on hunters in Malta and in Gozo (Source: Malta Police Force)

Date	A.L.E.	Malta Districts	Total Malta	Gozo	Total
12/04/2014	131	0	131	2	133
13/04/2014	73	0	73	21	94
14/04/2014	115	8	123	10	133
15/04/2014	109	0	109	17	126
16/04/2014	104	4	108	6	114
17/04/2014	97	4	101	23	124
18/04/2014	79	0	79	0	79
19/04/2014	97	3	100	58	158
20/04/2014	142	0	142	20	162
21/04/2014	95	6	101	12	113
22/04/2014	113	13	126	5	131
23/04/2014	91	0	91	21	112
24/04/2014	80	2	82	11	93
25/04/2014	106	0	106	15	121

¹² <http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=11570&l=1>

¹³ <http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=12044&l=1>

26/04/2014	115	7	122	5	127
27/04/2014	68	3	71	23	94
28/04/2014	100	3	103	12	115
29/04/2014	62	1	63	21	84
30/04/2014	72	10	82	0	82
Total	1849	64	1913	282	2195

The following table gives a breakdown of field inspections conducted in Malta and Gozo in addition to physical spot checks.

Table 13: Breakdown of field inspections conducted in Malta and Gozo in addition to physical spot checks

Date	Gozo		Malta districts		A.L.E		Total Malta	Total Gozo	Total (Malta & Gozo)
	Shift A	Shift B	Shift A	Shift B	Shift A	Shift B			
12/04/2014	8		3	1	68	54	126	8	134
13/04/2014	10	1	3		68	54	125	11	136
14/04/2014	6	5	2		68	54	124	11	135
15/04/2014	9	5	3		68	54	125	14	139
16/04/2014	8	6	8	3	68	54	133	14	147
17/04/2014	19	9	16		68	54	138	28	166
18/04/2014	7		8		68	54	130	7	137
19/04/2014	36	2	6		68	54	128	38	166
20/04/2014	11	1	1		68	54	123	12	135
21/04/2014	5	7	12		68	54	134	12	146
22/04/2014	6	2	19		68	54	141	8	149
23/04/2014	8	6	16		68	54	138	14	152
24/04/2014	16	5	19		68	54	141	21	162
25/04/2014	16	6	10		68	54	132	22	154
26/04/2014	14	5	12	3	68	54	137	19	156
27/04/2014	11	5	11	4	68	54	137	16	153
28/04/2014	7	11	11	3	68	54	136	18	154
29/04/2014	16	0	22	2	68	54	146	16	162
30/04/2014	0	0	14		68	54	136	0	136
Total	213	50	196	459	1292	1026	2530	289	2819

In order to facilitate the conduct of their duties, enforcement officers had 17 patrol vehicles at their disposal (in addition to vehicles used by mobile squads and district police units). All of these were equipped with radio communication facilities, in order to enable contact with police officers from other sections/districts, and in order to allow for continuous liaison and coordination with the

police headquarters. This also meant that the officers could be contacted rapidly when required to follow up on reports of illegalities on specific sites. Police officers were also equipped with binoculars to facilitate their investigations on the ground as well as a list of licenced hunters which facilitated the immediate identification of any hunters not in possession of the requisite spring hunting licence.

For the first time, the police also deployed an Unmanned Aerial surveillance Vehicle (UAV). The drone flew a total of 30 sorties with an average duration of 15 minutes. The vehicle, which is equipped with high resolution imaging facilities, was flown mainly during times when hunting was not permitted, or over protected areas or inaccessible areas.



Malta Police Force operating Unmanned Aerial Surveillance Vehicle (UAV) in April 2014

Table 14 gives an overview of UAV deployment.

Date	UAV-Total sorties	UAV-Total flight time (Minutes)
12/04/2014	5	55
13/04/2014	0	0
14/04/2014	4	50
15/04/2014	3	35
16/04/2014	2	30
17/04/2014	3	40
18/04/2014	0	0
19/04/2014	0	0
20/04/2014	0	0
21/04/2014	3	35
22/04/2014	3	35
23/04/2014	0	0
24/04/2014	4	50
25/04/2014	3	45
26/04/2014	0	0
27/04/2014	0	0
28/04/2014	0	0
29/04/2014	0	0
30/04/2014	0	0
Total	30	375

By the end of the season, 54 suspected offenders were apprehended; however, the case against one suspect who was initially charged with hunting within 200 meters from an inhabited area was subsequently dropped due to lack of evidence. Thus the total number of suspected offenders against whom action is being taken is 53. The below table summarizes the number of offenders apprehended in Malta and Gozo on each day of the season:

Table 15: Number of offenders apprehended in Malta and Gozo on each day of the season

Date	No. of offenders apprehended		
	Total	Hunting	Trapping
12/04/2014	4	4	
13/04/2014	1	1	
14/04/2014	4	2	2
15/04/2014	0	0	
16/04/2014	5	5	
17/04/2014	2	2	
18/04/2014	4	3	1
19/04/2014	5	5	
20/04/2014	3	3	
21/04/2014	5	5	
22/04/2014	3	3	
23/04/2014	2	2	
24/04/2014	1	1	
25/04/2014	1	1	
26/04/2014	6	6	
27/04/2014	1	1	
28/04/2014	5	5	
29/04/2014	1	1	
30/04/2014	0	0	
Total number of offenders			
Malta	Gozo		
50	3		

These persons are being charged with a total of 69 suspected offences that have been disclosed until 30 April 2014, of which 54 offences were of a relatively minor nature as follows:

Table 16: Firearms and hunting irregularities	Number of cases
Nature of the offence	
Hunting within prohibited distances	11
Use and or possession of a shotgun with a magazine capable of holding more than two rounds of ammunition	13
Failure to immediately declare shooting of a game bird by SMS	4
Failure to declare shooting of a game bird in the <i>Carnet de Chasse</i> booklet	2
Failure to be in possession of the special licence and / or <i>carnet de chasse</i> whilst hunting	10
Failure to declare going out hunting on the <i>carnet de chasse</i> booklet.	6
Leaving a firearm / ammunition unattended	4
Possession of heavy gauge shot	2
Possession of pre-recorded bird calls	2
Total	54

Fifteen violations were considered to be more serious as these involved suspected targeting of protected birds, hunting without a licence, or hunting within a bird sanctuary, as follows:

Table 17: Major offences	Number of cases
Nature of the offence	
Illegal trapping for protected birds	2
Trapping during the closed-season	3
Illegal shooting of a protected bird	2
Possession of a shot protected bird in a private residence	1
Hunting in a bird sanctuary	2
Use of illegally manufactured unregistered shotgun fitted with a silencer	1
Hunting without a General Licence	1
Hunting without a Special Licence	1
Hunting during the closed season	1
Possession of firearm during the closed season not at licenced premises	1
Total	15

Offences detected on each day of the season are summarised in the table below.

Table 18: Offences per day of the season

Date	Hunting related offences (Malta)
12/04/2014	Carrying of an uncovered firearm at a place where shooting of game is not allowed (public road)
12/04/2014	Possession of prohibited means of capture: cartridge loaded with shot >3.3mm diameter; breach of Special Licence conditions-failure to declare going out hunting in <i>Carnet de Chasse</i> booklet
12/04/2014	Possession of prohibited means of capture: pre-recorded bird calls
12/04/2014	Hunting of protected bird (Swallow); breach of Special Licence conditions: hunting of birds other than Turtle Dove or Quail
13/04/2014	Possession of prohibited means of capture: shotgun capable of holding >2 shots in magazine
14/04/2014	Breach of Special Licence conditions: failure to declare going out hunting in <i>Carnet de Chasse</i> booklet
14/04/2014	Breach of Special Licence conditions: failure to carry on his/her person the Special Licence and/or the <i>Carnet de Chasse</i> booklet
16/04/2014	Possession of prohibited means of capture: shotgun capable of holding >2 shots in magazine; use of prohibited means of capture: shotgun capable of holding >2 shots in magazine
16/04/2014	Possession of prohibited means of capture: cartridge loaded with shot >3.3mm diameter
16/04/2014	Breach of Special Licence conditions-failure to declare going out hunting in <i>Carnet de Chasse</i> booklet
16/04/2014	Breach of Special Licence conditions-failure to declare going out hunting in <i>Carnet de Chasse</i> booklet
16/04/2014	Breach of Special Licence conditions-failure to declare going out hunting in <i>Carnet de Chasse</i> booklet
17/04/2014	Carrying of an uncovered fire-arm at a place where shooting of game is not allowed (public road)
17/04/2014	Breach of Special Licence conditions: failure to carry on his/her person the Special Licence and/or the <i>Carnet de Chasse</i> booklet
18/04/2014	Breach of Special Licence conditions: failure to carry on his/her person the Special Licence and/or the <i>Carnet de Chasse</i> booklet
18/04/2014	Breach of the Arms Ordinance: unattended firearm and ammunition
18/04/2014	Possession of prohibited means of capture: shotgun capable of holding >2 shots in magazine; unlicensed to hunt during the Spring 2014 season; breach of the Arms Ordinance: unattended firearm and ammunition
19/04/2014	Possession of prohibited means of capture: shotgun capable of holding >2 shots in magazine

19/04/2014	Carrying of an uncovered firearm at a place where shooting of game is not allowed (public road)
19/04/2014	Breach of Special Licence conditions: failure to immediate report the capture of a game bird via SMS
19/04/2014	Breach of Special Licence conditions: failure to immediate report the capture of a game bird via SMS
19/04/2014	Hunting within a bird sanctuary; possession of means to hunt in a bird sanctuary; carrying of an uncovered firearm at a place where shooting of game is not allowed (bird sanctuary)
20/04/2014	Breach of SL 504.71: Failure to report capture of bird in <i>Carnet de Chasse</i> booklet; breach of Special Licence conditions: failure to carry on his/her person the Special Licence and/or the <i>Carnet de Chasse</i> booklet; failure to immediately report the capture of a game bird via SMS; failure to declare capture of game bird in the <i>Carnet de Chasse</i> booklet
20/04/2014	Breach of the Arms Ordinance: unattended ammunition
20/04/2014	Breach of the Arms Ordinance: possession of firearm during the close-season not at the licenced premises
21/04/2014	Breach of the Arms Ordinance: unattended ammunition
21/04/2014	Breach of SL 504.71: Failure to report capture of bird in <i>Carnet de Chasse</i> booklet; breach of Special Licence conditions: failure to immediate report the capture of a game bird via SMS; failure to declare capture of game bird in the <i>Carnet de Chasse</i> booklet
21/04/2014	Hunting within prohibited distances;
21/04/2014	Possession of prohibited means of capture: shotgun capable of holding >2 shots in magazine; use of prohibited means of capture: shotgun capable of holding >2 shots in magazine
21/04/2014	Breach of Special Licence conditions-failure to carry on his/her person the Special Licence and/or the <i>Carnet de Chasse</i> booklet
22/04/2014	Possession of protected bird carcass in residence; unauthorised disposal of stuffed protected birds
22/04/2014	Hunting within a bird sanctuary; possession of means to hunt in a bird sanctuary; carrying of an uncovered firearm at a place where shooting of game is not allowed (bird sanctuary); breach of the Arms Ordinance: manufacture and possession of firearm with silencer, possession of unregistered firearm
22/04/2014	Breach of Special Licence conditions: failure to carry on his/her person the Special Licence and/or the <i>Carnet de Chasse</i> booklet; failure to declare going out hunting in <i>Carnet de Chasse</i> booklet
23/04/2014	Possession of prohibited means of capture: pre-recorded bird calls
23/04/2014	Hunting of protected bird (Kestrel); breach of Special Licence conditions: hunting of birds other than Turtle Dove or Quail
24/04/2014	Hunting within prohibited distances
25/04/2014	Possession of prohibited means of capture: shotgun capable of holding >2 shots in magazine
26/04/2014	Possession of prohibited means of capture: shotgun capable of holding >2 shots in magazine; use of prohibited means of capture: shotgun capable of holding >2 shots in magazine
26/04/2014	Breach of Special Licence conditions-failure to carry on his/her person the Special Licence and/or the <i>Carnet de Chasse</i> booklet
26/04/2014	Hunting during closed-season
26/04/2014	Hunting within prohibited distances
26/04/2014	Hunting within prohibited distances
26/04/2014	Breach of Special Licence conditions: failure to carry on his/her person the Special Licence and/or the <i>Carnet de Chasse</i> booklet
28/04/2014	Hunting without Special Licence
28/04/2014	Breach of Special Licence conditions: failure to carry on his/her person the Special Licence and/or

	the <i>Carnet de Chasse</i> booklet
28/04/2014	Breach of Special Licence conditions: failure to carry on his/her person the Special Licence and/or the <i>Carnet de Chasse</i> booklet
29/04/2014	Possession of prohibited means of capture: shotgun capable of holding >2 shots in magazine; use of prohibited means of capture: shotgun capable of holding >2 shots in magazine

Date	Hunting related offences (Gozo)
27/04/2014	Hunting without a licence
28/04/2014	Hunting within prohibited distances: <200m from an inhabited area
28/04/2014	Hunting within prohibited distances: <200m from an inhabited area

Date	Trapping-related offences (Malta)
14/04/2014	Trapping for protected birds; possession of protected birds; trapping during the close-season; use of prohibited means of capture-nets & protected bird decoys
14/04/2014	Trapping during close-season; use of prohibited means of capture-nets
18/04/2014	Trapping for protected birds; possession of protected birds; trapping during the close-season; use of prohibited means of capture-nets & protected bird decoys; keeping of birds in small-sized cages

All cases are being prosecuted. Minor offences listed in Schedule VIII of the Conservation of Wild Birds Regulations (SL 504.71), provided that these are not committed in conjunction with any other offence, are being subjected to automatic fines in accordance with the Schedule. As of 26 May 2014, 8 offenders have been served with such an administrative fine notice, of which 3 (1 case of possession of firearm having a magazine capable of holding more than two rounds of ammunition, 1 case of illegal use of bird caller and 1 case of possession of an uncovered firearm within 200 m but not less than within 150 metres from an inhabited area) have already paid a €250 fine each. All other offences, including minor offences committed in conjunction with any other offence not listed in Schedule VIII are subject to criminal prosecution and, upon conviction, to greatly increased penalties as enacted on 25 October 2013 and on 28 March 2014.

In addition to disclosed offences, police officers located and dismantled 11 illegal electronic bird callers and investigated several reports of suspected targeting of protected birds. However, evidence gathered through these investigations was insufficient to identify and charge suspected offenders in Court.

By comparison, during the 2012 spring hunting season, the police disclosed a total of 64 offences, of which 24 violations were of a relatively more serious nature involving hunting without a licence during unpermitted hours, in prohibited areas, or illegal trapping of protected birds. During the 2013 spring hunting season, 53 hunting offences, of which 18 relatively more serious, were disclosed. The fact that during the 2014 spring hunting season, fewer serious incidents have been disclosed, underscores the fact that the overall rate of compliance has improved. This is, in part, due to the greatly increased legal deterrents against bird-related crimes, which, follow the legal amendments introduced in October 2013 and in March 2014 are today amongst the harshest in the EU, as well as due to more intense and effective field surveillance and better coordination.

12. Conclusions

Malta's commitment to ensuring adherence, in the strictest manner possible, to the parameters of the limited spring hunting derogation, and to the general implementation of the Birds Directive and the Bern Convention is evident through the following concrete and specific actions:

1. **Implementation of improved verification mechanisms for bag data reporting and collection:** through the increased precision of the migration monitoring study in April 2014, the commitment

- to undertake a similar study in autumn 2014, more stringent legal requirements for reporting of autumn bag data, greatly increased penalties and deterrents against non-compliance;
2. **Constant drive to improve the quality and reliability of autumn bag data** (mandatory licence return requirements, penalties for late return, exceptionally high rate of licence return achieved in February 2014, four levels of data extraction quality checks);
 3. **Transparency in decision making, consultation:** Discussions with stakeholders within the Malta Ornithology Committee, stepped up communication with hunters and the public, compliance promotion campaign in the media, regular public updates on the progress of enforcement operations, prior consultations with the Commission;
 4. **Thorough consideration of the conservation status of the species concerned, including transparent consultation with stakeholders;**
 5. **Drastic increase in legal deterrents and penalties for bird-related crime and hunting violations:** Malta's penalty regime in this sector is objectively amongst the harshest in the EU;
 6. **Indisputable and drastic increase in enforcement deployment in the field:** doubling of field inspections; thousands of individual spot-checks on hunters, improved coordination amongst enforcement agencies, deployment of new technologies (drones). Malta's ratio of field enforcement deployment is by far greater than that in any other EU Member State;
 7. **Objectively documented decline in the number of serious hunting-related violations,** particularly reduction in incidence of illegal shooting or trapping of protected species;
 8. **A mature and robust multi-layered system of controls** over hunting activity, including through special licensing requirements, SMS and CDC reporting, restrictions pertaining to time and space and other controls; and

It is also notable that all of the above measures were subject to an unprecedented level of public and media scrutiny of the Government's effort.

The Maltese authorities believe that the above, amongst other information presented in this report would help the Bureau in its objective assessment of Malta's compliance.



On a rainy April day, a historic 19th Century tower stands guard over vast promontory of Il-Majjistral Nature and History Park. Enforcement officials of the Wild Birds Regulation Unit and a team of Birdlife Malta volunteers shield themselves from fresh north-westerly wind and rain, as they stand guard to a rare avian visitor.

Annex 1: Consideration of the conservation status of Quail and Turtle Dove

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 (<i>or</i> 20,000 breeding individuals <i>or</i> 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: <ul style="list-style-type: none"> • 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:

	<ul style="list-style-type: none"> • 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)

1A. Conservation Status of the Common Quail (*Coturnix c. coturnix*)

SPEC 3 (1994: 3) Status: (Depleted); Criteria: Large historical decline. European IUCN Red List Category: —; Criteria: — (BirdLife International, 2004)

<u>Conservation status</u>	
 <p>Least Concern (IUCN 3.1)^[1]</p>	
<u>Scientific classification</u>	
Kingdom:	Animalia
Phylum:	Chordata
Class:	Aves
Order:	Galliformes
Family:	Phasianidae
Subfamily:	Perdicinae
Genus:	Coturnix
Species:	<i>C. coturnix</i>
<u>Binomial name</u>	
<p><i>Coturnix coturnix</i> (Linnaeus, 1758)</p>	

Source: http://en.wikipedia.org/wiki/Coturnix_coturnix and <http://www.birdlife.org/datazone/speciesfactsheet.php?id=194>

This species has an **extremely large range**, 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). Despite the fact that the population trend appears to be decreasing, the decline is not believed to be sufficiently rapid to 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, 2014a)¹⁴.

Coturnix coturnix is a widespread summer visitor to much of Europe, which accounts for less than a quarter of its global breeding range. Its European breeding population is very large (>2,800,000 pairs) and fluctuates, but underwent a large decline during 1970–1990, especially in central and eastern Europe. Although the species increased in northern and central Europe during 1990–2000, declines continued in south-eastern Europe, and the total population size probably remains below the level that preceded its decline. Consequently, BirdLife International (2004) provisionally evaluated this species at the Pan-European level as **Depleted**.

The EU Management plan for Quail 2009–2011 (Perennou 2009) aims *inter alia* to “**restore the species to a favourable conservation status through reversing the declines in SE Europe and maintaining its natural genetic diversity**”. The Management Plan notes that the conservation status of Quail within the EU Territory is favourable (Perennou 2009:10), with the EU Quail population numbering some 884,000–1,912,000 calling males. Perennou (2009) also notes that the analysis of the

¹⁴ <http://www.birdlife.org/datazone/speciesfactsheet.php?id=194>

population estimates and trends for Quail is imprecise, resulting in large differences between minimum and maximum numbers which are due to a combination of reasons, including:

- methodological difficulties, which stem from the fact that breeding females are very difficult to detect and because, once paired, the males stop crowing. This often leads to broad ranges for national estimates, most of which do not actually rely on any field census at all. Therefore, national population estimates cannot be reliably summed up at the European level.
- inadequacy of large-scale compilations, due to the fact that the breeding pair in this species is an ephemeral phenomenon and consequently the number of singing males is widely considered by specialists to be a much more practical index of population abundance than the number of breeding pairs. Broad-scale compilations (e.g. Birdlife International 2004, Tucker & Heath 1994) often use the latter index, and also combine data relating to pairs (though inaccessible in practice, with rare exceptions) with data on calling birds (by nature unpaired).

There are also high inter-annual fluctuations in breeding numbers for any given country, which do not necessarily reflect the actual variability in the total population size for Quail, but rather a variability in the amplitude of the pre-breeding migration northwards. Perennou (2009) further states that Quail numbers seem to be growing strongly in Arabia and Morocco and probably in all the Maghreb countries. These birds do not constitute separate populations, but are part of the population that breeds in Europe in variable proportions from one year to the next. According to Perennou (2009), an overall analysis of Quail population trends in fact indicates that, following a decline in the 1970s (the precise quantitative amplitude of which is unknown because of the lack of earlier, reliable pan-European estimates or indexes), the overall population trend of sedentary and short migrants seems to be increasing over that of the long migrants in the Palearctic region, leading to an overall population trend which is now “likely increasing in the EU” with the exception of south-eastern Europe.

Similarly, Guyomarc’h (2003) states that figures for breeding pairs in different countries are considered inaccurate because these estimates are replicated from year to year without revision. They ignore variables such as: exchanges between the Maghreb and Europe; high mobility; possible multiple-breeding attempts; and successive pairs. Thirdly, counts of couples or pairs (a very ephemeral phenomenon in this species) are mixed with data from counts of singing males (by nature “unmated” single males). He also states that there was a decrease in the Quail population in the 1970’s north of ca. 45°, but that in the 1990’s an overall population increase seems to have taken place.

BirdLife International (2004) notes that the European breeding population for Quail is very large (>2,800,000 pairs) but underwent a decline during 1970-1990s, especially in central and eastern Europe. According to BirdLife International (2004), the EU breeding population ranges between 811,666 and 1,588,988 pairs. Indeed, it is pertinent to note that only between 5% and 24% of the global Quail population breeds in Europe, with 43-54% of the European population breeding in Russia (BirdLife International 2004) where the population is now considered stable. Between 23–38% of the European Quail population breeds in the EU (BirdLife International 2004), 33-57% of which breeds in Spain. France, Germany, Italy, Poland and Portugal also have large stable or increasing quail populations (Perennou 2009). BirdLife International (2014a) maintains that this species is declining owing to netting of migrating birds and that local declines may be caused by changing agricultural practices, especially increased use of pesticides.

Guyomarc’h (2003) calculated a population range of 697,000 to 2,298,710 breeding pairs, based on information obtained from 26 countries (including Russia and Turkey, but excluding Former Yugoslavia) and between 3,749,000 and 7,725,000 calling males, based on data obtained from 19 countries. Perennou (2009) gives an estimate of approximately 2.7–4.6 million breeding pairs across a total of 30 countries, including Russia (European part), Turkey (estimate for Turkey being 300–800 thousand pairs) and Ukraine. He also gives an estimate of 2.8–5.3 million calling males, based on data from just 17 countries.

The European Commission’s *Guide to Sustainable Hunting under the Birds Directive* (EC 2008) lists the Quail as a huntable species with unfavourable conservation status (SPEC 3: Vulnerable, Large Decline) (EC, 2008:90).

The European Bird Census Council report (EBCC, 2013a) presents an updated population trends and indices of 163 common European bird species for the time period 1980–2011 that have been produced by the Pan-European Common Bird Monitoring Scheme (PECBMS) in 2013. However, neither EBCC (2012a,b) nor EBCC (2013a,b) include the Quail in its European index of common breeding birds. Hence no evaluation of the population trends for this species could be obtained through the Pan-European Common Bird Monitoring Scheme.

Within the territory of the European Union (EU 28), the change in the minimum number of pairs is -1.81% and the change in the maximum number of pairs is -0.56%. Conversely, the change in the geomean population is -0.98% (Table 1). **According to BirdLife International (2004), this equates to a Stable trend classification for the minimum, maximum and geomean number of breeding pairs (a change not more than 10% is considered to be Stable).**

Table 1 Quail EU Breeding Population (Bold = Ring Recoveries)

Country	EU Ring Recoveries in Malta (n=19)	Breeding Pairs (Min - Max)		Trend	Mag. % (Max - Min)		Max % Change (Min Pairs)	Max % Change (Max Pairs)	Max % Change (Average Pairs)
Austria		5,000	15,000	Increase	20	29	1450	4350	2900
Belgium		2,400	5,700	Stable	0	19	-	-	-
Bulgaria		8,000	15,000	Decline	0	19	-1520	-2850	-2185
Croatia		10,000	15,000	Increase	50	79	7900	11850	9875
Cyprus		1,000	4,000	Stable	0	9	-	-	-
Czech Rep.		5,000	10,000	Increase	50	79	3950	7900	5925
Denmark		200	600	Increase	80	80	160	480	320
Estonia		10	50	Stable	0	19	-	-	-
Finland		10	100	Increase	500	500	50	500	275
France		100,000	500,000	Fluctuating	20	29	-	-	-
Germany		12,000	32,000	Increase	0	19	2280	6080	4180
Greece		2,000	5,000	Decline	0	19	-380	-950	-665
Hungary	8%	70,000	94,000	Stable	0	19	-	-	-
Rep. Ireland		0	20	Fluctuating	20	29	-	-	-
Italy	92%	5,000	20,000	?	-	-	-	-	-
Latvia		20	500	Increase	80	80	16	400	208
Lithuania		1,000	2,000	Increase	30	49	490	980	735
Luxembourg		10	25	Stable	0	19	-	-	-
Malta		1	3	Decline	30	49	0	-1	-1
Netherlands		2,000	6,500	Increase	64	64	1,280	4,160	2,720
Poland		100,000	150,000	Increase	?	?	-	-	-
Portugal		5,000	50,000	Stable	0	19	-	-	-
Romania		160,000	220,000	Decline	0	19	-30,400	-41,800	-36,100
Slovakia		2,000	6,000	Stable	0	19	-	-	-
Slovenia		1,000	2,000	Stable	0	19	-	-	-
Spain		320,000	435,000	?	-	-	-	-	-
Sweden		10	40	Fluctuating	20	29	-	-	-
UK		5	450	Stable	0	1	-	-	-
Totals	100%	811,666	1,588,988				-14,724	-8,897	-11,811
				Percentage change			-1.81%	-0.56%	-0.98%
				Trend (EU Population)			Stable	Stable	Stable

Breeding records in Malta

Several scientific reports, including that by Raine *et al.* (2009)¹⁵ and Sultana *et al.* (2011)¹⁶, indicate that *Coturnix coturnix* does not breed regularly in the Maltese Islands, and only occasionally visits the Islands in limited numbers during migration. However, Sultana *et al.* (2011) do point out that the Quail “is quite common in some years with occasional large influxes, especially in April and September”. In his migration study, Thomaidis (2010) maintains that the mean numbers of quail observed were significantly higher in spring migration periods of 2008 and 2009, compared to the autumn ones. The following table lists the mean number of quail during the peak migration dates.

Year (Spring)	Peak dates	Mean number of birds per day
2008	April 17 th	2.47
	April 29 th	1.93
2009	April 9 th	1.38
	April 16 th	2.88
	April 23 th	2.22
	April 27 th	1.45

Sultana *et al.* (2011) maintain that in the past *Coturnix coturnix* bred regularly in Malta and that “scattered pairs still bred in the 1940s and early 1950s, but there have been very few records since then”. BirdLife (2004) quotes 1–3 breeding pairs of Quail in Malta in the period 1990–2000. However, data from other sources indicates that this species is in fact a very rare breeder. For instance Wright (1864) mentioned that a few Quail breed in Malta in March. Despott (1916) cited Schembri (1843) who wrote that Quail breed in Malta in May. Roberts (1954) only cited Despott on Quail breeding in Malta, whereas Gibbs (1951) mentioned that “there are also scattered pairs of Corn Buntings *Emberiza calandra* and a very few Quail *Coturnix coturnix*”. Bannerman and Vella-Gaffiero (1976) mentioned only two occasions of nesting, in 1972 and 1976, also mentioned by Sultana and Gauci (1982). De Lucca (1969) referred to Quail as an occasional breeding visitor in the spring and Raine *et al.* (2009) also list Quail as an irregular breeding species. Finally, Sultana *et al.* (2011) mention two additional nests found in 1901, one in Malta and another in Gozo. They provide only 9 confirmed nesting records of Quail between 1972 and 2009.

Ring recoveries in Malta

Table 2 provides data on the ring recoveries of this species in Malta from other EU Member States, the respective number of breeding pairs, together with the overall direction of the population trend. Figure 1 illustrates the EU population trend categories of this species per Member State. The respective EU source (reference) population trend categories, on the basis of ring recoveries in Malta, are shown in Figure 2. The source (reference) population is Stable in both the minimum number of pairs (0% change) and maximum number of pairs (0% change), although it should be pointed out that the overall trend of the Italian population is unknown (BirdLife International, 2004).

Table 2 Quail ring recoveries in Malta from other EU Member States and corresponding population trend

Country	EU Ring Recoveries in Malta (n=19)	Breeding Pairs (Min - Max)		Trend	Mag. % (Max - Min)		Max % Change (Min Pairs)	Max % Change (Max Pairs)
Hungary	8%	70,000	94,000	Stable	0	19	-	-
Italy	92%	5,000	20,000	?	-	-	-	-
Total	100%	75,000	114,000				-	-
				Percentage change		0%	0%	
				Trend (Ring Recoveries)		Stable	Stable	

¹⁵ Raine, A; Sultana, J. & Gillings, G. (2009): *Malta Breeding Bird Atlas 2008*. Malta: BirdLife Malta, 94pp.

¹⁶ Sultana, J; Borg, J.J.; Gauci, C. & Falzon, V. (2011): *The Breeding Birds of Malta*. Malta: BirdLife Malta, 379pp.

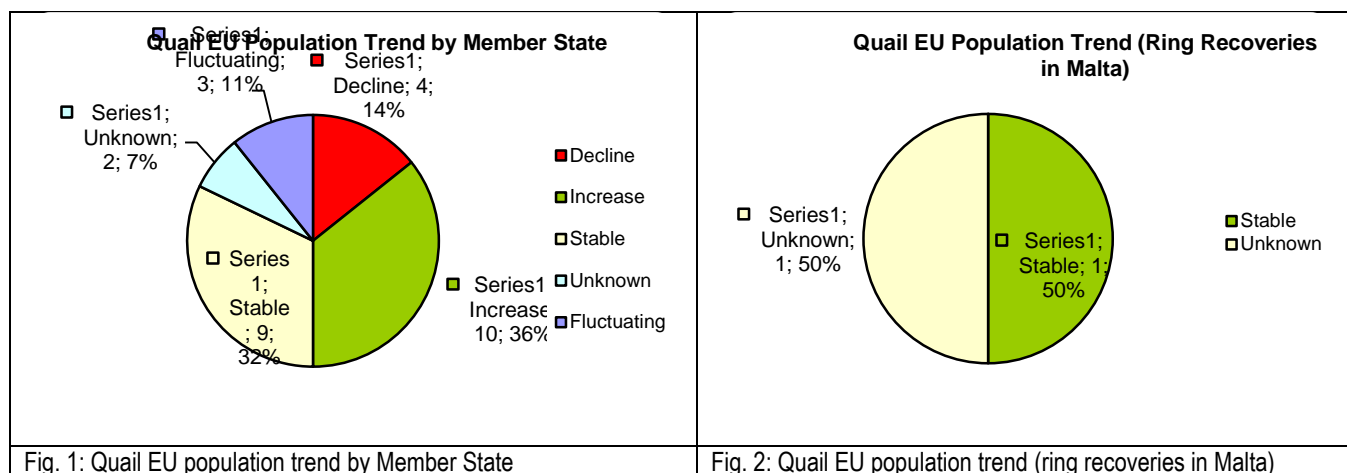


Fig. 1: Quail EU population trend by Member State

Fig. 2: Quail EU population trend (ring recoveries in Malta)

Data sources: BirdLife International (2004); Raine (2007)

1B. Conservation Status of the Turtle Dove (*Streptopelia turtur*)

SPEC 3 (1994: 3) Status: Declining; Criteria: Moderate continuing decline. European IUCN Red List Category: —; Criteria: — (BirdLife International, 2004)

Conservation status	
<p>Extinct Threatened Least Concern</p> <p>EX EW CR EN VU NT LC</p> <p>Least Concern (IUCN 3.1)^[1]</p>	
Scientific classification	
Kingdom:	Animalia
Phylum:	Chordata
Class:	Aves
Order:	Columbiformes
Family:	Columbidae
Genus:	Streptopelia
Species:	<i>S. turtur</i>
Binomial name	
<p><i>Streptopelia turtur</i></p> <p>(Linnaeus, 1758)</p>	
Synonyms	
<i>Turtur communis</i>	

Source: http://en.wikipedia.org/wiki/European_Turtle_Dove and <http://www.birdlife.org/datazone/speciesfactsheet.php?id=2498>.

This species has an **extremely large range**, 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). Despite the fact that the population trend appears to be decreasing, the decline is not believed to be sufficiently rapid to 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, 2014b)¹⁷.

1. *Streptopelia turtur* is a widespread summer visitor to much of Europe, which accounts for less than half of its global breeding range. Its European breeding population is very large (>3,500,000 pairs), but underwent a moderate decline between 1970–1990. Although the species was stable or increased in various countries, especially in central Europe, during 1990–2000, most populations—including sizeable ones in Spain, Russia and Turkey—declined, and the species underwent a moderate decline (>10%) overall. Consequently, it is evaluated as **Declining (Moderate continuing decline)** at the Pan-European level (BirdLife International, 2004). According to the EU Management plan for Turtle Dove 2007-2009 (Lutz 2007), this species has an Unfavourable Conservation Status within the EU, based on the fact that Turtle Dove populations are showing decreasing trends in a number of Member States.

2. The Turtle Dove is listed as a Class 3 European Species of Conservation Concern (SPEC 3) and red-listed in the United Kingdom in view of its breeding decline. It is specifically due to this decline in the UK that it has been included as a priority species in the UK biodiversity action plan. In May 2012, ‘Operation Turtle Dove’ was launched jointly by the Royal Society for the Protection of Birds and a number of partners, including Natural England. The aim of the project is threefold:

- (i) building on research into the Turtle Dove breeding grounds in England
- (ii) establishing feeding habitat over core breeding range through advisory and farmer initiatives
- (iii) research into factors operating during migration and at wintering areas

3. The project’s website (<http://operationturtledove.org/>) asserts that the main causal factor leading to the decline of this species in England is pesticide use (and subsequent lack of suitable food) exacerbated by habitat loss. This assertion is echoed by several contributors to the subject and online articles¹⁸. Browne & Aebischer (2004) cited in Loveridge *et al* (2006) found that “the observed decline in UK breeding turtle doves could be entirely explained by changed UK farming practices with no direct evidence for a damaging impact of hunting”. The RSPB also maintains that the reduction in nesting attempts “...has been associated with a reduction in available weed seeds on farmland and a dietary switch from weed seeds to cereals over the same time period” (Source: <http://www.rspb.org.uk/ourwork/projects/details/256862-turtle-dove-monitoring>). Conversely, in its species factsheet, BirdLife International (2014b) attributes this decline to ongoing habitat destruction as well as unsustainable levels of exploitation.

4. A crucial component of ‘Operation Turtle Dove’ is the installation of satellite tagging to determine the migratory routes and wintering grounds of this species since, as specified in the project’s website, “[w]e have little knowledge of Turtle Dove migration routes, and virtually no data on population connectivity and wintering ecology”. At this juncture it should be noted that, according to Raine (2007), Malta has no records of ring recoveries pertaining to Turtle Doves that originated from the UK. Turtle Dove is a quarry species in nine EU Member States, in view of its inclusion in Annex II, Part B of Directive 2009/147. It should be noted that according to the Turtle Dove Management Plan referred to above, the population in the EU 25 is around 1.6 to 2.6 million breeding pairs and this species is considered to be stable in Central Europe, including in nearby Italy.

5. The European Commission’s *Guide to Sustainable Hunting under the Birds Directive* lists the Turtle Dove as a huntable species with Unfavourable Conservation Status (SPEC 3: Declining, Moderate Decline) (EC, 2008:90). According to the European Bird Census Council (EBCC, 2013a)¹⁹, both the long-term trend (1980–2011) and the short-term trend (1990–2011) for the Pan-European population of the Turtle Dove is classified as Moderate Decline (Table 3). The overall change at the Pan-European level between 2010 and 2011 was -0.01% in the long-term slope and -0.05% in the short-term slope (Table 4).

¹⁷ <http://www.birdlife.org/datazone/speciesfactsheet.php?id=2498>

¹⁸ E.g.: <http://ecowatch.com/2013/12/13/pesticides-to-blame-for-declining-turtle-dove-population/>

¹⁹ <http://www.ebcc.info/wpimages/video/Leaflet2013.pdf>

Table 3 Short-term and long-term trend classification of the Turtle Dove (Pan-European)

	Short-term trend (1990–2011)	Long-term trend (1980–2011)
<i>Streptopelia turtur</i>	Moderate decline	Moderate decline

Source: EBCC (2013a)

Table 4 Turtle Dove long-term and short term percentage trend change (2010–2011)

Year	Species	Trend 1980 (%)	Long-term Slope (SE)	% change	Trend 1990 (%)	Short-term Slope (SE)	% change	Habitat
2010	<i>Streptopelia turtur</i>	-73	0.9611	-3.89%	-29	0.9884	-1.16%	farm
2011	<i>Streptopelia turtur</i>	-74	0.961	-3.9%	-30	0.9879	-1.21%	farm
Overall change (2010–2011)				-0.01%			-0.05%	

Data sources: EBCC (2012a, 2012b, 2013a, 2013b)

6. Voříšek & Škorpilová (2010) maintain that the population index of Turtle Dove within the territory of the European Union (EU 27) has fallen “from 100% in 1980 to 31% (32% smoothed index) in 2008”. The authors also point out that “the smoothed index shows rapid decline of the breeding population in 1980s and less steep decline since early 1990s”, concluding that “the breeding population of Turtle Dove in the EU has significantly declined to the level of almost one third of its numbers in 1980”, that “the population appears to be depleted with no signs of recovery” and that the “data from recent years suggest further decline of the population” (Voříšek & Škorpilová, 2010).

7. BirdLife International (2004) data for the Turtle Dove populations within the current territory of the European Union (EU 28, including Croatia) indicates that the change in the minimum number of pairs is -25.08% and the change in the maximum number of pairs is -17.82%. Conversely, the change in the geomean population is -20.50% (Table 5). **According to BirdLife International (2004), this equates to a Moderate Decline for the minimum, maximum and geomean number of breeding pairs (a change not more than 10% is considered to be Stable).** Table 5 provides population counts and trends for each Member State within the territory of the European Union.

Table 5 **Turtle Dove EU Breeding Population** (Bold = Ring Recoveries)

Country	EU Ring Recoveries in Malta (n=37)	Breeding Pairs (Min - Max)		Trend	Mag. % (Max - Min)		Max % Change (Min Pairs)	Max % Change (Max Pairs)	Max % Change (Average Pairs)
Austria	3%	8,000	15,000	Stable	0	19	-	-	-
Belgium		5,800	9,600	Decline	50	79	-4,582	-7,584	-6,083
Bulgaria		20,000	100,000	Stable	0	19	-	-	-
Croatia	3%	50,000	100,000	Increase	0	19	9,500	19,000	14,250
Cyprus		5,000	15,000	Decline	0	19	-950	-2,850	-1,900
Czech Rep.	25%	60,000	120,000	Stable	0	19	-	-	-
Denmark		25	75	Decline	50	50	-13	-38	-25
Estonia		4,000	8,000	Decline	20	29	-1,160	-2,320	-1,740
Finland		5	30	Decline	80	80	-4	-24	-14
France	3%	150,000	450,000	Increase	10	10	15,000	45,000	30,000
Germany	6%	55,000	81,000	Decline	20	29	-15,950	-23,490	-19,720
Greece		10,000	30,000	Decline	0	19	-1,900	-5,700	-3,800
Hungary	6%	165,000	215,000	Stable	0	19	-	-	-
Italy	51%	200,000	400,000	Stable	0	19	-	-	-
Latvia		500	2,000	Decline	50	79	-395	-1,580	-988
Lithuania		2,000	5,000	Decline	30	49	-980	-2,450	-1,715
Luxembourg		1,800	2,000	Stable	0	19	-	-	-
Malta		2	5	Decline	0	19	0	-1	-1
Netherlands		10,000	12,000	Decline	53	53	-5,300	-6,360	-5,830
Poland	3%	40,000	70,000	Decline	0	19	-7,600	-13,300	-10,450
Portugal		10,000	100,000	?	-	-	-	-	-
Romania		15,000	25,000	Increase	0	19	2,850	4,750	3,800
Slovakia		15,000	30,000	Stable	0	19	-	-	-
Slovenia		2,000	3,000	Stable	0	19	-	-	-
Spain		790,000	1,000,000	Decline	30	49	-387,100	-490,000	-438,550
Sweden		0	1	?	-	-	-	-	-
UK		44,000	44,000	Decline	42	42	-18,480	-18,480	-18,480
Total	100%	1,663,132	2,836,711				-417,064	-505,426	-461,245
				Percentage change			-25.08%	-17.82%	-20.50%
				Trend (EU Population)			Moderate Decline	Moderate Decline	Moderate Decline

Breeding records in Malta

Breeding records for this species in Malta are rare and very limited. Wright (1864) wrote that Turtle Doves have been observed from time to time to breed in Gozo. Roberts (1954) only cited Wright. De Lucca (1969) does not mention Turtle Dove nesting on the Islands. Bannerman and Vella-Gaffiero (1976) cited Schembri (1843) who assured that few pairs bred in Gozo where trees were more numerous than in Malta. Sultana and Gauci (1982) reported that a few birds were present during the summer and attempted to breed, but only one pair nested in 1956, recorded by Attard (1964). It should also be noted that in 2007 the former Ministry for Rural Affairs and the Environment (MRAE) commissioned a study on farmland birds in the Maltese Islands, which study was conducted by BirdLife Malta. This produced a breeding bird atlas, published in 2009 by Raine *et al.* (2009). Turtle Dove was included in the assessment but no breeding of this species was confirmed. Notwithstanding this, Raine *et al.* (2009) included Turtle Dove with the breeding birds; this was rectified in by Sultana *et al.* (2011), also published by BirdLife Malta, where the species is classed as an irregular breeding bird. The authors point out that due its popularity with hunters "...the few birds that linger in spring and summer and attempt to breed are given no chance to succeed" (Sultana *et al.*, 2011:309). However, the authors also note that during the two-year spring hunting ban between 2008 and 2009, "...pairs or displaying males of Turtle Doves were recorded on a number of dates from May to July at several sites, including Ta' Qali, Mizieb, Buskett and Foresta 2000...[but] no breeding was confirmed" (Sultana *et al.*, 2011:310).

In this respect, Turtle Dove breeding records are very limited (Sultana *et al.*, 2011). It is indicated that "some pairs" nested in Gozo in the 19th Century, with no specific details. Records of nesting for the 20th Century are also scant: Sultana *et al.* (2011) reports that some birds tried to breed in 1963, and that "in 1956 another pair ... had nested and hatched one young [but]... the nest was robbed of the fledgling"²⁰. Sultana *et al.* (2011) also indicates that since then no nesting from truly wild birds was confirmed. In this respect, Raine *et al.* (2009) notes that display flights were also recorded in June "long after the migration period has ended"²¹. It is also relevant to note that Sultana *et al.* (2011) document that in April-May 2010, a pair of former captive Turtle Doves released in the wild (on the island of Comino) in February of the same year nested, with two hatchlings. None returned in 2011 to breed.

Raine *et al.* (2009) in Malta Breeding Bird Atlas 2008 as well as in the 2009 Rare Bird Breeding Report (Raine 2009) noted that display flights were recorded but no case of breeding was confirmed. Sultana *et al.* (2011) classed Turtle Dove as an irregular breeding species. Thomaidis (2010) maintains that the mean numbers of turtle doves observed per day were significantly higher during the spring migration periods of 2008 and 2009, compared to the autumn ones. The following table lists the mean number of turtle doves during the peak migration dates.

Year (Spring)	Peak dates	Mean number of birds per day
2008	April 14 th	98.41
	April 20 th	26.25
	April 29 th	11.11
	April 30 th	13.33
	May 3 rd	8.48
2009	April 9 th	5.39
	April 15 th	7.35
	April 23 rd	32.97
	April 27 th	11.13

Besides citing Schembri and Wright, Sultana *et al.* cite Attard (1964) reported two confirmed cases of Turtle Dove breeding in Gozo, one in 1956 and the other in 1963. Sultana *et al.* also documented that in 2010 a number of captive turtle doves were released on the island of Comino and at least two pairs bred in the wild. Two other pairs were observed displaying and mating and a juvenile was seen in June. All these birds left Comino and none returned to breed again.

²⁰ Sultana *et al.*, 2011: 310

²¹ Raine *et al.*, 2009: 36

Ring recoveries in Malta

Table 6 provides data on the ring recoveries of this species in Malta, the respective number of breeding pairs, together with the overall direction of the population trend. Figure 3 illustrates the EU population trend categories of this species per Member State. The respective EU source (reference) population trend categories, on the basis of ring recoveries in Malta, are shown in Figure 4. The source (reference) population is Stable in both the minimum number of pairs (+0.13% change) [Fig. 5] and maximum number of pairs (+1.88% change) [Fig. 6].

Table 6 Turtle Dove ring recoveries in Malta from other EU Member States and corresponding population trend

Country	EU Ring Recoveries in Malta (n=37)	Breeding Pairs (Min - Max)		Trend	Mag. % (Max - Min)		Max % Change (Min Pairs)	Max % Change (Max Pairs)
Austria	3%	8,000	15,000	Stable	0	19	-	-
Croatia	3%	50,000	100,000	Increase	0	19	9,500	19,000
Czech Rep	25%	60,000	120,000	Stable	0	19	-	-
France	3%	150,000	450,000	Increase	10	10	15,000	45,000
Germany	6%	55,000	81,000	Decline	20	29	-15,950	-23,490
Hungary	6%	165,000	215,000	Stable	0	19	-	-
Italy	51%	200,000	400,000	Stable	0	19	-	-
Poland	3%	40,000	70,000	Decline	0	19	-7,600	-13,300
Total	100%	728,000	1,451,000				950	27,210
				Percentage change			+0.13%	+1.88%
				Trend (Ring Recoveries)			Stable	Stable

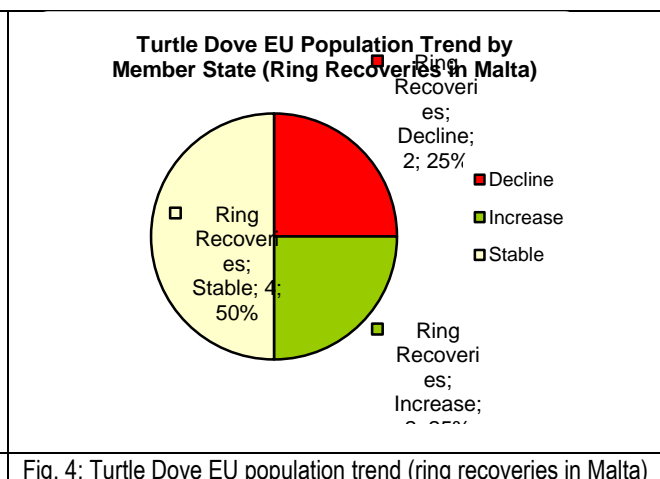
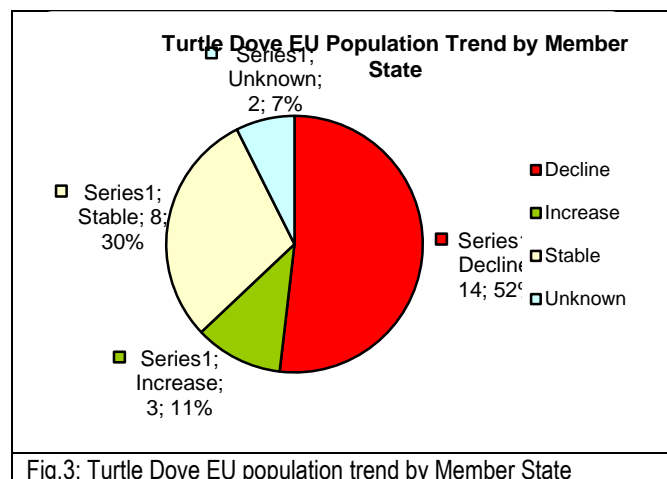


Fig.3: Turtle Dove EU population trend by Member State

Fig. 4: Turtle Dove EU population trend (ring recoveries in Malta)

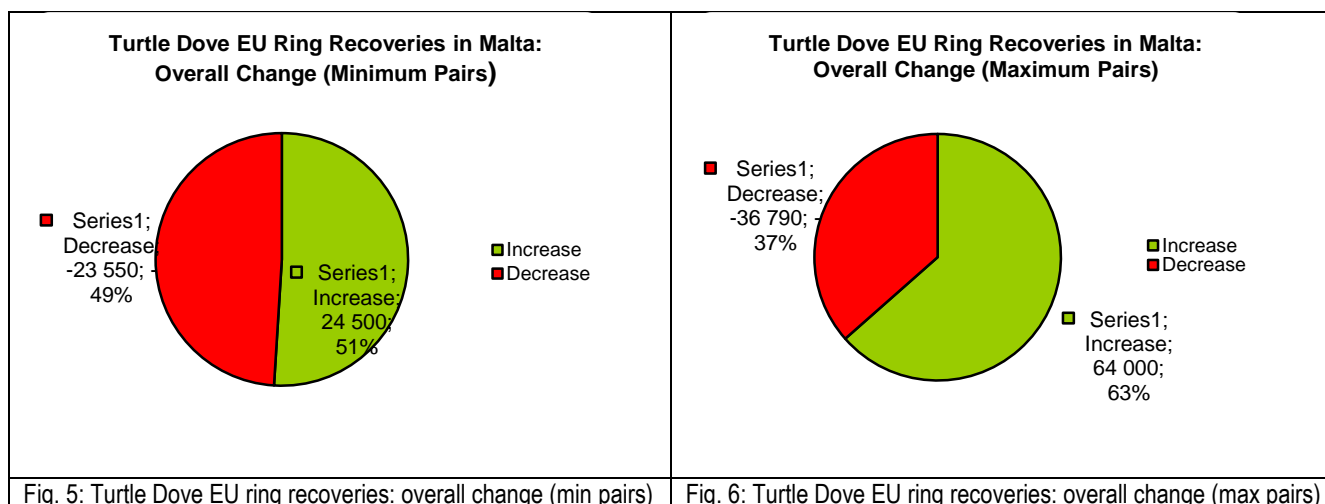


Fig. 5: Turtle Dove EU ring recoveries: overall change (min pairs)

Fig. 6: Turtle Dove EU ring recoveries: overall change (max pairs)

Data sources: BirdLife International (2004); Raine (2007)

1C. Conclusions regarding the conservation status of *Coturnix coturnix* and *Streptopelia turtur*

Both species are characterised by extremely large populations and geographical range. BirdLife International (2004) classifies the Pan-European populations of the Turtle Dove as having undergone a **Moderate continuing decline** and the Quail as provisionally **Depleted**. According to the most recent dataset compiled by the European Bird Census Council, the Turtle Dove is classified as **Moderate Decline** (EBCC, 2013a) and thus has an Unfavourable Conservation Status at the **Pan-European Level**. However, the Quail is not included in the Pan-European Common Bird Monitoring Scheme.

Within the EU territory (EU 28), the Turtle Dove population trend is also classified as **Moderate Decline** (Min Pairs: -25.08%; Max Pairs: -17.82%; Geomean: -20.50%) but the Quail population trend is **Stable**²² (Min Pairs: -1.81%; Max Pairs: -0.56%; Geomean: -0.98%). The situation with respect to the **reference populations** of the two species, which form a subset of the EU population based on **ring recoveries in Malta** (Raine, 2007), is different. The minimum and maximum number of pairs of Turtle Dove and Quail reference populations are classified as **Stable**, as follows: Turtle Dove reference population (Min Pairs: +0.13%; Max Pairs: +1.88%); Quail reference population (Min Pairs: 0%; Max Pairs 0%).

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²² According to BirdLife International (2004), a change of not more than 10% in 10 years is considered as Stable.

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Annex 2: Licence for 2014 Spring Hunting Season

**SEGRETARJAT PARLAMENTARI
GĦALL-BIEDJA, SAJD U DRITTIJIET
TAL-ANNIMALI**

**PARLIAMENTARY SECRETARIAT FOR
AGRICULTURE, FISHERIES AND ANIMAL
RIGHTS**



MALTA

Special Licence for 2014 Spring Hunting Season (from 12 April 2014 to 30 April 2014)

This non-transferable 2014 Spring Hunting Licence is issued in accordance with the Conservation of Wild Birds (Declaration on a derogation for a 2014 Spring Hunting Season for Turtle Dove and Quail) Regulations, 2014 and is subject to the provisions stipulated therein and to the conditions stipulated in the Conservation of Wild Birds (Framework for Allowing a Derogation Opening a Spring Hunting Season for Turtle Dove and Quail) Regulations (S.L. 504. 94²³).

This Licence is issued subject to the following conditions:

1. This Licence is only valid for the hunting of Turtle Dove (*Streptopelia turtur*) and Quail (*Coturnix coturnix*) from Saturday 12th April to Wednesday 30th April 2014, both dates included. The hunting of any species other than Turtle Dove and Quail is prohibited;
2. The holder of this Licence is permitted to hunt from Monday to Friday from two (2) hours before sunrise until two (2) o'clock in the afternoon and on Saturdays, Sundays and Public Holidays from two (2) hours before sunrise until noon;
3. The daily bag limit allowed under this Licence is of two (2) birds (Turtle Dove and/or Quail) per Licence, whilst the seasonal quota per Licence is of four (4) birds (Turtle Dove and/or Quail) for the entire 2014 Spring Hunting Season or however many below this number might have been hunted before the season is closed;
4. The overall seasonal bag limit for the 2014 Spring Hunting Season is 11,000 for Turtle Dove and 5,000 for Quail as the total number of birds which may be hunted under the authority of all issued licences taken together;
5. The validity of the licence shall lapse and the licence shall be considered revoked as soon as the Minister, by means of a press release, declares that the overall bag limit for the 2014 Spring Hunting Season has been reached. The licensee shall also be immediately informed of such lapse and revocation of his/her licence by means of a text messaging service (SMS) to the number indicated by the licensee in the application for the 2014 Spring Hunting Licence:

Provided that where the overall bag limit for the season for one species, hereinafter in this paragraph referred to as "the relevant species", has been reached before that for the other species, the validity of the licence shall lapse and the licence shall be considered as revoked in respect of the relevant species as soon as the Minister by means of a press release declares that the overall bag limit for the relevant species has been reached. The licensee shall also be immediately informed of such lapse and revocation of that part of his/her licence by means of a text messaging service (SMS) to the number indicated by the licensee in the application for the 2014 Spring Hunting Licence;

6. When the licensee is out hunting, he/she is required to carry on his/her person:
 - the 2014 Spring Hunting Licence and
 - the valid *Carnet de Chasse* booklet - *Għall-Kaċċa tal-Għasafar / Fenek Selvaġġ (Frar 2014-Jannar 2015)* issued in his/her name;
7. **The holder of this Licence is obliged to immediately send a blank message² by virtue of the text messaging service (SMS) on the number 99180020 as soon as s/he shoots a Turtle Dove;**

23 <http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=11570&l=1>

8. The holder of this Licence is obliged to immediately send a blank message³ by virtue of the text messaging service (SMS) on the number 99180021 as soon as s/he shoots a Quail;
9. The holder of this Licence is obliged to declare each Turtle Dove and Quail shot by him/herself on his/her *Carnet de Chasse - Għall-Kaċċa tal-Għasafar / Fenek Selvaġġ Frar 2014-Jannar 2015* booklet before leaving the hunting zone. Both the date and the number of birds bagged per respective species (Turtle Dove and/or Quail) must be filled in. If no birds are bagged, the licensee is still obliged to write down the date and specify either 0 or X in the respective column.
10. If the licensee fails to declare the number of birds caught s/he will be liable to a fine of fifty Euros (€50) for each undeclared bird;
11. The Licensee is obliged to comply at all times with regulations 4 and 18 of the Conservation of Wild Birds Regulations (S.L. 504.71⁴) annexed to this licence (Annex I) without prejudice to any other prohibition laid down in the same regulations;
12. This licence shall be suspended forthwith if the licensee is charged with an offence under regulation 27 of the Conservation of Wild Birds Regulations;
13. This licence and any other hunting licence or permit of the licensee shall be revoked and be without any effect upon the licensee being convicted of an offence against regulation 27 of the Conservation of Wild Birds Regulations;
14. This Licence is being granted without prejudice to third party rights and without prejudice to any other law or legislation and does not exempt the holder from obtaining any other licence, permit, authorisation or any other form of clearance required by any authority or under any other law;
15. Any person who fails to comply with any provision of the Conservation of Wild Birds (Framework for Allowing a Derogation Opening a Spring Hunting Season for Turtle Dove and Quail) Regulations (S.L. 504. 94) and the Conservation of Wild Birds (Declaration on a derogation for a 2014 Spring Hunting Season for Turtle Dove and Quail) Regulations, 2014, or with the contents of this Licence or with any order lawfully given in terms of any provision of these regulations, or any of the conditions of this licence, shall be liable to prosecution and shall, upon conviction, be liable to the penalties established by regulation 27 of the Conservation of Wild Birds Regulations or any other applicable law or regulation.

Sergei Golovkin
Head of the Wild Birds Regulation Unit
Ministry for Sustainable Development, Environment and Climate Change

2 & 3 In the event that the mobile is unable to send a blank SMS, the licensee is required to enter either a space or a dot.

4 <http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=11548&l=1>

Annex I

Regulations 4 and 18 of the Conservation of Wild Birds Regulations, 2006 (as amended)

4. (1) Without prejudice to the provisions of regulations 5, 8 and 9, no person shall:
- (a) hunt or attempt to hunt, take or attempt to take any bird which is protected under these regulations, other than in accordance with these regulations and with the conditions of any licence granted thereunder;
 - (b) hunt or attempt to hunt, take or attempt to take, destroy, damage or remove by any means, any bird nest and eggs;
 - (c) take the eggs in the wild of any bird which is protected under these regulations and keep these eggs even if empty;
 - (d) deliberately disturb any bird which is protected under these regulations during the period of breeding and rearing;
 - (e) keep any bird, whether alive or dead, or part of any bird, the hunting or taking of which is prohibited under these regulations, other than in accordance with these regulations unless such bird has been declared and registered with the competent authority by the 31st May 2003 and such person has been given the permits, or certificates by the competent authority to keep such bird;
 - (f) keep any bird, whether alive or dead, or part of any bird not mentioned in Schedule II or Schedule III, unless such bird was taken in another Member State where it may be lawfully hunted or captured under the terms of Council Directive 79/409/EEC on the Conservation of Wild Birds and under the legislation of that other Member State and such bird has been brought into Malta after the 1st May, 2004.

Provided that such person shall retain in his possession and for such time as he remains in possession of the specimen as provided for in paragraphs (e) and (f) all permits, certificates and any other documents that prove to the satisfaction of the competent authority that such specimen was not obtained in contravention of these regulations.

- (2) Whosoever intends to transfer or otherwise dispose of any bird referred to in subregulation (1)(e) shall do so upon request being made to the Director who shall, in his discretion, authorize in writing such alienation or disposal.
18. (1) Without prejudice to regulation 9, no person shall:
- (a) during the closed season for the hunting of birds not at sea, hunt or attempt to hunt any bird, or carry ammunition or a fire-arm outside its case;
 - (b) during the open season for the hunting of birds not at sea, hunt or attempt to hunt any bird not included in Schedule II;
 - (c) during the closed season for the taking of birds as may be permitted in accordance with these regulations, take or attempt to take any bird;
 - (d) during the open season for the taking of birds as may be permitted in accordance with these regulations, take or attempt to take any bird at sea;
 - (e) during the closed season for the hunting of birds at sea, carry while at sea (other than while crossing between Malta and Gozo by public transport), any ammunition or any fire-arm licensed for taking birds;
 - (f) during the open season for the hunting of birds at sea:
 - (i) hunt or attempt to hunt, at sea, any bird which is not included in Part B of Schedule II;
 - (ii) hunt or attempt to hunt at sea:
 - (aa) within, or less than, three kilometers from the coastline, from a boat or any sea-craft, or
 - (bb) beyond three kilometers from the coast from a boat or sea-craft which is being driven at more than 5 kilometers per hour:

Provided that on the open sea, for safety reasons, the use of a boat or sea-craft with a maximum speed of 18 kilometers per hour may be authorized for hunting;
 - (iii) carry at sea, within a distance of three kilometers from the coastline, a fire-arm licensed for hunting game which is loaded, or has cartridges in the magazine, or is out of its case;
 - (iv) hunt or attempt to hunt from any sea-craft which is not registered with the competent authorities;
 - (v) hunt or attempt to hunt from any sea-craft unless in possession of a licence for that purpose from the Commissioner;
 - (vi) be in possession, while at sea, of any bird, dead or alive, or part of any bird, not included in Part B of Schedule II and any person who is found in possession of any bird or part of any bird not included in Part B of Schedule II will be presumed to have hunted, caught or taken such bird in violation of these regulations, unless the contrary is proved;

- (vii) launch, and haul on land, sea-craft used for hunting birds at sea other than from those places indicated in the licence mentioned in subparagraph (v);
- (g) no person shall, while in or on any motor vehicle or aircraft, be in possession of any fire-arm which is loaded or outside its case, or go in pursuit of any bird, or hunt or attempt to hunt, take or attempt to take any bird.

(2)

- (a) No person shall carry a fire-arm, whether loaded or not, that is not in its case, or discharge any fire-arm, while within 200 meters from any town or village, or other inhabited area, or any of the beaches listed in Schedule VII, or within a distance of 50 meters from main or arterial roads:

Provided that this distance of 50 meters shall not apply in the case of secondary roads and country lanes:

Provided further that the fire-arm is not aimed in the direction of the road, whether main, arterial, secondary or a country lane.

- (b) No person shall be in possession of any fire-arm, licenced for hunting game, which has a magazine capable of holding more than two shots at any time.

Annex III

Ministry for Sustainable Development, the Environment and Climate Change

Report on a survey of the influx of migratory Common Quail and Turtle Dove over the
Maltese Islands, made in April 2014

Prepared by

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ECOSERV REPORT REFERENCE: 036-14

MAY 2014

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1. Introduction

On 13th February 2014, the Ministry for Sustainable Development, the Environment and Climate Change (hereafter ‘MSDEC’) requested a quotation for an independent scientific study on the influx or passage of migratory Common Quail *Coturnix coturnix coturnix* and Turtle Dove *Streptopelia turtur turtur* in Malta during the spring season of 2014. The Terms of Reference (ToR) of the call are as follows:

8.1 Contract Objectives and Expected Results

8.1.1 Overall Objectives

The overall objective of the contract is:

- *To provide an independent study on the influx or passage of the migratory turtle dove and common quail in Malta during the 2014 Spring season.*

8.2.2 Specific Objectives

The objectives of this contract are as follows:

- *To survey and scientifically monitor the daily influx of the Turtle Dove and Common Quail;*
- *To estimate the overall presence (influx) of these two species per day and for the whole study period, subject to scientifically justified assumptions;*

The findings of the study will assist the Contracting authority in providing additional verification mechanism for assessing the numbers of turtle doves and quail reported hunted via Carne de Chasse and SMS data.

8.2.3 Results to be Achieved by the Consultant

The tender results are the following:

1. *Daily datasheets with raw counts for the Turtle Dove and Common Quail;*
2. *A monitoring report for Spring 2014 season which must include:*
 - a) *List of monitoring stations which recorded high/low counts*
 - b) *Dates which showed high/low peaks in the migration of the Turtle Dove and Common Quail*
 - c) *A daily estimate of the influx of these two species for the whole of the Maltese Islands*
 - d) *The estimated total influx for these species for the whole of the study period, subject to scientifically justified assumptions*
 - e) *A comparative analysis with the results of previous studies commissioned during Spring 2008 & 2009, 2012 & 2013. Reports available on: <https://msdec.gov.mt/en/Pages/WBRU/Reports-and-Statistics.aspx>*

8.3. Assumptions and Risks

8.3.1 Assumptions Underlying the Project Intervention

For the purposes of this bird migration study, it will be assumed that the consultant shall use the daily counts obtained from the monitoring stations to extrapolate the approximate estimate of the total influx of the Turtle Dove and Common Quail over the Maltese islands during the period stipulated in Clause 8.4.1.1.

Moreover, it shall also be assumed that the passage of birds at different localities is extremely variable and may be subject to local topographic, anthropogenic, climatic and other conditions which are to be taken into account in the appropriate extrapolation methods that shall be used to estimate the total influx of the species concerned.

8.3.2 Risks

Execution of the bird migration study is dependent on an adequate enrolment of the ornithologists / field assistants who shall be manning the monitoring stations (at least 20 in number). It shall be

the responsibility of the consultant to ensure that the monitoring stations (at least 20 in number), are at all times, manned by a sufficient number of ornithologists and/or field assistants. The numbers and location of the monitoring stations, as well as the level of personnel deployed in each station should be consistent with the corresponding parameters deployed in past studies of this nature in Malta.

The consultants shall propose strategies to address the identified risks. These proposals shall be included in the tenderer's technical offer in Part 9 Section 9.2.

The award of this tender and hence the undertaking of this bird migration study is dependent on a decision by the Government of Malta to apply a derogation for the hunting of Turtle Dove and Quail in Spring 2014. The award of the tender may be cancelled if no such derogation is applied. Provided that this tender shall in no way be construed or perceived as obliging the Government or any other relevant authority to take a decision applying a derogation for the Spring Hunting 2014 season.

8.4 Scope of the Work

8.4.1 General

8.4.1.1 Project Description

The monitoring of the influx or passage of the Turtle Dove and Common Quail shall take place during Spring 2014, on the dates to be specified by the Contracting Authority, which monitoring period shall not exceed an aggregate period of 3 weeks. The consultant shall mobilise all staff and equipment by the end of March, in preparation for the execution of the Spring 2014 bird migration study. The bird monitoring phase shall commence at the earliest in the beginning of April 2014, in accordance with the dates specified for that purpose by the Contracting Authority.

The bird migration study should comprise the on-field surveying and scientific monitoring of the daily influx of migration of both species concerned. This would provide an independent verification of the level of presence of the two species in Spring and the timing of their migration. This shall be achieved by generating a "Migration Count," that is a count of migrant birds of both species in question in the stipulated time span when monitoring is undertaken.

The collection of scientific data to elucidate general population trends for both species is beyond the scope of this bird migration study. The consultant must submit the daily datasheets with raw counts to the Contracting Authority at the end of each week. The draft monitoring report and analysis is to be submitted within five working days from the termination of the bird monitoring phase.

Once the draft Spring 2014 report has been certified for quality assurance by the Contracting Authority, the final Spring 2014 monitoring report is to be submitted within 5 working days from such a review.

8.4.1.2 Geographical Area to be covered

The three inhabited islands of the Maltese archipelago, namely Malta, Gozo and Comino.

8.4.1.3 Target Groups

Not applicable

8.4.2 Specific Activities

The bird migration study shall monitor the influx of migratory specimens of the Turtle Dove and the Common Quail, bearing in mind any methodological limitations in the monitoring of these species (as identified in the European Union Management Plan for the Common Quail). A field protocol of standard operating procedures, which will be used in the same manner from day to day should be designed by the commissioned experts on the basis of best practice procedures. There might be a need to take into consideration however, the flexibility of the techniques used to meet the constraints imposed by local geographical conditions.

A network of monitoring stations will need to be set up throughout the three inhabited islands of the Maltese archipelago for the study period. Such a network would need to comprise at least 20 monitoring stations. Each of these monitoring stations shall be operated on at least two days per week and manned by at least two ornithologists and/or field assistants. Thus the number of active stations on any given day shall be at least 10. Monitoring in Malta, Gozo and Comino shall be carried out on a daily basis, however this requirement shall be waived with respect to Comino on those days when access to the Island would not be possible due to adverse weather conditions. The ornithologists and/ or field assistants shall be persons with relevant experience in bird identification and shall have the capacity to identify both Turtle Dove and Quail in the field with ease.

For each day during the bird monitoring phase, at least 10 monitoring stations must be fully manned. The exact number, location and area of the monitoring stations will be determined in consultation with scientific experts who are commissioned to undertake this bird migration study. Given that the survey is aimed at quantifying the influx or passage of migrating specimens, all monitoring stations shall be placed in strategic locations depending on the species being surveyed and the expected geographical occurrence of the species depending on the timing of the migration. The location of the monitoring stations shall be selected with care and shall not include areas where the settlement or sighting of the Turtle Dove and the Common Quail cannot in practice occur.

Each, monitoring station should include or encompass a defined 'count area' that has features that are compatible with the chosen count procedures. Moreover, no matter the type of method, the experts should also define the total daily 'count period', as well as the standard daily time periods during which the various component activities of bird counting procedures occur.

Surveys should focus on observations made, and should be coordinated by the Project co-ordinator or/and scientist/s, so as to enable an appropriate scientific determination with ecological statistics and/or models leading to population estimates (possibly through the extrapolation of results, with standard errors being indicated) and should cover, at least, the three main inhabited islands of the Maltese archipelago. The migration count can include birds counted at a site, observed flying past a fixed point in diurnal migration or alighting onto the ground or trees. For monitoring small landbirds, particularly nocturnal migrants, attention should be drawn to birds observed at short-term stopover sites immediately following a migratory flight. There are several options for producing a useful migration count of small landbirds; these options include: visible migration count; area search or route census counts; incidental observations; and daily estimated totals. The commissioned experts should define in the final monitoring report what they will consider as a migration count and what standardised methods will be used.

Nonetheless, in view that the Common Quail has a preference for cover and may be more difficult to observe or be detected, the surveys for this species should focus on area searches. These may include, the use of dogs to flush the birds out and/or through the use of line transects (a method where observers traverse the monitoring area in close parallel lines to search the area). Surveys for the Common Quail should be carried out for at least two hours in the morning (prior to 12:00hrs) at each of the monitoring stations in operation.

The surveys of the Turtle Dove, on the other hand, should focus mainly on observations (which should include both specimens observed in flight as well as those alighting within the study site). The monitoring of this species needs to be carried out during the times of maximum activity/ major influx of the Turtle Dove and for a minimum of seven hours at each of the monitoring stations in operation.

The consultant may also propose a variation to such methodology, but this shall not take effect unless previously agreed with and confirmed in writing by the Contracting Authority and shall in any case not involve any trapping or any taking of any bird, whether alive or dead, nor any part of any bird.

Standardisation of counting methods can make a major contribution to removing extraneous variation derived from variable observer effort and sampling procedures. Nevertheless, migration counts will still be subject to uncontrollable variation from weather, observer differences, and unavoidable changes in the level of effort. Such problems should be addressed by the use of appropriate analytical procedures.

Daily datasheets with raw counts need to be drawn for each of the monitoring stations in use, such that the prevalent meteorological conditions, namely wind direction and speed, the degree of cloud cover; the habitat type; bird counts; the times and locations; and the names of the field assistants, are all recorded.

The count data collected for a pre-defined area and the count period at each study site shall be used to establish the average counts (per day) recorded in a typical monitoring station for both the Common Quail and Turtle Dove. The calculations for such counts also need to include the standard deviation errors. Such mean counts shall then be extrapolated so as to cover the total area where the species may settle / which serves as short-term stopover sites, in order to estimate the total number of birds migrating daily over the Maltese Islands.

The appropriate methodology for extrapolation shall be determined by the scientific experts taking into account the possibility of repeat counting of observed birds; the patchiness of each species' distribution and frequency depending on available appropriate habitat; the seasonal geographical variation in the frequency of sightings dependent on the expected migration flow direction and any assumptions taken for such calculations need to be clearly stated in the monitoring report.

Relevant seasonal, local topographic (e.g. configuration of the coast), climatic and anthropogenic factors (such as degree of local urbanization) shall be duly taken into account in the extrapolation methodology, subject to scientifically justified assumptions.

The methodology shall not involve trapping or any taking of any bird, whether alive or dead, nor any part of any bird.

The field study shall cover a maximum of 3 weeks during the Spring migration period, as specified by the Contracting Authority. The collection of scientific data to elucidate population trends for both species is beyond the scope of this bird migration study. The consultant must submit the daily datasheets with raw counts to the Contracting Authority at the end of each week of each of the bird monitoring periods. The draft monitoring report and analysis for Spring 2014 is to be submitted within 5 working days from the termination of the Spring 2014 bird monitoring phase. Once such draft report has been certified for quality assurance by the Contracting Authority, the final Spring 2014 monitoring report is to be submitted within 5 working days from such a review. All Spring 2014 project activities must be completed to the Contracting Authority's satisfaction by two weeks from the termination of the Spring 2014 bird monitoring phase.

These activities will result in:

- 1. Daily datasheets with raw counts for the Turtle Dove and Common Quail*
- 2. A monitoring report for the season.*

8.4.3 Project Management

8.4.3.1 Responsible Body

The overall responsibility of the implementation of this contract lies with the Contracting Authority. An official will be appointed to oversee the implementation of the contract.

8.4.3.2 Management Structure

The Head of the Wild Birds Regulation Unit within the Ministry for Sustainable Development, the Environment and Climate Change is the official responsible for this contract. The Head may delegate various tasks to other officials within the Wild Birds Regulation Unit and may appoint an official to act as a project manager and to monitor the progress of this project.

8.4.3.3 Facilities to be provided by the Contracting Authority and/or other parties

None

8.5. Logistics and Timing**8.5.1 Location**

The Republic of Malta. The monitoring stations shall be set up at appropriate locations within the three inhabited Maltese Islands, namely in Malta, Gozo and Comino.

The contractor, moreover, is expected to compile reports, prepare scientific analysis, and prepare the setup of the administrative framework from his own premises. The contractor should be available during office hours via e-mail and telephone.

8.5.2 Commencement Date & Period of Execution

The intended commencement date is the date of signature of the contract and the period of execution of the contract will be 2 months from this date.

8.6. Requirements**8.6.1 Personnel****8.6.1.1 Other Experts**

CVs for experts other than the key experts are not examined prior to the signature of the contract.

The Consultant shall select and hire other experts as required according to the profiles identified in the Organisation & Methodology and these Terms of Reference. For the purposes of this contract, international experts are considered to be those whose permanent residence is outside the beneficiary country while local experts are considered to be those whose permanent residence is in the beneficiary country.

The Consultant should pay attention to the need to ensure the active participation of local professional skills where available, and a suitable mix of international and local staff in the project teams. All experts must be independent and free from conflicts of interest in the responsibilities accorded to them.

The selection procedures used by the Consultant to select these other experts shall be transparent, and shall be based on pre-defined criteria, including professional qualifications, language skills and work experience. The findings of the selection panel shall be recorded. The selection of experts shall be subject to approval by the Contracting Authority.

Note that civil servants and other staff of the Public Service of the beneficiary country cannot be recruited as experts. See sub-article 9.5 of the General Conditions.

8.6.1.2 Support Staff and Backstopping

- *The bird migration study is to be supported by ornithologists or field assistants with relevant experience in bird identification.*
- *Other support staff should be capable in carrying out statistical analysis, report writing and/or other relevant administration work.*

8.6.2 Accommodation

Office accommodation of a reasonable standard and of approximately 10 square metres for each expert working on the contract is to be provided by the Consultant.

8.6.3 Facilities to be provided by the Consultant

The Consultant shall ensure that experts are adequately supported and equipped. In particular it shall ensure that there is sufficient administrative, secretarial and interpreting provision to enable experts to concentrate on their primary responsibilities. It must also transfer funds as necessary to support its activities under the contract and to ensure that its employees are paid regularly and in a timely fashion.

The contractor shall provide the equipment, software and hardware needed for carrying out surveys, data gathering, storage, analysis and evaluation.

If the Consultant is a consortium, the arrangements should allow for the maximum flexibility in project implementation. Arrangements offering each consortium partner a fixed percentage of the work to be undertaken under the contract should be avoided.

8.7. Reports

8.7.1 Reporting Requirements

(Please refer/peg to Article 26 of the Special/General Conditions)

Daily data sheets with raw counts need to be drawn for each of the monitoring stations in use, such that the prevalent meteorological conditions, namely wind direction and speed, the degree of cloud cover, the habitat type, bird counts, the times and locations, the names of the field assistants all need to be recorded.

Following the survey/study period a detailed analysis shall be carried out on the data collated which are to be presented in a Report. Such a report is to indicate:

- *the raw counts*
- *sampling methodology used*
- *the time schedule for the monitoring taken place*
- *the locations where monitoring was carried out and the estimated area of each site of observation*
- *the peak and low counts for each of the species under study*
- *the locations/monitoring stations which had peak/low counts*
- *an extrapolation indicating the total influx of the Turtle Dove and the Common Quail migrating over the Maltese Islands for each day*
- *an estimated total influx of the Turtle Dove and the Common Quail for the whole study period*
- *assumptions taken for such estimates*

This report should only concern information/data on the influx of the migratory Turtle Dove and Common Quail and should not include personal opinions of the consultant.

The consultant must submit the daily datasheets with raw counts to the Contracting Authority at the end of each week during the Spring 2014 bird monitoring phase. The draft Spring 2014 report and analysis is to be submitted within five working days from the termination of the bird monitoring phase.

Once such draft report has been certified for quality assurance by the Contracting Authority, the final Spring 2014 monitoring report is to be submitted within five working days from such a review. All Spring 2014 project activities must be completed to the Contracting Authority's satisfaction within two weeks from the termination of the bird monitoring phase.

All reports and other forms of written communication must be presented in an editable format using commonly available software. All reports must be approved by the Contracting Authority before these can be considered finalised. All reports will be property of the Contracting Authority and it will have sole copyright.

8.7.2 Submission & approval of progress reports

The daily data sheets with raw counts and 2 hard copies and a soft copy of each of the monitoring reports referred to above must be submitted to the Project Manager identified in the contract. The raw datasheets and the report must be written in English. The Project Manager is responsible for approving the draft monitoring report.

8.8 Monitoring and Evaluation

8.8.1 Definition of Indicators

<i>Results</i>	<i>Objectively verifiable indicators</i>	<i>Sources of verifications</i>
<i>Daily datasheets with raw counts of the Turtle Dove and Common Quail</i>	<i>The original raw datasheets which are to be completed on site during the monitoring process to be submitted by the end of each week of the monitoring phase.</i>	<i>The original datasheets submitted to the Contracting Authority.</i>
<i>Spring 2014 Monitoring report which presents a clear analyses of the monitoring carried out</i>	<i>The draft monitoring report shall be completed within five working days from the termination of the Spring 2014 bird monitoring phase.</i> <i>The monitoring report will be finalised by the consultant and approved by the Contracting Authority within two weeks from the termination of the Spring 2014 bird monitoring phase.</i>	<i>The actual monitoring report presented by the contractor.</i>

8.8.2 Special Requirements

Not applicable

Ecoserv Ltd (hereafter 'Ecoserv') submitted a quotation bearing reference 'MSDEC-140214-Birds Study 2014', dated 14 February 2014, and were subsequently commissioned by the MSDEC to undertake the independent scientific study on the influx or passage of migratory Common Quail and Turtle Dove during the spring season of 2014.

The present submission constitutes Ecoserv's report of the independent scientific study on the influx of migratory Common Quail *Coturnix coturnix coturnix* and Turtle Dove *Streptopelia turtur turtur* in Malta, undertaken by the company during the period 10 to 30 April 2014, which (apart from 10th and 11th April) coincides with the 2014 spring hunting season for which a derogation was applied by the government of Malta, and is based on the ToR stated above.

In order to put the present study in perspective, an overview of the findings from previous similar studies (Ecoserv, 2011; 2012; 2013) follows, however, the reader is also referred to the review on migratory behaviour of the two species, as well as the overview of local bird hunting and trapping activities and of EU legislation concerning these activities, that have been presented in Ecoserv (2011).

Although there is a dearth of published data on migration of the Common Quail and Turtle Dove across the Maltese Islands, a considerable amount of data have been collected in recent years by Thomaidis (nd), who studied the occurrence and patterns of movement of these two species within the Islands between spring 2008 and autumn 2009. The data used to compile the report by Thomaidis (nd) were recorded by assigned hunters who contributed to the surveys under his supervision and coordination.

Records of the number of individuals of Common Quail and Turtle Dove, caught or trapped by hunters and trappers in spring and autumn of 2002 through to 2013, are also available in the *Carnet de Chasse* reports for the respective years, while it also appears that data and other relevant information

pertaining to the aforementioned species are also be held by Federazzjoni Kaccaturi Nassaba u Konservazzjonisti (FKNK) and BirdLife Malta (BLM).

The findings from the spring 2011 survey, which was undertaken by Ecoserv during the period 8th – 28th May 2011, and based on ToR that were similar to the ones for the present study, are as follows (see Ecoserv, 2011):

- Counts for Turtle Dove recorded from the 24 field sites (= stations) varied between 0 and a maximum of 14, with mean daily counts ranging between 0.38 and 4.25. With extrapolation, the daily mean figures translated to an estimated daily influx ranging between 203 and 2,305 individuals, with a total influx over the survey period (21 days) of 18,057 individuals. It was noted that the recorded counts varied appreciably between the different field sites, which is to be expected, given that the birds may have a strong influx at one site and a potentially much lower one at a different site, even if the two sites are separated by a very small distance of even a few hundred meters. Another limitation of the estimated counts is that some birds may pass overhead, maintaining high altitude and avoiding landfall, while others migrate during the night. Nonetheless, the counts for Turtle Dove recorded by Ecoserv (2011) did not appear to differ markedly from those reported by Thomaidis (nd) for the years 2008 and 2009.
- Counts for Common Quail recorded from the 24 field sites varied between 0 and a maximum of 11, while the mean daily counts ranged between 0 and 1.38. Through extrapolation, this translated to a total influx of 22, 699 individuals over the survey period (21 days). No Common Quail were recorded at 13 of the 24 sites, on any of the survey dates. As in the case of Turtle Dove, migration of Common Quail is dependent on weather conditions and high numbers may be recorded at one site and a potentially much lower number at a different site, even if the two sites are separated by a very small distance of as little as a few hundred meters. Given that Common Quail tend to stay in the same general area for a few days if left undisturbed, even though this is highly unlikely because of the intense hunting pressure, as several hunters usually roam the same area with dogs after each other, it was not possible to ascertain whether high numbers of individuals recorded successively at the same field site included new migratory individuals, or whether they comprised individuals already included in counts from previous days.
- Overall, when comparing the results of Ecoserv's spring 2011 survey with those from Thomaidis' (nd) surveys held in 2008 and 2009 for the same period, similar counts are noted for Turtle Dove. In the case of Common Quail, there was a tendency for overall higher counts recorded during the spring 2011 survey. Therefore, no decreased influx of migratory Turtle Dove and Common Quail was evident when comparing the results of the spring 2011 survey with those from Thomaidis' (nd) 2008 and 2009 surveys.
- A number of constraints were pointed out in Ecoserv (2011)'s report:
 - The length of coastline surveyed per day (4 km) amounts to less than 1.5% of the total coastline; the accuracy of the estimated total migratory influx would be higher if a larger proportion of coastline is surveyed. Furthermore, the migration count was based on count data recorded over part of the day only (06:00 - 13:00), hence any individuals migrating at other times of the day (including night time) were not taken into consideration, leading to a potential underestimate of the total influx of birds if significant migration occurred between 13:00 and 06:00. Furthermore, the total coastline length used in the extrapolation includes stretches of coast that are highly developed and densely inhabited, for example, the Sliema – Valletta and Cottonera areas, where one would expect some disturbance to birds migrating at low altitude, hence their numbers there would be expected to be lower, resulting in an overestimate.
 - The survey commenced late during the migratory season; it effectively incorporated only the tail end of the Turtle Dove migratory season and essentially missed the peak period of Quail migration. The data set from the spring 2011 study is therefore limited and limits the value of comparisons with data collected from previous years.
 - Given resource limitations and time constraints, it was not feasible to collect a larger data set; the relatively small sampling effort used in the spring 2011 study is reflected in the observed high standard deviation values. Inasmuch, the extrapolations made were estimated using

limited count data and the stated estimates of total influx should therefore be treated as indicative, and used with caution.

- The data can only be used for purposes of trend analysis, and even in this respect, due caution should be exercised given the limited data collected; the sampling effort used, while based on that reported and utilized by Thomaidis (nd) for the years 2008 and 2009, is not identical, hence comparison of data over a three-year period may not be sufficient to determine migratory influx with accuracy. Comparisons made in Ecoserv's (2011) report are therefore purely indicative.
- Ecoserv (2011) recommended that robust and rigorous assessment of migratory influx would require trend analysis based on data from monitoring carried out regularly over a sufficiently long period comprising subsequent years, and using the same methodology. For each year, the data should be collected over the whole migratory season and, ideally, the study would entail a larger sampling effort, for example by making counts daily at all of a minimum 24 sites.

The findings from the spring 2012 survey, which was undertaken by Ecoserv during the period 9 April to 26 May, 2012, and based on ToR that were similar to the ones for the 2011 (Ecoserv, 2011) and present studies, are as follows:

Turtle Dove

- When comparing the results of the 2012 survey with those from Thomaidis' (nd) surveys held in 2008 and 2009 for the same period and with those from the May 2011 survey by Ecoserv (2011), a similar trend of Turtle Dove counts is noted overall; the pattern of counts for the four years compared indicates a steady migratory influx during April, while the last 2-3 weeks of May represent the tail end of the Turtle Dove' migration period. However, in contrast to the occasional high mean counts recorded in 2008 and in 2009, no such peaks were recorded in spring 2012. When comparing the grand mean count recorded during the 2012 survey to that recorded during the previous 2011 survey, a higher value is evident for the former, however, this was attributed to collection of data late in the migratory period; namely between 8 and 28 May 2011, while the data from the 2012 survey were collected over a much longer period of 48 days that spanned April and May, and therefore included the peak migratory period for the species. On the other hand, the grand mean count recorded during the 2012 survey was lower than that recorded in 2008 and in 2009. While this would seem to indicate a lower influx of Turtle Dove for spring 2012, the data collected by Thomaidis (nd) during 2008 and 2009 utilised a greater number of field sites per day, which would increase accuracy. Hence, the lower grand mean count recorded during the 2012 survey may have resulted from the lower sampling effort compared to that made in Thomaidis (nd)' surveys. It was also noted that the occasional very high peak counts of Turtle Dove recorded in 2008 and 2009 during Thomaidis (nd)' surveys contributed to a high grand mean count. No such very high peak counts were recorded during the 2012 survey.
- A total influx of 57, 160 individuals of Turtle Dove was estimated for 2012, compared to a total influx of 18, 057 individuals estimated for 2011. However, Ecoserv (2011) emphasised that such estimates must be treated with utmost caution, given the relatively small number of field sites used in the surveys and that counts were not made daily at each station. Increasing the number of field sites per day is desirable since influx of birds at different localities is extremely variable, with potential large differences in Turtle Dove passing at two different localities, even if these are separated by a very small distance. Furthermore, the length of coastline surveyed per day (4 km) amounts to less than 1.5% of the total coastline; the accuracy of the estimated total migratory influx would be higher if a larger proportion of coastline is surveyed. Furthermore, the total coastline length used in the extrapolation includes stretches of coast that are highly developed and densely inhabited, for example, the Sliema – Valletta and Cottonera areas, where one would expect some disturbance to birds migrating at low altitude, hence their numbers there would be expected to be lower, resulting in an overestimate. Another limitation was that the Turtle Dove migration counts were recorded over a seven hour survey period (06:00 - 13:00), hence any individuals migrating at other times of the day were not taken into consideration, leading to a potential underestimate of the total influx if significant Turtle Dove migration occurred between 13:00 and 06:00. On the other hand, the 06:00-13:00 time period represents the time during which

the activity of Turtle Dove is at a maximum. Nevertheless, the stated estimate is useful when making comparison between different years, assuming data from surveys based on a similar design are available, to assess whether influx of Turtle Dove is increasing or decreasing with time.

Common Quail

- When comparing the results of the 2012 survey with those from Thomaidis' (nd) surveys held in 2008 and 2009 for the same period, and with those from the 2011 survey by Ecoserv (2011), a similar trend of Common Quail counts was noted overall; the pattern of counts for the four years compared indicates a steady migratory influx during April, while the last 2-3 weeks of May represent the tail end of the migration period for this species. As recorded in 2008 and in 2009, some peaks of Common Quail counts were recorded during the 2012. When comparing the total mean count recorded during the 2012 survey with that recorded during the previous 2011 survey, a slightly lower value is evident for the former. This was somewhat unexpected, given that the data from the previous 2011 survey were collected late in the migratory period; namely over a short period of 21 days between 8 and 28 May 2011, while the data on Common Quail from the 2012 were collected over a much longer period of 48 days that spanned April and May, and therefore included the peak migratory period for the species. Evidently, this resulted from the unusual high counts for Common Quail recorded during May 2011. However, although the grand mean count of Common Quail recorded during the 2012 survey turned out to be lower than that recorded in 2009, it was similar to that recorded in 2008.
- The total influx of Common Quail estimated for 2012 was 35,018 individuals, compared to 22,699 individuals estimated for the previous year 2011. However, as emphasised above for Turtle Dove, such estimates must be treated with utmost caution, given the relatively small number of field sites used in the surveys and that counts were not made daily at each site. The considerations highlighted above for Turtle Dove also apply to the Common Quail; birds may migrate along specific pathways, with the result that high numbers may be recorded at one site and a potentially much lower number at a different site, even if the two sites are separated by a relatively small distance of a few hundred meters. Hence, increasing the number of survey sites per day to account for such variation in counts between different sites is desirable. Furthermore, the daily area surveyed for Common Quail amounts to less than 1% of the total area; the accuracy of the estimated total migratory influx would be higher if a larger area is surveyed.
- It was noted that the design of the 2012 survey was largely improved compared to that of the previous survey made in 2011, since counts from spring 2012 were made over a period of 48 days, which included a great part of the peak migratory period of both Turtle Dove and Common Quail.
- For both Turtle Dove and Common Quail, a number of limitations, which had already been highlighted in Ecoserv's (2011) report, were reiterated, namely:
 - The data presented in the 2012 report can only be used for purposes of trend analysis, and even in this respect, due caution should be exercised; the sampling effort used in the study, while partly based on that reported and utilized by Thomaidis (nd) for the years 2008 and 2009, is not identical, hence comparison of data with that collected in 2008 and 2009 may not be sufficient to determine migratory influx and trends over time with accuracy. Comparison of data from 2012 with data from 2011 is limited since the bird counts from the latter year were restricted to a 21 day period during May, unlike bird counts from the 2012 survey which spanned nearly both April and May. Comparisons made in Ecoserv's 2012 report should therefore be interpreted with caution.
 - Robust and rigorous assessment of migratory influx requires trend analysis based on data from monitoring carried out regularly over a sufficiently long period comprising subsequent years, and using the same methodology. For each year, the data should be collected over the whole migratory season and, ideally, the study would entail a larger sampling effort, for example by making counts daily at all of a minimum 24 sites. Nevertheless, the data from the 2012 survey

provided a useful indication of influx of Turtle Dove and Common Quail, provided that results are interpreted within the context of the stated limitations.

The findings from the spring 2013 survey, which was undertaken by Ecoserv during the period 10 April to 30 April, 2013, and based on ToR that were similar to the ones for the 2011 (Ecoserv, 2011), 2012 (Ecoserv, 2012), and present studies, are as follows:

Turtle Dove

- When comparing the results of the 2013 survey with those from Thomaidis' (nd) surveys held in 2008 and 2009, and those from the 2012 survey by Ecoserv (2012), a similar trend of counts recorded during the period 10 – 30 April was noted overall; the pattern of counts for the four years compared indicated a steady migratory influx during the last two weeks of April. However, in contrast to the occasional high mean counts recorded in 2008 and in 2009, no such peaks were recorded during the 2013 survey. When comparing the grand mean value recorded during the spring 2013 survey to that recorded during the previous (spring 2012) survey, a higher value was evident for the former, but this difference was not statistically significant. However, the grand mean value recorded during the 2013 survey was lower than that recorded in 2008 and 2009. While this would seem to indicate a lower influx of Turtle Dove for spring 2013 compared to 2008 and 2009, the data collected by Thomaidis (nd) during the latter two years utilised a greater number of field sites per day, which would increase accuracy. Hence, the lower grand mean value recorded during the 2013 survey may have resulted from the lower sampling effort compared to that used in Thomaidis (nd)' surveys. On the other hand, the occasional very high peak counts of Turtle Dove recorded in 2008 and 2009 (see Figure 2) from Thomaidis (nd)' (2008 and 2009) surveys contribute to a high grand mean. No such very high peak counts were recorded during the 2013 survey.
- The total influx of Turtle Dove for the 2013 survey period (10 – 30 April 2013) was estimated at 42,521 individuals. For the period 9 April – 26 May 2012, Ecoserv (2012) estimated a total influx of 57,160 individuals, while a total influx of 18,057 individuals was estimated for the period 8 – 28 May 2011 (Ecoserv, 2011). However, Ecoserv (2013) emphasised that such values must be treated with utmost caution, given the relatively small number of field sites used in the surveys, that counts were not made daily at each site, and since the extrapolation procedure used is likely to result in a rough estimate. Increasing the number of field sites per day is desirable since influx of birds at different localities is extremely variable, with potential large differences in Turtle Dove passing at two different localities, even if these are separated by a very small distance, as indicated above. Furthermore, the length of coastline surveyed per day (4 km) amounts to less than 1.5% of the total coastline; the accuracy of the estimated total migratory influx would be higher if a larger proportion of coastline is surveyed. It should also be noted that the total coastline length used in the 2013 includes stretches of coast that are highly developed and densely inhabited, for example, the Sliema – Valletta and Cottonera areas, where one would expect some disturbance to birds migrating at low altitude, hence their numbers there would be expected to be lower, resulting in an overestimate. Another limitation is that the Turtle Dove migration counts were recorded over a seven hour survey period (06:00 - 13:00), hence any individuals migrating at other times of the day were not included, leading to a potential underestimate of the total influx if significant Turtle Dove migration occurred between 13:00 and 06:00. On the other hand, the 06:00-13:00 time period represents the time during which the activity of Turtle Dove is expected to be highest. Nevertheless, the stated estimate is useful when making comparison between different years, assuming data from surveys based on a similar design are available, to assess whether influx of Turtle Dove is increasing or decreasing with time.

Common Quail

- When comparing the results of the 2013 survey with those from Thomaidis' (nd) surveys held in 2008 and 2009, and those from the 2012 survey by Ecoserv (2012), a similar trend of Common Quail counts recorded during the period 10 – 30 April was noted overall between the 2008, 2012 and 2013 surveys, while slightly higher counts were recorded in 2009. However, no migratory peaks for Common Quail were recorded during the 2013 survey, whereas such peaks had been recorded in 2008, 2009 and 2012. When comparing the grand mean value recorded during the

2013 survey with that recorded during the previous (2012) survey, a lower value was evident for the former, although this difference was not statistically significant. The grand mean value of Common Quail recorded during the 2013 survey was also lower than those recorded in 2008 and 2009

- The total influx of Common Quail for the 2013 survey period (10 – 30 April 2013) was estimated at 67,460 individuals. For the period 9 April – 26 May 2012, Ecoserv (2012) estimated a total influx of 35,018 individuals, while a total influx of 22,699 individuals was estimated for the period 8 – 28 May 2011 (Ecoserv, 2011). The estimate made for the 2013 survey was therefore much higher than for previous years and may be an overestimate resulting from an artefact of the extrapolation procedure. Ecoserv (2013) reiterated that such estimates must be treated with utmost caution, given the relatively small number of field sites used in the present survey, that counts were not made daily at each site, and since the extrapolation procedure used is likely to result in a rough estimate. The considerations emphasised above for Turtle Dove also apply to the Common Quail – birds may migrate along specific pathways, with the result that high numbers may be recorded at one site and a potentially much lower number at a different site, even if the two sites are separated by a very small distance of even a few hundred meters. Hence increasing the number of field sites per day to account for such variation in counts between different sites is desirable. Furthermore, the daily area surveyed for Common Quail amounts to less than 1% of the total area; the accuracy of the estimated total migratory influx would be higher if a larger area is surveyed.
- It was noted that the design of the 2013 survey included counts made over a 21 day period between 10 and 30 April 2013, which covers the period when peak migration of Turtle Dove and Quail normally occurs and was therefore an improvement over the 2011 survey (which, having been held in May, only covered the tail end of the migratory periods). However, no information on potential migratory peaks, particularly for Turtle Dove, which may have occurred in May 2013, was available, given that no count data were collected during this month.
- For both Turtle Dove and Common Quail, a number of limitations, which had already been highlighted in Ecoserv's reports from the two previous spring seasons (Ecoserv, 2011; 2012), were reiterated, namely:
 - The data presented in the 2013 report can only be used for purposes of trend analysis, and even in this respect, due caution should be exercised given that the sampling effort used in the 2013 study, while partly based on that reported and utilized by Thomaidis (nd) for the years 2008 and 2009, is not identical. Comparison with data collected by Ecoserv (2011) during spring 2011 was not possible since the bird counts from that year were collected in May, while the 2013 survey was made in April, which is deemed to be more representative of the period during which migratory influx of Turtle Dove, and to a lesser extent Common Quail, is highest.
 - Robust and rigorous assessment of migratory influx requires trend analysis based on data from monitoring carried out regularly over a sufficiently long period comprising subsequent years, and using the same methodology. For each year, the data should ideally be collected over the whole migratory season and using a larger sampling effort, for example by making counts daily at all of a minimum 24 sites. Nevertheless, the data from the 2013 study provides a useful indication of the influx of Turtle Dove and Common Quail, provided that results are interpreted in the context of these limitations.

2. Methodology

The methodology used by Ecoserv during the present 2014 survey is identical to that used in the previous three surveys made by Ecoserv in the previous three spring seasons (see Ecoserv, 2011; 2012; 2013); the survey design is aimed at assessing changes in migratory influx, which entails trend analysis based on data from monitoring carried out regularly over a sufficiently long period comprising subsequent years, and using the same methodology. During the survey, two individuals – a hunter and an independent observer (hereafter 'field assistants') - were stationed at a total of 28 sites (= count stations) distributed over Malta, Comino and Gozo; hence this implies inclusion of four

additional study sites compared to surveys held in previous years. The survey was undertaken over a 3 week period between 10 and 30 April, 2014. During the survey, counts of individuals of the two species *Coturnix coturnix coturnix* and *Streptopelia turtur turtur* were made at 10 different sites each day; hence this implies inclusion of two additional study sites monitored per day compared to surveys held in previous years. Each group of sites was surveyed once every 3 days, such that a total of 28 sites were surveyed in total over each period of 3 days. Furthermore, the study site at Comino was surveyed on a daily basis except on days (namely weekends and when adverse sea conditions prevailed) when the ferry service to the island was not operational. The sampling sites include the ones used in the previous 2011 and 2012 spring surveys (see Ecoserv, 2011; 2012) together with the additional new four sites, and are represented by the grid cell reference numbers listed in Table 1, while their locations are shown in Figure 1.

Since the survey was mainly aimed at quantifying the influx of migrating individuals, field sites were sited at strategic locations within coastal areas. Birds also fly in at different altitudes. Sometimes they are observed flying high at coastal areas and they may either keep that course as they overfly or alight in inland areas. In the case of Turtle Dove, the number of individuals observed flying within each study site was recorded, while the count area was estimated as the area within the observer's field of view when observing horizontally (c. 500m) and vertically upwards (as far as the birds were detected by sight). Since the Common Quail is a mainly a nocturnal migrant, monitoring of this species was based on counts of individuals that would have settled in during the previous night. Surveys of Quail entailed the use of dogs to locate and flush birds in order to count them while in flight. The count area was taken as the total area surveyed in this manner at a particular site. Monitoring of Turtle Dove was always made between 06:00 and 13:00, while monitoring of Quail was made during a 2 hour period sometime between 06:30 and 12:00. The count data collected for the pre-defined area and count period at each study site was used to establish the mean number of birds recorded for each day of the survey.

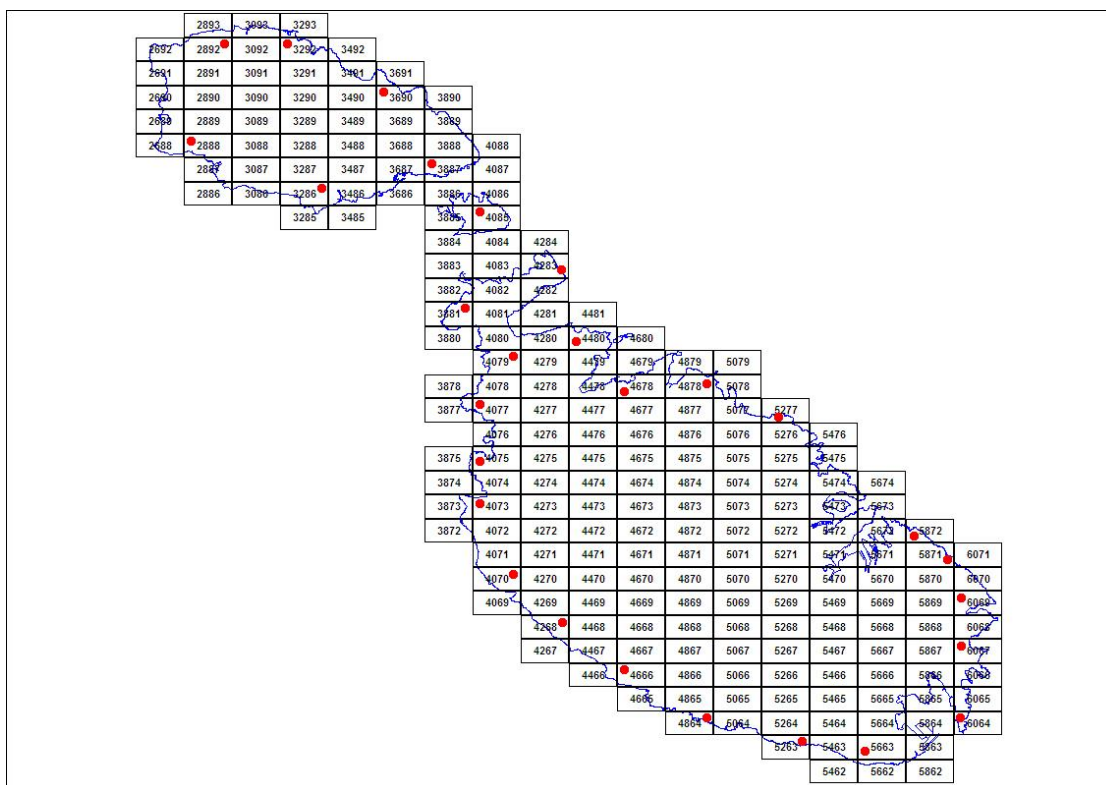
In its proposal, Ecoserv had recommended that a third individual – a member of BirdLife Malta (hereafter BLM) be included in the team deployed at the field sites, however, BLM declined to participate in the survey.

Table 1 List of grid locations where monitoring of influx of migratory birds was carried out.

Location	Day 1	Day 2	Day 3
Gozo	2892	3690	3292
Gozo	3887	3286	2888
Comino	4085	4085	4085
Malta	3881	4077	4079
Malta	4073	4075	4070
Malta	4268	5263	4666
Malta	4864	5663	6064
Malta	6067	5871	6069
Malta	5872	5277	4878
Malta	4678	4480	4283

At each study site, the observers also recorded the prevalent weather conditions, namely wind direction and strength, and degree of cloud cover. This information is available on the raw data sheets, copies of which have been submitted to the MEPA.

One-way Analysis of Variance (ANOVA) was carried to test for differences in counts of Turtle Dove and Quail between 2012 (Ecoserv, 2012), 2013 (Ecoserv, 2013) and 2014 (present survey), using the mean daily values recorded between 10 and 30 April from the three years as replicate data. Data collected by Thomaidis (nd) in 2008 and 2009 was not included in this analysis since the survey methodology used by Thomaidis (nd) in 2008 and 2009 was not identical to that used in later surveys. Nor was data from the 2011 survey (Ecoserv, 2011) included in the analysis given that the data had been collected during a different period; i.e. in May.



3. results

Turtle dove

Values of mean daily counts of Turtle Dove recorded during the period 10 to 30 April from the present survey are summarised in Table 2. These same values are also shown, along with values of mean counts for the same period in 2008, 2009 (Thomaidis, nd), 2012 (Ecoserv, 2012) and 2013 (Ecoserv, 2013), in Figure 2. Overall, counts recorded during the present survey show a similar trend to those recorded by Thomaidis (nd) in spring 2008 and 2009, and by Ecoserv (2012; 2013) in 2012 and 2013 for the same survey period, although no very high mean counts as recorded in 2008 (98 on 15-4-08 and 26 on 20-4-08; see Figure 2) and in 2009 (33 on 23-4-12; see Figure 2) were recorded during the present survey. The general pattern from all five years being compared is a main migratory influx during the last two weeks of April.

Values of the grand mean of Turtle Dove counts recorded during the period 10 to 30 April from the present survey, together with values of the grand mean for the same period in 2008, 2009 (Thomaidis, nd), 2012 and 2013 (Ecoserv, 2012; 2013), are shown in Figure 3. Overall, the grand

mean recorded during the present (spring 2014) survey is lower than that recorded during all the previous surveys. However, ANOVA indicated that the difference between counts recorded during the present survey and those recorded in 2012 and 2013 was not statistically significant.

As has been done in previous surveys (Ecoserv, 2011; 2012; 2013), an estimate of total influx of Turtle Dove over the Maltese Islands was made using the daily counts. Extrapolations were then made to obtain the total number of individuals of this species that may have migrated over the Maltese Islands on a particular date. However, as emphasised in reports of surveys from previous years (Ecoserv, 2011; 2012; 2013), such an estimate must be treated with utmost caution, given the relatively small number of sites used and that the counts were not made daily at each site. Furthermore, passage of birds at different localities is extremely variable, with potential large differences in birds passing at two different localities, even if these are separated only by a very small distance. As already stated, the other limiting factor is that the field survey stops at 13.00 and does not start again before 06.00, hence potentially missing birds arriving during the night that are usually seen at the very first light of day, many of which end up shot within a very short time, and which may have not been recorded by the field observers during the survey. On the other hand, the estimate given in this report is useful when making comparison between different years, assuming data from surveys based on a similar design are available, to assess whether the trend in influx is increasing or decreasing with time. Since the coastal length surveyed at each site during the present survey is approximately 0.5 km, the total influx of migrating Turtle Dove for the three-week study period was estimated by extrapolating the values obtained to the total coastline length for the Maltese Islands, which have a perimeter of 271.22 km (Mallia *et al*, 2002)²⁵. Based on the mean daily counts (Table 2), extrapolation translates to an estimated daily influx ranging between 163 and 3,255 individuals, with a total influx over the survey period (10 – 30 April 2014; i.e. 21 days) of 24,922 individuals, i.e. some 1,187 birds per day; see Table 2.

Table 2 Mean (\pm SD) daily counts of Turtle Dove recorded during the present study, together with estimates of daily and total influx of migratory individuals.

Date	Mean Count \pm SD		Estimated Daily Influx
10-Apr-14	0.30	\pm 0.67	163
11-Apr-14	0.40	\pm 0.70	217
12-Apr-14	3.44	\pm 3.21	1868
13-Apr-14	2.00	\pm 1.50	1085
14-Apr-14	9.20	\pm 25.96	488
15-Apr-14	1.00	\pm 0.82	542
16-Apr-14	1.40	\pm 1.78	759
17-Apr-14	1.10	\pm 0.99	597
18-Apr-14	0.40	\pm 0.70	217
19-Apr-14	1.00	\pm 1.12	542
20-Apr-14	2.22	\pm 1.86	1205
21-Apr-14	6.00	\pm 8.62	3255
22-Apr-14	4.20	\pm 3.94	2278
23-Apr-14	3.30	\pm 4.40	1790
24-Apr-14	3.22	\pm 2.95	1748
25-Apr-14	2.30	\pm 1.95	1248
26-Apr-14	3.67	\pm 3.04	1989
27-Apr-14	2.89	\pm 5.37	1567
28-Apr-14	3.30	\pm 3.40	1790
29-Apr-14	0.80	\pm 1.32	434
30-Apr-14	2.10	\pm 2.73	1139
Estimated Total Influx			24922

²⁵ Note, however, that this estimate includes the perimeter of minor islets and rocks.

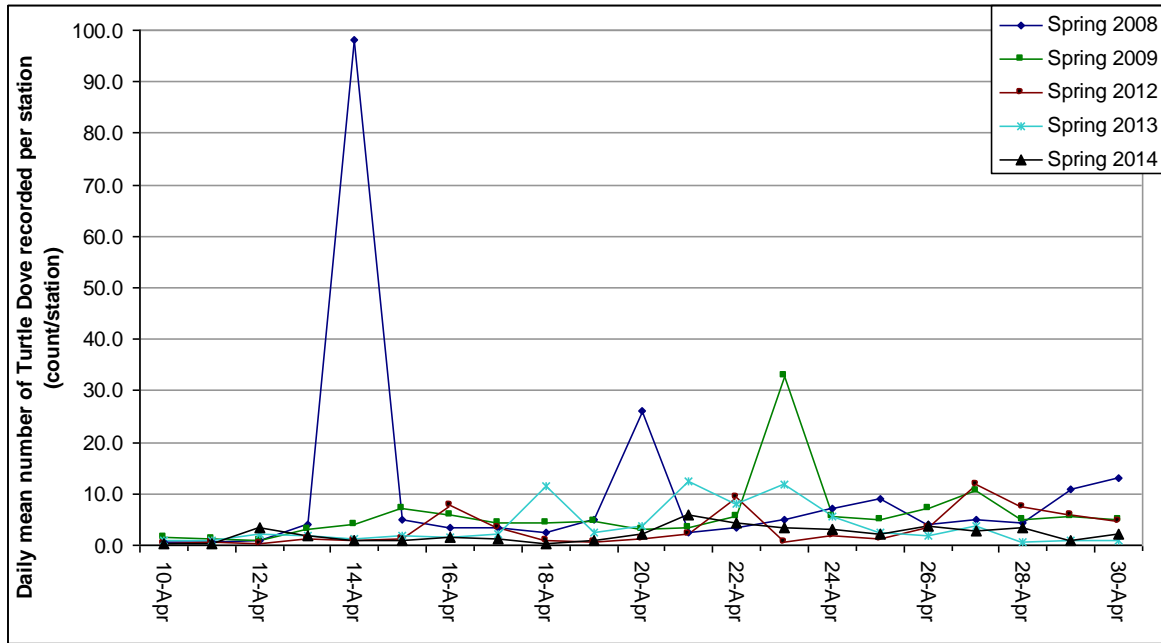


Figure 2. Daily mean counts of Turtle Dove per station (= site) recorded during the present survey during the period 10 – 30 April, together with values of the same statistic for spring 2008 and 2009 as reported in Thomaidis (nd), for spring 2012 as reported in Ecoserv (2012), and for spring 2013 as reported in Ecoserv (2013).

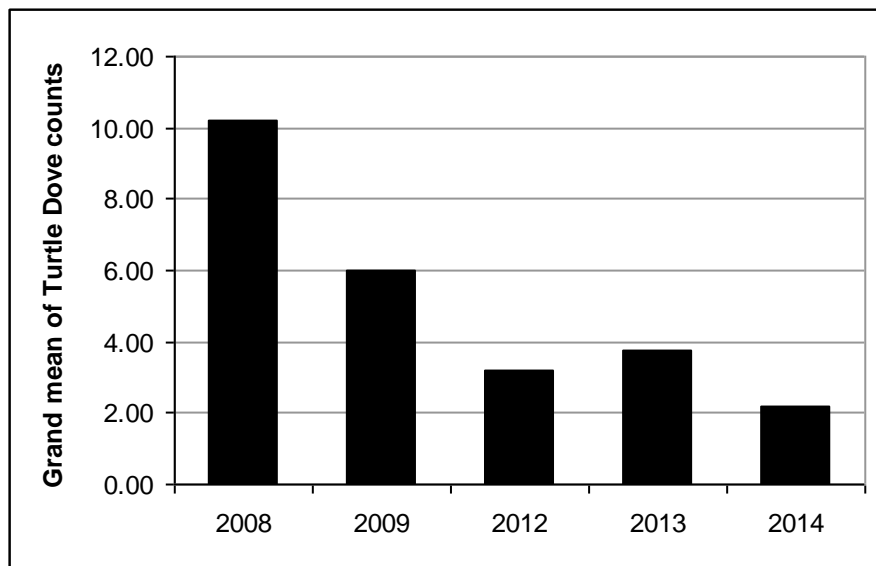


Figure 3. Grand mean of Turtle Dove counts made using data from the period 10 – 30 April for spring 2014 (present survey), spring 2013 (Ecoserv, 2013), spring 2012 (Ecoserv, 2012), spring 2009 (Thomaidis, nd) and spring 2008 (Thomaidis, nd).

Common Quail

The daily observation times by the field observers spent at each quail monitoring station are given in Appendix II. Raw counts for Common Quail recorded from the 28 sites during the present study varied between 0 and a maximum of 5 (see Appendix I), while the mean daily counts ranged between 0 and 0.70. The recorded counts did not vary appreciably between the different sites: at the higher end, a total of 6 individuals were recorded from grid locations 3887 and 4077, while the lower end, no Quails were recorded throughout the survey period from grid locations 4085, 5872, 4678, 2888, 6064 and 4878.

Values of mean daily counts of Common Quail recorded during the period 10 to 30 April from the present survey, as well as the respective area surveyed at each site are given in Table 3. These same values are also shown, along with values of mean counts for the same period in 2008, 2009 (Thomaidis, nd), 2012 and 2013 (Ecoserv, 2012; 2013), in Figure 4. The daily mean counts recorded during the period 10 – 30 April 2014 (present survey) are overall lower than those obtained in 2009 (Thomaidis, nd) but comparable to those obtained in 2008 (Thomaidis, nd), 2012 and 2013 (Ecoserv, 2012; 2013) for the same dates, except that no migration peaks (with a mean count >2) as recorded in 2008, 2009 and 2012 (see Figure 4) were recorded during the present survey.

Values of the grand mean Common Quail counts for spring 2014 (present survey), spring 2013 (Ecoserv, 2013), spring 2012 (Ecoserv, 2012), and spring 2008 and spring 2009 (Thomaidis, nd), are shown graphically in Figure 5. The comparison in Figure 5 is based on data collected during the same period (10 to 30 April) in each of the five surveys. The grand mean recorded during the present (spring 2014) survey is lower than that recorded during all the previous surveys, but is generally comparable to that recorded in 2013. The results of ANOVA indicated that the counts of Common Quail from the present survey were not significantly lower compared to 2013, but were significantly lower ($p < 0.05$) compared to those from 2012.

As has been done in previous surveys (Ecoserv, 2011; 2012; 2013), the total influx of Quail was estimated for the whole area of the Maltese Islands using the recorded area surveyed for Quails at each site. However, such an estimate requires the following assumptions: (i) the rate of Quail settling at coastal sites (where the survey was carried out) is equal to that at inland locations, and (ii) the total area used to estimate the migration count does not include areas where settlement of Quail cannot occur in practice. Since Quail tend to migrate to inland sites, settling of Quail in coastal areas will likely be less than or equal to that in inland regions, but not greater, meaning that the estimated total may be an underestimate. The use of coastal sites only is still justified since these are more likely to serve as short-term stopover sites immediately following a migratory flight than inland locations; thus, including inland locations may result in an overestimate of the total influx due to repeat counting of resident Quails. To ensure that the total area used to estimate the migration count does not include regions within which Quail do not normally settle, even though some birds may fly over urbanized areas, the total area was calculated as the sum of agricultural areas (161.5 km²), forested areas (2.1 km²) and areas of natural vegetation (57.8 km²); this amounts to 221.4 km², representing 72% of the 315 km² total area of the Maltese Islands (land cover data source: MEPA, 2010). The mean (\pm SD) daily counts and estimated total influx of birds per day are shown in Table 3. Based on these data, extrapolation translates to a total influx of Common Quail during 10 – 30 April 2014 of 37,773 individuals, or some 1,799 Quails per day (see Table 3). However, as emphasised in the reports of previous surveys (Ecoserv, 2011; 2012; 2013), such an estimate must be treated with utmost caution, given the relatively small number of field sites used in the present survey and that counts were not made daily at each site, such that only a very small portion of the total area of potential habitat in the Maltese Islands was sampled.

Table 3 Mean (\pm SD) daily counts of Common Quail recorded and area surveyed, together with estimates of daily and total influx of migratory individuals.

Date	Mean Count \pm SD		Total Area Surveyed (km ²)	Estimated Daily Influx
10-Apr-14	0.70	\pm 1.57	0.247	6277
11-Apr-14	0.10	\pm 0.32	0.637	347
12-Apr-14	0.22	\pm 0.44	0.216	2049
13-Apr-14	0.22	\pm 0.44	0.210	2113
14-Apr-14	0.50	\pm 0.97	0.637	1737
15-Apr-14	0.10	\pm 0.32	0.253	873
16-Apr-14	0.00	\pm 0.00	0.247	0
17-Apr-14	0.40	\pm 0.70	0.637	1390
18-Apr-14	0.00	\pm 0.00	0.253	0
19-Apr-14	0.44	\pm 0.73	0.210	4227
20-Apr-14	0.33	\pm 0.50	0.600	1107
21-Apr-14	0.30	\pm 0.48	0.253	2620

22-Apr-14	0.20	± 0.63	0.247	1793
23-Apr-14	0.20	± 0.42	0.637	695
24-Apr-14	0.11	± 0.33	0.216	1025
25-Apr-14	0.30	± 0.48	0.247	2690
26-Apr-14	0.67	± 0.87	0.600	2214
27-Apr-14	0.33	± 0.71	0.216	3074
28-Apr-14	0.20	± 0.42	0.247	1793
29-Apr-14	0.00	± 0.00	0.637	0
30-Apr-14	0.20	± 0.42	0.253	1747
Estimated Total Influx				37773

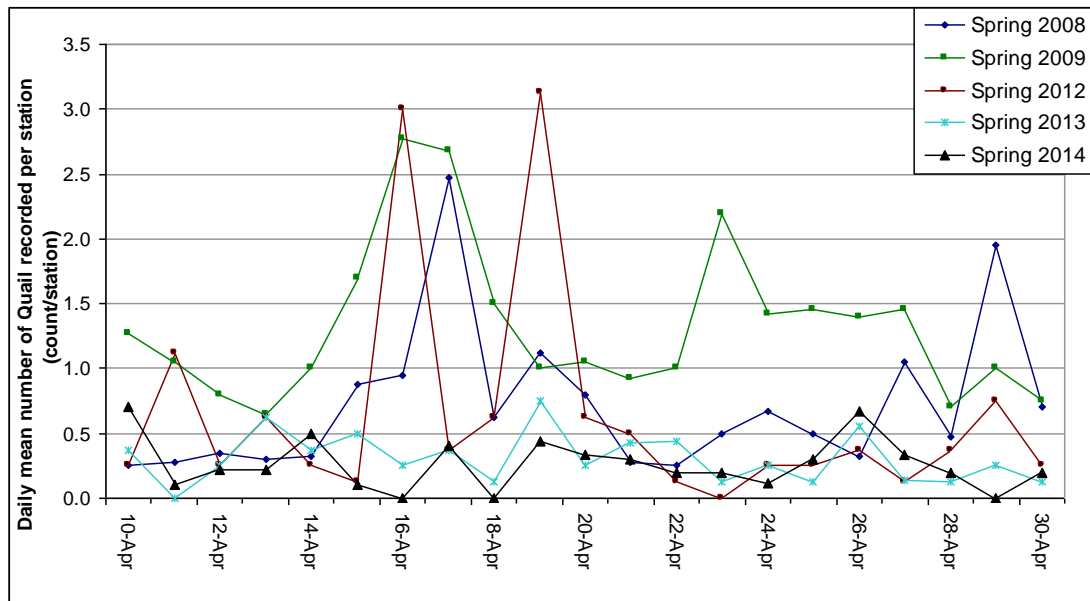


Figure 4. Daily mean counts of Common Quail per station (= site) recorded during the present survey during the period 10 – 30 April, together with values of the same statistic for spring 2008 and 2009 as reported in Thomaidis (nd), for spring 2012 as reported in Ecoserv (2012), and for spring 2013 as reported in Ecoserv (2013).

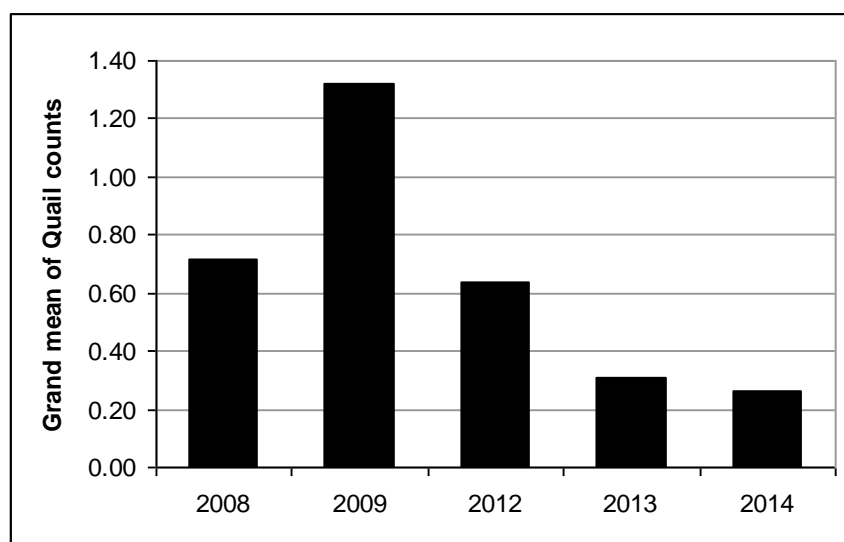


Figure 5. Grand mean of Common Quail counts made using data from the period 10 – 30 April for spring 2014 (present survey), spring 2013 (Ecoserv, 2013), spring 2012 (Ecoserv, 2012), spring 2009 (Thomaidis, nd) and spring 2008 (Thomaidis, nd).

4. Appraisal

The present survey provides data on counts of Turtle Dove and Common Quail recorded during April 2014, and estimates of the migratory influx of the two species. In 2014, Government had established the open season during the period 12 – 30 April, which coincided with the period during which the present study was held.

For Turtle Dove, when comparing the results of the present survey with those from Thomaidis' (nd) surveys held in 2008 and 2009, and those from the 2012 and 2013 surveys by Ecoserv (2012; 2013), a similar trend of counts recorded during the period 10 – 30 April is noted overall; the pattern of counts for the five years compared indicates a migratory influx throughout the periods when the survey was held. However, in contrast to the occasional high mean counts recorded in 2008 and in 2009, no such peaks were recorded during the present survey. When comparing the grand mean value recorded during the present (spring 2014) survey to that recorded during the previous two surveys (spring 2012 and 2013), a lower value is evident for the former, but this difference was not statistically significant. Nevertheless, a general trend of decrease in migratory influx is evident; this is corroborated by reports from hunters and ornithologists who observed an overall low migratory influx in 2014. Furthermore, the grand mean value recorded during the present survey is lower than that recorded by Thomaidis in 2008 and 2009, which indicates a lower influx of Turtle Dove for spring 2014 (see Figure 2). No such very high peak counts were recorded during the present survey.

The total influx of Turtle Dove for the present survey period (10 – 30 April 2014) is estimated at 24,922 individuals. For the period 10 April – 30 May 2013, total influx of 42,521 individuals was estimated (Ecoserv, 2013); for the period 9 April – 26 May 2012, a total influx of 57,160 individuals was estimated (Ecoserv 2012), and for the period 8 – 28 May 2011, a total influx of 18,057 individuals was estimated (Ecoserv, 2011). However, it is reiterated that such estimates must be treated with utmost caution, given the relatively small number of field sites used in the survey, that counts were not made daily at each site, and since the extrapolation procedure used is likely to result in a rough estimate. Increasing the number of field sites per day is desirable since influx of birds at different localities is extremely variable, with potential large differences in Turtle Dove passing at two different localities, even if these are separated by a very small distance, as indicated above. Furthermore, the length of coastline surveyed per day (4 km) amounts to less than 1.5% of the total coastline; the accuracy of the estimated total migratory influx would be higher if a larger proportion of coastline is surveyed. It should also be noted that the total coastline length used in the present extrapolation includes stretches of coast that are highly developed and densely inhabited, for example, the Sliema – Valletta and Cottonera areas, where one would expect some disturbance to birds migrating at low altitude, hence their numbers there would be expected to be lower, resulting in an overestimate. Another limitation is that the Turtle Dove migration counts were recorded over a seven hour survey period (06:00 - 13:00), hence any individuals migrating at other times of the day were not included, leading to a potential underestimate of the total influx if significant Turtle Dove migration occurred between 13:00 and 06:00. On the other hand, the 06:00-13:00 time period represents the time during which the activity of Turtle Dove is deemed maximum. Nevertheless, the stated estimate is useful when making comparison between different years, assuming data from surveys based on a similar design are available, to assess whether influx of Turtle Dove is increasing or decreasing with time.

For Common Quail, when comparing the results of the present survey with those from Thomaidis' (nd) surveys held in 2008 and 2009, and those from the 2012 and 2013 surveys by Ecoserv (2012; 2013), a similar trend of Common Quail counts recorded during the period 10 – 30 April is noted overall between the 2008, 2012, 2013 and present surveys, while slightly higher counts were recorded in 2009. However, no migratory peaks for Common Quail were recorded during the present survey, whereas such peaks had been recorded in 2008, 2009 and 2012. When comparing the grand mean value recorded during the present (spring 2014) survey with that recorded during the previous two surveys (spring 2012 and 2013), a lower value is evident for the former. In the case of the present (2014) and previous (2013) survey, the difference is marginal and not statistically significant. On the other hand, the grand mean value recorded in 2014 is significantly lower than that recorded in 2012. The grand mean value of Common Quail recorded during the present survey is also lower than those recorded in 2008 and 2009.

The total influx of Common Quail for the present survey period (10 – 30 April 2014) is estimated at 37,773 individuals. For the period 10 April – 30 May 2013, a total influx of 67,460 individuals was estimated (Ecoserv, 2013); for the period 9 April – 26 May 2012, a total influx of 35,018 individuals was estimated (Ecoserv, 2012), and for the period 8 – 28 May 2011, a total influx of 22,699 individuals was estimated (Ecoserv, 2011). The estimate made for the present survey (2014) is therefore lower than that for 2013 but similar to that recorded in 2012. It is reiterated that such estimates must be treated with utmost caution, given the relatively small number of field sites used in the present survey, that counts were not made daily at each site, and since the extrapolation procedure used is likely to result in a rough estimate. The considerations emphasised above for Turtle Dove also apply to the Common Quail – birds may migrate along specific pathways, with the result that high numbers may be recorded at one site and a potentially much lower number at a different site, even if the two sites are separated by a very small distance of even a few hundred meters. Hence increasing the number of field sites per day to account for such variation in counts between different sites is desirable. Furthermore, the daily area surveyed for Common Quail amounts to less than 1% of the total area; the accuracy of the estimated total migratory influx would be higher if a larger area is surveyed.

The design of the present survey included counts made over a 21 day period between 10 and 30 April 2014, which covers the period when peak migration of Turtle Dove and Quail normally occurs and is therefore an improvement over the 2011 survey (which, having been held in May, only covered the tail end of the migratory periods). However, no information on potential migratory peaks, particularly for Turtle Dove, which may have occurred in May 2014, is available, given that no count data were collected during this month.

For both Turtle Dove and Common Quail, a number of limitations, which have already been highlighted in Ecoserv (2011; 2012; 2013), are reiterated, namely:

- The data reported on in the present document can only be used for purposes of trend analysis, and even in this respect, due caution should be exercised given that the sampling effort used in the present 2014 study, while partly based on that reported and utilized by Thomaidis (nd) for the years 2008 and 2009, is not identical. Comparison with data collected by Ecoserv (2011) during spring 2011 was not possible since the bird counts from that year were collected in May, while the present survey was made in April, which is deemed to be more representative of the period during which migratory influx of Turtle Dove, and to a lesser extent Common Quail²⁶, is highest.
- Robust and rigorous assessment of migratory influx requires trend analysis based on data from monitoring carried out regularly over a sufficiently long period comprising subsequent years, and using the same methodology. For each year, the data should ideally be collected over the whole migratory season and using a larger sampling effort, for example by making counts daily at all of a minimum 24 sites.

Nevertheless, the data from the present study provides a useful indication of the influx of Turtle Dove and Common Quail, provided that results are interpreted in the context of these limitations.

5. references

- Ecoserv (2011). Report on a survey of the influx of migratory Common Quail and Turtle Dove following the spring hunting open season in Malta, made in May 2011. Malta, unpublished report; 37pp.
- Ecoserv (2012). Report on a survey of the influx of migratory Common Quail and Turtle Dove following the spring hunting open season in Malta, made in April - May 2012. Malta, unpublished report; 26pp.
- Ecoserv (2013). Report on a survey of the influx of migratory Common Quail and Turtle Dove over the Maltese Islands, made in April 2013. Malta, unpublished report; 30pp.
- Mallia, A., Briguglio, M., Ellul, A.E. and Formosa, S. (2002). Physical Background, Demography, Tourism, Mineral Resources and Land-Use. In: State of the Environment Report for Malta, 2002.

²⁶ Given that migratory peaks for Common Quail also occur in late March – early April.

Ministry for Home Affairs and the Environment; 120 pp.

MEPA (2010). The Environment Report 2008, Sub-Report 4: Land. Malta Environment and Planning Authority; 51 pp.

Thomaidis (nd). Study of the migration patterns of Turtle Dove *Streptopelia turtur* and quail *Coturnix coturnix* over the Maltese Islands. Technological Education Institute of Lamia, Department of Forestry and Management of Natural Environment, Kapenisi, Greece; 56 pp.

APPENDIX I - Raw counts

Table A. Daily counts of Turtle Dove recorded per site.

[illegible]

Table A continued. Daily counts of Turtle Dove recorded per site.

Ecoserv Sample Reference Code	B-015- 14	B-016- 14	B-017- 14	B-018- 14	B-129- 14	B-020- 14	B-021- 14	B-022- 14	B-023- 14	B-024- 14	B-025- 14	B-026- 14	B-027- 14	B-028- 14
Grid Location	5263	5663	5871	5277	4480	3292	2888	4079	4070	4666	6064	6069	4878	4283
10-April-14														
11-April-14	0	1	0	0	0									
12-April-14						3	1	1	10	3	7	2	0	4
13-April-14														
14-April-14	2	2	0	0	0									
15-April-14						2	1	0	1	0	2	1	0	2
16-April-14														
17-April-14	3	2	0	0	0									
18-April-14						1	0	0	0	2	1	0	0	0
19-April-14														
20-April-14	3	0	2	1	3									
21-April-14						8	3	0	4	0	29	9	2	2
22-April-14														
23-April-14	11	10	0	0	0									
24-April-14						2	3	1	1	4	10	4	0	4
25-April-14														
26-April-14	5	3	1	4	2									
27-April-14						2	1	0	3	1	17	1	1	0
28-April-14														
29-April-14	2	3	0	0	0									
30-April-14						3	1	0	3	0	9	1	0	3

Table B. Daily counts of Common Quail recorded per site, together with the area surveyed at each site.

[illegible]

Table B continued. Daily counts of Common Quail recorded per site, together with the area surveyed at each site.

Ecoserv Sample Reference Code	B-043-14	B-044-14	B-045-14	B-046-14	B-047-14	B-048-14	B-049-14	B-050-14	B-051-14	B-052-14	B-053-14	B-054-14	B-055-14	B-056-14
Grid Location	5263	5663	5871	5277	4480	3292	2888	4079	4070	4666	6064	6069	4878	4283
Surveyed Area (km²)	0.092	0.036	0.010	0.015	0.012	0.009	0.006	0.005	0.017	0.081	0.010	0.033	0.035	0.019
10-April-14														
11-April-14	0	0	0	0	0									
12-April-14						1	0	1	0	0	0	0	0	0
13-April-14														
14-April-14	0	3	0	1	0									
15-April-14						1	0	0	0	0	0	0	0	0
16-April-14														
17-April-14	0	0	0	0	1									
18-April-14						0	0	0	0	0	0	0	0	0
19-April-14														
20-April-14	0	0	0	1	1									
21-April-14						1	0	0	0	1	0	1	0	0
22-April-14														
23-April-14	0	0	0	0	0									
24-April-14						0	0	0	1	0	0	0	0	0
25-April-14														
26-April-14	2	0	1	0	0									
27-April-14						0	0	1	0	0	0	0	0	2
28-April-14														
29-April-14	0	0	0	0	0									
30-April-14						1	0	0	0	0	0	1	0	0

APPENDIX II - The daily observation times by the field observers spent at each quail monitoring station

Date	Location	Observation time	Date	Location	Observation time
10 April 2014	Comino	07:00 - 09:00	14 April 2014	Comino	09:30 - 11:30
10 April 2014	Gozo: Wied il-Mielah	06:30 - 08:30	14 April 2014	Gozo: San Blas	08:30 - 10:30
10 April 2014	Gozo: Qala / Halfa	07:00 - 09:00	14 April 2014	Gozo: Ta' Cenc	06:30 - 08:30
10 April 2014	Cirkewwa / Torri l-Ahmar	08:30 - 10:30	14 April 2014	Ghajn Tuffieha	07:00 - 09:00
10 April 2014	Fomm ir-Rih	10:00 - 12:00	14 April 2014	Gnejna	08:00 - 10:00
10 April 2014	Rdum ta' Had-Dingli	09:00 - 11:00	14 April 2014	Zurrieq	08:00 - 10:00
10 April 2014	Lapsi	06:30 - 08:30	14 April 2014	Ghar Hasan	10:00 - 12:00
10 April 2014	San Tumas	08:00 - 10:00	14 April 2014	Xghajra Ta' Barkat	10:00 - 12:00
10 April 2014	Rinella	10:00 - 12:00	14 April 2014	White Rocks	09:00 - 11:00
10 April 2014	Wardija	07:00 - 09:00	14 April 2014	Mistra / Mgiebah	06:30 - 08:30
11 April 2014	Comino	07:00 - 09:00	15 April 2014	Comino	09:00 - 11:00
11 April 2014	Gozo: San Blas	08:00 - 10:00	15 April 2014	Gozo: Marsalforn	06:00 - 08:00
11 April 2014	Gozo: Ta' Cenc	08:00 - 10:00	15 April 2014	Gozo: Ghadira ta' Sarraflu	06:45 - 08:45
11 April 2014	Ghajn Tuffieha	06:00 - 08:00	15 April 2014	Anchor Bay / Rdum taht il-Mellieha	09:00 - 11:00
11 April 2014	Gnejna	09:00 - 11:00	15 April 2014	Mtahleb to Migra l-Ferha	08:00 - 10:00
11 April 2014	Zurrieq	10:30 - 12:30	15 April 2014	Fawwara (to Lapsi)	06:00 - 08:00
11 April 2014	Ghar Hasan	07:00 - 09:00	15 April 2014	Delimara Point	10:00 - 12:00
11 April 2014	Xghajra Ta' Barkat	08:30 - 10:30	15 April 2014	Zonqor Point	08:00 - 10:00
11 April 2014	White Rocks	09:00 - 11:00	15 April 2014	Ghallis	08:00 - 10:00
11 April 2014	Mistra / Mgiebah	08:00 - 10:00	15 April 2014	L-Ahrax tal-Mellieha	10:00 - 12:00
12 April 2014	Gozo: Marsalforn	06:00 - 08:00	16 April 2014	Comino	09:30 - 11:30
12 April 2014	Gozo: Ghadira ta' Sarraflu	06:30 - 08:30	16 April 2014	Gozo: Wied il-Mielah	06:00 - 08:00
12 April 2014	Anchor Bay / Rdum taht il-Mellieha	08:00 - 10:00	16 April 2014	Gozo: Qala / Halfa	06:30 - 08:30
12 April 2014	Mtahleb to Migra l-Ferha	10:00 - 12:00	16 April 2014	Cirkewwa / Torri l-Ahmar	07:00 - 09:00
12 April 2014	Fawwara (to Lapsi)	06:30 - 08:30	16 April 2014	Fomm ir-Rih	09:00 - 11:00
12 April 2014	Delimara Point	07:00 - 09:00	16 April 2014	Rdum ta' Had-Dingli	07:00 - 09:00
12 April 2014	Zonqor Point	08:30 - 10:30	16 April 2014	Lapsi	06:00 - 08:00
12 April 2014	Ghallis	09:00 - 11:00	16 April 2014	San Tumas	08:30 - 10:30
12 April 2014	L-Ahrax tal-Mellieha	07:00 - 09:00	16 April 2014	Rinella	10:00 - 12:00
12 April 2014			16 April 2014	Wardija	09:00 - 11:00
13 April 2014	Gozo: Wied il-Mielah	06:00 - 08:00	17 April 2014	Comino	09:00 - 11:00
13 April 2014	Gozo: Qala / Halfa	09:00 - 11:00	17 April 2014	Gozo: San Blas	06:30 - 08:30
13 April 2014	Cirkewwa / Torri l-Ahmar	07:00 - 09:00	17 April 2014	Gozo: Ta' Cenc	06:00 - 08:00
13 April 2014	Fomm ir-Rih	09:00 - 11:00	17 April 2014	Ghajn Tuffieha	06:00 - 08:00
13 April 2014	Rdum ta' Had-Dingli	07:15 - 08:15 10:30 - 11:30	17 April 2014	Gnejna	07:00 - 09:00
13 April 2014	Lapsi	11:00 - 13:00	17 April 2014	Zurrieq	08:00 - 10:00
13 April 2014	San Tumas	09:30 - 11:30	17 April 2014	Ghar Hasan	06:00 - 08:00
13 April 2014	Rinella	09:45 - 11:45	17 April 2014	Xghajra Ta' Barkat	10:00 - 12:00
13 April 2014	Wardija	09:00 - 11:00	17 April 2014	White Rocks	09:00 - 11:00
13 April 2014			17 April 2014	Mistra / Mgiebah	06:30 - 08:30

APPENDIX II continued.

Date	Location	Observation time	Date	Location	Observation time
18 April 2014	Comino	09:00 - 11:00	22 April 2014	Comino	08:00 - 10:00
18 April 2014	Gozo: Marsalforn	06:30 - 08:30	22 April 2014	Gozo: Wied il-Mielah	06:30 - 08:30
18 April 2014	Gozo: Ghadira ta' Sarraflu	06:30 - 08:30	22 April 2014	Gozo: Qala / Halfa	07:00 - 09:00
18 April 2014	Anchor Bay / Rdum taht il-Mellieha	06:00 - 08:00	22 April 2014	Cirkewwa / Torri l-Ahmar	08:00 - 10:00
18 April 2014	Mtahleb to Migra l-Ferha	09:00 - 11:00	22 April 2014	Fomm ir-Rih	09:00 - 11:00
18 April 2014	Fawwara (to Lapsi)	06:30 - 08:30	22 April 2014	Rdum ta' Had-Dingli	06:00 - 08:00
18 April 2014	Delimara Point	10:00 - 12:00	22 April 2014	Lapsi	07:00 - 09:00
18 April 2014	Zonqor Point	08:00 - 10:00	22 April 2014	San Tumas	09:30 - 11:30
18 April 2014	Ghallis	09:00 - 11:00	22 April 2014	Rinella	08:00 - 10:00
18 April 2014	L-Ahrax tal-Mellieha	07:00 - 09:00	22 April 2014	Wardija	07:00 - 09:00
19 April 2014	Gozo: Wied il-Mielah	06:30 - 08:30	23 April 2014	Comino	07:30 - 09:30
19 April 2014	Gozo: Qala / Halfa	09:00 - 11:00	23 April 2014	Gozo: San Blas	10:00 - 12:00
19 April 2014	Cirkewwa / Torri l-Ahmar	06:00 - 08:00	23 April 2014	Gozo: Ta' Cenc	06:00 - 08:00
19 April 2014	Fomm ir-Rih	09:00 - 11:00	23 April 2014	Ghajn Tuffieha	06:00 - 08:00
19 April 2014	Rdum ta' Had-Dingli	09:00 - 11:00	23 April 2014	Gnejna	09:00 - 11:00
19 April 2014	Lapsi	06:00 - 08:00	23 April 2014	Zurrieq	09:30 - 11:30
19 April 2014	San Tumas	10:00 - 12:00	23 April 2014	Ghar Hasan	07:00 - 09:00
19 April 2014	Rinella	09:30 - 11:30	23 April 2014	Xghajra Ta' Barkat	10:00 - 12:00
19 April 2014	Wardija	08:00 - 10:00	23 April 2014	White Rocks	08:20 - 10:20
19 April 2014			23 April 2014	Mistra / Mgiebah	09:00 - 11:00
20 April 2014	Gozo: San Blas	09:30 - 11:30	24 April 2014	Gozo: Marsalforn	06:00 - 08:00
20 April 2014	Gozo: Ta' Cenc	06:00 - 08:00	24 April 2014	Gozo: Ghadira ta' Sarraflu	08:30 - 10:30
20 April 2014	Ghajn Tuffieha	06:00 - 08:00	24 April 2014	Anchor Bay / Rdum taht il-Mellieha	09:00 - 11:00
20 April 2014	Gnejna	07:00 - 09:00	24 April 2014	Mtahleb to Migra l-Ferha	09:00 - 11:00
20 April 2014	Zurrieq	08:00 - 10:00	24 April 2014	Fawwara (to Lapsi)	08:00 - 10:00
20 April 2014	Ghar Hasan	07:00 - 09:00	24 April 2014	Delimara Point	11:00 - 13:00
20 April 2014	Xghajra Ta' Barkat	09:30 - 11:30	24 April 2014	Zonqor Point	09:00 - 11:00
20 April 2014	White Rocks	09:00 - 11:00	24 April 2014	Ghallis	09:00 - 11:00
20 April 2014	Mistra / Mgiebah	07:00 - 09:00	24 April 2014	L-Ahrax tal-Mellieha	07:00 - 09:00
21 April 2014	Comino	09:00 - 11:00	25 April 2014	Comino	09:00 - 11:00
21 April 2014	Gozo: Marsalforn	06:00 - 08:00	25 April 2014	Gozo: Wied il-Mielah	06:00 - 08:00
21 April 2014	Gozo: Ghadira ta' Sarraflu	06:30 - 08:30	25 April 2014	Gozo: Qala / Halfa	09:00 - 11:00
21 April 2014	Anchor Bay / Rdum taht il-Mellieha	08:00 - 10:00	25 April 2014	Cirkewwa / Torri l-Ahmar	07:00 - 09:00
21 April 2014	Mtahleb to Migra l-Ferha	08:00 - 10:00	25 April 2014	Fomm ir-Rih	09:00 - 11:00
21 April 2014	Fawwara (to Lapsi)	07:00 - 09:00	25 April 2014	Rdum ta' Had-Dingli	06:00 - 08:00
21 April 2014	Delimara Point	10:00 - 12:00	25 April 2014	Lapsi	08:00 - 10:00
21 April 2014	Zonqor Point	09:00 - 11:00	25 April 2014	San Tumas	10:00 - 12:00
21 April 2014	Ghallis	09:00 - 11:00	25 April 2014	Rinella	10:00 - 12:00
21 April 2014	L-Ahrax tal-Mellieha	07:00 - 09:00	25 April 2014	Wardija	09:00 - 11:00

APPENDIX II continued.

Date	Location	Observation time	Date	Location	Observation time
26 April 2014	Gozo: San Blas	09:30 - 11:30	29 April 2014	Comino	07:00 - 09:00
26 April 2014	Gozo: Ta' Cenc	08:00 - 10:00	29 April 2014	Gozo: San Blas	07:00 - 09:00
26 April 2014	Ghajn Tuffieha	06:00 - 08:00	29 April 2014	Gozo: Ta' Cenc	07:00 - 09:00
26 April 2014	Gnejna	07:00 - 09:00	29 April 2014	Ghajn Tuffieha	06:00 - 08:00
26 April 2014	Zurrieq	08:00 - 10:00	29 April 2014	Gnejna	08:00 - 10:00
26 April 2014	Ghar Hasan	08:00 - 10:00	29 April 2014	Zurrieq	09:00 - 11:00
26 April 2014	Xghajra Ta' Barkat	08:00 - 10:00	29 April 2014	Ghar Hasan	06:30 - 08:30
26 April 2014	White Rocks	07:00 - 09:00	29 April 2014	Xghajra Ta' Barkat	07:00 - 09:00
26 April 2014	Mistra / Mgiebah	08:00 - 10:00	29 April 2014	White Rocks	09:00 - 11:00
26 April 2014			29 April 2014	Mistra / Mgiebah	08:00 - 10:00
27 April 2014	Gozo: Marsalforn	06:00 - 08:00	30 April 2014	Comino	07:00 - 09:00
27 April 2014	Gozo: Ghadira ta' Sarraflu	09:00 - 11:00	30 April 2014	Gozo: Marsalforn	08:00 - 10:00
27 April 2014	Anchor Bay / Rdum taht il-Mellieha	08:00 - 10:00	30 April 2014	Gozo: Ghadira ta' Sarraflu	07:00 - 09:00
27 April 2014	Mtahleb to Migra l-Ferha	09:00 - 11:00	30 April 2014	Anchor Bay / Rdum taht il-Mellieha	07:00 - 09:00
27 April 2014	Fawwara (to Lapsi)	06:00 - 08:00	30 April 2014	Mtahleb to Migra l-Ferha	08:00 - 10:00
27 April 2014	Delimara Point	11:00 - 13:00	30 April 2014	Fawwara (to Lapsi)	07:00 - 09:00
27 April 2014	Zonqor Point	08:00 - 10:00	30 April 2014	Delimara Point	08:00 - 10:00
27 April 2014	Ghallis	10:00 - 12:00	30 April 2014	Zonqor Point	09:00 - 11:00
27 April 2014	L-Ahrax tal-Mellieha	08:00 - 10:00	30 April 2014	Ghallis	08:00 - 10:00
27 April 2014			30 April 2014	L-Ahrax tal-Mellieha	08:00 - 10:00
28 April 2014	Comino	07:00 - 09:00			
28 April 2014	Gozo: Wied il-Mielah	07:00 - 09:00			
28 April 2014	Gozo: Qala / Halfa	07:00 - 09:00			
28 April 2014	Cirkewwa / Torri l-Ahmar	11:00 - 13:00			
28 April 2014	Fomm ir-Rih	09:00 - 11:00			
28 April 2014	Rdum ta' Had-Dingli	09:00 - 11:00			
28 April 2014	Lapsi	06:00 - 08:00			
28 April 2014	San Tumas	10:30 - 12:30			
28 April 2014	Rinella	09:00 - 11:00			
28 April 2014	Wardija	08:00 - 10:00			

SEGRETARJAT PARLAMENTARI GHALL-
BIEDJA, SAJD U DRITTIJET TAL-
ANNIMALI



PARLIAMENTARY SECRETARIAT FOR
AGRICULTURE, FISHERIES AND ANIMAL
RIGHTS

Ms Ivana d'Alessandro
Secretary of the Bern Convention
Council of Europe – Biodiversity Unit
F-67075 Strasbourg Cedex
March 2014

10th

COMPLAINT ON STAND-BY NO. 2012/7 PRESUMED ILLEGAL KILLING OF BIRDS IN MALTA

Dear Ms. D'Alessandro,

Reference is made to your letter dated 23 January 2014, through which information was requested with regard to the assessment of the autumn bird migration season in Malta, as well as information on any other developments, which could help the Bureau decide on the follow-up to be given to this complaint during its next meeting, scheduled to take place on 4 April 2014. You may recall that the Government of Malta has, on 27 November 2012, transmitted a formal response to the Secretariat of the Bern Convention (T-PVS/Files(2013)03), concerning the points raised for consideration by the Standing Committee in relation to the complaint in caption. This response provided Malta's detailed reaction to a number of substantive points raised, as well as a report on the implementation of a number of Standing Committee instruments. You may also recall that additional information was provided by the Government of Malta representatives during the Fourth Meeting of the Group of Experts on the Conservation of Birds in Tunis on 31 May 2013.

In this respect, the Government of Malta is pleased to submit **further** information on the latest developments in the field of eradication of illegal killing of wild birds in Malta that have occurred after the Group of Experts meeting in Tunis in May 2013 for your consideration,.

The analysis of the enforcement situation during the 2013-2014 autumn season annexed to this letter clearly indicates a marked improvement on multiple fronts: ranging from strengthening of governance and coordinating structures to increased enforcement deployment in the field, increased intensity of field inspections, greater inter-agency collaboration and strengthening of legal deterrent. These improvements have resulted in a visible reduction across virtually all categories of bird-related crime, in comparison with the corresponding statistics for the 2012-2013 season. It is clear that Malta has developed a robust and elaborate legal regime which regulates legitimate exploitation of wild birds in line with the Birds Directive and the Bern Convention and provides considerable deterrent against bird-related crime. Moreover, Malta's record of prosecution of bird-related infringements shows that its legal regime is being effectively implemented and efficiently enforced. The facts show that Malta's overall institutional and legal system for regulating the sector is robust, and is being continuously improved. The Maltese authorities continue to work with the aim of addressing any remaining challenges; the ultimate aim being eradication of all illegal targeting of protected birds.

In this regard, kindly transmit the enclosed report for the Bureau's consideration.

Yours Sincerely,

Roderick Galdes
Parliamentary Secretary for Agriculture, Fisheries and Animal Rights

Enclosed: Annex 1: Information regarding latest efforts to eradicate illegal killing of wild birds in Malta

ANNEX 1 - INFORMATION REGARDING LATEST EFFORTS TO ERADICATE ILLEGAL KILLING OF WILD BIRDS IN MALTA

Institutional and policy developments to strengthen the fight against illegal killing of wild birds

Since May 2013, when Malta had the opportunity to present its position, during the 4th Meeting of the Group of Experts, the following institutional and policy developments have taken place in Malta:

1. A dedicated governance structure, called the Wild Birds Regulation Unit, within the Ministry for Sustainable Development, the Environment and Climate Change, was established in July 2013. This Unit has a wide range of statutory functions, including: hunting governance policy, administration of licensing and control processes, coordination of enforcement effort, hunter education, reporting and liaison with the stakeholders. The Unit has a dedicated Specialist Enforcement Branch, which assists the police and law enforcement entities in complex investigations and forensic analysis involving bird-related crime, as well as in prosecutions. The Specialist Enforcement Branch is allocated almost half of the Unit's human resources (3 officers out of 7). This underscores the importance given to the enforcement function and the fight against illegal killing of wild birds. It is notable that over 97% of all criminal prosecutions carried out in 2013 with the assistance of the Specialist Enforcement Branch resulted in convictions, which is an excellent rate when compared to best practices in this field.
2. A comprehensive proposal for the setting up of a national Wildlife Crime Investigation Unit within the Malta Police Force has been drawn up and is presently undergoing inter-ministerial consultation. This proposal envisages the establishment of a permanent structure within the police force which will be dedicated entirely to wildlife crime issues. The setting up of this structure would require a range of significant changes within the structure of the police force, including re-assignment of responsibilities amongst the different police units, provision of specialised training and capacity building for wildlife crime enforcement officials, internal restructuring as well as allocation and development of appropriate human resources.
3. A working group which aims to develop a national strategy for the eradication of illegal killing, trapping and trade in wild birds in Malta was formed in October 2013. The working group consists of key stakeholders including the Government, the Malta Police Force, the Malta Environment and Planning Authority (MEPA), the Federation for Hunting and Conservation in Malta (FKNK) and Birdlife Malta. The working group reports to the Malta Ornithology Committee. It is envisaged that the draft strategy should be available for wider stakeholder consultation in 2014.
4. The Malta Ornithology Committee, which acts as the national consultative platform on all matters concerning conservation of wild birds, has continued to discuss and oversee matters concerning implementation and enforcement of national legislation concerning conservation of wild birds. In particular, since May 2013, the Committee has considered a number of proposals including in relation to enforcement, strengthening of the legal regime, safeguard measures concerning passage of protected birds and proposals related to procedures for the treatment and rehabilitation of injured wild birds.

Strengthening Malta's legal regime to deter illegal killing of wild birds

The Conservation of Wild Birds Regulations (SL 504/71), which is the principal national legal instrument transposing the provisions of the Birds Directive and the Bern Convention in Malta, have been amended on 25 October 2013 in order to strengthen the legal deterrent against bird-related crime and to render the present system of dealing with certain types of offences much more effective. The amendments, *inter alia*, resulted in a considerable increase in the penalties for all types of offences, the inclusion of a number of minor offences that are subject to swift automatic administrative fines, and the introduction of a probationary system and possibility of mandatory community service as part of the range of applicable penalties. Offences involving illegal targeting of wild birds incur the harshest penalties, which include imprisonment of up to 2 years, a fine of up to €15,000, confiscation of the *corpus delicti* and revocation of a hunting licence for life. These penalties may be considered to be amongst the harshest in the EU.

The penalties for bird-related crime have been increased as follows:

Offences	Previous min penalty (€)	Previous max penalty (€)	New min penalty (€)	New max penalty (€)	% increase min	% increase max
1 st conviction under 27 (2): fine	239.94	4,658.75	500	5,000	108	7
1 st conviction under 27 (2): suspension of license	1 year	2 years	2 years	5 years	100	150
Subsequent conviction under 27 (2): fine	465.87	9,317.49	1,000	10,000	115	7
Subsequent conviction under 27 (2): imprisonment	2 months	2 years	6 months	2 years	200	0
1st offence under 27 (3): fine	239.94	2,329.37	500	2,500	108	7
Subsequent conviction under 27 (3): fine	465.87	4,658.75	1000	5,000	115	7
Subsequent conviction under 27 (3): suspension of license	1 year	3 years	2 years	5 years	100	67
Offences without license (2nd proviso to 27(3)): fine	6,988.12	13,976.24	7,000	15,000	0.2	7

In parallel, the amendments enacted in October 2013 considerably strengthened the legal protection regime for an additional 10 flagship bird species which previously did not enjoy the highest level of protection, such as Mute Swan, Grey Heron, Barn Owl, Common Kestrel, Common Buzzard and Eurasian Hobby. Any offences involving these birds are now subject to the same level of penalties as those applicable in relation to crimes committed against birds enjoying the highest level of protection.

Specific legal framework governing Autumn 2013 hunting and live-capturing seasons

The Autumn 2013/14 hunting and trapping seasons were established under two pieces of legislation, namely the Conservation of Wild Birds (Declaration of the periods for Hunting in Autumn - Winter 2013 - 2014) Regulations, 2013 (SL 504/95) and the Conservation of Wild Birds (Declaration on a Derogation for a 2013 Autumn Live-Capturing Season for Song Thrush and Golden Plover) Regulations, 2013 (SL 504121).

SL 504/95 established that:

(a) the hunting of birds on land shall be permitted between the 1st September 2013 and the 31st January 2014, between two hours before sunrise and two hours after sunset on any day between Monday and Saturday, and between two hours before sunrise and 1 o'clock in the afternoon (1.00 p.m.) on Sundays and Public Holidays;

Provided that hunting on land between the 15th September 2013 and the 7th October 2013 shall not be permitted from Monday to Saturday after 7.00 pm and two hours before sunrise of the next following day;

(b) the hunting of birds at sea shall be permitted between the 1st October 2013 and the 31st January 2014.

Provided that hunting at sea between the 1st October and 7th of October 2013 shall not be permitted from Monday to Saturday between 7.00 pm and two hours before sunrise of the following day: Provided further that hunting of birds at sea between 8th October and 31st January shall be allowed between two hours before sunrise and two hours after sunset on any day

between Monday and Saturday, and between two hours before sunrise and 1 o'clock in the afternoon (1.00 p.m.) on Sundays and Public Holidays, as well as on Sunday 6th October.

SL 504/121 established a live-capturing season for Song Thrush '*between the 20th October 2013 and the 31st December 2013, both dates included*'; and a live-capturing season for '*Golden Plover between the 20th October 2013 and the 10th January 2014, both dates included.*' These regulations also established a national seasonal bag limit and a seasonal bag limit per licensee for each species concerned.

In addition to the above, the activity of hunting and trapping and ancillary activities regulating wild bird exploitation are governed by the provisions of the Conservation of Wild Birds Regulations, 2006 (SL 504/71) which, *inter alia*, prohibit these two activities within restricted areas such as Bird Sanctuaries; establish a list of species that can be legally taken from the wild; prohibit certain means of capture; regulate the trade and marketing of birds and establish a system of penalties depending on the gravity of the crime.

Furthermore limited live-capturing of birds in Autumn in small numbers under strictly supervised conditions was also regulated by virtue of a special licence issued under the Conservation of Wild Birds (Framework for Allowing a Derogation Opening an Autumn Live-Capturing Season for Song Thrush and Golden Plover) Regulations, (SL 504/113), which licence, amongst other restrictions, obliged the holder to trap on registered sites and to report catches by virtue of a Short Message Service (SMS); prohibited the use of nets with a mesh size smaller than 30mm X 30mm; restricted the deployment of live decoys on site up to a maximum of ten marked birds; and prohibited trapping on *garrigue* areas within Natura 2000 sites.

Doubling enforcement during peak raptor migration period (1 September – 7 October 2013)

Throughout the period in question, the Administrative Law Enforcement Unit (ALE), within the Police Force, was the core law enforcement entity entrusted with enforcement coordination and patrols in the countryside in order to ensure compliance with the pertinent regulations and to deter and prosecute any infringements.

During the period between 1 September and 7 October 2013, the routine ALE complement of circa 26 officers was doubled to 48 personnel. The ALE was supported by over 30 officers from district police units, 4 Mounted Police officers and 4 members of the Police Dogs Section who conducted routine patrol and surveillance of the countryside around specific areas to ensure additional protection of roosting birds. Personnel from the Rapid Intervention Squad also provided assistance with response to suspected breaches of the Conservation of Wild Birds Regulations, whilst the Armed Forces of Malta detailed additional officers in five patrol vehicles to reinforce police work around known hotspots. Sea patrols were also conducted to prevent and, where detected - prosecute any instances of illegal targeting of birds at sea. Furthermore, two members of the Specialist Enforcement Branch of the Wild Birds Regulation Unit assisted the Police in field inspections, investigations and prosecutions of bird-related crime.

It is estimated that overall, during the peak raptor migration period from 1 September until 7 October 2013 more than 95 enforcement personnel from various entities were deployed to oversee the hunting season. This is double the enforcement personnel deployed in the same period in 2012. During this peak migration period, these officers carried out 4,170 field inspections, contributing around 10,000 man hours on the beat, which is 40% more than the number of hours contributed during the same period in 2012.

This ratio of enforcement deployment, amounting to roughly one officer for every 2 km² of Malta's countryside is unprecedented anywhere in the EU and possibly in the world. In addition, the countryside was monitored by several dozen local and foreign volunteers from various NGOs, which closely cooperated with the authorities and provided valuable input to surveillance and enforcement operations.

Field inspections carried out during the period between 15 September and 7 October 2013 resulted in the disclosure of 40 offences of various categories, including one case of illegal shooting of a protected bird, one case involving suspected targeting of protected birds at sea (presently under investigation) and 5 cases of trapping of protected birds. The most common type of offence disclosed

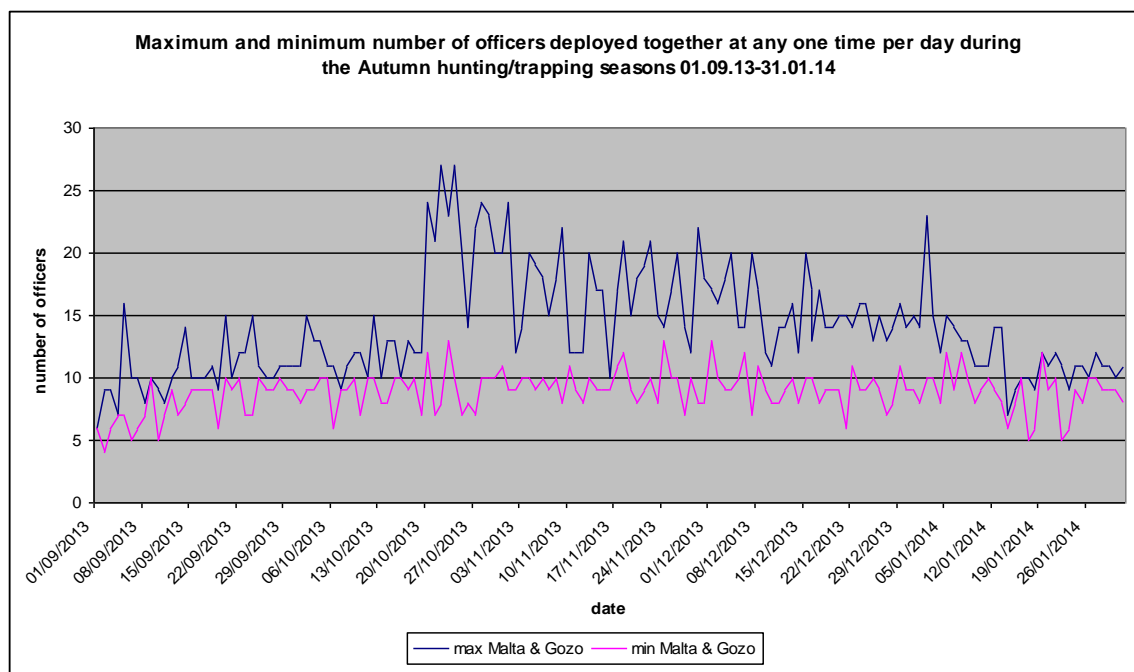
during this autumn period was the illegal use of pre-recorded bird calls (15 cases), followed by the possession of a shotgun having a magazine capable of holding more than 2 cartridges (7 cases), followed by hunting within prohibited distances from roads and inhabited areas and illegal trapping . There were no disclosed cases involving hunting in bird sanctuaries or during unpermitted hours. No incidents of illegal targeting of birds of prey after 15:00 from 15 September until 7 October were disclosed. 24 persons are being prosecuted with respect to the above-mentioned offences.

By comparison, in 2012, a total of 32 offences were detected during the same period, of which 4 incidents involved illegal shooting of protected birds. The most common type of disclosed offence during this period in 2012 was hunting within prohibited distances (9 cases), followed by possession of a shotgun having a magazine capable of holding more than 2 cartridges (5 cases) followed by shooting of protected birds (4 cases) and hunting and trapping without a license (4 cases).

Furthermore, between 15 and 30 September 2012, a total of 49 injured birds suffering gunshot wounds were recovered. During the same period in 2013, 18 birds suffering gunshot wounds were recovered, of which 11 succumbed to their injuries or were euthanized by veterinarians due to the nature of their wounds. Seven birds are being rehabilitated.

Boosting enforcement deployment in the field during the entire Autumn season (1 September 2013 and 31 January 2014)

During the entire Autumn hunting and live-capturing open seasons that collectively span from 1 September 2013 until 31 January 2014, the Police maintained an average daily deployment that ranged between a maximum of 14 officers and a minimum of 9 officers in the field at any point in time from 05:00 to 21:30, effectively covering peak hunting and trapping activity times. The following graph represents the maximum and minimum number of police officers deployed in the field at any point in time during the time period indicated above on each day of the hunting and trapping Autumn season. The numbers shown below indicate police field deployment only, and exclude all other non-field Police staff, and staff from entities other than the Police, such as officers of the Specialist Enforcement Branch of the Wild Birds Regulation Unit and the Armed Forces of Malta.



During this period a total of 7,619 field inspections and spot-checks were conducted, of which 6,902 inspections were conducted in Malta and 717 inspections took place in Gozo.

These inspections gave rise to the disclosure of several offences against which legal action was instituted as indicated in Table 1 and Table 2:

Table 1 – Trapping-related offences disclosed between 01/09/2013 and 31/01/2014			
Offence category	Cases in Malta	Cases in Gozo	Total number of cases
Trapping for protected birds (eg. Finches)	23	6	29
Use of illegal means (eg. Artificial light; vertical nets; bird callers etc.)	15	6	21
trapping using nets of mesh size < 30mm X 30mm	8	4	12
Trapping without licence	15	6	21
Use of unmarked live decoys	2	0	2
Total number of disclosed trapping-related offences	63	22	85

Table 2 - Hunting-related offences disclosed between 01/09/2013 and 31/01/2014			
Offence category	Cases in Malta	Cases in Gozo	Total number of cases
Shooting at protected birds	5	1	6
Hunting within prohibited distances (eg. 50m from road; 200m from inhabited area; at sea <3km from shore)	11	1	12
Hunting during unpermitted times/closed-season	1	0	1
Use of illegal means (eg. Shot > 3.3mm diameter; shotgun having magazine capable of being loaded with >2 shots; bird caller etc.)	52	2	54
Total number of disclosed hunting-related offences	69	4	73

By comparison, the total number of trapping-related offences disclosed during the same period in 2012 against which legal action was instituted amounted to 405 cases, of which 137 cases related to illegal trapping for protected species, whilst the total number of hunting-related offences disclosed during the same period in 2012 and against which legal action was taken amounted to 79 cases, of which only two cases related to illegal shooting of protected birds. The following tables (Table 3 and Table 4) give a more detailed breakdown of the various hunting and trapping offence categories disclosed during the same period in Autumn 2012/13 against which legal action was instituted.

Table 3 – Trapping-related offences disclosed between 01/09/2012 and 31/01/2013			
Offence category	Cases in Malta	Cases in Gozo	Total number of cases
Trapping for protected birds (eg. Finches)	124	13	137
Use of illegal means (eg. Artificial light; vertical nets; bird callers; cage-traps; small cages; protected bird decoys etc.)	111	6	117
Trapping during unpermitted times/closed-season	9	0	9
trapping using nets of mesh size < 30mm X 30mm	18	5	23
Trapping without licence	75	0	75
Use of unmarked live decoys	5	0	5
Trapping on an unregistered site	4	1	5
Other (eg. breach of licence conditions)	34	0	34
Total number of disclosed trapping-related offences	380	25	405

Table 4 - Hunting-related offences disclosed between 01/09/2012 and 31/01/2013			
Offence category	Cases in Malta	Cases in Gozo	Total number of cases
Shooting at protected birds	2	0	2
Hunting within prohibited distances (eg. 50m from road; 200m from inhabited area; at sea <3km from shore)	17	0	17
Hunting during unpermitted times/closed-season	7	0	7
Use of illegal means (eg. Shot > 3.3mm diameter; shotgun having magazine capable of being loaded with >2 shots; bird caller etc.)	46	5	51
Hunting without licence	1	0	1
Other	1	0	1
Total number of disclosed hunting-related offences	74	5	79

The number of persons apprehended and subsequently charged by the authorities for breaching the Conservation of Wild Birds Regulations during the Autumn 2013-2014 hunting and trapping seasons whilst trapping or hunting were 31 and 56 persons respectively. In comparison, legal action was taken against 170 persons for trapping illegally and 56 persons for hunting illegally during the same period during the Autumn 2012-2013 season.

Other enforcement efforts

In addition to inspections in the field to deter illegal hunting and trapping, 35 inspections were carried out by the Police assisted by members of the Specialist Enforcement Branch in private residences or other premises. The majority of such jointly investigated cases related to suspected illegal possession and taxidermy of protected species. Members of the Specialist Enforcement Branch were also called in to assist in the expert identification of specimens seized by the Police in conjunction with investigations pertaining to the suspected illegal shooting and trapping of wild birds. During these inspections a total of 2,739 specimens were examined, of which 1,025 were seized since they were found to be of protected species. A total of 415 protected bird specimens were also found to have been illegally disposed without the necessary permits. As a result of these inspections 19 persons were apprehended possessing stuffed protected birds or dead birds held for the purposes of taxidermy or live protected birds held for illegal aviculture purposes.

Zero-tolerance for infringements: Legal action in respect of offences disclosed between 1 September 2013 and 31 January 2014.

As at 6 March 2014, eight of the disclosed cases referred to above have been brought before and subsequently decided by the Courts of Law. The following table outlines the cases in question and the court decisions.

Cases disclosed during the period 01.09.13-31.01.14 and decided by the Malta Law Courts			
Date of disclosure	Case details	Date of Court decision	Sentence meted out
17.09.13	Person charged with trapping for protected species (Dotterel <i>Charadrius morinellus</i>); using protected bird decoys; trapping without licence & during the closed season.	24.09.13	Accused was found guilty and fined EUR 1,000. The court also ordered the confiscation of all trapping equipment and live protected decoys & suspended his hunting licence for a period of one year
11.09.13	Person charged with being in possession of seven protected bird carcasses and 78 undeclared stuffed protected birds; and the hunting of protected birds in the preceding months; and the unauthorised disposal of 11 declared stuffed protected birds.	04.03.14	Accused was found guilty and fined EUR 2,300. The Court also ordered the confiscation of all dead and stuffed protected birds and the suspension of his licence for a period of one year.
06.10.13	Person charged with shooting a protected bird (Kestrel <i>Falco tinnunculus</i>).	05.02.14	Accused was found guilty and fined EUR 2,000. The Court also ordered the confiscation of the shotgun and bird and also ordered the suspension of his hunting licence for one year
08.10.13	Person charged with the illegal importation of protected birds; possession of an undeclared stuffed protected bird (Ring Ouzel <i>Turdus torquatus</i>); and disposal of twenty stuffed protected birds without authorization.	05.02.14	Accused was acquitted of the charge of protected bird smuggling due to lack of evidence, however found guilty of all of the other charges. The Court fined accused EUR 500 and ordered the confiscation of the birds
23.10.13	Person charged with shooting & being in possession of a protected bird (Short toed Eagle <i>Circaetus gallicus</i>) and with being	25.10.13	Accused found guilty and fined EUR 4,600. Court also ordered the confiscation of his shotgun, all protected

	in possession of 75 undeclared stuffed protected birds.		birds and his vehicle which was used in the commission of the crime. The Court also suspended his hunting licence for a period of three years.
05.11.13	Person charged with having used illegal trapping methods (vertical net and pre-recorded bird calls)	05.02.14	Accused was found guilty and fined EUR 1,000. Court also ordered the confiscation of the bird caller and vertical nets.
09.11.13	Person charged with trapping for protected species (Finches Fringillidae spp.) & using protected bird decoys	07.01.14	Accused was found guilty and fined EUR 1,700. Court also ordered the confiscation of all live protected decoys and a suspension of his licence for a period of two years.
16.11.13	Person charged with trapping for protected species (Finches Fringillidae spp.); using protected bird decoys & trapping without licence	04.02.14	Accused was found guilty and fined EUR 1,200. The court also ordered the confiscation of all trapping equipment and live protected decoys.
07.01.14	Person charged with being in possession of 16 live protected birds (2 Blue Rock Thrush <i>Monticola solitarius</i> & 14 <i>Emberiza</i> spp.)	12.02.14	Accused was found guilty and fined EUR 1,000. Court also ordered the confiscation of all the live protected birds.

Legal action in the Criminal Courts is in the process of being taken with respect to all other pending cases.

Furthermore, besides legal action taken in the Courts in respect of the major offences, a total of 20 persons have been fined between €250 and €500 each for committing minor offences listed in Schedule VIII of the Conservation of Wild Birds Regulations during the 2013-2014 autumn hunting / trapping seasons. The most common type of minor offence subjected to an automatic fine without recourse to criminal proceedings was the use of pre-recorded bird calls (17 individuals) and possession of a firearm with magazine capable of holding more than 2 shots (3 individuals).

Remaining challenges and commitment to eradicate illegal killing, trapping and trade in wild birds in Malta

Notwithstanding the considerable and visible improvement in the enforcement situation during 2013 and the beginning of 2014, which is also explicitly recognised by a number of stakeholders including the Federation for Hunting and Conservation in Malta (FKNK) and Birdlife (Malta), a number of challenges remain to be addressed in the future. These challenges can be summed up as follows:

- **The need for greater collaboration amongst stakeholders:** experience has shown that only concerted effort involving close collaboration between the public, environmental NGOs, hunting organisations and the authorities can lead to marked and sustainable improvement in the overall enforcement situation, with the ultimate objective being total eradication of bird-related crime. Despite considerable progress achieved on this front over the past few months, further effort to build bridges between the hunting organisations, on the one hand, and bird conservation NGOs on the other, is required. For this reason, the Wild Birds Regulation Unit has proposed the signing of a Joint Communiqué “on our common resolve to eradicate illegal killing, trapping and trade in wild birds in Malta” by all hunting organisations, Birdlife Malta and other environmental NGOs wishing to publically subscribe to this joint effort. This Communiqué still remains to be signed.
- **The need for greater strategic coordination** amongst all stakeholders in a common drive to eradicate illegal killing, trapping and trade in wild birds. Despite considerable strengthening of the appropriate governance structures, most notably – the setting up of the Wild Birds Regulation Unit with a dedicated Specialist Enforcement Branch, there is a pressing need for a national strategy that would channel all enforcement efforts proactively towards attainment of common enforcement objectives. The process of developing such a national strategy was initiated in

collaboration with the relevant stakeholders in 2013 and is expected to come to fruition during 2014.

- **The need for further capacity building and strengthening of enforcement structures.** A major step in this direction is envisaged to come in the form of the planned setting up of a dedicated Wildlife Crime Investigation Unit within the Malta Police force, and further capacity building within the Specialist Enforcement Branch of the Wild Birds Regulation Unit. This capacity building process is a wide ranging exercise encompassing the development and training of the necessary human resources and upgrading of technological and specialist equipment capabilities.
- **The need for greater public awareness of zero-tolerance policy towards bird-related crime.** Despite overall marked improvement and strengthening of enforcement structures, isolated sporadic incidents of illegal targeting of protected birds still occurred during the 2013 autumn season. The most notable incident occurred on 23 October 2013 and involved the illegal shooting of 14 booted eagles (*Aquila pennata*). Whilst enforcement response to that particular incident was extremely swift²⁷ and resulted in the immediate detection and prosecution of detected perpetrators (one of whom was convicted and handed the maximum penalty within 2 days from the incident occurring), it is felt that there is a need for much greater awareness of the zero-tolerance policy amongst the hunting community in order to prevent and deter any rogue individuals from committing such criminal acts in the future.

CONCLUSION

An analysis of the enforcement situation during the 2013-2014 autumn season clearly indicates a marked improvement on multiple fronts: ranging from strengthening of governance and coordinating structures to increased enforcement deployment in the field, increased intensity of field inspections, greater inter-agency collaboration and strengthening of legal deterrent. These improvements have resulted into a visible reduction in virtually all categories of bird-related crime, in comparison with the corresponding statistics for the 2012-2013 season.

It is clear that Malta has developed a robust and elaborate legal regime which regulates legitimate exploitation of wild birds in line with the Birds Directive and the Bern Convention and provides considerable deterrent against bird-related crime. Moreover, Malta's record of prosecution of bird-related infringements shows that its legal regime is being effectively implemented and efficiently enforced. The facts show that Malta's overall institutional and legal system for regulating the sector is robust, and is being continuously improved. The Maltese authorities continue to work with the aim of addressing any remaining challenges; the ultimate aim being eradication of all illegal targeting of protected birds.

²⁷ At around 17:00 on 23 October 2013, the Wild Birds Regulation Unit received reports of large flocks of booted eagles (*Aquila pennata*) and short-toed eagles (*Circaetus gallicus*) heading towards the Maltese Islands, as well as reports of illegal targeting of these birds. Enforcement Officials were deployed immediately. In all, 14 eagles were confirmed shot, of which 2 were confirmed shot in Gozo. The area was immediately sealed with the assistance of the Armed Forces of Malta. Additional police units were immediately deployed, with ALE and the rapid response unit providing overnight surveillance. Within hours from the incident, a suspect was apprehended. The suspect was prosecuted the next day, convicted and handed down the maximum penalty: €4,600 fine, confiscation of vehicle, shotguns, as well as suspension of licence for 3 years. A day later, FKNK expelled this individual from the federation, for life. Investigations conducted by the Police with the assistance of the Special Enforcement Branch of the Wild Birds Regulation Unit in the immediate aftermath of this incident led to the disclosure of seven cases, involving illegal possession, taxidermy and illegal disposal of protected birds. Two of the above cases were in Gozo. All offenders are being prosecuted. Six further cases involving suspected illegal possession and disposal of stuffed protected birds are being investigated. Hunting organisations, the Government and Birdlife (Malta) issued strong condemnations. Amendments to the Conservation of Wild Birds Regulations, doubling the penalties for the shooting of protected birds that had been prepared over the preceding weeks, were published on the same day.