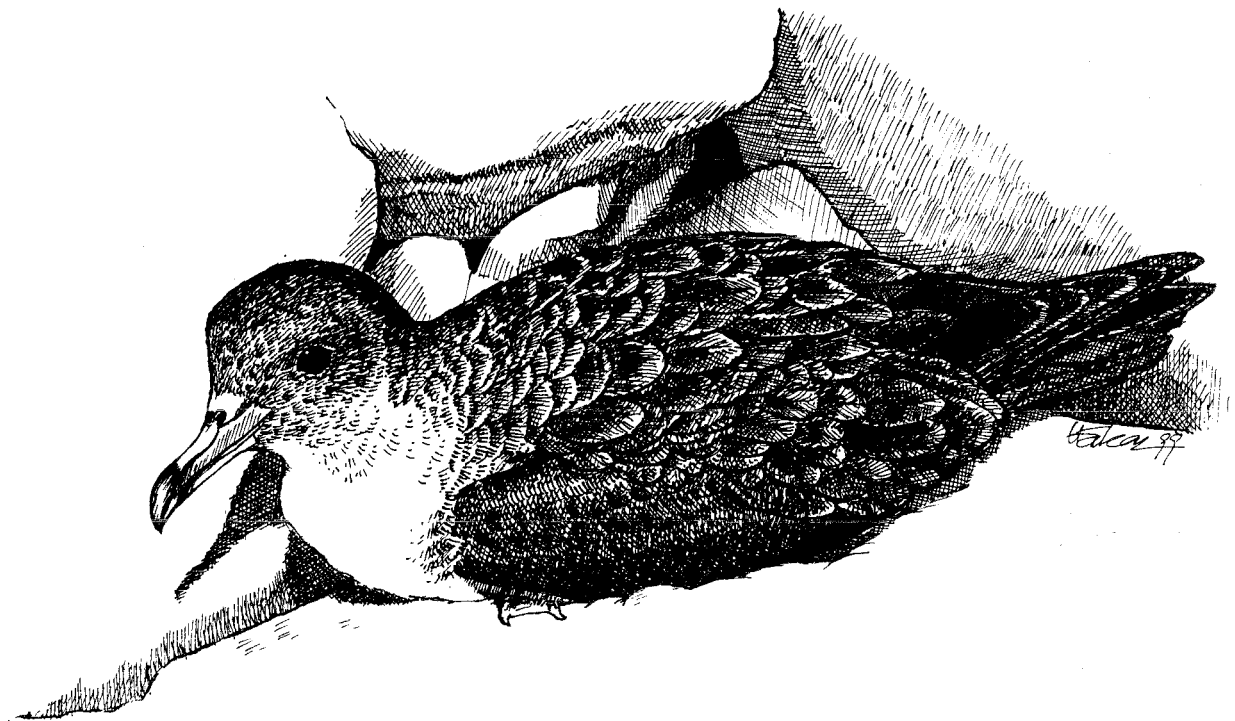

Il-Merill

The ornithological journal of BirdLife Malta

Issue 29



Calonectris diomedea

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The Editor also welcomes papers and short notes dealing with any aspect of ornithology having a bearing on the Maltese Islands and the Mediterranean.

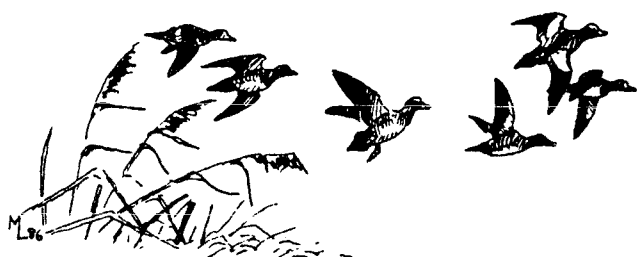
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Almond blossoms and their avian nectar feeders

Martin A. Thake

Abstract

The behaviour of birds visiting Almond trees for nectar was observed and quantified. The adaptations of Almond trees to cope with and attract the attention of birds were examined. Nectar production was correlated with the colour of the filaments of the stamens. Flowers with red filaments produced little nectar whereas nectar was generally plentiful in flowers whose filaments were light pink or white. Almond trees differ from other species of *Prunus* in that their blossoms are more robust and well able to withstand the attentions of sparrows without falling off the tree. Almond trees are polymorphic and only a small minority of trees (1-5%) attracted many birds. Most of the trees that were examined were used by the resident pair of Sardinian Warblers. The following species of birds were observed taking nectar: *Sylvia melanocephala*, *Sylvia atricapilla*, *Phylloscopus collybita*, *Passer hispaniolensis* and *Remiz pendulinus*. The length of time spent varied from a few seconds to 23 min. Means varied between 1.18 min (*S. atricapilla*) and 5.13 min (*S. melanocephala*). The warblers searched the flowers visually before selecting a flower to probe with the bill. Hovering was observed only once, the birds probed the flowers while perching nearby. *Passer hispaniolensis* tore flowers open or perforated flowers at one side in order to get at the nectar. Only 26.7% of the flowers on one study tree remained intact; sparrows had torn open all the rest. Most of the flowers with red filaments developed further despite having been torn open by sparrows. At another study site, *Sylvia melanocephala* was observed to jab into or tear flowers in order to get at insect larvae inside the flower. Pollen stains were observed on the birds' heads frequently.

A hypothesis is presented which attributes the rarity of avian nectarivory in the Mediterranean to the low species diversity of plants there by comparison to the tropics.

Introduction

The Almond tree *Prunus dulcis* is believed to have originated in SW Asia and extended its range into the Mediterranean region during the Pleistocene or Holocene, some believe as a result of introduction by humans (Haslam *et al* 1977, Humphries *et al* 1985). Almond trees are common in the Maltese countryside. It is not all clear that this species was introduced into Malta by man.

Previous studies have shown that birds do visit Almond flowers for nectar (Thake 1990 - 91, 1992 - 1994).

The objective of this study was to describe and quantify the behaviour of avian nectarivores visiting Almond blossoms locally. In addition, attention was focused on the problem posed by the complete absence of specialist avian nectarivores in the Palaearctic and its possible cause.

Methods

Most of the observations were made in 1993. An area below the eastern bastions of Mdina was scanned through binoculars and the number of Almond trees in flower determined by counting. The results were used to produce Figure 1.

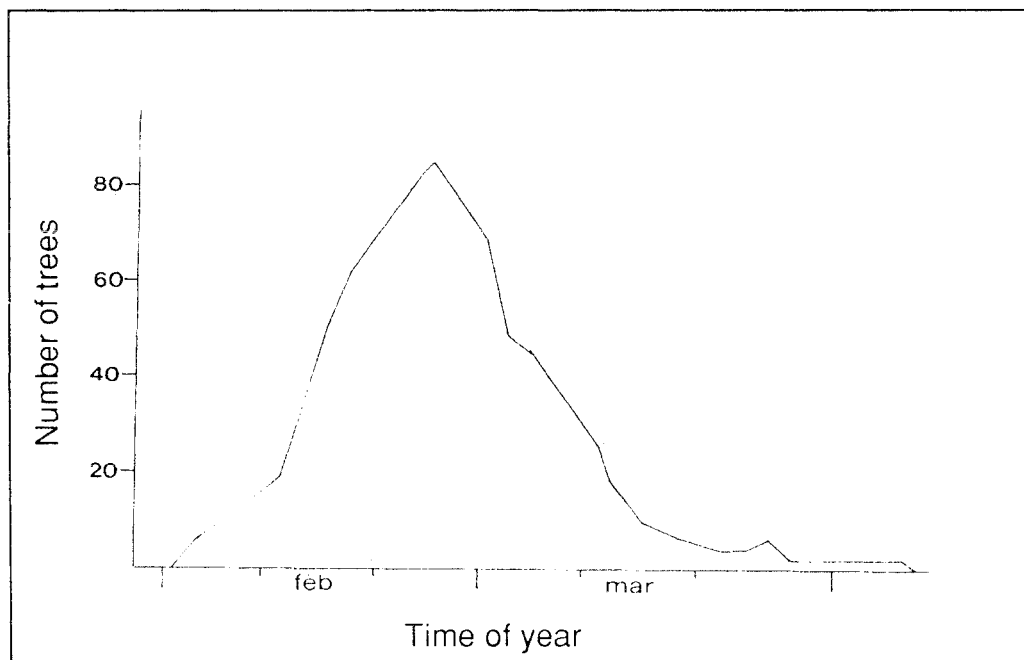


Fig1. The flowering season of Almond *Prunus dulcis* at Mdina, Malta in 1993.

During the peak flowering season, Almond flowers were collected from many different trees and examined. Nectar content was measured using a microsyringe. The dimensions of various parts of the flowers were measured using vernier calipers. The flowers were tasted and smelt.

Detailed observations of nectar feeding were made through binoculars at two localities. Sample of flowers were collected from these two trees in order to quantify the damage done to the flowers as a result of avian activity. A few observations were made elsewhere (see Figure 2).

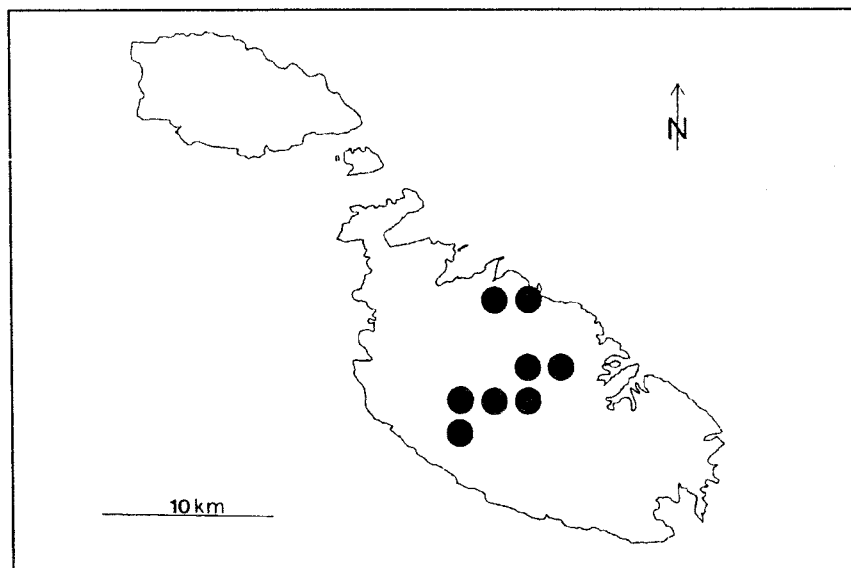


Fig 2. The distribution of localities in Malta where birds were observed taking nectar from Almond blossoms (more than 50 trees and many different birds at the various localities).

Results

The Almond trees

Almond trees differ from other European species of *Prunus* in that they exhibit a high degree of individual variation. Some trees produce new leaves as they flower, producing many leaves and few flowers. Other trees turn conspicuously white or pink as they burst into flowers without producing any leaves. Petals may be white or pink, and flowers may vary in size from tree to tree.

All the trees examined were found to produce flowers of different kinds. Flowers with red filaments produced little nectar and went on to produce seed. Flowers with pink to white filaments produced more nectar but did not produce any seed. The flowers with light coloured filaments seem to be produced to attract insect and avian nectar feeders. Data obtained at the Station Gardens, Birkirkara are depicted in Figure 3 and in Tables 1, 2 and 3.

Colour of filaments	Percentage
White	29.3
Light Pink	39.7
Pink	24.1
Red	6.9

Table 1 . Distribution of the colour of the filaments of the stamens on Almond flowers from the study trees at the Station Gardens, Birkirkara on 27 Feb 1993.

Colour of filaments	Diameter of gynaecium (cm)
White	0.193
Light Pink	0.212
Pink	0.247
Red	0.28

Table 2. Maximum diameter (cm) of the gynaecium of Almond flowers from the study tree at the Station Gardens on 27 Feb 1993.

Colour of filaments	Percentage with salicylaldehyde
White	46.2%
Light Pink	5.9%
Pink	0
Red	0

Males	Females
96	172

Table 3. Percentage of flowers that smelt of Salicylaldehyde (Station Gardens 27 Feb 1993. Sample size 106)

Table 4. Individual Spanish Sparrows sexed in the field

Birds are not anosmic and the odour of salicylaldehyde might serve as an olfactory stimulus which the birds associate with the presence of nectar.

The quantity of nectar varied widely. Sometimes there was no nectar at all; in some cases the receptacle would be half full of nectar. The quantity of nectar present was correlated with the colour of the filaments of the stamens (see Figure 3).

Almond trees are clearly adapted to attract and accommodate avian nectarivores in various ways:

- a They produce more nectar than many other species of *Prunus*.
- b They produce special nectar-filled flowers which do not produce any seed and seem to be designed to attract nectarivores.
- c The flowers are wide and robust, well-suited to coping with the attention of birds.
- d The stamens are directed upwards and outwards and do not hinder access to the nectar.
- e The colour and odour of the flowers signals nectar availability.
- f Sparrows can tear the receptacle open without destroying the gynaecium.
- g The receptacle of the nectar-filled sterile flowers is designed to retain nectar even after it has been torn open by a sparrow.
- h Water repellent hairs on the gynaecium ensure that small quantities of nectar collect into tiny droplets which can be sucked up easily using the tip of the bill.

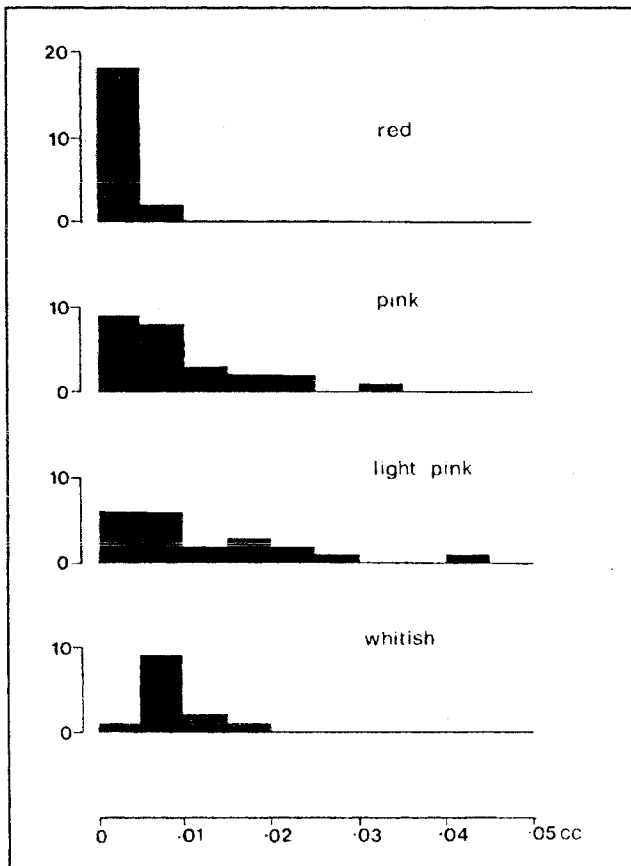


Fig3. Verification of nectar content in Almond flowers having filaments of different colours. Flowers whose filaments were white to pink produced more nectar than flowers whose filaments were red (chi square test: $p < .005$). Sample from a tree at Attard, Malta.

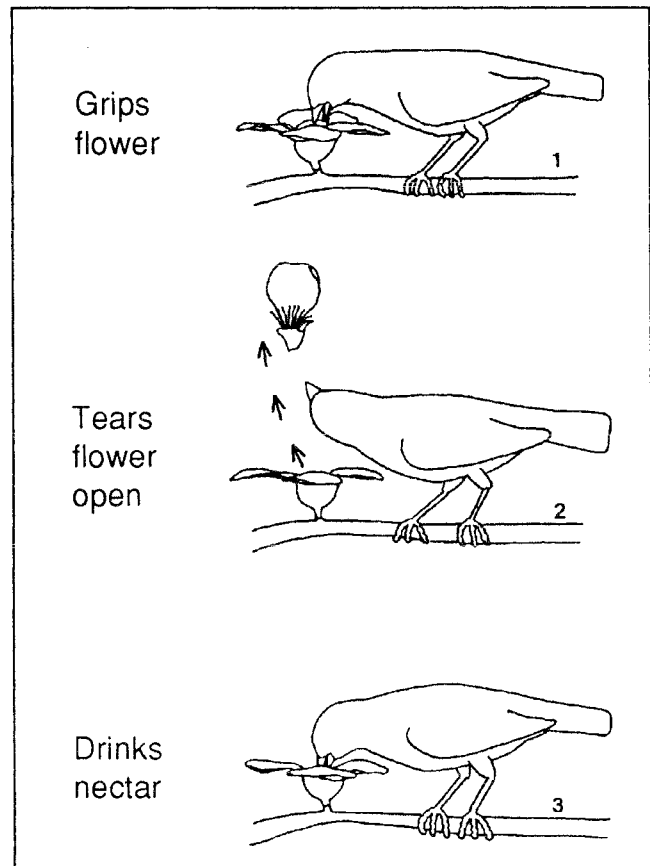


Fig 4. Spanish Sparrow tearing open an Almond blossom to get at the nectar inside.

Unlike Plums and Greengages *Prunus domestica* which are adapted to accommodate short-billed birds but not sparrows, Almonds are clearly adapted to cope with rough handling by sparrows.

The behaviour of avian nectar feeders

Two trees were studied in detail: a large mature tree which attracted many birds and a smaller one which was used by the resident Sardinian Warblers.

Station Gardens, Birkirkara

This tree was used by two Sardinian Warblers, 1 Blackcap, 2 Common Chiffchaffs and 7 or more different Spanish Sparrows.

Both male and female Sardinian Warblers used the flowers. Female Spanish Sparrows were observed to do so more frequently than males (z test ; $p < .01$; see Table 4).

The visits made by all birds were timed using a stopwatch. Spanish Sparrows could not be followed individually without bias and no times are reported here. Sardinian Warbler visits ranged in duration from 22 sec to 23 min. During this time, the warbler would move about the tree probing 4-6 flowers per minute. The Blackcap's visits were short. Common Chiffchaff visits lasted between 30 sec and 4 min. The birds used all parts of the tree, but sparrows confined their activities to the upper parts of the tree.

Species	mean+sd (minutes)	sample
<i>S. melanocephala</i>	5.13+ 5.04	29
<i>S. atricapilla</i>	1.18+ 0.55	5
<i>P. collybita</i>	1.92+ 1.33	13

Table 5. Average length of time individual birds spent in the large Almond tree at the Station Gardens.

The trees at the Station Gardens produced more nectar than the trees at Attard, the flowers of which were analysed in Figure 3. There can be no doubt that the birds depleted the supply of nectar on this tree, but the flowers continued to produce nectar even after they had been damaged. A sample collected on 27 February 1993, when 41% of flowers had been torn open, 32.4% had been bitten into and only 26.7% were intact, indicating intensive use by sparrows, yielded the results listed in Table 6.

Filament colour	nectar content (cc)					
	zero	trace	.001-.01	.01-.02	.02-.03	.03-.04
White	0	0	8	6	2	3
Pink	8	13	20	7	4	0
Red	24	14	4	0	0	0

Table 6. Nectar content of Almond flowers collected from the study tree at the Station Gardens on 27 Feb 1993.

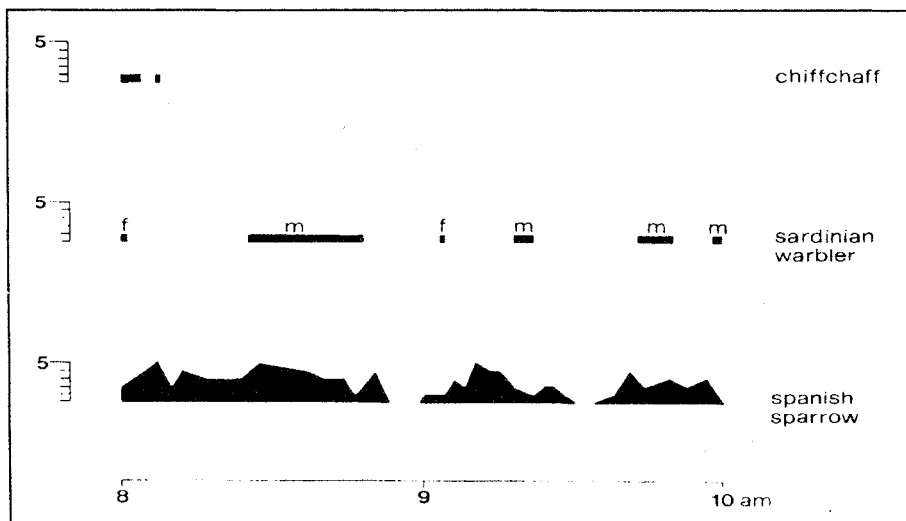


Fig 5. Birds visiting the Almond tree at the Stations Gardens, Birkirkara, on the 23 Feb 1993 between 8am and 10am. Binomial methods yielded an estimate of 6 Spanish Sparrows using the Almond tree on this date.

The warblers and sparrows generally inserted the bill into a particular flower only once, although sometimes as many as three times. Insertion generally lasted just under 1 sec.

The various species used the flowers in different ways. Warblers generally probed flowers without damaging them whereas Spanish Sparrows generally tore flowers or bit at them before probing for nectar (see Table 7). The behaviour of sparrows is depicted in Figure 4.

Behaviour	Sardinian W	Blackcap	C.Chiffchaff	Sp. Sparrow
probing intact flowers while perching nearby	99%	100%	90%	—
probing intact flowers while hovering nearby	1%	—	5%	—
probing intact flowers and jabbing into flower with the bill	—	—	5%	—
pecking at or biting into flowers, then probing them for nectar	—	—	—	9%
tearing flowers open, then probing them for nectar	—	—	—	63%
pulling flowers off the tree	—	—	—	3%
probing flowers which had been opened earlier	—	—	—	25%

Table 7. Behaviour employed by the various species while nectar feeding in the large Almond tree at Station Gardens.

All species were observed to make movements of the head and body which suggested that they were inspecting the flowers for nectar visually, before deciding which flower to probe.

Spanish Sparrows differed from the other species in that they generally manipulated flowers before drinking nectar. This generally involved tearing out part of the receptacle, or biting a hole into the side of the receptacle. The fact that sparrows frequently opened flowers without using them, and just as frequently used flowers that had been opened earlier, suggests that they might be tapping the source of nectar by modifying the flower structure so that they can get at the nectar any time they like. Sometimes, a fragment that had been bitten off would be masticated.

Most of the birds fed peacefully and few aggressive interactions were observed other than those involving Spanish Sparrows. It was difficult to disentangle sexual chases from genuinely aggressive chases among sparrows.

Dominant bird	Fugitive bird
male <i>S. melanocephala</i>	male <i>S. atricapilla</i>
female <i>S. melanocephala</i>	<i>P. collybita</i>
male <i>P. hispaniolensis</i>	male <i>P. hispaniolensis</i> (7 cases)
female <i>P. hispaniolensis</i>	female <i>S. melanocephala</i>

Table 8. Aggressive interactions noted.

Although the birds did interact aggressively sometimes, it was clear that they accepted one another's presence most of the time.

Flowers were examined *in situ* to determine the extent to which the sparrows were damaging the flowers and whether there was any preferential damage to any one kind of flower. The results are listed in Table 9.

Filament colour	undamaged	receptacle torn open	receptacle bitten into
White	15	1	1
Light pink	5	7	10
Pink	5	10	9
Red	3	24	14

Chi square test for inhomogeneity: $p < .01$

Table 9. Damage to Almond flowers caused by Spanish Sparrow, Station Gardens, Birkirkara, 27 Feb 1993.

These data show that the sparrows were treating different kinds of flowers in different ways. White flowers were not damaged but were probed for nectar directly. Light pink flowers were bitten into at the side, whereas pink- and red-stamened flowers were torn open, more often than not. The data are interesting in that they show that the flowers whose filaments were red and which contained little nectar, were torn open and visited repeatedly, that is they were tapped for nectar. Flowers whose filaments were white fell off the tree easily if damaged and the sparrows might have tried to leave the best flowers undamaged.

The warblers moved through the tree and probed flowers for nectar, jabbing into the flowers for grubs infrequently. Nectar feeding was quite different from feeding on grubs. When nectar feeding, the warbler would probe the flower with its bill held steady for a short period of time. After probing the flower the warbler would usually wipe excess nectar off its bill by stroking its bill against a branch. When a grub was discovered, the warbler would jab with its bill, often for as many as eight times. At times it would pull out the gynaecium or tear the receptacle open in order to get at the grub. Out of 25 flowers examined, 3 had grubs inside. On another occasion, out of 55 flowers examined, 9 showed signs of damage by the warblers. It seems likely that many grubs were eaten.

The study tree on the ravelin produced relatively few flowers. Most of the flowers had red filaments and the mean quantity of nectar per flower was very small (1.6×10^{-3} cc; $N = 26$; a tiny droplet).

Figure 5 depicts the results on one day when observations were prolonged. The data obtained on this day suggest that the male Sardinian Warbler concentrated on nectar feeding in the morning and caught more grubs in the afternoon, when the supply of nectar had become depleted.

Pollen stains were observed several times both at Mdina and at the Station Gardens. Thus Sardinian Warblers and Spanish Sparrows are potential vectors of Almond pollen. They generally confined their activity to one tree however, and could only have brought about self pollination. Cross pollination might have resulted if insects were frightened out of the tree in question and flew to other trees.

The ravelin, Mdina

The study tree on the ravelin at Mdina was a small Almond tree that produced relatively few flowers that were poor in nectar. In this respect, this tree was typical of many others in Malta and Gozo. The tree was also typical in that it did not attract Spanish Sparrows. The only users were a pair of Sardinian Warblers which were resident in the area and two other birds who were clearly not repulsed by the territorial birds. Nectar feeding took place infrequently and was difficult to observe. The pattern of use over one flowering season is shown in Table 10.

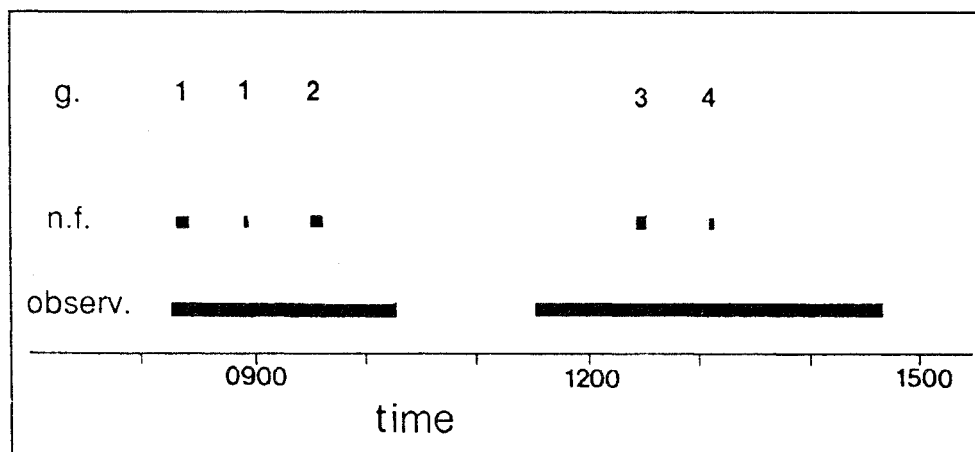


Fig 6. Data obtained on 18 Feb 1993 at the ravelin, Mdina. g=warbler jabbing into flowers or tearing a flower open to get at a grub. n.f = nectar feeding observ. = observations

Date	Sardinian warblers				Penduline tit
	R pair		C pair		
	male	female	male	female	
15/2/93	X				
16/2/93	X				
17/2/93	X				
18/2/93	X				
19/2/93	X				
24/2/93					
25/2/93					
01/3/93					
03/3/93					X
04/3/93	X	X			
05/3/93	X	X			
08/3/93	X				
09/3/93				X	
10/3/93					
15/3/93					

Table 10. Nectar feeding in the study Almond tree on the ravelin, Mdina by various birds during winter 1993. X = nectar feeding

Discussion

The principal finding of the present study is that nectar feeding from Almond blossoms is difficult to observe but is widespread and frequent in Malta. Study of Almond flowers showed that they are adapted to cope with damage inflicted by Spanish Sparrows.

Why should Almond trees have adapted to accommodate avian nectar-feeders? The Almond's closest relative is the Peach *Prunus persica*, the flowers of which are not as well adapted to favour nectar-feeding birds as Almond blossoms are. Peaches are generally self-fertilized (Hora 1981) and wild Peaches have well protected seeds and must suffer little seed predation. Thus the Almond tree's adaptations to cope with avian nectar feeders might have arisen as a result of heavy seed predation with the consequent need to ensure that enough seeds are produced by cross pollination to ensure vigour of the small number of saplings.

It is clear from this study that warblers and sparrows are unlikely to effect cross-fertilization as they confine their attentions to one or a few trees, and do not move from tree to tree often. Thus it seems possible that any benefits resulting from avian activity are due to the birds acting as scarecrows - frightening insects out of the Almond tree and into neighbouring trees whence they might return. The scarecrow effect hypothesis is attractive because it might provide a better understanding of nectar-feeding as a whole, if investigated further (see Figure 6).

Specialist avian nectarivores and plants adapted to pollination by birds are characteristic of the tropics. There are very few Palaearctic birds which are known to indulge in nectar feeding even occasionally (Faegri & Van der Pijl 1979, Ford 1985). Another feature of the tropics is large species diversity among plants. There are many more species per unit area in the tropics than at high and temperate latitudes. Could the large species diversity of flowers in the tropics have led to reliance on birds as pollinators or as nectarivores?

Consider a single insect leaving a flowering plant and flying into another plant some considerable distance away, at random. Let the relative abundance of the plant species in question be p and the species richness s . The probability of cross-pollination occurring (the insect flying into another plant belonging to the same species) is approximately p . Thus if the plant species in question is rare, cross-pollination is less likely to occur - assuming the process is random. In addition, as species richness s increases, the mean value of p (summed over all species present in the community) decreases. This means that the proportion of rare plant species in a community is expected to increase as species richness increases.

Combining these two arguments, one expects more rare, badly-pollinated plant species in areas where species richness is large. Many rare or uncommon tropical plant species are expected to experience difficulty in achieving cross-pollination as a result of the high species richness which is characteristic of the tropics.

It is reasonable to suppose that tropical plants would have evolved superior mechanisms for ensuring cross-pollination. One way of securing cross-pollination is to secure the attentions of many insects by secreting more

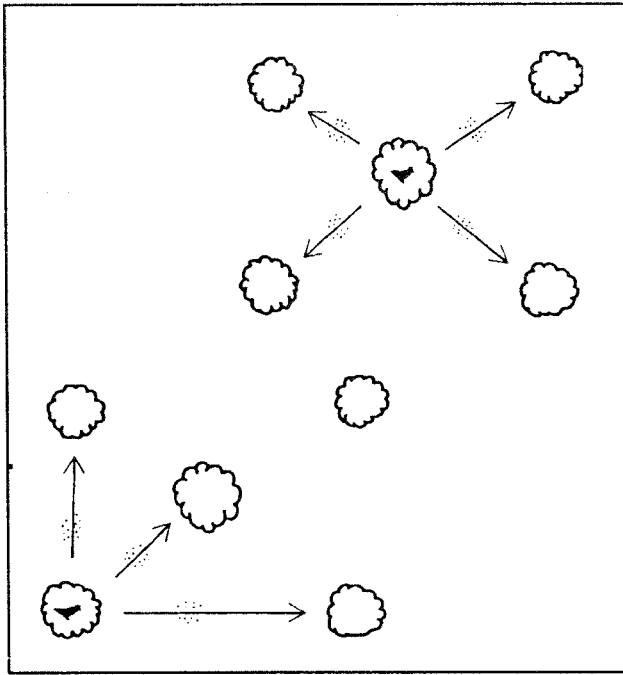


Fig 7. The scarecrow effect. Nectar-feeding bird frighten pollinating insects out of the trees and into other trees. During their flowering season, Almonds are prominent, conspicuous and likely to attract insects which have been frightened out of other Almond trees.

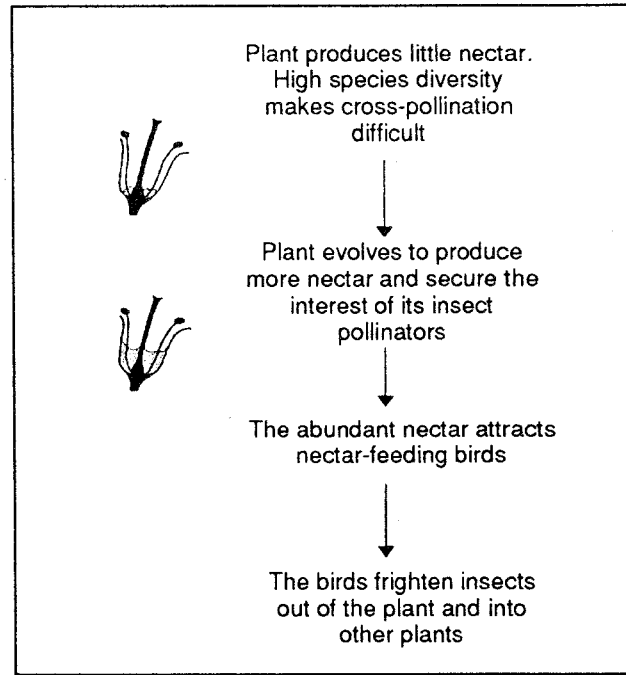


Fig 8. An hypothetical step in the evolution of avian nectarivory. The all-important step involving an increase in the production of nectar by the plant community is attributed to a sequence of effects set in motion by the large species diversity of plants in the community.

nectar or by producing more pollen. The principal problem is that the insect visitors might find nectar so abundant on that particular plant that they might remain there or visit it repeatedly, failing to visit other members of the same species of plant. A scarecrow would come in handy. Thus, it seems possible that many tropical plants evolved to produce copious nectar, thereby securing the attention of insects and attracting avian nectar feeders as scarecrows (see Figure 7).

A plant species which is uncommon might evolve towards ornithophily, if its nectar production is sufficiently high to attract birds in the first place, without passing through the 'scarecrow' phase. All that is required is that birds visiting the flowers should pollinate better than insects. Ornithophily of a more exclusive kind might thus have evolved via a separate route to the scarecrow type of ornithophily. Both types are expected to evolve with higher frequency in the high diversity environment of the tropics.

The above argument ignores the fact that insects have specialised on certain plant species and vice-versa. It is probably true, to the first approximation, because extreme specialisation is rare.

If the above argument is correct, specialist avian nectarivores can evolve only where plant species diversity is large and many species of plant produce nectar in abundance. Thus, avian nectarivory is expected to evolve in the tropics where plants are expected to experience difficulties in ensuring that they produce enough seed by cross-pollination, because of the high species diversity that prevails.

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Philopatry in Cory's Shearwater *Calonectris diomedea* in Malta

John J. Borg

Introduction

Philopatry is the return to the natal colony by young animals. This depends on the ability of the young to navigate back to its breeding grounds and to remember characteristics of the natal colony. This is particularly so in colonial birds such as Procellariiformes (Warham 1990). This behaviour has been found to occur also in Cory's shearwater *Calonectris diomedea* (Jouanin, Roux & Zino 1977, Ristow *et al.* 1990, Thibault 1993).

In the Maltese archipelago, the Cory's Shearwater breeds on the two main islands, Malta and Gozo and on the small islet of Filfla. The single egg is laid in caves, crevices and fissures in the vertical limestone cliffs and amongst boulder and rubble screes accumulated along ledges and cliff bases (Cachia-Zammit and Borg 1986-1987). At present the breeding population is estimated at about 7000 pairs (pers. obs.).

Material and Methods

The data has been collected between 1983-1995 from 16 study sites (9 in Malta, 7 in Gozo). Most of these sites are situated on the upper parts of vertical cliff faces. From these sites, 155 nests have been marked and annually monitored. The number of accessible nests in a study area varies from single to 20 nests. A number of inaccessible nests are scattered along the study areas.

Between the years 1983-1990, 399 pulli have been ringed from Malta and Gozo, of which only 36 (9.0%) have been caught as adults. Almost 80% of the chicks were ringed from the accessible nests and the rest were ringed in the first two weeks of October, when these birds were found outside the nests exercising their wings before fledging. The catching of adult birds takes place throughout the breeding season. In the first two months prior to egg-laying, both established as well as prospecting birds are caught, the latter birds normally found sitting along ledges or inside 'makeshift' nests. Between the end of May and the second week of July the pairing of incubating birds takes place, while between the end of June and the first two weeks of August non-breeders visit the colonies. These are caught while sitting in front or near occupied burrows. Birds were sexed by bill measurement following the methodology of Ristow & Wink (1980), by cloacal inspection (Serventy 1956) and by voice.

Results

Return to colonies by young birds

Table 1 shows that males return to the colonies at a younger age than females. It was also found that males mature sexually earlier than females, males found breeding in their 4th and 5th year (exceptionally 2 years) and females in their 5th and 6th year. In Crete, Wink *et al.* (1982) found that some young birds return to the colonies at the age of 5 years. While on Great Selvage some precocious birds make first landfall when 4 years old but start to breed between 8th and 11th year (Jouanin *et al.* 1980).

after>	2yr	3yr	4yr	5yr	6yr	7yr	8yr	9yr
male	2		3	7	4	3	1	2
female				2	3	1		
undet.			1	1	4	2		
Total	2		4	10	11	6	1	2

Table 1. Birds ringed as pulli and recaptured in later years from the study areas.

Return rate of adult birds ringed as chicks

The annual return rate of birds ringed as pulli between 1983 and 1990, and retrapped in the following years is shown in Table 2, with a mean return rate of 12.7%. The highest return rate is that of birds ringed in 1985 with 11.7% and the lowest 4.0% from birds ringed in 1987.

These results are slightly biased due to the fact that:

- some of the study areas were sporadically visited with very few night visits, whereas other sites were regularly monitored
- since nesting sites are situated along cliff ledges, marked birds may have returned to their natal colony but may be alighting or nesting in an inaccessible crevice at a very short distance below the accessible area.

year of ringing	1983	1984	1985	1986	1987	1988	1989	1990
no. of pulli ringed	34	52	51	64	49	55	51	43
no. recaptured as adults	3	4	6	6	2	5	5	2
Return rate %	8.8	7.7	11.7	9.3	4.0	9.0	9.8	4.6

Table 2. Annual return rate of *C. diomedea* ringed as pulli between 1983 and 1990 and recaptured up to 1995 from the study areas.

Birds recaptured according to their status

Males have a higher return rate to colonies than females and this is reflected in all status categories, as was found elsewhere (Thibault 1993). Table 3 gives three different status levels in which 36 birds were classed accordingly. The return rate for prospecting males was noted to be higher than that of prospecting females. Twelve males and 5 females were found only as prospectors. One male was caught first as prospector, then as breeder, while 9 males and 1 female were first time captured as breeders.

Sex/status	Recaptured only as prospector	Recaptured as prospector then as breeder	Recaptured only as breeder	Total
Male	12	1	9	22
Female	5	0	1	6
Undetermined	7	0	1	18
Total	24	1	11	36

Table 3. Number of birds ringed as fledglings from the study areas and recaptured according to sex and status.

Figure 1 shows that prospectors of both sexes make first landfall close to their natal nest with 5 males found at the natal nest and another 1m away, the farthest male was found 16m away from its natal nest. Meanwhile the nearest female was found 2m away from its natal nest and the farthest 20m away.

It appears that even females make their first landfall in the extreme vicinity of their natal nest. But unlike males, who remain in the near vicinity throughout their breeding life, females disperse away from the natal nest and even away from the natal colony.

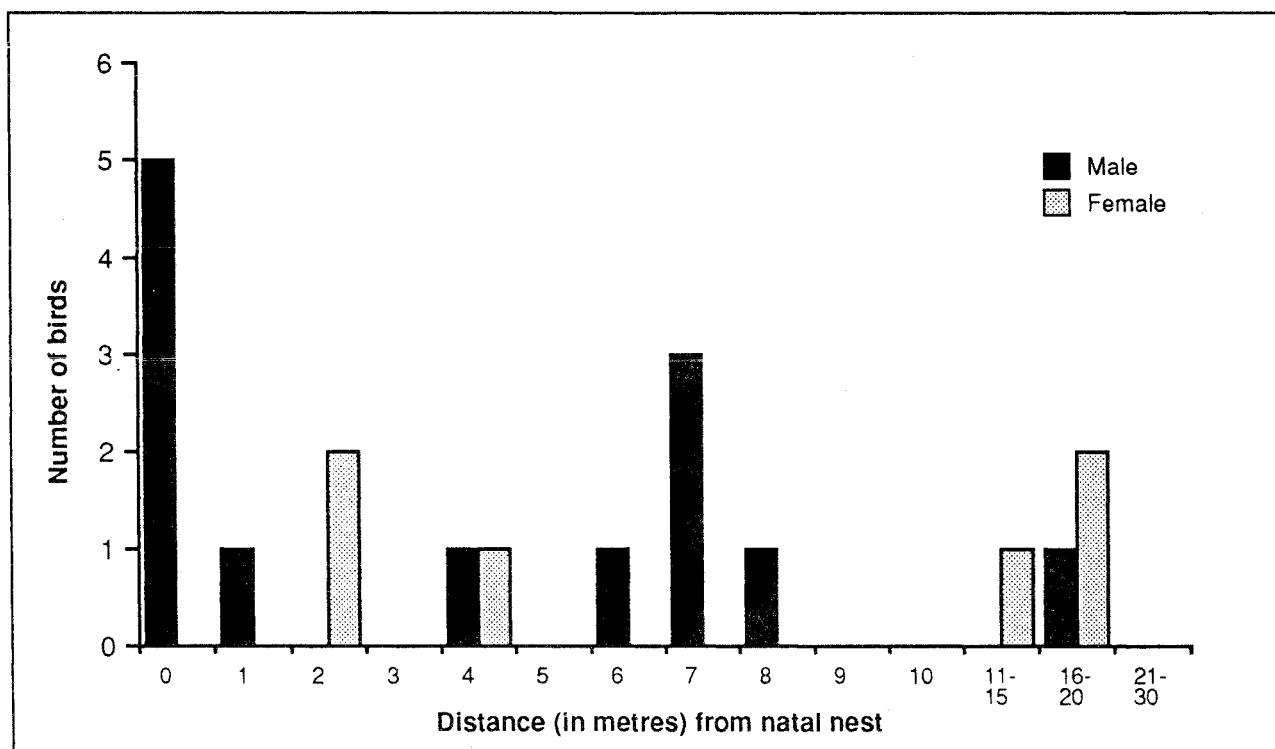


Fig 1. Landfall distance from the natal nest of prospecting birds in the study areas.

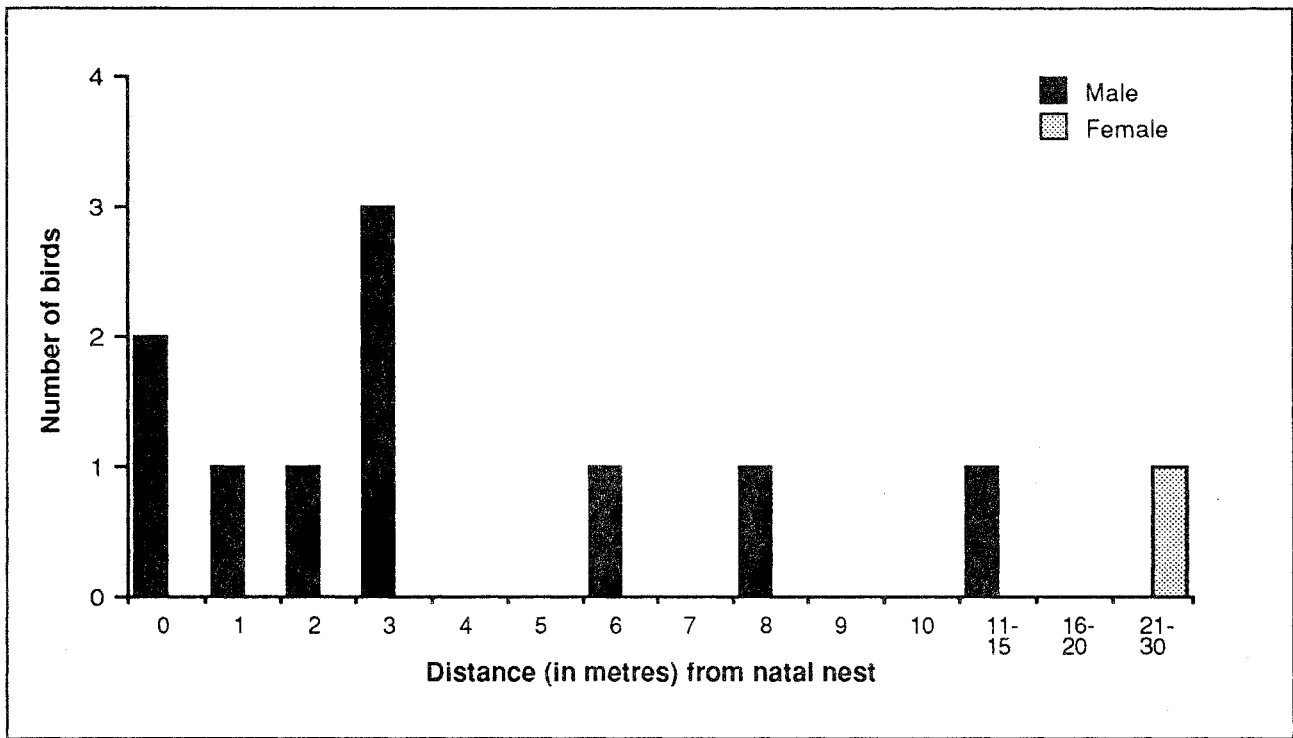


Fig 2. Distance from natal nest of breeding birds in the study areas.

Breeding males remain closer to their natal nest than females (Fig 2) where 6 birds were found breeding in a radius of less than 3m from the natal nest. Two of these birds were found breeding in their natal nest (see below). Two birds were found between 6-10m away and 1 was in a radius of 15m. Only 1 female ringed as pullus was found breeding, and this was found at a distance of more than 1000m from its natal nest.

Male FF00037, ringed as pullus from nest 202 in 1983, was first caught in 1992 as a breeder in the same nest that he fledged from and was still breeding there in 1995. He replaced his paternal parent at least in 1992 when the old bird failed to return, having presumably died. The maternal parent was last caught in 1988, now presumably dead also.

Male FF00884, ringed from outside nests 350-351 in October 1985, was caught again 2 years later, first in March, then found breeding in June of same year. He was found incubating in nest 350. In the first year of breeding, the pair failed to fledge a chick, but in the following years up to 1992, they were always successful. FF00884 moved nest in 1995, and was caught entering nest 352, situated 3m away from 350.

Male FF00965, ringed as pullus outside nests 66-68 in October 1985, was found incubating in nest 68 (1992). In the first and following years, breeding was always successful.

Male FF00463, ringed as pullus in August 1984 from nest 165 was retrapped outside nest 165 in April 1989. In June of the same year he was retrapped outside 163, about 5m away. Between 1991 and 1995 he was found occupying nest 173, located halfway between 165 and 163.

Female FF00850, ringed from nest 359 in August 1985, was found breeding in 1992 in nest 465, a distance in excess of 1000m.

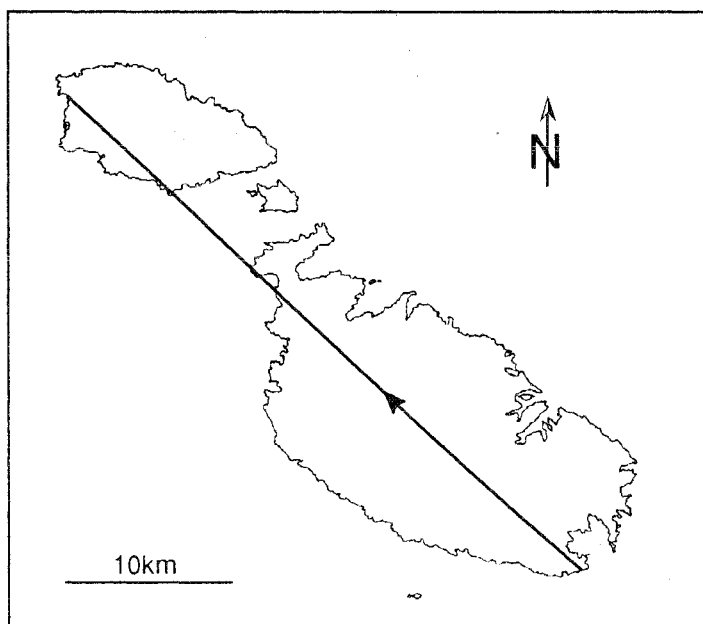


Fig 3. Maximum displacement between natal nest and breeding nest by a female *C. diomedea*.

Why males are more philopatric than females

Thibault (1983) states that it is not known why males show a higher degree of philopatry than females. He gives two reasons to explain why fewer females return to Lavezzi Island (Corsica):

- a females may have a higher mortality, but this does not appear to be the case on Lavezzi
- b females disperse further than males and return less often to the vicinity of the natal site.

In Malta the Cory's Shearwater follows the same trend as the birds in Lavezzi. In view of the first explanation, there was no significant difference in survival rate between sexes in Malta, where both had the same minimal survival rate of 77% (Table 4). For the second explanation, as was shown above, females make their first landfall at their natal colony/nest, but was found to disperse some time later in their first or second year from first landfall.

Breeding	Marked in year x	Alive in x+1	Not checked	Survival of x+1	Full survival
Male	169	34.7	2.83	77	83.1
Female	163	32.1	3.25	77	84.2
Male + Female	332	66.9	6.08	77	83.8

Table 4. Minimal survival of breeding birds (male, female and combined) for the years 1983-1995. Some birds may have moved nest and are still alive in inaccessible areas.

As argued by Brooke (1990), the higher male philopatry in Manx Shearwaters *Puffinus puffinus* was associated with burrow defense. This may also be the case for *C. diomedea* as suggested by Thibault (1993). Greenwood (1980) suggests that for several species the higher degree of philopatry in males than females is because that it is to the males' advantage to be familiar with the territory they have to defend against other males.

Males of *C. diomedea* return earlier to the colony than females; this is so in order to secure and defend the best nesting site, preferably its natal nest or as close as possible. The natal nest represent a 'good' nest as the bird had hatched and fledged successfully from there, so to the bird, its natal nest is a sure site for reproduction, and the general area of the nest has long been imprinted in the period before fledging.

Prior to actual breeding, prospecting males need to secure two things of fundamental importance; a nest and a mate, although not necessarily in that order. So in the first part of the breeding season before egg-laying, the prospecting male is indulging either in 'house hunting', mate-searching or both. However it is thought that, at least for the first time breeders, 'house hunting' may take place after birds are paired (Cachia-Zammit & Borg 1986-1987). Prospecting males, as shown above, venture very little from their natal nest, preferring a well-known area rather than a new unknown site when searching for a nest.

In July and August non-breeding/bachelor males, frequently in the company of females, are found in groups or 'clubs' of 3-4 birds, sitting and calling in the vicinity of occupied nests. This 'clubbing' behaviour also demonstrates some degree of nest-site competition. These bachelor/non-breeders return night after night to the same spot awaiting a nest to be vacated or the eventuality of a single 'widowed' (male or female) bird which may have lost its partner in that year and is already in possession of a nest.

Prospecting males often indulge in direct confrontations with the male occupant of a nest (Cachia-Zammit & Borg 1986-1987) and so are not accepted in the vicinity of occupied nests. But the male occupants, even if mated, accept the company of nubile females close or inside the nest when the partner is out. During the pre-laying exodus, with the total absence of breeding females, males continue to return at night to occupy and defend the nest. During this period the only female birds visiting the colonies are the single, unmated females who visit mated males, sometimes within the nesting chamber. Because of this, females who do not need to establish and defend a nest, fly randomly, roaming from one area to another in search of a nest already secured by a single male in waiting for a female.

Inbreeding as a result of philopatry?

Monogamous and philopatric populations with high colony fidelity may lead to reduced gene flow (Cachia-Zammit & Borg 1986-1987, Randi *et al.* 1989). It is possible that with such a degree of philopatry in *C. diomedea*, cases of incest could occur.

From the number of birds ringed as pulli and recaptured in later years, a male was found breeding in its natal nest. Male FF00884 was found breeding in nest 350. This bird was ringed in October 1985 outside nests 350-351 which

are close to each other. His partner was FF00974, caught first time as adult entering 350 in 1986, when FF00884 was 1 year old. In the following year, FF00884 was found incubating in nest 350 with partner FF00974, where they remained together until 1993, when the female moved nest. The male was not caught until 1995, when he was found entering nest 352 which is 2m away from 350. Incestuous behaviour by *C. diomedea* has been recently noted in Corsican birds (C. Rabouam pers comm.).

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Note on the wintering of the Cory's Shearwater *Calonectris diomedea* in the Mediterranean

John J. Borg, Gilles Bonaccorsi & Jean-Claude Thibault

Introduction

In the Mediterranean the breeding period of the Cory's Shearwater *Calonectris d. diomedea* shows an important inter-annual constancy and a high synchronism between individuals and colonies (Thibault *et al.* 1997), with some annual differences not exceeding several days (Rabouam *et al.* in press). Most birds, whether young or old individuals, leave their breeding grounds between mid- and late October (Round & Swann 1977, Thibault 1985, Cachia-Zammit & Borg 1986-87), rapidly reaching the Atlantic Ocean via the Straits of Gibraltar from mid-October to mid-November (Telleria 1980, Finlayson 1992). Unsuccessful breeders also desert the colony sites, doing so generally earlier than the successful breeders, depending on the failure stage and on individual behaviour (Mougín *et al.* 1988, Thibault *et al.* 1997). This migration results in birds wintering for a relatively short time off South Africa in the South Atlantic and Indian Oceans (Brooke & Sinclair 1978, Mougín *et al.* 1988), although this has never been confirmed by recovered birds ringed in the Mediterranean (Thibault *et al.* 1997). However, Cory's Shearwaters have been recorded wintering in the Mediterranean basin. The aim of this paper is to evaluate and discuss the extent of this wintering.

Methods

In autumn, the majority of the birds leave the Mediterranean rapidly, but are regularly recorded in several areas until late November; in spring they return to the colony sites gradually from late February to late March (Thibault *et al.* 1997). We have therefore only selected data obtained from 1 December to 31 January to be considered as corresponding to wintering birds. Data are derived from both published as well as unpublished sporadic observations. Standardised observations at sea by boat and by plane were conducted off the French coast (Bouches-du-Rhône, Var and Alpes-maritimes) and Corsica (G. Hémerly, unpubl. data). Finally, we eliminated records which evidently concerned other species, e. g. record of birds calling at night close to the shore in January (Moltoni 1975) are best referred to the Levantine Shearwater *Puffinus yelkouan*.

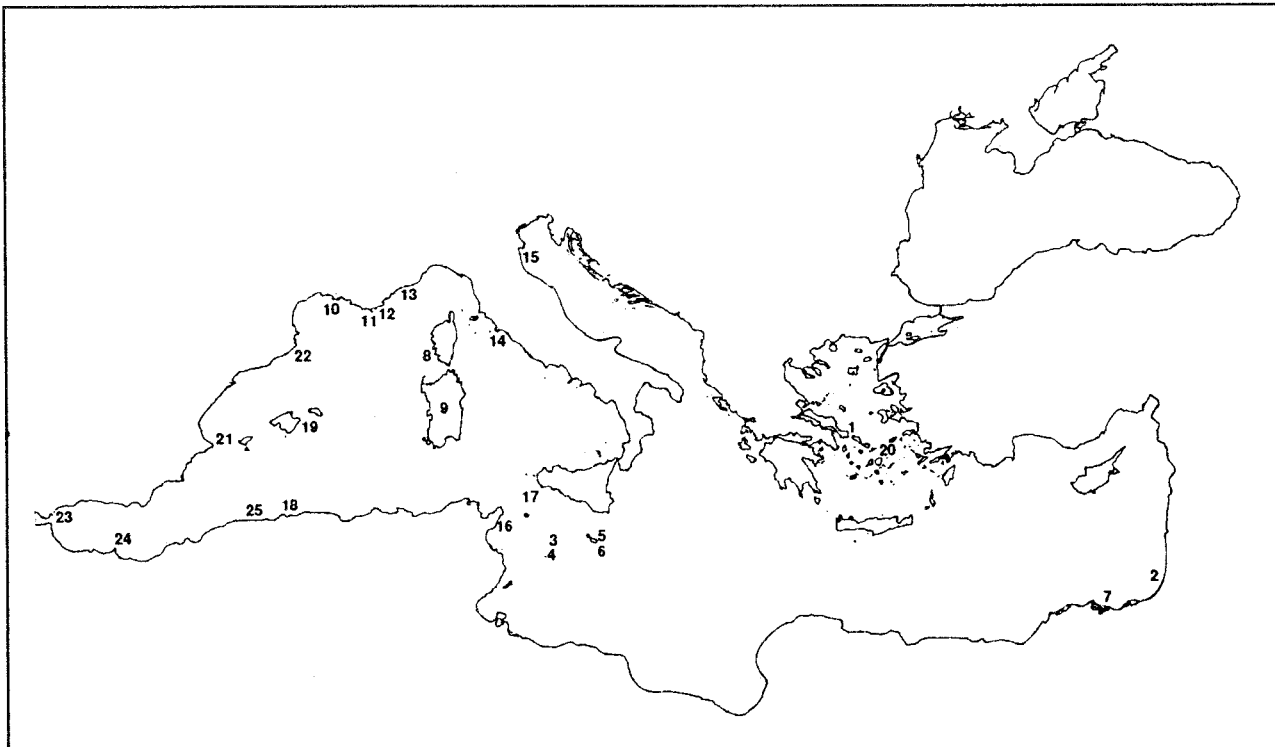


Fig 1. Wintering records of Cory's Shearwater in the Mediterranean (see Table 1 for location of records).

Number (see Fig 1)	Localities	Number	Date	Reference
Eastern Med				
1	off Chalkis I.	<80	Dec 1980	Handrinos & Akriotis (1997)
1	off Chalkis I.	<80	Dec 1982	Handrinos & Akriotis (1997)
2	Israel (Medit. coast)	small number	"throughout the year"	Shirihai (1996)
7	Egypt	"small number throughout the year"		Goodman & Meininger (1989)
15	Adriatic	1	Dec 1982	Pandolfi & Santolini (1985)
15	Adriatic	1	Dec 1983	Pandolfi & Santolini (1985)
20	Aegean Sea	43	Dec 1957	Horváth (1959, cited by Cramp & Simmons (1977))
Sicilian Channel				
3	Pelagian Is.	3	Jan 1968	Moltoni (1970)
4	Pelagian Is.	>70	Jan 1971	Moltoni (1970)
5	off Filfla	2	Dec 1983	This work
6	off Malta	1	Dec 1989	This work
16	Gulf of Gabès	"up to several hundred"	"Dec-Jan"	Deleuil (1958)
16	Tunisian coasts	"large flocks after storm"	"winter"	Blanchet (1955)
16	Tunisian coasts	"oiseaux tunisiens sédentaires et erratiques"	"winter"	Castan (1954-55)
16	Tunisian coasts	"reste commune en hiver Czajkowski v.v."	"winter"	Mayaud (1982)
17	Sicilian channel	present, but no detailed data	"winter"	Iapichino & Massa (1989), Brichetti et al. (1992)
Western Med				
8	Corsica	1	Jan 1995	This work
9	Sardegna	"regular", but few data		Grussu (1996)
10	Camargue	1	Dec 1985	Isenmann (1993)
10	Camargue	30	Jan 1988	Isenmann (1993)
11	Port-Cros I.	4	Jan 1992	A. Blasco (CEPE)
12	Provence	1	Dec 1994	O. Iborra (CEPE)
13	Provence	>10	Dec-Jan 1981	Yeatman-Berthelot (1991)
14	Tyrrhenian Sea, off Roma	1	Dec	Fratelli (1983)
18	Algérie	2	9 Dec 1976	Jacob (1983)
18	Algérie	3	21 Jan 1978	Jacob (1983)
19	Balearic Is.	isolated and irregular	Dec-Jan	Ferrer et al. (1986)
21	Comunidad Valenciana	"rare as wintering"	24-27 Dec	Paterson (1997)
22	Cataluña	5	Jan 1985	Paterson (1997)
23	Strait of Gibraltar	possibility of wintering, but only one data	5 Dec	Paterson (1997)
23	Strait of Gibraltar	"few are seen in the strait"	"winter"	Finlayson (1992)
24	Alhoceima, Maroc	pullus ringed on 26/08/89 (Balearics)	recovered on 15/01/90	Anon. (1990)
25	Algérie	flying ringed on 05/10/78 (Balearics)	recovered Jan 1989	Anon. (1990)

Table 1. Records of Cory's Shearwater wintering in the Mediterranean.

Results

Data are included in Table 1 and Figure 1. Sightings are scattered even where regular sea-watching and prospecting by boat have been conducted. Observations come from most areas of the Mediterranean but mostly from the central and western parts. In fact two areas emerge above all:

- 1 the Maltese archipelago is visited by a few birds more or less regularly over a study period of nearly two decades
- 2 the Tunisian coast where some records suggest a possible regular wintering.

Generally, records concern single birds or small groups of less than 100 individuals, except along the Tunisian coasts where indicated numbers are higher. Data from Egypt and Israel consist of occasional observations. Two recoveries concern birds ringed in the Balearics (Table 1).

Discussion

Several works have indicated that regular wintering occurred in the Mediterranean, mainly restricted to the Sicilian Channel, including the Gulf of Gabès (Cramp & Simmons 1977, Iapichino & Massa 1989, Bricchetti *et al.* 1992). It is true that during the last decades there have been several records of single birds around the Maltese archipelago (Table 1), but the numbers remain low and does not lead one to consider the area as a centre of wintering. Reports from the Tunisian coasts from the 1950s and the 1970s have indicated a more significant number of birds, but data seem vague and they have not been confirmed by recent and detailed records.

So far the available data allow us to forward the hypotheses that there is a wintering area involving flocks of several hundred birds or more, restricted to Tunisian coasts, leading some birds to visit more or less regularly the Maltese and Pelagian islands, occurrence elsewhere being rare. Most records come from the central Mediterranean where 55% of the overall population breeds (Zotier *et al.* 1992), this area being the most favourable owing to

- 1 proximity of the largest thermal front and
- 2 the most regular summer winds (Zotier *et al.* in press).

Concerning the origin of wintering birds, the only two recoveries to date indicate occurrence of local birds. This may be confirmed by the lack of incoming birds from the Atlantic Ocean into the Mediterranean at this time of year (Finlayson 1992). Despite a long breeding season from spring to autumn, the Cory's Shearwater is able to tolerate the seasonal productivity of the Mediterranean which is a winter productive oligotrophic basin, owing to

- 1 the occupation of the most productive and windy areas, and
- 2 its relatively pelagic foraging strategy.

But why do most birds leave the Mediterranean? Three non-exclusive hypotheses can be put forward to explicate its migration from the Mediterranean:

- 1 to maintain a behaviour character of the nominate form in relation to its relative recent arrival in the Mediterranean during the late Pleistocene (Alcover *et al.* 1992), stirred by a low but constant gene flow from the Atlantic (Thibault & Bretagnolle, in press)
- 2 to benefit from the seasonality of the Mediterranean which peaks in productivity in February (Margaleff 1985), when the birds begin to return from their wintering in the Atlantic Ocean
- 3 to reduce the competition with wintering birds for food resources (Alcidae, Laridae, Sulidae).

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First record of the Manx Shearwater *Puffinus puffinus* in Malta: evidence from morphometric data and DNA analysis.

John J. Borg, Joe Sultana, Petra Heidrich and Michael Wink

The breeding range of the Manx Shearwater *Puffinus puffinus* is in the North Atlantic, with the largest colonies found in the British Isles. The majority of the birds migrate to South America; the adults start moving in July followed by the juveniles in September (Cramp and Simmons 1977). Occasionally birds are reported away from their normal route. Up to 9 birds were recovered in Switzerland between 1866 and 1990. All were recovered in September, except one in July (Juillard 1992).

The Manx Shearwater does not venture into the Mediterranean regularly. A Welsh-ringed bird was recovered during its first winter, in February, on the French Mediterranean coast (Blondel & Isenman 1981).

A *Puffinus* shearwater was found at the Freeport at Marsaxlokk Bay, on the SE coast of Malta, on 6 September 1995. On close examination it was identified as a first year Manx Shearwater *Puffinus puffinus*. A blood sample was also taken for DNA analysis.

The plumage was distinctly different from that of the Levantine Shearwater *Puffinus yelkouan*. The head was black with white feathers near the base of the bill, lores and behind the ears forming a crescent shape. The chin and the throat were also white. The upperparts were jet-black and the underparts were white with grey mottling along the flanks and sides of breast. The tail was black, with the undertail coverts white with faint grey markings. Underwings were mostly white with black wingtips and black trailing edges and with grey markings and pattern on carpal and axillaries. The iris was dark brown, the bill black and the feet a deep pink with black markings and blotches. The plumage was fresh with no apparent traces of wear or bleaching - this suggested a recently fledged bird.

The following are the measurements of the bird as compared with an average from 13 birds belonging to the species *Puffinus yelkouan*. Numbers 1-6 denote the different measurements of the bill (see Fig 1):

	wing	tarsus	tail	1	2	3	4	5	6
<i>p.puffinus</i>	231.0	43.2	78.1	32.7	24.3	9.0	6.5	10.0	3.6
<i>p.yelkouan</i>	232.7	46.6	74.0	35.4	27.8	10.6	7.1	11.9	3.2

Table 1. Biometrics of *P.puffinus* and *P.yelkouan* from Malta.

DNA was isolated according to standard protocols as described in Heidrich *et al.* (1995, 1997). The mitochondrial cytochrome *b* gene, which is a good marker gene in Procellariiformes and other birds (Austin 1996, Wink *et al.* 1993a, 1993b, 1996, Heidrich *et al.* 1996, 1997, Wink 1995) was amplified by PCR and sequenced directly (1080 nucleotides). Sequences were aligned with the cytochrome *b* sequence of *Gallus g. domesticus* (Desjardins and Morais 1990) and analysed with the distance matrix method Neighbour Joining (NJ; MEGA 1.0) based on genetic distances (Kumar *et al.* 1993). For comparison, we analysed the nucleotide sequences of *Puffinus puffinus*, *P. yelkouan*, *P. mauretanicus*, *P. assimilis* and of other Northern Palaearctic Procellariiformes such as *Calonectris diomedea*, *Bulweria bulwerii*, *Hydrobates pelagicus* and *Oceanodroma castro*.

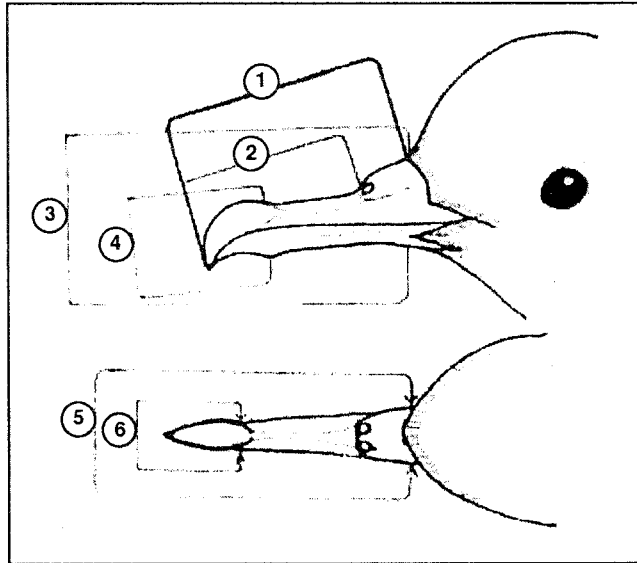


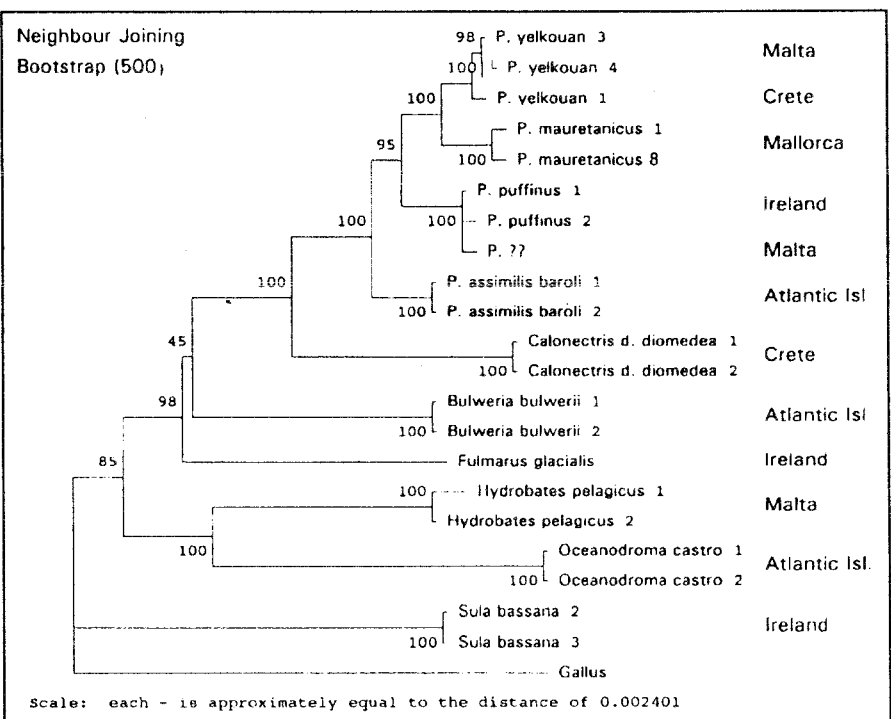
Fig 1. Key to bill measurements

As Fig 2 shows, the bird in question from Malta unequivocally clusters with *P. puffinus* from the North Atlantic (supported by a bootstrap value of 100%). It is evident that this bird does not belong to one of the Mediterranean *Puffinus* species (*yelkouan* or *mauretanicus*). The nucleotide sequence of the Malta bird differs by 2 to 3 nucleotide substitutions from *P. puffinus* collected in Ireland (Table 2).

	111	111	111	122	222	223	333	344	444	444	444	455	556	666	666	667	777	888	889	999				
	12	356	668	000	122	346	912	334	690	367	904	555	666	678	904	590	035	678	990	009	167	990	234	
	697	010	691	258	409	212	262	173	476	305	321	039	256	710	219	210	702	988	890	239	043	147	165	
<i>P. assimilis</i>	AAA	AAT	TCA	CCT	CCT	CTC	ATT	CAA	ATT	TTC	AAC	CCC	TCA	TCT	TCC	CCT	TAT	CAC	CTC	CCT	TTC	CIT	TAT	
<i>P. mauretanicus</i> 1	C.G	G.C	...	TTC	T.C	T...	..C	TGG	.CC	C.T	...	TTT	.TG	CTC	C.T	..T	..C	TG.	...	..C	CCT	.CC	CGC
<i>P. p. puffinus</i> 1	C..	...	C..	TCT	GC.	TG.C	CC.	..G.	T.TC	C.T	TTC	C.C	T..	TCT	ATC	CCT	.C.	..C
<i>P. p. puffinus</i> 2	C..	...	C..	TCT	GC.	TG.C	CC.	GG.	T.TC	C.T	TTC	C.C	T.T	TCT	ATC	CCT	.C.	..C
<i>P. ?? Malta</i>	C..	...	C..	TCT	GC.	TG.C	CC.	..G.	T.TC	CAT	TTC	C.C	T.T	TCT	ATC	CCT	.C.	..GC
<i>P. yelkouan</i> 1	CC.	GGC	.TT	T..	TTC	...	..C	TG.	GCC	C..	..GT	T.T	C.G	..C	C.T	.TC	..GC	TG.	...	..C	CCT	.CC	CGC
<i>P. yelkouan</i> 3	C..	GGC	.T	T..	TTC	...	..C	TG.	GCC	C..	..GT	T.T	C.G	..C	C.T	.TC	..GC	TG.	...	..C	CCT	TCC	CGC

Table 2. Variable sites in the cytochrome *b* gene of *Puffinus yelkouan* shearwaters. The unknown bird from Malta is named *P.?? Malta*.
 . base identical to that in the first line.

Fig 2. Phylogenetic relationships in *Puffinus* shearwaters and other Procellariiformes based on 1080 bp of the cytochrome *b* gene. Illustration as a phylogram in which branch lengths are proportional to genetic distances. Bootstrap values are given at each forcaion. *Gallus* was used as an outgroup and *Sula bassana* as an unrelated ingroup. Birds from Malta were collected by JB, those from Crete by D Ristow and MW, those from the Atlantic Islands by F Zino, those from Mallorca by J Aguilar, and those from Ireland by MW. Note that the Manx from Malta (*P.??Malta*) unequivocally clusters with *P.p.puffinus*.



	1	2	3	4	5	6	7
1 <i>Puffinus assimilis</i>	-	4.27	3.44	3.62	3.71	4.09	4.18
2 <i>P. mauretanicus</i>			3.62	3.81	3.71	2.23	2.23
3 <i>P. puffinus</i> 1				0.19	0.28	3.25	3.34
4 <i>P. puffinus</i> 2					0.28	3.44	3.53
5 <i>P. ??</i> Malta						3.34	3.44
6 <i>P. yelkouan</i> 1							0.46
7 <i>P. yelkouan</i> 2							-

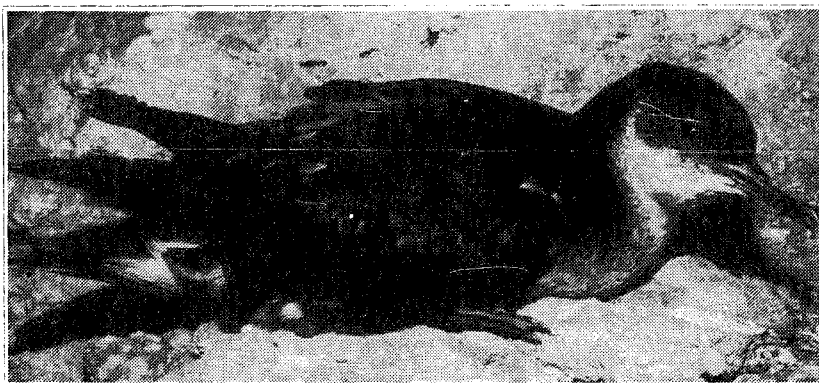
Table 3. Genetic distance (number of nucleotide substitutions) in % between *Puffinus* shearwaters. P.?? = unknown bird from Malta.

Such small distances (0.2 to 0.3%) are common between shearwater populations and were also encountered between individuals of *P. yelkouan* from Malta and Crete (Table 3).

Because of the substantial genetic (Tables 2 & 3) and morphological differences between the Atlantic *puffinus* and the Mediterranean *mauretanicus* and *yelkouan*, which have been treated as subspecies of *P. puffinus*, we have attributed species rank to them in a recent publication (Heidrich *et al.* 1997).

Figure 2 shows that Shearwaters (*Puffinus*, *Calonectris*) cluster in a monophyletic clade (bootstrap value 100%) sharing a common ancestor. Sister groups include the Fulmar and Bulwer's Petrel. These petrels and shearwaters, which are grouped in the family Procellariidae are separated by a significant bootstrap value (98%) from Storm Petrels (*H. pelagicus*, *O. castro*) of the family Hydrobatidae.

Both the morphological data as well as the DNA analysis results clearly show that the Manx Shearwater in question belongs to the Atlantic *P. puffinus*. This example shows, in addition, that DNA methods and especially DNA sequencing provide a powerful tool to corroborate faunistic observations and biometric data.



John J. Borg

Fig 3. The bird in question, shortly before release.

Acknowledgements

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Short Notes

First breeding record of Little Bittern *Ixobrychus minutus*

The Little Bittern *Ixobrychus minutus* has been recorded only on migration as fairly common in spring and generally scarce in autumn (Sultana & Gauci 1982).

A male Little Bittern was noted on several dates from 21 May 1996 at the newly set up nature reserve, Is-Simar, where it remained throughout the winter of 1996-97. On 23 February 1997 a female was also noted for the first time at the reserve. Is-Simar has an area of approximately 5ha and has an extensive *Phragmites australis* reedbed. It is hemmed in between three habitats; the sea (St. Paul's Bay) on one side, agricultural land on the other, and building development on another.

After observing the male visiting the same site in the reedbed, a nest containing 4 eggs was located on 25 March 1997. It was composed of a compact pile of pieces of reed stems and leaves amongst the reeds, 25cm above the water surface. The eggs were matt white in colour and regular ovate in shape. On examining the nest on 10 April, two young (1-2 days old) had hatched, and on 12 April the nest contained 3 nestlings and the remaining addled egg. Two days later the young were already adopting a 'bittern stance' when approached and by 17 April they could easily walk about in the reeds.



Raymond Galea

Fig 1. Four-day old nestlings of *I. minutus* at Is-Simar

On 11 June a second nest was located about 20m away from the first one. It contained 5 young of 5-9 days old. This was presumably the same pair's second brood.

At the same time as the above records two other adult birds were observed regularly visiting a site about 80m away from the first two nests' locality, and on 14 June a third nest was located. It contained a single addled egg but broken eggshells were noted in the water near the nest, suggesting that other young birds must have hatched in the nest. While inspecting the nest, an adult female came close calling alarmingly as if young were present nearby. This was definitely a second pair which bred at Is-Simar.

The Little Bittern is single-brooded and its breeding season starts in May or June (Snow & Perrins 1998). However at Is-Simar the first pair raised two broods and started breeding in early March. This pair's presence during the winter was also the first wintering record for this species in Malta.



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Raymond Galea

First breeding record of Rufous Nightingale *Luscinia megarhynchos*

The Rufous Nightingale *Luscinia megarhynchos* is a common passage migrant in Malta from mid-March to mid-May, with a few birds until late May and from mid-August to mid-October. Occasional single birds have also been recorded in June at Buskett (Sultana & Gauci 1982). There are no documented breeding records of the Rufous Nightingale in Malta. Ardoino (1928) and Despott (1932) stated that it bred but did not mention any breeding records.

On the morning of 28 May 1995 a male bird was in full song at Wied il-Luq, Buskett - a valley with a narrow strip of deciduous woodland with a thick undergrowth. The song was repeated several times and on one occasion the bird was seen chasing away a Robin *Erithacus rubecula*. The area was visited again in the morning of 4 June. The singing male was still present, while another bird, presumably a female, was observed carrying dry nest material towards the nearby undergrowth. After searching the area a nearly completed nest was discovered. Two days later the nest was still empty and the male was again heard singing in the vicinity. On visiting the site again on the morning of 11 June, the female was noted incubating 4 eggs. Unfortunately the next day the nest was empty. The eggs must have been predated upon by Brown Rats *Rattus norvegicus*, which infest the area.

On 25 June a second nest was found some 17m away from the first one. It contained broken egg shells of at least three eggs. Loose tail feathers of the female were also noted in and around the nest, suggesting that a predator, most likely a Brown Rat, must have attacked the female while incubating. The male was still present and singing on 3 July but there was no sign of the female.

The area where the nests were found is dominated by large trees, mainly White Poplar *Populus alba*, Elm *Elmus* sp. and Italian Cypress *Cupressus sempervirens*, with thick undergrowth of Bramble *Rubus ulmifolius*, Common Goosegrass *Galium aparine* and Ivy *Hedera helix*.

The first nest was built in the Bramble and the Common Goosegrass, 0.5m above the ground, the second nest in the Bramble and in the Ivy a little less than 0.5m above the ground. Both nests were rather loosely built of dead leaves and dry grasses with the inside lined with finer dried grasses, forming a neat cup. The eggs were subelliptical, smooth and slightly glossy and of grey-green colour. Both nests were close to a public footpath but very well concealed.

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Raymond Galea

First breeding record of Little Ringed Plover *Charadrius dubius*

The Little Ringed Plover *Charadrius dubius* is a common passage migrant from early March to late May and from late July to early November. It has never been recorded breeding in the Maltese Islands (Sultana & Gauci 1982). It has always been frequently recorded at Ghadira, a small wetland area in the north of the island of Malta, but the maximum stay of individual ringed birds which were retrapped never exceeded 5 days (Gauci 1990). Engineering works with heavy machinery in the area, which started in 1980, and continued for 3 consecutive summers, created a number of small islands in a relatively low extensive pool.

In 1995 a pair bred for the first time on one of the low islands in the area and 3 eggs were laid. Two of these hatched on 29-30 June and one of the young was still present on 7 August. Both adult birds and the newly-fledged young were ringed. A ringed male, presumably one of the birds that bred in 1995, and an unringed female bred successfully in the following 3 years. Two young hatched in 1996 and 3 on 1 August 1997. In 1998 the female was already noted incubating its eggs on 29 April and 4 young hatched on 23 May. Only one fledged. On 3 June

the female had already laid a second clutch of 4 eggs which hatched on 4 July. Unfortunately none of these succeeded to fledge as they were taken either by stray cats or other predators.

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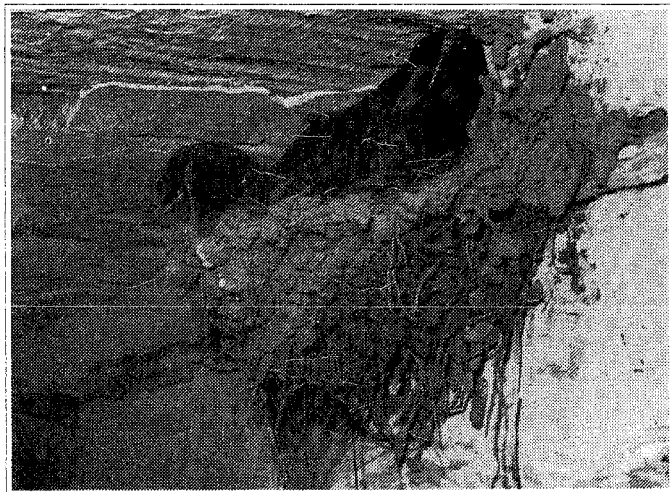
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Charles Gauci & Joe Sultana

Second breeding record of Barn Swallow *Hirundo rustica*

The Barn Swallow *Hirundo rustica* is a very common passage migrant in spring and autumn. There has been only one documented breeding record in the Maltese Islands; a pair bred at Mqabba in July 1974 and raised a brood of 4 which fledged on 2 August (Sultana & Gauci 1975).

In July 1995 a pair nested in an old, derelict farmhouse limits of Bidnija. Most of the doors and windows were either broken or missing. The nest was built of mud and dry grass, and located near the middle of a wooden beam very close to the ceiling, in a small room at groundfloor level. It was about 3m above the ground. A farmer informed the writer that the birds had collected the mud from the edge of a small water hole in nearby fields. On 28 July the nest contained 4 young which were ready to fledge. They must have fledged the following day as the nest was empty on 30 July.



Raymond Galea

Fig 1. The nest of *H.rustica* at Bidnija.

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Raymond Galea

Breeding records of Reed Warbler *Acrocephalus scirpaceus* 1995-1998

The Reed Warbler *Acrocephalus scirpaceus* is a fairly common migrant in autumn from late July to October. In spring it is generally very scarce from late March to early June (Sultana & Gauci 1982). It was first recorded breeding in Malta in July 1977 when 4 newly-fledged young accompanied by an adult were observed at Salina (Cachia-Zammit & Testa 1977-78). From 1995 to 1998 the species has been recorded breeding a number of times at Salina and Is-Simar. Following is a compilation of these records.

Breeding records at Salina

Salina consists of a network of saltpans fringed by ditches overgrown with the Common Reed *Phragmites australis*.

1995

Two adult birds were observed singing on 12 June. A nest with 4 eggs was located in the Common Reed on 21 June. The nest was 1.5m above dry ground and 2m away from the water's edge. On 30 June both adults were feeding four pulli of c.7 days. On 8 July the nest was empty and the fledged young and the adults were heard calling in the vicinity.



Fig 1. Nest of *A. scirpaceus* at Salina in 1995

young fledged successfully in the second week of July. Adults and young were frequently observed foraging together in the area up to 17 August.

1997

At least 3 pairs bred. Territorial singing by males was heard frequently from different areas of the reserve in June and July. No search for nests was carried out. Several fledged birds were handled for ringing during July and early August.

1998

Two to three pairs bred successfully in June and July. No nests were located but several fledged young were trapped for ringing during July and early August.

Some of the ringed birds have been retrapped in the following breeding seasons. A pullus ringed in the nest at Salina on 30 June 1995 was retrapped as a breeding adult at Is-Simar on 19 July 1998.

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Raymond Galea

Breeding records of Greenfinch *Carduelis chloris*

The Greenfinch *Carduelis chloris* is a common autumn migrant and winter visitor in small numbers. It is also recorded in single numbers in late spring and summer. Several of the latter are probably escaped birds, as the species is very popular with bird trappers and many are kept in captivity from year to year and used as decoys.

There have been few documented breeding records. A nest with 4 eggs was located in an Olive tree *Olea europaea* at St. George's Bay in May 1910 (Despott 1916). Two pairs nested at Rundle Gardens, Gozo in June 1965 and a pair was seen with fledged young in July 1977 below Chambray, Gozo (Sultana & Gauci 1982). Five birds (probably family parties) have been recorded at Lunzjata on 6 August 1983 and at Ghadira on 9 June 1984 (Gauci

1986-87). A pair was seen with 3 young at Victoria on 3 August 1985 (Coleiro 1988). 1-2 birds were present almost daily at Ghadira from July to September 1989 and five birds (probably a family party) were observed there on 4 August (Coleiro 1990-91). Up to 5 were recorded in summer 1991 from a few suitable sites suggesting breeding (Coleiro & Attard Montalto 1992-94) and 4-5 were seen on 10-11 July 1995 at Addolorata Cemetery where a pair raised 3 young (Mercieca et al. 1995-98).

One other record has not been documented. A pair bred at Ramla Bay, Gozo in 1992. The nest was found in an Orange tree *Citrus sinensis* orchard on 22 April. It contained 4 young about 7 days old and was built 1.5m above the ground in a small tree.

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Raymond Galea & Joe Sultana

Breeding record of Common Swift *Apus apus*

The Common Swift *Apus apus* is a common passage migrant and non-breeding summer visitor (Sultana & Gauci 1982). Schembri (1843) and Wright (1864) both stated that it bred, nesting in fortifications and sea cliffs. Despott (1916) assumed that it was a common breeder and mentioned procuring a nest in May 1909. In 1992, a pair was noted presumably mating at Dingli Cliffs (Coleiro 1992-1994).

It is an abundant and widespread breeder in Sicily, Pantelleria, and on some of the Egadi and Aeolian Islands (Iapichino & Massa 1989).

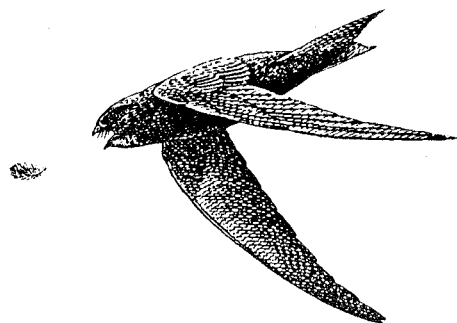
A pair of Common Swifts bred and managed to raise at least 1, possibly 2, young at Marsascala in 1997. The nest, a shallow cup, was located in a ventilator of a fourth floor apartment, facing south; it was positioned about 15-20cm from the entrance. On 25 July, using a hand mirror, two chicks were seen to be occupying the nest. On 5 August 3 birds including one in dark fresh plumage were seen flying along the facade of the building. The birds were seen until the second week of August.

This is the first confirmed local breeding record of the Common Swift for this century.

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John J. Borg



Trogloxene behaviour by Spanish Sparrows *Passer hispaniolensis* at Għar Dalam cave, Malta

Introduction

Taxa that occur in caves but do not complete their whole life cycle there are termed as troglaxenes. Habitual troglaxenes (such as bats and some avian species) seek shelter in caves but feed outside (Chapman 1993).

The Spanish Sparrow *Passer hispaniolensis* is an abundant breeding resident, nesting in ventilators, behind drain pipes, on ledges and window sills, in pylons, in holes and crevices in sea and inland cliffs, in rubble walls, in overhanging plants and in a variety of trees (Sultana & Gauci 1982). In 1993, a small colony established itself inside Għar Dalam cave and numbers have been increasing since.

Description of site

Għar Dalam is a 144m-deep water-hewn cave situated on the SE side of Wied Dalam, Birżebbuġa, SE Malta. The cave has only one opening situated about 6m above the valley bottom. The natural entrance is 8.4m wide and 2.55m high. The cave entrance is guarded by an iron gate, set up in 1929, that leaves ample access for the sparrows. Between 1980 and 1982 wire mesh was fixed to the gate, denying access to the birds (Zammit Maempel 1985).

The cave is a National Monument of palaeontological, archaeological, speleological and biological interest. It is visited by an average of 90,000 people annually (1996 estimates).

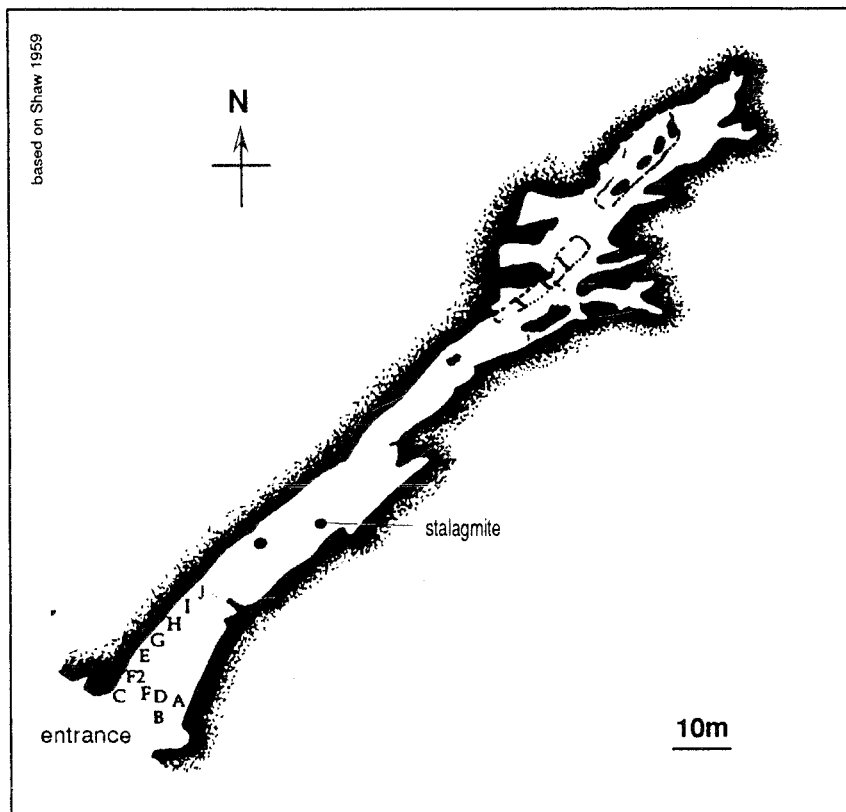


Fig 1. Map of Għar Dalam cave. Letters refer to nest sites (see text).

Colonisation of the cave

Although Spanish Sparrows have been frequenting the cave for several years with sporadic breeding attempts, it was in the early 1990s that a permanent colony was established. The first two pairs nested in 1993 in nests B and F (see map). In the following year, the number of breeding pairs increased to four, nesting in A, B, C and F. In 1995 a marked increase was noted when sites F2, E and G were first occupied, bringing the number of breeding pairs up to seven. Ten pairs were present in 1996 (sites H, I, J), and a new pair in 1997 (D) brought the colony to 11 pairs.

Nests are situated in the outer area of the cave, at an average depth of 10.5m (range 2.66-20.7m) and an average height of 6.2m (2.35-7.0m). They are constructed on narrow ledges, cracks in conical structures in the ceiling and in very narrow crevices in the bedding planes lining the cave walls. The average distance between nests is 3.39m (0.33-6.94m).

Behaviour

Cave occupancy by the Spanish Sparrows is not only restricted to the breeding season (February - August) but extends throughout the whole year. Male sparrows defend their respective nest sites by positioning themselves at the cave entrance, warding off any intruding conspecifics (males). A high degree of site tenacity exists in the colony where males occupy the same nest site each year. Mate fidelity also occurs, but mated males have been observed courting and copulating with nubile or neighbouring females.

In a typical breeding season a pair of sparrows raises 3-4 broods with an average of 4 eggs per nest. Because of the high density of birds in a restricted area, chick mortality is extremely high. The average successful fledging is 1 chick per nest.

Male sparrows show a greater tendency of philopatric behaviour than females. In at least 1 nest, the male was occupying its natal nest from the previous year. Two other males (non-breeders) were also frequently observed alighting close to their natal nest, whenever the occupant was away. Only 1 female was observed near its natal nest. This philopatric behaviour raises the possibility of inbreeding. The question, already raised by the author for Cory's Shearwaters *Calonectris diomedea* (II-Merill, this issue), is being investigated.

The Ghar Dalam colony is very tolerant to human presence and although a mass exodus occurs every time human visitors enter the cave, the birds soon return and settle down. During the breeding season non-incubating birds fly out in a highly vociferous manner.

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John J. Borg

Nocturnal Activity in Spanish Sparrow *Passer hispaniolensis*

The Spanish Sparrow *Passer hispaniolensis* is a diurnal species. In the past few years a colony has established itself in an underground tunnel at Malta International Airport and has been active at all times of the day or night. The tunnel runs the whole length of the airport and contains a number of offices and stores and a baggage sorting area and is used by a number of vehicles on a 24hr basis. Due to the depth of the tunnel below ground very little natural light can enter it and artificial light is constantly in use. There is open access at both ends of the tunnel.

The colony is small, not more than three pairs in the area of my observations, which is about 25% of the entire length of the tunnel. They nest in the ceiling of the tunnel, which is panelled. It is also used as a winter roost.

Some specific records are: 29 January 1994, 1 male at 00.40 and 2 males at 02.30 singing while perched on various pieces of equipment inside the tunnel. At 05.30 on the same day a male and a female were feeding together (daylight on that day was at about 06.30). On 18 March 1994, 2 males and 2 females were seen at 04.45 and the males were displaying and holding territory.

These are just 2 specific records. Nocturnal observations in the tunnel are made once every six days and night-time activity from the birds is regularly noted. The birds seem more active on nights when there is less human or mechanical activity in the tunnel. It is noteworthy that I have never seen the birds outside the tunnel during the night although the area outside the tunnel is also very brightly lit.

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John Attard Montalto

New breeding site for Spotted Flycatcher *Muscicapa striata*

The Spotted Flycatcher *Muscicapa striata* is a common passage migrant from mid-April to early June and in smaller numbers from mid-August to mid-November. Up to 5 pairs have been recorded breeding irregularly at Buskett from 1971 to 1995; a pair probably bred at Wied il-Kbir in 1971, where 4 and 3 birds seen together on 30 June and 11 July respectively probably constituted a family party (Sultana & Gauci 1982, Galea 1987, 1991).

In late June 1995, the species was noted at Addolorata cemetery, Paola. On 6 July breeding was confirmed when a fledgling was observed in the area begging for food; an adult was later noted feeding the young bird. Further visits confirmed the presence of at least 2 adults and 3 juveniles.

The habitat within the cemetery consists of mature, mainly coniferous trees with sparse undergrowth. Aleppo Pine *Pinus halepensis* and Italian Cypress *Cupressus sempervirens* predominate.

Acknowledgement

Thanks are due to Richard Cachia-Zammit for informing the author of the birds' presence.

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Denis Cachia

Editorial Note

A pair of Spotted Flycatchers was present from 14-16 July 1996 at San Anton Gardens. On 6 August they were seen feeding a single fledged young. This young bird was still present on 17 August, accompanied by an adult. The Spotted Flycatcher has never been reported breeding in this area (Martin Thake, pers. comm.)

Large flock of Short-Toed Eagles *Circaetus gallicus* in late autumn

The Short-toed Eagle *Circaetus gallicus* is almost exclusively a summer visitor to the Western Palearctic with exceptional winter reports from southern Europe (Glutz *et al.* 1971, in Cramp & Simmons 1980). Southward movements from Europe begins from late August or early September to mid-October with stragglers lingering into November in central Europe and France. In Malta it is a scarce autumn migrant usually recorded from mid-September to mid-October, but occasionally in November and December (Sultana & Gauci 1982).

In the Mediterranean, large numbers migrate over the shortest sea crossings such as Gibraltar and the Bosphorus. The bird generally migrates singly or in small parties (Cramp & Simmons 1980) and in Malta it is normally seen in ones or twos, occasionally up to 3. (Sultana & Gauci, 1982).

On 10 November 1993 at 15.30, a flock of 29 Short-toed Eagles was observed over Dwejra ridge, situated in the central part of Malta. The birds were watched for 20 minutes. The majority were observed hovering less than 30m above the ground while the rest were soaring. The whole flock then glided away in a northerly direction.

The flock eventually dispersed as most of the birds were shot.

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Charles Coleiro

Zitting Cisticola *Cisticola juncidis* breeding in November

The Zitting Cisticola *Cisticola juncidis* is a common resident in Malta. Locally the breeding season extends from February to August (Sultana & Gauci 1982); the same holds throughout its breeding range, the latest breeding record being one fledgling reported in mid-October (Cramp 1992).

While birdwatching at Wied Dalam, Birżebbuġa on 16 November 1997, a female Zitting Cisticola was observed carrying larvae of a *Pieris* sp. butterfly to two recently-fledged young, perched close to their nest.

During 1997, conspecifics as well as Sardinian Warblers *Sylvia melanocephala* continued to display territorial behaviour late into the season. Males of both species were frequently seen chasing females throughout October and early November. This late breeding may have been the result of an abundance of food, especially larvae of many Lepidoptera species. Warm weather conditions prevailed throughout autumn, with temperatures averaging 20°C persisting well into November.

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John J. Borg

Unusual singing perch of Sardinian Warbler *Sylvia melanocephala*

The Sardinian Warbler *Sylvia melanocephala* may be found in a diversity of habitats such as maquis, tree groves, low shrubs in garigue areas, and gardens, even in towns. It is known in Mallorca to perch on artefacts such as electricity pylons. The male sings mostly from an elevated perch, usually from the top of a bush, but also (on Corfu) from the top of trees and overhead wires (Cramp 1992).

A male Sardinian Warbler was noted singing on 5 dates from 17 February to 2 April (1995), at different times of the day, on a washing line which was on the roof of a three-storey house at Fleur-de-Lys, a densely built suburban town with some scattered gardens. On one occasion the line was full of hanging clothes.

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Joe Sultana

Systematic List 1993-1995

compiled by
Caldon Mercieca, Manwel Mallia & Joe Sultana

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The sequence and the scientific nomenclature follow those adopted by the new Concise Edition of Birds of the Western Palearctic (BWP). Some new taxonomic 'splits' have been made by the Editors of BWP. The two subspecies of the Mediterranean Shearwater *Puffinus yelkouan* have become two full species: the Levantine Shearwater, which breeds in the Maltese Islands, and the Balearic Shearwater *Puffinus mauretanicus*, which breeds in the Balearics. The latter has never been recorded in Malta. The English names used are those adopted by British Birds in 1993 (Brit. Birds 86: 1-2) and now in use throughout Europe. In this list, to mention a few examples, Pied Wagtail replaces White Wagtail, Nightingale becomes Rufous Nightingale, Dunnock is now Hedge Accentor, Rufous Bush Chat is listed as Rufous-tailed Scrub-robin and Zitting Cisticola is the new name of Fan-tailed Warbler. The Maltese names are those found in A New Guide to the Birds of Malta (Sultana & Gauci 1982), except for the Harriers: Baghdan, as is known and referred to by everyone, instead of Bughadam. For the new species which appear for the first time in the systematic list an appropriate Maltese name was given by the Research Group of BirdLife Malta. There are some place names which are found on both islands of Malta and Gozo. Unless otherwise indicated, Dwejra refers to Dwejra in Malta, Nadur refers to Nadur in Gozo and Lunzjata refers to the well-known site in Gozo. Unless otherwise stated, the numbers given are for one locality.

Little Grebe *Tachybaptus ruficollis* Blongun Żghir

1993: One at Is-Simar on 9 Dec and 17 Dec.

1994: One at Għadira on 27 Oct and from 29 Oct to 4 Nov.

1995: Singles at Għadira from 5 Oct to 6 Dec and at Is-Simar on 24 Dec.

Great Crested Grebe *Podiceps cristatus* Blongun Prim

1993: 4 at Qawra on 4 Dec and 20 at Għallis and 25 at Qawra on 11 Dec.

1994: 1 on 30 Oct; then 9 on 16 Nov and 27 on 17 Nov at Qawra, 3 on 19 Nov at St. Elmo Pt., singles from 15-17 Nov at Għadira and from 18-21 Nov and on 26 Nov at Is-Simar. Singles at Qawra on 3 Dec, at Għadira from 5-8 Dec, and at St. Elmo Pt. on 18 Dec.

1995: 1 at Għadira Bay on 4 Nov; on 6 dates at Qawra from 8-15 Nov (mostly 1-9 but 40 on 8 Nov) and 7 off St. Elmo Pt. on 10 Nov. Singles at Għadira on most dates from 12 Nov to 6 Dec and at Is-Simar on 13 dates from 8-31 Dec. Singles at Għadira Bay on 3 Dec, 6 Dec and 23 Dec.

Black-necked Grebe *Podiceps nigricollis* Blongun Sekond

1993: 8 at Għadira from 1 Jan to 3 Mar decreasing gradually - last single on 14 Mar. 1 at Is-Simar from 7 Nov to 19 Dec. 1 at Għadira on 19 Nov increasing to 5 by 24 Nov till end of year. 6 other sightings of up to 4 from 27 Nov to 5 Dec, mostly at Salina.

1994: 5 present at Għadira till mid-Jan, gradually leaving by 31 Jan. 2 at Qammieħ on 30 Mar. Single bird at Għadira from 28 Aug to 24 Oct, then increasing up to a maximum of 20 on 2 Dec, and decreasing again to 4 by end of year. At Is-Simar, 1 from 4-8 Sep, then up to 6 from 18 Nov till end of year. Outside reserves, 3 sightings of 1-2 from 28 Oct to 21 Nov, but 6 at Ras il-Griebeġ on 21 Nov.

1995: Up to 7 at Għadira in Jan-Mar, decreasing to 1 by 2 Apr. 1-4 at Is-Simar from 14 Jan to 11 Mar. Single at Għadira on 1-5 Aug, then daily from 27 Sep with up to 18 by end of year. 2 at Salina on 28 Oct. Up to 5 on most dates from 18 Nov at Is-Simar and from 2 Dec at Salina. 10 sightings of 1-2 outside reserves, mainly along NE coast and harbour areas, including 1 at Siema on 30 Aug.

Cory's Shearwater *Calonectris diomedea* Ċiefa

1993: First seen on 8 Mar. Highest counts were in Jul with 1000+ on 17 Jul off Ta' Ċenċ and on 22 Jul off Tas-Safra. Last record of a single bird at Qawra on 14 Nov.

1994: First sighting from Lapsi on 24 Feb. Regularly present till last sighting off Qawra on 12 Nov. Best counts: 274 off Qbajjar on 17 Mar, 400 off L-Aħrax on 27 Mar and 3000 off west coast of Gozo on 24 Jun.

1995: Present at the colonies from 24 Feb; seen offshore on most days till 6 Nov. Highest counts between mid-July and mid-Aug off NW coast of Gozo, max 4000 off San Dimitri Pt. on 6 Aug.

Manx Shearwater *Puffinus puffinus* Garnija tan-Nord

1995: One picked up at Birzebbuga (Freeport) on 6 Sep. First record for Malta. (see II-Merill, this issue p18).

Levantine Shearwater *Puffinus yelkouan* Garnija

1993: Small numbers recorded at breeding colonies but ca.30 offshore at Qammieħ on 3 Mar. Then first sightings on 12 Dec with 11 off Tas-Safra and 1 at Ġhallis. 2 at a breeding colony on 20 Dec.

1994: Regularly seen at colonies and out at sea from Jan till 1 Jun. 30 at L-Ahrax on 1 Mar and at Hal Far on 3 Mar. 1 adult picked up from sea on 13 Sep and released at Wied iż-Żurrieq on same day. Then 13 on 12 Nov and 1 on 3 Dec, both off Qawra.

1995: Present at colonies, and seen regularly offshore, from 25 Jan to 20 May. Usual breeding numbers. Breeding re-confirmed also on Kemmunett. 1-2 seen off Qawra on 6 Nov and 15 Nov.

European Storm-petrel *Hydrobates pelagicus* Kanġu ta' Filfla

1993: Recorded only at breeding colony on Filfla. 80 counted on 21 Aug.

1994: A colony was rediscovered at Ta' Ċenċ Cliffs, where 8 sitting birds were located on 28 June [see *II-Merill*, 28: 23-24]. 2 pulli were located during the only brief visit during the day to Filfla on 25 Aug.

1995: 20+ were noted during a night visit to Filfla on 2 Sep.

Northern Gannet *Morus bassanus* Sula

1993: 1 at Qawra on 2 Apr and singles at Qawra and Ġhallis on 13 Dec.

1994: 3 single sightings, all from Qawra, on 13 Nov and 26 Nov, and on 15 Dec.

1995: Singles off St. Elmo Pt. on 4 Nov and 12 Nov, then off Qawra on 15 Nov and 18 Nov, and on 7 Dec.

Great Cormorant *Phalacrocorax carbo* Margun

1993: 1 at Grand Harbour on 8 Jan then 6 sightings of 1-3 birds till Apr. 1 at Qawra on 16 Oct and 33 sightings of 1-9 birds till end of year, including 12 at Tas-Safra on 23 Nov.

1994: 5 sightings from 20 Feb to 17 Apr, all singles but 4 at Kemmuna on last date. One at Ġhadira on 25 Aug then 38 sightings of 1-4 from 4 Oct till end of year (most during second halves of Nov and Dec) but flocks of 6 on 6 Nov and 20 Nov, both at Qawra, 8 over Dwejra on 22 Nov and 8 off St.Elmo Pt. on 3 Dec.

1995: 9 sightings of 1-2 from 9 Jan to 16 Apr. 2 at Qawra on 14 Oct, then on most days from 4 Nov to 21 Dec (daily on 4-21 Nov and 2-7 Dec). Mostly singles or in small flocks of up to 14, but 21 over St.Paul's Bay on 5 Nov (1 flock), and 34 at Qawra on 25 Nov (3 flocks).

Great Bittern *Botaurus stellaris* Kappun

1993: 1 at Ġhallis on 12 Mar.

1995: 2 on 10 Apr and 1 on 12 Apr at Ġhadira, then singles on 5 dates from 26 Apr to 3 May, and on 3 dates from 30 Oct to 8 Nov, all at Is-Simar.

Little Bittern *Ixobrychus minutus* Russett tas-Siġar

1993: 1 at Kemmuna on 9 Apr, then singles on 13 sightings from 14 Apr to 30 May. In autumn 1 at Ġhadira on 24 Oct.

1994: Singles at Ġhadira on 26 Mar and 15-16 Apr, and at Rabat on 2 May.

1995: Singles at San Anton Gardens on 7 May and at is-Simar on 20 May and 24 May. In autumn, at Salina on 15 Aug, then at Filfla on 1 Sep, at Rabat on 17 Sep, and at Ġhadira on 28-29 Sep, all singles except for 2 at Rabat.

Night Heron *Nycticorax nycticorax* Kwakka

1993: Up to 31 on 17 dates from 20 Mar to 9 May, singles on four dates in Jun-Jul and in autumn up to 26 on 20 dates from 13 Aug to 23 Oct.

1994: 26 sightings of up to 35 on 19 dates from 17 Mar till 30 May, but 200 at Wied iż-Żurrieq on 5 Apr. 1 at Rabat on 1 Aug and 5 at Ta' Xbiex on 10 Aug; then 23 sightings on 19 dates from 19 Aug to 28 Oct, mostly in small flocks; highest 33 at Ġhadira on 29 Aug and 25 over Blata l-Bajda on 12 Sep.

1995: 1 at Hal Far on 16 Mar, then on 22 dates from 28 Mar to 28 May (daily from 31 Mar to 10 Apr), mostly singles or small flocks of up to 16, but 32 at Qammieħ on 7 Apr, 50 over Sliema on 8 Apr, and 26 at Ġhadira on 7 May. Singles on 11 Jul and 22 Aug and 25 Aug; then 24 sightings of 1-8 on 15 dates from 31 Aug to 12 Oct, but 50 over Sliema on 1 Sep, 38 at Ġnejna on 8 Sep and 145 over Pietà on 23 Sep.

Squacco Heron *Ardeola ralloides* Agrett Isfar

1993: 1-2 birds on 6 dates from 2 Apr to 13 May. In autumn, singles on two dates but 11 on 11 Sep and 8 on 15 Sep.

1994: 4 at Wied iż-Żurrieq on 5 Apr. Then singles on 9-10 Apr and 11-18 Apr, 4-5 May, 14 May and 30-31 May, and 2 Jun, all at Ġhadira or Is-Simar. 1 over Sliema on 29 Sep.

1995: 1 at Qammieħ on 9 Apr and 5 at Kemmuna on 30 Apr, 1 at Ġhadira from 30 Apr to 2 May, and 13 at Kemmuna on 10 May and singles at Ġhadira on 16 May and 22 May. One sighting in autumn: 1 at Filfla on 1 Sep.

Little Egret *Egretta garzetta* Agrett Abjad

1993: 1-3 almost daily from 20 Mar till end of Apr, but 20 at Qammieħ on 9 Apr and 42 at Ġhadira on 11 Apr. 1-2 birds on 6 dates in Aug with 6 at Mġiebaħ on 12 Aug. Very frequent in Sep with 33 and 31 at Ġhallis on 2 Sep and 8 Sep. Singles on 5 dates from 3 Oct to 4 Dec.

1994: 2 at Sliema on 14 Mar, then almost daily from 28 Mar to 2 Jun; and 2 on 18 Jun at Ġhadira. All sightings of 1-24 birds except for 150 at Wied iż-Żurrieq on 5 Apr and 34 at Ġhadira on 11 Apr. 21 sightings on 18 dates between 7 Aug and 5 Nov, mostly 1-6, but 15-22 on 5 occasions. 1 over Is-Simar on 24 Dec.

1995: 39 sightings from 24 Mar to 21 May (27 of which in Apr), mostly in singles or small flocks of up to 9, but 15 on 24 Apr and 18 on 30 Apr, both at Kemmuna. 1-2 daily at Għadira from 23 May to 10 Jun. 1 on 29 Jul and 3 on 3 Aug; then 40 sightings from 13 Aug to 22 Oct, mostly 1-19 but 30 at Kemmuna on 6 Sep and 29 at St. Paul's Bay on 18 Sep. Singles at Għadira on 5 Nov and 9 Nov.

Great White Egret *Egretta alba* Russett Abjad

1993: Singles at Għadira on 15 Sep and 20 Sep and 11 Oct and 17 Oct.

1994: 1 at Is-Simar on 17 Sep.

1995: Singles at Għadira on 15 Oct and 18 Oct.

Grey Heron *Ardea cinerea* Russett Griż

1993: 8 at Għadira on 26 Feb, then 36 sightings on 25 days from 5 Mar to 13 May, highest 50+ at Sliema and 20+ at Marsamxett on 27 Mar. Late singles on 26 May and 31 May and 15 Jun. Then singles at Buskett on 25 Jul and at Għallis on 29 Jul, up to 14 on 8 dates from 10-28 Aug, almost daily in Sep (40 sightings - highest 100 at Għallis and 80 at Dwejra on 20 Sep), and Oct (21 sightings - highest 31 at Qawra on 4 Oct), and up to 5 on 5 dates in Nov. 7 birds (5 at Għadira) on 1 Dec were last record.

1994: Singles on 18 Feb and 26 Feb at Għadira. 56 sightings on 31 dates from 6 Mar to 12 May, highest 100+ over Grand Harbour area on 17 Mar, 41 over Dwejra on 30 Mar, and exceptional numbers (3500+) over Wied iż-Żurriq following a storm on 5 Apr; otherwise up to 38. Singles at Għadira on 18 Jun and at Is-Simar on 12 Jul. In autumn, 1 at Is-Simar on 5 Aug; then regular from 17 Aug to 20 Nov totalling 52 sightings, mostly up to 14, with 5 sightings of 18-34, highest 84 at Dwejra on 21 Sep.

1995: 3 sightings of singles between 7 Jan and 4 Feb; then on 27 dates from 25 Feb to 6 May, mostly up to 14 but 22-63 on 7 dates. Singles at Għadira on 20 May and on 9-10 Jun. 3 sightings on 28-29 Jul and 8 sightings of 1-4 from 6-16 Aug. Almost daily from 22 Aug to 1 Sep (highest 55 at Ċirkewwa on 24 Aug) and from 6 Sep to 11 Oct, mostly up to 33 but 42 at Gnejna on 8 Sep, 50 over Pietà on 19 Sep, and 50-200 on 23-24 Sep (5 sites). Then 45 at Dwejra on 6 Oct, 9 sightings of 1-5 from 18 Oct to 16 Nov, and 1 at Għadira on 9 Dec.

Purple Heron *Ardea purpurea* Russett Ahmar

1993: First record on 30 Mar, singles on 11 dates from 5 Apr to 14 May, but 9 at Għadira on 11 Apr and 4 at Manoel Island on 12 May. In autumn recorded more regularly, with an early bird on 13 Aug at Għadira and on 18 days from 30 Aug to 30 Oct. Highest counts of 13 on 16 Sep at Għallis and 12 at Għadira on 30 Aug, otherwise 1-7.

1994: 20 sightings on 15 dates between 30 Mar and 8 May, mostly 1-4, but 1500 at Wied iż-Żurriq on 5 Apr. In autumn, 8 sightings of 1-2 (except for 20 at Għadira on 22 Sep) from 3 Sep to 20 Oct mostly at Għadira.

1995: 12 sightings from 29 Mar to 17 Apr, mostly 1-6 but 10 on 7 Apr (2 sites) and 23 over Kemmuna on 16 Apr. 4 sightings of 1-4 from 25 Apr to 6 May mostly at Kemmuna. In autumn 8 over Dwejra on 25 Aug, then 3 sightings of 1-3 up to 1 Sep, and 7 sightings from 5 sites from 19 to 24 Sep, including 23 on 23 Sep and 20 on 24 Sep both at Wied Speranza.

'Heron' sp.

1993: ca.15 at Għajnsielem on 12 Mar and 60 at Żonqor Pt. on 27 Mar. In autumn 31+ at Għallis on 27 Aug and on another 7 dates till 30 Sep with ca.100 at Buskett on 20 Sep.

1995: 2 sightings of 10 in spring (9 Apr and 11 May) and 6 sightings from 13 Aug to 24 Sep, most 1-5 but 50 on 8 Sep (2 sites) and 20 on 9 Sep.

Black Stork *Ciconia nigra* Ċikonja Sewda

1993: Singles on 17 May at Marsaxlokk and on 6 dates in autumn from 31 Aug to 20 Oct.

1994: Singles at Għadira on 7 May, at Buskett on 24 Sep, at Għadira on 8 Oct and at Is-Simar on 21 Oct.

White Stork *Ciconia ciconia* Ċikonja Bajda

1993: 1 on 2 Sep at Buskett.

1994: 9 over Buskett on 28 Aug and 6 over Dwejra and Buskett on 10 Sep.

1995: Singles over Dwejra on 16 Sep and Ghajn Tuffieha on 29 Oct.

'Stork' sp.

1993: Singles at Ta' Qali on 10 Mar and at Dwejra Lines on 27 Sep.

1994: 1 at Wied Dalam on 19 Sep.

Glossy Ibis *Plegadis falcinellus* Velleran

1993: 4 on 10 Apr at Sarraflu, at 3 sites on 13 Apr (highest 5 at Għadira) then 1 at Is-Simar on 21 Apr. In autumn 4 at Għadira and 1 at Għallis on 15 Sep.

1994: Singles over Għadira on 17 Mar and at Marsascula on 15 Apr and 1 at Kemmuna and 10 over Għadira on 30 Apr. Last sighting on 6 Aug over Għadira Bay.

1995: 31 at Qammieħ on 7 Apr, 2 at Għadira on 7-8 Apr and 3 at Ghajn Tuffieha on 23 Apr. Singles on 2 Sep at St. Elmo Pt. and on 21 Sep at Dwejra and 12 on 5 Nov, again at St. Elmo Pt.

Eurasian Spoonbill *Platalea leucorodia* Paletta

1993: 4 at Gnejna on 28 Sep and 1 at Għallis on 29 Sep.

1994: 1 at Victoria on 18 Mar.

1995: 2 at Għadira and 1 at Salina on 29 Mar (1 at Għadira remaining till 31 Mar) and 3 at Salina on 2-3 Apr. Then 1 at Għadira from 22 Jul-7 Aug.

Greater Flamingo *Phoenicopterus ruber* Fjamingu

1993: 2 on 19 Nov and 20+ on 27 Nov at Qawra.

1994: One present from 16-21 Mar, 2 on 24 Aug, and singles on 21 and 22 Oct all at Għadira. Reports of 40 around Għadira area in mid-Nov and of 50 at Sliema on 1 Dec.

Mute Swan *Cygnus olor* Ċinju Mutu

1993: ca.25 at Għadira on 10 Jan and 1 at Għadira and 9 at Għallis on 11 Jan. Then single at Għadira on 5 Dec, 4 at Is-Simar and at San Tumas on 8 Dec and singles at Salina on 23 Dec, at San Tumas on 25 Dec, at Paceville on 26 Dec and at St George's Bay on 27 Dec.

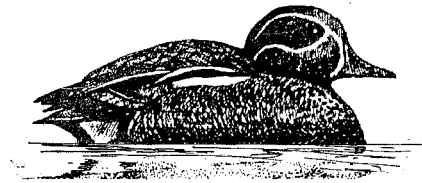
1995: 13 reported from the south of Malta on 12 Dec.

Greylag Goose *Anser anser* Wizża Griża

1993: 2 at Qawra on 5 Dec and 3 at San Ġwann on 28 Dec.

'Grey' geese *Anser* sp.

1994: 8 off St. Elmo on 3 Dec.



Ruddy Shelduck *Tadorna ferruginea* Kuluvert Ahmar

1995: 1 at Għadira on 29-30 Nov.

Common Shelduck *Tadorna tadorna* Kuluvert tas-Salib

1993: 3 at Xagħra and 4 at Għadira on 1 Jan and 1 at Għadira on 3 Jan. Then 7 at Għallis on 3 Nov and 8 sightings from 16-19 Nov (highest 55+ at Tas-Safra on 16 Nov), 1 at Għadira from 23 Nov, then 2 from 18 Dec, till end of year and 4 sightings of up to 7 in other localities in the first half of Dec.

1994: 1 at Għadira from 1-13 Jan, then 3 at Għadira on 29 Jan. In autumn, 1-2 at Għadira from 27 Oct-11 Dec. 8 sightings from Qawra from 5 Nov to 3 Dec of 2-21 but 53 on 18 Nov. 25 over Għadira Bay on 16 Nov and 1 at Għadira on 29 Dec.

1995: 21 at Qammieħ on 15 Mar. Then 5 on 13 Nov, 8 on 19 Nov and 1 on 21 Nov off NE coast.

Eurasian Wigeon *Anas penelope* Silfjun Ewropew

1993: 1 at Għadira on 29 Jan. Then 3 at Qawra and 1 at Is-Simar on 31 Oct, the latter staying there till 3 Nov. 5 at Għallis on 14 Nov and up to 4 at Għadira from 16 Nov till end of year. 5 other sightings during latter period at other localities, max.20 at Għallis on 4 Dec.

1994: 2 at Għadira from 1-30 Jan. Singles on 13 Oct and 27 Oct at Għadira and 7 on 14 Oct and 4 on 19 Oct at Qawra. Daily at Għadira from 8 Nov till end of year, highest 12 on 21 Dec. 4 sightings at Qawra: 90 on 16 Nov, 20 on 17 Nov and 12 on 30 Nov and 5 on 3 Dec. Single bird at Is-Simar on 3-5 Dec.

1995: Up to 8 wintering in Jan-Mar till 20 Mar and 1 (flightless) daily from 21 Mar to 11 Jul, all at Għadira; and 14 at Qammieħ on 9 Apr. 2 in Gozo Channel on 3 Aug; then 1-4 daily at Għadira from 19 Oct till end of year. Up to 25 on 7 dates from 7 Nov to 9 Dec off NE coast (3 sites), but 75 off Qawra on 9 Nov.

Gadwall *Anas strepera* Kuluvert Griż

1994: 1 at Għadira on 17 Nov.

1995: 1 at Għadira on 12 Jan and 2 off Qawra on 28 Nov.

Common Teal *Anas crecca* Sarsella

1993: Singles at Għadira on 6 Jan and 10 Jan and 2 at Qammieħ on 27 Mar. Then on 10 dates from 23 Oct to 4 Dec, highest 8 at Għadira on 27-28 Oct.

1994: 1-2 daily at Għadira from 31 Aug to 7 Sep, but 6 on 3-4 Sep, and 1 again there on 20 Sep. 4 at Is-Simar on 21 Sep; then up to 8 on most days from 1 Oct till mid-Dec, all, but one, at Is-Simar or Għadira.

1995: 1-2 daily at Għadira on 1-13 Jan, then singles at Is-Simar on 28 Jan and at Għadira from 12-20 Feb. Singles on 1 Sep and 21-22 Sep, then 1-8 almost daily from 29 Sep till end of year, all at Għadira. Up to 8 almost daily from 25 Oct onwards at Is-Simar. Outside reserves, recorded only from Qawra, with 40 on 8 Nov.

Mallard *Anas platyrhynchos* Kuluvert

1993: 1-3 at Għadira from 1-9 Jan. Singles at Għadira on 30 Apr and 4 May. 2 at Is-Simar on 25 July and 1 at Għadira on 12 Aug. 1 at Għadira from 4 Sep to 21 Oct, 1 at Is-Simar on 30 Oct and 4 at Għadira on 20 Nov.

1994: 10 at Qammieħ on 18 Mar. Then 8 at Qawra on 10 Nov, 1 at Is-Simar on 12 Nov and 8 at Għadira on 17 Nov. Then 2 at Qawra on 3 Dec, 3 at Is-Simar on 4 Dec and 2 on 6-7 Dec and 1 on 28-29 Dec at Għadira.

1995: 1-3 at Is-Simar on most days from 4-27 Aug, then 1 on 20 Sep and 2 on 29-30 Dec at Għadira. 5 off Qawra on 25 Nov.

Pintail *Anas acuta* Silfjun

1993: 2 on 11 Jan at Għallis, then 1 on 7 Sep and 8 on 29 Sep. 1-2 recorded almost daily from 30 Oct to 17 Dec, but 70+ at Għadira on 30 Oct and 145+ at Grand Harbour and 15 at Qawra on 31 Oct; and 42 on 2 Nov, 30 on 5 Nov and 19 on 13 Nov, all at Qawra.

1994: 9 sightings from NW coast from 25 Feb to 19 Mar; highest 570 on 26 Feb and 250 on 27 Feb. 1 at Is-Simar on 6 Aug. 8 sightings off east coast from 19 Oct to 19 Nov, highest 80 on 21 Oct. 1-4 at Għadira from 23-31 Oct, then 1-6 daily from 6 Nov till 21 Dec. 7 over Dwejra on 10 Nov, and 2 at Is-Simar on 3 Dec.

1995: 1 at Is-Simar on 4 dates in Jan and 1-2 on 4 dates from 4 to 18 Feb, but 17 at Qammieħ on 18 Feb. 8 sightings of up to 40 from 13-25 Mar, mostly in Gozo Channel area, but 300 on 20 Mar off Qammieħ. 1 at Għadira on 17-18 Apr. In autumn, 10 on 15 Sep over Dwejra and 5 on 23 Sep at Għadira. Then 1 from 28 Sep to 7 Oct, and on 20-21 Oct at Għadira and 1-2 on 10 dates in Nov, and 1 daily throughout Dec also at Għadira except for 1 at Is-Simar on 4 Nov.

Garganey *Anas querquedula* Sarsella Hamra

1993: Recorded on 8 days in spring from 20 Mar to 9 Apr, highest counts at Qammieħ with 275 on 1 Apr and 400 on 2 Apr. Then 3-11 on six dates in Sep mostly at Għallis and 1 at Ramla Valley on 31 Oct.

1994: Daily at Qammieħ from 30 Mar to 1 Apr, highest 140 on 30 Mar. At Għadira, 1-5 on 9 dates from 16 Aug to 1 Sep. 1-2 at Is-Simar on 5 dates from 17-28 Aug. 30 on 11 Sep and 7 on 24 Sep off Qawra. Single at Għadira on 6 Nov.

1995: Singles daily at Għadira on 4-19 Mar, but 7 on 15 Mar, then 1 at Għadira on 29 Mar. 6 sightings of up to 153 (but 3000+ on 25 Mar) off Qammieħ from 11-26 Mar. 1 at Salina on 29 Mar and 3 at Is-Simar on 10 Apr. Then 1-12 almost daily at Is-Simar from 14 Aug to 11 Sep, 1-10 on 7 dates at Għadira from 12-25 Sep, 5 at Qawra on 23 Sep and 1 almost daily at Is-Simar from 28 Sep to 5 Oct and from 15-30 Oct. Latest, 1 at Għadira on 26 Oct.

Northern Shoveler *Anas clypeata* Palettuna

1993: Singles at Għadira on 23 Apr and at Is-Simar from 21-28 Aug.

1994: 5 at Qammieħ on 19 Mar, 3 at Għadira on 22 Oct and 8 at Qawra on 17 Nov.

1995: One spring record: 1 off Qammieħ on 23 Mar. Singles on 18 Oct and 3 Nov, then 1-2 on 6 dates from 26 Oct to 8 Nov and daily from 8-19 Nov and from 30 Nov to 19 Dec, all records from Is-Simar and Għadira. 11 off Qawra on 10 Dec.

Common Pochard *Aythya ferina* Brajmila

1993: 2 at Qammieħ on 27 Mar, 40 at Għallis on 28 Nov and 1 at Lazzarett Creek on 21 Dec.

1994: 1 on 31 Oct, then 1-3 from 18 Nov till end of year, all at Għadira.

1995: Up to 3 daily from 1-18 Jan and 1 from 23 Jan to 11 Feb and on 24 Apr, all at Għadira. Up to 3 daily at Is-Simar on 16-26 Oct and 5-8 Nov. 1 at Għadira and 10 off Qawra both on 7 Nov, and 25 off Qawra on 24 Nov.

Ferruginous Duck *Aythya nyroca* Brajmila ta' I-Għajn

1993: Singles at Qbajjar and Għadira on 16 Apr, at Is-Simar on 17 Apr, and at Għadira on 4 May.

1994: Singles at Għadira from 9-15 May and at Is-Simar from 18-27 Jun. In autumn singles at Għadira on 21-22nd and at Qawra on 25 Sep, and 2 at Għadira on 22 Oct.

1995: Singles at Għadira from 21 Feb to 10 Mar and from 25 Mar to 8 Apr, and at Is-Simar on most days from 14-29 Jun, 15-17 Aug, 10 Sep to 1 Oct and 13 Nov to 24 Dec, all at Is-Simar. 3 off Qawra on 24 Nov.

Tufted Duck *Aythya fuligula* Brajmila tat-Toppu

1994: 1 at Għadira from 29-30 Nov.

Red-breasted Merganser *Mergus serrator* Serra

1993: Singles at Qawra on 31 Oct and at Għadira from 17-18 Nov, 3 at Qawra and 2 at Għallis on 20 Nov and 1 at Għallis on 27 Nov.

1994: Singles from 5-6 Nov, 6 on 14 Nov and 3 on 19 Nov off east coast.

1995: 6 off Qawra on 9 Nov and singles at Għadira from 21-23 Nov and at Qawra on 24 Nov and 2 Dec.

'Duck sp.' *Anas* sp.

1993: 8 records from 26 Feb to 9 Apr, highest 120+ off Qammieħ on 9 Apr. 4 sightings from 10-27 Sep, highest 10 at Għallis on last date, then frequent sightings (mostly single or low double figures) from 23 Oct to 11 Dec, highest 200+ off Qawra on 30 Oct, 38 at Għallis on 14 Nov and 35 at Qawra on 5 Dec.

1994: 11 sightings from 19 Feb to 5 Apr, varying from low double to low treble figures, with highest of 600 at Qammieħ on 22 Mar. Single on 21 Sep, then on most dates off east coast of Malta, with 370 at Qawra highest on 16 Nov.

1995: 15 on 19 Feb, then 15 sightings from 11 Mar to 9 Apr, mostly in Gozo Channel area, in low double to treble figures of up to 250 but 1000+ on 25 Mar. 1 on 3 Aug and 1-2 on 2 dates in Sep; then 15 sightings from 11 Oct to 10 Dec, in single to high double figures, but 120 off Qawra on 9 Nov.

European Honey-buzzard *Pernis apivorus* Kuċċarda

1993: Frequent in low single figures from 22 Apr to 18 May, but 25 at Kemmuna on 7 May. Then singles at Għadira on 30 May and at Dwejra Lines on 27 Jun and 29 Jun. In Autumn recorded almost daily from 1 Sep to 12 Oct with the peak migration from 17-18 Sep, the highest count of 422 at Buskett on 18, otherwise frequent in single or double figures.

1994: In spring 25 sightings from 16 Apr to 25 May, mostly 1-5, but 19 over Dwejra on 26 Apr and 9 over Kemmuna on 5 May. Almost daily from 28 Aug to 9 Oct, with latest record of 2 over Wied Dalam on 16 Oct, mostly single to low double figures, highest 62 at Buskett on 17 Sep, 65 at Dwejra on 25 Sep, 82+ at Rabat/Dwejra on 26 Sep, and 62 over Buskett on 2 Oct.

1995: 1 on 9 Apr, then 15 sightings of 1-7 on 10 dates from 22 Apr to 25 May. Singles on 20 Jul and 22 Aug, then on most dates from 2 Sep to 15 Oct. Mostly in single to low double figures of up to 27 (highest numbers in second half of Sep), but 40 over Buskett and 81 over Pietà on 22 Sep.

Black Kite *Milvus migrans* Astun Iswed

1993: 1 at Qammieħ on 13 Mar then on 7 dates in Sep with 4 at Nadur on 7 Sep and 18 Sep. Last record of 1 at Nadur/Dwejra on 6 Oct.

1994: 1 over Għadira on 8 Mar, then 7 sightings from 25 Mar to 3 May, all singles except 4 over Kemmuna on 30 Mar. In autumn, 12 sightings of 1-3 from 28 Aug to 3 Oct, all from Buskett-Rabat-Dwejra area.

1995: 11 sightings from 25 Mar to 12 May (7 in Apr), mostly singles, but 3 at Kemmuna and 5 over Mselliet on 2 Apr. In autumn, singles on 8 dates in Sep but 2 on 2 Sep and 3 on 21 Sep at Buskett.

Red Kite *Milvus milvus* Astun Ahmar

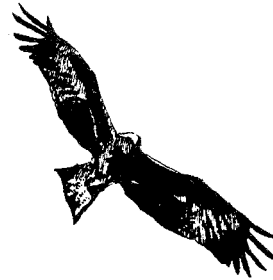
1994: 1 over Buskett on 10 Sep.

Egyptian Vulture *Neophron percnopterus* Avultun Abjad

1993: 1 at Buskett on 30 Sep.

1994: 1 over Rabat on 2 Oct.

1995: 1 immature over Msida on 20 Sep.



Short-toed Eagle *Circaetus gallicus* Ajkla Bajda

1993: Unusual influx on 10 Nov with a flock of ca.50 reported in the north of Malta and 29 (could be part of same flock) at Bingemma.

1994: 1 over Rabat on 7 Oct; then 25 (reported shot) from Għajn Tuffieħa area on 29 Nov.

1995: 1 over San Ġwann on 24 Oct.

Marsh Harrier *Circus aeruginosus* Baghdad Ahmar

1993: Low single figures almost daily from 3 Mar to 13 May, but 15 at Nuffara on 21 Mar, 20 at Marsalforn on 25 Mar and 60 at Nuffara on 29 Mar, and 20 at Nuffara on 22 Apr. 1 at L-Aħrax on 27 May. Then up to 3 (but 7 at Għallis on 16 Aug) on 5 dates in August from 11 Aug; daily in Sep with up to mid-double figures (highest 88 at Buskett on 21 Sep); and almost daily in single figures till 12 Oct. Last birds: singles at Dwejra on 15 Oct and at Is-Simar on 28 Oct and at Tal-Handaq on 8 Nov.

1994: On most days from 1 Mar to 11 May, mostly in single figures but 21 on 28 Mar and 20 on 25 Apr over Dwejra. Singles on 23 and 25 May. In autumn from 28 Aug to 21 Oct (mostly from 21 Sep to 7 Oct), up to mid-double figures, but 62 on 24 Sep and 70 on 25 Sep and 59 on 1 Oct, all over Dwejra. Single at Għajn Tuffieħa on 11 Nov.

1995: On most days in spring from 5 Mar to 31 May (daily from 27 Mar to 5 Apr, 15-28 Apr and 6-13 May), in single to low double figures of up to 20 but 35 at Kemmuna on 31 Mar. 1 at Ta' Qali on 28 Jul, then on most dates from 2 Sep to 11 Oct, mostly in single to double figures of up to 53, but 110 at Buskett on 22 Sep, 85 at Buskett on 25 Sep, and 120 at Buskett and 88 at Dwejra on 26 Sep. 3 sightings of singles from 4-10 Nov.

Hen Harrier *Circus cyaneus* Baghdad Abjad Prim

1993: Singles at Kemmuna on 13 Apr, at Is-Simar on 27 Apr and in Grand Harbour on 24 Sep.

1994: 1 over Dwejra on 25 Mar.

Pallid Harrier *Circus macrourus* Baghdad Abjad

1993: Singles at Luqa Airport on 15 Mar, at Nadur (Malta) on 17 Sep and 1 Oct, at Buskett on 2 Oct and at Qawra on 5 Nov.

1994: Singles over Tač-Cawla on 17 Mar, at Kemmuna on 26 Apr, at Buskett on 27 Sep and at Kemmuna on 30 Oct.

1995: Singles at Mellieħa on 10 Apr, at Buskett on 17 Apr, and Wied Speranza on 23 Sep.

Montagu's Harrier *Circus pygargus* Baghdad Griž

1993: Singles on 9 dates from 1 Apr to 8 May (but 2 at Kemmuna on 20 Apr and 3 at Is-Simar on 22 Apr) and on 7 dates from 18 Aug to 30 Sep (but 2 at Ramla Valley on 5 Sep).

1994: 1 in the south of Malta on 5 Mar, 1 at Wied Qlejgħa and 4 over Kemmuna on 22 Apr, 4 over Dwejra on 25 Apr and 1 over Kemmuna on 2 May. Then 2 on 13 Sep, 1 on 14 Sep and 2 on 25 Sep, all at Dwejra.

1995: 9 sightings in spring from 3-25 Apr, all in singles but 2 at Kemmuna on 25 Apr. In autumn, 2 at Buskett on 2 Sep, then 4 singles from 7-22 Sep, all at Dwejra.

'Harrier' Sp. *Circus* sp.

1993: Up to 4 on 5 dates from 29 Mar to 29 Apr. 1 at Dwejra on 1 Aug. Then 7 sightings of 1-2 on dates from 30 Aug to 12 Sep.

1994: 24 sightings in spring, 6 of which on 5 Apr including 800+ over Wied iż-Żurrieq; otherwise 1-5. In autumn, 15 sightings of 1-2 on 11 dates from 2 Sep to 1 Oct. Most sightings (excluding the one 5 Apr) refer to 'ringtail' harriers.

1995: 17 sightings in spring from 6-30 Apr, mostly 1-3 but 7 at Mellieħa on 14 Apr. 10 sightings from 1-25 Sep, all singles except for 8 over Is-Simar on 22 Sep. 1 at Dwejra on 25 Oct. Most sightings refer to 'ringtail' harriers.

Eurasian Sparrowhawk *Accipiter nisus* Sparvier

1993: 1 at Rabat on 19 Sep and 2 on 25 Sep and 27 Sept, and 1 on 7 Oct at Buskett.

1994: 1 at Qawra on 5 Oct.

Common Buzzard *Buteo buteo* Kuččarda Prima

1993: Singles on 7 dates from 17 Sep to 6 Oct, but 3 at Buskett on 18 Sep.

1994: Singles on 7 dates from 21 Sep to 11 Nov (most records from Buskett and Dwejra, but 1 on 11 Nov over Cottonera).

1995: 1 at Mdina on 25 Sep and 2 over Ghadira on 28 Sep, and 1 over Pietà on 27 Oct.

'Broadwings'

1993: 10+ at Sarraflu on 25 Mar, then singles on 4 dates till 25 Apr. Then almost daily from 1 Sep to 17 Oct in single figures, but 13 on 17 Sep, 21 on 18 Sep and 14 on 21 Sep, all at Buskett and 11 on 27 Sep at Dwejra.

1994: Singles at Marsa from 8-9 Mar and at Rabat on 1 May, then 2 at Kemmuna on 2 May. In autumn, 2 over Dwejra on 29 Aug, then 22 sightings from 11 Sep to 30 Oct, mostly up to 15 but 43 over Buskett on 24 Sep and 29 over Mdina on 25 Sep.

1995: 3 sightings of 1-7 from 2-30 Apr. In autumn, 13 sightings from 8 Sep to 3 Oct, mostly 1-10 but 25 (1 flock) over Wied Speranza on 23 Sep.

Lesser Spotted Eagle *Aquila pomarina* Ajkla tat-Tikki

1993: 1 at Buskett on 30 Sep.

1994: 1 at Xlendi on 7 Oct.

1995: 1 at Buskett on 30 Sep.

Booted Eagle *Hieraetus pennatus* Ajkla tal-Kalzetti

1993: 1 over Grand Harbour on 25 Sep.

Osprey *Pandion haliaetus* Arpa

1993: Singles at Armier on 21 Mar and at Żonqor Pt. and at Is-Simar on 27 Mar. In Autumn 33 sightings of 1-2 (highest total of 6 from 4 localities on 12 Sep) on 15 days from 30 Aug to 1 Oct, but 4 at Dwejra on 13 Sep.

1994: Singles on 18 Mar and 4 Apr, and 2 on 16 Apr, all at Ghadira. Then singles on 23 Apr (2 sites), on 27 Apr at Ghadira and over Kemmuna on 2 May. In autumn, 1 on 25 Aug over Buskett, then 13 sightings of 1-2 on 9 dates between 3 Sep and 7 Oct, mostly at Buskett and Dwejra.

1995: Singles over Ghadira on 31 Mar and at Kemmuna on 25 Apr. In autumn, 1 on 2 Sep (2 sites), then 5 sightings of singles from 23-26 Sep, but 2 at Dwejra on 23 Sep. Latest, 1 at Qawra on 10 Oct.

Lesser Kestrel *Falco naumanni* Spanjulett Sekond

1993: Singles at Kemmuna on 19 Mar and 8 May. Then 17 sightings of 1-2 on 15 dates from 7 Sep to 12 Oct.

1994: Singles at Kemmuna on 30 Mar, at Xaghra on 9 Apr and again at Kemmuna on 22 Apr. 13 sightings of 1-2 on 9 dates in Sep, mostly from Buskett and Dwejra, but 5 at Dwejra on 29th. Then 5 at Rabat on 7 Oct.

1995: 7 at Ta' Qali on 30 Mar, 1 at Kemmuna on 31 Mar and 1 on 3 Apr and 3 on 5 Apr at Dwejra. Then 14 sightings on 11 dates from 8 Sep to 15 Oct, mostly 1-5 but 17 at Dwejra on 22 Sep.

Common Kestrel *Falco tinnunculus* Spanjulett

1993: Singles at Kemmuna on 13 Jan and 17 Jan, and at other sites on 5 dates in Feb. Then almost daily with 1-4 from 7 Mar to 17 May but 6 at Kemmuna on 12 Apr. Singles at Dwejra on 5 Jun and 8 Jun and 2 at Kemmuna on 17 July. Again almost daily from 20 Aug to 21 Oct with up to 10, but up to 19 on 4 dates. Then singles on 12 dates from 31 Oct to end Dec, but 2 on 20 Nov and 3 on 23 Dec at Dwejra.

1994: 15 sightings of 1-2 from 2 Jan to 25 Feb. Then almost daily from 1 Mar to 23 May, mostly 1-4 but 6 at Lunzjata on 4 Apr, 8 at Wied il-Kappučċini on 7 Apr, and 5 at Kemmuna on 16 May and 18 May. Most of the later spring records come from Kemmuna where 1-3 birds were present almost daily. 6 sightings of singles from 4 Jun to 15 Aug. In Sep, 1-4 on most dates from 7 Sep onwards, but 7 on 21 Sep, 9 on 24 Sep and 8 on 30 Sep, all at Dwejra, and 8 at Buskett on 24 Sep. In Oct on 19 dates, mostly 1-7 but 70 over Rabat and 22 at Xlendi, both on 7 Oct. Then singles on 6 dates from 1-13 Nov and on 3 dates from 26-31 Dec.

1995: 9 sightings of 1-2 from 8 Jan to 1 Mar. Then up to 5 on most dates from 11 Mar to 31 May (daily on 11-25 Apr), but 6 at Qammieħ on 30 Mar and 7 at Kemmuna on 13 Apr. Singles at Tal-Gordana on 27 Jun and at Wied Qlejgha on 13 Aug. In autumn up to 6 almost daily from 6 Sep to 15 Oct, but 11 on 26 Sep (2 sites) and 14 at Dwejra on 6 Oct. Then 10 sightings of 1-2 from 18 Oct to 29 Dec.

Red-footed Falcon *Falco vespertinus* Żumbrell

1993: 4 at Gharb on 9 Apr, then 1-2 on 15 dates till 25 May. In autumn, 1 at Dwejra on 24 Sep.

1994: 1 at Kemmuna on 22 Apr, then daily from 27 Apr to 5 May, mostly 1-4, but flock of 40 at San Gwann and 7 at Kemmuna, both on 4 May. 1-3 again daily from 9-13 May, mostly from Kemmuna; then 1 at Dwejra on 23 May. Only one autumn record: 1 at Mosta on 20 Oct.

1995: 16 sightings on 12 dates from 17 Apr to 18 May (daily from 28 Apr to 3 May), mostly 1-3 but 250 at Dwejra on 30 Apr. One sighting in autumn: 1 at Dwejra on 26 Sep.

Merlin *Falco columbarius* Seqer ta' Denbu

1993: One at Targa Gap on 7 Apr.

Hobby *Falco subbuteo* Seqer tal-Hannieqa

1993: 2 at Dwejra on 29 Mar, then 1-2 on 10 dates from 12 Apr to 13 May. In Autumn 1-6 on 21 dates from 2 Sep to 16 Oct, but 14 on 18 Sep and 9 on 20 Sep at Buskett.

1994: 20 sightings of 1-4 on 15 dates from 4 Apr to 13 May. In autumn, 1-7 on 27 dates from 31 Aug to 13 Oct (peaks on 24 Sep and 30 Sep). Most autumn records are from Dwejra, Rabat/Mdina and Buskett.

1995: 17 sightings of 1-3 on 13 dates from 23 Mar to 18 May, but 20 on 30 Apr at Kemmuna. 1 at l/o Wied Qlejgha on 6 Jul. In autumn on most days from 2 Sep to 15 Oct, mostly 1-5 but 11 on 24th at Buskett.

Eleonora's Falcon *Falco eleonora* Bies tar-Regina

1993: Singles at Salina on 12 Apr, at Ċumniġa on 18 Apr and at Kemmuna on 28 Apr, at Rabat on 8 May (dark phase) and at Għadira on 10 May, at Dwejra on 7 Jun, at l-Ċumniġa on 26 Jul, at Rabat on 5 Aug, at Mġiebaħ on 12 Aug and at Buskett (dark phase) on 16 Aug. Then 1-3 on 7 dates from 2-22 Sep and singles at Dwejra on 12 Oct and at Qawra on 5 Nov.

1994: Singles at Kemmuna on 24 Apr, on 4 sightings at Dwejra from 12 May to 2 Jun, over Filfla on 24 May and at Hagar Qim on 30 Aug. Then 11 sighting of up to 3 from 4-29 Sep, all from Buskett, Rabat and Dwejra and 1 over Dwejra on 5 Nov.

1995: 2 at Kemmuna on 1 May, then 7 sightings of singles at Buskett and Dwejra from 19 Aug to 16 Sep. 2 at Dwejra on 3 Oct and 1 at Wied Dalam on 12 Dec.

Saker Falcon *Falco cherrug* Bies Rasu Bajda

1993: 1 at Buskett on 21 Sep.

Saker/Lanner Falcon *Falco cherrug/biarmicus* Bies Rasu Bajda/Bies Rasu Qastnija

1995: 1 at Buskett on 1 Oct.

Peregrine Falcon *Falco peregrinus* Bies

1993: Singles at Kemmuna on 18 Apr, 19 Apr and on 14 May, at Ġirgenti on 14 Jun, at Għadira on 22 Jul and at Buskett on 6 Oct.

1994: 1 at Ta' Ċenċ on 16 Mar and 2 at Wardija Pt.(Gozo) on 18 Mar. Then singles over Kemmuna on 4 dates from 1-11 May, and over Rabat/Mdina on 24 Sep and 29 Sep.

1995: Singles at Qammieħ on 21 Mar, at Ta' Ċenċ on 22 Jul and on 18 Aug, and at Buskett on 8 Sep and 17 Sep.

'Falcon' Sp. *Falco* sp.

1993: Singles at l-Ċumniġa on 20 Apr, at Is-Simar on 22 Apr and at Kemmuna on 25 Apr, and at Għadira on 15 Aug and at Nadur on 25 Aug. Then 1-5 on 20 dates from 1 Sept to 20 Oct.

1994: 14 sightings of 1-2 on 13 dates from 9 Mar to 5 Jun. 1-3 on 13 dates from 7 Sep to 7 Oct. Single at Qawra on 6 Nov.

1995: Singles at Kemmuna on 4 dates from 22 Apr to 5 May. 13 sightings of 1-3 from 8 Sep to 12 Dec, mostly towards end of Sep.

Common Quail *Coturnix coturnix* Summiena

1993: Singles at Għajn Tuffieħa on 1 Mar, at Nuffara on 21 Mar and 3 at Sarraflu on 25 Mar. Then singles on 7 dates from 3-24 Apr, but 14 at Nadur on 22 Apr. Singles at Kemmuna from 9-13 May, at Lunzjata on 15 Aug and at Għadira on 25 Aug. Then on 6 dates from 7-28 Sep with 1-2 at Għallis but an influx of 26 at Għallis and 4 at San Dimitri on 24 Sep. Singles at Għadira on 3 Oct and 8 Dec.

1994: 1 at Ta' Ċenċ on 24 Feb, then 14 sightings from 1 Mar to 7 May, mostly singles but 5 at Rabat on 8 Apr and 2 at Wied Speranza on 24 Apr. In autumn singles at the east coast: on 23 Sep (at 3 sites) and on 27 Sep, on 3 dates from 21-29 Oct and at Torri l-Aħmar on 20 Nov.

1995: 1 at Mistra on 17 Mar, then 15 sightings from 3 Apr to 8 May, mostly 1-3 but a passage in low double figures reported on 21-22 Apr and 27-28 Apr. Autumn passage: 5 sightings of 1-2 from 19 Sep to 28 Oct, then singles on 3 dates from 11-26 Dec.

Water Rail *Rallus aquaticus* Gallozz tax-Xitwa

1993: Almost daily at Għadira in Jan-Mar and Oct-Dec with up to 8 (mostly up to 5), 1-2 on 3 dates from 8-19 Apr and singles on 14 Aug and 20 Aug and on 4 dates from 1-17 Sep. Records outside Għadira were singles at Wied il-Kappuccini and at Kemmuna on 9 Apr and at Salina on 14 Nov.

1994: At Għadira, up to 5 in Jan-Feb, then 1-3 till 25 Mar. Singles on 21 Jun and 8 Jul; then on most days from 11 Aug onwards with up to 4 in Sep. Almost daily in Oct-Dec, with 10-15 from 19 Oct onwards, but 20 on 20 Oct. Outside Għadira recorded only in singles at Salina (13 Feb), Is-Simar (12 Nov, 13 Dec and 15 Dec), and Lunzjata (3 Dec).

1995: Present at Għadira in Jan-Mar till 16 Mar, mostly 5-10 but 15 on 6-7 Jan. Outside Għadira, 1 at Is-Simar on 21 Jan. 2-3 again at Għadira on 7 dates from 12 Jul to 22 Sep, then present there from 9 Oct to end of year; up to 20 on most dates, but 30 on 14 Dec. At Is-Simar, 1-5 present from 26 Oct to end of year.

Spotted Crake *Porzana porzana* Gallozz tat-Tikki

1993: Singles at Għadira on 22 Jan and 10 Sep.

1994: Singles at Għajnsielem on 9 Apr and at Għadira on 12 Sep and on 8 Oct, 10 Oct and 25 Oct.

1995: 1 at Salina on 3 Apr and 1-2 at Għadira from 9-11 Apr. Then singles at Salina on 24 Aug and 28 Sep, at Is-Simar on 21 Sep, and at Għadira on 8 dates from 1-14 Oct and on 11 Nov.

Little Crake *Porzana parva* Gallozz Żghir

1993: 1 at Għadira on 3 Apr.

1994: Singles at Għadira on 28 Mar, 5 Apr, and on 4 dates from 5-18 Nov.

1995: Singles on 5 dates at Għadira from 9-18 Apr (but 3 on 18 Apr), and on 18 Oct, and at Is-Simar. 1-2 on most dates from 14 Aug to 5 Sep, 4 on 30 Sep, 1-2 on 20 dates in Oct and 1 on 5 Nov.

'Crake' sp. *Porzana* sp.

1994: Singles at Ghadira on 6 Feb and 3 Dec, and at Buskett on 8 Aug.

Moorhen *Gallinula chloropus* Gallozz Iswed

1993: Recorded almost daily throughout most of the year except in June, mostly from Ghadira (highest 6 on 29 Jan, 20 Oct and 3 Nov), Is-Simar (highest 6 on 1 Apr, 7 on 3 Nov, 6 on 24 Nov, and 6 on 16 Dec) and Ghajnsielem (highest 7 on 11 Jul and 15 on 4 Sep). Records from other sites were 3 at Kirkop on 24 Jan, 1 at Marsalforn on 17 Apr, 2 at Kirkop on 16 May, and 1 at Rabat on 18 Aug and 21 Aug.

1994: Daily at Ghadira from beginning of year till 23 May: up to 10 in Jan-Feb, up to 8 in Mar and up to 5 in Apr-May. At Is-Simar recorded regularly from Feb till 26 May, mostly 1-4 but up to 8 on most dates in Apr. 15 at Ghajnsielem on 17 Jan, and up to 9 in Apr including at least 2 chicks. 4 other sightings outside reserves in Mar-Apr. 13 sightings of 1-2 from 2 Jul to 31 Aug. Single figures in Sep at Ghadira increasing to 10-25 from mid-Oct to mid-Nov, then 30 on most dates (40 on 1 Dec) till end of year. At Is-Simar single figures in Sep, then 10-25 regularly till end of year. 10 on 27 Dec at Ghajnsielem.

1995: Daily at Ghadira in Jan-May till 8 May, mostly 5-20 but 30 on most dates in early Jan. 1-2 almost daily there from 21 May to 15 Jun, then 1 on 13 Jul. 1-2 on 9 dates from 9 Aug to 16 Sep, then daily from 28 Sep to end of year, mostly 5-30 but 40 on 5 dates in Nov-Dec. At Is-Simar, present throughout year, and also breeding commonly: up to 25 in spring with somewhat lower numbers in Jul-Sep, then 15-40 in Oct-Dec. Breeding also at Ghajnsielem with 4 sightings of up to 7 from Jan-Jun. Outside reserves, 7 sightings of singles at 3 sites.

Allen's Gallinule *Porphyryula alleni* Gallozz ta' l-Afrika

1994: 1 adult at Lunzjata on 9 Jan. (First documented record).

Common Coot *Fulica atra* Tiġieġa tal-Baħar

1993: 3-4 daily at Ghadira from Jan up to 9 Mar. A single bird recorded at Is-Simar on 7 dates from 7 Sep till end of Oct, then 2-3 there on most days till 17 Dec. At Ghadira 1-2 from 17 Nov and up to 3 in Dec.

1994: 1-2 daily at Ghadira from Jan till 20 Mar. 1 at Ramla Valley on 23 Jul. Daily in single figures at Ghadira from 25 Sep to 22 Nov, then gradually increasing to a maximum of 18 during Dec. At Is-Simar, 1 recorded regularly from 7 Oct, increasing mostly after mid-Nov to low double figures and reaching a maximum of 20 by end of Dec.

1995: Up to 17 daily at Ghadira in Jan-Mar till 30 Mar and again daily there from 8 Oct onwards, reaching 31 by end of year. At Is-Simar, up to 18 during Jan-Mar till 22 Mar, then up to 10 daily from 10 Oct till end of year.

Common Crane *Grus grus* Grawwa

1993: 13 at Lunzjata on 10 Jan. Then 1 at Kemmuna on 24 Oct, 21 at Hal Safi on 30 Oct and 5 at Miġra Ferħa on 31 Oct, 1 at Ghadira on 2 Nov, 2 at Ghajnsielem on 5 Nov, 1 at Kemmuna on 14 Nov and 3 at Ta' Qali on 19 Nov, and 6 at Lunzjata on 5 Dec and 2 at Ghadira on 6 Dec.

1994: 5 at Ghadira and 4 at Dwejra on 23 Oct (possibly same birds), 2 at St. Elmo Pt. on 29 Oct and 1 at Qawra on 30 Oct and 1 over Rabat on 9 Nov.

1995: 13 over Mosta on 8 Nov, 2 at Ghadira on 10 Nov, 6 at Ghadira and at St. Elmo Pt. on 20 Nov. 24 at Dwejra on 9 Dec.

Little Bustard *Tetrax tetrax* Pitarra

1994: 1 reportedly taken at Delimara on 14 Nov.

Oystercatcher *Haematopus ostralegus* Gallina tal-Baħar

1993: 3 on the 13 Jul and 1 on 22 Jul at Tas-Safra and 1 on 4 Aug at Qawra. Then on 5 dates at Ghallis 21 on 17 Aug and 15 on 29 Aug, singles on 1 Sep and 15 Sep, and 8 on 20 Sep.

1994: Singles at Mgiebaħ on 14 Jul and at Ricasoli on 10 Aug.

1995: 1 off L-Aħrax on 27 May, 8 reported on one date in Jul (no exact date and locality given) and 4 off Ghallis on 19 Jul. Then 9 at Ghadira Bay on 4 Aug, 2 at Salina on 10 Aug, 3 off Ghallis and 25 off Qbajjar on 14 Aug, and singles off Ghallis on 20 Aug and at St. Elmo Pt. on 29 Aug.

Black-winged Stilt *Himantopus himantopus* Fras-servjent

1993: Singles on 14-15 Mar and 28-30 Mar at Ghadira and on 28 Mar at Baħar iċ-Ċagħaq and at Is-Simar; 2 at Mgarr (Gozo) also on 28 Mar and 9 at Is-Simar on 31 Mar. 3 at Ghadira and 2 at Is-Simar on 1 Apr, 12 at Ghadira and Qammieħ on 10 Apr and 1 on Kemmuna on 25 Apr. Then 1-3 on 26 dates at Ghadira from 28 May to 29 July, 1 at Tas-Safra on 18 Jul, up to 5 on 7 dates again at Ghadira from 14 Aug to 9 Sep, 1 at Is-Simar on 18 Aug and 14 at Ghallis on 3 Sep.

1994: 1 at St. Elmo on 17 Mar and 1-2 at Ghadira from 29 Mar to 3 Apr. Then 27 on 5 Apr and 13 on 15 Apr also at Ghadira with 1 remaining till 1 May. Then again 1 at Salina on 7 Apr, 2 at Fomm ir-Riħ on 17 Apr and 1 at Is-Simar on 28 Apr and 7 at Is-Simar on 19 May. 2 again at Ghadira on 3 Jun, then up to 5 on 4 dates (5 sightings) in July mostly at Ghadira and Is-Simar, 7 at Ghadira on 16 Aug, and 4 at Pietà on 5th and 1 again at Ghadira on 19 Sep.

1995: 1 at Kemmuna on 26 Mar, then almost daily from 3-27 Apr, mostly 1-4 at Ghadira and Kemmuna but 5 at Is-Simar on 27 Apr. 1 at Is-Simar on 3 dates from 19-22 May, then 7 at Ghadira on 20 Jun. 1 at Ghadira on 4 Aug, 5 at San Tumas Bay on 7 Aug, then singles mostly at Ghadira and on most days from 13 Aug to 2 Sep. 20 off Qawra on 16 Aug.

Avocet *Recurvirostra avosetta* Xifa

1993: 1 at Ghadira on 4 May and ca.20 at Ghallis on 6 Sep.

1994: 14 over Ghadira Bay on 7 Aug, then 3 at Ghadira on 5 Sep. Singles on 13 Oct and 16 Nov, and 4 on 26 Nov all at Qawra.

1995: Singles at Ghadira from 28 Apr to 4 May and on 13 May. In autumn, 12 off St. Elmo on 10 Nov and 1 at Ghadira on 21 Nov.

Stone-curlew *Burhinus oedichnemus* Tellerita

1993: 1 at Lunzjata and 2 at Wied il-Kappuċċini on 9 Apr.
 1994: Singles at Marsa on 22 Mar, at Pembroke on 31 Oct and at Qawra on 6 Nov.
 1995: Singles at Kemmuna on 14 Apr, 17 Apr and 23 Apr, at Ta' Ċenċ on 15 Aug, and at Wied Qleigħa on 5 Nov.

Collared Pratincole *Glareola pratincola* Perniċjotta

1993: 2 on 22 Sep and 1 on 23 Sep at Għallis and 1 on 3 Oct at Armier.

Little Ringed Plover *Charadrius dubius* Monakella

1993: Almost daily in single or low double figures from 26 Feb to 18 May (highest 30 at Għadira on 13 Mar). Then in single figures almost daily from 1 Jul to 4 Oct (highest 11 at Għadira on 20 Sep) and singles on 4 dates from 12 Oct to 2 Nov. Most records from Għadira, followed by Is-Simar and Salina.
 1994: Almost daily in single or low double figures from 26 Feb to 13 May (mostly up to 16 but highest 40 at Salina on 3 Apr). 1-2 on 4 dates at Għadira from 27 May to 1 Jun, then in single or low double figures almost daily from 21 Jun to 17 Oct mostly at Għadira, Is-Simar and Salina. Flock of 15 at Ċirkewwa on 9 Oct. Last sighting was 1 at Għadira on 26 Oct.
 1995: Singles at Għadira on 17 Jan and 27 Jan, then almost daily in single or very low double figures of up to 12, from 3 Mar to 21 May. Breeding pair present throughout Apr-Jul at Għadira with 1 young fully fledged by mid-Aug. 2 at Salina on 12 Jun, then up to 10 on most days from 9 Jul to 28 Sep. 2 at Għadira on 6 Oct. Most records from Għadira and Salina.

Great Ringed Plover *Charadrius hiaticula* Monakella Prima

1993: 1-3 almost daily at Għadira from 30 April to 31 May. 1-2 again at Għadira from 3-8 Jul and at Is-Simar on 16 Jul and 26 Jul. Then 1-2 on 4 dates from 18-25 Aug and up to 4 on most days from 4 Sep to 7 Oct mostly at Għadira with 4 dates in Sep at Għallis. Singles at Għadira on 23 Oct and on 2 Nov and 9 Nov and 3 at Salina on 14 Nov.
 1994: Up to 3 on 8-9 Apr, then up to 5 almost daily from 18 Apr to 18 Jun. 1-2 present on most days from 23 Jul to 10 Sep, but 4 on 31 Jul, all at Għadira. Outside Għadira recorded only at Salina: 1-2 on 4 dates from 1 Apr to 14 May, then 2 on 29 Jul. Latest, 2 at Għadira on 5 Oct.
 1995: 1 at Għadira on 16 Mar, then 1-4 there on most days from 23 Apr to 25 May. 1-3 on most days from 6 Aug to 24 Sep, then 1-2 on 4 Oct and 6 Oct. 10 sightings at Salina from 20 Aug to 7 Sep, mostly 1-8 but 12 on 30 Aug and 25 on 3 Sep. 3 other sightings: 2 at Dwejra on 6 Sep and 2 at Luqa on 24 Sep, and 1 at Qawra on 7 Oct.

Kentish Plover *Charadrius alexandrinus* Monakella Saqajha Suwed

1993: Singles at Għadira from 17-22 Apr and again at Għadira and Qawra on 25 Oct.
 1994: Singles on 31 Mar, on 1 Apr, on 31 May, on 22-23 Jul and on 2-3 Oct, 2 on 16 Oct and 1 on 17 Dec. Only the Apr record at Salina, the rest at Għadira.
 1995: 2 at Salina on 8 Mar, then singles at Għadira on 7 Apr, 5 May and 20 Jul and at Salina on 30 Aug. Then on 6 dates, again at Għadira, from 1-11 Sep, mostly singles but 5 on 1 Sep.

Greater Sand Plover *Charadrius leschenaultii* Birwina tad-Deżert

1993: Adult male at Għadira on 22 Jul.

Dotterel *Charadrius morinellus* Birwina

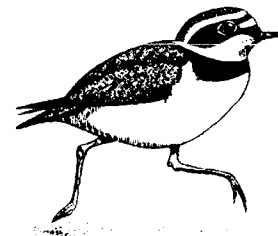
1993: 4 on 4 Sep, 2 on 7 Sep and 1 on 29 Sep, all at Għallis, and 1 at Nadur on 1 Oct, 2 on Kemmuna on 17 Oct and 2 at Ramla Valley on 31 Oct.
 1994: 1 at Iċ-Ċumnija on 27 Mar; then up to 5 on 4 dates from 4 Sep to 1 Oct, mainly at Buskett and Dwejra.
 1995: Singles at Marsa on 4 Sep, at Dwejra on 12 Sep and at Għadira on 14 Sep.

European Golden Plover *Pluvialis apricaria* Pluviera

1993: 1 over Grand Harbour on 31 Oct, then 4 at Għallis on 14 Nov and 1 at Qajjenza on 15-16 Nov, and 1-2 at Għadira on 6 dates from 21 Nov to 6 Dec.
 1994: Up to 4 on 16-18 Oct and on 6-7 Nov and 1 on 18 Dec.
 1995: 11 on 8 Nov, 2 on 10 Nov and 1 on 11 Nov, all at Qawra.

Grey Plover *Pluvialis squatarola* Pluviera Pastarda

1993: 2 at Ta' Qali on 17 Jul and 1 at Għadira from 25-26 Aug.
 1994: Singles at Għadira from 22-23 May and on 21 Aug, and at Għallis on 26 Aug.



Spur-Winged Lapwing *Hoplopterus spinosus* Venewwa ta' I-lxpruni

1994: 1 at Qammieħ on 5 Jan.

Northern Lapwing *Vanellus vanellus* Venewwa

1993: 5 at Valletta on 5 Jan, 1 at Għallis on 9 Jan and 30 at Luqa Airport on 30 Jan. Then 2 at Dwejra on 30 Oct, and 1-3 on 12 dates from 10 Oct till the end of the year, but 7 at Marsa on 30 Nov.
 1994: 1 on 28 Jan at Haż-Żebbuġ, 3 from 23-24 Oct and 4 on 16 Nov at Għadira. Then 1 at Qawra on 22 Nov and 2 at San Gwann on 16 Dec.
 1995: 2 at Hal-Lija on 21 Jan and 1 at Għadira from 17-19 Mar. 1 at Is-Simar on 22 Oct; then at 4 sites on 8 Oct with highest of 100 at Qawra. 10 sightings from 9-26 Nov, mostly 1-6 but 10 on 24 Nov and 16 on 25 Nov, both at Qawra.

Turnstone *Arenaria interpres* Monakella Imperjali

1993: Singles at Ghadira on 20 May and on 25 Aug, then at Ghallis on 3 Sep, at Ghadira on 20 Sep, at Qawra on 21 Sep and at Ghallis on 27 Sep.

1994: 3 at Salina on 10 May and 14 May.

1995: 1-2 at Ghadira from 23-25 Apr, then 1-3 at Salina from 11-17 May and 2 at Ćirkewwa on 20 May. In autumn, 1 at Ghadira on 3 Aug.

Little Stint *Calidris minuta* Tertuxa

1993: 2 on 4 Mar and singles from 15-16 May and 18 Mar. Then in single or low double figures from 25 Mar to 27 May with up to 20 (but 30+ on 13 May), mostly at Ghadira. Also singles in same period on 7 dates at other locations, but 30 at Santa Lucija and 15 at Salina on 15 Apr. 3 at Salina on 16 Jul, then single or low double figures daily at Ghadira from 18 Jul till end of year, max 42+ on 28 Sep. Up to 10 almost daily at other localities, mostly at Is-Simar, from 22 Jul to 20 Sep.

1994: Up to 3 daily at Ghadira from 1 Jan to 22 Feb; then almost daily from 22 Mar to 17 Jun, mostly up to 20 but 35 on 15 Apr and 25 from 8-10 May. 5 sightings from Gozo from 3-10 Apr. At Salina, 1-5 on 5 dates from 1-12 Apr; then 40-50 from 6-14 May, but 90 on 10 May. Single or low double figures daily at Ghadira from 17 Jul to 20 Oct, max 20 on 19 Aug and from 4-5 Sep. Up to 15 on 11 dates at Salina from 25 Jul to 23 Sep, but 30 on 4 Aug. 1-5 at various localities on 11 dates from 14 Aug to 7 Oct; then singles on 29 Oct and 21 Nov.

1995: 2 at Ghadira on 4 Mar, then single or low double figures of up to 35 on most days there from 26 Mar to 29 May, but 50 from 30 Apr to 2 May and from 21-22 May. 1-4 on 6 dates there from 3-12 Jun. 20 at Baħar iċ-Ċagħaq on 18 Jul. Up to 30 at Salina, on most days from 7 Apr to 22 May, but 40-50 from 21-22 May. Up to 15 on most dates at Ghadira from 17 Jul to 28 Sep, but 20 on 14 Sep. Up to 10 at Is-Simar from 29 Jul to 24 Sep, and up to 25 at Salina on most dates from 22 Jul to 7 Sep, but 40 on 5 dates and 60 on 1 Sep. Latest, 1 at Ghadira on 10 Oct.

Temminck's Stint *Calidris temminckii* Tertuxa Grizza

1993: Singles at Ghadira on 23 Apr, 6 May, 13 May, 29 May and 14 Jul. 1 on 23 Jul and 2 on 26 Jul at Is-Simar and 4 on 30 Jul, again at Ghadira. Singles at Is-Simar on 18 Aug and at Ghadira on the 2 Sep, 3 Sep and 8 Sep.

1994: Singles at Ghadira on 2 May and 9 May; on 23 Jul, and on 11 dates from 13 Aug to 23 Sep (daily from 27 Aug to 1 Sep). Singles at Is-Simar on 23 Aug and 25 Aug and 2 at Salina on 12 Aug.

1995: 1-2 at Ghadira on 11 dates from 16 Apr to 24 May, and at Salina on 18 Apr and 11 May. In autumn, 1-2 at Ghadira on 6 dates from 20 Jul to 24 Sep, at Salina on 6 dates from 20 Jul to 24 Aug, and 1 at Is-Simar on 6 dates from 19 Aug to 3 Sep.

Sanderling *Calidris alba* Pispisella Bajda

1994: 1 at Salina on 12 Apr; then 3 decreasing to 1 at Ghadira from 10-15 May.

1995: 1 at Ghadira from 29-30 Apr.

Curlew Sandpiper *Calidris ferruginea* Beggazzina Hamra

1993: Low single figures almost daily at Ghadira from 10 Apr to 31 May, but 15+ on 13 May. 1 at Is-Simar on 4 May. Then up to 4 on 10 dates from 14-31 Jul, mostly at Ghadira with 2 sightings at Salina. 2 at Ghadira and 3 at Salina on 16 Aug, then single figures almost daily from 27 Aug to 14 Sep, mostly at Ghadira, highest 8 on 31 Aug.

1994: 1 at Ghadira on 5 Apr, then up to 13 almost daily from 1 May to 7 Jun, with highest numbers from 4-11 May. On 5 dates from 6-14 May at Salina, mostly 3-20 but 45 on 10 May. 1 at Is-Simar on 14 May. 1-4 at Ghadira on most days from 16 Jul to 3 Oct. 1-2 at Salina on 4 dates from 29 Jul to 10 Aug.

1995: 1 at Salina on 16 Apr, then almost daily at Ghadira from 25 Apr to 2 Jun (highest 13 from 21-22 May) and on 7 dates from 12 May to 12 Jun at Salina with 30-35 on 4 dates. Then again almost daily at Ghadira with up to 6 from 16 Jul to 23 Sep, and 9 sightings of up to 7 at Salina from 11 Aug to 3 Sep. 1 at Qawra on 10 Aug.

Dunlin *Calidris alpina* Beggazzina tat-Tizz

1993: Singles at Is-Simar on 7 Feb and at Ghadira on 24 Apr. Then 2 at Ghadira on 16 July and 1-4 almost daily there from the 22 Jul to 29 Aug. 1-4 recorded also on 5 dates in Aug at Salina, Is-Simar and Ghallis. Then up to 9 from 11 Sep to 19 Oct, daily at Ghadira and on 5 dates at Ghallis and Is-Simar. 4 on 14 Nov and 1 on 28 Nov at Salina and 1 at Ghadira almost daily from 4-23 Dec.

1994: Up to 5 on most days at Ghadira from 22 Jul to 28 Oct and 10 sightings of up to 5 at other localities from 26 Jul to 8 Sep. 2 on 22 Oct at Qawra, and 1 at St.Elmo Pt. on 5 Nov, 1 at Ghadira on 14 Nov and 2 sightings of 3 and 1 on 18 Nov.

1995: 1 on 16 Apr and 4 on 30 Apr at Salina. Then up to 10 at Ghadira on most dates from 17 Jul to 1 Oct (highest on 20 Sep), and 1-8 at Salina on 13 dates from 1 Aug to 7 Sep. Singles at Is-Simar on 7 and 21 Aug, 2 on 27 Aug and 1 on 10 Oct at Qawra, then 1 at Ghadira on 11 dates from 26 Oct to 24 Nov.

Broad-billed Sandpiper *Limicola falcinellus* Beggazzina ta' Munqarha

1994: 1 at Ghadira on 4-9 Aug.

Ruff *Philomachus pugnax* Girwiel

1993: Single or low double figures on 5 dates from 20 Feb to 4 Mar and almost daily from 14 Mar to 28 Apr (highest 16 on 3 Apr). 1-2 from 11-18 May and singles on 4 dates from 30 May to 4 Jun. All records from Ghadira with 6 sightings at Is-Simar. Then 1-2 on 9 dates at Ghadira, on 6 dates at Is-Simar and on 1 date at Ghallis from 23 Jul to 3 Oct. 4 at Dwejra on 2 Oct.

1994: Up to 3 daily from 19 Feb to 25 Mar, up to 15 from 26 Mar to 30 May (but 20 on 5 Apr), and 1-2 on most dates till 20 Jun, all at Ghadira. 14 sightings of up to 6 at other localities on 11 dates from 18 Mar to 26 May, but 10 at Luqa Airport on 8 Apr. Singles at Ghadira from 7-11 Jul and 19 Aug, and at Is-Simar on 25 Aug. 2 on 22 Sep and 5 on 24 Sep at Ghadira.

1995: 1 on 4 Mar, then 2-6 on most dates from 29 Mar to 13 Apr at Għadira. Up to 10 on 12 dates from 23 Mar to 21 Apr, then 1-2 from 20-22 May and 27 May at Salina. 2 on 20 May, singles on 10 Jun and 23 Jun, then 1-2 on 11 dates from 5 Jul to 6 Sep at Is-Simar. 1-4 on 11 dates from 17 Aug to 7 Sep at Salina; and singles on 4 dates from 30 Jul to 8 Sep, then 1-4 daily on 14-25 Sep and singles on 26 Oct and 8 Nov at Għadira.

Jack Snipe *Lymnocyptes minimus* Ċinkonja

1994: 1 at Salina on 13 Feb, 2 at Is-Simar on 8 Oct, 1 at Rabat on 16 Nov, and 1 at Is-Simar on 16 Dec.

1995: Singles at Dwejra on 21 Jan, 5 Feb and 9 Feb, and at Is-Simar on 7 Mar. 1-2 at Għadira on 13 dates from 3 Nov to 5 Dec and singles at Is-Simar on 18 Nov and 26 Nov.

Common Snipe *Gallinago gallinago* Bekkaċċ

1993: 1-3 on 13 dates from 7 Feb to 29 Mar (records from Is-Simar and Għadira) and singles on 12-13 Apr at Salina. Then singles at Għadira on 27 Aug and at Ramla Valley on 28 Aug, at Is-Simar on 8 Sep and at Għadira on 10 dates from 18 Sep to 1 Nov. 3 on Kemmuna on 14 Nov.

1994: 18 sightings of 1-3 on 10 dates from 2 Feb to 18 Apr at various localities; then singles on 8 dates from 1 May to 28 Jun mainly at Għadira. Singles on 11 dates from 23 Aug to 30 Sep, and on 15 dates from 11 Oct to 21 Dec, but 2 at Dwejra on 15 Oct and a flock of 9 at Qawra on 19 Oct.

1995: 2 on 28 Jan, then singles on 1 Mar and 1 Apr at Is-Simar. 1 on 26 Mar, then 1-3 on 14 dates from 1-25 Apr at Għadira. Singles at Is-Simar on 30 Jul, 4 Aug and 21 Aug, then 1-8 on most days from 8 Sep till end of year. Singles on 4 dates from 21 Sep to 13 Oct and almost daily from 25 Oct to 13 Dec at Għadira. 9 sightings of 1-3 from 6 other localities from 4-30 Apr and from 20 Sep to 10 Nov.

Great Snipe *Gallinago media* Bekkaċċ ta' Mejju

1994: Singles at Wied Speranza on 20 Mar and at Munxar on 4 Dec.

1995: 1 at Għadira on 7 May.

Woodcock *Scolopax rusticola* Gallina

1993: Singles at Ta' Pinu on 31 Oct and at Rabat on 17 Oct, at Għajn Żejtuna on 19 Nov, at Rabat on 21 Nov and at Fgura on 23 Nov.

1994: Singles at Rabat on 29 Nov and at Għajn Żejtuna on 2 Dec.

1995: Singles at Għajn Żejtuna on 16 Jan and at Għadira on 27 Jan and at Rabat on 14 Oct and 8 Nov. 1-2 at Għadira on 6 dates from 15-28 Nov and 1 on 17 Dec. 1 on Kemmuna on 18 Dec.

Black-tailed Godwit *Limosa limosa* Girwiel Prim

1993: Singles at Għadira on 25 Feb and 27 Feb, and on 5 Apr and over Grand Harbour on 21 Sep.

1994: 1 at Għadira on 6-7 Apr.

Whimbrel *Numenius phaeopus* Gurlin Żghir

1993: Singles at Qammieħ on 4 Apr and at Għallis on 17 Aug.

1994: 1 at Għadira from 5-6 Apr and 3 at Qammieħ on 6 Apr and 1 at Għadira on 2 Jul.

1995: Singles at Qammieħ on 24 Mar, at Għadira on 5 Apr and off St. Elmo Pt. on 3 Sep.

Eurasian Curlew *Numenius arquata* Gurlin

1993: 75 on 1 Apr, 1 on 4 Apr, ca.50 on 8 Apr and 1 on 10 Apr, all at Qammieħ, 8 in Gozo Channel on 8 May, 2 at Tas-Safra on 7 Jul and 1 at Għadira on 25 Aug.

1994: Flock of 60 over Iċ-Ċumnija on 20 Mar, 1 at Wied iż-Żurriq on 5 Apr and 4 at Qawra on Oct.

1995: 10 sightings at 4 sites from 24 Mar to 8 Apr, with 147 on 25 Mar (2 sites), 33 on 26 Mar, 63 on 29 Mar and 55 on 31 Mar, most from Qammieħ. 1 off St.Elmo Pt. on 21 Sep.

Spotted Redshank *Tringa erythropus* Ċuvett

1993: Singles on 13 Mar, on 6 dates from 18 Jun to 7 Jul, on 2 Sep and 9 Sep and on 21 Oct. All records, but one, at Għadira.

1994: Singles on 4 dates from 5-28 Apr and from 23-25 Jun; then 1 on 4 Aug, and 1-2 on 8 Sep and from 18-19 Sep. All at Għadira except Aug sighting.

1995: 1-2 on 11 dates from 24 Mar to 22 Apr; singles on 16 May and from 23-24 Jun and 26 Jun, and 1-2 on 16 Aug and on 3 dates from 20 Sep to 3 Oct. All sightings at Għadira except for 2 singles at Salina.

Common Redshank *Tringa totanus* Pluverott

1993: 1-3 on 6 days from 1-15 Apr (but 6 at Għadira on 5 Apr); 1-2 from 15-20 Jun and 28 Jun to 12 Jul; 1-6 on 8 dates from 18 Jul to 28 Sep; and 1-2 daily from 26 Nov to 28 Dec. Most records from Għadira.

1994: Singles on 1 Apr and 8 Apr, on 11 May and on 4 dates from 16-30 Jun. Then 1-4 almost daily from 3 Jul to 1 Oct. 1-3 daily from 25 Oct to 2 Nov; then 1 on 12 Nov and 2 on 17 Nov. Most sightings from Għadira.

1995: 1 at Għadira on 14 Apr, then up to 3 there on most dates from 18 Jun to 25 Jul (absent from 11-21 Jul) and from 12-31 Aug. Singles at Salina on 26 Jun and 27 Aug, at Is-Simar on 3 dates from 8-12 Jul and at Ta' Ċenċ on 22 Jul. Singles at Għadira on 5 Oct and on 4 dates from 9-18 Nov.

Marsh Sandpiper *Tringa stagnatilis* Ċewċewwa Żghira

1993: 3 on 3 Apr and singles on 11 Apr, and from 30 June to 3 Jul at Għadira. 1 at Is-Simar from 17-23 Aug and 8 at Għallis on 29 Aug.

1994: 3 at Salina on 1 Apr and singles at Għadira from 3-7 Apr and from 30 Aug to 3 Sep.

1995: Singles at Salina on 12 Apr and at Għadira on 20 Jul.

Greenshank *Tringa nebularia* Ċewċewwa

1993: 2 at Għadira and 3 at Salina on 27 Mar; then 1-2 from 10-19 Apr, on 21 Apr and on 7 May and from 12-13 May, and on 26 dates from 4 Jun to 3 Oct (daily from 6-16 Jul). Most sightings at Għadira.

1994: 1 at Qammieħ on 5 Mar; then 1-3 on most dates from 24 Mar to 3 May. 3 on 14 May, then 1 on 1 Jul and 1-2 on most dates from 8-25 Jul. 1-2 on 8 dates from 20 Aug to 21 Sep. Last sighting on 9 Nov. Most sightings at Għadira.

1995: Singles daily from 24 Mar to 23 Apr, from 29 Apr to 2 May, from 19-25 May and from 30 May to 3 Jun (but up to 6 from 7-18 Apr), all at Għadira. 4 other single sightings in Apr, mostly at Salina. Then daily at Għadira from 10-17 Jul and from 21-27 Jul, and on 13 dates from 13 Aug to 24 Sep, singles but up to 4 on 15 Jul. 1-2 on 7 dates at Salina from 19 Jul to 1 Sep.

Green Sandpiper *Tringa ochropus* Swejda

1993: 1-2 on 25 dates from 9 Feb to 16 Apr, but 3 at Għadira on 3 Apr and 5 at Salina from 13-14 Apr. 1 at Is-Simar on 5 May. Then 1-2 almost daily from 16 Jun to 12 Sep but 5 at Is-Simar on 23 Aug and 4 at Għadira on 30 Aug. Singles at Għadira on 25 Sep and 7 Oct and 30 Oct.

1994: 1-2 on most dates from 5 Mar to 20 Apr (1-5 at 10 different sites from 1-7 Apr). 1 on 3 May and 2 on 10 May, then singles on 7 dates from 7 Jun to 3 Jul. 1-3 on most days from 11 Jul to 27 Sep, but 4 on 16 Aug at Is-Simar and 9 on 28 Aug at Għadira. Singles on 5 dates from 5-26 Oct and on 19 Nov. Most sightings from Għadira

1995: 1 on 10 Mar then 1-2 on most dates from 17 Mar to 17 Apr, at Għadira. 14 other sightings of 1-5 from 14 Mar to 1 May, mostly at Salina, but ca.25 on 30 Apr and 7 on 1 May, both at Rabat. Singles on 8 dates at Għadira from 11 Jun to 3 Jul, but 5 on 26 Jun, then 1-3 there on most dates from 10 Jul to 11 Sep. 1 on 10 Jun and 2 on 26 Jun, then 1-9 on most days from 1 Jul to 2 Sep, mostly at Is-Simar and Salina. Latest, 1 at Dwejra on 16 Sep.

Wood Sandpiper *Tringa glareola* Pespup tal-Baħar

1993: Single or very low double figures (highest 15) almost daily from 15 Mar to 15 May mainly at Is-Simar, Salina and Għadira. Then daily from 5 Jul to 29 Sep with 5 at Is-Simar on 8 Jul and 40+ on Kemmuna on 30 Jul. Last record on 21 Oct at Għadira.

1994: Single to low double figures at various localities on most days from 13 Mar to 26 May, highest 45 at Marsa on 5 Apr. 1 at Għadira on 7 Jun, then 1-11 on most days, mainly at Għadira, from 8 Jul to 28 Sep, but 22 there on 20 Jul.

1995: 1-4 at Għadira from 2 Apr to 16 May, but 11 on 16 Apr and 15 on 30 Apr. 1-5 at Is-Simar on 10 dates from 19 Apr to 24 May. Up to 20 at Salina on most dates from 3 Apr to 22 May, but 30-50 from 12-16 Apr. 6 other spring sightings, all in singles and 40 on Kemmuna on 13 Apr. 1-9 at Għadira on 18 Jun and from 30 Jun to 2 Jul, and almost daily from 16 Jul to 24 Sep, but 15-25 from 13-14 Aug. 1-6 at Is-Simar on 10 dates from 8 Jul to 26 Aug. 1-15 on several dates at Salina from 7 Jul to 7 Sep, and 5 sightings of singles in other localities. Latest, 1 at Għadira on 17 Oct.

Common Sandpiper *Actitis hypoleucos* Beggazzina tar-Rokka

1993: 1-3 daily from Jan-Mar. Up to low double figures till 15 May, highest 37 on 14 Apr (30 at Salina). Then in single or low double figures from 3 Jul to 8 Sep (highest 25 on 17 Aug), 1-5 till 8 Nov with singles daily till end of year. Most records from Għadira and several from Is-Simar but also recorded from 15 other sites.

1994: Daily from 1 Jan to 30 May, mostly at Għadira (1-2) from Jan-Mar, then at various localities. Mainly 1-6 during migration, but 10 at Għadira on 5 Apr and 10-15 at Salina from 11-12 Apr. Singles on 7 Jun and 30 Jun, then 1-10 at various localities from 5 Jul to end of Sep. 1-4 at several sites from 3-18 Oct, then 1-2 daily till end of year, mostly at Għadira.

1995: Daily at Għadira throughout year except for Jun: 1-3 from Jan-Mar and from Jul-Dec, but 3-15 from 11 Apr to 6 May. In Jun present only on 1 Jun and 9 Jun. At Is-Simar, 1 on a few dates from Jan-Mar, 1-2 on 9 dates from 1 Apr to 3 May, then 1-2 from 29 Jun till end of year, but up to 6 in Aug-Sep. At Salina, 2 on 31 Jan, 4 on 2 Feb, then 1-20 from 23 Mar to 6 May (highest on 16 Apr). Singles there on 12 Jun and 30 Jun, then up to 25 from 17 Jul to 14 Sep, but 40 on 24 Aug; and up to 4 in Dec. Several sightings of 1-15 at various coastal areas throughout the year.

Pomarine Skua *Stercorarius pomarinus* Ċiefa ta' Denbha

1993: 1 at Għallis on 18 Dec.

1994: 1 at Qawra on 4 Oct.

1995: Singles off Qammieħ on 12 Mar and 3 Apr.

Mediterranean Gull *Larus melanocephalus* Gawwija Rasha Sewda

1993: 1-10 on four dates in Jan and 15+ on 25 Feb in Grand Harbour. 1-2 on 3 dates from 5-10 Mar and 1-3 at Għallis from 12-14 Sep. Then 1-7 on 14 dates from 31 Oct till end of year, but 10 at St. Elmo on 27 Dec.

1994: 4 at Żonqor Pt. and 1 at Qawra on 2 Jan, then up to 5 on 11 dates from 29 Jan to 17 Mar, but 30 on 29 Jan in Grand Harbour. Up to 23 on 21 dates from 29 Oct till end of year, but 130 off Qawra on 18 Nov.

1995: Up to 100 on several dates from Jan to 23 Mar in Grand Harbour area. 8 sightings of 1-5 at other coastal sites from Jan to 17 Mar. 1 at Qawra on 26 Aug, then in single to low double figures of up to 26 on most dates from 2 Nov to 17 Dec. Most winter records from Qawra and St.Elmo Pt.

Little Gull *Larus minutus* Gawwija Żghira

1993: 1 at Valletta on 15 Jan.

1994: Singles (immatures) at Għadira on 23 Jan (heavily oiled) and at St.Elmo Pt. on 21 Nov and 18 Dec.

1995: Singles on 9 dates from 3 Jan to 16 Feb, but 5 at Pietà on 16 Jan. 15 at Xemxija Bay on 6 Nov.

Black-headed Gull *Larus ridibundus* Gawwija Rasha Kannella

1993: Almost daily in single or low double figures from 3 Jan to 15 Mar, but in treble figures on 6 dates in Grand Harbour, highest 700 on 25 Feb. Singles at Għadira on 1 May, then up to 4 on 7 dates from 30 Jun to 25 Jul, and on 3 dates from 26 Sep to 3 Oct. Almost daily in varying numbers from single to low treble figures from 30 Oct till end of year, highest ca.300 at St Elmo on 2 Dec.

1994: Up to moderately high treble figures in Jan (max 600 on 29 Jan), mostly in Grand Harbour area. Numbers decreasing in Feb to double, then single figures by end of Mar. Singles at Għadira on 21 May and 30 Jun, then 5 on 23 Sep at St.Elmo Pt. Increasing gradually from 18 Oct till end of year, reaching highest figures of 400 by early Dec.

1995: In double to high treble figures at Grand Harbour area from Jan to 23 Mar, with highest of 800 on 14 Jan and 16 Jan. 18 sightings of 1-15 at other coastal areas (excluding Għadira), but 100 at Xgħajra on 4 Jan and 95 at Qammieħ on 25 Feb. At Għadira, singles on a few dates in Jan-Feb, then 1-3 daily from 25 Mar to 6 Apr. 1-2 on 4 dates from 17 Jul to 1 Sep, then from 28 Sep till end of year with up to 250 at St.Elmo Pt. on 1 Dec and up to 30 at other coastal sites, mostly at Qawra and Għadira.

Slender-billed Gull *Larus genei* Gawwija Geddumħa Rqiq

1993: Singles at Gnejna on 31 Aug and at Għadira on 3 Sep. Then at Għallis 1 on 4 Sep, 8 on 8 Sep and 2 on 15 Sep.

1994: 4-5 from 5-6 Apr and 3 on 18 Apr; then singles on 26 Jul and 31 Jul, and on 19 Aug, all at Għadira. 8 at Baħar iċ-Ċagħaħ on 4 Sep, then 1-2 on 10 dates from 10 Sep to 8 Dec mostly off Qawra, but 9 there on 16 Nov.

1995: Singles at Għadira on 23 Feb and on 30 Mar to 1 Apr, and 3 at Qammieħ on 19 Mar. 1 off St.Elmo Pt. on 30 Aug and 2 at Salina on 1 Sep. Singles at Għadira on 6 dates from 25 Aug to 1 Oct, then 5 sightings of singles from 11-31 Oct, but 45 at Is-Simar on 20 Oct and 20 at Għadira on 21 Oct. Latest, 2 at Għadira on 23 Nov.

Audouin's Gull *Larus audouinii* Gawwija Geddumħa Aħmar

1993: 2 at Għallis on 26 Sep.

Common Gull *Larus canus* Gawwija Sekonda

1993: Singles in Grand Harbour on 8 Jan and 25 Feb.

1995: 1 at Qawra on 16 Dec.

Lesser Black-backed Gull *Larus fuscus* Gawwija Daharħa Iswed

1993: 2 at Qammieħ on 5 Mar, then 1-3 on 4 dates till 7 Apr. 1-5 on 10 dates mostly at Għallis from 29 Aug to 5 October and 1-3 in Grand Harbour from 30-31 Oct. Then 18 at Qawra on 19 Nov and 26 at Għallis on 21 Nov, and singles again at Għallis on 27 Nov and at Ċirkewwa on 8 Dec.

1994: 1 off Żonqor Pt. on 2 Jan, then singles on 5 dates from 8 Mar to 24 Apr. 1 at Għadira on 12 Aug; then 9 sightings of 1-2 mostly off Qawra from 28 Sep to 15 Dec, but 5 on 4 Oct and 10 on 19 Oct.

1995: 1-2 in Grand Harbour area on 6 dates from 5 Jan to 14 Mar, then 1-2 on 5 dates from 15-27 Mar, mostly in Gozo Channel area. Singles on 25 Jun and 14 Aug, and 2 on 24 Sep; then 8 sightings of 1-3 from 7 Oct to 10 Dec, all off NE coast of Malta.

Herring Gull *Larus argentatus* Gawwija Prima Saqajħa Roħa

1993: 1 at St Elmo Pt. on 31 Dec.

Yellow-legged Gull *Larus cachinnans* Gawwija Prima

1993: Commonly seen in single and low double figures with highest count at breeding colony on Filfla of ca.100 on 20 Mar.

1994: Present all year round and breeding at usual colonies. Wintering numbers reaching 100 in Grand Harbour area in Jan. 145 at Filfla colony towards end of Feb. Sightings decreasing in summer but up to 50 in Aug and Sep off St. Elmo Pt. Sightings picking up again from Oct-Dec, with up to 50 at several coastal sites.

1995: Present throughout year and breeding in usual numbers at established colonies. Up to 50 on several dates from Jan-Mar and from Oct-Dec with single to low double figures for summer months, except for 32 at St.Elmo Pt. on 31 Aug. Up to 50 from Jan-Mar but 100 on Filfla on 29 Jan. In winter, 50-182 at St.Elmo Pt. from 1-10 Nov and 100 at Qawra on 11 Nov.

Gull-billed Tern *Sterna nilotica* Ċirlewwa Geddumħa Oħxon

1993: Singles at Żonqor Pt. on 27 Mar and at Qammieħ on 28 Mar, and at Għadira on 15 May and from 10-13 Jul. 2 on 3 Aug and 1 on 4 Aug at Is-Simar, and 1 in Grand Harbour on 4 Sep and 2 at Qawra on 8 Sep.

1994: 13 at Għadira on 5 Apr and 1 at Għallis on 7 Apr. 6 sightings of 1-3 from 4-25 Sep; then 4 sightings of 1-2 from 23 Oct to 22 Nov. Most sightings from off Qawra.

1995: Singles at Għadira on 9 Apr and at Is-Simar on 24 Aug.

Caspian Tern *Sterna caspia* Ċirlewwa Prima

1993: 1 at Żonqor Point on 27 Mar and 1-4 on 11 dates from 19 Aug to 30 Sep mostly from Għallis.

1994: 9 at Qammieħ on 1 Apr, then up to 5 at Għadira from 4-6 Apr and 2 at Gozo Channel on 5 Apr. 1 over Għadira Bay on 30 Jul, 4 off Qawra on 19 Oct and 2 at Għadira on 7 Nov.

1995: 11 sightings of 1-3 from 14 Sep to 16 Oct, but 5 on 14 Sep at Għadira and 6 at Is-Simar on 12 Oct.

Sandwich Tern *Sterna sandvicensis* Ċirlewwa tax-Xitwa

1993: 1 on 11 Jan at Għallis and 1 on 20 May and 2 on 3 Aug at Għadira. 4 at Għallis on 26 Sep and singles at Qawra on 5 Oct, at Valletta on 13 Nov and at Qawra on 30 Nov and at Għallis on 5 Dec.

1994: 1 at Pietà on 6 Jan and at Pembroke on 29 Jan. 1-4 on 4 dates in Apr. 18 sightings of 1-6 from 20 Oct to 3 Dec, but a flock of 11 off St. Elmo Pt. on 13 Nov.

1995: 13 sightings of 1-3 from 19 Jan to 9 Apr, mostly off St. Elmo Pt. 1 at Qbajjar on 14 Aug and up to 4 at Għadira on 14 Sep and 27 Sep. Then 11 sightings of 1-3 from 11 Oct to 2 Dec, but 5 on 11 Oct, 7 on 4 Nov and 5 on 9 Nov, all at Qawra.

Little Tern *Sterna albifrons* Ċirlewwa Żghira

1993: 1 at Xwejni on 8 Jul.

1994: 1 at Għadira on 27 Aug.

Whiskered Tern *Chlidonias hybridus* Ċirlewwa bil-Mustacċi

1993: Singles at Għadira on 7 May and 3 Jun.

1994: 1 at Għadira on 10 May and 2 at Is-Simar from 24-25 May.

1995: 2 at Is-Simar on 20 Jun, 1 at Għallis on 29 Aug and 1 on Manoel Island on 11 Sep.

Black Tern *Chlidonias niger* Ċirlewwa Sewda

1993: Singles at Għadira on 8 May and at Is-Simar from 22-29 Jul. 2-6 on four dates from 1-6 Sep and 1-3 on seven dates from 25 Sep to 3 Oct, mainly at Għallis.

1994: 1 at Is-Simar on 22 May and 8 at Għallis on 19 Aug.

1995: Almost daily from 11 Aug to 7 Sep: 30-50 at Marsascalea and Għallis from 11-16 Aug, then 1-6 from 17 Aug onwards, mostly at Salina.

White-winged Black Tern *Chlidonias leucopterus* Ċirlewwa tal-Gewnaħ Abjad

1993: Singles at Għadira from 15-16 May and at Is-Simar on 17 May. 2 at Għallis on 16 Sep and 1 at Għallis on 27 Nov.

1994: 1 at Għadira on 4 May and 3 at Salina on 6 May.

1995: 2 at Birżebbuġa and Delimara from 19-20 Aug and 1 at St. Elmo Pt. on 3 Sep.

'Marsh Terns' *Chlidonias* sp.

1993: 1 at Għallis on 29 Jul, then frequently from 29 Aug to 29 Sep in small flocks mainly at Għallis, max 34 on 5 Sep.

1994: 2 at Għadira on 6 May, then 15 off Għallis on 19 Aug and 1-2 on 3 dates off Qawra from 20-26 Aug.

1995: 20 off Għallis on 14 Aug, and singles at Qawra on 20 Aug and at St. Elmo Pt. on 30 Aug.

Rock Dove *Columba livia* Tudun tal-Ġebel

1995: 1 at Qammieħ on 21 Mar.

Collared Dove *Streptopelia decaocto* Gamiema tal-Kullar

1994: 1 at Buskett on 12 Jun.

Turtle Dove *Streptopelia turtur* Gamiema

1993: Singles at Dwejra and Għadira on 3 Apr and 8 Apr. Then almost daily from 12 Apr to 25 Jun in single and low double figures, highest 26 on 25 Apr. Singles on dates in Jul, but 3 at Buskett on 12 Jul. Then almost daily in single figures from 15 Aug to 25 Sep, but 50+ at Mtaħleb on 14 Sep and 250+ at Rabat on 15 Sep. Singles at Għadira on 1 Oct and 6 Oct.

1994: Almost daily from 3 Apr to 13 Jun, with most sightings in low single figures except for 2 sightings of 50 in mid-Apr, and 2 sightings of 20 at end of Apr/beginning of May. Regular sightings of 1-3 from mid-Jun till end of Aug, but 5 at Buskett on 3 Jul. On most days from 4-25 Sep, with numbers exceeding 10 on only 4 occasions: 22 on 12 Sep, 18 on 22 Sep and 27 on 24 Sep, all at Buskett; then 15 at Lunzjata on 25 Sep. Then 5 sightings of 1-3 till 24 Oct.

1995: Singles on 4 Apr and 6 Apr, then almost daily from 10 Apr to 31 May. Generally in single to low double figures of up to 25, but a large influx on 24-25 Apr with 80 at Mosta on 24 Apr and several hundreds reported from different sites with highest of 1000+ at Mellieħa on 25 Apr. 1-3 on several dates from 2 Jun to 4 Aug mostly at Għadira, Is-Simar and Buskett. Then, on most dates from 14 Aug to 29 Sep, in low single to double figures: a small influx reported on 1 Sep, then 33 on 17 Sep and 16-40 on most days from 17-23 Sep, mostly at Buskett and Pietà. Latest, 1 at Għadira on 15 Oct.

Great Spotted Cuckoo *Clamator glandarius* Sultan il-Gamiem tat-Toppu

1994: Singles at Wied Dalam on 17 Mar and on Kemmuna on 27 Mar.

1995: 1 at Fgura on 27 Feb and 1 shot on 8 Jun (locality unknown).

Common Cuckoo *Cuculus canorus* Daqquqa Kahla

1993: 1-2 on 18 dates from 29 Mar to 25 May, mostly from 9 Apr-15 May. Then one fledgling at Rabat on 17 Jul (first breeding record - see *Il-Merill*, 28: 22).

1994: 1-2 on most days from 24 Mar to 9 May, but 3 at Kemmuna on 27 Apr. Singles at Għadira on 30 May, and at Rabat on 14 May and 12 Jun. Singles at Buskett on 4 Sep and at Hal Far on 11 Sep and at Lunzjata on 16 Oct.

1995: 1 at Lunzjata on 19 Mar, then 12 sightings of 1-3 from 7 Apr to 31 May (most in first half of Apr and at Kemmuna). Singles at Pietà on 19 Sep and 26 Sep.

Barn Owl *Tyto alba* Barbaġann

1993: 1 at Attard on 11 Dec.

Eurasian Scops Owl *Otus scops* Kokka

1993: 6 sightings of singles on five dates from 13-21 Apr, mostly at Kemmuna. Then singles on 5 dates from 27 Oct to 12 Nov and at Bingemma on 26 Nov and at Ghadira on 20 Dec.

1994: Recorded only in spring. Singles at Buskett and Dwejra (Gozo) on 17 Mar, at Ghadira singles on 5 Apr and at Rabat 9 Apr, and on Kemmuna 1-3 daily from 16-22 Apr and singles on 4 dates from 27 Apr to 8 May.

1995: 1 at Dwejra on 11 Mar, then 9 sightings from 11 Apr to 13 May, mostly singles but 2-3 on Kemmuna from 20-21 Apr. Singles at Dwejra and Wied Speranza on 7 Oct.

Long-eared Owl *Asio otus* Qattus

1993: 1 at Ghallis on 27 Nov.

Short-eared Owl *Asio flammeus* Kokka tax-Xaghri

1993: 1 on Kemmuna on 5 Jan and singles at Ta' Harrax and Dwejra on 3 Apr. Then 1 at Buskett on 22 Oct, 2 on Kemmuna on 14 Nov and 1 at Qawra on 4 Dec.

1994: Singles at Qammieħ on 2 Mar, at Wied Dalam on 30 Oct, at Qawra on 5 Nov and at Baħar iċ-Ċagħaq on 29 Nov.

1995: Singles at Ghallis on 5 Mar and on Kemmuna on 19 Mar, at Ghadira on 15 Apr and at Dwejra on 13 Dec.

European Nightjar *Caprimulgus europaeus* Buqrajq

1993: 1 at Ghajn Żejtuna on 9 Apr then 1-2 on 11 dates from 22 Apr to 14 May. Singles at Buskett on 10 Oct and at Rabat on 7 Nov.

1994: 7 sightings of singles on Kemmuna and Manoel Island from 19 Apr to 13 May. Singles at Dwejra on 21 Aug and 6 Sep, then 9 sightings at Dwejra and Buskett from 16-30 Sep and at Wied Dalam on 13 Oct. All singles, but 2 at Dwejra on 28 Sep.

1995: 10 sightings from 11 Apr to 12 May, mostly on Kemmuna, all singles, but 2 on 27 Apr. 1 at Dwejra on 29 Jun, then 11 sightings of singles from 24 Sep to 19 Oct, mostly at Dwejra and Buskett.

Common Swift *Apus apus* Rundun

1993: Almost daily from 5 Mar to 16 Oct, last record on 25 Oct. Mostly in double figures but low treble figures recorded several times in Apr-Sep, max.700 at Buskett on 22 May.

1994: On most days from 18 Mar to 1 Oct. Most sightings of low to high double figures, but treble figures on 25 dates max.800 on 4 sightings from 7-9 May and on 8 sightings from 22-29 May. 3 sightings of 100-150 from 18 Jun to 3 Jul; then up to 300 on 8 dates from 17 Aug to 6 Sep. Highest numbers from Dwejra. Latest sighting, 1 on 20 Nov.

1995: On most days from 10 Mar to 26 Sep. Mostly in single to high double figures but 14 sightings of 100-500 from mid-Apr to end of Jun and 2 sightings of 100-200 in Aug. Highest sighting of 1000+ at Dwejra on 23 May. Relatively lower numbers from Jul-Sep. Two late sightings: singles at Is-Simar on 13 Nov and at Ghadira on 29 Dec.

Pallid Swift *Apus pallidus* Rundun Kanneli

1993: 1 at Dingli Cliffs on 20 Aug.

1994: 1 on Kemmuna on 20 Apr.

Alpine Swift *Apus melba* Rundun Żaqqu Bajda

1993: 1-4 on 12 dates from 22 Mar to 8 May, then 3 on 25 May and 1 on 12 Jun at Bingemma. 1-2 on two dates in Jul and again 1-2 on 7 dates from 10 Sep to 5 Oct.

1994: 2 on 19 Mar, then 15 sightings from 26 Mar to 9 May, mostly 1-2, but 3 on Kemmuna on 30 Mar and 4 at Qammieħ on 31 Mar, then 6 again on Kemmuna on 23 Apr. Singles at Dwejra on 22 May and 25 May and at Wied il-Għajn on 18 Jun. In Sep, 9 sightings from 6 Sep onwards, mostly 1-2, but 5 at Buskett on 24 Sep and 4 at Dwejra on 27 Sep. 2 on 2 Oct and 1 on 28 Oct, then 1 on 5 Nov.

1995: 14 sightings in spring from 21 Mar to 30 Apr, mostly 1-2, but 5 at Ta' Ċenċ on 23 Mar. Singles at Haż-Żebbuġ on 6 Jun and at Is-Simar on 23 Jun, then at Dwejra on 25 Jul. 1-2 on 5 dates from 16-30 Sep, but 20 at Dwejra on last date. Most autumn records from Dwejra.

Common Kingfisher *Alcedo atthis* Għasfur ta' San Martin

1993: 1-2 at Ghadira from 1 Jan to 15 Mar and on 2 Apr. Then 1-3 from 4 Aug till end of year (mostly at Ghadira and Is-Simar).

1994: 1-2 daily at Ghadira in Jan-Feb, with only 4 sightings outside Ghadira. In Mar, 7 single sightings mostly from Ghadira, but 1 at Kemmuna on 27 Jul. Singles at Ghadira on 20 Jul and at Is-Simar on 30 Jul. Then on most days from 1 Aug onwards (daily at Ghadira from 12 Aug till end of year). Outside Ghadira, 12 sightings in Aug, mostly at Is-Simar, 13 sightings in Oct from various sites, and 7 sightings in Nov-Dec all from Is-Simar. All sightings of 1-2, but 3 at Is-Simar on 17 Aug and 3-4 on several dates at Ghadira from 27 Aug to 10 Dec (mostly in Oct and Nov).

1995: Low single figures mostly at Ghadira and Is-Simar from Jan to 3 Apr and from 12 Jul till end of year, highest 8 in Aug at both sites. Several other sightings of 1-2 at other localities mostly in Aug and Sep.

European Bee-eater *Merops apiaster* Qerd in-Nahal

1993: 1 at Kemmuna on 21 Apr then on 10 dates in May with 1-15, but 28 at Dwejra on 29 May. 1-16 on 7 dates in Sep, highest count of 20+ at Dwejra on 29 Sep.

1994: Up to 10 on 5 dates from 16-30 Apr, but 28 at Il-Qortin on 24 Apr. Then 1-10 daily up to 10 May (but 30 at Kemmuna on 1 May and 20 at Cospicua on 5 May) and 6 sightings of up to 8 from 21 May to 14 Jun. In autumn, 1 at San Gwann on 25 Aug, then 10 sightings of singles from 1 Sep to 1 Oct, all from Buskett-Rabat area, but 11 on 10 Sep, and 14 on 21 Sep and 27 Sep.

1995: 17 sightings of up to 16 on 12 dates from 20 Apr to 27 May, but 70 over Birkirkara on 25 Apr. Then 11 sightings on 8 dates from 8-22 Sep, mostly in single to double figures of up to 50, but 75 on 8 Sep at Buskett, 100 over Xaghra on 9 Sep and 78 again over Buskett on 17 Sep.

European Roller *Coracias garrulus* Farrug

1993: 1 at Dingli on 8 May, 2 at Ghadira on 13 May and 1 at Ramla Valley on 15 May. 1 at Ghadira on 24 Sep.

1994: Singles at Ghajn Tuffieħa on 17 Apr and at Dwejra on 23 Apr, at Kemmuna on 6 May, and at Ramla Valley on 23 Jun.

1995: Singles at Kemmuna on 21 Apr and 6 May, and at Mellieħa on 25 Apr.

Hoopoe *Upupa epops* Daqquqa tat-Toppu

1993: 1-4 almost daily from 5 Mar-22 Apr, then singles at Kemmuna on 1 May and Bingemma on 18 May. 1-2 almost daily from 30 Jul to 13 Sep (but absent from 8-17 Aug). 3 at Ġhallis on 21 Sep.

1994: 1 at Ghadira from 25-27 Feb; then almost daily from 4 Mar to 8 May, mostly 1-4 but 7 at Dwejra on 18 Mar, 10 at Qammieħ on 1st and 5 at Ghadira on 6 Apr. Late spring bird on 22 May. Then singles at Dwejra on 9 Aug, and on 4 dates from 21-30 Aug. 2 at Buskett on 6 Sep and 12 sightings of singles from 7-28 Sep.

1995: On most dates from 1 Mar to 25 Apr, mostly 1-5 but 7 at Dwejra on 7 Mar. Singles at Kemmuna on 8 Mar and at Dwejra on 3 dates from 24 May to 28 Jun. Then 23 sightings of 1-2 on 17 dates from 4 Aug to 30 Sep, most towards end of Aug.

Wryneck *Jynx torquilla* Bulebbiet

1993: 1-2 on 4 dates in Jan but regular from 29 Mar-24 Apr, max. 4 at Marsalforn on 19 Apr. 1 at Dwejra on 1 May. 1-2 on 14 dates from 25 Aug to 29 Sep and daily with 1-2 from 1 Oct to 15 Nov. Singles on 13 dates from 21 Nov to 20 Dec, mainly at Ghadira.

1994: 1-2 on 9 dates from 1 Jan to mid-Mar, then 1-2 on most dates from 20 Mar to 24 Apr, but 4 at Wied l-Isqof on 27 Mar. Singles on 9 dates throughout Sep, then almost daily from Oct till end of year, mostly at Ghadira where up to 5 present.

1995: 16 sightings from 16 Jan to 8 Mar, mostly at Ghadira. Then 15 sightings of singles from 21 Mar to 6 May, mostly on Kemmuna. Singles regularly from 3 Sep to end of year, but 8 sightings of 2-5 from 30 Sep to 1 Nov (highest on 27 Oct), mostly at Ghadira, and 2 sightings of 2 from 17-18 Nov.

Calandra Lark *Melanocorypha calandra* Kalandra

1995: 1 at Birkirkara on 22 Oct.

Short-toed Lark *Calandrella brachydactyla* Bilbla

1993: First on 28 Feb and 1-2 on 5 dates from 6-25 Mar. Then up to medium double figures daily from 30 Mar increasing to very low treble figures in late Aug and early Sep, max 110+ at Sarraflu on 3 Sep. Last records, singles on 30 Oct and 11 Nov. Breeding in several suitable localities.

1994: 3 early birds on 26 Feb and 1 on 4 Mar. Then single to low double figures at various breeding sites from 24 Mar to 17 Sep, with irregular sightings till 27 Sep. Spring migration not very evident except for passage of ca.200 over Kemmuna on 23 Apr. Up to 50 on Kemmuna on 11 May, and at Ta' Ċenċ on 25 Aug. Autumn passage slight with up to 30 on 2 dates in mid-Sep.

1995: Present at usual breeding areas from 26 Mar to 28 Sep. Mostly in single to low double figures of up to 30 at any one site. Highest counts, 25-30 on Kemmuna in May and 50 at Gozo on 25 May; then 50 at Ramla Valley on 2 Jul and 40 at Dwejra on 10 Sep.

Wood Lark *Lullula arborea* Ċuqlajta

1993: Singles on 30 Oct at Qawra and on 8 Nov at Ghadira.

1994: 1 at Qawra on 1 Nov.

Sky Lark *Alauda arvensis* Alwetta

1993: Single to very low double figures in Jan to 26 Mar and from 24 Sep to end of year, increasing to low medium double figures in mid-Oct, with highest passages noted in Gozo on 30 Oct (500+), at Ramla Valley on 31 Oct (100+) and at Ghadira on 2 Nov (80+).

1994: Wintering in single figures from Jan-Feb (highest of 10 on 4 Jan). Almost daily in Mar till 20 Mar, mostly 1-4 but 5 sightings of 7-30 from 12-19 Mar. Then 1 on 27 Mar and 6 on 5 Apr. Autumn passage on most days from 1 Oct till 16 Nov, mostly up to 20 but max 200 at Ghadira on 27 Oct, and 25-60 on 6 other dates from 13-30 Oct. 1-5 almost daily from 19 Nov till 4 Dec and irregular till end of year.

1995: 1 on 16 Jan, then on most days from 26 Jan to 3 Apr, and 2 on 13 Apr. Mostly 1-10 but 15 in Gozo on 26 Jan. 1 at Dwejra on 28 Sep, then on most days from 2 Oct till end of year, mostly from mid-Oct to mid-Nov. Most sightings of 1-20 but 23-70 on 5 dates from 24 Oct to 18 Nov, with highest at San Gwann on 1 Nov, and 40 at Birgu on 4 Dec.

Sand Martin *Riparia riparia* Hawwiefat tax-Xtut

1993: 1-2 on 4 dates from 3-15 Mar and 30 (at Ramla Valley) on 19 Mar. Then almost daily from 30 Mar to end of May, mostly from mid-Apr to mid-May, max 500+ on Kemmuna on 22 Apr. Up to 3 on 7 dates in June till 19 Jun and singles on 7 Jul and 30 Jul. Autumn passage in single to very low double figures from 20 Aug to 5 Dec mostly mid-Sep to early Oct, max 20+ on 2 Oct and 3 Oct at Ghadira and on 8 Oct at Lunzjata.

1994: Up to 5 at Ghadira from 17-18 Mar and 1 at Victoria on 18 Mar. Then, on most days from 27 Mar till 23 May. Mostly in double figures, but 6 sightings of over 100, half of which from 4-6 Apr including highest of 500+ at Salina on 6 Apr. 3 on Kemmuna on 29 May and 1 at Ghadira on 6 Jun. In autumn, almost daily from 6 Sep till 8 Oct in single to low double figures (highest 30 at Ghadira on 29 Sep). Latest, 10 at 2 sites on 16 Oct.

1995: 1-5 on 4 dates from 3-15 Mar, then almost daily from 22 Mar to 30 May, with 1-4 irregularly till 7 Jun. Mostly in singles figures of up to 50 but treble figures on 9 dates (12 sightings) from 14 Apr to 6 May, highest 400 at Salina on 16 Apr. Singles on 6 dates from 24 Jun to 28 Jul, mostly at Salina, then on most days from 25 Aug to 10 Oct. In single to low double figures of up to 20 on most dates but 50 at Buskett on 17 Sep and 40 at Lunzjata on 28 Sep and 30 Sep. 2 at Is-Simar on 17 Oct and singles at Buskett and at Mistra on 12 Nov.

Crag Martin *Ptyonoprogne rupestris* Hawwiefa tal-Blat

1993: 1 at Lunzjata on 1 Jan.

1994: 1 at Dwejra (Gozo) on 6 Mar.

1995: Singles at Lunzjata on 28 Sep, at is-Simar on 12 Nov and at Għadira from 14-16 Nov.

Barn Swallow *Hirundo rustica* Huttafa

1993: Passage from 3 Mar to end May, mostly in Apr and early May. Max 4000 on 15 Apr but treble figures on many days. 1-5 on most days from Jun- Aug. Return passage from Sep-Oct with double and low treble figures from mid-Sep to mid-Oct, max 477 on 13 Sep. Single figures till 5 Dec and finally 2 on 28 Dec.

1994: 1 at Lunzjata on 7 Jan and 15 Jan, then at Għadira where 2 on 15 Jan and then 1 daily there from 17 Jan till 11 Mar. 8 sightings of 1-2 from 18 Feb to 12 Mar, then daily from 17 Mar till 11 Jun. Highest numbers from 4-29 Apr, with several sightings of treble figures, max 500 on 6 Apr and 400 on 23 Apr and 27 Apr. 1 at Wied Qirda on 23 Jun; then 1-2 on 3 dates in first half of July. In autumn, single figures from 21 Aug increasing to regular treble figures from 11 Sep to 27 Oct, max 350 on 3 Oct. 8 sightings of 1-2 in Nov, then 1 on 3 Dec.

1995: Singles at Għadira on 11 Feb and 19 Feb, then almost daily from 25 Feb to 31 May. Mostly in single to high double figures but regularly in treble figures from 23 Mar to 3 May when 200-400 on 15 dates mostly at Salina and Is-Simar. A mixed 'hirundine' flock of 4000+ at Is-Simar on 4 May. 19 sightings of up to 4 from 3 Jun to 18 Aug but 18 at Dwejra on last day. 1 pair bred successfully at Bidnija. Double to treble figures of up to 600 on most days from 26 Aug to 29 Oct, but 2000 at Għadira on 23 Sep and 1000 at Wied Qlejgħa on 26 Sep. 13 sightings (mostly up to 3) on 11 dates from 2-26 Nov, but 15 at Buskett on 12 Nov.

Red-rumped Swallow *Hirundo daurica* Regina tal-Huttaf

1993: 1 at Għadira on 18 Mar, up to 4 in various localities on 6 dates from 4-14 Apr, 1 on Kemmuna on 29 Apr and 2 at Bingemma on 20 May.

1994: 1 at Dwejra on 23 Mar, then 7 sightings of 1-2 at various sites from 5-25 Apr.

1995: 26 sightings of up to 5 on 21 dates from 12 Mar to 26 Apr, but 7 at Salina on 23 Mar. Then, singles on Kemmuna on 6 May and at Għadira on 21 May. In autumn, singles on 3 dates from 28 Sep to 1 Oct from Ramla Valley and Lunzjata.

House Martin *Delichon urbica* Hawwiefa

1993: 2 on Kemmuna on 17 Jan and up to 5 on 4 dates in Feb from 10 Feb. Then daily in single or medium double figures from 3 Mar to 31 May, with some treble figures mainly from mid-Apr to 3rd week of May max 500 on 2 May. Up to 6 on 6 dates from 2 Jun to 15 Jul. Then 4 on 27 Aug and almost daily in single to low treble figures from 3 Sep to 26 Oct, max.300 at Lunzjata on 3 Oct and 10 Oct, and 14 sightings of up to 12 on 8 dates in Nov till 28 Nov. Last 5 at Għadira on 5 Dec.

1994: 1-2 at 2 sites in Gozo on 25 Feb, then single to low double figures of up to 50 on most days from 6 Mar to 10 Jun, but 100 on 5 Apr and treble figures on 16 other dates from 22 Apr to 10 May. 1 at Mdina on 22 Jun; 5 at Dwejra on 28 Aug, then up to 50 on most days from 6 Sep till 3 Nov.

1995: 1 at Għadira on 28 Jan, then 1-10 on 12 dates in Feb and single to double figures of up to 80 on most days from 3 Mar to 30 May, but 7 sightings of 100-300 from 16-29 Mar and 6 sightings of 100-200 from 15 Apr to 19 May. 1-8 on 4 dates from 4-11 Jun. 2 on 13 Aug and 4 on 29 Aug, then on most days from 10 Sep to 15 Oct, mostly up to 100, but 200 on 4 Oct. 2 at Is-Simar on 23 Nov and 2 at Għadira on 6 Dec.

Tawny Pipit *Anthus campestris* Bilblun

1993: 11 sightings of 1-4 on 9 dates from 5-26 Apr and singles on 1 May, 12 May and 7 Jun. Two pairs bred successfully in June-July (first breeding record for Malta). Singles on 5 Aug, 21 Aug and 22 Aug (at 2 sites on last date) and 1-4 on most days from 1 Sep to 13 Oct.

1994: 1 on 12 Mar, then 1-3 on most days from 27 Mar to 5 Apr and from 16 Apr to 9 May, but max 5 on Kemmuna on 23 Apr. In autumn, 28 sightings of up to 6 from 6-30 Sep.

1995: 1 on 11 Mar, then up to 5 on most days from 28 Mar to 3 May, but 6 on Kemmuna on 1 May. In autumn, 1-3 on most days from 3-29 Sep and on 3 dates (4 sightings) from 4-13 Oct, but 15 on 23 Sep and 5 on 24 Sep both at Dwejra and 10 at Miġra Ferħa on 29 Sep.

Tree Pipit *Anthus trivialis* Diżż

1993: Almost daily from 13 Mar and daily from 28 Mar to 15 May, mostly in single and low double figures. Then singles on 31 May, 21 Jun and 21 Aug and in single figures almost daily from 1 Sep to 5 Nov. Singles at Għadira on 7 Dec and 15 Dec.

1994: 1-2 from 1-3 Mar and 1 on 13 Mar. Then daily in single to low double figures of up to 40 (but 80 at Għadira on 11 Apr) from 17 Mar to 10 May, and 1 on 13 May. Singles on 20-21 Aug, then almost daily in single figures from 28 Aug to 21 Oct, but 12 at Buskett on 20 Sep, 20 at Dwejra on 6 Oct and 30 at Lunzjata on 16 Oct. Singles on 1 Nov and 4 Nov.

1995: Singles on 1 Mar and 10 Mar, then on most dates from 19 Mar to 14 May (daily from 31 Mar to 8 May), with a late bird on 20 May; mostly in single to medium double figures of up to 50, but 100 at Għadira and Qammieħ on 8 Apr and 400 at Iċ-Ċumnija on 30 Apr. 1 at Birzebbuġa on 31 Jul, then on most dates from 2 Sep to 27 Oct, mostly 1-18, but 110 on 23 Sep and 45 on 24 Sep, then 40-50 from 13-15 Oct, all at Dwejra.

Meadow Pipit *Anthus pratensis* Pespus

1993: Low double figures daily up to 10 Apr, max 40 at Għadira on 31 Mar. 1 at Ċirkewwa on 19 May. Then daily in single or low double figures in several localities from 18 Oct to end of year, but up to treble figures in early Nov, highest 150 at Dwejra on 2 Nov and 7 Nov.

1994: In low double figures from Jan-Feb, max 50 at Ta' Ċenċ on 24 Feb. In Mar, return passage marked by increase in sightings, with numbers generally low but sightings of 50 on 5 occasions and 100 at Dwejra on 17 Mar. 9 sightings of 1-2 on 5 dates in Apr till 24 Apr. Single at Għadira on 28 May. 1 on 16 Oct and 4 sightings on 19 Oct, then daily from 22 Oct till end of year. Highest numbers in Nov, when 60-120 on 8 occasions mostly at Dwejra; otherwise in low double figures of up to 50.

1995: In single or low double figures of up to 50 in Jan till 10 Apr. Then in single or double figures from 12 Oct to end of year, max 80-100 on 6 dates from 19 Oct to 10 Nov.

Red-throated Pipit *Anthus cervinus* Dizz Ahmar

1993: Singles on 15 Mar and 31 Mar, then almost daily in single figures from 3 Apr to 3 May, max.9 at Gerxija (Gozo) on 11 May. In autumn 1-2 on 5 dates from 28 Sep to 30 Oct.

1994: Up to 11 at Marsa almost daily from 23 Feb to 3 Mar and 1 at Għadira on 26 Feb. Singles at Marsa and Munxar on 24 Mar and 31 Mar respectively; then on most dates from 5 Apr to end of month, mostly 1-3, but 6 at Marsa on 5 Apr. In autumn, 7 sightings of 1-2 from 11 Oct to 4 Nov, mostly at Għadira. Then, singles at Għadira on 12 Nov, at Marsa on 22 Nov and again at Għadira on 31 Dec.

1995: Singles on 1 Jan, 30 Jan, 18 Mar, 28 Mar and daily from 30 Mar to 3 Apr. Then up to 2 on 18 dates from 8 Apr to 4 May and singles on 13 Oct, 27 Oct, and 14 Dec. Mostly from Għadira.

Water Pipit *Anthus spinoletta* Dizz ta' l-Ilma

1993: Singles at Għadira on 19 Oct, 21 Oct and 23 Oct, at Gawra on 2 Nov, at Għallis on 27 Nov, and at Baħar iċ-Ċagħaq on 8 Dec. 2 at Għallis on 11 Dec.

1994: 1 at Mtaħleb on 20 Nov.

1995: 1-2 on 12 dates from 30 Oct to 25 Nov and on 18 Dec, all at Għadira.

Yellow Wagtail *Motacilla flava* Isfar

1993: First on 25 Feb then regularly in single or double figures from 1 Mar to 26 May, reaching treble figures in Apr, max 500 at Is-Simar on 15 Apr. Singles on 9 scattered dates in Jun and Jul. Then almost daily in single or low double figures from 1 Aug to 1 Nov in several localities, but up to 800 roosting at Lunzjata from end late Sep to mid Oct. Late bird on 27 Nov.

1994: 5 single sightings on 1-8 Mar, then almost daily from 18 Mar to end May, mostly in single or double figures of up to 80 but in treble figures on 5 dates in Apr with max 600+ at Marsa on 5 Apr. From mid-May onwards 1-5 mostly at Għadira or Is-Simar, where singles still present till 17 Jun. Singles on 12 scattered dates from 7 Jul to 11 Aug. Then daily from 13 Aug to 13 Oct, mostly in low double figures, highest 87, but 150-300 on 4 dates from 9 Sep to 5 Oct, all at Lunzjata. Up to 10 on 9 dates from 16 Oct to 5 Nov, then 1 at Għadira on 27 Nov.

1995: On most days in spring from 5 Mar to 23 May, with a few till 8 Jun, mostly in single or double figures of up to 60 but 7 sightings of 70-100 from 22 Mar to 30 Apr. Return passage continuous from 1 Aug till 30 Oct. Up to 80 in Aug at Salina, Għadira and Is-Simar, then in single or double figures throughout Sep with 9 sightings in low treble figures, max 200 at Lunzjata on 28 Sep. Lower figures in Oct, highest 45 on 1 Oct.

Grey Wagtail *Motacilla cinerea* Zakak tad-Dell

1993: 1-3 almost daily from Jan to 13 Mar, then 1 on 19 Apr. In autumn from 19 Sep with up to 10 birds on most days till end Dec.

1994: Wintering in usual low numbers, with 13 sightings of 1-3 from Jan to 6 Mar at various sites. In autumn, singles on 19 Sep and 22 Sep (2 sites), then almost daily from 26 Sep onwards, mostly from Oct-Nov. Up to 5 on 2 occasions, but 8 at St. Elmo Pt. on 5 Nov, and 7 at Lunzjata on 7 Dec.

1995: 1-3 frequently sighted in Jan-Feb, then singles on 4 dates from 8-24 Mar at Għadira and Salina. In autumn 1 on 22 Sep, then on most days from 28 Sep to end of year, mostly 1-3 but 4-5 on 6 dates from 3 Oct to 5 Nov.

Pied Wagtail *Motacilla alba* Zakak Abjad

1993: Regular in single and low double figures from Jan to mid-Apr. 3204 counted at the roost in Valletta on 30 Jan. Single birds on several dates throughout summer at Is-Simar and at Għadira. Then daily from 8 Oct mostly in low double figures of up to 40, with max 90 in Grand Harbour on 30 Oct and 50 at Għadira on 2 Nov. 3500 counted at Valletta roost on 21 Nov.

1994: Wintering in various localities in single or low double figures of up to 80 in Jan-Mar. 2410 roosting at Valletta on 29 Jan. 150 seen going to roost over Marsamxett on 15 Feb and 200 at Valletta again on 11 Mar. Return passage evident in second half of Mar. Singles on 4 dates during first half of Apr, and at Manoel Island on 1 May and at Belliegħa (Gozo) on 19 May. In Oct, 1 on 1 Oct, then daily from 7 Oct, mostly from mid-Oct to end Nov. Highest numbers at Valletta roost, where up to 1000 from beginning of Nov, increasing to 3000 by mid-Nov, down to low treble figures till end of year. At other sites, in single to low double figures of up to 50.

1995: Up to 30 at any one site throughout Jan-Mar, with 100-500 seen roosting at Valletta on 4 dates in Jan-Feb. Singles on 5 dates from 1-14 Apr and on 27 May at Is-Simar. In autumn singles on 25 Sep and 6 Oct, then daily from 9 Oct till end of year, mostly in single or low double figures of up to 40, highest count of 1000 roosting at Valletta on 23 Nov.

Wren *Troglodytes troglodytes* Bumistur

1993: Singles at Għajn Żejtuna on 10 Jan and 24 Jan, and at Buskett on 14 Jan.

1994: 1 at Għadira on 22 Feb.

1995: 1 at Għadira on 14 Jan.

Hedge Accentor *Prunella modularis* Żiemel

1993: Up to 5 recorded daily in Jan to 21 Mar but 10 at Buskett on 13 Mar. Then in single or low double figures from 18 Oct till end of year, max 35+ at Għadira on 30 Oct.

1994: Up to 10 daily at various sites from Jan to 20 Mar, and single on 27 Mar. In autumn 2 on 17 Oct and then up to 10 daily from 19 Oct to end of year, but 20 at Għadira on 4 Nov.

1995: Wintering in single figures of up to 5 till 11 Mar, but 10 at Għadira on 7 Jan and at Buskett on 21 Jan and 4 Feb. In autumn 3 at Għadira on 2 Oct then on most days from 18 Oct till end of year, with up to 30 on several dates from Oct-Nov, mostly at Għadira. Lower numbers in Dec.

Rufous-tailed Scrub-robin *Cercotrichas galactotes* Rożinjol tax-Xaġhri

1993: 1 (western race) at Marsascalea on 24 Apr.

Robin *Eritachus rubecula* Pitirross

1993: Present at various localities in single or low double figures from Jan to 20 Apr, max 60 at Bingemma on 6 Feb and 50 at Buskett on 14 Jan and 13 Mar, at Is-Simar on 15 Jan and again at Bingemma on 13 Feb. Up to 4 (mostly 1-2) seen almost daily throughout summer from 5 May to end of Sep, mainly at Bingemma and Buskett. Then daily from Oct to Dec mostly in medium double figures from mid-Oct, with a peak from 29 Oct to mid-Nov, max 100-120 on 5 dates mostly at Għadira and Bingemma.

1994: Daily in single to low double figures (max.50) from Jan to 21 Mar. Single figures on most dates from end Mar to end Apr. 16 sightings from May-Jun, with highest of 4 at Buskett on 12 Jun, then on most dates throughout summer up to first week of Oct, mostly in single figures, max 7 on 13 Sep. Then daily in double figures with highest numbers from 17 Oct to 4 Nov, with 7 sightings of 80-150 mostly at Għadira and Buskett. Up to 50 regularly till end of year.

1995: Wintering in single or double figures of up to 65 mostly at wooded areas; then up to 6 on most dates from 3 Apr to 29 Sep, but 10 at Buskett on 2 Jun. Numbers increasing rapidly after first week of Oct, with counts of 100-150+ mostly at Għadira, Buskett and Għajn Żejtuna on 16 dates from 14 Oct to 16 Nov, but 150-250+ from 25-27 Oct. Double figures till end of year.

Rufous Nightingale *Luscinia megarhynchos* Rożinjol

1993: First on 15 Mar at Għadira then up to 15 regularly from 19 Mar to mid-May, with a late bird at Bingemma on 23 May. Autumn passage in low single figures of up to 5 almost daily from 22 Aug to 24 Oct from various localities, with late singles on 5 Nov, 22 Nov and 23 Nov at Għadira.

1994: Up to 10 almost daily at various sites from 21 Mar to 28 Apr, then on most days on Kemmuna till 14 May, but 30 at Manoel Island on 8 Apr. Then 1 on 8 Aug, 2 on 25 Aug and 3 on 28 Aug; then 1-3 on most dates from 8 Sep to 9 Oct.

1995: Singles on 18 Mar and 24 Mar, then almost daily from 29 Mar to 9 May, mostly 1-10 but 18-20 on Kemmuna from 12-13 Apr. 1-2 on most days at Buskett from 28 May to 2 Jul (where a pair attempted to breed twice) and 1 at Is-Simar on 15 Jul. In autumn 1-5 on most days from 1 Sep to 10 Oct.

Bluethroat *Luscinia svecica* Kudirross Blu

1993: Singles on 3 Mar and 7 Mar at Għadira and on 20 Mar and 27 Mar at Lunzjata, on 21 Sep and 3 Oct at Rabat, and on 13 Oct and 23 Dec at Għadira.

1994: 1 at Lunzjata on 27 Sep, then 3 sightings of singles in both Oct and Nov, mostly at Għadira. 1 at Is-Simar on 4 Dec.

1995: Singles on 1 Mar, 6 Mar, 22 Mar, 3 Apr, 16 Oct, 31 Oct, 5 Dec and 14 Dec. All sightings at Is-Simar and Għadira.

Black Redstart *Phoenicurus ochruros* Kudirross Iswed

1993: Up to 5 recorded at many sites from Jan to 21 Mar, with a late bird at Marsalforn on 15 Apr. 2 at Munxar on 16 Oct, then regularly in single figures from 26 Oct till end of year, max 7+ on 2 Dec at St Elmo.

1994: Wintering in low single figures from Jan to 20 Mar, then 1 on 26 Mar, max 12 at Ta' Ċenċ on 24 Feb and at Qammieħ on 12 Mar, otherwise up to 10. In autumn first on 18 Oct and almost daily thereafter in various localities with up to 10, but max 15 at Sliema on 4 Nov.

1995: Wintering in single to low double figures with up to 30 in Gozo, from Jan-Feb. Inflated numbers evident due to migration in Mar till 29 Mar. 1 at Buskett on 30 May. Singles from 14-15 May, then up to 5 daily from 21 Oct till end of year, but 10 at Lippija on 21 Dec.

Common Redstart *Phoenicurus phoenicurus* Kudirross

1993: 4 sightings of 1-2 from 13 to 20 Mar, then up to 6 almost daily from 2-24 Apr. In autumn first at Buskett on 22 Aug, then 3 scattered records of 1-2 in Sep, and up to 5 almost daily from 2 Oct to 7 Nov.

1994: On most days from 24 Mar to 14 May, mostly 1-5 but 6 on 23 Apr and 10 on 24 Apr, both on Kemmuna. 1 at Għadira on 21 May. Singles on 1 Sep, 10 Sep and 17 Sep; then 18 sightings of 1-3 from 23 Sep to 19 Oct. Late bird at Għadira on 17 Nov.

1995: Singles on 17 Mar and 24 Mar, then on most dates from 1 Apr to 12 May, mostly 1-7 but 10 on Kemmuna on 27 Apr and 8 May. 2 at Is-Simar on 25 Jun. 1 on 27 Aug, then 1-3 on 24 dates from 1 Sep to 16 Oct, with a late bird on 21 Oct.

Whinchat *Saxicola rubetra* Buċaq tas-Silla

1993: Singles on 27 Mar and 9 Apr, then daily from 13 in single or low double figures from 13 Apr to 15 May, but max.100+ and 50+ on Kemmuna on 11 May and 12 May respectively. In autumn singles on 8 scattered days from 24 Aug to 20 Oct.

1994: 10 sightings of 1-5 on 7 dates from 1-11 Apr, then up to 10 daily from 13 Apr to 15 May, but max 25 at Dwejra and 50 on Kemmuna on 24 Apr, and 30 on 25 Apr and 15 on 12 May, both also on Kemmuna. In autumn singles at Għadira on 1 Sep, at Is-Simar on 5 Sep and at Buskett on 24 Sep.

1995: 1 on 28 Mar, then up to 10 on most dates from 8 Apr to 12 May, with peak numbers from 24 Apr to 8 May with 15-25 on 7 dates, but max 80 on Kemmuna on 8 May. In autumn singles at Dwejra on 6 Sep, at Għadira on 21 Sep, and at Rabat on 8 Oct.

Common Stonechat *Saxicola torquata* Buċaqq tax-Xitwa

1993: Up to 10 daily at various sites from Jan to 21 Mar. In autumn in single or low double figures from 7 Oct till end of year, max 35+ at Għadira on 5 Nov.

1994: Up to 15 at various sites from Jan to 20 Mar; late bird on 1 Apr at Kennedy Grove. Then 1 at Għadira on 10 Sep and up to 15 daily from 8 Oct onwards, but 20-60 on several days in second half of Oct.

1995: Wintering in single figures of up to 10 from Jan to 19 Mar, with a few sighted till 28 Mar. Max 25 in Gozo on 26 Jan. Then up to 15 daily from 1 Oct till end of year, but up to 40 at Għadira on several dates in Oct.

Isabelline Wheatear *Oenanthe isabellina* Kuda Iżabellina

1994: Singles at Ta' Ċenċ on 24 Feb and at Dwejra from 21-22 Mar.

Northern Wheatear *Oenanthe oenanthe* Kuda

1993: First on 8 Mar then up to 10 in various localities on most days from 14 Mar to 10 May, but 15 at Qammieħ on 1 Apr and 8 Apr. Late birds at Sarraflu on 17 May and at Ta' Żuta on 17 Jun. Then singles on 5 Aug and 8 Aug and up to 10 in various localities almost daily from 18 Aug to 20 Oct.

1994: Singles at Haż-Żebbuġ on 14 Jan and 21 Jan. Then 7 sightings of 1-2 from 4-17 Mar and up to 15 almost daily from 19 Mar to 13 May, with highest numbers from end Mar to mid-Apr, max 25 at Ta' Ċenċ on 1-2 Apr, 40 at Kemmuna on 1 Apr, at Marsa on 5 Apr, and at Luqa on 11 Apr. Singles at Dwejra on 25 May and at Għajn Rihana on 7 Jun. In autumn, up to 6 on most days from 21 Aug to 7 Oct, and 1-3 on 4 scattered dates from 11-30 Oct.

1995: In single or low double figures (max 25) almost daily from 4 Mar to 12 May. Singles on 15 Aug and 19 Aug, then up to 8 on most dates from 23 Aug to 14 Oct, but 20 l/o Għadira on 21 Sep.

Black-eared Wheatear *Oenanthe hispanica* Kuda Dumnikana

1993: One on 19 Mar and 2 on 21 Mar. Then up to 4 on 13 dates from 1 Apr to 1 May. In autumn singles on 5 dates from 2-14 Sep.

1994: 1-2 from 19-20 Mar, from 1-2 Apr, and from 5 Apr to 14 May. In autumn, singles at Dwejra from 12-13 Sep, at Ta' Qali on 21 Sep and at Qawra on 24 Sep.

1995: 1 at Qammieħ on 1 Mar, then 12 sightings of 1-3 on 8 dates from 9-19 Apr, mostly on Kemmuna and Qammieħ, but 5 on Kemmuna on 17 Apr. In autumn 1 at Baħar iċ-Ċagħaq on 8 Sep and 2 at Dwejra on 3 Oct.

Rock Thrush *Monticola saxatilis* Ġanbublu

1993: Singles on Kemmuna on 31 Mar, at Bingemma on 8 Apr and at Dwejra on 9 Apr, again at Dwejra on 1 May and at Bingemma on 4 May, and at Għallis on 11 Sep.

1994: 1 at Nadur on 16 Mar, then 4 sightings in Apr: 2 at Qammieħ and 1 at Ramla Valley on 11 Apr, and singles on Kemmuna on 24 Apr and 30 Apr. Late bird at Dwejra on 4 Jun.

1995: 1 on 7 Apr at Qammieħ, 3 on 9 Apr and singles on 10 Apr and 12 Apr at Mellieħa, 2 on 18 Apr on Kemmuna and 1 on 24 Apr at Mosta.

Blue Rock Thrush *Monticola solitarius* Merill

1993: Breeding resident population recorded in all months mostly up to 5 birds in any one locality, but 10+ at Qammieħ in Mar and Apr and 8 on Kemmuna in Apr.

1994: Breeding at usual localities. 10-15 regularly seen at several sites in spring, but numbers decreasing from May till end of year, with highest of 10 at Għarb on 27 Aug, otherwise never more than 6 at any one site.

1995: Breeding resident at suitable areas. Up to 5 at a few sites, mostly at Qammieħ, Kemmuna and Gozo, max 8 at Qammieħ on some dates in spring and 10 in Gozo (4 sites) on 23 Mar.

Blackbird *Turdus merula* Malvizz Iswed

1993: 1-2 on 13 dates in Jan, on 4 scattered dates in Feb, and on 3 dates from 13-19 Mar, most records from Buskett. Then singles on 9 dates in various localities from 30 Oct to 20 Nov, but 2 at Ġnejna on 14 Nov. One on Kemmuna on 13 Dec.

1994: 5 sightings of singles from Jan to 24 Feb. 1 at Hamrun on 18 Jul. Singles on 2 Nov and almost daily from 17-30 Nov, mostly at Għadira. 8 sightings of singles in Dec but 2 at Għadira on 26 Dec and at Wied Speranza on 30 Dec.

1995: Singles at 4 sites on 13 dates from 2 Jan to 11 Feb, but 3 at Buskett on 4 Feb and 2 at Bingemma on 9 Feb. 1 at Wied Speranza on 7 Oct, then 8 sightings of 1-2 on 6 dates from 10-17 Nov, and 5 sightings of 1-2 on 4 dates in Dec, mostly at Buskett.

Fieldfare *Turdus pilaris* Malvizzun tal-Qtajja'

1993: In single or low double figures almost daily from 3-13 Feb, max 30 on 6 Feb and 15 on 13 Feb at Bingemma. 1 on 25 Mar also at Bingemma. Then 20 at Birkirkara on 16 Dec, 2 at Salina on 19 Dec and 1 at Mizieħ on 28 Dec.

1994: 5 at Dwejra on 21st and 4 at Rabat on 24 Nov. Then 10 at Lippija on 1 Dec.

1995: 1 at Dwejra on 20-21 Feb.

Song Thrush *Turdus philomelos* Malvizz

1993: Single or low double figures almost daily from Jan to 25 Mar (max 20 at Buskett on 9 Jan) and 1-2 on 7 dates from 31

Mar to 14 Apr. Singles at Buskett on 19 Jun and 26 Jun, and at Wied Żembaq almost daily from 31 Jul to 11 Aug. Then 1 at Rabat on 29 Sep and daily in single or medium double figures from 8 Oct till end of year, with a peak from 28 Oct to 1 Nov, max 500+ at Il-Qaws on 28 Oct, 2000+ in Gozo and 500+ again at Il-Qaws on 30 Oct, 200+ at Għadira on 31 Oct, and 70+ again at Għadira on 1 Nov.

1994: Up to 10 wintering at various sites from Jan-Mar but 15 at Buskett on 11 Mar when sightings increased due to return passage. Singles from 5-6 Apr at 2 sites, and from 16-17 Apr and from 25-29 Apr both on Kemmuna. 1 at Buskett seen on 5 dates from Jun-Aug. 1 at Għadira on 20 Sep, then daily from 9 Oct. Mostly in single to low double figures of up to 25 till mid-Nov but 35 at Dwejra on 19 Oct and 100 on Kemmuna on 30 Oct. In low single figures of up to 8 from mid-Nov to end of year, but 20 on Kemmuna on 9 Dec.

1995: Wintering in single figures of up to 10 at several sites from Jan-Feb, max 20 on Kemmuna on 20 Jan and at Buskett on several dates. Present throughout Mar, with an evident increase in numbers due to return passage, max 25 at Buskett. 6 sightings of singles from 3-13 Apr and 1 on Kemmuna on 4 May. 1 at Buskett on 16 Jul, then present almost daily from 7 Oct with up to 10 at most sites from mid-Oct to mid-Nov, max.50 at Il-Qaws on 14 Oct, and 20-30 on 3 dates from 25 Oct to 11 Nov. 20 on Kemmuna on 17 Nov, otherwise 1-5 from mid-Nov to end Dec.

Redwing *Turdus iliacus* Malvizz Ahmar

1993: Up to 3 on 9 scattered dates from 9 Jan to 18 Feb, mostly at Buskett.

1994: 1-3 at Buskett on 3 dates from 17 Feb to 4 Mar. Then 1 at Rabat on 12 Nov and at Lunzjata on 20 Nov, 1 at Għadira on 5 Dec, 2 at Lunzjata on 7 Dec and 1 on Kemmuna on 9 Dec.

1995: 1-5 on 6 dates from 2-20 Feb, then 3 on 14 Mar and 10 on 16 Mar, all at Buskett. Then singles at San Ġwann on 6 Dec and at Marsa on 28 Dec.

Mistle Thrush *Turdus viscivorus* Malvizzun Prim

1993: Singles at Buskett on 7 Feb, at Manikata on 13 Feb and at Qammieħ on 26 Feb.

Cetti's Warbler *Cettia cetti* Bagħal ta' I-Għolliq

1993: Breeding resident with up to 5 at various suitable locations, but up to 10 at Buskett.

1994: Breeding resident in low single figures in suitable areas, but up to 10 at Għadira on several days in Jun and up to 8 at Wied il-Luq in first half of year.

1995: Breeding resident with up to 4 at suitably covered areas, but up to 10 at Wied il-Luq from Jan-Jun, and 5 at Għadira during summer.

Zitting Cisticola *Cisticola juncidis* Bagħal ta' I-Imrewħa

1993: Widespread and breeding. In single or low double figures at various sites, max.35 at Wied L-Arkata and 30 at Għajn Rihana on 15 Jul, 30 at Ramla Valley on 18 Jul and 40 at Marsalforn Valley on 23 Jul.

1994: Resident and breeding commonly on the two main islands, with 10-20 at several sites in spring and early summer, increasing to 25 in late summer/early autumn, max 50 at Wied Qlejgħa on 3 Jun. Lower numbers in Jan and Nov-Dec. 1-2 seen on Kemmuna on 5 dates between end Mar and mid-May, but breeding not recorded.

1995: Resident and breeding commonly at suitable areas in Malta and Gozo. Up to 5 from Jan-Feb and in Dec; otherwise 10-20 at any one site, numbers increasing to 40 in summer mostly at suitable roosting areas like Is-Simar and Salina in Malta, and at Ramla Valley, where up to 50 present on 2 Jul.

Savi's Warbler *Locustella luscinioides* Bagħal Ahmar

1993: Singles at Għadira on 26 Mar, 29 Mar, from 1-4 Nov and on 7 Nov.

1994: 1 at Wied Qlejgħa on 21 Aug.

Moustached Warbler *Acrocephalus melanopogon* Bagħal Qastni

1993: 1-2 at Għadira from 2-10 Nov and 1 at Salina on 18 Dec.

1994: Singles at Rabat on 26 Nov and at Is-Simar on 15 Dec.

1995: Singles at Għadira from 30 Oct to 1 Nov and at Is-Simar on 6 dates from 6 Nov to 27 Dec.

Sedge Warbler *Acrocephalus schoenobaenus* Bagħal tas-Simar

1993: Singles on 13 Mar, 20 Mar and 31 Mar; then in single or low double figures almost daily from 4 Apr to 15 May (max 15+ on 7 May and 25+ on 8 May at Għadira), and 2 at Għadira on 19 May and 25 May. Singles at Lunzjata on 15 Aug and 27 Aug.

1994: 1 on 5 Mar; then up to 5 almost daily from 15 Mar to 30 May, but 8 at Rabat on 24 Apr. In autumn, singles at Lunzjata on 5 Sep and at Għadira from 27-28 Sep; and 3 records from 14-20 Oct, max 5 at Lunzjata on 16 Oct.

1995: 1 at Għadira on 4 Mar; then 1-3 on most days from 31 Mar to 12 May, but 6 at Għadira on 27 Apr and 10 on Kemuna on 9 May. In autumn, 1-3 on most days from 3 Sep to 30 Oct, mostly in Oct, but 5 at Is-Simar on 15 Oct.

Paddyfield Warbler *Acrocephalus agricola* Bagħal tas-Saqwi

1994: 1 at Lunzjata on 27 Sep (second record for Malta).

Marsh Warbler *Acrocephalus palustris* Bagħal ta' I-Għadajjar

1993: 1 at Lunzjata on 2 Sep.

1994: 2 at Wied il-Kappuccini on 27 Mar, and 1 at Lunzjata on 27 Sep.

Reed Warbler *Acrocephalus scirpaceus* Baghal tal-Qasab

1993: Singles on 16 Apr and 27 Apr, and up to 2 on 9 dates from 2-15 May. 1 on 24 Jul and then in single figures almost daily from 12 Aug to 23 September, max 10 at Wied Qlejgha and at Lunzjata on 14 Aug and 12 September respectively.

1994: Singles on 7 scattered dates from 2 Apr to 31 May, with a late bird at Għadira on 6 Jun. In autumn first on 7 Aug, then up to 5 on most days from 15 Aug to 16 Oct, mostly in Sep, but 12 at Lunzjata on 5 Sep. Late birds at Għadira on 24 Oct and 3 Nov.

1995: Singles on 6 dates from 2 Apr to 16 May, and another at Wied il-Luq on 5 Jun. Present at Salina from 27 May and at Is-Simar from 10 Jun, with at least 1 pair breeding successfully at each site. 1-2 present at 3 other sites from mid-Jun to mid-Aug. 1-5 on most days in autumn from 1 Sep to 8 Oct and a late bird at Is-Simar on 29 Oct.

Great Reed Warbler *Acrocephalus arundinaceus* Baghal Prim

1993: In low single figures almost daily from 3 Apr to 15 May, max 5 (3 at Ramla Valley and 2 at Għadira) on last date. Then singles on 9 scattered dates from 11 Aug to 6 Sep, and on 30 Sep, 23 Oct and 22 Nov.

1994: 32 sightings of 1-2 from 7 Apr and 26 May, most in end Apr, but 3 on Kemmuna on 29 Apr and 4 at Għadira on 12 May. 11 singles in autumn from 21 Aug to 28 Oct.

1995: 2 at Lunzjata on 1 Apr, then 1-2 almost daily from 9-27 Apr and from 2-9 May, with singles at Salina on 21 May and at Għadira on 25 May, but 3 at Għadira from 12-13 Apr and on 19 Apr. In autumn 1 at Is-Simar on 3 Sep, then 1-2 on most dates from 16 Sep to 2 Nov, but 5 at Lunzjata on 14 Oct.

Olivaceous Warbler *Hippolais pallida* Bekkafik Griż

1993: Single males at Rabat on 22 May and at Buskett on 5 June.

1994: Singles on Kemmuna on 9 May and at Għadira on 1 Jun.

Icterine Warbler *Hippolais icterina* Bekkafik Isfar

1993: In single figures daily from 27 Apr to 19 May, but a peak from 12-15 May with max 100+ on Kemmuna on 14 May. Singles on 7 scattered dates from 7 Aug to 26 Sep.

1994: Up to 10 almost daily from 24 Apr to 21 May, but 20-30 on 3 dates on Kemmuna from 9-13 May. Singles at Wied il-Luq on 21 Aug and 28 Aug, and at 2 other sites on 21-22 Sep.

1995: 2-3 on Kemmuna on 25 Apr and 27 Apr, then up to 10 daily from 29 Apr to 21 May, but 20-60 on Kemmuna from 8-12 May. 1 at Wied il-Luq on 14 Jun. Singles at Dwejra and Għadira on 24 Aug and 26 Aug respectively, then 9 sightings of singles from 28 Sep to 12 Oct.

Marmora's Warbler *Sylvia sarda* Bufula Griza

1994: Singles at Qammieħ on 4 dates from 5-29 Jan, at Delimara on 28 Feb, and again at Qammieħ on 2 Mar.

1995: 1 at Mistra on 5 Feb.

Dartford Warbler *Sylvia undata* Bufula tax-Xaghri

1993: Single male at Qortin tan-Nadur on 21 Feb.

1994: Singles at Qammieħ on 5 Jan, at Salina on 6 Jan, and again at Qammieħ on 7 Jan.

1995: 1 at Għadira on 16 Mar and 20 Mar.

Spectacled Warbler *Sylvia conspicillata* Bufula Hamra

1993: Present and breeding in small numbers in several places throughout the year, max 8 at Sarraflu on 17 May.

1994: Resident and breeding. In low single figures at various sites with up to 3 pairs at any one site, but 8 at Wied Baqqija in Mar and 10 at Ta' Ċenċ in Apr.

1995: Localized breeding resident, with a wider distribution in Gozo. Max 6 at Iċ-Ċumnija in Apr, and 20 on 10 Feb along coast from Marsalforn to Dwejra. 1 on several dates from Mar to Jun on Kemmuna, and 2 on Kemmunett on 20 May. Lower numbers from late summer onwards.

Subalpine Warbler *Sylvia cantillans* Bufula Passajra

1993: In single or low double figures (max 25 on Kemmuna 12 Apr) daily from 21 Mar to 27 April, with an influx of 100+ on Kemmuna on 9 Apr, and almost daily in single figures from 1-16 May with a late bird at Bingemma on 22 May. Autumn passage, first on 8 Jul, then almost daily in single or low double figures from 18 Jul to 1 Oct, max 30+ at Buskett on 15 Aug and 22 Aug.

1994: Up to 8 on most days in spring from 7 Mar to 14 May (daily from 20 Mar to 3 Apr and from 16-26 Apr), but 10 at Għadira on 21 Apr, and 15 on Kemmuna on 24 Apr. Autumn passage in single or low double figures almost daily from 12 Jul to 11 Oct, max 20 on a few dates in second half of Aug.

1995: Singles from 3-4 Mar, then up to 15 almost daily from 15 Mar to 2 May, but 25 on Kemmuna on 12 Apr. Singles on Kemmuna on 8 May and 14 May. Autumn passage from 21 Jul, with 1-10 on most dates till 7 Oct.

Sardinian Warbler *Sylvia melanocephala* Bufula Sewda

1993: Common and breeding in usual numbers. Reported in single or low double figures from many localities throughout the year, max 25 on Kemmuna and Buskett in April, and 30 at Buskett in June.

1994: Resident and breeding commonly on the three main islands. Generally in single to low double figures but higher numbers in spring and summer when up to 40 on Kemmuna and 50 at Buskett.

1995: Common and widespread breeding resident on the three main islands, usually in single or low double figures for many localities.

Lesser Whitethroat *Sylvia curruca* Bekkafik Irmiedi

1994: 1 at Għadira on 7 Nov.

1995: Singles at Għadira on 13 Oct and 26 Oct.

Common Whitethroat *Sylvia communis* Bekkafik Ahmar

1993: 10 on Manoel Island on 26 Mar, 1 on 3 Apr and then daily from 8 Apr to 19 May in single and low double figures, but influxes on Kemmuna of 40-50 on 5 dates from 14 Apr to 11 May, and max 100+ on 12 May. Late bird at Ras il-Waħx on 7 Jun and 1 autumn record on 12 Sep at Dwejra.

1994: 1 on Kemmuna on 30 Mar. Up to 15 on most days from 5 Apr to 24 May (daily from 12 Apr), but 25 on 18 Apr and 20 on 13 May, both on Kemmuna. 3 singles in autumn: at Għadira on 23 Aug, at Is-Simar on 27 Aug and at Buskett on 13 Sep.

1995: Singles on 1 Apr. Single or low double figures on most days from 6 Apr to 17 May, but 30-50 on 23 Apr, 25 Apr and 30 Apr, all on Kemmuna. 40 at Dwejra on 8 May and 50-80 on Kemmuna from 8-9 May. In autumn, 1 at Is-Simar on 5 Oct.

Garden Warbler *Sylvia borin* Bekkafik

1993: In single or low double figures from 12 Apr to 31 May, but influxes of 50-100 on several days from 10-15 May, mostly on Kemmuna. 1 on 6 Aug then in single or low double figures almost daily from 14 Aug to 9 Nov, max 20 at Buskett/Wied il-Luq on 21-22 Aug and at Bingemma on 28 Aug, and 30 again at Bingemma on 3 Oct and 7 Oct.

1994: In single or low double figures daily from 14 Apr to 27 May, and 4 sightings from 30 May to 8 Jun, but max 40-50 on 5 dates from 6-21 May, mostly on Kemmuna. 1 on 7 Aug, 1-3 on most dates from 14 Aug to 1 Sep, then almost daily from 5 Sep to 20 Oct, mostly in single figures but up to 20 in mid-Sep.

1995: In single or double figures of up to 40 on most days in spring from 8 Apr to 30 May (daily from 14 Apr to 21 May), but 50-70 on Kemmuna on 8-12 May. Up to 20 on most days from 1 Sep to 13 Oct, with 5 at Għajn Żejtuna on 25 Oct. An exceptionally late bird at Rabat on 28 Dec.

Blackcap *Sylvia atricapilla* Kapinera

1993: In single or double figures on most days from Jan to 17 Apr, max 100+ at Buskett on 4 Feb, and 50+ at Bingemma on 6 Feb and 23 Feb. Singles on 23 Apr and 9 May. Then in single figures on most days from 4 Sep till end of year.

1994: Up to 30 on most dates from Jan-Mar but 4 sightings of 45-80 throughout these months, all at Buskett. 14 sightings of 1-3 in Apr, then singles on Kemmuna in 5 May and at Buskett on 26 Jun. In autumn, 1-2 at 2 sites on 29 Sep, then almost daily from 5 Oct till end of year in low single figures of up to 10.

1995: On 5 dates till mid-Jan, then on most dates till mid-Apr, mostly in double figures of up to 50, but 100-400 on 11 dates from 2 Feb to 16 Mar (mostly in Feb), all at Buskett. Singles at Għadira and Kemmuna from 25-29 Apr and at Wied il-Luq on 28 May. 1 at Dwejra on 30 Sep, then almost daily from 8 Oct till end of year, mostly 1-10, but 30 at Buskett on 21 Dec.

Yellow-browed Warbler *Phylloscopus inornatus* Vjolin tal-Faxx

1993: 1 at Għadira on 15 Oct.

Dusky Warbler *Phylloscopus fuscatus* Vjolin Skur

1994: 1 at Għadira on 20 Oct and 27 Oct - first record for Malta.

Eastern/Western Bonelli's Warbler *Phylloscopus orientalis/bonelli* Vjolin Bajdani

1993: Singles on 15 Apr at Lunzjata and on Comino from 14-15 May.

1994: 14 records of 1-4 on 11 dates from 28 Mar to 16 Apr, mostly at Għadira.

1995: 2 at Salina on 3 Apr, then singles on 4 dates from 10-29 Apr, all at Għadira.

Wood Warbler *Phylloscopus sibilatrix* Vjolin Hadrani

1993: 5 at Għadira on 18 Mar then daily in single to medium double figures from 30 Mar to 19 May, max 50+ on Kemmuna on 5 May and at Għadira and at Manoel Island on 13 May. 1 at Għadira on 24 May. Then 2 at Buskett on 15 Aug, 1 at Għadira on 24 Aug and 1-3 on most days from 4 Sep to 31 Oct.

1994: In single or low double figures almost daily from 23 Mar to 21 May, but 9 sightings of 25-120 at Għadira with highest on 28 Apr and 5 sightings of 25-40 on Kemmuna from 23 Apr to 2 May. In autumn, 3 at Buskett on 2 Sep, then 11 sightings of 1-2 from 15 Sep to 22 Oct.

1995: 1 on 31 Mar, then daily from 5 Apr to 14 May, with late singles on 16 May and 20 May, mostly in low double figures of up to 30, but 40-70 from 10-19 Apr and 40 on 2 May, all at Għadira. In autumn, singles at Għadira on 1 Sep and 15 Sep, then 1-6 on most dates from 21 Sep to 27 Oct.

Common Chiffchaff *Phylloscopus collybita* Vjolin tax-Xitwa

1993: In single or low double figures daily from Jan to 14 Apr, max 50 at Għadira on 26 Feb. 1 at Buskett on 3 Jul. Then in single or low double figures of up to 40 from 18 Oct till end of year, but 200+ in Gozo on 27 Nov and 60 at Lunzjata on 17 Dec.

1994: Up to 20 wintering from Jan-Mar at several sites, but up to 40 at Għadira by end Feb and 50 at Lunzjata on 30 Jan. Singles at Għadira on 13 Apr and at various sites from 7-13 May. Then almost daily in single or low double figures from 7 Oct till end of year, with max 50 at Wied Qlejgħa on 14 Nov and 30 at Lunzjata on 7 Dec.

1995: In double figures of up to 50 from Jan-Mar at any one site, but 300 at Lunzjata on 31 Jan. Up to 30 in Apr till 13 Apr, mostly at Għadira, with late singles on Kemmuna on 25 Apr and on Manoel Island on 9 May. In low single figures from 14-24 Oct, then daily till end of year with numbers reaching a peak of 60 at Għadira by mid-Nov, otherwise up to 50.

Willow Warbler *Phylloscopus trochilus* Vjolin Pastard

1993: 1 on 6 Mar and in single or very low double figures from 15 Mar to 15 May, max 20+ on Kemmuna on 16 Apr. 1 on 8 Aug and then in single figures on most days from 22 Aug to 4 Nov, but 12 at Ghadira on 1 Oct and 2 Oct.

1994: In single or low double figures of up to 20 on most dates from 13 Mar to 11 May, but 25-30 on 3 dates at Ghadira and 30-40 on 2 dates on Kemmuna from 11-24 Apr. Singles at Dwejra on 29 May and at Buskett on 8 Aug. Then in single figures of up to 10 almost daily from 15 Aug to 22 Oct. Late bird at Ghadira on 8 Nov.

1995: In single or low double figures of up to 30 daily from 3 Mar to 12 May. In autumn, singles on 21 Aug and 26-27 Aug, then on most days from 1 Sep to 31 Oct, mostly in single figures of up to 5, but 15 at Ghadira from 12-13 Oct and 10 at another two sites on 14-15 Oct.

Goldcrest *Regulus regulus* Bufula tal-Qamar

1993: Up to 8 on most days at various localities from Jan till end of Mar. Then singles on 5 dates (6 sites) from 30 Oct to 17 Nov.

1994: 2 at Dwejra on 22 Jan, and singles at Buskett on 24 Jan and at Ghadira on 25 Jan. In autumn, 2 at Ghadira on 24 Nov and 5 at Rabat on 27 Nov.

1995: 1-2 at Buskett on 2 Feb and 4 Feb, at Ghadira on 22 Feb, and at Dwejra on 11 Mar. 2 at Qawra on 29 Oct, and singles at Ghadira on 8 dates from 25 Oct to 1 Dec. 1-3 at Dwejra on 24 Oct and on 3 dates from 13-21 Dec.

Firecrest *Regulus ignicapillus* Bufula tat-Toppu Ahmar

1993: Up to 5 on 11 dates from Jan to 11 Feb, and up to 3 on 5 dates from 5-18 Mar. Then singles on 6 dates from 18 Oct to 4 Nov, all but one at Ghadira.

1994: Singles at Lunzjata on 12 Feb and at Ghadira on 8 Mar. In autumn, 4 single sightings from 24-27 Oct, another 4 single sightings in Nov, and 1 on 26 Dec at Buskett.

1995: Singles at Ghadira on 7 Jan and at Buskett on 21 Feb. Then singles at Ghadira on 14 Oct and at Ghajn Zejtuna on 25 Oct. 1-2 at Ghadira from 10-11 Nov and 1 at Is-Simar on 15 Nov.

Gold/Firecrest *Regulus* sp.

1993: In single figures on 9 dates from 3-24 Jan, but 15+ at Buskett on 14 Jan, 1-2 on 5 scattered days from 7-24 Feb, and up to 5 almost daily from 13-31 Mar, but 10+ at Buskett on 14 Mar. Then 1-2 on 11 scattered dates from 9 Nov till end of year, but 10+ at Lunzjata on 20 Nov and at Addolorata Cemetery on 21 Nov.

1994: 14 sightings of up to 5 from Jan to 15 Mar. Then 9 sightings of 1-3 from 29 Oct to 10 Dec, but 6 at Addolorata Cemetery on 6 Nov.

1995: 16 sightings from 6 Jan to 9 Mar, mostly 1-2 but 4 at Rabat on 8 Jan. In autumn, 11 sightings from 24 Oct to 24 Dec, all in singles except for 3 at Dwejra on 3 Dec and 5 at Rabat on 8 Dec.

Spotted Flycatcher *Muscicapa striata* Żanzarell tat-Tikki

1993: In single or low double figures from 25 Apr to 26 May, but max 40 on 1 May at Dwejra, and 40-50 on Kemmuna on 11-13 May. 1 at Bingemma on 31 May and 19 June, and present at Buskett, where breeding was confirmed, in June to 23 Aug, max. 13 on 20-21 Jun. 1 at Dwejra on 23 Aug then 1-2 on 10 dates from 1-26 Sep and on 6 scattered dates from 2-26 Oct.

1994: In single or low double figures almost daily from 20 Apr to 27 May, but 25 at Ghadira on 27 Apr, 25-40 on Kemmuna on 5 dates from 27 Apr to 12 May, and 35 at Dwejra on 8 May. 1 at Ghallis on 7 Jun. 3 breeding pairs at Buskett in Jun-Aug, max. 11 birds on 5 Jul. In autumn, 1-3 on 12 dates from 30 Aug to 16 Oct, but 7 at Buskett on 16 Sep. Latest, 2 at Addolorata Cemetery on 6 Nov.

1995: 1-2 on 21 Apr and 23 Apr, then on most days from 27 Apr to 7 Jun, mostly up to 20 but 40 on 30 Apr and 30 on 8 May both on Kemmuna. Breeding at Addolorata Cemetery (1 pair) and at Buskett, where up to 16 present during Jul. Singles at Ghadira on 25 Jun and at Dwejra on 19 Aug, then 1-6 on most days from 2 Sep to 16 Oct. Latest, 1 at Is-Simar on 25 Oct.

Red-breasted Flycatcher *Ficedula parva* Żanzarell Sidru Ahmar

1993: Singles at Targa Gap on 12 Sep, at Rabat on 9 Oct and 14 Oct, and at Ghadira on 20 Oct.

1994: 3 singles in spring: on Kemmuna on 26 Apr, at Ghadira on 27 Apr and again on Kemmuna on 28 Apr. In autumn 1 at Ghadira on 26 Sep and 14 Nov.

1995: Singles on 25 Sep and on 5 dates from 7-26 Oct, all at Ghadira.

Semi-collared Flycatcher *Ficedula semitorquata* Żanzarell tal-Lvant

1993: 1 at Buskett on 3 May.

1995: 1 on Kemmuna on 1 May.

Collared Flycatcher *Ficedula albicollis* Żanzarell tal-Kullar

1993: 1-2 on 13 days from 8 Apr to 8 May.

1994: 1 at Ghadira on 25 Mar, then 13 sightings of 1-2 from 23 Apr to 6 May, mostly on Kemmuna.

1995: 21 sightings of singles on 15 dates from 6 Apr to 11 May, mostly at Buskett, Dwejra and Kemmuna.

Pied Flycatcher *Ficedula hypoleuca* Żanzarell Iswed

1993: Singles on 3 dates from 31 Mar to 9 Apr, then daily in single or low double figures from 12 Apr to 19 May, max 30 at Bingemma on 30 Apr and 1 May. Only one record in autumn: single at Lunzjata on 12 Sep.

1994: Up to 10 on most days from 2 Apr to 14 May, with most sightings in second half of Apr, but 20-30 on 3 dates on Kemmuna from 24 Apr to 3 May. Singles at Ghadira on 9 Sep and at Salina on 23 Sep.

1995: 1 at Xaghra on 28 Mar, then in single figures daily from 6 Apr to 8 May, but 15-20 from 16-17 Apr and 20 on 30 Apr at Kemmuna. 2 at Salina on 14 May and 1 at Buskett on 11 Jun. 1 at Għadira on 28 Aug.

Penduline Tit *Remiz pendulinus* Pendulin

1993: 2 at Lunzjata on 10 Jan, at Għadira on 30 Jan, and at Is-Simar on 31 Jan. 1-3 at Għadira on 13 dates from 19 Feb to 20 Mar, but 6 on 2 Mar. 1 at Lunzjata on 16 Mar.

1994: 2 at Għadira on 5 Jan.

1995: 2 at Għadira on 26 Oct.

Golden Oriole *Oriolus oriolus* Tajra Safra

1993: 1 on 5 Apr, then in single figures on most days from 18 Apr to 13 Jun, and singles at Buskett on 5 dates from 20 Jun to 11 July. In autumn singles on 7 scattered dates from 31 Aug to 2 Oct.

1994: 2 at Wied iż-Żurriq on 5 Apr, then in single figures almost daily from 22 Apr to 30 May, but 20 on Kemmuna on 27 Apr, and 12 on 29 Apr and 15 on 7 May, both at Buskett. Singles at Buskett on 4 dates from 5 Jun to 3 Jul, and on 8 dates from 28 Aug to 21 Sep.

1995: 1-3 almost daily from 14 Apr to 30 May, but 7 at San Anton Gardens on 7 May. 7 sightings of 1-2 in autumn from 2-12 Sep, mostly at Buskett.

Red-backed Shrike *Lanius collurio* Kaċċamendula Hamra

1993: Singles on Kemmuna on 9 May and 14 May and at Għadira on 20 May, and at Buskett on 11 Jul. Then 1-2 on 5 scattered dates from 1-26 Sep.

1994: Singles on Kemmuna on 10 May and at Dwejra on 22 May, and at Buskett on 8 Jun.

1995: 1 on Kemmuna on 6 May, then 7 sightings of singles from 28 May to 25 Jun at Dwejra, and Għadira, and 1 at Is-Simar on 1 Oct.

Great Grey Shrike *Lanius excubitor* Kaċċamendula Griża Prima

1995: 1 at Manoel Island on 11 May.

'Grey Shrike' sp. *Lanius* sp.

1994: Singles at L-Ahrax on 27 Mar and at Buskett on 6 Sep.

Woodchat Shrike *Lanius senator* Kaċċamendula

1993: In single figures almost daily from 28 Mar to 21 May, with many records from Kemmuna, max 8 on 1 May. Female at Fiddien on 13 Jun and up to 6 at Dwejra from 26 Jul to 3 Aug. Then up to 4 almost daily at various localities from 12 Aug to 3 Sep, and singles on 12-13 Aug at Nadur (Malta).

1994: Up to 6 on most days from 1 Apr to 26 May, mostly in mid-late Apr, but 20 on 24 Apr and 10 on 25 Apr on Kemmuna. 1 at Qammieħ on 4 Jun. Breeding pair at Dwejra present throughout Jun-Aug, with 5 juveniles seen on 17 Jul. Juvenile at Wied Qlejgħa on 21 Aug and 2 at Buskett on 8 Sep.

1995: In single figures almost daily from 31 Mar to 15 May, and 1 on 21 May, but 10-15 on 19-20 Apr and 7 on 8 May, most records from Kemmuna. Pair breeding at Dwejra present during Jun-Aug. Singles at Is-Simar (juvenile) on 15 Jul, at Għajjn Rihana on 14 Aug and on 7-8 Sep at Dwejra.

Common Starling *Sturnus vulgaris* Sturnell

1993: Single to medium treble figures on most days Jan to 19 Mar, but 1500+ counted roosting at Valletta on 30 Jan. Then up to 4 on 20 dates from 22 Mar to 11 May, mostly on Kemmuna, where at least 1 pair breeding, and 1 there on 1 Jun. Up to 5 on 10 dates from 3-23 Aug mostly at Marsa and 2 at Floriana on 15 Sep. Then daily up to medium treble figures from 28 Sep till end of year, but ca.1350 roosting at Birkirkara on 30 Oct, and 2000+ on Kemmuna on 14 Nov and 3000+ at Għallis on 27 Nov.

1994: In double to medium treble figures in Jan-Mar, but 3000 roosting at Valletta on 29 Jan. Lower numbers in Mar. Daily in single figures in Apr-Jul at various sites. Breeding confirmed on Kemmuna, at Floriana (3 juveniles seen on 15 Jun) and at Buskett (2 juveniles plus 2 adults seen on 3 Jul). 2 on Kemmuna on 8 Sep, 6 sightings of 1-5 from 20-29 Sep, then daily from 1 Oct, mostly in single to treble figures of up to 500, but flocks of 1000-5000 in late Oct/early Nov, with up to 1000 at roost sites till end of year.

1995: Wintering in double to treble figures of up to 300 in Jan-Mar till 14 Mar, but 800 at Għadira on 8 Jan and 7000-10,000 (1 flock) over Gozo Channel on 10 Feb. Up to 11 present on Kemmuna on most days from 18 Mar to 31 May. 1-3 at various localities throughout summer, mostly 1-3 but up to 6 at Marsa from Aug-Sep. Then winter visitors from 22 Sep onwards; with up to 1000 on several days from Oct-Dec, but 1500 at Is-Simar on 26 Oct and 4000 on Kemmuna on 17 Nov.

Spanish Sparrow *Passer hispaniolensis* Għammiel tal-Bejt

1993-95: Abundant and breeding resident on the 3 main islands.

Tree Sparrow *Passer montanus* Għammiel tas-Siġar

1993: Breeding in usual numbers, max 50+ at Rabat in August. Up to 10 in many localities outside the breeding season.

1994: Resident and breeding at usual sites. Up to 15 at various sites in Jan-Jun; higher numbers in second half of year with up to 40 in Aug at Wied Qlejgħa, and 40 at Għadira on 31 Oct.

1995: In single figures at various sites, but 20 at Buskett on 9 Sep and at Tal-Virtù on 25 Oct, and 50 at Rabat on 8 Dec.

Common Chaffinch *Fringilla coelebs* Sponsun

1993: In single figures on most days from Jan-Mar, but 15 at Valletta on 30 Jan and at Bingemma on 6 Feb and 20+ at Buskett from 13-14 Mar. 1-3 almost daily mainly at Għadira and Buskett from Apr-Aug, and singles on 6 scattered dates from 12-27 Sep. Then again almost daily in single or up to medium double figures from 5 Oct till end of year, max 90 at Dwejra, 50 at Xagħra and 40 at Buskett all on 30 Oct and 50 at Għadira on 16 Nov.

1994: In single to low double figures of up to 15 from Jan-Mar but 30 at Għadira on 18 Mar. In single figures at various sites on most dates from 17 Apr to end of Sep, mostly at Buskett and Għadira. 1 on 3 Oct, then almost daily from 9 Oct. In single figures on most dates but 15-20 on 3 dates from 24-29 Oct and 30 at Mtaħleb on 20 Nov.

1995: In single to low double figures of up to 23 from Jan-Feb, with lower numbers from Mar to mid-Oct (only 20 sightings from 8 Jul to 14 Oct), mostly 1-3 but 5 at Wied il-Luq on 25 Jun. On most dates from mid-Oct to end of Dec, mostly in single to low double figures of up to 30 but 50 at Għar Lapsi on 5 Nov, 100 at Buskett on 12 Nov and 60 at Pietà on 13 Nov.

European Serin *Serinus serinus* Apparell

1993: In single or low double figures almost daily from Jan to 6 Apr, max 30+ at Munxar on 5 Jan. Then up to 4 on scattered dates throughout May to 12 Sep, most at Għadira and Buskett, where a female handled for ringing had a brood patch. 1-2 at Buskett from 6-11 Oct, then up to 3 almost daily from 28 Oct till end of year.

1994: 1-3 from Jan-Mar at various sites on regular dates. Singles at Rabat on 16 Apr and at Għadira on 20 Apr, on 4 dates in second half of Jun, and on 16 Jul at Buskett and at Għadira on 23 Jul. In autumn, 1-2 almost daily from 2-9 Nov, then 5 sightings of 1-2 from 22 Nov to 10 Dec. Single at Is-Simar on 26 Dec and a good passage reported from Mellieħa area on same date.

1995: On most dates in Jan-Feb, mostly in single to low double figures of up to 25, but 60 at Buskett on 18 Jan and on 2 Feb. 1-2 on 6 dates in Mar, all at Għadira, and 20 sightings of 1-2 from 12 Apr to 25 Sep, mostly at Buskett and Għadira. 15 sightings from 23 Oct to 31 Dec, mostly 1-2 at Għadira, but 5 at Marsa on 28 Dec.

Greenfinch *Carduelis chloris* Verdun

1993: In single or low double figures almost daily in Jan to 25 Apr, but max 50+ on Kemmuna on 17 Jan and 42 at Argotti on 4 Feb, and an exceptional passage (500+) at Munxar on 5 Jan. Singles on 4 dates from 6-23 May, on 17 June, and 1-2 almost daily from 11 Jul to 4 Aug mostly at Għadira. Two sightings of singles on 14 Aug and 1-2 on 7 scattered dates from 1 Sep to 5 Oct, but 6 at Nadur (Malta) on 19 Sep. Then in single or low double figures almost daily from 16 Oct till end of year, max.20 at Xagħra and 10 at Buskett on 30 Oct.

1994: Up to 5 in Jan-Mar but 20 on 16 Feb at Floriana and 50 at Dwejra on 26 Feb. 1-4 from 1-9 Apr, but 20 at Santa Luċija on 3 Apr, then 1-2 almost daily from 17 Apr to 30 May, but 8 at Buskett on 29 Apr and 5 again there on 7 May. 1-3 from mid-Jun to mid-Oct, mostly at Għadira and Buskett. Migrating birds evident from late Oct when 20 at Qawra on 25 Oct, 5 at Għajnsielem on 29 Oct and on Kemmuna on 30 Oct. Lower numbers of up to 3 in Nov-Dec.

1995: 23 sightings of 1-3 from 1 Jan to 28 Mar, but 9 at Pietà on 9 Feb and 5 at Buskett on 24 Mar. 9 to 16 sightings of 1-2 each month from Apr to Jul, mostly in May, but 5 at Manoel Island on 5 Apr and 4-5 at Addolorata Cemetery on 10-11 Jul, where a pair raised 3 young. 6 sightings of singles from 2 Aug to 23 Sep, mostly at Għadira and Buskett, and 21 sightings of 1-4 from 13 Oct to 13 Dec.

Goldfinch *Carduelis carduelis* Gardell

1993: 2 at Mtarfa on 16 Jan then singles on 10 Feb, from 25-26 Mar, on 7 Apr, on 4 dates from 18-26 May, on 4 Sep, and on 3 Dec. 4 at Għallis on 27 Nov.

1994: 10 sightings from Jan-Mar, mostly 1-2, but 4 at Dwejra on 1 Jan and 15 at Marsa on 3 Mar. Singles on Kemmuna on 18 Apr and at Rabat from 7-8 May. Then 8 sightings of singles in 1-16 Nov, but 6 at Qawra on 1 Nov and 2 at Addolorata Cemetery on 6 Nov.

1995: 1 in Gozo on 26 Jan, then up to 13 on 4 dates from 11 Feb to 8 Apr, all at Qammieħ. 2 on Kemmuna on 8 Apr and 1 at Għadira on 12 Jun. In autumn, singles at Mqabba on 18 Oct and at Birkirkara on 21 Oct, at Pietà on 2 Nov and at Għadira on 2 Dec.

Siskin *Carduelis spinus* Ekru

1993: 19 on Kemmuna on 17 Jan, and singles at Buskett on 7 Feb, and at Għadira on 15 Mar, 19 Mar, 20 May and 10 Jun. Then singles on 6 scattered dates from 7 Oct to 10 Dec.

1994: Singles at Buskett on 24 Jan, at Għadira on 8 Jul, at Targa Gap on 1 Nov and at Għadira on 11 Nov.

Linnet *Carduelis cannabina* Ġojjin

1993: In single or low double figures of up to 40 at various localities almost daily from Jan to 5 Apr, but 80+ at Munxar on 5 Jan and 200+ at Valletta on 30 Jan, and ca.1000 roosting at Argotti on 4 Feb, 80+ at Dwejra on 10 Feb and 500 at Argotti on 11 Feb. In single figures on 6 dates from 29 Mar to 11 Apr, max.7 at Id-Delli on 31 Mar, 2 on Kemmuna on 27 Apr, and singles on 15 May, 18 May, 28 Jul, 3 Aug and 5 Oct. Then in single or up to medium double figures almost daily from 15 Oct till end of year, max 50+ at Xagħra and 40+ at Buskett on 30 Oct, but 400 at Buskett on 11 Nov.

1994: In single or low double figures of up to 15 from Jan-Mar, but 40 at Floriana on 6 Jan and 20 at Valletta on 29 Jan. 1-2 on most dates in Apr, then singles on Kemmuna on 3 May and 12 May. 1-2 on 5 dates from Jun-Sep mostly at Għadira. In autumn, almost daily from 16 Oct. Highest figures towards end of Oct and end of Nov/beginning of Dec, with 4 sightings of 25-50 from 26-30 Oct and 20-80 at Għadira from 27 Nov to 5 Dec, otherwise up to 15.

1995: In single or low double figures on most dates from Jan-Mar but 38 at Luqa on 15 Jan. 1-10 on several dates from Apr-May mostly on Manoel Island; then singles at Qala Pt. on 15 Jun and at Is-Simar on 9 Sep. 2 at Dwejra on 3 Oct, then 35 sightings on 27 dates from 21 Oct till end of year, mostly 1-10 but 17 at Qawra on 14 Nov and 16 at Marsa on 28 Dec.

Common Crossbill *Loxia curvirostra* Kruċjat

1993: 1 at Għadira on 22 Sep and 11 at Buskett on 30 Sep.

Trumpeter Finch *Bucanetes githagineus* Trumbettier

1995: Singles on Kemmuna on 19 Mar and at Ta' Haġrat (Mġarr, Malta) on 23 Oct.

Common Rosefinch *Carpodacus erythrinus* Bumunqar

1993: Adult male at Lunzjata on 15 Aug.

Hawfinch *Coccothraustes coccothraustes* Taż-Żebbuġ

1993: 1 at Buskett on 15 Aug.

1994: 1 at Għadira on 16 Nov.

1995: Singles at Salina on 2 Apr, and at Xaġħra on 20 Oct and 22 Oct.

Cirl Bunting *Emberiza cirlus* Ortolan Iswed

1993: An escaped male at Buskett on 5 dates from 1-17 Aug.

Ortolan Bunting *Emberiza hortulana* Ortolan

1993: 1 at Sarraflu on 10 Apr.

1994: Singles at Salina on 8 Apr, at Ramla Valley and Xaġħra on 11 Apr and at Ghajn Tuffieħa on 17 Apr.

Rustic Bunting *Emberiza rustica* Durrajsa Qastnija

1993: 2 on 25 Sep and 1 on 30 Oct at Lunzjata.

Little Bunting *Emberiza pusilla* Durrajsa Qerqniġa

1994: 1 at Lunzjata on 16 Oct.

1995: 1 at Lunzjata on 14 Oct.

Reed Bunting *Emberiza schoeniclus* Durrajsa tal-Qasab

1993: 1 at Ramla Valley on 31 Oct, then 1-2 almost daily from 2 Nov to 9 Dec, all from Għadira and is-Simar.

1994: 1 at Lunzjata on 16 Oct, then 1-2 on most days at Għadira from 31 Oct to 12 Dec. 1 at is-Simar on 2 Dec.

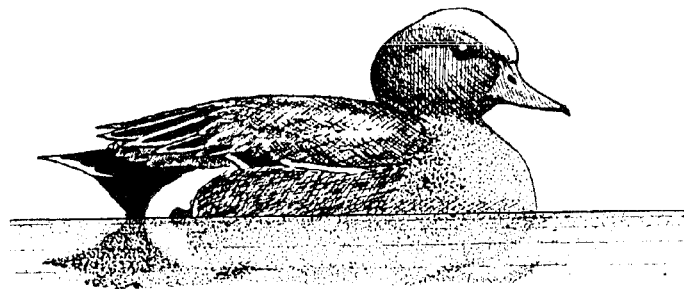
1995: 1 at Għadira on 23 Feb, then 1-3 on most days from 20 Oct till end of year. 2 at Rabat on 22 Oct, otherwise all sightings at Għadira and is-Simar.

Corn Bunting *Miliaria calandra* Durrajsa

1993: In single figures throughout the year with most records from the north of Malta and Gozo, but 20 at Dwejra on 15 Mar and 40+ at Mtahleb on 10 Aug.

1994: Resident and breeding in small numbers at various sites. Highest counts of 17 at Dwejra on 22 Mar and 20 at Baħrija on 27 Jun, otherwise in low single figures.

1995: Breeding uncommonly at rapidly decreasing sites. Mostly seen in single figures of up to 10, but 25 at Dwejra on 20 Mar. Larger gatherings from Sep-Oct, when 20-25 at Dwejra on 4 dates from 16 Sep to 25 Oct and 45 at Għadira on 21 Sep.



Anas penelope

Ringling Report 1994-1996

Charles Gauci • Mark Gauci • Joe Sultana

This report covers the ringing activities of the Valletta Bird Ringing Scheme for the years 1994-1996.

Għadira nature reserve continued to be manned regularly during these three years resulting in several interesting retraps and recoveries. Most of the waterbirds were ringed there. The Scheme continued to take part in the Italian project *Piccole Isole*, which is aimed at monitoring spring migration in the Central Mediterranean. BirdLife Malta's ringing site on Kemmuna was again used for this project and the site was manned daily for a whole month (16 Apr - 15 May) each year. As in former years, annual visits to Filfla were organised to monitor the populations of European Storm-petrel *Hydrobates pelagicus* and Yellow-legged Gull *Larus cachinnans*, while the accessible colonies of Cory's Shearwater *Calonectris diomedea* on the main islands continued to be monitored regularly.

Year	Number of birds	Number of species
1994	10 054	103
1995	11 720	103
1996	12 714	92
Total 1965-1996	302 258	180 (+2 hybrids)

Table 1. Ringing totals for the years 1994-1996

Highlights

Eight new species, namely **Manx Shearwater** *Puffinus puffinus*, **Great Bittern** *Botaurus stellaris*, **Common Teal** *Anas crecca*, **Pintail** *Anas acuta*, **Allen's Gallinule** *Porphyryla alleni*, **Broad-billed Sandpiper** *Limicola falcinellus*, **Great Spotted Cuckoo** *Clamator glandarius* and **Dusky Warbler** *Phylloscopus fuscatus* were added to the ringing list. During the period under review various very scarce migrants or vagrants were also ringed. These included the second **Isabelline Wheatear** *Oenanthe isabellina*, the second **Paddyfield Warbler** *Acrocephalus agricola*, the fourth **Olivaceous Warbler** *Hippolais pallida*, the eleventh **Semi-collared Flycatcher** *Ficedula semitorquata*, and the eighth and ninth **Little Bunting** *Emberiza pusilla*.

Recoveries of locally-ringed birds

32 recoveries of 19 species ringed in Malta were reported during the 3-year period 1994-96. 17 (of 12 species) of these were reported from abroad. Most interesting is an adult **European Storm-petrel** *Hydrobates pelagicus* ringed on Filfla in 1991 and controlled at a colony on Marettimo Isle (Sicily) 5 years later. A European Storm-petrel pullus ringed on the same islet in 1987 had been controlled on Filfla in 1989 (*II-Merill* 27:55). These controls show that some birds do move from one colony to the other, thus helping the gene flow of the species. One of 4 **Barn Swallows** *Hirundo rustica* recovered abroad was ringed at Lunzjata in May 1993 and controlled at a roost in M Skåne, Sweden in Sep 1995, before moving south again. A **Common Chiffchaff** *Phylloscopus collybita* ringed at Lunzjata in Mar 1996 also reached Sweden and was controlled at Ottenby 48 days later. A **Pied Wagtail** *Motacilla alba* found dead in Denmark was the second bird of this species to be recovered abroad. Other interesting recoveries include our twelfth **Blackcap** *Sylvia atricapilla* abroad, but the first for Germany.

Recoveries of foreign-ringed birds

32 foreign ringed birds of 18 species have been recovered in Malta during the three years under review. These include the eighth **Great Cormorant** *Phalacrocorax carbo* from Denmark and the third from Sweden, the second **Marsh Harrier** *Circus aeruginosus* from Poland and the ninth **Great Skua** *Stercorarius skua* from Scotland. One **Osprey** *Pandion haliaetus* from Sweden and 3 from Finland bring the totals to 16 and 20 recoveries respectively from those countries. Three **Caspian Terns** *Sterna caspia* bearing Finnish rings bring the total to 9 from Finland. A **Saker Falcon** *Falco cherrug* from Hungary and a **Wood Warbler** *Phylloscopus sibilatrix* from Latvia are 'first-time' recoveries. Other interesting foreign recoveries include the first **Montagu's Harrier** *Circus pygargus* from Poland, the first **Dunlin** *Calidris alpina* from Ukraine and the first **Wood Sandpiper** *Tringa glareola* from Finland.

During the three-year period under review, the ringers who held a ringing licence were John Attard Montalto, John J. Borg, Denis Cachia, Victor Cilia, Charles Coleiro, Raymond Galea, Charles Gauci, Mark Gauci, Mario V. Gauci, John Grech, Manwel Mallia, Joseph M. Mangion and Joe Sultana. John Middleton (a BTO ringer) also helped by ringing during his regular visits to Malta. Charles Gauci (ringing secretary) and Mark Gauci (assistant ringing secretary) were responsible for the compilation of the ringing data and for the bi-monthly *Ringling Newsletter*.

Birds ringed in 1994-1996

Euring Code no.	Species	1994	1995	1996	Total 1965-96
00070	Little Grebe <i>Tachybaptus ruficollis</i>	0	1	0	2
00120	Black-necked Grebe <i>Podiceps nigricollis</i>	1	1	1	16
00360	Cory's Shearwater <i>Calonectris diomedea</i>	75	105	44	2 425
00160	Manx Shearwater <i>Puffinus puffinus</i>	0	1	0	1
00462	Levantine Shearwater <i>Puffinus yelkouan</i>	17	8	0	595
00520	European Storm-petrel <i>Hydrobates pelagicus</i>	26	12	3	16 831
00950	Great Bittern <i>Botaurus stellaris</i>	0	1	0	1
00980	Little Bittern <i>Ixobrychus minutus</i>	3	0	2	70
01040	Night Heron <i>Nycticorax nycticorax</i>	0	0	0	13
01080	Squacco Heron <i>Ardeola ralloides</i>	0	0	0	2
01190	Little Egret <i>Egretta garzetta</i>	0	0	1	2
01810	Common Teal <i>Anas crecca</i>	0	1	0	1
01860	Mallard <i>Anas platyrhynchos</i>	0	0	0	2
01890	Pintail <i>Anas acuta</i>	0	1	0	1
01910	Garganey <i>Anas querquedula</i>	0	1	0	2
02310	European Honey-buzzard <i>Pernis apivorus</i>	0	0	0	1
03040	Common Kestrel <i>Falco tinnunculus</i>	3	0	3	19
03090	Merlin <i>Falco columbarius</i>	0	0	0	1
03100	Hobby <i>Falco subbuteo</i>	0	0	0	1
03700	Common Quail <i>Coturnix coturnix</i>	1	1	0	20
04070	Water Rail <i>Rallus aquaticus</i>	11	18	11	140
04080	Spotted Crake <i>Porzana porzana</i>	3	8	13	49
04100	Little Crake <i>Porzana parva</i>	3	8	2	25
04110	Baillon's Crake <i>Porzana pusilla</i>	0	0	0	2
04210	Corn Crake <i>Crex crex</i>	0	0	0	1
04240	Moorhen <i>Gallinula chloropus</i>	24	15	29	311
04250	Allen's Gallinule <i>Porphyryla alleni</i>	1	0	0	1
04290	Common Coot <i>Fulica atra</i>	2	0	0	14
04590	Stone-curlew <i>Burhinus oedicnemus</i>	0	0	0	1
04690	Little Ringed Plover <i>Charadrius dubius</i>	5	11	5	171
04700	Great Ringed Plover <i>Charadrius hiaticula</i>	3	5	4	47
04770	Kentish Plover <i>Charadrius alexandrinus</i>	1	0	1	5
04860	Grey Plover <i>Pluvialis squatarola</i>	0	0	0	1
04930	Northern Lapwing <i>Vanellus vanellus</i>	0	0	0	1
05010	Little Stint <i>Calidris minuta</i>	75	139	81	1784
05020	Temminck's Stint <i>Calidris temminckii</i>	2	1	0	50
05090	Curlew Sandpiper <i>Calidris ferruginea</i>	6	17	11	126
05120	Dunlin <i>Calidris alpina</i>	9	12	13	206
05140	Broad-billed Sandpiper <i>Limicola falcinellus</i>	1	0	0	1
05170	Ruff <i>Philomachus pugnax</i>	2	1	8	71
05180	Jack Snipe <i>Lymnocyptes minimus</i>	0	4	1	26
05190	Common Snipe <i>Gallinago gallinago</i>	3	14	6	121
05200	Great Snipe <i>Gallinago media</i>	0	0	0	10
05290	Woodcock <i>Scolopax rusticola</i>	1	1	0	7
05380	Whimbrel <i>Numerius phaeopus</i>	0	0	0	1
05450	Spotted Redshank <i>Tringa erythropus</i>	0	0	0	2
05460	Common Redshank <i>Tringa totanus</i>	3	2	1	32
05470	Marsh Sandpiper <i>Tringa stagnatilis</i>	0	0	0	1
05480	Greenshank <i>Tringa nebularia</i>	0	0	0	3
05530	Green Sandpiper <i>Tringa ochropus</i>	2	3	2	38
05540	Wood Sandpiper <i>Tringa glareola</i>	6	1	1	176
05560	Common Sandpiper <i>Actitis hypoleucos</i>	17	16	19	623
05610	Turnstone <i>Arenaria interpres</i>	0	0	0	6
05750	Mediterranean Gull <i>Larus melanocephalus</i>	0	0	0	3
05820	Black-headed Gull <i>Larus ridibundus</i>	0	0	0	1
05850	Slender-billed Gull <i>Larus genei</i>	0	0	0	1
05927	Yellow-legged Gull <i>Larus cachinnans</i>	62	67	53	779
06110	Sandwich Tern <i>Sterna sandvicensis</i>	0	0	0	1

continued

06280	White-winged Black Tern <i>Chlidonias leucopterus</i>	0	0	0	1
06870	Turtle Dove <i>Streptopelia turtur</i>	13	13	19	115
07160	Great Spotted Cuckoo <i>Clamator glandarius</i>	1	0	0	1
07240	Common Cuckoo <i>Cuculus canorus</i>	5	1	0	40
07350	Barn Owl <i>Tyto alba</i>	0	0	0	1
07390	Eurasian Scops Owl <i>Otus scops</i>	9	10	19	184
07680	Short-eared Owl <i>Asio flammeus</i>	0	0	0	3
07780	European Nightjar <i>Caprimulgus europaeus</i>	1	4	9	47
07950	Common Swift <i>Apus apus</i>	0	7	1	46
08310	Common Kingfisher <i>Alcedo atthis</i>	26	29	27	310
08460	Hoopoe <i>Upupa epops</i>	10	7	14	64
08480	Wryneck <i>Jynx torquilla</i>	21	26	36	634
09680	Short-toed Lark <i>Calandrella brachydactyla</i>	2	20	5	293
09740	Wood Lark <i>Lullula arborea</i>	0	0	0	2
09760	Sky Lark <i>Alauda arvensis</i>	0	0	0	31
09810	Sand Martin <i>Riparia riparia</i>	165	94	163	10 602
09920	Barn Swallow <i>Hirundo rustica</i>	1440	999	2174	27 699
09950	Red-rumped Swallow <i>Hirundo daurica</i>	1	23	6	115
10010	House Martin <i>Delichon urbica</i>	208	257	107	8 784
10020	Richard's Pipit <i>Anthus novaeseelandiae</i>	0	0	0	1
10050	Tawny Pipit <i>Anthus campestris</i>	0	0	0	11
10080	Olive-backed Pipit <i>Anthus hodgsoni</i>	0	0	0	3
10090	Tree Pipit <i>Anthus trivialis</i>	39	36	33	1 580
10110	Meadow Pipit <i>Anthus pratensis</i>	297	249	532	3 026
10120	Red-throated Pipit <i>Anthus cervinus</i>	0	2	0	73
10140	Water Pipit <i>Anthus spinoletta</i>	0	3	0	17
10142	Rock Pipit <i>Anthus petrosus</i>	0	0	0	2
10170	Yellow Wagtail <i>Motacilla flava</i>	67	117	771	4 766
10190	Grey Wagtail <i>Motacilla cinerea</i>	19	22	22	726
10200	Pied Wagtail <i>Motacilla alba</i>	30	11	91	1 334
10660	Wren <i>Troglodytes troglodytes</i>	0	0	0	24
10840	Hedge Accentor <i>Prunella modularis</i>	31	72	42	2 481
10950	Rufous-tailed Scrub-robin <i>Cercotrichas galactotes</i>	0	0	0	8
10990	Robin <i>Erithacus rubecula</i>	1300	2642	1271	48 055
11030	Thrush Nightingale <i>Luscinia luscinia</i>	0	0	0	5
11040	Rufous Nightingale <i>Luscinia megarhynchos</i>	69	66	100	2 283
11060	Bluethroat <i>Luscinia svecica</i>	6	3	11	151
11210	Black Redstart <i>Phoenicurus ochruros</i>	38	30	26	426
11220	Common Redstart <i>Phoenicurus phoenicurus</i>	71	66	63	2 925
11370	Whinchat <i>Saxicola rubetra</i>	82	123	95	1 163
11390	Common Stonechat <i>Saxicola torquata</i>	101	71	83	2 567
11440	Isabelline Wheatear <i>Oenanthe isabellina</i>	0	0	1	2
11460	Northern Wheatear <i>Oenanthe oenanthe</i>	13	9	13	220
11480	Black-eared Wheatear <i>Oenanthe hispanica</i>	2	4	9	20
11620	Rock Thrush <i>Monticola saxatilis</i>	0	0	0	3
11660	Blue Rock Thrush <i>Monticola solitarius</i>	9	6	2	114
11860	Ring Ouzel <i>Turdus torquatus</i>	0	0	0	3
11870	Blackbird <i>Turdus merula</i>	5	2	5	240
11980	Fieldfare <i>Turdus pilaris</i>	0	0	0	3
12000	Song Thrush <i>Turdus philomelos</i>	48	20	42	1 442
12010	Redwing <i>Turdus iliacus</i>	1	0	2	31
12200	Cetti's Warbler <i>Cettia cetti</i>	59	70	85	1 834
12260	Zitting Cisticola <i>Cisticola juncidis</i>	176	179	283	6 889
12360	Grasshopper Warbler <i>Locustella naevia</i>	0	0	0	6
12370	River Warbler <i>Locustella fluviatilis</i>	0	0	0	2
12380	Savi's Warbler <i>Locustella luscinioides</i>	1	0	1	56
12410	Moustached Warbler <i>Acrocephalus melanopogon</i>	3	3	4	119
12430	Sedge Warbler <i>Acrocephalus schoenobaenus</i>	93	109	89	2 696
12470	Paddyfield Warbler <i>Acrocephalus agricola</i>	1	0	0	2
12480	Blyth's Reed Warbler <i>Acrocephalus dumetorum</i>	0	0	0	2
12500	Marsh Warbler <i>Acrocephalus palustris</i>	2	1	5	48
12510	Reed Warbler <i>Acrocephalus scirpaceus</i>	64	70	108	2 167
12530	Great Reed Warbler <i>Acrocephalus arundinaceus</i>	43	45	42	1 413
12550	Olivaceous Warbler <i>Hippolais pallida</i>	1	0	0	3

continued

12590	Icterine Warbler <i>Hippolais icterina</i>	103	176	110	1 995
12600	Melodious Warbler <i>Hippolais polyglotta</i>	0	0	0	3
12620	Dartford Warbler <i>Sylvia undata</i>	0	1	0	39
12640	Spectacled Warbler <i>Sylvia conspicillata</i>	5	9	2	1 336
12650	Subalpine Warbler <i>Sylvia cantillans</i>	211	147	206	7 257
12670	Sardinian Warbler <i>Sylvia melanocephalus</i>	406	365	334	15 984
12690	Rüppell's Warbler <i>Sylvia rueppelli</i>	0	0	0	2
12720	Orphean Warbler <i>Sylvia hortensis</i>	0	0	0	4
12730	Barred Warbler <i>Sylvia nisoria</i>	0	0	0	1
12740	Lesser Whitethroat <i>Sylvia curruca</i>	1	1	2	62
12750	Common Whitethroat <i>Sylvia communis</i>	156	401	225	3 377
12760	Garden Warbler <i>Sylvia borin</i>	676	733	945	13 961
12770	Blackcap <i>Sylvia atricapilla</i>	219	227	230	12 836
12950	Arctic Warbler <i>Phylloscopus borealis</i>	0	0	0	3
12980	Pallas's Leaf Warbler <i>Phylloscopus proregulus</i>	0	0	0	1
13000	Yellow-browed Warbler <i>Phylloscopus inornatus</i>	1	0	0	22
13010	Radde's Warbler <i>Phylloscopus schwarzi</i>	0	0	0	1
13030	Dusky Warbler <i>Phylloscopus fuscatus</i>	1	0	0	1
13071/13072	Western/Eastern Bonelli's Warbler <i>Phylloscopus bonelli/orientalis</i>	8	3	8	160
13080	Wood Warbler <i>Phylloscopus sibilatrix</i>	560	518	452	8 366
13110	Common Chiffchaff <i>Phylloscopus collybita</i>	872	1482	1853	31 936
13120	Willow Warbler <i>Phylloscopus trochilus</i>	316	286	282	6 925
13140	Goldcrest <i>Regulus regulus</i>	11	8	7	448
13150	Firecrest <i>Regulus ignicapillus</i>	6	6	10	425
13350	Spotted Flycatcher <i>Muscicapa striata</i>	179	135	71	2 286
13430	Red-breasted Flycatcher <i>Ficedula parva</i>	3	3	6	94
13470	Semi-collared Flycatcher <i>Ficedula semitorquata</i>	0	1	0	11
13480	Collared Flycatcher <i>Ficedula albicollis</i>	17	18	15	465
13490	Pied Flycatcher <i>Ficedula hypoleuca</i>	200	150	137	3 453
14900	Penduline Tit <i>Remiz pendulinus</i>	0	1	0	96
15080	Golden Oriole <i>Oriolus oriolus</i>	45	16	19	372
15150	Red-backed Shrike <i>Lanius collurio</i>	2	2	2	121
15230	Woodchat Shrike <i>Lanius senator</i>	42	50	105	530
15820	Common Starling <i>Sturnus vulgaris</i>	17	7	6	131
15920	Spanish Sparrow <i>Passer hispaniolensis</i>	950	799	855	22 285
15980	Tree Sparrow <i>Passer montanus</i>	28	68	22	1 030
16330	Red-eyed Vireo <i>Vireo olivaceus</i>	0	0	0	1
16360	Common Chaffinch <i>Fringilla coelebs</i>	17	45	42	1 022
16380	Brambling <i>Fringilla montifringilla</i>	0	0	0	8
16400	European Serin <i>Serinus serinus</i>	0	1	0	310
16490	Greenfinch <i>Carduelis chloris</i>	8	2	1	392
16530	Goldfinch <i>Carduelis carduelis</i>	0	0	0	19
16540	Siskin <i>Carduelis spinus</i>	0	0	0	11
16600	Linnet <i>Carduelis cannabina</i>	2	7	0	931
16660	Common Crossbill <i>Loxia curvirostra</i>	0	0	0	25
16790	Scarlet Rosefinch <i>Carpodacus erythrinus</i>	0	0	0	6
17170	Hawfinch <i>Coccothraustes coccothraustes</i>	0	0	0	5
18470	Lapland Longspur <i>Calcarius lapponica</i>	0	0	0	1
18570	Yellowhammer <i>Emberiza citrinella</i>	0	0	0	1
18580	Cirl Bunting <i>Emberiza cirlus</i>	0	0	0	1
18660	Ortolan Bunting <i>Emberiza hortulana</i>	0	0	0	2
18680	Cretzschmar's Bunting <i>Emberiza caesia</i>	0	0	0	1
18730	Rustic Bunting <i>Emberiza rustica</i>	0	0	0	17
18740	Little Bunting <i>Emberiza pusilla</i>	1	1	0	9
18750	Chestnut Bunting <i>Emberiza rutila</i>	0	0	0	1
18760	Yellow-breasted Bunting <i>Emberiza aureola</i>	0	0	0	1
18770	Reed Bunting <i>Emberiza schoeniclus</i>	15	21	7	272
18820	Corn Bunting <i>Miliaria calandra</i>	7	0	4	439
	Swallow <i>H.rustica</i> x House Martin <i>D.urbica</i>	0	0	0	2
	Tree Sparrow <i>P.montanus</i> x Spanish Sparrow <i>P.hispaniolensis</i>	0	0	0	2
	Total	10054	11720	12714	302 258
	Species	103	103	92	180
					(+ 2 hybrids)

Ringing Recoveries

Key to symbols and terms used in the recovery list

Arrangement of entry

Recoveries are arranged by species, and within species usually by date of the recovery letter. Ringing details are given on the first line and recovery data on the second

Ring number

A ring number in italics indicates that the ring has been returned and verified.

Age code

- 1 Pullus: young bird ringed in nest. A number in brackets next to the age code indicates brood size.
- 2 Fully grown; year of hatching quite unknown.
- 3 Definitely hatched during current calendar year.
- 3J As in 3, but bird still partly or totally in juvenile body plumage.
- 4 Hatched before current calendar year - exact year unknown.
- 5 Definitely hatched during last calendar year.

Sex

- M Male
- F Female

Date of recovery

Where this is unknown the date of the reporting letter is given instead and is shown in brackets. A 00 in the date indicates that the exact day or month are unknown.

Manner of recovery

- v Caught or trapped, and released with ring (controlled)
- + Shot or killed by man
- x Found dead or dying
- xA Found long dead
- () Caught or trapped alive and not released, or released but with ring removed
- B Breeding when recovered
- C Recovered at colony
- R Recovered in roost
- /?/ Manner of recovery unknown

Recoveries of Malta-ringed birds

This section deals with 32 recoveries of 19 species reported during the period 1993-1996. Only those found at least 5km away from the ringing site are included. The co-ordinates of the localities are given only once, when these are first mentioned.

Cory's Shearwater *Calonectris diomedea*

FF01620	1	18.08.90	Gharb 36°06'N 14°14'E Gozo
	v	27.06.94	c.9km north of Gozo c.36°11'N 14°15'E

European Storm-petrel *Hydrobates pelagicus*

S7347	4	15.06.91	Filfla 35°47'N; 14°25'E
	vC	14.07.96	Marettimo Isle 37°58'N 12°04'E Trapani (Sicilia) Italia

Yellow-legged Gull *Larus cachinnans*

GG0568	1	24.05.94	Filfla
	x	27.08.94	Vendicari, Noto 36°48'N 15°06'E Siracusa (Sicilia) Italia
GG0595	1	24.05.94	Filfla
	+	25.09.94	Ic-Čumnija 35°58'N 14°21'E

Eurasian Scops Owl *Otus scops*

EE00601	4	16.04.94	Kemmuna 36°00'N 14°18'E
	+	24.05.94	Caprafico 42°38'N 13°46'E (Teramo) Italia

Sand Martin <i>Riparia riparia</i>			
103939	4	06.04.93	Marsalforn Valley 36°03'N 14°16'E Gozo
	v	04.05.93	Murino San Quirico 44°54'N 10°14'E Trecasoli (Parma) Italia
Barn Swallow <i>Hirundo rustica</i>			
127.126	4M	28.04.94	Rabat 35°53'N 14°24'E
	v	29.04.94	Ramla Valley 36°03'N 14°17'E Gozo
126.100	4M	17.04.94	Lunzjata Valley 36°03'N 14°14'E Gozo
	v	21.05.94	Molentargius, Cagliari 39°14'N 09°10'E (Sardegna) Italia
126.370	4F	21.04.94	Lunzjata Valley, Gozo
	v	11.08.94	Val Campotto 44°35'N 11°51'E Argento (Ferrara) Italia
127.016	4F	27.04.94	Rabat
	v	02.09.94	Val Campotto, Argento (Ferrara) Italia
116.098	4M	07.05.93	Lunzjata Valley, Gozo
	v R	20.09.95	Silvakra 55°41'N 13°30'E Harlose (M Skåne) Sweden
House Martin <i>Delichon urbica</i>			
123.250	4	23.03.95	Ghadira 35°58'N 14°21'E
	v	24.03.95	Lunzjata Valley, Gozo
123.278	4	23.03.95	Ghadira
	v	24.03.95	Lunzjata Valley, Gozo
Meadow Pipit <i>Anthus pratensis</i>			
138.737	2	04.11.96	Lunzjata Valley, Gozo
	v	25.11.96	Ghadira
Yellow Wagtail <i>Motacilla flava</i>			
114.508	3	26.08.93	Is-Simar 35°57'N 14°23'E St.Paul's Bay
	v	18.04.95	Poroverde 43°58'N 12°43'E Misano Adriatico (Forlì) Italia
(Ring replaced by Ozzano K571336)			
Pied Wagtail <i>Motacilla alba</i>			
128.009	2F	05.11.94	Lunzjata Valley, Gozo
	x	10.06.95	Vridalosemagie 55°41'N 12°18'E (Sjaelland) Denmark
Robin <i>Erithacus rubecula</i>			
98.817	4	15.10.92	Lunzjata Valley, Gozo
	v	27.03.94	Haz-Zebbug 35°52'N 14°27'E
123.972	3	13.10.95	Ghadira
	x	17.10.95	Kappara 35°54'N 14°27'E
129.398	3	27.10.95	Ghadira
	v	06.11.95	nr. Fawwara 35°50'N 14°26'E
Common Stonechat <i>Saxicola torquata</i>			
105.810	3M	31.10.92	Ghadira
	x	(18.08.95)	Tigzirt 36°57'N 03°50'E (Grande-Kabylie) Algerie
Zitting Cisticola <i>Cisticola juncidis</i>			
4E.553	1(4/4)	13.06.95	Salina 35°55'N 14°25'E
	v(2F)	21.09.95	Lunzjata Valley, Gozo
Great Reed Warbler <i>Acrocephalus arundinaceus</i>			
B14.948	4	05.05.93	Ghadira
	v	13.08.93	Upaix 44°19'N 05°53'E (Hautes-Alpes) France

B10.595	4	22.04.91	Ramla Valley
	v	17.04.94	Massaciuccoli, Vecchiano 43°49'N 10°20'E (Pisa) Italia
	v	23.04.95	Massaciuccoli, Vecchiano 43°49'N 10°20'E (Pisa) Italia
Blackcap <i>Sylvia atricapilla</i>			
124.985	4M	14.11.94	Ghadira
	v	08.04.96	Dekani 45°33'N 13°50'E (Kopor) Slovenia
123.163	4M	04.03.95	Ghadira
	x	17.04.96	Kitzingen-Repperndorf 49°45'N 10°07'E (Unterfranken) Germany
Wood Warbler <i>Phylloscopus sibilatrix</i>			
7E.354	4	16.04.94	Ghadira
	v	17.04.94	Kemmuna
Common Chiffchaff <i>Phylloscopus collybita</i>			
6E.437	2	04.11.93	Ghadira
	v	10.03.94	Rabat
7E.417	2	29.10.93	Lunzjata Valley, Gozo
	v	27.11.94	Rabat
1F.859	4	17.03.96	Lunzjata Valley, Gozo
	v	04.05.96	Ottenby 56°12'N 16°24'E (H.Öland) Sweden
Goldcrest <i>Regulus regulus</i>			
1F.700	3M	08.11.96	Targa Gap 35°54'N 14°25'E
	v	23.11.96	Ghadira
Golden Oriole <i>Oriolus oriolus</i>			
CX0468	6F	05.05.94	Kemmuna
	x	27.06.94	Cazzano De Tramigna 45°28'N 11°12'E, (Verona) Italia

Foreign-ringed birds recovered in Malta

This section deals with 32 foreign-ringed birds of 18 species recovered in Malta. The symbols and terms used are the same as those in the previous section.

Great Cormorant <i>Phalacrocorax carbo</i>			
Copenhagen	1	27.05.67	Vorsø, Horsens Fjord 55°52'N 10°01'E (Jutland) Denmark
294.970	+	13.12.68	Marsaxlokk 35°49'N 14°33'E
Stockholm	1(3/3)	27.05.93	K.Blekinge 56°08'N 15°05'E Hoby, Frøstenskärv, Sweden
9.248.390	+	05.12.93	'Malta' c.35°55'N 14°30'E
Marsh Harrier <i>Circus aeruginosus</i>			
Gdansk	4M	05.07.87	Roskosz 51°09'N 23°43'E Dorohlisk (Chelm) Poland
EA02.588	+	15.09.94	'Malta' c.35°50'N 14°31'E
Montagu's Harrier <i>Circus pygargus</i>			
Gdansk	4F	01.05.94	Torfowiska 51°08'N 23°30'E Chelma (Chelm) Poland
EN161	+	24.09.94	Żurrieq 35°50'N 14°29'E
Osprey <i>Pandion heliaetus</i>			
Stockholm	1(3/3)	07.07.85	St.Arsjon 57°18'N 12°23'E (N. Holland) Sweden
9.208969	+	00.00.90	'Malta' c.35°53'N 14°23'E
Helsinki	1	20.07.89	Sotkama (co-ordinates withheld) Oulu, Finland
M25.335	+	27.09.93	'Malta' c.35°53'N 14°24'E
Helsinki	1	11.07.92	Miehikola (co-ordinates withheld) (Kymi) Finland

M33.951	+	(15.10.93)	'Malta' c.35°51'N, 14°21'E
Helsinki	1	19.07.76	Korpilanti (co-ordinates withheld) Koski-Suomi, Finland
M.8526	+	(15.10.93)	'Malta' c.35°51'N 14°25'E

Common Kestrel *Falco tinnunculus*

Praha	4F	25.09.92	Prikazy 49°38'N 17°09'E (Olomoud) Czech Republic
E22.113	+	00.10.92	Mtarfa 35°53'N 14°23'E

Saker *Falco cherrug*

Budapest	1(5/5)	25.05.96	Balmazujvaros 47°36'N 21°20'E Hajvu-Bihar, Hungary
524.044	+	12.10.96	Delimara 35°50'N 14°31'E

Little Stint *Calidris minuta*

Bologna	4	02.05.93	Pericarole 41°36'N 14°00'E Canale Divena, Villa Literno (Caserta), Italia
LN.4883	v	22.08.93	Ghadira

Dunlin *Calidris alpina*

Moskwa	5	10.05.86	Nizovja Tiliguskojo limano 46°40'N 31°09'E (Odessa O.) Ukraine
685.966	v	10.08.86	Xemxija 35°57'N 14°23'E St. Paul's Bay

Wood Sandpiper *Tringa glareola*

Helsinki	3	13.08.93	Sülinjärvi 63°09'N 27°43'E Kuopio, Finland
PT52.208	+	06.05.94	Marsascale 35°52'N 14°34'E

Great Skua *Stercorarius skua*

London	1	14.07.77	Foula 60°08'N 02°05'W (Shetland) Scotland
HW60.560	+	c.15.01.79	c.30km off Marsaxlokk 35°30'N 14°40'E

Caspian Tern *Sterna caspia*

Helsinki	1	10.07.76	Oulu 65°22'N 24°50'E Finland
CT25.016	+	10.09.80	Ghar Lapsi 35°49'N 14°27'E

Helsinki	1	10.07.80	Oulu, Finland
CT39.788	+	10.09.80	Ghar Lapsi.

Helsinki	1	05.07.77	Oulu, Finland
CT26.664	+	06.04.94	Ghadira

Sand Martin *Riparia riparia*

Hiddensee	4	13.07.90	Monchchofe 52°30'N 13°39'E (1km W of Strausberg) Germany
71.461.645	v	17.04.93	Lunzjata Valley, Gozo

Budapest	3	21.06.92	Dombovar 46°23'N 18°08'E Tolna, Hungary
F30.440	v	28.04.93	Lunzjata Valley, Gozo.

Arnhem	3	07.07.93	Pannerden 51°53'N 06°04'E Lobberdensche Waard, Gelderland, Holland
F442.347	v	23.04.94	Ghadira

Barn Swallow *Hirundo rustica*

Ljubljana	3	29.08.92	Vrhnika 45°58'N 14°08'E Slovenia
A597.979	+	18.04.93	Santa Lucija 35°50'N 14°30'E

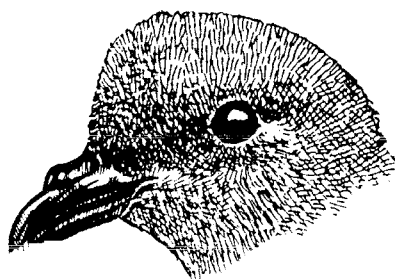
Ljubljana	3	10.08.92	Cerkrizko jezero 45°47'N 14°22'E Cerknica, Slovenia
A560.512	v	29.04.93	Lunzjata Valley, Gozo

Budapest	3	10.09.95	Kis-Balaton 46°40'N 17°15'E Zala, Hungary
H87.636	v=F	29.05.95	Marsalforn Valley.

Yellow Wagtail *Motacilla flava*

Budapest	3	01.08.96	Akaszto 46°43'N 19°12'E Bacskiskum, Hungary
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X98.071	v R	10.09.96	Is-Simar
Reed Warbler			<i>Acrocephalus scirpaceus</i>
Bologna	3	03.08.91	Cona 45°31'N 12°24'E (Venezia) Italia
K185.998	v	07.09.93	Bingemma 35°55'N 14°22'E
Bologna	4	31.07.91	Cona (Venezia), Italia
K166.907	v	09.09.93	Rabat
Bologna	3	11.09.94	Isonzo Cona 45°45'N 13°31'E Staranzano (Gorizia) Italia
K655.421	v	14.10.94	Lunzjata Valley, Gozo
Wood Warbler			<i>Phylloscopus sibilatrix</i>
Riga	3	17.08.93	Cejasciems 57°17'N 26°34'E Gulbene, Latvia
46013	v	12.05.94	Kemmuna
Willow Warbler			<i>Phylloscopus trochilus</i>
Stavanger	3	28.08.93	Engo 61°20'N 12°14'E Trygil (Hedmark) Norway
H 416.356	v	12.10.93	Rabat
Linnet			<i>Carduelis cannabina</i>
Praha	6M	24.06.90	Trencin 48°53'N 18°02'E Slovakia
H296.011	()	00.10.91	Marsascale
Budapest	3	24.06.89	Szigliget 46°49'N 17°26'E Veszprem, Hungary
V77.659	()	04.11.92	Delimara
Ljubljana	3	29.07.92	Skofljica-II 45°58'N, 14834'E Ljubljansko barje, Slovenia
A546.074	()	01.01.93	Munxar 36°03'N 14°13'E Gozo



Hydrobates pelagicus

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Information contained in the contribution should be original and based on personal research except where otherwise indicated. The main text should be concise. Papers should be preceded by an abstract of not more than 120 words. Contributors should supply their full name(s), address(es) and affiliation (if any). The Editorial board will not undertake to return rejected manuscripts.

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Examples:

- Bibby, C.J. 1981. Wintering Bitterns in Britain. *British Birds*, 74: 1-10.
- Curry-Lindahl, K. 1981. Bird Migration in Africa. Academic Press, London.
- Stettenheim, P. 1972. The integument of birds. In *Avian Biology* (Farner, D.S. and King. J.R., eds.). Vol.II, pp 2-54. Academic Press, London.

Errata

Please note the following errors or omissions which registered in II-Merill 28

- p15 In title: **1978** should read **1987**
- p25 At end of short note **Diet of the Barn Owl *Tyto alba* in a rural area in Gozo** to add the following references:
Lanfranco, G. 1969 - *Maltese Mammals (Central Mediterranean)*. Progress Press, Malta.
Savona-Ventura, C. 1981. On the Occurrence of *Apodemus sylvaticus* (Linn) (Mammalia, Rodentia, Murinidae) in the Maltese Islands, with notes on other Maltese rodents. *Animalia*, 8 (1/3) :83-86
- p40 To include under entry for **Greylag Goose**:
1 shot at Qawra on 15 Dec 1990
- p42 To include under entry for **Red Kite**:
1 shot at Xagħra, Gozo on 14 Sep 1990
- p68 Total number of **Red-rumped Swallow** ringed in 1990: 132 should read 13



Il-Merill

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Lm3