
SHORT NOTES ON THE INTRODUCED AVIFAUNA OF COMINO ISLAND AND SOME OF THEIR INTERACTIONS WITH LOCAL HERPETOFAUNA

Arnold SCIBERRAS¹

ABSTRACT

Reported in this short note are some observations on the introduced avifauna of Comino Island and observed interactions with local herpetofauna.

Keywords: avifauna, Comino, herpetofauna

INTRODUCTION

On the last few trips made to Comino the author noticed some introduced avifauna are on increase and through contacts and observation, some interest discoveries came to light. Through the past years the author has been visiting various islands and islets to study the behaviour of the different populations of *Podarcis filfolensis*. One island, which has easy access and less human interference, is Comino, so for this matter it is the most frequent island that that is visited. Besides the target, while observation was carried out in the field, other notes were taken of the flora and fauna noted. From compiled literature, a total of 5 species of game birds were introduced to the island. These are all from the family Phasianidae.

- 1) *Alectoris barbara* – was introduced in 1808 and it bred for several years but by 1843 it had already disappeared (J. sultana 2001)
- 2) *Colinus virginianus* – was present in 1997 but there is a high possibility that this species has also disappeared completely from the island.
- 3) *Phasianus colchicus* – still present today but localised in the centre of Comino.
- 4) *Chrysolophus pictus* – only a couple of pairs restricted to the central part of Comino.
- 5) *Alectoris chukar* – still present today and the most widespread and common on the island.

The last four species were introduced by a local resident for shooting practices in the early 1990's.

The sixth member of this family, the *Coturnix coturnix*, is the only bird that occurs naturally on our islands and on Comino its quiet common especially in spring & autumn.

Abundance of alien avifauna species

In the first years after its release, *C.virginianus* was very common, but its numbers subsequently started declining. Only three specimens of *C.virginianus* were observed in late 1997, but since then none were ever encountered. *P.colchicus* was common at the same time but it never spread through the whole island. Although it was encountered in various areas, it was generally localised near the hotel and the valley area. A few pairs of *C.*

¹ 131 'Arnest', Arcade Str, Paola – bioislets@gmail.com

pictus were recorded from a restricted location in the central part of the island. Only one specimen of this species was observed recently, on 20/iii/2009. However *A.chukar* seems to have taken all over the island and was observed also on the Large Blue Lagoon Rock and Cominotto. Near St. Mary's Tower, flocks of more than 30 specimens of this species were recorded on 18.iv.2004 and on 4.iii.2009 a flock constituting more than 150 individuals was recorded. Near the pig farm and the cliffs that are close to the heliport, flock sizes exceeding 50 individuals were recorded on 19.iv.2004 and this number had tripled by mid-April 2009. Large flocks of *Columbia livia domest* were also encountered near the pig farm and along the cliffs known as 'Taht il-Mazz'. In this area, there is an islet with a high density of nests of the species.

A.chukar tends to congregate in large flocks, especially during winter, than disperse during the breeding season. *A.chukar* also appears to nest in greatest numbers in the environs of the heliport. On 19.4.2004, 16 nests of *A.chukar*, with an average of 6 eggs in each nest, were found at this location, which measures less than 30 m². Interesting to note is the fact that a small number also managed to cross between Comino and Gozo and several specimens were caught by local hunters and trappers at Qala and Hondoq ir-Rummien in 2003, 2004 and 2007. At least seven such instances have been confirmed by the author, three of which through identification of specimens in local hunters' collections. In 2008, there were three reported sightings of this species at Ahrax and two reported sightings at Majjistral Park. The latter could have either crossed from Comino or were escapees' as *A.chukar* is a popular choice with bird breeders to be released for hunting purposes.

Other avifaunal species which are present in a semi-feral state and which were recorded from the environs of the old government school include various races of *Gallus gallus domesticus* and *Lophura nycthemera*. A number of *Streptopelia turtur* and *Streptopelia decaocto* individuals were also released in recent years, presumably by permanent inhabitants of Comino, with only the latter managing to establish itself in the wild on the island. All these avifaunal species, except *Alectoris barbara* and *Columbia livia domest*, were released wilfully by man on the island for hunting purposes.

Interactions with local herpetofauna

A.chukar nests were recorded on several occasions on Comino. On four separate occasions, on 12.iv.2003, 16.v.2004, 6.viii.06 and 10.viii.09, *P.filfolensis* individuals were observed feeding on broken eggs. On 19.4.2003, a *Hierophis viridiflavus* individual was observed feeding on a chick. The predation by this lacertid was observed to be more intense on Cominotto Island. Nearly every nest of the 13 observed of *A.chukar* on the latter island was subject to predation by *P.filfolensis*. It is not yet certain whether the latter species is capable of cracking open the egg or feeds only when the egg has already been opened by the chick itself or through any other cause; however, on one occasion, five adult lizards were observed feeding on a chick carcass, dragging it out of the egg shell. On the other hand, although most of the diet of *A.chukar* is vegetable in nature, on 12 occasions this species was observed attacking juveniles of *P.filfolensis*, consuming the carcasses after killing the individuals. On 27.4.2003, a *P.colchicus* nest was recorded near the pig farm, holding 12 eggs. On the same day, a few chicks of the same species were observed in the same area foraging for food. Two of these were later taken by *H.viridiflavus*. Both *Chalcides ocellatus* and *P. filfolensis* were observed feeding on *A.chukar* and *C.livia domest* carcasses. *Hemidactylus turcicus* was recorded on several occasions in the latter two avifaunal species nests but no other interactions with these species were subsequently observed.



A



B

Figure 1: *Alectoris chukar* observed on Comino Island: A) pair of individuals observed close to the nest on 12.04.2003; B) individual observed on 19.04.2004. Photo credits: A.Sciberras)

On the islet known as Il-Gebbla ta' Taht il-Mazz', the population of *P.filfolensis* was noted feeding extensively on fresh *C. livia domest* faeces and on Diptera and Coleoptera species that were foraging on the same faeces. On some occasions, *P. filfolensis* individuals were also observed feeding on Coleoptera larvae, present in significant numbers on the droppings. In harsh environments such as those to be found on these small islets, it is assumed that such behaviours tend to become more common, with an analogy being that constituted by the lizard population present at Fungus Rock - that of *P.filfolensis generalensis*. The main diet of this population consists of all forms of migrating insects, such as *Vanessa cardui* and hymenopteran species, with the main prey being *Sphingonotus coeruleans*, which is a resident on the rock. Occasionally, larvae of insects (possibly those of Coleoptera) are dug out from *C. diomedea* faeces. (Sciberras, 2007). These larvae are still under study to identify them taxonomically.

CONCLUSIONS

It seems that *P.colchicus* and *A.chukar* have stabilised themselves on Comino Island and the latter is breeding at a prolific rate, although long-term monitoring of the two species and of indigenous species is needed to assess the ecological impacts of the two introduced species. From breeding records of *Coturnix coturnix* and *Calandrella brachydactyla* on Comino and Cominotto dating back to the 1990's, a decrease in these two species is discernible, although it is too early to ascribe this to the expansion in *P. colchicus* and *A. chukar* populations. One interesting observation is that *A.chukar* nests attract *Rattus* sp., which are responsible for devouring large numbers of bird eggs. This situation may be attracting and aiding the latter species to disperse on to new sensitive locations such as Cominotto, endangering native fauna and flora in the process. More studies on the reported alien avifauna, their ecology and future distributions should be conducted to assess their ecological impact and to determine if there are any measures that can be adopted to preserve indigenous wildlife.

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REFERENCES

- Falzon, V.** (2002) Vertebrate Inclusions in the diet of the Spanish Sparrow *Passer hispaniolensis* II- Merill issue 30pg.39 Birdlife Malta
- Heinzel, H. Fitter, R F. & Parslow, J.** (1992) Birds of Britain & Europe. Collins
- Sciberras, A.** (2004) The Contribution of Maltese Reptiles to Agriculture. MCAST link :issue 9 pg.6
- Sciberras, A.** (2007) Lizards At Id-Dwejra. Dwejra Heritage Park Gozo pgs.28-33. Dwejra Management Board.
- Sterry, P** (2004) Birds of the Mediterranean. D&N publishing
- Sultana, J. & Gauci, C.** (1979) L-Aghasafar .MOS publication
- Sultana, J.** (2001) L-Ghasafar ta' Malta. Publikazzjoniet Indipendenza pg53.182pp,9pls.