Annex 1 – Scientific considerations on the conservation status of Quail and Turtle Dove

In assessing available scientific information regarding the conservation status of Quail and Turtle Dove, the Government of Malta has taken note of the following sources of information:

Alerstam, T. 1990. Bird Migration. Cambridge University Press, Cambridge.

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Bannerman, D.A. and J.A. Vella-Gaffiero. 1976. Birds of the Maltese Archipelago. Museums Department, Valletta, Malta.

Bechet, A. 2009. European Union Management Plan for Golden Plover Pluvialis atricaria 2009-2011. Technical Report 2009-034. EU Commission, Brussels. 35 p.

BirdLife International. 2004. Birds in Europe: population estimates, trends and conservation status (BirdLife Conservation Series No. 12). BirdLife International, Cambridge, U.K.

Boutin, J.-M. 2001. Elements for a turtle dove (Streptopelia turtur) management plan. Game and Wildlife Science 18: 87-112

Bub, H. 1991. Bird Trapping and Bird Banding. Cornell University Press, N.Y.

Casement, M.B. 1966. Migration across the Mediterranean observed by radar. Ibis 108:461-491.

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

Delany, S., Scott, D., Dodman, T and Stroud, D., eds. 2009. An Atlas of Wader Populations in SDSAfrica and Western Eurasia. Wetlands International, Wageningen, The Netherlands.

De Lucca, C. 1969a. A revised check-list of the birds of the Maltese Islands. E.W. Classey Ltd., Hampton,Middlesex, England.

Despott, G. 1917. Notes on the ornithology of Malta. Ibis 5: 281-349, 466-501

Gibb, J. 1951. The birds of the Maltese Islands. Ibis 93: 109-127.

EU LIFE + Project on Bird Migration and Trapping. 2009. Changing cultural attitudes to trapping in order to fascilitate implementation of the Birds Directive in Malta. BirdLife Malta, RSPB, Media Today.

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EU Commission Guidance Document. 2008. Guide to sustainable Hunting under the Birds Directive. EU Commission-Environment, Brussels.

Guyomarc'h, J.C. 2003. Elements for a common quail (Coturnix c. coturnix) management plan. Game and Wildlife Science 20: 1-92.

Hayman, P., Marchant, J. and Prater, T. 1991. Shorebirds: An identification guide to waders of the world. Christopher Helm Ltd., A & C Black, London.

Lutz, M. 2007. Management Plan for Turtle Dove (Streptopelia turtur) 2007-2009. Tech. Report -007-2007. EU Commission, Brussels. 42 p.

MEPA. 2002. Carnet de Chasse- 2002 Report. Malta Environmental and Planning Authority, Nature Protection Unit, Government of Malta, Valletta.
MEPA. 2003. Carnet de Chasse- 2003 Report. Malta Environmental and Planning Authority, Nature Protection Unit, Government of Malta, Valletta.
MEPA. 2004. Carnet de Chasse- 2004 Report. Malta Environmental and Planning Authority, Nature Protection Unit, Government of Malta, Valletta.
MEPA. 2005. Carnet de Chasse- 2005 Report. Malta Environmental and Planning Authority, Nature Protection Unit, Government of Malta, Valletta.
MEPA. 2006. Carnet de Chasse- 2006 Report. Malta Environmental and Planning Authority, Nature Protection Unit, Government of Malta, Valletta.
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MEPA. 2008. Carnet de Chasse- 2008 Report. Malta Environmental and Planning Authority, Nature Protection Unit, Government of Malta, Valletta.
MEPA. 2009. Carnet de Chasse- 2009 Report. Malta Environmental and Planning Authority, Nature Protection Unit, Government of Malta, Valletta.
Moreira, F. and Russo, D. 2007. Modelling the impact of agricultural abandonment and wildfires on vertebrate diversity in Mediterranean Europe. Landscape Ecology 22: 1461-1467.
Moreau, R.E. 1953. Migration in the Mediterranean area. Ibis 95:329-364.
Perennou, C. 2009. European Union Management Plan 2009-2011 – Common Quail Coturnix coturnix. Technical Report 2009-032. EU Commission, Brussels. 69 p.
Raine, A. 2009a. A survey of trapping sites in the Maltese Islands-Autumn 2009. BirdLife Malta, Malta (part of EU LIFE+Project on Bird Migration and Trapping).
Raine, A. 2009b. 2009 Rare Bird Breeding Report. BirdLife Malta, Malta.
Raine, A., Sultana, J. and Gillings, S. 2009. Malta breeding Bird Atlas 2008. BirdLife Malta, Malta.
Roberts, E.L. 1954. The birds of Malta. Progress Press, Malta
Schembri, A. 1843. Catalogo Ornithologico del Gruppo di Malta. Anglo Maltese, Malta.
Sultana, J. And C. Gauci. 1982. A new Guide to the birds of Malta. Malta Ornithological Society, Malta.
Sultana, J., Borg, J.J., Gauci, C. and Falzon, V. 2011. The breeding Birds of Malta. BirdLife Malta, Malta.
Thomaidis, C. 2010. Study of the migration patterns of turtle dove Streptopelia turtur and quail Coturnix coturnix over the Maltese Islands. Report prepared for the Ministry of rural Affairs and the Environment and Office of Prime Minister, Malta. 56 p.
Tucker, G.M. and Heath, M.F. 1994. Birds in Europe: their conservation status. BirdLife Conservation Series No. 3. BirdLife International, Cambridge, U.K.
Trabau, L. and J. Lepart. 1980. Diversity and stability in garrigue ecosystems after fire. Vegetatio 43: 49-57.
Wright, C.A. 1864. List of birds observed in the Islands of Malta and Gozo. Ibis 6: 42-73, 137-157.

In respect of Quail, the Government of Malta took note of the fact that the International Union for Conservation of Nature and Natural Resources (IUCN) lists this species as not threatened, within the category 'LC' (least concern), relating to the global population. The Government has also took into account the fact that EU Management plan for Quail 2009-2011 (Perennou 2009) indicates that the conservation status of Quail is favourable in the EU, with the EU Quail population numbering some 884,000 - 1,912,000 calling males. Perennou (2009) also noted that the analysis of the 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 southeastern Europe.
In a similar vein, 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^{o}, but that in the 1990's an overall population increase seems to have taken place.

BirdLife International (2004) in its publication "Birds in Europe: Population estimates, trends and conservation status" 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.

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).

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.

Furthermore, the Government noted various scientific reports, including that by Raine et al. (2009)1, Sultana et al. (2011) 2, which indicate that Quail does not breed regularly in the Maltese Islands, and only occasionally visits the Islands in limited numbers during migration.

BirdLife (2004) quotes 1-3 breeding pairs of Quail in Malta in the period between 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). DeLucca (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.

In respect of Turtle Dove, the Government also noted that the International Union for Conservation of Nature and Natural Resources (IUCN) lists this species as not threatened, within the category LC (least concern), for the global population.

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

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

According to the EU Management plan for Turtle Dove 2007-2009 (Lutz 2007), this species has an unfavorable status within the EU, based upon the fact that Turtle Dove populations are showing decreasing trends in a number of Member States. Malta submits that a detailed analysis of breeding populations is necessary to confirm or disprove such a decline. Estimates of Turtle Dove population sizes are available for most European countries, however they are still imprecise, with significant differences between maximum and minimum figures. For most countries these estimates are not backed by censuses prepared from sampling programs and an updating of all estimates is therefore necessary. Although this species is included in several national common Bird Monitoring and census schemes, it is obvious that more scientific work is required to assess its on-going population trends.

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, in the EU 25 the population of breeding pairs is around 1.6 to 2.6 million and this species is considered to be stable in Central Europe, including in nearby Italy.

Boutin (2001) also considers the Turtle Dove population figures as imprecise for the above-mentioned reasons and also notes that occasionally such figures tend to be outdated. Little scientific research has taken place on the development of European populations, owing to the inherent difficulty of taking precise censuses. Boutin reported that the total European population is between 3 and 13.2 million pairs and that this large bracket is due to the great vagueness concerning Russia and Turkey. He estimated the EU population as between 1.2 and 1.9 million pairs.

Lutz (2007), basing himself on BirdLife International (2004), estimates the European Turtle Dove population between 3.5 and 7.2 million pairs, and the EU population at 1.6 to 2.6 million pairs, comprising 36-46% of the total European population.

BirdLife International (2004) suggests that the European Turtle Dove population is very large (>3.5 million pairs) but underwent a moderate decline between 1970 and 1990. The report shows stability in central Europe and an increase in France. Nonetheless, BirdLife claims that since the said population is declining in Spain, Russia and Turkey, the species is evaluated as 'declining'.

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. DeLucca (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 the recently published Sultana et al. (2011), also published by BirdLife Malta, where the species is classed as an irregular breeding bird.

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"3. Sultana et al. (2011) also indicates that since then no nesting from truly wild birds was confirmed. In this

[3] Sultana *et al.*, 2011: 310

respect, Raine et al. (2009) notes that display fights were also recorded in June "long after the migration period has ended"4.

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 (2009b) in Malta Breeding Bird Atlas 2008 as well as in the 2009 Rare Breeding Bird Report (Raine et al.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.

Besides citing Schembri and Wright, Sultana et al. cites 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 in 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.

Conclusion

The Maltese authorities consider that the above-mentioned scientific literature does not indicate any significant changes in the population trends and in the conservation status of Quail and Turtle Dove which would require a re-assessment of the conclusions reached by the Court of Justice of the European Union in its judgment of 10 September 2009.

[4] Raine *et al.*, 2009: 36