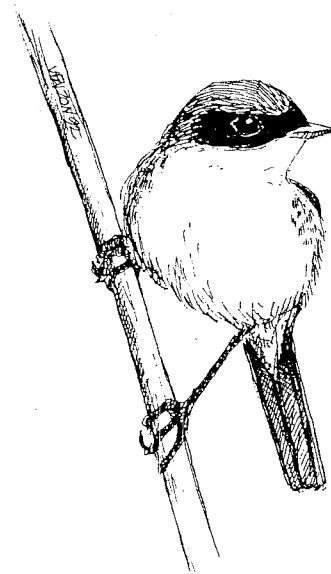
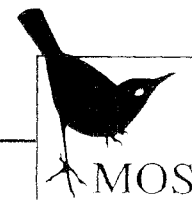
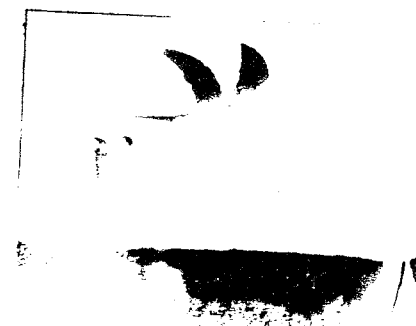


Il-Merill

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The aim of *Il-Merill* is to serve as a medium for the publication of the annual systematic list of birds recorded in the Maltese Islands and the annual ringing report, both produced by the Research Committee of the MOS, as well as for the publication of papers and short notes primary relating to the study of birds in the Maltese Islands. Accordingly the Editorial Board welcomes contributions treating any aspect of the ornithology of the Maltese Islands and the Mediterranean for publication in this journal.

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IL-MERILL

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1990 - 91

STATUS AND CONSERVATION OF THE STORM PETREL *HYDROBATES PELAGICUS* IN THE MEDITERRANEAN

Bruno Massa & Joe Sultana

(This paper was presented at the second Mediterranean Seabird Symposium "Status and Conservation of Seabirds" organised by MEDMARAVIS at Calvia, Mallorca 21-26 March 1989).

Abstract

The current status of the Storm Petrel *Hydrobates pelagicus* in the Mediterranean is updated and new information is given. It seems that the most important colonies in the Mediterranean are found in the western and central parts. Natural predators interfere with the species' breeding success. This and a very low gene flow among different Mediterranean populations pose a threat to the survival of small colonies.

Introduction

The distribution, abundance and movements of the Storm Petrel *Hydrobates pelagicus* in the Mediterranean are very poorly known. The aim of this paper is to update the contributions by James (1984) and Massa and Catalisano (1986b) with some new available data, while highlighting the remaining big gaps in our knowledge of this species' status and range in this "inland sea".

Status

A questionnaire requesting information on the current distribution of this species was sent to several colleagues in all the Mediterranean countries. All the acquired information which indicates breeding or possibly breeding areas is presented in Table I, together with the known threats, if any, to the colonies. Only six countries, namely France, Greece, Italy, Malta, Spain and Yugoslavia, have confirmed breeding colonies, while no breeding records were reported from the following countries:

Cyprus - situation remains as reported by Flint & Stewart (1983) with 2 spring records and 'occasionally seen in summer in this century' (C.A. Charlaambides, pers. comm.).

Israel - 4 sight records, one in autumn (September) and three in winter (Paz 1987; Shirihai in prep.; J. Leshem, pers. comm.).

Libya - one undated specimen in Tripoli's Museum (Bundy 1976).

Tunisia - no new information. Reported breeding in the last century on the I. La Galite (Heim de Balsac & Mayaud 1962; T. Gautier, pers. comm.).

The Storm Petrel is not mentioned at all for Turkey (Vittery *et al.* 1971), Lebanon (A. Serhal, pers. comm.) and Egypt (Meininger & Baha el Din 1986), while no information could be acquired from Albania and Syria.

The present authors believe that due to this species' strange behaviour and haunts, the dearth of researchers in this field, as well as the difficulties to reach and investigate the areas likely to hold colonies,

TABLE I

Status of the Storm Petrel in the Mediterranean Sea

Locality	Current Status	Threats	Source
GREECE Islet off eastern Euboea	Colony of unknown size, probably small	No	Akriotis & Handrinos
YUGOSLAVIA Dalmatian islets	Breeding status not assessed. No reason why they are not there now, but no further investigations have been carried out	No	Krpan 1965; J. Muzinic & J. Gregori, p.c.
ITALY Sardinia	Three recently confirmed breeding sites, two of some pairs, and one of at least 300 pairs	Tourism, Nautical Sports	Baccetti et al., 1989, Grussu & Poddesu 1988, Moltoni 1971
Sicily, Islet of Lampione	Breeding site of some pairs	Probably <i>Larus cachinnans</i>	
Marettimo I.	At least 1,000 pairs, probably more	Tourism, Nautical Sports	Massa & Catalisano 1986a, 1986b, unpubl.
MALTA, Filfla I.	In 1975 estimated as 10,000 pairs. Probably decreasing after storms have washed away some of the rubble screes below the cliffs	Predated by <i>Larus cachinnans</i> . Loss of suitable nesting sites.	Sultana et al., 1975; Sultana, unpublished
FRANCE Archipel de Riou	Ca. 25-30 pairs	<i>Larus cachinnans</i> , <i>Rattus rattus</i>	Walmsley 1986, pers. comm.
Corsica	Three breeding sites, two of tens of pairs, and one of less than 10 pairs; in total some tens	No.	Guyot et al., 1985 Hemery et al., 1988
SPAIN Columbretes Is.	1 ad. + broken eggs in 2 or 3 crevices	No	A. Mtnz. Abraín, R.
Mitjana Is.	More than 25 pairs	No	Dolz, C. Carboneras
Benidorm Is.	Abundant, more than 100 pairs	Much predated by <i>Larus cachinnans</i>	Dolz, C. Carboneras
Nova Tabarca Is.	10 pairs	No	Malet, censuses by staff of Estacion Orn.
Medas Is.	Breeding recently proved	No	de la Albufera, 1968
Balearic Is.	Probably hundreds	<i>Larus cachinnans</i> ,	
Cabo de Palos	Probably few	<i>Rattus rattus</i>	De Juana 1984
ALGERIA West of Oran	Only possible breeding		K. De Smet, pers. comm.
MOROCCO Punta Ceres, Straits of Gibraltar	Probable breeding		Thevenot 1986

there are still several colonies yet to be discovered in the Mediterranean. Unless one has experience with Storm Petrel colonies it is quite easy to overlook them unless one stays overnight in the likely places. It must be pointed out that Table I does not actually show the status of this species in the Mediterranean, but only presents the meagre data which is presently available.

Since the status of the Storm Petrel in the Mediterranean was summarised by Massa and Catalisano (1986b) during the first Congress of Medmaravis, the most important information we acquired to date is the discovery of a previously unknown colony in Sardinia, consisting of at least 300 pairs (Baccetti *et al.* 1988); new information from Spain, including the confirmation of a colony at Medas Isles (Estrada 1988; C. Carboneras Malet, pers. comm.); and the possibility of breeding in Morocco and Algeria

(Thevenot 1986; B. Haddane and K. De Smet pers. comm.). It is strongly believed that further investigations in likely areas along the coasts of Morocco and Algeria will probably confirm the breeding of this species there. It is evident that the most important Storm Petrel colonies in the Mediterranean are found in Spain, Italy (Sardinia and Sicily) and Malta, with a concentration in the Sicilian Channel.

Threats at Colonies

Natural predators, namely the Yellow-legged Gull *Larus cachinnans* and the Black Rat *Rattus rattus*, frequently interfere with the breeding success of Storm Petrels. It has been observed that in rodent-inhabited islands Storm Petrels are generally few in numbers or totally absent. Some colonies on Marettimo Isle (Sicily) were deserted in the past years due to predation by rats and the only successful colony on this isle is, in fact, inaccessible to terrestrial predators. It is also believed that some colonies have been deserted in the past due to continuous disturbance of their breeding sites by tourism and nautical sports during summer. Extinction of small colonies has probably also occurred due to a reduction of the number of breeding pairs below the minimum level which assures the genetical variation.

Data on Morphometrics

The fact that only a very low gene flow exists among different Mediterranean populations of this species is a biological problem, which is generally overlooked, and undoubtedly is a negative factor for the survival of small colonies. The data on the morphometrics of the Storm Petrel, both from the Atlantic and the Mediterranean, is still scanty. Furness and Baillie (1981) have observed that there is a wide range of wing-lengths of individuals from different colonies in Great Britain, and James (1985) has hypothesized that there are geographical differences in the calls of British populations. As regards the Mediterranean, Hemery & D'Elbee (1985), observing that measurements of Mediterranean individuals are greater than those of Atlantic ones, have revaluated the subspecies *melitensis* Schembri (1843). Massa & Catalisano (1986a, 1986b) have confirmed what has been observed by former authors, and Catalisano *et al.* (1988) found, as in Great Britain, morphometrical differences among Mediterranean populations too.

TABLE II

Biometrics of some Storm Petrels from Mediterranean and Atlantic

Locality	Wing Length	Tail Length	Source
Malta	123.9 (n = 99)	55.3 (n = 99)	Malta Ornithological Society
Sicily	125.1 (n = 64)	55.6 (n = 64)	Catalisano <i>et al.</i> 1988
Sardinia	123.9 (n = 38)	54.2 (n = 38)	Baccetti Massa Spina, unpublished
Corsica	123.6 (n = 39)	53.3 (n = 39)	Hemery & D'Elbée 1985
Atlantic	122.4 (n = 19)	53.3 (n = 19)	Hemery & D'Elbée 1985

In Table II we present some data of wing and tail lengths from 5 different sites. It is not possible from these to recognise any clinal trend, but some differences in lengths among the different populations are evident. It would be interesting to complete the picture with further biometrics from Spain and the Canary Islands. This could help to carry out comparative studies which could shed some light on the relationship between populations of the Atlantic and the Mediterranean.

As already observed for the Cory's Shearwater *Calonectris diomedea* by Massa and Lo Valvo (1986), the hypothesis that each Storm Petrel population is morphometrically and genetically isolated seems rather positive. The absence of a significant gene flow among populations is also confirmed by the high site tenacity of adults, observed both in Malta and Sicily. Very little data on site fidelity of juveniles

is available due to the very low number of ringed pulli as well as an insufficient number of regular ringing in consecutive years (the Storm Petrel should reach maturity before the age of 5 years).

One individual ringed as pullus at Marettimo isle (Sicily) in July 1987 was controlled at Filfla (Malta) in July, 1989 with evidence of a brood patch. This interesting case is the only confirmation of some exchange of individuals between two populations and the achievement of probable maturity by the Storm Petrel at the age of 2 years.

Discussion

Studies have enforced the suspicion that the decrease of survival probability in natural populations is caused by loss of genetic variation. Small populations indeed are affected both by the decrease of genetic diversity and the loss of rare alleles per each generation, well-known effects of the "bottle-neck", as well as by frequent inbreeding and alteration of allele frequencies, caused by genetic drift.

According to Lacy (1988) extinction is fundamentally a demographic process, the failure of one generation to survive and reproduce a subsequent generation. Conservation does not mean the survival of the last **individuals**, but the survival of **populations**. As pointed out by Frankel & Soulé (1981) it is necessary to carry out long-term programmes to achieve the conservation of genetic potential and consent a regular evolutionary process, and consequently prevent the population extinction. Populations numbering less than 50 individuals are candidates for immediate artificial gene flow. For those populations larger than 50 individuals, the danger of genetic and phenotypic deterioration is less, but erosion of genetic variation must still be controlled, at least as long as the population has an effective size of less than 500. Natural populations numbering less than 100 individuals are in immediate danger and require immediate genetic management (Frankel & Soulé 1981).

The pattern of genetic variation of the populations might show past amounts of gene flow, and consequently the amount of migration between different areas (Slatkin 1987). Measurement of evolutionary divergence among populations is necessary to define the demographic units that need conservation plans. According to Lacy (1988) genetic data, as well as morphological ones, should be used to assess relationship among all populations of concern that may have diverged genetically during periods of isolation.

Genetic processes in small and fragmented populations have to be seriously considered in management plans. Among Mediterranean populations of Storm Petrels that we know of, according to previous theory, only those living in the Sicilian Channel are out of danger. Others need a serious conservation programme. We believe that in the following years studies on the biology (especially site fidelity, breeding success, etc.), on morphometrics and genetics of different populations of the Storm Petrel have to be carried out to plan a long term programme for the species' conservation.

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THE DISTRIBUTION OF THE SHORT-TOED LARK *CALANDRELLA BRACHYDACTYLA* DURING THE BREEDING SEASON IN THE EASTERN SECTION OF MALTA

Denis Cachia

Abstract

A survey was carried out during 1986 and 1987 to establish the distribution of the Short-toed Lark during the breeding season in the Eastern section of the island of Malta. A map has been drawn showing the areas where Short-toed Larks were found breeding or possibly breeding. The main breeding areas of the species in the area are briefly described. Some of the threats to the future of the Short-toed Lark and its breeding habitats are mentioned.

Introduction

The Short-toed Lark *Calandrella brachydactyla* is a very common migrant and breeding summer resident. In the Maltese archipelago it breeds on the islands of Malta, Gozo and Comino, being relatively most common on the island of Gozo. The species occurs from early March to late September or early October raising two broods between April and early July. The nest is built on the ground, usually beside a small stone or plant, and 3 to 5 (usually 4) eggs are laid. The Short-toed Lark breeds in open, dry, generally tree-less habitats. It breeds on cultivated and uncultivated ground with little vegetation or with short grass including "garigue" areas and airfields. It avoids areas dominated by buildings or trees but may tolerate small, widely scattered buildings and a few well-spaced trees and/or shrubs in its breeding territory (Sultana & Gauci 1982).

Methods

A survey to establish the distribution of the Short-toed Lark during the breeding season in the Eastern section of Malta was carried out by the author during 1986 and 1987.

For the purpose of the survey, the Eastern section of Malta is taken to mean as that part of the island of Malta lying east of longitude 14° 26' 00". The survey was carried out between 7th June and 3rd July 1986 and between 14th May and 2nd July 1987. The periods chosen for the survey more or less coincide with the raising of the second brood by the Short-toed Larks. The same periods are also away from the spring and autumn migration periods, thus sightings of Short-toed Larks during the survey periods refer to summer resident adult birds or locally bred first-brood juveniles.

A map (1:25,000 MALTA, Sheet 3 — D.O.S. Series M898, 1962) was used as the basis for the study of the Short-toed Lark's distribution in the area. The UTM grid, dividing the map into equal quadrants of 1 sq. km., allowed the author to tackle the area in a systematic way. Every quadrant, or part of a quadrant, was visited at least once during 1986 or 1987. Only heavily built-up areas and afforested areas were not surveyed as these are known to be unsuitable for Short-toed Larks' breeding requirements. In the case of Luqa Airport, observations were made from outside the perimeter fence.

Fourteen visits were made in 1986 while twenty-eight visits were made in 1987. Visits were always made in the afternoon, generally between 16.00 and 19.30 hours (C.E.T.). The time spent and the area covered per visit were not recorded in 1986 but in 1987 these were recorded on an estimation basis.

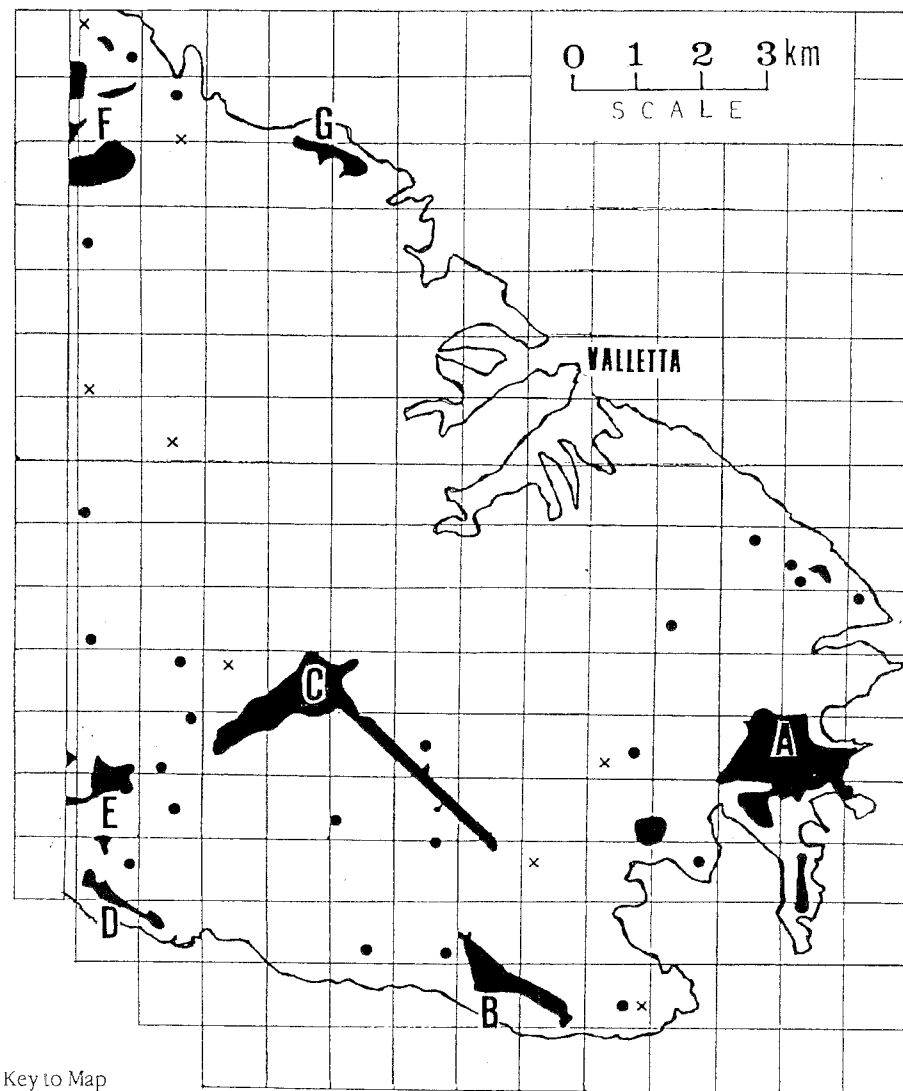
During 1987, about 51 sq. km. were tackled in about 65 hours, bringing an average time allocation per 1 sq. km., to about 1 hour 17 minutes. The duration of each visit in 1987 ranged from about 1 hour 15 minutes to about 3 hours 30 minutes (average about 2 hours 19 minutes). The area covered per visit ranged from about 1 sq. km. to about 4 sq. km. (average about 1.82 sq. km.). No similar records were kept during 1986 but the author estimates that the average time allocated per 1 sq. km. was not substantially different from that calculated for 1987.

It resulted that in those areas where no Short-toed Larks were observed, these were tackled in a shorter time span than in those areas where Short-toed Larks were present. It was found to be more time-consuming to establish the location of a lone singing Short-toed Lark or to establish the outer boundary-line of an area where Short-toed Larks were present in some numbers.

Short-toed Larks are easily flushed from the ground simply by approaching or intruding into their breeding territories. Keeping this in mind, the author surveyed the areas on foot and made his presence obvious to encourage birds on the ground to fly and start calling. The behaviour of the flushed birds was noted, especially whether they were singing or just calling. Observations were made by the naked eye or with the random use of an 8 x 30 binocular.

Results

From Map 2 it results that the Short-toed Lark is completely absent as a breeding bird from large areas,



Key to Map

- x 1-3 Short-toed Larks observed but not heard singing. Probably non-breeding adults or first year birds. Possibility of breeding not excluded but not very likely.
- 1-5 Short-toed Larks observed. At least one male heard singing and breeding is very probable. Less than 3 pairs apparently present in the area.
- Short-toed Larks present and singing all over the shaded areas. A minimum of 3 pairs present in the small areas but many more pairs present in the larger areas. Judging by the behaviour of the birds, breeding is certain.

especially the Valletta peninsula and its suburbs. The presence of large towns and villages, with little open spaces between them, is the main cause for the absence of breeding Short-toed Larks here and in similar areas.

In agricultural land, the type of crops grown often influences the presence or absence of breeding Short-toed Larks. For example, Short-toed Larks were found breeding in areas where the last harvested crop was Red Clover *Hedysarum coronarium* but appeared to avoid breeding in those areas just harvested from cereal crops especially wheat. This may be due to the fact that clover is harvested in late March and cereals in mid-late June.

In the last two or three decades, tree-planting by land-owners and the government is becoming more popular. While tree-planting is beneficial to various species of birds, it poses a threat to the habitat of the Short-toed Lark.

Direct persecution of the species (trapping and shooting), as well as indirect human disturbance, appear to be the reasons why certain areas offering apparently adequate habitat hosted no breeding Short-toed Larks. These adverse human activities also result in the reduction of their population density in those areas where Short-toed Larks breed.

Apart from a few scattered breeding pairs, the Short-toed Lark was found breeding in the following main areas. (Refer to Map).

A. Ta' Lombardi, limits of Marsaxlokk, including Xrobb il-Għagin peninsula and Il-Ballut. A few pairs were also found breeding at It-Tumbrell, limits of Delimara, and at Il-Fiddien near Qajjenza. The habitat in this area is mainly agricultural land with some "garigue". Parts of these areas are being developed and a power station is being built at Delimara.

B. Hal Far disused airfield. The area is threatened by the building of more factories. Parts of the area are also being used for the dumping of soil and rubble.

C. Luqa airport. An important breeding area of the Short-toed Lark in the Eastern section of Malta. Short-toed Larks breed in good numbers within the perimeter fence of the airport wherever the grass grows short especially as a result of mowing. The species avoids breeding in those parts of the airfield where the grass and vegetation grows high and dense.

D. From Mnajdra and Hagar Qim prehistoric temples to near Wied Hoxt and Wied iż-Żurriq. The habitat here consists of "garigue".

E. Tal-Providenza, limits of Siġġiewi. The habitat in this area is mainly agricultural land.

F. Għallis area to Ta' San Pietru near the Victoria Lines. In this area Short-toed Larks breed in isolated patches. The habitat here is mainly agricultural with some "garigue" and land reclaimed from rubbish dumping ground.

G. Pembroke. An area consisting of "garigue" and partly occupied by the Pembroke Rifle ranges. Building development in the area is a serious threat to the future of the habitat.

The map consulted was 1:25,000 Malta, Sheet 3 - D.O.S. Series M898, 1962.

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AN INCREASE IN SIGHTINGS OF CORMORANTS *PHALACROCORAX CARBO* IN MALTESE WATERS DURING 1986-1988

John Borg

Abstract

The past status of the Cormorant *Phalacrocorax carbo* in Malta is reviewed. The number of winter records has increased in the past years. Although this increase may be attributed to an increase in seabird watching, a similar increase of wintering birds has been recorded elsewhere.

Introduction

The Cormorant *Phalacrocorax carbo* is a scarce annual visitor to the Maltese Islands, mostly from October to February. Cormorants are noted mainly around the coast during moderate to strong winds, but occasionally fly overland. Single birds are noted feeding in the harbours and creeks during the winter months (Sultana & Gauci 1982).

History

The status of the Cormorant in the Maltese Islands has always been rather uncertain. Schembri (1843) noted it to be rather common in former years, while Wright (1864) listed it as not uncommon, but as not very regular. Despot (1917) noted it to be frequent. Gibb (1951) observed a few during the years 1941-45. Roberts (1954) noted it to be frequent in winter, while DeLuca (1969) recorded it in small numbers in winter. Bannerman & Vella Gaffiero (1976) reported it to be annual in small numbers from mid-autumn to late winter. Sultana *et al.* (1975) and Sultana & Gauci (1982) noted it to be a scarce visitor with some 10 records annually. Brichetti (1982) considered the Maltese Islands as unimportant, with regards to the movements of the Cormorant, taking in account the average of 10 records annually. Sultana in van Eerden and Munsterman (1986) estimated a maximum of 25 birds wintering in Maltese waters.

The number of birds which are reported shot along the shores, has been on the increase in recent years with the increase of sea-shooting from very fast sea-crafts. Sultana (1986) gives 15-20 birds shot annually, while Magnin (1986) gives 25-50 birds shot annually.

Observations in Maltese and Central Mediterranean Waters

An increase in numbers of migrating / wintering Cormorants has been locally recorded during the years 1986-88 (Coleiro 1988; 1990). This increase could be partly attributed to an increase in field observations around the coast, especially from October to March. Organised and regular sea-watching outings are producing new data on several sea-bird species previously noted to be rare or scarce in Maltese waters, such as the Gannet *Sula bassana* (Mangion *et al.* 1989).

However, an increase in numbers was also noted in nearby Sicily during the same period (Iapichino 1989, Iapichino & Massa 1989). Previously in Sicily it had been recorded as an uncommon passage migrant and winter visitor, on passage being observed in single figures or in parties of up to 15 birds. Overwintering has been recorded regularly since the late seventies and up to 1984 with 30-50 birds counted in January. From 1985 to 1987, 330-425 were counted in January. van Eerden & Munsterman (1986) estimated a total of 700 birds wintering in and around Sicily.

In recent years numbers have also been on the increase in Tunisian waters. Previously it had been

recorded as a scarce or rather scarce winter visitor (Thomsen & Jacobsen 1979). The number of wintering Cormorants in Tunisia is now estimated at 25,000 to 30,000 birds (van Eerden & Munsterman 1986).

Present Situation

During the years 1967-85 an average of 10 birds was being recorded annually. In 1986, the first year of organised sea-bird watching by members of the Malta Ornithological Society, there were no fewer than 26 sightings, totalling 120 individuals, observed in single and double figures. A flock of ca. 40 birds was recorded in October 1986. In the following year, the number of sightings increased to 32 but with a lower total number of birds — 77. In 1988, an increase both in birds and sightings was recorded; 44 sightings produced 166 birds (Fig. 1).

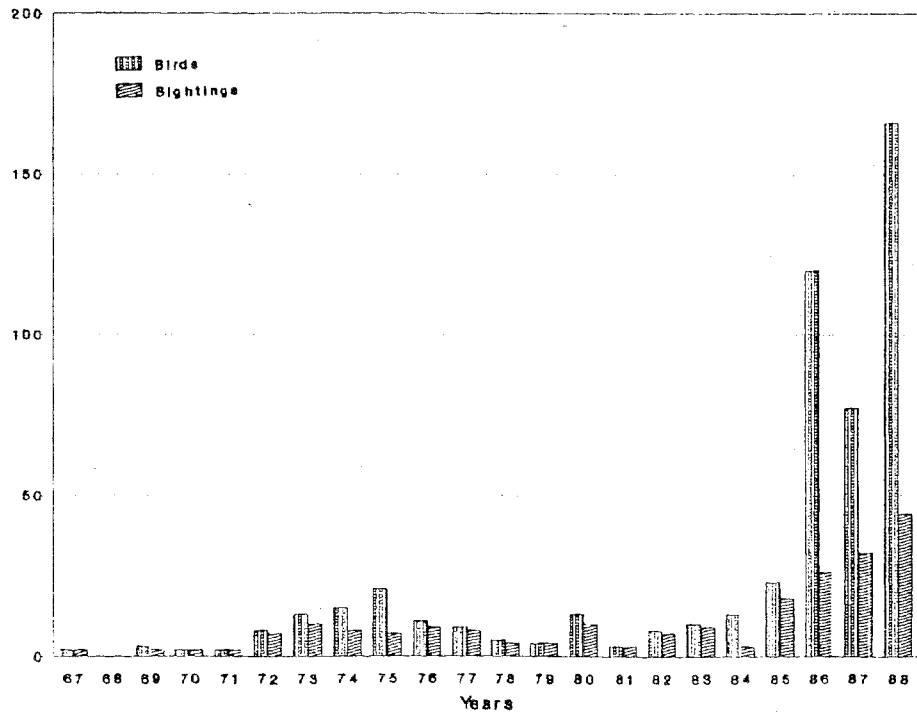


Fig. 1. Annual sightings and number of birds during 1967-88.

November is the month with the highest counts / sightings, normally followed by October, except in 1987 when February produced more birds. Single birds have also been observed in the months of January, February, March, April, May, August, September and December (Table 1).

In 1986 October and November produced the highest number of birds respectively. October had the largest number of sightings, followed by November. In 1987, November was the month with the highest counts and sightings; February produced the second highest monthly count, although there were fewer sightings, followed by the month of October. In the following year November again produced the highest counts and sightings, followed by October and December (Fig. 2).

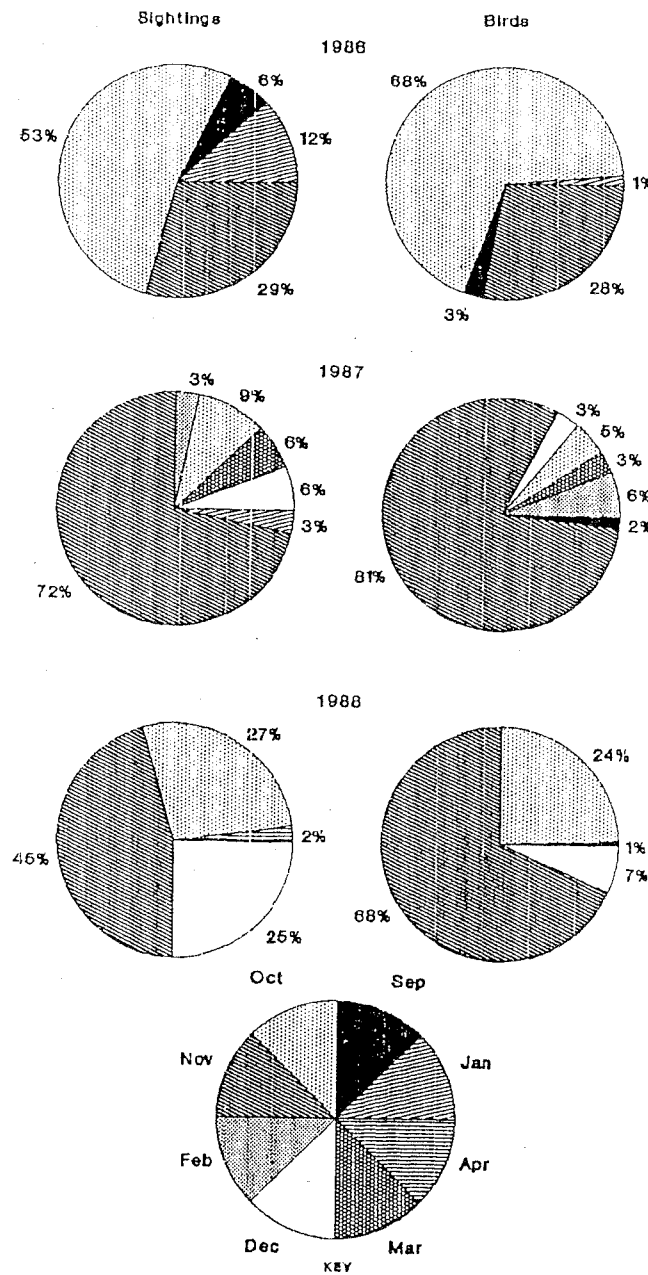


Fig. 2. A monthly analysis of birds and sightings observed in the years 1986-88.

SHORT NOTES

Table 1. A monthly breakdown of sightings and number of birds recorded for the years 1967-1988.

Month	Sightings	(%)	Birds	(%)
January	8	3.7	9	1.7
February	1	0.5	4	0.8
March	3	1.4	3	0.6
April	6	2.8	9	1.7
May	2	0.9	2	0.4
August	1	0.5	1	0.2
September	6	2.8	7	1.3
October	54	25.0	167	31.9
November	104	48.1	288	55.0
December	31	14.3	34	6.4
Total	216	100%	524	100%

Discussion and Conclusion

Sultana & Gauci (1982) report that no adults in breeding plumage were ever recorded. One bird shot off Rinella Pt. (Malta) on 20 March 1990 was in complete breeding plumage (pers. obs.). It may be assumed that an unquantified number of birds flying north in early spring may be adults in complete or partial breeding plumage.

The increase in the number of Cormorants sighted in Maltese waters may be attributed to an increase of sea-bird watching but, on the other hand, a genuine increase in wintering birds in recent years cannot be excluded since a similar increase has been reported elsewhere (van Eerden & Munsterman 1986).

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AN UNUSUAL LARGE MIXED FALL OF BIRDS AND INSECTS ON FILFLA

A number of small to moderate influxes of birds, involving one or more species, occur frequently during the migration seasons in the Maltese Islands. Some of these influxes can be quite localised: while a number of birds of one or more species may be recorded in one particular area, none or very few may be seen in other parts of the islands. On the other hand, very large falls are scarce and of irregular occurrence as these are brought about by unusual climatic conditions, such as a rapid transition from favourable to unfavourable weather (Sultana & Gauci 1977-78, 1982; Thake 1980). One such notable occurrence took place in September 1969 when the south-west of the islands was flooded with grounded birds (Sultana & Gauci 1969).

A similar but more localised influx occurred more recently on 23 October 1990 on the islet of Filfla. At 0800 hrs the wind was mainly easterly with a force of 6 to 7. The sky was partly cloudy and became progressively more cloudy. Rain started at 0930 hrs, and became very heavy from 1030 to 1110 hrs. After a brief period with no rain, heavy showers started again from 1145 hrs and continued until 1315 hrs, accompanied by frequent lightning and thunder. The table below gives the rainfall recorded at Luqa Airport, some 10 km away from Filfla:

0900 - 1000 (local time)	0.2 mm
1000 - 1100	0.8
1100 - 1200	2.3
1200 - 1300	0.7
1300 - 1400	6.5

The wind's direction which was ENE in the morning, backed to SE at about noon. Until 0930 hrs the only birds which were recorded were a Skylark *Alauda arvensis* (heard calling overhead), one Meadow Pipit *Anthus pratensis*, one Swallow *Hirundo rustica*, one Robin *Erithacus rubecula*, one Blackbird *Turdus merula*, two Goldcrests *Regulus regulus*, a flock of six Linnets *Carduelis cannabina*, and a flock of ca. 20 Starlings *Sturnus vulgaris* (which came in low from the SW). No moths, butterflies or dragonflies were recorded prior to this time.

When the rain stopped at 1110 hrs, birds started "dropping" continuously and almost vertically from the clouds, accompanied by large numbers of moths and some dragonflies. By the time observations were stopped at 1400 hrs, the plateau surface was thick with grounded birds. In between heavy showers, when there was more light and less low, thick cloud, the fall continued, particularly involving Song Thrushes *Turdus philomelos*.

When the rain stopped altogether at 1315 hrs some birds started coming in low from the SW. Birds were also noted in good numbers amongst the boulders at the foot of the Filfla cliffs. The bulk of the birds arrived in this order: Robins, followed by Song Thrushes and then by Stonechats; White Wagtails, Black Redstarts and Chiffchaffs arrived simultaneously, immediately after the Stonechats. The insects did not arrive in any particular order.

In this situation it was very difficult to count birds precisely. Following is a list of birds, with the estimated numbers, recorded from 1110 to 1145 hrs.

Kestrel <i>Falco tinnunculus</i>	2
Montagu's Harrier <i>Circus pygargus</i>	1
Crake sp. <i>Porzana</i> sp.	1
Short-eared Owl <i>Asio flammeus</i>	1
Skylark <i>Alauda arvensis</i> (arriving in flocks of up to 30)	200+
Wood Lark <i>Lullula arborea</i>	5
Meadow Pipit <i>Anthus pratensis</i>	15
Tree Pipit <i>Anthus trivialis</i>	2
White Wagtail <i>Motacilla alba</i>	300+
Robin <i>Erithacus rubecula</i>	300+
Black Redstart <i>Phoenicurus ochruros</i>	150+
Redstart <i>Phoenicurus phoenicurus</i>	10
Stonechat <i>Saxicola torquata</i>	200+
Song Thrush <i>Turdus philomelos</i>	250+
Wood Warbler <i>Phylloscopus sibilatrix</i>	10
Willow Warbler <i>Phylloscopus trochilus</i>	10
Chiffchaff <i>Phylloscopus collybita</i>	150+
Goldcrest <i>Regulus regulus</i>	15
Starling <i>Sturnus vulgaris</i>	250+
Chaffinch <i>Fringilla coelebs</i>	(heard)
Linnet <i>Carduelis cannabina</i>	50+
Yellowhammer <i>Emberiza citrinella</i> (16th record for the Maltese Islands)	1
Corn Bunting <i>Miliaria calandra</i>	1

Considering the time of the year, it is not surprising to note that the numbers of trans-Saharan migrant species (e.g. Redstart, Willow Warbler and Wood Warbler) were low, while those of Mediterranean basin wintering species were relatively high (except for Goldcrest and Meadow Pipit).

The insects were even more difficult to identify and count, firstly because of their small size, rapid flight and the poor visibility, and secondly because birds were feeding voraciously upon the insects as soon as these arrived on the plateau surface. The bulk of the insect fall consisted of Hummingbird Hawkmoths *Macroglossa stellatarum* (density on the ground estimated at 3 individuals/m²), accompanied by at least three different species of dragonflies, which arrived singly. The commonest of these was a small-sized species with a yellowish abdomen (*Sympetrum* sp./spp.). The other two, each of which made up some 20% of the incoming dragonflies, were a medium-sized species with a bluish abdomen (*Orithetrum* sp/spp), and a large aeshnidid (most probably *Anax* sp./spp). Species of the above genera recorded to date from the Maltese Islands are: *D. brunneum*, *O. cancellatum*, *O. ramburi*, *S. striolatum*, *S. fonscolombii*, *A. imperator*, and *A. parthenope* (Valletta, 1949; 1957). A single brown butterfly (family Satyridae) was also noted, but this was devoured by a bird before it could be identified further.

Although this is apparently the first time that a mixed mass fall of birds, moths and dragonflies has been recorded from the Maltese Islands, such events are quite common in the Mediterranean (see for example, Darlow, 1951). It is interesting to note that while *Macroglossa stellatarum* has in the past been recorded as migrating to the Maltese Islands (e.g. Dannreuther, 1948), with the exception of *Anax* sp/spp., (see Valletta, 1952) this is the first Maltese migration record for the other species of dragonflies.

The general synoptic situation of the 22 and 23 October 1989 explains clearly why such a fall of birds and insects occurred. A slow moving area of high pressure (1032 hPa) centred over the Black Sea and the Balkans, and extending to North Italy, was maintaining an easterly airflow over the central Mediterranean, while an area of low pressure (1018 hPa) was over the Gulf of Sidra. The low pressure deepened somewhat and moved northeastwards to the south of the Maltese Islands still maintaining an

easterly airflow. An extensive area of intense thundery activity covered most of the central and southern part of the Mediterranean Sea in the vicinity of the Maltese Islands. This instability continued to move slowly westwards during the period, giving cloudy weather with outbreaks of thundery showers over the Maltese Islands. Presumably, birds which were induced to migrate by the fine weather in Central and Eastern Europe and extending down to Sicily (possibly the point of departure of the migrating insects), were met with adverse weather over the central Mediterranean and made for the nearest land. The fall was particularly noticeable on Filfla because of the limited land area. Falls may also have occurred elsewhere along the southern coast of Malta, but probably went unnoticed because they were diffused.

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THE PRESENT STATUS OF THE CORY'S SHEARWATER *Calonectris diomedea* ON FILFLA

The presence of the Cory's Shearwater *Calonectris diomedea* on Filfla islet has been reported by several authors (Wright 1863, Becher 1884, Despott 1916, Luxmoore-Duff 1947, Trail 1949-50, Roberts 1954, Sultana and Gauci 1970 and 1982, Sultana *et al.* 1975).

The breeding colony on Filfla has been estimated as less than 30 pairs (Roberts 1954) to about 200 pairs (Sultana *et al.* 1975, Sultana & Gauci 1982). Luxmoore-Duff (1947) was fairly certain that Shearwaters

were not nesting on Filfla when he visited the islet on 11 May. He must have come to this assumption because at that time of the year the Cory's Shearwater would not have yet laid and the birds would be foraging out at sea during daylight. Two years later Trail (1949-50) visited Filfla in late July. Twenty-two occupied nests of shearwaters (species undetermined but presumably Cory's) were located among the boulder and rubble slopes. At night Trail estimated the number of arriving birds as over a thousand, possibly twice as many. This figure seems to be somewhat exaggerated. A hundred birds can make enough noise to mislead an inexperienced observer into overestimating their number. On the other hand, if Trail was correct, the sharp decline in numbers can be partly attributed to bombing (Sultana & Gauci 1970). Filfla was used for bombing practices until 1974.

After several visits during the summer of 1952, Roberts (1954) concluded that the breeding population was about 30 pairs. In 1968 members of the newly-formed ringing scheme of the Malta Ornithological Society started organising expeditions to the islet and the breeding population was estimated at about 100 pairs (Sultana & Gauci 1970). In the following years the breeding population was estimated to have increased to about 200 pairs (Sultana *et al.* 1975, Sultana & Gauci 1982).

By the early seventies the extensive rubble screens, which had been created below the cliffs by bombing, offered many suitable nesting areas for the shearwaters. However, in the following years storms and other natural elements started to change, at times suddenly, the face of the islet. Rubble screens were much reduced and patches of the underlying slopes of blue clay were uncovered. Furthermore bird-shooting at sea from fast motor-powered dinghies and speed boats has increased considerably in the past few years, with an increasingly larger number of shearwaters shot. Recent visits revealed that a decline in numbers of Cory's Shearwaters has taken place on the islet. During a visit in mid-August 1990 the authors, covering nearly half of the surface area below the cliffs, found only thirteen nests occupied by young birds. It seems that at present the population is less than 100 breeding pairs.

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SOME NOTES ON THE PENDULINE TIT *REMIZ PENDULINUS* AND ITS OCCURRENCE IN MALTA

The Penduline Tit *Remiz pendulinus* is a mainly resident species but with some dispersive, irruptive and cold weather movements. This small tit-like bird breeds in marshy habitats in the palaeartic region. Its breeding range falls mainly between 40 and 50 N. extending from western Europe to China. There has been a gradual westward spread in Europe and in recent years a marked expansion of its range occurred in northern, central and western Europe (Flade *et al.* 1968, Harrison 1982). This expansion also took place at its southwestern limits in Mediterranean France and Spain and the numbers of wintering birds recently recorded southward as far as Morocco have increased (Isenmann 1987). All this is also reflected in an increase of winter records in Malta as will be shown later. Thomsen and Jacobsen (1979) give only one record (10-11 January 1975) for Tunisia. Since then T. Gaultier (in litt.) informed the present writers that he recorded one in January 1989 and 2 in March 1990 in two different localities in Tunisia. Iapichino & Massa (1989) estimate a breeding population of less than 100 pairs in Sicily and state that there is no regular movement although family parties wander far from breeding areas from July onwards.

The behaviour and movements of this species are quite unpredictable. A female bearing a Radolfzell ring BT30.689 is known to have bred successfully twice in the breeding season of 1986 in two places at a distance of more than 200 km in Germany, raising 5 young in one place and 6 in the second (Franz *et al.* 1987). The third Penduline Tit to be ringed in Britain (on 15 October 1988) was recovered the following May in central southern Sweden, where the species had started to breed a few years earlier (Mead 1989). One bird ringed as a pullus with a Hiddensee ring in June 1988 at Neubirchen in Germany was controlled at Xemxija, Malta in December 1990. Another first year bird ringed at Lunzjata, Gozo in December 1989 was controlled in February 1990 at Xemxija, and then controlled again at Misano Adriatico, Italy in October 1991.

The above recoveries and several others in Italy bearing Polish and German rings indicate that the passage birds in the Mediterranean originate from the northern limits of the species' range, which are forced to travel southwards to survive the winter.

The Penduline Tit was recorded for the first time in the Maltese Islands on 4 November 1972 at Lunzjata, Gozo (Sultana & Gauci 1973a). Since then it has occurred irregularly in winter in increasing numbers, with the largest numbers recorded in winter 1989-90. None were recorded in 1973, 1976 to 1982 and 1985.

Following is a list of annual records from 1972 to 1989 (Sultana & Gauci 1973b, 1977-78, Gauci & Sultana 1975, Gauci 1986-87, and Coleiro 1988, 1989, 1990-91).

-
- 1972: 1-2 at Lunzjata, Gozo from 4 Nov. to 9 Dec.
 1974: 1-2 at Lunzjata, Gozo on 30 Nov. - 1 Dec.
 1975: 1 at Delimara on 11 Apr.
 1983: 2 at Lunzjata, Gozo on 2 Nov. then same 2 birds at Ramla Bay on 16-18 Nov.
 1984: 3 at Ghadira on 11 Mar.
 1985: 1-6 frequently from 24 Oct to 16 Nov. 1 on 22 Nov. 1-3 almost daily from 1-9 Dec. (5 on 8th), and 1 on 27th and 2 on 29-30 Dec. All at Ghadira.
 1987: 1-4 on 6 dates in Jan and 1-5 on 3 dates in Feb. 1-3 almost daily in Mar. (5+ on 17-18th at Xemxija). 2 on 3 Nov. Mostly recorded at Ghadira.
 1988: 2-6 on 4 dates in Nov. and 1-3 on 8 dates in Dec. Mostly recorded at Ghadira.
 1989: 16 single sightings in Jan. and Feb. and 1-3 on 3 dates until 8 Mar. all at Ghadira. 1-6 (mostly recorded from Ghadira and Lunzjata, Gozo) almost daily from 28 Oct to end of year but 15+ at Xemxija on 15 Nov. and 8-10 on 7-8 Dec. at Ramla Bay, Gozo.
-

Local recoveries and retraps indicate that wintering Penduline Tits have a tendency to roam frequently from one site to another. 5 birds ringed in Gozo were controlled in Malta while 1 ringed at Ghadira on 1 November 1989 was controlled at Lunzjata, Gozo on 9 December 1989 and then back in Malta at Xemxija on 8 December 1990. Some remain up to 3 months in the islands. 3 out of 44 birds ringed in winter 1989–90 returned to the islands the following winter. Following is a list of interesting recoveries and retraps.

1	2	3	4	5	6	7	8
JX 59.829	30.11.74.	Lunzjata	00.03.75	Burmarrad	90+	25	SE
75.340	01.11.89	Ghadira	09.12.89 08.02.90	Lunzjata Xemxija	38 99	15.5 20	NW SE
75.777	08.11.89	Ramla	15.11.89	Xemxija	7	17.5	SE
74.109	15.11.89	Xemxija	25.01.90	Ghadira	71	5	NW
A8.964	20.11.89	Lunzjata	11.02.90	Xemxija	83	20	SE
A8.976	21.11.89	Lunzjata	08.12.89	Ramla	17	6.5	NE
68.312	08.12.89	Ramla	07.03.90	Xemxija	9	17.5	SE
74.172	08.12.89	Xemxija	04.02.90	Xemxija	58	–	–
68.319	09.12.89	Lunzjata	08.02.90	Xemxija	61	20	SE
74.181	10.12.89	Xemxija	27.02.90	Xemxija	79	–	–
74.194	19.12.89	Xemxija 07.11.90	28.01.90 Xemxija	Xemxija 323	40 –	– –	– –
75.855	14.01.90	Lunzjata	11.02.90	Xemxija	28	20	SE
77.732	30.01.90	Xemxija 11.02.90	08.02.90 Xemxija	Xemxija 12	9 –	– –	– –
59.619	04.02.90	Xemxija 22.11.90	27.02.90 Xemxija	Xemxija 291	23 –	– –	– –
77.740	08.02.90	Xemxija	21.02.90	Ghadira	13	5	NW
77.140	21.02.90	Ghadira	07.11.90	Lunzjata	159	15.5	NW

1 = Ring No.; 2 = Ringing Date; 3 = Ringing Locality; 4 = Recovery / Retrap Date; 5 = Recovery / Retrap Locality; 6 = Number of days between Ringing and Recovery / Retrap Dates; 7 = Distance in km between Ringing and Recovery / Retrap Localities; 8 = Direction.

Most of the 44 birds which were ringed in winter 1989–90 were moulting the head feathers. Two birds were in body moult; two were moulting the tertials; one was moulting the median and underwing coverts; and another was moulting all wing coverts. The first year birds which occurred in November had a predominantly brown head with an ill-defined mask which gradually changed slowly to a silvery grey head and a jet black mask as in adults in January or February. After this time ageing is only possible if

the bird still retains some juvenile greater coverts or tertials which indicate a 2nd year bird. Svensson (1984) states that Swedish 1st year birds do not undergo a complete moult while the South European ones may undertake a complete moult. This also supports the view mentioned earlier that the birds of passage in the Mediterranean originate from the species' extended northern range.

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BREEDING OF SPOTTED FLYCATCHERS AT BUSKETT IN 1991

The last breeding records of Spotted Flycatchers *Muscicapa striata* in the Maltese Islands were in 1986 and documented by the author (il-Merill 24:18).

Buskett woods were visited every summer from 1987 to 1990, mainly in June and July, but no birds were found breeding during this period, although single birds were present on 22 June 1987 and 12 June 1988. During June and July of 1991 two pairs of Spotted Flycatchers successfully raised a brood each at Buskett. The first pair was located inside the boundary wall of the Verdala Castle Gardens and built the nest on a lower lateral branch of mature Aleppo Pine *P. halepensis*, about 8 m. above the ground. Three eggs were laid in the last days of June. All three eggs hatched and the young fledged successfully in the third week of July.

The second pair also nested on the lower lateral branch of an Aleppo Pine about 3 m. above the ground. On 6 July the female was brooding two eggs, which hatched on 16th July. Two fledged young were observed in the vicinity of the nest on 29 July. Both nests were built well away from the main trunk and were very well concealed. They were both constructed of thin twigs, grass, lichens and plant down and lined with small feathers and hair.

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A SUMMARY OF MY OBSERVATIONS OF NECTAR FEEDING IN MALTA

The observations are best reported in Tabular form.

Species of flowering plant	Sardinian Warbler	Blackcap	Chiffchaff	Spanish sparrow
<i>Antholyza aethiopica</i>	1(C) 3(C) 4(C) 5 7(C) 8	1(R) 3(C) 4(C) 7(R)	1(C) 2 6 7(R) 9	
<i>Prunus domestica ssp italica</i>	3(R)	3(C)		
<i>Citrus sinensis</i>	1(R)	2(R)		1(C) 2(R)
<i>Erythrina indica</i>		1(R)		1(C)
<i>Euphorbia pulcherrima</i>			2	
<i>Prunus dulcis</i>	4(R)			
<i>Grovillea robusta</i>	1(R)			

Locality code

- 1 San Anton Gardens
- 2 Fleur de lys (Private garden)
- 3 The Seminary, Tal Virtu, (Private grounds)
- 4 Maghtab (Farm)
- 5 Tal Balal (Farm)
- 6 Balzan (Private garden)
- 7 St. Aloysius College, B'Kara (Private grounds)
- 8 Guardian Angel School, Hamrun (Private grounds)
- 9 Station Gardens, B'Kara

Frequency code

- (C) Following a number, indicates that observations at that locality were regular and that more than 10 instances of nectar feeding were recorded.
- (R) Following a number, indicates that observations at that locality were regular, and that less than 10 instances of nectar feeding were recorded.
- A number which is not followed by a letter in brackets, indicates that observations at that locality were infrequent.

The species of plant are listed in the Table in the order of their importance in nectar feeding locally. *Antholyza aethiopica*, which was formerly identified incorrectly as *Lapeyrouisia cruenta* and listed as such in two earlier papers (Thake, 1980 and 1986) is the most important nectar provider locally. It is becoming commoner around farmhouses, and observations of nectar feeding are likely to become more frequent in the future.

Of all the species of plant listed, only *Prunus dulcis* is native to the Mediterranean region. Thus, the nectar feeding observed in Malta can be interpreted as being the result of exploitation of introduced plant species which are rich in nectar.

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CHIFFCHAFFS *PHYLLOSCOPUS COLLYBITA* FEEDING IN A SMALL GROUP ON A LOCAL CONCENTRATION OF EMERGING MOTH FLIES (INSECTA; DIPTERA; PSYCHODIDAE)

In the Maltese islands, Chiffchaffs wintering in suburban areas usually forage singly during the day and then gather in the late afternoon in small groups consisting of from six to ten individuals to roost in one of the more sheltered gardens. This is what happens at San Anton Gardens where Chiffchaffs are usually seen foraging singly. At times however, small groups of Chiffchaffs are seen, usually feeding at a large and plentiful source of food. This happened at San Anton Gardens this year, where between mid-January and late February 1991, a small group of Chiffchaffs could be seen feeding close to a stone irrigation canal in the centre of the gardens. Moth flies were emerging in large numbers from the sludge at the bottom of the stone canal and as many as 10 per 100cm² of canal could be counted. The Chiffchaffs spent most of their time about 2 to 5 metres from the canal, visiting the canal periodically to take one or more moth flies. The table shown below gives the number of Chiffchaffs seen in an area of about 10 x 10m near the canal on days when observations were made.

Table

Observations	6/1/91	12/1	26/1	2/2	7/2	23/2	2/3
Chiffchaffs seen	0	5	4	6	8	2	0

No observations were made to determine whether the Chiffchaffs were moving as a group from a roost site within the gardens to the feeding place as has been observed in many other species (Ward & Zahavi 1973) or whether the Chiffchaffs accumulated at the feeding place during the day by local enhancement. Given the small size of the groups observed, the former possibility is the more likely.

The feeding Chiffchaffs were not joined by any other species, although there were Starlings, Robins, Dunnocks, Blackcaps, Sardinian Warblers, Tree Sparrows and Spanish Sparrows in the garden. Due to the presence of about 30 cats in San Anton Gardens, feeding on the ground close to the canal ought to have involved some risk of predation. At no time, however, did the resident cats show any interest in the Chiffchaffs.

The Chiffchaffs, which are winter residents in the Maltese islands, had left the area entirely by 7-9th March but it is not clear whether the decline in numbers at the canal was due to migrant birds leaving.

Reference

Ward, P. & Zahavi, A. 1973. The importance of certain assemblages of birds as 'information centres' for food finding. *Ibis* 115: 517-534.

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THE BLUETHROAT *LUSCINIA SVECICA* RECORDED SINGING IN MALTA

The Bluethroat *Luscinia svecica* is a very scarce but annual passage migrant from March to May and again from September to November. Some birds also over winter in Malta. There have been no records of the bird singing on migration through Malta or while overwintering (Sultana & Gauci 1982).

The following are the first singing records of this species: One singing while perching on an electricity wire at Lunzjata Valley, Gozo on 11 April 1983 (John Attard Montalto, pers. comm.); a white-spotted male singing for nearly an hour while perched on a twig by the side of the Marsalforn Valley on 17 March 1985 (John Grech, pers. comm.); and another male singing perched in a Tamarisk tree on an island at Ghadira Nature Reserve on 17 December 1989. The latter was also heard singing regularly at the reserve from December to March (Charles Gauci, pers. comm.).

Reference

Sultana, J. & Gauci, C. 1982. A new guide to the Birds of Malta. The Ornithological Society: Malta.

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SOME OBSERVATION NOTES ON THE SHORT-TOED LARK *CALANDRELLA BRACHYDACTYLA*

Various parental anti-predator strategies are described for the Short-toed Lark *Calandrella brachydactyla* in Cramp (1988). Feigning injury to lure a snake away has also been noted (Sultana & Gauci 1970).

A different type of anti-predator strategy was noted on 8 July 1989 at is-Sanab, Gozo. The author was in a photography hide which was about 3 m away from a nest of the Short-toed Lark which contained three young. These were nearly fully fledged so much so that one of them was leaving the nest to meet the parents each time these visited the nest with food. Then, all of a sudden, the regular visits by the parents stopped and after about 8 minutes the young started calling for food. Looking out from a side hole in the hide, a Western Whipsnake *Coluber viridiflavus* was seen moving along the field about 4 metres away from the nest. The female was also there walking briskly with head held high on a stretched neck looking intently at the snake and walking alongside it about a metre away. They moved together in a seemingly parallel way until the snake was about 20 m away from the nest, when the adult bird flew up. A few minutes later it was back feeding the young.

The Short-toed Lark's song is well known to be frequently interspersed with mimicked calls. Some of its calls are reminiscent of other species which do not even belong to its genus or family (Cramp 1988).

While trying to locate nests of this species at Ta' Cenc on 19 May 1991 one bird was distinctly heard using a few notes from the staccato alarm calls of the Sardinian Warbler *Sylvia melanocephala* as a sort of an introductory phrase to its main normal song. This was repeated several times. Sardinian Warblers breed in the area and are frequently heard uttering their chattering calls.

References

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EGG LAYING IN THE MEDITERRANEAN SHEARWATER *P. YELKOUAN* IN MALTA

In the Maltese Islands the Mediterranean Shearwater *Puffinus yelkouan* has been recorded laying generally in late March or early April (Sultana & Gauci 1970a, 1970b, 1982).

While on a night visit to a partly accessible colony of this species in the northern part of Malta on 7 March 1991 an adult bird was found incubating its single egg, very deep inside a burrow in the cliffs. On the same night seven other birds were caught for ringing before entering their burrow. During the ringing process three adult females were found ready for laying. The egg inside could easily be felt and the cloaca was already much extended.

It seems that the Mediterranean Shearwater in the Maltese Islands may commence laying in the first half of March, earlier than previously recorded.

Acknowledgement is due to Marwiel Mallia, who, with difficulty, entered the deep burrow and found the incubating bird, to Joe Sultana who examined the birds during the ringing process, and to Alex Casha, Victor Falzon and Desiree Falzon who formed part of the visiting team.

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Editorial Note: The Records Committee of the British Ornithologists' Union in its fifteenth report in April 1991 has recommended the separation of *P. yelkouan* (including the race *mauretanicus*) from *Puffinus puffinus* (Manx Shearwater) which should now be treated as monotypic. It has also recommended that *Puffinus yelkouan* be known as Mediterranean Shearwater (*Ibis* 133:438-441). Local ornithologists should be very careful not to be confused as in former times the Cory's Shearwater *Calonectris diomedea* was known as Mediterranean Shearwater. The separation has been recommended due to recent works (Bourne *et al.*, *Br. Birds* 81: 306-319 and Yesou *et al.*, *Br. Birds* 83: 299-319) which show that there are consistent and recognisable differences in the plumage, breeding range, migration pattern and winter distribution of *P. puffinus* on the one hand and *P. yelkouan* (both subspecies *yelkouan* and *mauretanicus*) on the other.

SPANISH SPARROWS DISMEMBERING FLOWERS

Over several years in late March to May, Spanish Sparrows *Passer hispaniolensis* have been watched dismembering the flowers of Orange trees (*Citrus sinensis*) in a private garden at Fleur de lys and at San Anton. The sparrow deliberately bites off part of the flower and chews the part in its bill. The bill movements used are similar to those used by sparrows to immobilise a large insect before swallowing it. The flower part, usually a petal or a group of stamens, is held transversely in the bill, which executes many sequential pressing movements on the flower part, as the latter gradually moves through the bill in a transverse plane. The flower parts are not swallowed, and are discarded immediately afterwards. It looks as though the sparrows are pressing the flower parts in order to extract and drink the cell sap which oozes from the pressed petals and stamens. *Ilma żagħhar*, made by pressing orange blossoms, is a traditional Maltese medicinal drink, well known in Maltese domestic culture.

On two occasions in June 1987 and June 1989, Spanish Sparrows were seen treating flowers of Japanese Honeysuckle *Lonicera japonica* in a similar way. It may be that the technique extracts some of the nectar held at the base of the corolla. *L. japonica* flowers in May-June, just after the Citrus trees have stopped flowering, and it may be that some sparrows have extrapolated the technique to extracting nectar from this species.

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SPANISH SPARROWS EATING SWARMING TERMITES (INSECTA: ISOPTERA)

Two species of Termite inhabit the Maltese islands, *Kaloterms flavicollis* (*Kalotermitidae*) and *Reticulitermes lucifugus* (*Rhinotermitidae*). Both these species are reputed to swarm in spring (*Kaloterms* in early spring and *Reticulitermes* from April to June) (Chinery, M. 1986. Insects. Collins, London). I have records of *Reticulitermes lucifugus* swarming in May (7/5/89) and 25/5/91) at San Anton gardens, where Termites are common.

A few specimens were collected from the swarms present at San Anton on 25/5/91, and the species involved was subsequently identified as *Reticulitermes lucifugus* (identification confirmed by S. Schembri). At about 09.50 hours (C.E.T.), large numbers of termites were observed descending slowly to the ground. Two flocks of Spanish Sparrows (*Passer hispaniolensis*) were seen feeding on these termites. The two flocks were quite small (8 and 20 individuals) and each flock included both males and female. The larger flock contained two fledglings which were begging for food continuously.

The sparrows hopped over the ground, stopping at intervals to capture a helpless termite. Generally, the termite was picked off the ground and eaten immediately, but the two females which were feeding fledglings were seen gathering several termites and holding them in their bill. It was noticed that most of the birds did not attempt to catch termites while in flight, but tried to locate helpless grounded termites. On one occasion, however, a male was seen flying horizontally to catch a termite (in the bill) which was hovering close to the ground. In addition, a female was seen trying to catch a termite by picking it off the soil. The termite managed to fly off. The female Spanish Sparrow promptly picked up a dead leaf and held it in her bill for about one second.

Given the low diversity of Termites in the Maltese islands, swarming is probably a relatively rare event at any one locality, occurring on a handful of dates every year. This must make termites relatively unimportant quantitatively as a food source. The significance of this behaviour probably lies in the fact that it reduces the impact the sparrows have on their food supplies for a day or so. This ought to make supplies of foods such as seeds and fruits last longer. While this explanation may account for the existence of this behaviour in sparrows as a species, it does not provide a satisfactory answer in the case of the sparrows at San Anton. Food is abundant at San Anton gardens, and food supplies are unlikely to run out.

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CHIFFCHAFF PHYLLOSCOPUS COLLYBITA FEEDING ON THE FRUIT OF THE PRICKLY PEAR

OPUNTIA FICUS-INDICA

B. & D. Snow (1988) stated that of the *Phylloscopus* warblers perhaps the Chiffchaff *Phylloscopus collybita* takes fruit most often, but even so records are few. They mention elder, red elder, blackberry, persimmon (*kaki* fruit) and *Vaccinium* sp. for this species.

On 29th December 1990 a Chiffchaff was noted pecking at and eating from the fruit of a prickly pear *Opuntia ficus-indica* tree. The fruit in question, which was also pecked at by a Sardinian Warbler *Sylvia melanocephala*, a Black Redstart *Phoenicurus ochruros*, a Robin *Erithacus rubecula* and 2-3 Spanish

Sparrows *Passer hispaniolensis* within a spell of fifteen minutes, was in an over-ripe condition, partly eaten and with the soft interior quite accessible to the bird.

Although it has been recorded that the uncropped summer fruit of the prickly pear is a source of food in winter to several species (Sultana & Gauci 1982) we are not aware that to date any Chiffchaffs had been recorded feeding on this fruit.

The above observation was made along the road in Ramla Valley, Gozo leading from Xaghra to Ramla Bay.

References

- Snow, B. & D. 1988. Birds and Berries. T & A.D. Poyser: Calton.
Sultana, J. & Gauci, C. 1982. A new guide to the Birds of Malta. The Ornithological Society: Malta.

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THE YEAR OF THE FIRST CONFIRMED BREEDING RECORD OF THE SARDINIAN WARBLER *SYLVIA MELANOCEPHALA* IN THE MALTESE ISLANDS

Dresser (1885) in a letter to the editor of the *Ibis*, states that when he was working at the "Birds of Europe", Major Fielden had written to him to say that he had found the Sardinian Warbler *Sylvia melanocephala* in Malta in the summer of 1874 and had little doubt that it remained to breed. Dresser continues by stating that this surmise was shown to be correct by another letter which he had "lately received" from Dr. David Bruce, who was then quartered in Malta, reporting that he found two nests that summer. There is no doubt therefore that the first nests were located by Dr. Bruce in summer of 1884.

In Sultana *et al.* (1975) the year of the first breeding record was erroneously printed as 1874 (the year of Major Fielden's letter) instead of 1884 (the year of Dr. Bruce's letter). This error continued to appear undetected in two popular articles (Sultana 1977; 1987) and in the New Guide to the Birds of Malta (Sultana & Gauci 1982).

The aim of this short note is to put the record straight.

References

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Sultana, J. 1977. The Sardinian Warbler. *Times of Malta* (Monday February 21, 1979), p. 5.
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BLACK REDSTART AND WHITE WAGTAIL USING A BUILDING AS SHELTER DURING A RAIN SHOWER

On 19th December 1990, there was a moderately long rain shower (about $\frac{3}{4}$ hour) during which rain was moderately heavy, about 1 cm of rain falling during this interval. Two birds were seen taking shelter in parts of a building in the Upper Lyceum complex at Msida, about a quarter of an hour after the shower started.

A female Black Redstart (*Phoenicurus ochruros*), which usually fed on the roof and grounds of the Prevocational School (Health care) during the winter of 1990–91, was seen resting inside a ventilator throughout most of the rain shower. The bird was familiar with the observer and was not disturbed at being watched.

A White Wagtail (*Montacilla alba*), probably the same bird which held territory over the winter in the football pitch at the Upper Lyceum, was seen perching on a window sill of the same building at the Prevocational School. The bird was disturbed by the fact that it was being watched and flew onto another window sill where it was out of sight. This bird was not used to being watched.

The Black redstart was familiar with the building and it may well have roosted in the same place on most nights. The White Wagtail however, must have been seeking shelter in an unfamiliar place.

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MARSH HARRIERS ROOSTING IN ALEPPO PINES AT BUSKETT

Single Marsh Harriers *Circus aeruginosus* have been noted to roost occasionally in the woods at Buskett (Balzan & Fenech 1981–83). In autumn 1991, roosting in Aleppo Pines has been noted there with up to 28 birds on one evening.

Observations at Buskett were carried out daily from September to the first week of October 1991. Marsh Harriers were noted to congregate over Buskett on most days after 1630 hrs. Flocks of up to 5 birds have been recorded and roosting was observed as follows (number of migrating Marsh Harriers observed on each respective day is given in brackets): One on 5th September (9), 6 on 9th September (13), 22 on 21st September (165) and 28 on 4th October (40).

The birds always used a small area of Aleppo Pines near Verdala Castle. There is no doubt that illegal hunting in the area prevents more birds from roosting there.

Reference

- Balzan, S. & Fenech, N. 1981–83. Marsh Harriers roosting in trees. *Il-Merill* 22:19.

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WATCH OUT FOR THE YAKUT WILLOW WARBLER

In the thirties, Ticehurst described a subspecies of Willow Warbler from eastern Siberia, *Phylloscopus trochilus yakutensis*. Although the subspecies has been identified on its winter grounds in eastern and southern Africa, little work seems to have been done on its migratory behaviour and breeding biology. The most recent guide to Soviet birds (Flint, *et al.* 1984) does not deal with this subspecies at all, confining its treatment to the binomial taxon *Phylloscopus trochilus*. There are no European records.

This short note reports a sight record from Malta. One bird was seen in the company of Wood Warblers (*P. sibilatrix*) at San Anton gardens on the 28th, 29th and 30 April 1987. The Rarities committee of the Malta Ornithological Society does not usually consider records of subspecies, and the record was not accepted formally. Nevertheless, it was transcribed in the records of the Committee. A similar bird was seen at San Anton gardens on 8 April 1980, again in the company of Wood warblers, but it was not identified at the time and was never submitted to the Rarities committee.

According to Williamson (1967) the upperparts of the Yakut Willow Warbler are grey brown, with only a trace of olive-green on the rump and edges to the wing and tail feathers. The underparts are dull white, clouded grey on the breast, and without any yellow except at the bend of the wing and on the thighs. The subspecies' breeding distribution according to Ticehurst (1938) is eastern Siberia, from the Taimyr peninsula and Angara river eastward to the Kolyma, Yana and Andayr rivers, south to about 60° North. On migration, it is said to skirt the deserts of central Asia to reach its winter grounds in eastern and southern Africa.

The Yakut Willow Warbler can be distinguished from Bonelli's Warbler (the species which it resembles most) as follows. The bird is large for a *Phylloscopus*, approaching the upper limits of size for Bonelli's Warbler (*Phylloscopus bonelli*). Whereas Bonelli's Warbler is generally greyish brown to brownish grey above, the Yakut Willow Warbler is grey enough to be colour sketched realistically using an HB pencil. Bonelli's warbler is usually paler on the head, while the Yakut Willow Warbler is as uniform in tone as a Willow Warbler. Finally, Bonelli's Warbler has primary edges which vary in colour from greenish-yellow to golden brown, giving a distinctive wing panel. This wing panel is completely lacking in the Yakut Willow Warbler. If the bird I saw at San Anton in 1987 is at all typical the yellowish green wash on the rump feathers is conspicuous enough in bright sunlight to be useful as a field character, if a dorsal view of the hovering bird is obtained. Williamson (1967) gives the impression that it is as inconspicuous as the edging to the wing and tail feathers. It is the yellowish rump which causes the bird to resemble a Bonelli's Warbler (particularly *P. bonelli orientalis*) as otherwise it would pass for an aberrant grey Willow Warbler.

This short note is primarily intended to alert European bird-watchers and ringers to the possibility of this *Phylloscopus* turning up at least as far west as Malta. In addition, the taxon is so distinctive in the field as to suggest that further study of its breeding behaviour is desirable. In particular, does it interbreed with the Willow Warblers to the west of its range? By comparison with other *Phylloscopi*, the Yakut Willow Warbler is easy to identify and this "true siberian" might well turn out to be a full species.

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Ticehurst, C. B. 1938. A systematic review of the genus *Phylloscopus*. Trustees of the British Museum, London.
Williamson, K. 1967. Identification for ringers. 2: The genus *Phylloscopus*. B.T.O. guide no. 8.

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GREY HERON *ARDEA CINEREA* MOBBED BY STARLINGS *STURNUS VULGARIS*

An unusual mobbing behaviour was witnessed while birdwatching at Ghadira Nature Reserve on 29th November 1987.

A Grey Heron *Ardea cinerea*, which was present in the reserve, took flight presumably frightened by the sound of gun-shot in the vicinity. It rose slowly, but eventually tried to resettle on one of the islands in the reserve. A flock of about 50 Starlings *Sturnus vulgaris*, which were flying about and feeding in the area, tightened and dived close to the Heron, preventing it from settling down. This mobbing behaviour repeated itself for about six minutes until the heron had reached a good height. Then the Starlings retreated and the Grey Heron, after circling for a few minutes, settled down again in the reserve.

Vassallo (1980) recorded a flock of 13 Grey Herons being chased by the Yellow-legged Gulls *Larus cacchianans* breeding there when trying to alight on Filfla.

Reference

- Vassallo, A. 1990. Herring Gulls chasing Grey Herons. *Il-Merill* 21:25.

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PARTIAL ALBINO SUBALPINE WARBLER

On 29 March 1989 at ca. 1530 hrs a partial albino Subalpine Warbler *Sylvia cantillans* was trapped for ringing at Dwejra, Gozo. On that day there was a small influx of Subalpine Warblers and some typical birds were trapped for comparison.

The bird had all wing and tail feathers of the normal type, but all the rest of the body was pure white except for some grey behind the eyes and also on the mantle and back. Some pinish-brown feathers on the breast suggested that it was a male bird. The scapulars were also white admixed with some grey feathers. The bill, iris and tarsi were of the typical type.

Raymond Galca

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The partially albino bird and a typical male Subalpine Warbler.

SYSTEMATIC LIST FOR 1989

compiled by
CHARLES COLEIRO

The regular contributors to the daily log kept by the Ringing and Research Committee of the Malta Ornithological Society during the year under review were: John Attard Montalto, John Borg, Richard Cachia Zammit, Alex Casha, Charles Coleiro, Mark Anthony Falzon, Raymond Galea, Charles Gauci, Manuel Mallia, Joseph M. Mangion, Michael Sammut and Joe Sultana. Other contributors were: Mario Bosio, Simon Busuttil, Denis Cachia, Jackie Cremona, Peter J. Dunn, Joseph Dunlop, Max Farrugia, Natalino Fennech, Morten M. Hansen, J.C. Le Gassich, Caldon Mercieca, Paul Portelli, Jurgen Rudder, Silvio Scicluna, Martin Thake and Louis Vella. Other members may have contributed to the daily log kept at the Ghadira Nature Reserve, which records were subsequently added to the national daily and species log.

LITTLE GREBE *Tachybaptus ruficollis* Blongun Zghir
2 at Ghadira from 2 Jan to 15 Mar, then 1 till 25th. Again 1 at same place from 26-28 Oct, 2 on 4-5 Dec and singles on 7th and 22nd.

GREAT CRESTED GREBE *Podiceps cristatus* Blongun Prim
1 at Ghadira from 20 Nov to 1 Dec WHEN FOUND DEAD, then singles at Ghallis on 4th, 6th, and 8 Dec.

BLACK-NECKED GREBE *Podiceps nigricollis* Blongun Sekond
Up to 20 present at Ghadira from Jan to mid. Mar. Gradually decreasing to 1 till 27th. 1 released at same place on 20 Sep and 1 from 22-26 Oct; then again from 18 Nov increasing to 20 by 16 Dec and 18-20 till year end. Outside Ghadira 6 records of 1-2 from 19 Nov to 15 Dec.

CORY'S SHEARWATER *Calonectris diomedea* Ciefa
First sightings on 19 Feb then regularly observed offshore till 21 Oct, mostly on windy days. Highest count up to 1000 off Ghallis on 2 Aug and off San Blas on 2 Sep. Late singles on 6 Nov and 23 Dec. Stable numbers in colonies.

MEDITERRANEAN SHEARWATER *Puffinus yelkouan* Garnija
Mostly recorded at colonies from Jan to mid. Jun with a few offshore sightings from Feb to May, 1 on 29 Jul. Breeding numbers as usual. Again recorded offshore in low single figures on 17 days from 8 Nov to end of year.

STORM PETREL *Hydrobates pelagicus* Kangu ta' Filfla
Only recorded from Filfla on visits in Jun-Jul.

GANNET *Sula bassana* Sula
1 off Gammieh on 18 Mar; then 10 sightings of 1-2 from 8 Nov to 30 Dec, mostly off the east coast of Malta.

CORMORANT *Phalacrocorax carbo* Margun
2 on 2 Jan, 3 on 1 Feb and 1 on 5 Mar. In autumn on 27 dates from 14 Oct to 19 Dec with most in Nov when almost daily. Highest were parties of 13 at Cumnija on 26 Nov and 8 on 27 Oct and 7 on 2 Nov both at Ghallis. Otherwise 1-3 mostly off the east coast of Malta.

LITTLE BITTERN *Ixobrychus minutus* Russett tas-Sigar
Only recorded in May: singles at Ghadira on 6th and 10-12th and at Bingemma on 21st.

NIGHT HERON *Nycticorax nycticorax* Kwakka
In spring 5 on 14 Mar, then on 11 dates from 27 Mar to 31 May; mostly 1-2 but 50+ over Comino on 2 Apr and 18 at Ghadira on 13 May. Autumn

migration from 14 Aug to 7 Oct with 20 sightings on 15 dates, mostly in single figures but a few flocks were observed, highest 47 at Sliema on 5 Sep.

SQUACCO HERON *Ardeola ralloides* Agrett Isfar
3 sightings in Apr: 20 at B'Bugia and 4 at Ramla Bay on 19th and 2 at Ghadira on 22nd. 1-2 at same place on 13-14 May. Again 1 at Ghadira (died) on 13th and 6 at Sliema on 27th, both in Sep.

LITTLE EGRET *Egretta garzetta* Agrett Abjad
2 on 8 Feb and 1 on 16-17 Mar. Then 28 sightings on 19 dates from 25 Mar to 28 Apr (1-2 daily at Ghadira from 17-28 Apr). Mostly 1-13 but 33 on 1st, 30 on 17th and 20 on 19th. 1-2 at Ghadira on 3 dates in May from 4-23rd. 8 at Galet Marku on 21st and 1 at Ghadira on 25th, both in Jul. Then 23 sightings on 17 dates from 24 Aug to 14 Oct, mostly 1-4 but 13 at Bahar ic-Caghaq on 2 Oct. 1 on 17 Dec at Gammieh.

GREY HERON *Ardea cinerea* Russett Griz
1 on 27 Feb, then 16 sightings on 10 days from 5-29 Mar, mostly 1-12 but 33+ at Gammieh on 11th and 21 at B'Bugia on 14th. Singles on 4 dates in Apr from 13-28th. 1 at Ghadira on 8-9 Jul. In autumn 51 sightings on 30 days from 6 Aug to 26 Oct (most in Sep to mid Oct). Single to low double figures but 104+ (2 sites) on 14th and 94+ at B'Bugia on 15th, both in Sep. 1-4 on 3 dates in Nov from 3-15, 5 sightings of 1-2 from 3-6 and 1 on 27 in Dec.

PURPLE HERON *Ardea purpurea* Russett Ahmar
Only recorded in singles: In Apr at Gammieh on 8th and at Zebbug, Gozo on 24th, at Burmarrad on 5 Aug, at Ghadira and M'Xlokk on 2 Oct.

BLACK STORK *Ciconia nigra* Cikonja Sewda
2 at Salib ta' L-Ghojja on 7th and 1 at Mgarr Ix-Xini on 14th, both in Apr; 2 over Comino on 8 Oct.

WHITE STORK *Ciconia ciconia* Cikonja Bajda
13 at M'Scala on 7 Apr. In Aug, 2 at Luqa on 11-12th, then up to 11 sighted daily from various areas from 21-24th and 1 at Dwejra, Malta on 28th. 1 at Nadur, Malta on 2 Oct.

GLOSSY IBIS *Plegadis falcinellus* Velleran
17+ over Gammieh on 31 Mar and 1 at Ghadira on 18 Aug.

GREATER FLAMINGO *Phoenicopterus ruber* Fjamingu
Flock of 36 reported as sighted in Malta on 7 Apr.

GREY LAG GOOSE *Anser anser* Wizza Griza
6 off Ghallis on 4 Dec.

"GREY" GEESE *Anser sp.*
2 at B'Bugia on 2 Jan.

SHELDUCK *Tadorna tadorna* Kuluvert tas-Salib
2 at Ghadira from 21 Jan to 19 Feb. 4 sightings in Nov with flock of 25+ at Ghallis on 17th, 8 at Delimara and 7 at Cirkewwa on 23rd and 1 at Ghallis on 25th. Again 4 sightings of 1-5 in Dec from 2-4th.

WIGEON *Anas penelope* Silfjun Ewropew
Singles at Ghadira from 4-27 Jan, then at Ghallis on 14th and at Ghadira on 16-20 Oct. In Nov singles again at Ghadira on 8-9th and 13th, and 2 at Cirkewwa on 22nd. Daily from 2-31 Dec with 4 sightings only outside Ghadira. Singles except for 5 at Qawra on 3rd.

GADWALL *Anas strepera* Kuluvert Griz
5 at Ghallis on 20th and 1 male at Ghadira from 20-28th, all in Dec.

TEAL *Anas crecca* Sarsella
1 from 1 Jan to 12 Mar and 1-3 from 17-29 Aug, all at Ghadira. Singles on 6th and 15th and 2 on 26 Oct; then 1 on 15th, 10+ at Ghallis and 1 at

Ghadira on 28 Nov. Daily at Ghadira in Dec with up to 6 on 16th and at least 4 till end of year. 3 sightings outside Ghadira in Dec: 28+ at Qawra on 3rd, 7 at Ghallis and 1 at Ghajn Znuber on 4th.

MALLARD *Anas platyrhynchos* Kuluvert
4 at B'Bugla on 1 Feb, then up to 4 in Dec at Ghadira decreasing to 1 by end of year. 3 sightings outside Ghadira in Dec. 7 at Ghajn Znuber on 2nd, 5 at Qawra on 3rd and 6 at Ghallis on 13th. Feral birds present at Ghadira all the year.

PINTAIL *Anas acuta* Silfjun
7 sightings of 1-3 from 14 Oct to 23 Nov, but 7 on 21st and 13 on 22 Oct, both at Ghallis. Singles daily at Ghadira in Dec from 3-27th and at Delimara and Qawra on 3rd.

GARGANEY *Anas querquedula* Sarsella Hamra
Two sightings at Qammieh in Mar: 2 on 12th and 15+ on 25th. Then singles at Ghadira on 26th and 29 Jun and 9 Sep.

SHOVELER *Anas clypeata* Palettuna
2 on 4-6 May and 8 on 16 Oct at Ghadira. 7 at Ghallis and 1 at Ghadira on 19 Nov, 11 at Qawra and singles at Ghadira and Delimara on 3 Dec.

POCHARD *Aythya ferina* Brajmila
2 from 1 Jan to 12 Mar; singles on 25 Oct, 8 Nov, and from 5-14th and 24-31 Dec, but with 2 on 28th all at Ghadira.

FERRUGINOUS DUCK *Aythya nyroca* Brajmila t'Ghajjha Bajda
Singles at Ghadira on 14-15 Apr and 19 Nov.

RED-BREASTED MERGANSER *Mergus serrator* Serra
6 sightings from 21 Nov to 16 Dec; all singles except for 6 at Ghallis on 25 Nov. All sightings at Ghallis except for one at M'Xlokk on 25 Nov.

"DUCK sp." *Anas sp.*
7 on 4th and 4 on 16 Feb; on 7 dates in Mar from 12-29th, single to low double figures but 55+ at Qammieh on 12th. 1 on 25 Aug. In autumn, 2 on 8th then on most days from 14 Oct to 13 Dec; single to double figures of up to 50 but 160+ (2 sites) on 14 Oct. 1 on 26 Dec. Most autumn records off the East coast of Malta.

HONEY BUZZARD *Pernis apivorus* Kuccarda
In spring 1 on 11th, then 10 sightings from 22 Apr to 17 May; mostly 1-3 but 11 over B'Kara on 5 May and 7 at Dwejra, Malta on 27 Apr. On most days in autumn from 24 Aug to 6 Oct (daily from 9 Sep to 2 Oct) with a peak from 19-23 Sep. Single to double figures of up to 45+, but 160+ (3 sites) on 21st, 140+ (3 sites) on 22nd, and 94+ (3 sites) on 23 Sep. 1 on 14 Oct. Most autumn records from Buskett, Nadur (Malta) and Dwejra (Malta).

BLACK KITE *Milvus migrans* Astun Iswed
1 on 24 Mar and 7 sightings of 1-3 on 5 dates from 1-29 Apr. In autumn 1 on 28 Aug, then 6 sightings on 4 dates in Sep from 9-23 Sep, highest 5 at Nadur/Dwejra (Malta) on 21st, otherwise 1-2.

SHORT-TOED EAGLE *Circaetus gallicus* Ajkla Bajda
All sightings in Sep: 1 at Dwejra, Malta and Girgenti on 17th and 2 at Dwejra, Malta and Buskett on 20th were probably same birds. 2 at Buskett on 22nd and 1 at Dwejra, Malta on 23rd.

MARSH HARRIER *Circus aeruginosus* Bughadam Ahmar
1 on 16th and 3 on 19 Feb, then on most days from 6 Mar to 28 Apr (mostly from late Mar to early Apr and in late Apr). Up to 15 on most days but 20+ at Ramla Valley and 16+ at Dwejra, Malta on 21 Apr. 1-2 on 5 dates in May from 3-21st. Autumn migration from 24 Aug to 7 Oct with most from 15 Sep to 3 Oct, when daily. Single to double figures of up to 40 but 120+ (3 sites) on 22nd, 90+ (3 sites) on 23rd and 104+ at Buskett on 27th.

HEN HARRIER *Circus cyaneus* Bughadam Abjad Prim
1 male at Dwejra, Malta on 11 Apr and 1 at Ghadira on 3 Dec.

PALLID HARRIER *Circus macrourus* Bughadam Abjad
Single males at Mrieheil on 19 Mar, at Ghadira on 23 Sep and at Bahar ic-Caghaq (shot) on 23 Oct.

MONTAGU'S HARRIER *Circus pygargus* Bughadam Griz
c15 at M'Forn on 28 Mar, then 13 sightings on 11 dates in Apr from 1-26th, mostly 1-3 but 12 at Ghadira on 22nd. Singles in May on 5th and 13th. 1 at Filfla on 23 Oct.

HARRIER Sp *Circus sp.*
18 sightings on 13 dates from 9 Mar to 25 Apr, mainly 1-4 but 8 at Ghadira on 22 Apr and a passage (no numbers given) on the west coast of Gozo on 25 Apr. 1 on 28 Aug, 5 sightings of 1-2 from 4-12 Sep and 1 on 4 Nov. Most sightings refer to RING-TAIL HARRIERS.

SPARROWHAWK *Accipiter nisus* Sparvier
Recorded in singles: in Sep at Buskett on 17th and 21st and at Xemxija on 27th; in Oct at Nadur, Malta on 3rd and at Fomm Ir-Rih and Rabat on 14th.

BUZZARD *Buteo buteo* Kuccarda Prima
1 was shot at M'Xlokk on 21 Apr. Singles in Sep at Nadur, Malta on 21st and at Buskett and again at Nadur, Malta on 22nd.

LESSER SPOTTED EAGLE *Aquila pomarina* Ajkla tat-Tikki
Singles over Grand Harbour on 9th and at Buskett on 22 Sep.

BOOTED EAGLE *Hieraetus pennatus* Ajkla tal-Kalzetti
1 light phase, at Nadur, Malta on 23 Sep.

OSPREY *Pandion haliaetus* Arpa
Singles in Apr on 10-12th and 22nd and in May on 21st. 1 on 28 Aug, then 7 sightings in Sep: on 13th, 19-22nd and 27th, all singles but 4 at Nadur/Dwejra, Malta on 22nd. Most autumn sightings at Buskett.

"BROADWINGS"
Singles on 3rd and 6 Apr. In autumn almost daily from 10-30 Sep; up to 17 on most occasions but 34 on 21st and 32 on 22nd at Buskett highest. In Oct 3 on 2nd and 1 on 7th.

LESSER KESTREL *Falco naumanni* Spanjulett Sekond
Singles on 8th and 10 Apr and 21 May. In autumn daily sightings of 1-4 from 16-27 Sep, then 4 sightings of singles on 29-30 Sep. 2 on 2 Oct. Most autumn sightings from Buskett.

KESTREL *Falco tinnunculus* Spanjulett
1 on 13th and 2 on 31 Jan, and singles on 8th and 24 Feb. In spring almost daily sightings from 9 Mar to 17 Apr; mostly 1-6 but 10+ on Gozo on 20 Mar. Then 12 sightings from 21 Apr to 20 May; mainly 1-2 but 4 at Comino on 23 Apr. 4 sightings of singles from 22 Jul to 5 Aug. Again on most days in autumn from 2 Sep to 29 Oct (daily from 15-24 Sep and 6-15 Oct); in single figures but 20+ at Zurrieq on 2 Oct. Singles on 4 dates in Nov from 2-26th and on 3 dates in Dec from 1-26th.

RED-FOOTED FALCON *Falco vespertinus* Zumbrell
Recorded only on spring migration: singles on 23 Apr, 8th and 14th; and daily at Ghajn Rihana from 30 May to 2 Jun.

HOBBY *Falco subbuteo* Seqr tal-Hannieqa
In spring 1-2 on 10 dates from 19 Apr to 16 May. In autumn 27 sightings on 15 dates in Sep from 7-27th (daily 15-24th); mostly 1-6 but c10 at Buskett on 23rd. 1 on 2nd and 2 on 6 Oct; and 1 on 12 Nov. Most sightings at Buskett, Nadur (Malta) and Dwejra (Malta).

ELEONORA'S FALCON *Falco eleonorae* Bies tar-Regina
Singles at Bingemma on 18 May and at Mosta on 2 Jun. Then singles on

24th and 28th and 2 on 30 Aug; and 10 sightings of 1-2 in Sep from 5-23rd. Most autumn records from Buskett and Dwejra (Malta).

PEREGRINE FALCON *Falco peregrinus* Bies
Singles at Wied il-Mielah on 24 Apr, at is-Sanab, Gozo on 24 Jun, and at Wardija Pt on 19th. and at Buskett on 23 Sep.

Unidentified FALCONS *Falco sp.*
2 on 9th and 1 on 29 Apr, and singles on 3rd and 12 May. In autumn 30 sightings of 1-6 from 5 Sep to 8 Oct. Most records refer to Kestrel sp.

QUAIL *Coturnix coturnix* Summienna
1 at Has-Saptan on 13 Feb, then 22 sightings from 2 Apr to 13 May; mostly 1-4 but 20+ at Ghajn Tuffieha on 13th and 30+ at Dingli Cliffs on 14 Apr. Most sightings in Gozo. Singles on 29 Jun and 27 Sep, 3 on 9 Oct and singles again on 7 Nov and 17 Dec.

WATER RAIL *Rallus aquaticus* Gallozz tax-Xitwa
Up to 10 at Ghadira in Jan-Feb but with max of 15 on 7-9 Jan and 2 Feb; then 1-5 in Mar to 30th, 1 on 20 Sep, then 1-2 on most days from 14 Oct to 10 Nov; 1 on 17th then up to 5 from 21 Nov to end of year. Outside Ghadira, singles on 27 Jan, 8th and 10 Feb, 20 Sep, 2nd and 17 Nov and 9 Dec, mostly at Lunzjata and Ramla Valley.

SPOTTED CRAKE *Porzana porzana* Gallozz tat-Tikki
Singles at Ghadira on 22nd and 25 Mar; in Apr 1 at Comino on 2nd, 2 on 14th and singles on 6 dates from 15-26th at Ghadira, 1 on 7 May. In autumn only in singles: on 4 Sep and 12 sightings from 22 Sep to 16 Oct; all at Ghadira, except for 5 sightings at Xemxija. 1 again at Ghadira on 16 Nov.

LITTLE CRAKE *Porzana parva* Gallozz Zghir
Singles at Lunzjata on 16 Feb, at Ghadira and Comino (found dead) on 26 Mar and at Ghadira on 8 May.

MOORHEN *Gallinula chloropus* Gallozz Iswed
Daily at Ghadira from Jan to 2 May; mostly up to 15 but 20+ on a few dates in Mar. 15 sightings outside Ghadira, mainly in Apr, with max. of 12 at Ghajnsielem, 4 sightings till end of May. On 9 scattered dates in summer from 20 Jun to 28 Aug from 3 different sites (indicating breeding), max 10 at Ghajnsielem on 2 dates. In single figures daily at Ghadira from 1 Sep, with 10-15 on most days from late Oct to end of year. 12 sightings outside Ghadira in Sep, Nov-Dec at Ghajnsielem and Xemxija.

COOT *Fulica atra* Tigiega tal-Bahar
Daily at Ghadira from Jan-Mar where up to 31 wintered. Numbers decreased gradually after 11 Mar. Occasional sightings from Ghajnsielem with up to 5 in Jan. Singles regularly in Apr and occasionally from May-Sep at above two sites. Again daily at Ghadira from 24 Oct onwards, numbers gradually increasing from 3 to 27 by mid Dec. 4 sightings of singles outside Ghadira: at Ghajnsielem on 5th and 25 Nov, at Bahar ic-Caghaq on 4th and Msida on 5 Dec.

CRANE *Grus grus* Grawwa
Two sightings in Jan with 5 at Dingli on 15th and 4 seen from various sites in Malta on 22nd. In Feb 5 on 1st and 17 on 15th at B'Bugia. 3 at Ghajn Rihana on 28 Mar. In autumn, 4 at Ghadira on 20 Oct, 4 at M'Xlokk on 28 Nov and 2 at Xaghra, Gozo on 13 Dec.

OYSTERCATCHER *Haematopus ostralegus* Gallina tal-Bahar
1 at Hal-Far on 20 May; then flock of 30+ at Bahar ic-Caghaq on 21 Jul and 5 sightings of 1-6 from 27 Jul to 1 Aug, all at Ghallis except for 1 at Hal-Far on 1 Aug.

BLACK-WINGED STILT *Himantopus himantopus* Fras-servjent
Usual bird at Ghadira present daily from Jan-Dec, otherwise 1 from 27 Mar to 13 Apr; 5 on 21 Apr, 4 on 4 Jun; 1 on 18th and flock of 25+ on 26

Aug; 8 on 2nd and 3 on 3-4 Sep, all at Ghadira. Two other sightings; 1 at Selmun on 1 Apr and 3 at Ta'Qali on 27 Jun.

AVOCET *Recurvirostra avosetta* Xifa
1 at Ghadira on 25 Apr and 6 at Ghallis on 14 Oct.

STONE CURLEW *Burhinus oedicanus* Tellerita
Singles at Bahar ic-Caghaq on 31 Mar and at Mriehel on 2 Apr.

PRATINCOLE *Glareola pratincola* Pernicjotta
1 at St.Elmo Pt. on 9 Sep.

LITTLE RINGED PLOVER *Charadrius dubius* Monakella
Daily at Ghadira from 1 Mar to 20 May; up to 8 but 10+ on 16 Mar. 3 sightings outside Ghadira from 9-16 Apr. Then singles on 5 days from 27 May to 26 Jun. 1-9 almost daily in autumn from 1 Jul to 4 Oct, with most in Aug. 2 on 11 Oct. Most sightings at Ghadira with a few from Salina.

RINGED PLOVER *Charadrius hiaticula* Monakella Prima
1-3 almost daily from 7-28 May; singles on 1 Jun; 7th and 29 Jul. 1-4 almost daily from 9 Aug to 4 Oct. All records at Ghadira except for 6 sightings of 1-2 from 13 Aug to 10 Sep mostly at Salina. 1 at Ghallis on 5 Dec.

KENTISH PLOVER *Charadrius alexandrinus* Monakella Saqajha Suwed
Singles on 6 Mar and 10-11th and 14-15 Apr at Ghadira. Then singles at Salina on 31 Jul and 2 Aug and at Ghadira on 26 Aug. 2 on 25th, then singles daily from 28 Sep to 2 Oct at Ghadira with 1 sighting at Salina on 28th.

DOTTEREL *Charadrius morinellus* Birwina
1 at Ta'Cenc on 27 Mar. 8 at Ghallis on 29 Aug, then 1-4 on 5 dates from 22 Sep to 12 Oct mainly at Nadur, Malta. 3 at Ghallis on 1 Nov.

GOLDEN PLOVER *Pluvialis apricaria* Pluviera
2 shot on 24 Oct, then 5 sightings from 18-26 Nov; mainly 1-4 but 30+ at Ta'Qali on 19th.

GREY PLOVER *Pluvialis squatarola* Pluviera Pastarda
Singles at Ghadira on 10-12th and at M'Xlokk (shot) on 15 May. In autumn 1 at Ghallis on 8th, 1 at Ghadira on 11-13th and 2 at Ghallis on 29 Aug.

LAPWING *Vanellus vanellus* Venewwa
3 on 1st and 1 on 2-4 Jan at Ghadira and 45 at B'Bugia on 16 Feb. 3 sightings in Nov. 1 at Ghadira on 7th, 17 at Luqa on 21st and 1 at Delimara on 23rd; then in Dec, 7 at Ghajn Zhuber on 2nd and singles at Xemxija on 16th and Ghadira on 31st.

KNOT *Calidris canutus* Girwiel Saqajh Qosra
2 at Ghadira on 4 May.

SANDERLING *Calidris alba* Pispisella Bajda
1 at Ghadira from 2-8 May.

LITTLE STINT *Calidris minuta* Tertuxa
Daily at Ghadira from 2 Mar to 12 Jun with most in May; up to 35 but 40+ on 16 May. 5 other sightings outside Ghadira in Apr-May and 6 sightings at Salina from 31 May to 13 Jun with 50+ on 1 Jun highest. 1 on 26 Jun, then daily from 15 Jul to 15 Oct; mainly up to 25 but 30+ at Salina on 3 Aug. Mostly at Ghadira and Salina. 1 at Ghadira from 5-10 Nov.

TEMMINCK'S STINT *Calidris temminckii* Tertuxa Griza
1-3 almost daily at Ghadira from 22 Apr to 21 May and 1 on 4 Jun. In autumn singles at Ghadira on 19-20th, at Salina on 28th and again at Ghadira on 29 Jul; 7th and 9th and 2 on 24 Aug. 1-2 at Salina from 8-12 Sep and singles on 16th and 18 Oct.

CURLEW SANDPIPER *Calidris ferruginea* Boggazzina Hamra
Singles on 21-22 Mar, 1-4 on 9 dates from 1-27 Apr and up to 19 daily

from 5-29 May, all at Ghadira. In autumn 1 on 21st, then 1-5 daily from 27 Jul to 3 Aug and singles on 6th and 13 Aug, and on 10 Sep. Most records from Ghadira and Salina.

DUNLIN *Calidris alpina* Beggazzina tat-Tizz
1-5 almost daily from 21 Jul to 5 Aug, mostly at Salina; then daily at Ghadira from 6 Aug to 13 Oct; mostly up to 11 but 14 on 16 Aug. 12 sightings of 1-7 outside Ghadira, mostly in Aug. 1-2 daily at Ghadira from 24 Oct to 10 Nov, and 3 at Ghallis on 5 Nov. 1 on 4 Dec.

RUFF *Philomachus pugnax* Girwiel
1 from 11-19 Feb; then 1-10 almost daily from 8 Mar to 18 Apr and 1-3 on most days from 1 May to 2 Jun. All at Ghadira except for 3 sightings with c15 at Luqa on 18-20 Apr highest. In autumn singles daily from 9-17th, on 19th, 28th and 30 Jul; on 6th, 26th, 30th and on 31st. 2 autumn sightings from Ghadira and Salina.

JACK SNIFE *Lymnocyptes minimus* Cinkonja
1 at Ghadira on 1 Jan; 2 there on 12th and 1 at Comino on 26 Mar, and at Dwejra, (Malta) on 26 Nov.

SNIPE *Gallinago gallinago* Bekkacc
Daily from 1 Jan to 2 Apr; usually 1-5 but up to 11 in Mar. 2 on 22 Apr and singles on 12 Jul, 23 Aug and on 5 days from 1-17 Sep. In autumn 1-3 almost daily from 5 Oct to 28 Dec. All at Ghadira except for 10 sightings mostly in Oct-Nov.

GREAT SNIPE *Gallinago media* Bekkacc ta' Mejju
Singles at Ghadira on 8th and at Msida on 17 Apr.

WOODCOCK *Scolopax rusticola* Gallina
1-2 on 11 days from 18 Oct to 21 Nov, mostly at Bingemma.

BLACK-TAILED GODWIT *Limosa lapponica* Girwiel Prim
1 at Ghadira from 13-21 Mar.

WHIMBREL *Numenius phaeopus* Gurlin Zghir
Singles over Wied il-Luq on 29 Jul, at Delimara on 1st, and at Ghadira 14th and 27-28 Aug.

CURLEW *Nemienus arquata* Gurlin
1 at Qammieh on 7 Apr and 10 at Ta'Qali on 27 Jun; 5 sightings from Ghallis with 1 on 10th and 4 on 11 Aug; 1 on 14 Oct; 4 on 18th and 1 on 24 Nov. Singles at Qawra on 3rd and Ghajn Znuber on 4 Dec.

SPOTTED REDSHANK *Tringa erythropus* Cuvett
Only in singles: at Ghadira on 20-21 Mar, 8th and 22 Apr; then at Salina on 17 Jul and again at Ghadira on 11 Sep.

REDSHANK *Tringa totanus* Pluverott
Singles on 12 Feb and 21-27 Mar, and 1-2 from 31 Mar to 5 Apr, all at Ghadira. In autumn 2 on 15th and 1-5 daily from 21 Jun to 12 Jul; 5 sightings of 1-3 in Aug from 9-21st, 1 on 29 Oct, and 6 sightings of 1-2 in Nov from 6-28th. All at Ghadira, except for 10 sightings mostly at Salina in Jun-Jul. 1 daily at Ghadira from 3-31 Dec.

MARSH SANDPIPER *Tringa stagnatilis* Cewcewwa Zghira
1 at Ghadira on 16 Feb; then 2 sightings in Aug: 2 at Ghadira on 16th and flock of 18 at Ghallis on 29th.

GREENSHANK *Tringa nebularia* Cewcewwa
1 (dead) at B'Bugia on 5 Feb; then 1 on 21-27 Mar, 1-4 daily from 3 Apr to 11 May, and from 4-7 Jun. All at Ghadira except for 2 sightings. 1-2 on most days at Ghadira from 5 Jul to 7 Aug with 5 sightings from other sites. Singles on 16th and 29 Aug, 26 Sep and 12 Nov at Ghadira.

GREEN SANDPIPER *Tringa ochropus* Swejda
1-4 on 19 days, mostly at Ghadira from 3 Mar to 23 Apr (daily 9-18 Mar), then singles on 19 May, 18th, 21st and 25 Jun. In autumn on most days

from 17 Jul to 9 Sep; mostly 1-2 but 5 at Ghadira on 16 Aug; singles on 4 days from 25 Sep to 14 Oct and on 12 Nov. Most autumn records at Ghadira.

WOOD SANDPIPER *Tringa glareola* Pespus tal-Bahar
1 on 27 Feb, then 1-4 on most days from 7 Mar to 4 Apr and daily from 8 Apr to 11 May when mostly up to 6, but 15+ on 14 May; singles from 19-22 May. All at Ghadira except for 6 sightings. In autumn almost daily from 1 Jul to 2 Sep; mostly up to 8 but 22 on 17th and 40+ on 19 Jul and 70+ on 20 Aug, all at Salina. 1-2 on 7 days from 17-29 Sep and 1 on 21 Oct. Most autumn records at Ghadira and Salina.

COMMON SANDPIPER *Actitis hypoleucos* Beggazzina tar-Rokka
1 at Salina on 22 Feb; then 1-6 almost daily from 30 Mar to 16 May, mostly at Ghadira. Singles on 4 days from 10-22 Jun and almost daily from 2 Jul to 6 Oct, with a peak in Aug. Mostly in single to low double figures of up to 25, but 40+ at Ghallis on 4th and 30+ at Salina on 20th, both in Aug. Single on 4 days in Nov from 4-29th. Most autumn sightings at Ghadira, Salina and around the coast.

TURNSTONE *Arenaria interpres* Monakella Imperjali
3 sightings in May: 4 at Wied il-Ghajn on 15th and singles at M'Xlokk on 16th and at Ghadira on 19th.

MEDITERRANEAN GULL *Larus melanocephalus* Gawwiya Rasha Sewda
1 released at Ghadira on 26 Feb remained till end of year and another released on 4 Apr stayed till 8 Jun; otherwise on 16 dates from 2 Jan to 6 Apr, mostly up to 6 but 100+ at Zonqor Pt. on 5th and 50+ at Rinella on 26th, both in Mar. 1 on 2nd, then on 14 days from 15 Oct to 6 Dec; mostly 1-8 off the coast.

LITTLE GULL *Larus minutus* Gawwiya Zghira
2 on 2 Jan and 3 on 1 Feb at B'Bugia, then daily at Ghadira from 8 Feb to 2 Apr mostly 1-2 with 3 on 11 Feb. 7 sightings outside Ghadira with singles at Msida from 8-10 Feb and 16-18 Mar, and 2 at Gozo on 30 Mar. 5 sightings in Dec from 2-31st; mostly 1-2 but 5 at Ghadira on 31st.

BLACK-HEADED GULL *Larus ridibundus* Gawwiya Rasha Kannella
Wintering in double to low treble figures of up to 150 in Jan-Mar, mostly in harbours and around the coasts. 1-2 at Ghadira from 15-17 May, singles on 13 Jun, 18th and 27 Jul and 3 Aug. Then 2 at Ghallis on 16 Sep and from 8 Oct onwards where mostly in double figures. Highest numbers from late Nov to mid Dec with, treble figures (Highest 500+ at Rinella on 10 Dec) on a few days.

SLENDER-BILLED GULL *Larus genei* Gawwiya Geddumha Rqiq
Singles at Ghadira on 4 Jun, at Ghallis on 14 Aug and again at Ghadira on 6 Sep. 3 sightings of singles in Oct: at Ghallis on 21st and 28th, and at St.Elmo Pt on 30th. Two sightings in Nov at Ghallis with 2 on 4th and 1 on 17th.

COMMON GULL *Larus canus* Gawwiya Sekonda
A first winter bird at Cirkewwa on 4 Dec.

LESSER BLACK-BACKED GULL *Larus fuscus* Gawwiya Dahra Iswed
Two sightings in Mar: 2 at Ghadira on 19th and 3 at Qammieh on 24th. Again 2 at Ghadira on 16 Apr and 1 at Blue Grotto on 8 May. Then 2 on 14th and 1 on 22 Sep, 1 on 14th and 3 on 23 Oct and 6 sightings of 1-3 from 3-27 Dec mostly off the east coast of Malta.

YELLOW-LEGGED GULL *Larus cachinnans* Gawwiya Prima
Present all the year with fewer sightings in Jul-Aug. Highest numbers away from colonies during Jan-May and Oct-Dec: mostly up to 40. Highest numbers at Filfla colony where 250+ estimated in Jun.

HERRING GULL *Larus argentatus* Gawwiya Prima Saqajha Roza
1 at Sliema on 17 Oct.

GULL-BILLED TERN *Gelochelidon nilotica* Cirklewwa Gedduhma Ohxon
Singles at Comino on 21 May, at Ghadira on 13th and 21 Jun at Salina on
6 Jul, and at Ghallis on 29 Aug and 28 Sep; 2 in Gozo channel on 18th
and 4 at St. Andrews on 22 Oct; 1 at Armier on 27 Nov; and 2 at Ghadira
on 2nd and 1 at Ghallis on 13 Dec.

CASPIAN TERN *Sterna caspia* Cirklewwa Prima
1 at Ghadira on 8 Jun; 2 at Ghallis on 26 Aug. 1 also at Ghallis on 23-
24th and 2 at Ghadira on 30 Sep.

SANDWICH TERN *Sterna sandvicensis* Cirklewwa Tax-Xitwa
1 on 12 Feb and 2 on 19 Mar at Gammieh. Singles at Delimara on 1 Aug and
in Grand Harbour on 9 Sep, followed by 12 sightings of 1-5 from 15 Oct
to 11 Dec, mostly at Ghallis.

LITTLE TERN *Sterna albifrons* Cirklewwa Zghira
One daily from 28 Apr to 2 May but 2 on 30 Apr; then singles at two
sites on 5 May, 2 on 1 Jun and singles on 27 Jul, 12th and 15 Aug. All
at Ghadira except for two sightings: at St. Thomas Bay on 5 May and at
Salina on 27 Jul.

BLACK TERN *Chlidonias niger* Cirklewwa Sewda
2 at Ghallis on 2 Aug; then on 3 dates in Sep with 4 at St. Thomas Bay on
3rd, and singles at M'Scala on 4th and at Ghallis on 15th.

WHITE-WINGED BLACK TERN *Chlidonias leucopterus* Cirklewwa tal-Gewnah Abjad
1 at Ghadira on 17-18 May.

"MARSH TERNS"
Two sightings in Oct with 4 off St. Andrews on 22nd and 8 off St. Elmo Pt
on 30th.

ROCK DOVE *Columba livia* Tudun tal-Gebel
2 at Xlendi on 18 Sep.

COLLARED DOVE *Streptopelia decaocto* Gammiea tal-Kullar
1 at Xlendi on 9 Sep.

WOOD PIGEON *Columba palumbus* Tudun tas-Sigar
Singles reported shot at Siggiewi on 12th and 19 Oct.

TURTLE DOVE *Streptopelia turtur* Gammiea
2 on 3rd and 1 on 9th, then daily from 14 Apr to 11 May, with regular
sightings till 26th. Mostly in single to double figures of up to 40, but
70+ in Gozo on 19th and 100+ at Zebbug, Gozo on 22nd. A few birds on
most days from 1 Jun to 5 Aug, mostly 1-3 but 4 at Gircenti on 9 Jul. In
autumn, almost daily from 31 Aug to 24 Sep (most in early Sep); in
single to double figures of up to 50, but 100+ at Dwejra, Gozo on 7th
and 300+ at Wied il-Luq on 9 Sep. Then 5 on 1st and 4 on 2 Oct. Most
autumn records from Buskett.

CUCKOO *Cuculus canorus* Daqquqa Kahla
Recorded on 10th and 21 Mar; 11 sightings from 15 Apr to 8 May; 10 Jun,
29 Jul and 4-5 Aug. Always singles.

BARN OWL *Tyto alba* Barbagann
1 at Dwejra, Gozo on 14 Sep.

SCOPS OWL *Otus scops* Kokka
Singles on 10th and 13th and 5 at Zebbug, Gozo on 22 Apr. 1 on 22 Sep,
then 3 sightings in Oct with 10+ at Bingemma on 1st and singles on 6th
and 18th.

SHORT-EARED OWL *Asio flammeus* Kokka tax-Xaghri
1 at Gozo on 30 Mar. Singles at Bingemma and at Wied Znuber on 1st, 3 at
Ghallis on 22nd and 1 at Filfla on 23 Oct; and 1 off Rinella on 16 Nov.

LONG-EARED OWL *Asio otus* Qattus
1 reported shot at Il-Qaws in mid-Nov.

NIGHTJAR *Caprimulgus europaeus* Buqrajq
Singles at Bingemma on 7 Apr and 8 May. In autumn 13 sightings on 11
dates from 15 Sep to 6 Oct; mostly 1-2 but 3+ at Wied il-Luq on 1 Oct
and c4 at Lunzjata on 15 Sep. Most sightings at Buskett and Dwejra,
Malta.

SWIFT *Apus apus* Rundun
Almost daily from 16 Mar to 27 Sep; mostly in double figures but treble
figures on a few dates with 300+ at Dwejra, Malta on 21 Jul and at
Ghallis on 14 Aug, 250+ at Bingemma on 7 Apr and 200+ at Dingli on 16
Sep highest counts. Four sightings of singles in Oct: on 1st, 6th, 12th
and 21st.

PALLID SWIFT *Apus pallidus* Rundun Kannelli
Singles at Siggiewi on 31 Mar, at Ghadira on 7th and at Comino on 23
Apr. 8 at Wied il-Mielah on 15 Jun.

ALPINE SWIFT *Apus melba* Rundun Zaqqu Bajda
3 on 28 Mar, then 8 sightings from 1 Apr to 21 May; in singles, but 2 at
Zebbug, Gozo on 24 Apr. Singles on 20 Jun and on 15th and 31 Aug, then
10 sightings of 1-2 in Sep from 9-30th mostly at Buskett. 4 at Buskett
and 3 at Bingemma on 10 Oct.

KINGFISHER *Alcedo atthis* Ghasfur ta' San Martin
1-2 daily at Ghadira from 1 Jan to 5 Apr, with only 1 sighting outside
Ghadira on 31 Jan. In autumn singles on 24th and 30 Jul, then 1-2 daily
at Ghadira from 6 Aug to 10 Nov and 23 other sightings outside Ghadira
mostly in Sep and in singles but 2 in Gozo on 8th. Most sightings at
Xemxija. Then again at Ghadira with 1 from 20 Nov to end of year.

BEE-EATER *Merops apiaster* Qerd in-Nahal
In Apr, singles on 5th and 18th and 50+ at Gozo at the beginning of the
month (no date given). Then 4 on 12th and 1 on 26 May, and singles at
Ghadira on 2nd and 9 Jun. In autumn 10 sightings on 5 dates from 2-24
Sep; mostly 1-3 but c24 at Buskett on 16th.

ROLLER *Coracias garrulus* Farrug
Singles at Zebbug and Dabrani, both in Gozo, on 24 Apr, and at B'Bugia
(shot) in late Sep.

HOOPOE *Upupa epops* Daqquqa tat-Toppu
In spring 32 sightings on 21 days from 5 Mar to 19 Apr; mostly 1-3 but
12+ at Gammieh on 28th and 9 in Gozo on 30 Mar. Then singles on 8th and
12 May and on 10 Jul. In autumn, 17 sightings, on 14 dates from 12 Aug
to 10 Sep; usually 1-3 but 4 at Is-Sannab on 19 Aug. Singles on 1st, 3rd
and 7 Oct.

WRYNECK *Jynx torquilla* Bulebbiet
1-2 on several days in Jan to mid Mar at 5 sites, then 25 sightings of
1-2 on 19 dates from 20 Mar to 24 Apr. In autumn 1 on 7th, then almost
daily from 13 Sep to end of year from various localities. Peak between
late Sep and mid Nov. Usually 1-3 but 4+ at Wied il-Luq on a few days in
Oct-Nov.

SHORT-TOED LARK *Calandrella brachydactyla* Bilbla
1 on 20th, then present at various breeding sites in the islands from 26
Mar to 20 Sep with a few irregularly till the end of month. Migrants
most evident during Apr-May and Aug-Sep; usually up to 50 but treble
figures from Gozo on 4 dates 1 in Jun, 3 in Sep, highest 500+ at
Sarraflu on 7 Sep, otherwise 100-150. Late bird on 13 Oct.

WOODLARK *Lullula arborea* Cuqlajta
5 on Filfla on 23 Oct.

SKYLARK *Alauda arvensis* Alwetta
Wintering in small numbers (highest sightings of 13) in Jan-Feb but 50+
at Wied il-Mielah on 12 Feb. Migration not very evident in Mar when in
single figures but 50+ on 9th and 22 on 12th. 2 on 2nd and singles on a

few days from 14 Apr to 22 May. Autumn migration from 2 Oct when almost daily till 23 Nov; highest numbers in Oct when mostly in double figures of up to 80, but 120+ at Ghallis on 13th and 200+ at Filfla on 23rd. In single figures till end of year.

SAND MARTIN *Riparia riparia* Hawwiefa tax-Xtut
1 on 26th and 10 on 31 Mar, then almost daily from 8 Apr to 20 May when mostly in double figures, but treble figures on a few dates, highest 500+ at Ramla Valley on 19 Apr and at Ghajn Rihana on 4-5 May. 5 from 2 sites on 31 May and singles on 13th and 20 Jun. In autumn 1 on 18th and 2 on 30 Aug, then almost daily from 2 Sep to 12 Oct with a peak in mid Sep. Single to double figures with max of 60+ at Buskett on 12 Sep. 2 on 15th and 1 on 22 Oct, and on 3 dates in Nov with 1 on 2nd, 4 on 19th and 1 on 25th.

SWALLOW *Hirundo rustica* Huttafa
Singles on 7-8th, 10th and 2 on 15th, then daily from 18 Mar to 15 May and with regular sightings till 21 Jun. Peak from mid Apr to early May when mostly in treble figures, max 600, but 1500+ at Ramla Valley on 29-30 Apr. 1-2 at Marsa on 23 Jul and 1-5 on 10 dates from 21 Aug to 7 Sep, then daily from 9 Sep to 29 Oct with a peak from mid Sep to early Oct, when mostly in treble figures, max 500 on 15 Sep and 6 Oct and 800+ at Nadur/Dwejra, Malta on 23 Sep. In Nov, 8 sightings of 1-5 from 3-19th and 1 on 3 Dec.

RED-RUMPED SWALLOW *Hirundo daurica* Regina tal-Huttaf
Singles at Gammieh on 19-20th and 4 at Marsalforn on 23 Mar. In Apr, 1 on 10th and 5 sightings from 4 sites on 14-16th, mainly 1-4 but up to 50 at Ramla Valley on 14-15th, then singles on 23rd and 29th at Gozo.

HOUSE MARTIN *Delichon urbica* Hawwiefa
1 on 12 Jan. Singles on 15th and 20th, then almost daily from 23 Feb to 1 Jun with most from early Apr to early May. In single to double figures but 150+ at Bingemma on 7th and 100 at Ramla Valley on 15 Apr, and at Dwejra, Malta on 4 May. 1 on 8th, 3 on 13th and 1 on 20 Jun. In autumn singles on 5th and 9th, then almost daily from 12 Sep to 20 Oct when in single to double figures of up to 50+ but 150+ on 23rd and 100 on 24 Sep at Buskett and 100+ at Nadur, Malta on 6 Oct. 5 on 28 Oct, 2 on 4th and 5 on 19th. Singles at Ghadira on 3-4 Dec.

TAWNY PIPIT *Anthus campestris* Bilblun
In spring 1 on 20th, then 18 sightings from 28 Mar to 1 May; mostly 1-2 but 5 at Ta'Cenc on 10 Apr. In autumn 21 sightings from 31 Aug to 2 Oct; mostly 1-6 but 20+ at Zurrieq on 2 Oct.

TREE PIPIT *Anthus trivialis* Dizz
Singles on 6th, 11th and 17th, then daily from 19 Mar to 5 May; mostly in single to medium double figures, but 400+ on 11th and 150+ on 12 Apr, both at Dwejra, Malta. Singles on 5 dates from 10-21 May. In autumn, singles on 24th and 26th, then almost daily from 31 Aug to 30 Oct with most in Sep. Usually up to 11, but 50+ at Dwejra, Gozo on 7 Sep and up to 35 on 1-2 Oct. 1 on 21 Nov.

MEADOW PIPIT *Anthus pratensis* Pespus
Mostly in low single figures in Jan-Feb with max of 50+ on 3 dates. Return passage evident in Mar with an increase in sightings but only max of 35 on 20th. A few till 10 Apr and 1 on 11 Jun. Singles from 12-15th, then daily from 17 Oct onwards with a peak from late Oct to late Nov; occasionally in high double figures, max 100+ at Ghallis on 4 Nov. Usually in low double figures in Dec, but 50+ on 24th.

RED-THROATED PIPIT *Anthus cervinus* Dizz Ahmar
On most days in Apr from 4-29th, usually 1-3 but 10+ at Ghajn Rihana on 14th. Mostly at Ghadira. Six sightings of 1-3 from 2-24 Oct and 1 on 19 Nov.

WATER PIPIT *Anthus spinoletta* Dizz ta' L-Ilma
At Ghadira 1-2 daily in Jan-Feb to 17th and 1 on 26th. Again singles on 20-21st and 29 Nov. At Ghallis singles on 5th, 8th, and 16 Dec.

YELLOW WAGTAIL *Motacilla flava* Isfar
1 on 27 Feb, and 1-2 on 4 dates from 4-15th, then daily from 18 Mar to 5 May with most in Apr. Mostly in double figures, max 80, but 400+ on 11th and 150+ on 15 Apr, both at Ghajn Rihana. 1-3 on most days from 8-31 May. 10 sightings of singles in Jun-Jul, mostly at Ghadira. In autumn 1 on 2nd, then daily from 10 Aug to 8 Oct, with most from early Sep to early Oct when in low treble figures on most days. Max 200+ at Ghadira on 25 Sep. 1-20 almost daily from 10-26 Oct.

GREY WAGTAIL *Motacilla cinerea* Zakak tad-Dell
Wintering birds frequently sighted from a few areas in Jan-Mar to 15th, usually 1-2 but 5 at Wied il-Mielah on 12 Feb. In autumn daily from 22 Sep with a peak from early Oct to early Nov; in single figures with max of 6 at Bingemma on 6 Oct. Less frequent in Dec with 1-2 from a few sites.

WHITE WAGTAIL *Motacilla alba* Zakak Abjad
Single to low double figures with max of 30 in Jan-Mar, but c.600 at Valletta on 24 Jan were roosting birds (no proper counts). An increase in sightings in Mar due to migrants. 1-2 on a few days in Apr to 15th. In autumn, 1 on 26 Sep, then daily from 4 Oct, with most from mid Oct to mid Dec; usually single to double figures of up to 50, but 300+ on Filfla on 23rd, and 200+ at Valletta (roosting birds) on 24-26 Oct. Smaller numbers till end of year.

WREN *Troglodytes troglodytes* Bumistur
1 at Wied l-Isperanza on 13th and 25 Dec.

DUNNOCK *Prunella modularis* Ziemel
Up to 10 daily at several sites in Jan-Mar to 22nd with most in Jan. 1 on 16 Jul. In autumn, 2 on 11th, then daily from 16 Oct to end of year with a peak from late Oct to late Nov when usually up to 20.

ROBIN *Erithacus rubecula* Pitirross
Single to double figures (max 80) in Jan-Mar but 100+ at Bingemma on 18 Feb and at Buskett on 6 Mar. Almost daily in Apr with max of 10 on 7th, otherwise 1-3. Singles on 12 dates in May-Jun and on most days in Jul-Aug when usually 1-3 but c.5 at Buskett on 23 Aug. Other sightings mostly from Bingemma. Single figures from 1 Sep reaching double figures from the 19th when daily till end of year. Highest numbers between early Oct and late Nov with max of 100 on several dates, mostly at Bingemma but 300+ on Filfla on 23 Oct. Smaller numbers in Dec, max 60.

NIGHTINGALE *Luscinia megarhynchos* Rozinjol
Daily from 29 Mar to 17 Apr with max of 15 at Bingemma on 11 Apr, otherwise 1-10. Then 1-4 on 13 dates from 22 Apr to 21 May. In autumn on most days from 15 Aug to 7 Oct - daily from 7-25 Sep and 30 Sep-7 Oct. Mostly in low double figures, with max of 20 at Bingemma on 18 Sep.

BLUETHROAT *Luscinia svecica* Kudirross Blu
In spring singles at Xemxija on 26 Feb, and at Ghadira on 2nd and at Xemxija on 5th and 14 Mar. In autumn singles at Ghadira on 15th and 18 Sep; then 11 sightings of 1-2 on 9 dates from 17 Oct and 22 Nov, all at Ghadira except for singles at Xemxija on 17 Oct and 1 Nov and 2 at Lunzjata on 21 Oct. 1 daily at Ghadira in Dec from 7-31st.

BLACK REDSTART *Phoenicurus ochrurus* Kudirross Iswed
Wintering in suitable areas in Jan-Mar to 26th, highest 25+ on 4th and 15+ on 19 Feb at Cumnija, otherwise up to 12. Smaller numbers in Mar. In autumn 1 on 17th, then daily from 19 Oct; mostly in single figures but 10-15 on a few dates from late Oct to late Nov. An exceptional fall took place on Filfla on 23 Oct with 150+ counted. Smaller numbers in Dec.

REDSTART *Phoenicurus phoenicurus* Kudirross
2 on 26 Mar, then 25 sightings of 1-3 on 19 dates from 6 Apr to 21 May (most in Apr). In autumn singles on 5 dates from 19 Aug to 10 Sep, then daily from 15 Sep to 7 Oct with max of 20 at Wied Il-Luq on 21 Sep, otherwise 1-15. On 7 dates from 12-23 Oct; mostly 1-2 but 10+ on Filfla on 23rd. 1 on 7 Nov.

WHINCHAT *Saxicola rubetra* Bucaqq tas-Silla
Almost daily sightings in spring from 2 Apr to 21 May with peak between late Apr and early May. Mostly 1-10 but 25+ at Ta'Genc on 29 Apr and 20+ at Gnejna on 7 May. In autumn, 12 sightings of 1-3 on 8 dates from 7-24 Sep, and 2 on 1st and 1 on 16 Oct.

STONECHAT *Saxicola torquata* Bucaqq tax-Xitwa
Up to 10 at various sites in Jan-Mar to 20th. Autumn migration from 3 Oct, with highest numbers between early Oct and late Nov. Usually up to 30 but an exceptional fall took place on Filfla on 23 Oct with 200+ counted. In single figures in Dec.

WHEATEAR *Oenanthe oenanthe* Kuda
Almost daily in spring from 11 Mar to 25 Apr with a peak in late Mar: Max of 30 at Qammieh on 27th and in Gozo (2 sites) on 29th, otherwise 1-15. 1 on 10 May. In autumn almost daily sightings from 12 Aug to 7 Oct, with most in Sep; highest 35+ in Gozo (3 sites) on 19 Sep otherwise 1-12. 1-2 on 4 dates in Oct from 14-20th and 1 on 3 Nov.

BLACK-EARED WHEATEAR *Oenanthe hispanica* Kuda Dumnikana
1 on 18th, then 9 sightings of 1-2 from 30 Mar to 10 Apr and 1 on 23 Apr. In autumn 5 from Sarraflu area and 1 at Tal-Gordan on 19 Sep, and 1 on 7 Oct.

ISABELLINE WHEATEAR *Oenanthe isabellina* Kuda Izabellina
1 at Ghajn Barrani on 28 Mar.

ROCK THRUSH *Monticola saxatilis* Ganbublu
On 3 dates in Apr with 1-3 from 4-16th, then 1 on 6 May all at Dwejra, Malta and Id-Dumnija. In Sep 2 at Gozo on 8th and 1 at Nadur, Malta on 23rd.

BLUE ROCK THRUSH *Monticola solitarius* Merrill
Present and breeding along sea cliffs. Usually up to 10 at any one locality. Higher numbers in Aug-Nov with max of 20 at Is-Sanab, Gozo on 19 Aug. A few also inland at this time.

BLACKBIRD *Turdus merula* Malvizz Iswed
Daily sightings, mostly at Ghadira, in Jan-Feb to 21st where max of 4 on 10 Jan and 5 at Buskett on 26 Jan. Singles on 3rd and 11 Mar. In autumn frequent sightings of 1-3 from 19 Oct to 26 Dec, mostly at Bingemma and Buskett.

FIELDFARE *Turdus pilaris* Malvizzun tal-Qtajja
4 at Dwejra, Malta on 1st and 1-2 on 5 days from 13-31 Jan; then 1 on 1st and 4 at Buskett on 10 Feb. 1 at Ghadira on 5 Dec.

SONG THRUSH *Turdus philomelos* Malvizz
Up to 10 wintering in suitable areas in Jan-Mar to 29th but 50+ at Buskett on 26 Feb and 15+ at Comino on 26 Mar. More frequent sightings in Mar due to migrants. 1-2 on 3 dates till 14 Apr. 10 sightings of singles in Jun-Jul mostly at Buskett and Bingemma and 1-2 on 4 dates from 26 Aug to 30 Sep. In autumn, daily from 4 Oct to end of year with most from mid Oct to mid Nov, max 250+ on Filfla on 23 Oct and a passage (no numbers given) at Dwejra, Malta on 19 Oct otherwise up to 50. Smaller numbers in Dec, with up to 15 at Bingemma.

REDWING *Turdus iliacus* Malvizz Ahmar
18 sightings of 1-4 from 4 Jan to 8 Feb but 8 at Lunzjata on last date; then 1 on 19 Feb. Most sightings at Ghadira. In autumn singles on 16 Oct, 11 Nov, 4-6th and 17 Dec.

MISTLE THRUSH *Turdus viscivorus* Malvizzun Prim
Few (no numbers given) reported at various sites on 15 Nov.

CETTI'S WARBLER *Cettia cetti* Baghal ta' L-Gholliq
Breeding as usual in suitable areas. An increase in numbers after Jun with max of 15 at San Martin Valley on 6th and 12 at Wied il-Luq on 15 Jul.

FAN-TAILED WARBLER *Cisticola juncidis* Baghal ta' L-Imrewha
Widespread and commonly breeding. Higher numbers between May and Oct when mostly in low double figures of up to 30. Smaller numbers in Jan and Dec.

GRASSHOPPER WARBLER *Locustella naevia* Baghal tal-Gurati
1 at Xemxija on 5 Oct.

SAVI'S WARBLER *Locustella luscinioides* Baghal Ahmar
Singles at Xemxija on 29th and 31 Oct and 1 Nov and at Wied il-Luq on 4th, the latter being released at Ghadira where still present on 16th.

MOUSTACHED WARBLER *Acrocephalus melanopogon* Baghal Gastni
Singles at Lunzjata on 3 Feb and at Xemxija on 16 Mar. Again singles at Lunzjata on 21 Oct and at Ghadira on 21-22 Nov and on 4 dates in Dec from 9-15th.

SEDGE WARBLER *Acrocephalus schoenobaenus* Baghal tas-Simar
Almost daily in spring from 4 Mar to 21 May with most from early Apr to early May. Highest c.30 at Xemxija on 22 Apr, otherwise 1-10. In autumn singles on 8th and 22 Sep and 1-2 on 6 dates from 1-26 Oct, mostly at Ghadira.

MARSH WARBLER *Acrocephalus palustris* Baghal ta' l-Aghdajjar
1 at Xemxija on 26 Oct.

REED WARBLER *Acrocephalus scirpaceus* Baghal tal-Qasab
Only two sightings in spring: singles at Xemxija on 9 Apr and 3 May. In autumn singles on 7 days from 22 Jul to 15 Aug, then almost daily from 19 Aug to 21 Oct, with most sightings in Sep. In single figures but c.10 at Wied il-Luq on 27 Aug. Singles at Xemxija on 5 dates from 27 Oct to 22 Nov.

GREAT REED WARBLER *Acrocephalus arundinaceus* Baghal Prim
1-3 almost daily in spring from 3 Apr to 10 May and 1-2 on most days from 18 May to 5 Jun. Most spring sightings at Ghadira and Xemxija. 1 at Wied il-Luq on 1 Jul, then singles on 11 dates from 20 Aug to 20 Sep and on 4 dates in Oct to 31st.

ICTERINE WARBLER *Hippolais icterina* Bekkafik Isfar
Almost daily in May from 7-22nd with 26 sightings of 1-5, but 40+ at Comino on 21st and 15+ at 2 other sites on 20-21st. In autumn 1-2 on 17 days from 12 Aug to 26 Sep, mostly at Bingemma and Wied il-Luq.

DARTFORD WARBLER *Sylvia undata* Baghal tax-Xaghri
Singles at Qammieh on 30 Jan, at St.Elmo Pt. (breakwater) on 23 Oct and at Ghallis on 27 Dec.

SPECTACLED WARBLER *Sylvia conspicillata* Bufula Hamra
A slight increase in sightings evident over recent years with most from Mar-Apr and Sep-Dec. Mostly in single figures but 10+ at Munxar on 14 May. More commonly sighted in Gozo.

SUBALPINE WARBLER *Sylvia cantillans* Bufula Passajra
2 on 3rd, then almost daily from 18 Mar to 15 Apr; mostly 1-3 but 35+ from 2 sites in Gozo on 28th and 15+ at Dwejra, Gozo on 29 Mar and at Comino on 2 Apr. 3 on 27 Apr. In autumn almost daily from 8 Jul to 18 Oct with a peak from early Aug to late Sep, when daily. In single to low double figures of up to 35+, with 40 at Wied il-Luq on 2 Sep highest.

SARDINIAN WARBLER *Sylvia melanocephala* Bufula Sewda
Commonly breeding resident in the three islands.

LESSER WHITETHROAT *Sylvia curruca* Bekkafik Irmiedi
Singles at Ghadira on 8th and at Xemxija on 27 Sep and again at Xemxija on 21 Oct.

WHITETHROAT *Sylvia communis* Bekkafik Ahmar
Almost daily in spring from 8 Apr to 21 May; mostly 1-15, but 25+ on 9

Apr and 40+ on 21 May at Comino. In autumn 1 on 20 Aug, then 7 sightings of 1-2 from 2 Sep to 1 Oct, mostly at Wied il-Luq.

GARDEN WARBLER *Sylvia borin* Bekkafik
Spring migration from 18 Apr when almost daily till 4 Jun. Highest numbers in May when mostly in double figures of up to 50+ but 70-80 on 21-22nd at Bingemma. Singles at two sites on 24 Jun and 1 Jul. In autumn, almost daily from 13 Aug to 19 Oct with most from late Aug to early Oct when mostly in double figures of up to 50, but c.150 on 9th and c.100 on 2nd in Sep and 70+ on 1 Oct all at Wied il-Luq, singles on 25th and 29 Oct, 3 on 2nd and 1 on 15 Nov.

BLACKCAP *Sylvia atricapilla* Kapinera
Daily in Jan-Mar when mostly in high double figures from a few sites mainly Buskett, Bingemma and Has-Saptan. Highest 100+ at Bingemma on 4th and 18 Feb and at Buskett on 26 Feb and 6 Mar. 1-3 on a few days in Apr till 22nd and singles at two sites on 7 May. First autumn sighting on 8 Sep, when in single figures till 30th, after which on most days in Oct-Dec; highest 25+ on 1 Oct and 20-30 on 26-31 Dec at Wied il-Luq; otherwise 1-10.

ARCTIC WARBLER *Phylloscopus borealis* Vjolin ta' L-Artiku
1 caught and ringed at Zebbug, Gozo on 4 Nov.

BONELLI'S WARBLER *Phylloscopus bonelli* Vjolin Bajdani
1 at Wied il-Luq on 10 Sep.

WOOD WARBLER *Phylloscopus sibilatrix* Vjolin Hadrani
Daily sightings in spring from 7 Apr to 11 May with most in mid-late Apr; highest 20 at Xemxija on 22nd, otherwise 1-15. 10 sightings of 1-5 from 14-29 May and 1 on 3 Jun. In autumn singles on 3rd, 23rd and 27 Aug, then 19 sightings of 1-3 from 2 Sep to 7 Oct with most from 17-24 Sep. On 6 days from 17-29 Oct, mostly 1-2 but 10+ on Filfla on 23rd.

CHIFFCHAFF *Phylloscopus collybita* Vjolin tax-Xitwa
In low treble figures on a few dates in Jan-Feb with max 200 at Chadwick Lake on 19 Jan and 100-150 on 4 dates in Feb, otherwise up to 60 elsewhere. High double figures in early Mar reducing gradually with last sightings on 31st. In autumn 1-5 on 5 dates from 4-12th, then daily from 17 Oct to end of year. Higher numbers from late Oct, with max of 150 on Filfla on 23 Oct, otherwise in single to medium double figures of up to 50 on 3 dates in Dec.

WILLOW WARBLER *Phylloscopus trochilus* Vjolin Pastard
Almost daily sightings in spring from 18 Mar to 17 May with highest numbers in Apr, max 20 at Ghadira and Xemxija on 7-8th, otherwise 1-15. 2 singing at Ghar Lapsi on 11 Jun. In autumn 4 on 20th, then daily from 26 Aug to 17 Oct with a peak from late Sep to early Oct. Mostly 1-10 but 20+ at Salina on 27th and 15 at Xemxija on 30 Sep. Then 1-5 on 6 dates from 20-29 Oct but 10+ on Filfla on 23rd. 1 on 4 Nov.

GOLDCREST *Regulus regulus* Bufula tal-Qamar
Singles on 11th and 20-21 Jan; 1-6 on 5 dates from 7-24 Feb and 1 on 5 Mar. On most days in autumn from 15 Oct to end of year with most from late Oct-mid Dec. Mostly 1-6 but 15+ on Filfla on 23 Oct. Most sightings at Ghadira.

FIRECREST *Regulus ignicapillus* Bufula tat-Toppu Ahmar
Singles on 2nd and 28 Jan; 1 on 7th and 2 on 10 Feb; and on 14 Mar. On most days from 18 Oct-14 Dec; mostly 1-3 but 5 at Ta'Pinu on 20 Oct.

GOLDCREST/FIRECREST *Regulus regulus/ignicapillus*
9 sightings from 16 Jan to 11 Mar; mostly in singles but 4 at Buskett on 21 Jan. In autumn from 12 Oct to 29 Dec; mostly 1-5 but 6-10 at Buskett on 25-26 Dec.

SPOTTED FLYCATCHER *Muscicapa striata* Zanzarell tat-Tikki
1 on 23rd, then almost daily from 26 Apr to 22 May, mostly 1-5 but 20+ at Comino and Bingemma on 21 May. Singles on 4 dates from 1-17 Jun. In autumn 1 on 21st, then 1-3 on most days from 25 Aug to 7 Oct. 1-2 at Ghadira from 24-30 Oct.

RED-BREASTED FLYCATCHER *Ficedula parva* Zanzarell Sidru Ahmar
Singles at Ghadira on 12th, 17th and 19 Oct and at Bingemma on 3 Nov.

SEMI-COLLARED FLYCATCHER *Ficedula semitorquata* Zanzarell tal-Lvant
1 male at Gnejna Bay on 7 May.

COLLARED FLYCATCHER *Ficedula albicollis* Zanzarell tal-Kullar
10 sightings from 2 Apr to 7 May: singles but 2 at Pieta on 26 Apr. 1 at Bingemma on 25 Oct.

PIED FLYCATCHER *Ficedula hypoleuca* Zanzarell Iswed
Almost daily in spring from 9 Apr to 10 May when in single figures, max 8 at Pieta on 27th, 1 on 22 May. In autumn, 1-3 on 20 dates from 20 Aug to 29 Sep, with most from 10-24 Sep.

PENDULINE TIT *Remiz pendulinus* Pendulin
Singles on 16 days from 2 Jan to 22 Feb, then 1-3 on 3 days from 1-8 Mar, all at Ghadira. In autumn, 5 on 28 Oct then almost daily sightings in Nov-Dec; usually 1-6 but 15+ at Xemxija on 15 Nov and 8-10 at Ramla Bay on 7-8 Dec. Other sightings mostly at Ghadira and Lunzjata. Also single sightings at Ghajn Barrani and Ghajn Rihana.

GOLDEN ORIOLE *Oriolus oriolus* Tajra Safra
Almost daily in spring from 21 Apr to 23 May with peak in early May. In single figures of up to 6 but 10+ at Zebbug, Gozo on 3 May, then 3 sightings of singles on 3-4 Jun. In autumn 5 sightings of 1-2 on 4 dates from 27 Aug to 10 Sep.

RED-BACKED SHRIKE *Lanius collurio* Kaccamendula Hamra
Singles at Bingemma on 3rd and at Wied Dalam on 11 Jun. In autumn singles at Wied il-Luq on 20th and at Bingemma on 26-27 Aug, six sightings on 5 dates in Sep from 19-25th, and at Wied il-Luq on 5 Oct.

WOODCHAT SHRIKE *Lanius senator* Kaccamendula
1 on 29 Mar, then on most days from 2-27 Apr; mostly 1-3 but 5+ at Comino on 9th and at Pieta' on 17th. In May 5 sightings of singles on 7-8th and 5 at Comino on 21st. In autumn singles on 27th at Salina and on 31 Jul and 1 Aug at Dwejra, Malta; then 1-4 almost daily from 12-28 Aug (daily 17-25th) with most sightings at Dwejra, Malta and Bingemma. Singles on 5 dates from 7-25 Sep.

STARLING *Sturnus vulgaris* Sturnell
Wintering in double to treble figures in Jan-Feb: up to 600 but 1000-2000 on 5 dates in Jan, mostly at Ghadira. On most days in Mar to 27th; mainly in single to low double figures but 100 at Marsa on 11th. 2 on 27th and 6 on 28 Jul, and 2 on 5 Aug. In autumn from 3 Sep, then increasing regularly with low treble figures from 6 Oct. Over 1000 on 13 occasions between late Oct and Dec with max of 3000 at Luqa on 17 Dec.

SPANISH SPARROW *Passer hispaniolensis* Ghammiel tal-Bejt
Abundant breeding resident

TREE SPARROW *Passer montanus* Ghammiel tas-Sigar
Breeding resident with sightings from usual sites. Highest numbers between late Jul and Dec with 40-50 at Chadwick Lake and Xemxija on a few dates from Jul-Oct and up to 30 at Bingemma in Nov-Dec.

CHAFFINCH *Fringilla coelebs* Sponsun
Single to low double figures in Jan-Mar; max 25 on 10 Feb but c.100 at Floriana (at roost) on 23 Jan. 1-6 almost daily in Apr-Jun from various sites and frequent sightings in Jul-Sep, with up to 10 at Buskett on two dates. Other sightings in summer mostly at Bingemma and Ghadira. In autumn in single figures from 1st, then daily from 16 Oct to end of year with most from mid Oct to mid Nov and in late Dec. Mostly in low double figures of up to 30, but 60+ at Bingemma on 17 Oct, and 50+ on 11 Nov and c.45 on 26 Dec at Buskett.

BRAMBLING *Fringilla montifringilla* Sponsun Selvagg
1 in Gozo on 29 Oct and 2 at Valletta Market (seen up for sale) on 19 Nov.

SERIN *Serinus serinus* Apparell
 Single figures (up to 6) in Jan-Mar but 10+ at Has-Saptan on 22 Jan and at Buskett on 10 Feb; then 12 sightings of 1-2 in Apr-Jul, mostly at Ghadira except for two sightings at Bingemma and Buskett. 3 on 9 Sep, then singles on 12th and 28-29 Oct and on 20 dates from 10 Nov to 31 Dec; in single figures but 10 at Buskett on 11th and at Has-Saptan on 21 Nov, and at Ghallis on 13 Dec.

GREENFINCH *Carduelis chloris* Verdun
 3 sightings of 2-10 on 21-22 Jan and 1 on 22 Feb; then 1-6 on 8 dates from 11-30 Mar. Singles on 6th and 24 Apr, 9th and 22 May and 5th and 30 Jun. Then almost daily from Jul to Sep with max of 5 on 4 Aug; all at Ghadira except for 6 sightings. In autumn almost daily in Oct-Nov; mostly 1-5 but 30+ at Ghallis on 10-11th, and 'hundreds' reported in south of Malta and at Fomm ir-Rih on 29-30 Nov. On most days in Dec with max of 100 at Xaghra, Gozo on 13th, otherwise 1-10.

GOLDFINCH *Carduelis carduelis* Gardell
 On 4 dates from 22 Jan to 19 Feb, mostly 1-2 but 5 at Has-Saptan on 28 Jan. Singles on 14th and 30 Mar; 3rd, 9th and 16 Apr, 3rd and 24 May, 10th, 16-20th and 29 Jul; 5-6th and 19 Aug; 14th and 19-20 Sep. In autumn 7 sightings on 6 dates from 17 Oct to 23 Nov, mostly 1-3 but 5 at Dingli on 17 Oct. Up to 16 roosting at Hamrun from 28 Nov to 9 Dec and singles on 17th and 30 of the same month.

SISKIN *Carduelis spinus* Ekrú
 1 at Buskett on 25 Mar, 2 at Il-Qaws and 1 at B'Bugia on 18 Oct. 'Some' reported in Malta on 21 Nov, 3 at Xaghra on 6th and 1 at Buskett on 26 Dec.

LINNET *Carduelis cannabina* Gojjin
 Single to medium double figures of up to 50 in Jan-Mar but 100+ at Dwejra on 27th and at Qbajjar/Ramla on 29 Mar. 1-4 on a few dates till 17 Apr and 9 sightings of 1-3 in Jun-Aug. In autumn almost daily from 17 Oct to end of year with most from mid Oct to late Nov when mostly in double figures of up to 35 but 50+ on Filfla on 23 Oct. Smaller numbers in Dec but 150+ at Floriana (roost), on 20th.

TRUMPETER FINCH *Bucanetes githaginea* Trumbettier
 1 male at Gharb on 15 Nov (reported trapped).

SCARLET ROSEFINCH *Carpodacus erythrínus* Bumunqar
 1 juvenile ringed at Mtahleb on 18 Oct.

HAWFINCH *Coccothraustes coccothraustes* Taz-Zebbug
 4 sightings on 17-18 Oct, max of 5 at Buskett on 18th otherwise 1-2.

YELLOWHAMMER *Emberiza citrinella* Durrajsa Safra
 1 on Filfla on 23 Oct.

ORTOLAN BUNTING *Emberiza hortulana* Ortolan
 Singles at Dwejra on 10th and 14 Apr; then 2 in mid Sep and 1 on 1 Oct both at Zurrieq (trapped).

CRETZSCHMAR'S BUNTING *Emberiza caesia* Ortolan Rasu Blu
 1 juvenile male ringed at Ghadira on 26 Aug.

REED BUNTING *Emberiza schoeniclus* Durrajsa tal-Qasab
 Singles at Ghadira on 12 Feb, 11-14th and 29 Mar. In autumn almost daily again at Ghadira from 16 Oct to 29 Dec; mostly 1-4, but 5 on 1 Dec. Peak from early Nov to early Dec when also sighted elsewhere with 1-3 on 13 dates, mostly at Xemxija.

CORN BUNTING *Miliaria calandra* Durrajsa
 Breeding in small numbers at various sites. Numbers mostly in Jul-Oct with max of 50 in early Sep at Dwejra, Gozo. Higher numbers in same period indicates post-moult flocking at drinking holes and migration.

RINGING REPORT FOR 1989

Joe Sultana & Charles Gauci
 (Research Committee)

This report covers the ringing activities of the Valletta Bird Ringing Scheme, run by the Malta Ornithological Society, for the year 1989. 13,132 birds of 98 species were ringed, bringing the total to 202,025 of 162 species (and 2 hybrids) by the end of the year under review.

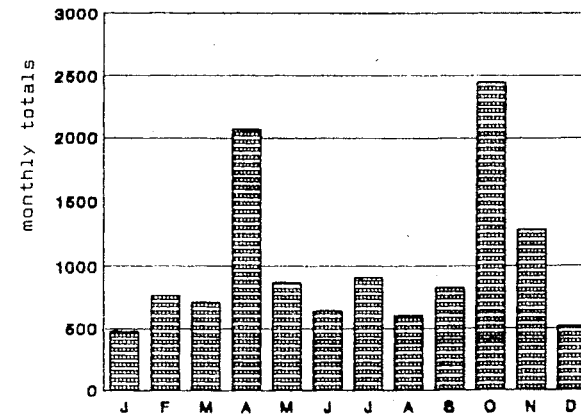
Three new species, namely Whimbrel *Numenius phaeopus*, Barn Owl *Tyto alba* and Cretzschmar's Bunting *Emberiza caesia*, were added to the ringing list. The 5th Grasshopper Warbler *Locustella naevia*, the 3rd Arctic Warbler *Phylloscopus borealis* and the 4th Scarlet Rosefinch *Carpodacus erythrínus* were the only vagrants which appear in the ringing list. Unusual numbers ringed were 7 Black-necked Grebes *Podiceps nigricollis* (grand total 11). 22 Red-rumped Swallows *Hirundo daurica* (grand total 57) and 21 Penduline Tits *Remiz pendulinus* (grand total 38). 810 Storm Petrels *Hydrobates pelagicus* were ringed on Filfla Island during 2 night visits in summer.

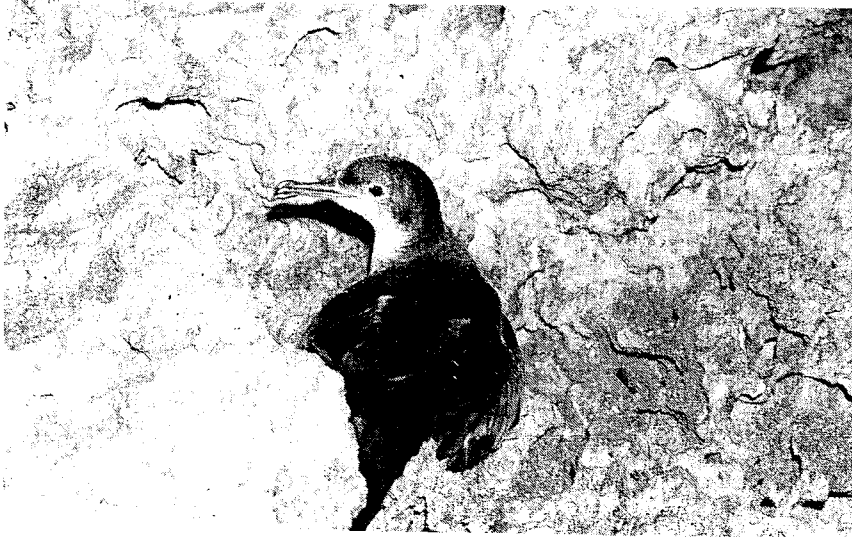
The regular manning of Ghadira Nature Reserve produced nearly 17% of the total number of birds ringed for the whole of the islands. The use of a few wader traps there resulted in most of the waders figuring in the list.

Table 1 gives the ten species topping the list of those ringed since 1965. The number of birds ringed in the years 1987, 1988 and 1989 respectively are also given.

Table 1

Species	1965-89	1987	1988	1989
<i>Erithacus rubecula</i>	31,196	2,001	3,099	2,268
<i>Phylloscopus collybita</i>	22,945	1,530	1,651	1,402
<i>Hirundo rustica</i>	18,610	621	369	1,249
<i>Hydrobates pelagicus</i>	15,403	303	399	810
<i>Passer hispaniolensis</i>	13,847	848	980	755
<i>Sylvia melanocephala</i>	11,646	622	915	659
<i>Sylvia atricapilla</i>	8,688	393	456	709
<i>Riparia riparia</i>	8,253	26	257	543
<i>Sylvia borin</i>	7,577	445	917	411
<i>Delichon urbica</i>	5,715	411	158	82





Puffinus yelkouan has been given species status

Joe Sutfrana



Since the first breeding record in 1974, 4478 Fan-tailed Warblers have been ringed

Raymond Galea

This report carries two sections dealing with ringing recoveries - one with recoveries of Valletta-ringed birds and the other with foreign ringed birds recovered in Malta. 27 recoveries of 11 species ringed in Malta were reported during 1989. 10 of these (a Snipe *Gallinago gallinago*, a Yellow-legged Gull *Larus cachinnans*, 2 Sand Martins *Riparia riparia*, a Robin *Erithacus rubecula*, a Stonechat *Saxicola torquata*, a Garden Warbler *Sylvia borin*, 2 Blackcaps *Sylvia atricapilla* and a Chiffchaff *Phylloscopus collybita*) were reported from abroad.

The Snipe is the 3rd recovery of this species in Italy while the Yellow-legged Gull is the 2nd recovery abroad of a pullus ringed on Filfla Islet. The 2 Sand Martins bring the number of the foreign recoveries of this species to 19 - the one in France is the 1st in that country while the other was the 2nd in Sweden. The Robin always figures in the MOS recovery lists. This report's sole foreign recovery is the 27th abroad. The Stonechat which has been recovered in Yugoslavia is the scheme's first recovery of this species abroad; the Garden Warbler is the 9th, but is the scheme's 1st in Finland and also the most northern. The 2 Blackcaps recovered in England and Hungary respectively, as well as the Chiffchaff in Algeria, are also the scheme's firsts for these species in the respective countries.

In the last section one finds 16 recoveries of foreign-ringed birds of 14 species recovered in Malta. Pride of place goes to the Storm Petrel *Hydrobates pelagicus* ringed as a pullus on Marettimo Isle (off Trapani, Sicily) and controlled on Filfla Islet. There is also the 1st recovery of a Subalpine Warbler *Sylvia cantillans* - a female ringed on Capri in spring 1988 and controlled in autumn 1989. Several firsts from various countries also figure in this section: Marsh Harrier *Circus aeruginosus* from Poland; Lesser Black-backed Gull *Larus fuscus* from Norway; Sand Martin *Riparia riparia* and Sedge Warbler *Acrocephalus schoenobaenus* from Italy and Chiffchaff *Phylloscopus collybita* from Yugoslavia. The other foreign recoveries which figure in this section are the 17th Night Heron *Nycticorax nycticorax* from Yugoslavia, the 5th Kestrel *Falco tinnunculus* from Czechoslovakia, the 2nd Little Stint *Calidris minuta* from Poland, the 7th Great Skua *Stercorarius skua* from the Shetlands, the 4th Sand Martin *Riparia riparia* from Yugoslavia, the 6th Swallow *Hirundo rustica* from Germany, the 2nd Reed Warbler *Acrocephalus scirpaceus* from Italy and the 2nd Chiffchaff *Phylloscopus collybita* and the 12th Linnet *Carduelis cannabina* from Czechoslovakia.

During 1989 the number of ringers was fourteen - namely J. Attard Montalto, J. Borg, D. Cachia, R. Cachia Zammit, V. Cilia, C. Coleiro, R. Galea, C. Gauci, M.V. Gauci, B.K. German, J. Grech, M. Mallia, J.M. Mangion and J. Sultana. As in the previous year J. Middleton, a B.T.O. ringer, helped the scheme during two visits in spring and autumn respectively. C. Gauci continued to be responsible for the compilation of all the ringing data and for the bi-monthly ringing newsletter which is issued exclusively for the ringers.

BIRDS RINGED IN 1989

Euring Code No.	Species	Ringed in 1989	Grand Total ringed 1965-1989
00070	Little Grebe <i>Tachybaptus ruficollis</i>	-	1
00120	Black-necked Grebe <i>Podiceps nigricollis</i>	7	11
00360	Cory's Shearwater <i>Calonectris diomedea</i>	109	1,921
00460	Mediterranean Shearwater <i>Puffinus yelkouan</i>	29	521
00520	Storm Petrel <i>Hydrobates pelagicus</i>	810	15,403
00980	Little Bittern <i>Ixobrychus minutus</i>	4	50
01040	Night Heron <i>Nycticorax nycticorax</i>	-	10
01080	Squacco Heron <i>Ardeola ralloides</i>	-	2

01170	Little Egret <i>Egretta garzetta</i>	-	1
01860	Mallard <i>Anas platyrhynchos</i>	-	1
03040	Kestrel <i>Falco tinnunculus</i>	-	9
03100	Hobby <i>Falco subbuteo</i>	-	1
03700	Quail <i>Coturnix coturnix</i>	3	10
04070	Water Rail <i>Rallus aquaticus</i>	9	73
04080	Spotted Crake <i>Porzana porzana</i>	4	17
04100	Little Crake <i>Porzana parva</i>	2	8
04110	Baillon's Crake <i>Porzana pusilla</i>	-	1
04240	Moorhen <i>Gallinula chloropus</i>	28	146
04290	Coot <i>Fulica atra</i>	-	6
04590	Stone Curlew <i>Burhinus oediconemus</i>	-	1
04690	Little Ringed Plover <i>Charadrius dubius</i>	12	77
04700	Ringed Plover <i>Charadrius hiaticula</i>	5	11
04770	Kentish Plover <i>Charadrius alexandrinus</i>	-	3
04930	Lapwing <i>Vanellus vanellus</i>	-	1
05010	Little Stint <i>Calidris minuta</i>	182	749
05020	Temminck's Stint <i>Calidris temminckii</i>	7	41
05090	Curllew Sandpiper <i>Calidris ferruginea</i>	2	53
05120	Dunlin <i>Calidris alpina</i>	32	86
05170	Ruff <i>Philomachus pugnax</i>	3	45
05180	Jack Snipe <i>Lymnocyptes minimus</i>	-	18
05190	Snipe <i>Gallinago gallinago</i>	15	68
05200	Great Snipe <i>Gallinago media</i>	-	8
05290	Woodcock <i>Scolopax rusticola</i>	-	1
05380	Whimbrel <i>Numenius phaeopus</i>	1	1
05450	Spotted Redshank <i>Tringa erythropus</i>	-	2
05460	Redshank <i>Tringa totanus</i>	3	13
05470	Marsh Sandpiper <i>Tringa stagnatilis</i>	-	1
05480	Greenshank <i>Tringa nebularia</i>	-	3
05530	Green Sandpiper <i>Tringa ochropus</i>	-	23
05540	Wood Sandpiper <i>Tringa glareola</i>	21	137
05560	Common Sandpiper <i>Actitis hypoleucos</i>	45	286
05610	Turnstone <i>Arenaria interpres</i>	-	3
05750	Mediterranean Gull <i>Larus melanocephalus</i>	1	2
05820	Black-headed Gull <i>Larus ridibundus</i>	-	1
05850	Slender-billed Gull <i>Larus genei</i>	-	1
05926	Yellow-legged Gull <i>Larus cachinnans</i>	46	358
06110	Sandwich Tern <i>Sterna sandvicensis</i>	-	1
06280	White-winged Black Tern <i>Chlidonias leucopterus</i>	-	1
06870	Turtle Dove <i>Streptopelia turtur</i>	-	47
07240	Cuckoo <i>Cuculus canorus</i>	-	25
07350	Barn Owl <i>Tyto alba</i>	1	1
07390	Scops Owl <i>Otus scops</i>	4	115
07680	Short-eared Owl <i>Asio flammeus</i>	-	2
07780	Nightjar <i>Caprimulgus europaeus</i>	-	14
07950	Swift <i>Apus apus</i>	1	29
08310	Kingfisher <i>Alcedo atthis</i>	13	141
08460	Hoopoe <i>Upupa epops</i>	3	19
08480	Wryneck <i>Jynx torquilla</i>	21	422
09680	Short-toed Lark <i>Calandrella brachydactyla</i>	8	153
09740	Woodlark <i>Lullula arborea</i>	-	2
09760	Skylark <i>Alauda arvensis</i>	1	28
09810	Sand Martin <i>Riparia riparia</i>	543	8,253
09920	Swallow <i>Hirundo rustica</i>	1,294	18,610
09950	Red-rumped Swallow <i>Hirundo daurica</i>	22	57
10010	House Martin <i>Delichon urbica</i>	82	5,715
10020	Richard's Pipit <i>Anthus novaeseelandiae</i>	-	1
10050	Tawny Pipit <i>Anthus campestris</i>	1	10
10080	Olive-backed Pipit <i>Anthus hodgsoni</i>	-	3
10090	Tree Pipit <i>Anthus trivialis</i>	54	1,209
10110	Meadow Pipit <i>Anthus pratensis</i>	27	1,070
10120	Red-throated Pipit <i>Anthus cervinus</i>	-	65
10140	Water/Rock pipit <i>Anthus spinoletta</i>	-	14
10170	Yellow Wagtail <i>Motacilla flava</i>	47	2,832
10190	Grey Wagtail <i>Motacilla cinerea</i>	15	608
10200	White Wagtail <i>Motacilla alba</i>	45	716
10660	Wren <i>Troglodytes troglodytes</i>	-	19

10840	Dunnock <i>Prunella modularis</i>	100	1,769
10950	Rufous Bush Chat <i>Cercotrichas galactotes</i>	-	7
10990	Robin <i>Erithacus rubecula</i>	2,268	31,196
11030	Thrush Nightingale <i>Luscinia luscinia</i>	-	5
11040	Nightingale <i>Luscinia megarhynchos</i>	64	1,599
11060	Bluethroat <i>Luscinia svecica</i>	11	90
11210	Black Redstart <i>Phoenicurus ochruros</i>	28	246
11220	Redstart <i>Phoenicurus phoenicurus</i>	93	2,127
11370	Whinchat <i>Saxicola rubetra</i>	14	490
11390	Stonechat <i>Saxicola torquata</i>	98	1,714
11440	Isabelline Wheatear <i>Oenanthe isabellina</i>	-	1
11460	Wheatear <i>Oenanthe oenanthe</i>	2	147
11480	Black-eared Wheatear <i>Oenanthe hispanica</i>	-	4
11620	Rock Thrush <i>Monticola saxatilis</i>	-	3
11660	Blue Rock Thrush <i>Monticola solitarius</i>	2	74
11860	Ring Ouzel <i>Turdus torquatus</i>	-	3
11870	Blackbird <i>Turdus merula</i>	12	202
11980	Fieldfare <i>Turdus pilaris</i>	-	3
12000	Song Thrush <i>Turdus philomelos</i>	69	993
12010	Redwing <i>Turdus iliacus</i>	-	27
12200	Cetti's Warbler <i>Cettia cetti</i>	103	1,095
12260	Fan-tailed Warbler <i>Cisticola juncidis</i>	322	4,478
12370	River Warbler <i>Locustella fluviatilis</i>	-	2
12380	Savi's Warbler <i>Locustella luscinioides</i>	2	38
12410	Moustached Warbler <i>Acrocephalus melanopogon</i>	7	102
12430	Sedge Warbler <i>Acrocephalus schoenobaenus</i>	106	1,767
12470	Paddyfield Warbler <i>Acrocephalus agricola</i>	-	1
12500	Marsh Warbler <i>Acrocephalus palustris</i>	2	22
12510	Reed Warbler <i>Acrocephalus scirpaceus</i>	70	1,452
12530	Great Reed Warbler <i>Acrocephalus arundinaceus</i>	30	996
12550	Olivaceous Warbler <i>Hippobais pallida</i>	-	3
12590	Icterine Warbler <i>Hippolais icterina</i>	27	1,002
12600	Melodious Warbler <i>Hippolais polyglotta</i>	-	2
12620	Dartford Warbler <i>Sylvia undata</i>	-	38
12640	Spectacled Warbler <i>Sylvia conspicillata</i>	19	1,259
12650	Subalpine Warbler <i>Sylvia cantillans</i>	424	5,061
12670	Sardinian Warbler <i>Sylvia melanocephala</i>	659	11,646
12690	Ruppell's Warbler <i>Sylvia rueppelli</i>	-	2
12720	Orphean Warbler <i>Sylvia hortensis</i>	-	4
12730	Barred Warbler <i>Sylvia nisoria</i>	-	1
12740	Lesser Whitethroat <i>Sylvia curruca</i>	3	53
12750	Whitethroat <i>Sylvia communis</i>	42	1,700
12760	Garden Warbler <i>Sylvia borin</i>	411	7,577
12770	Blackcap <i>Sylvia atricapilla</i>	709	8,688
12950	Arctic Warbler <i>Phylloscopus borealis</i>	1	3
12980	Pallas's Warbler <i>Phylloscopus proregulus</i>	-	1
13000	Yellow-browed Warbler <i>Phylloscopus inornatus</i>	-	15
13070	Bonelli's Warbler <i>Phylloscopus bonelli</i>	1	124
13080	Wood Warbler <i>Phylloscopus sibilatrix</i>	121	4,620
13110	Chiffchaff <i>Phylloscopus collybita</i>	1,402	22,945
13120	Willow Warbler <i>Phylloscopus trochilus</i>	331	4,413
13140	Goldcrest <i>Regulus regulus</i>	36	237
13150	Firecrest <i>Regulus ignicapillus</i>	20	344
13350	Spotted Flycatcher <i>Muscicapa striata</i>	17	1,185
13430	Red-breasted Flycatcher <i>Ficedula parva</i>	1	65
13470	Semi-collared Flycatcher <i>Ficedula semitorquata</i>	-	7
13480	Collared Flycatcher <i>Ficedula albicollis</i>	3	302
13490	Pied Flycatcher <i>Ficedula hypoleuca</i>	28	2,051
14900	Penduline Tit <i>Remiz pendulinus</i>	21	38
15080	Golden Oriole <i>Oriolus oriolus</i>	2	181
15180	Red-backed Shrike <i>Lanius collurio</i>	7	100
15230	Woodchat Shrike <i>Lanius senator</i>	2	166
15820	Starling <i>Sturnus vulgaris</i>	6	96
15920	Spanish Sparrow <i>Passer hispaniolensis</i>	755	13,845
15980	Tree Sparrow <i>Passer montanus</i>	30	437
16330	Red-eyed Vireo <i>Vireo olivaceus</i>	-	1
16360	Chaffinch <i>Fringilla coelebs</i>	49	667
16380	Brambling <i>Fringilla montifringilla</i>	-	4

Bologna 4M 05.06.88 Brenta : 45° 40' N, 11° 41' E. Pozzoleone
K 91.265 (Vicenza), Italy.
v 23.03.89 Ramla Valley, Gozo.

Swallow *Hirundo rustica*

Radolfzell 1(5) 11.07.88 Munchen-Solln : 48° 04' N, 11° 31' E. Ober-
BT 89.359 bayern (Kloster Warnberg), Germany.
+ 30.04.89 Ghajn Rihana : 35° 54' N, 14° 24' E.

Sedge Warbler *Acrocephalus schoenobaenus*

Bologna 3 19.08.88 Cona : 45° 31' N, 12° 24' E (Venezia),
K 136.273 Italy.
v 22.04.89 Xemxija.

Reed Warbler *Acrocephalus scirpaceus*

Bologna 3 16.08.88 Cona : 45° 31' N, 12° 24' E (Venezia),
K 136.127 Italy.
v 01.10.88 Ghadirà.

Subalpine Warbler *Sylvia cantillans*

Bologna SF 21.04.88 Capri : 40° 33' N, 14° 13' E (Napoli),
K 110.180 Italy.
v 12.08.89 Bingemma.

Chiffchaff *Phylloscopus collybita*

Ljubljana 3 15.10.89 Ormoz : 46° 25' N, 16° 10' E (Slovenja),
A 435.791 Yugoslavia.
x c. 15.11.89 Sliema : 35° 55' N, 14° 30' E.
Prahá 1 28.05.88 Kersko : 50° 09' N, 14° 55' E, (Nymburk),
V 29.879 Czechoslovakia.
v 14.12.89 Has-Saptan.

Linnet *Carduelis cannabina*

Prahá 4M 03.09.88 Biscupice : 49° 05' N, 17° 43' E, Zlin,
T 578.960 Czechoslovakia.
() 01.10.88 Zejtun : 35° 52' N, 14° 32' E.

ADDITIONS TO SYSTEMATIC LISTS OF 1979 TO 1988

Leach's Petrel *Oceanodroma leucorhoa* - one in Grand Harbour on 18 Aug. 1979 (published in *A New Guide To The Birds Of Malta* - Sultana & Gauci 1982).

Red Kite *Milvus milvus* - one at Buskett on 26 Sept. 1981.

Red-rumped Swallow *Hirundo daurica* - singles at Lunzjata on 23 Mar. 1987 and 1 May 1988.

Isabelline Wheatear *Oenanthe isabellina* - one at Delimara on 11 Nov. 1987.

Marsh Warbler *Acrocephalus palustris* - one at Ghajn Zejtuna on 5 Dec. 1987 and singles at Lunzjata on 29 Aug., 21 Sept. and 22 Oct. 1988.

Marmora's Warbler *Sylvia sarda* - one l/o Qrendi on 4 June 1982.

Dartford Warbler *Sylvia undata* - one at Ghajn Zejtuna on 8 Jan. 1987.

Lesser Whitethroat *Sylvia curruca* - one at Wied il-Luq on 9 Oct. 1988.

Garden Warbler *Sylvia borin* - a late bird at Xemxija on 7 June 1987.

Red-backed Shrike *Lanius collurio* - one at Lunzjata on 4 Oct. 1988.

Rustic Bunting *Emberiza rustica* - one at Rabat on 8 Nov. 1987.

ERRATUM

Arctic Warbler *Phylloscopus borealis* - the date of the 1988 bird should read 16 Oct. and not 26 Oct. as appeared in the Systematic List for 1987-88 in *Il-Merill* No.26 (1989).

16400	Serín <i>Serinus serinus</i>	1	290
16490	Greenfinch <i>Carduelis chloris</i>	3	285
16530	Goldfinch <i>Carduelis carduelis</i>	1	16
16540	Siskin <i>Carduelis spinus</i>	-	8
16600	Linnet <i>Carduelis cannabina</i>	5	912
16790	Scarlet Rosefinch <i>Carpodacus erythrinus</i>	1	4
17170	Hawfinch <i>Coccothraustes coccothraustes</i>	-	2
18470	Lapland Bunting <i>Calcarius lapponica</i>	-	1
18570	Yellowhammer <i>Emberiza citrinella</i>	-	1
18660	Ortolan Bunting <i>Emberiza hortulana</i>	-	2
18680	Cretzschmar's Bunting <i>Emberiza caesia</i>	1	1
18730	Rustic Bunting <i>Emberiza rustica</i>	-	8
18740	Little Bunting <i>Emberiza pusilla</i>	-	4
18750	Chestnut Bunting <i>Emberiza rutila</i>	-	1
18760	Yellow-breasted Bunting <i>Emberiza aureola</i>	-	1
18770	Reed Bunting <i>Emberiza schoeniclus</i>	15	197
18820	Corn Bunting <i>Miliaria calandra</i>	12	380
	Swallow X House Martin <i>H. rustica X D. urbica</i>	-	1
	Tree Sparrow X Spanish Sparrow	-	-
	<i>P. montanus X P. hispaniolensis</i>	-	1

	Totals	13,132	202,025
	Species	98	162

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 date on the second.

Ring number :

when this is in italics the ring has been returned.

Age code :

- 1 = pullus; young bird ringed in the nest. A number in brackets beside this age code indicates the size of the brood.
 2 = fully grown; year of hatching quite unknown.
 3 = definitely hatched during current calendar year.
 3J = as above, but bird still partly or completely 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. An 00 in the date indicates that the exact day or month are unknown.

Manner of recovery :

- V = caught or trapped, and released with ring.
 + = shot or killed 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.
 /?/ = manner of recovery unknown.

This section deals with 27 recoveries of 11 species reported during 1989. Only those found at least 5 km away from ringing site are included. The co-ordinates of the localities are given only once, when these are first mentioned.

Snipe *Gallinago gallinago*

XS 60.408	4	24.03.88	Ghadira : 35° 58'N, 14° 21'E.
	+	06.10.88	Dogana di Ortonovo : 44° 05'N, 10° 04'E (Genoa) Italy

Yellow-legged Gull *Larus cachinnans*

GG 0.230	1	28.05.88	Filfla : 35° 47'N, 14° 25'E.
	x	20.05.89	Catanzaro : 35° 48'N, 16° 38'E Italy.

Sand Martin *Riparia riparia*

56.721	4	29.04.89	Ramla Valley : 36° 03'N, 14° 17'E Gozo.
	+	30.04.89	Mosta : 35° 54'N, 14° 24'E.
55.575	4	02.05.89	Lunzjata Valley : 36° 03'N, 14° 14'E Gozo.
	v	03.05.89	Ghajñ Rihana : 35° 55'N, 14° 25'E.
68.572	4	19.04.89	Ramla Valley, Gozo.
	vBC=M	21.06.89	Maglarp : 55° 23'N, 13° 04'E (Skane) Sweden.
69.607	4	11.04.89	Ghajñ Rihana.
	xBC	05.07.89	Chaillon : 48° 57', 05° 38'E (Meuse) France.

Swallow *Hirundo rustica*

68.326	4M	24.04.89	Ghadira.
	v	24.04.89	Ramla Valley, Gozo.
68.345	4F	29.04.89	Ghadira.
	v	30.04.89	Ramla Valley, Gozo.

Robin *Erithacus rubecula*

09.948	3	05.10.80	Luqa : 35° 51'N, 14° 30'E.
	x	16.04.82	Hmel'nizky District : 50° 13'N, 26° 58'E Shepetooka Region, Ukraine.
73.929	3	04.10.89	Xemxija : 35° 57'N, 14° 23'E.
	v	05.10.89	Lunzjata Valley, Gozo.
74.418	3	07.10.89	Bingemma : 35° 54'N, 14° 23'E.
	v	16.10.89	Ghadira.
67.524	2	17.11.88	Xemxija.
	v	30.10.89	Lunzjata Valley, Gozo.
46.749	3	04.11.86	Xemxija.
	v	18.11.89	Ghajñ Barrani : 36° 04'N, 14° 16'E Gozo.
73.833	4	03.11.89	Xemxija : 36° 03'N, 14° 16'E Gozo.
	v	28.11.89	Has-Saptan : 35° 50'N, 14° 31'E.

Stonechat *Saxicola torquata*

68.219	2F	07.11.88	Ghadira.
	xA	15.09.89	Groslovje : 45° 59'N, 15° 55'E (Hrvatska), Yugoslavia.

Fan-tailed Warbler *Cisticola juncidis*

0B.971	2M	08.10.87	Ghadira.
	v	17.05.88	Lunzjata Valley, Gozo.
	v	06.08.88	ibid.
5A.645	1(3)	29.04.86	Xemxija.
	v(=F)	10.06.89	Wied il-Luq, Buskett : 35° 51'N, 14° 25'E.
5B.959	3M	08.06.89	Ghadira.
	v	21.10.89	Lunzjata Valley, Gozo.

Garden Warbler *Sylvia borin*

50.206	2	25.10.86	Mellieha : 35° 58'n, 14° 21'E.
	xA	01.09.89	Harjunnemi : 63° 44'N, 25° 20'E, Haapa- jarvi (Oulu), Finland.

Blackcap *Sylvia atricapilla*

59.191	2F	26.11.87	Bingemma.
	v	09.04.89	Littleton-on-Severn : 51° 37'N, 02° 35'W (Avon), England.
70.454	4F	21.02.89	Has-Saptan.
	v	27.05.89	Veszprem : 47° 07'N, 17° 54'E, Hungary.

Chiffchaff *Phylloscopus collybita*

4A.046	2	29.11.87	Mtarfa : 35° 53'N, 14° 24'E.
	v	16.02.88	Ghadira.
1B.074	2	09.11.87	Ghadira.
	x	29.12.88	Mriehel : 35° 53'N, 14° 28'E.
6B.259	2	18.10.89	Ghadira.
	v	06.12.89	Lunzjata Valley, Gozo.
3B.726	4	22.03.89	Ghadira.
	x	13.12.89	Jean D'Arc, Skikda, Algeria.

Penduline Tit *Remiz pendulinus*

75.777	3M	08.11.89	Ramla Bay : 36° 04'N, 14° 17'E Gozo.
	v	15.11.89	Xemxija.
75.340	3	01.11.89	Ghadira.
	v	09.12.89	Lunzjata Valley, Gozo.

FOREIGN RINGED BIRDS RECOVERED IN MALTA

This section deals with 16 foreign ringed birds of 14 species recovered in Malta. The symbols and terms used are the same as those in the previous section.

Storm Petrel *Hydrobates pelagicus*

Bologna	1	16.07.87	Marettimo Isle : 37° 58'N, 12° 04'E, Tra- pani (Sicily), Italy.
K 46.821			
	v C	15.07.89	Filfla. (with brood patch; re-ringed Valletta S 5.939 as ring al- most illegible).

Night Heron *Nycticorax nycticorax*

Zagreb	1	15.06.77	Bilje, Osijek : 45°37'N, 18°43'E (Hrvats- ka), Yugoslavia.
C 237.945			
	+	c. 15.10.77	Luqa : 35° 51'N, 14° 29'E.

Marsh Harrier *Circus aeruginosus*

Gdansk	4	03.06.87	Stawno : 51° 33'N, 17°21'E, Miliez (Wroc- law), Poland.
EA 04.690			
	+	21.09.87	at sea, c. 10 km N off Gawra : 36° 02'N, 14° 26'E.

Kestrel *Falco tinnunculus*

Praha	1 (6)	08.06.88	Krnov : 50° 05'N, 17° 43'E, Bruntal, Czechoslovakia.
E 280.188			
	+	09.09.88	Mtahleb : 35° 52'N, 14° 21'E.

Little Stint *Calidris minuta*

Gdansk	2	26.08.88	Jez. Rakutowskie : 52° 32'N, 19° 15'E, (Krzewout), Poland.
KH 08.103			
	v	30.05.89	Ghadira. (re-ringed Valletta S 6.128 as ring almost illegible)

Great Skua *Stercorarius skua*

London	1	05.07.86	Foula : 60° 08'N, 02° 05'W (Shetland), Scotland.
HT 19.931			
	x	26.02.87	offshore : c. 35° 53'N, 14° 25'E.

Lesser Black-backed Gull *Larus fuscus*

Stavanger	1	09.07.87	Havik : 59° 19'N, 05° 18'E, Karnoy (Roga- land), Norway.
4.104.680			
	+	11.10.87	Marsascala : 35° 52'N, 14° 34'E.

Sand Martin *Riparia riparia*

Zagreb	3	08.08.88	Ludos Lake : 46° 46'N, 19° 50'E. Subotica (Vojvodina), Yugoslavia.
A 39.805			
	v	19.04.89	Ramla Valley, Gozo.

CONTENTS

Page

BRUNO MASSA & JOE SULTANA . Status and conservation of the Storm Petrel <i>Hydrobates pelagicus</i> in the Mediterranean.....	1
DENIS CACHIA . The distribution of the Short-toed Lark <i>Calandrella brachydactyla</i> during the breeding season in the eastern section of Malta.....	5
JOHN BORG . An increase in sightings of Cormorants <i>Phalacrocorax carbo</i> in Maltese waters during 1986-1988.....	9
SHORT NOTES	
Joe Sultana & Patrick J. Schembri. An unusual large mixed fall of birds and insects on Fiffra.....	13
John Borg & Joe Sultana. The present status of the Cory's shearwater <i>Calonectris diomedea</i> on Fiffra.....	15
John Attard Montalto, Joe Sultana & Charles Gauci. Some notes on the Penduline Tit <i>Remiz pendulinus</i> and its occurrence in Malta.....	17
Raymond Galea . Breeding Spotted Flycatchers at Buskett in 1991.....	19
M.A. Thake. A summary of my observations of nectar feeding in Malta.....	20
M.A. Thake. Chiffchaffs <i>Phylloscopus collybita</i> feeding in a small group on a local concentration of emerging moth flies (Insecta; Diptera; Psychodidae).....	21
Mark-Anthony Falzon. The Bluethroat <i>Luscinia svecica</i> recorded signing in Malta.....	22
Joe Sultana . Some observation notes on the Short-toed Lark <i>Calandrella bacydactyla</i>	23
Raymond Galea. Egg laying in the Mediterranean Shearwater <i>P. yelkouan</i> in Malta.....	23
M.A. Thake. Spanish Sparrows dismembering flowers.....	24
M.A. Thake. Spanish Sparrows eating termites (Insecta: Isoptera).....	25
Victor Falzon & Desiree Falzon. Chiffchaff <i>Phylloscopus collybita</i> feeding on the fruit of the prickly pear <i>Opuntia ficus-indica</i>	25
Joe Sultana & Charles Gauci. The year of the first confirmed breeding record of the Sardinian Warbler <i>Sylvia melanocephala</i> in the Maltese Islands.....	26
M.A. Thake. Black Redstart and White Wagtail using a building as shelter during a rain shower.....	27
Manuel Mallia & Joseph M. Mangion. Marsh Harriers roosting in Aleppo Pines at Buskett.....	27
M.A. Thake. Watch out for the Yakut Willow Warbler.....	28
Mark-Anthony Falzon. Grey Heron <i>Ardea cinerea</i> mobbed by Stalings <i>Sturnus vulgaris</i>	29
Raymond Galea. Partial albino Subalpine Warbler.....	29
CHARLES COLEIRO. Systematic list for 1989.....	30
JOE SULTANA & CHARLES GAUCI. Ringing report for 1989.....	47

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