

SHORT NOTES

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
Craké 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 (*Orihetrum* 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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Joe Sultana & Patrick J. Schembri

J. S. – Secretariat for the Environment, Ministry of Environment, Floriana, Malta.

P. J. S. – Biology Section, Science Dept. University of Malta, Tal-Qroqq, Malta.

~~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~~