

Spring Migration of Birds on Capri

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An overview of the
activities 1956-1990

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Ottenby Bird Observatory
Capri Bird Observatory

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This report is dedicated to Carl Edelstam
the founder and long time manager of
Capri Bird Observatory

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INTRODUCTION

The island of Capri lies 5 km off the tip of the Sorrento peninsula, at the southern entrance to the Gulf of Naples (Napoli), on the Italian west coast (Fig. 1).

The size of the island is roughly 5 x 2 km, with the maximum length in the W-E direction (Fig. 2). Most of Capri's coasts are high and steep, often precipitous, and the highest point of the island, Monte Solaro, reaches 589 m above sea level. The rocks are mainly mesozoic limestones and vulcanites, severely folded and tectonized.

Sheep- and goat grazing does not occur to-day, but still the higher parts of the island are covered by a typical macchia-vegetation, with bushes like greenweeds Genista, junipers Juniperus sp. tree-heath Erica arborea, various rock-roses Cistus and myrtle Myrtus communis. There are also stands of Aleppo pines Pinus halepensis and stone oak Quercus ilex. Flowers occur in plenty, in spring e.g. gladiolus Gladiolus communis and many orchids (Orchis, Ophrys, Anacamptis, Serapias, etc.), whereas in autumn some areas abound in flowering cyclamen Cyclamen neapolitanum. In the areas around the towns of Capri and Anacapri gardens, wine-yards and olive groves cover most of the ground, although here and there interspersed by small woods with e.g. Quercus pubescens.

The breeding bird fauna is not very diverse. In the inhabited areas species like Great tit Parus major, Chaffinch Fringilla coelebs, Greenfinch Carduelis chloris, Goldfinch Carduelis carduelis, Serin Serinus serinus, Italian sparrow Passer domesticus italiae and Short-toed treecreeper Certhia brachydactyla are common and in the macchia Sardinian warblers Sylvia melanocephala and Subalpine warblers Sylvia cantillans breed. On the steep slopes and in the cliffs we find Wrens Troglodytes troglodytes and Blue rock thrushes Monticola solitarius. Also the Common rock thrush Monticola saxatilis and Rock bunting Emberiza cia breeds here now and then. Both the Little owl Athene noctua and Scop's owl Otus scops probably breed on the island, and to this should be added the Peregrine Falco peregrinus, Kestrel

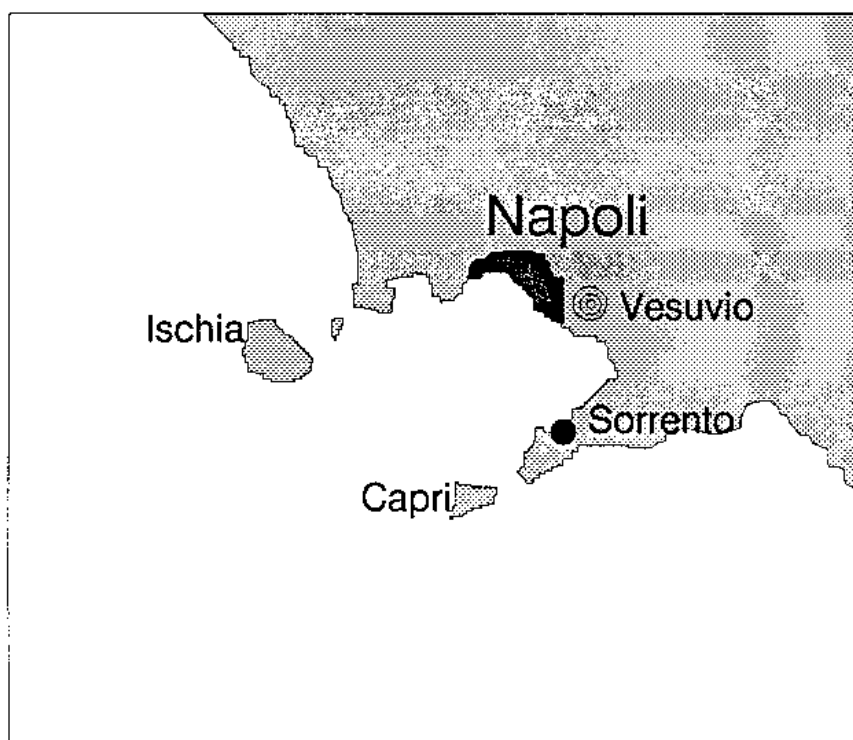


Figure 1. Golfo di Napoli

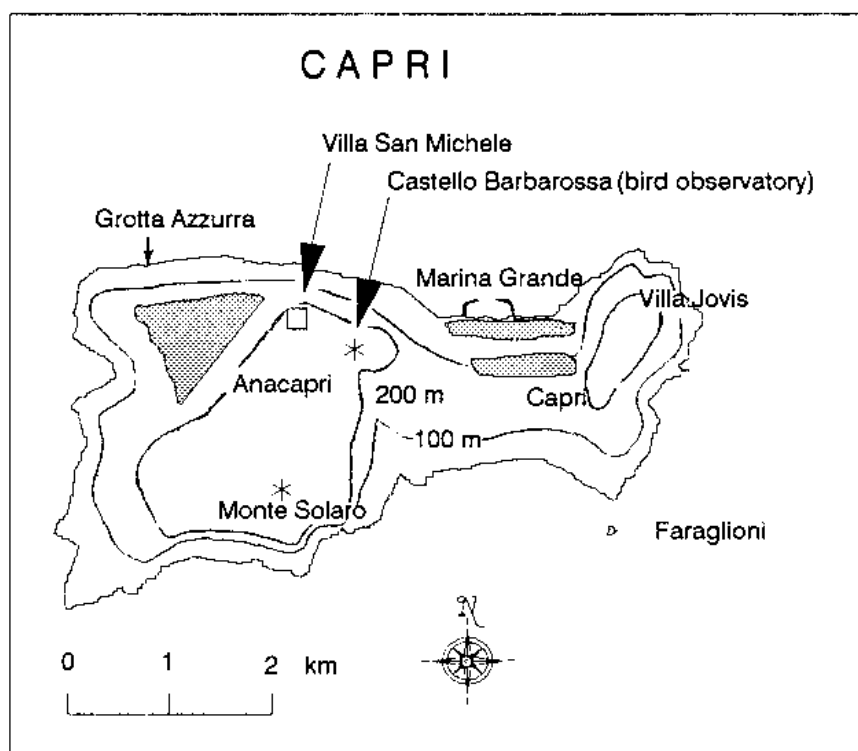


Figure 2. The island Capri



Falco tinnunculus, Raven Corvus corax and Herring gull Larus argentatus.

One snake occur, Coluber viridiflavus, and the island abounds in lizards, mainly Podarcis sicula and the three other species on the island are; Podarcis muralis, Tarentola mauritanica and Hemidactylus turcicus. Larger mammals are non-existent. Among smaller mammals the Fat Dormouse Glis glis occurs.

The insect fauna includes the migrant butterflies Vanessa atalanta and Vanessa cardui. Especially the latter is sometimes seen arriving in flocks during the spring. Even the Desert locust Locusta migratoria reaches Capri now and then.

References to the bird fauna of Capri, pre-dating the foundation of the bird observatory in 1956, are Cerio (1890), Hörstadius (1927) and Tucker (1927).

CAPRI AS A RESTING PLACE FOR MIGRANT BIRDS

With its position off the Italian west coast, and about 300 km N of Sicily and 500 km NE of Cape Bon in Tunisia (Fig. 3), Capri holds a strategic position as a potential resting-place for spring migrants having crossed the Mediterranean. It is also as a spring migration site it has become best known in ornithological circles. Autumn migrants do of course occur too, sometimes in numbers, but as the island then lies rather close to the supposed take-off areas, an route for the southern shores of the Mediterranean, much less resting here is then to be expected. As a wintering area Capri, for example, harbours lots of Robins Erithacus rubecula, some Song trushes Turdus philomelus, and also Black-caps Sylvia atricapilla and Chiff-chaffs Phylloscopus collybita.

Since hundreds of years Capri has been renown as a supplier of Quails Coturnix coturnix to the gourmets in Naples, Rome, Marseille and other places in this part of the Mediterranean area (e.g. Kesel 1983, and letters from several travellers as cited in Bender & Schwark 1988). The trapping of resting migrant Quails took place both in spring and autumn, but the autumn birds seem to have been preferred - probably for being fatter (having travelled less far since restoring their fat supplies). According to Kesel (1983) as much as 45 000 Quails may have been trapped on the island in a day, and individual farmers may have paid as much as 12 000 Quails a year in rent for their ground. For these reasons the suitability of an area for trapping during the Quail passage transitus coturnicus did play a large role in ground pricing. The bishops of Capri, like some

of their colleagues on the mainland, also got tithes of this harvest, and were known as "Quail bishops" *Il vescovo delle quaglie* (e.g. Andre'n 1980). As late as during the 1880:s up to 60 000 Quails per year may have been exported from Capri (Edelstam et. al. 1963). But with increasing industrialization and changing agricultural practices in the countries and regions to the north where the Quails breed, notably the introduction of an earlier hay harvesting practice - before the brooding Quails (and also the Corn crakes *Crex crex*) have hatched their eggs - the Quail populations and with them the Quail trade dwindled. The Quails still use Capri as a resting place, and they are still hunted there, but their immense numbers and significant economic importance is history.

Also the other resting migrants have for long been trapped and hunted, with lime-sticks, nets, snap-traps and guns. In this respect practice on Capri has been and is similar to that in many other areas around the Mediterranean. The probably most important game bird to-day is the Turtle dove *Streptopelia turtur*.

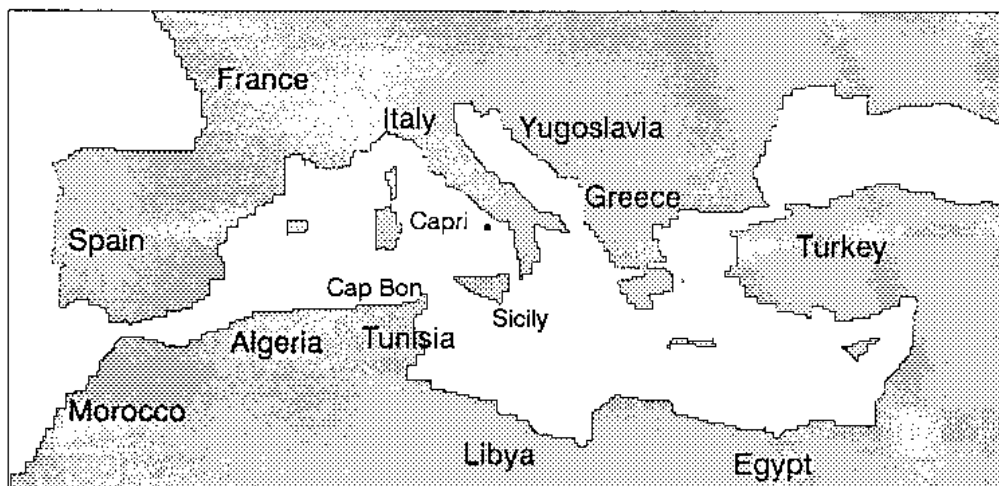


Figure 3. The mediterranean area.



AXEL MUNTHE, SAN MICHELE AND CAPRI BIRD OBSERVATORY

The Swedish physician Axel Munthe, born in 1857 and educated in Uppsala, Montpellier and Paris, and practicing in the latter city for many years, and thereafter in Rome, first visited Capri in 1876. He gradually settled there during the 1890:s, building the now famous Villa San Michele in Anacapri (Munthe 1929, 1930). This many-sided man had a great, although rather sentimental interest in nature, particularly in animals, including the birds. He was horrified by the way in which, all around the Mediterranean including the island of Capri, thousands of migrant birds were trapped and killed and, of course, eaten. In those days permanent nets were up over much of the island during the migration season, and the calls of blinded and tethered, or caged birds attracted their conspecifics into these nets. To somewhat hamper this practice Munthe managed (by declining to medically treat the dying owner until he had been promised the buy !) to acquire Monte Barbarossa. This lies immediately adjacent to San Michele and has on its top the old castle "Castello Barbarossa" (Fig. 4) - named after the red-bearded 16th century Algerian pirate Keir-ed-Din "Barbarossa".

When Munthe died in 1949 San Michele was donated to the Swedish state and in connection with this the Swedish Ornithological Society (SOF), which was (and still is) running Ottenby Bird Observatory in Sweden, was asked whether it might be interested in using the place for studying bird migration across the Mediterranean. The reply was positive and "Castello Barbarossa" was renovated for the purpose of serving as a bird observatory. Field-work there started in 1956 and has since then been carried out most springs (especially in April and May), and a few autumns too (for the duration of individual field seasons, see p. 17). A comprehensive background and a review of the work and results during the first 5 years was published in 1963 (Edelstam et al. 1963). Through the years until and including 1981 the work was mostly organized by Carl Edelstam, curator at the Natural History Museum in Stockholm, under the auspices of SOF. Then the Swedish involvement was temporarily discontinued for 4 years. During these years the trapping and ringing was carried out by Italian teams, as a joint venture between the Ringing Centre in Bologna and the bird protection society LIPU. From 1986 Ottenby Bird Observatory, the subsidiary of SOF, has organized the Swedish part of the work there. Capri Bird Observatory is now run jointly by Ottenby and the Bologna Ringing Centre.

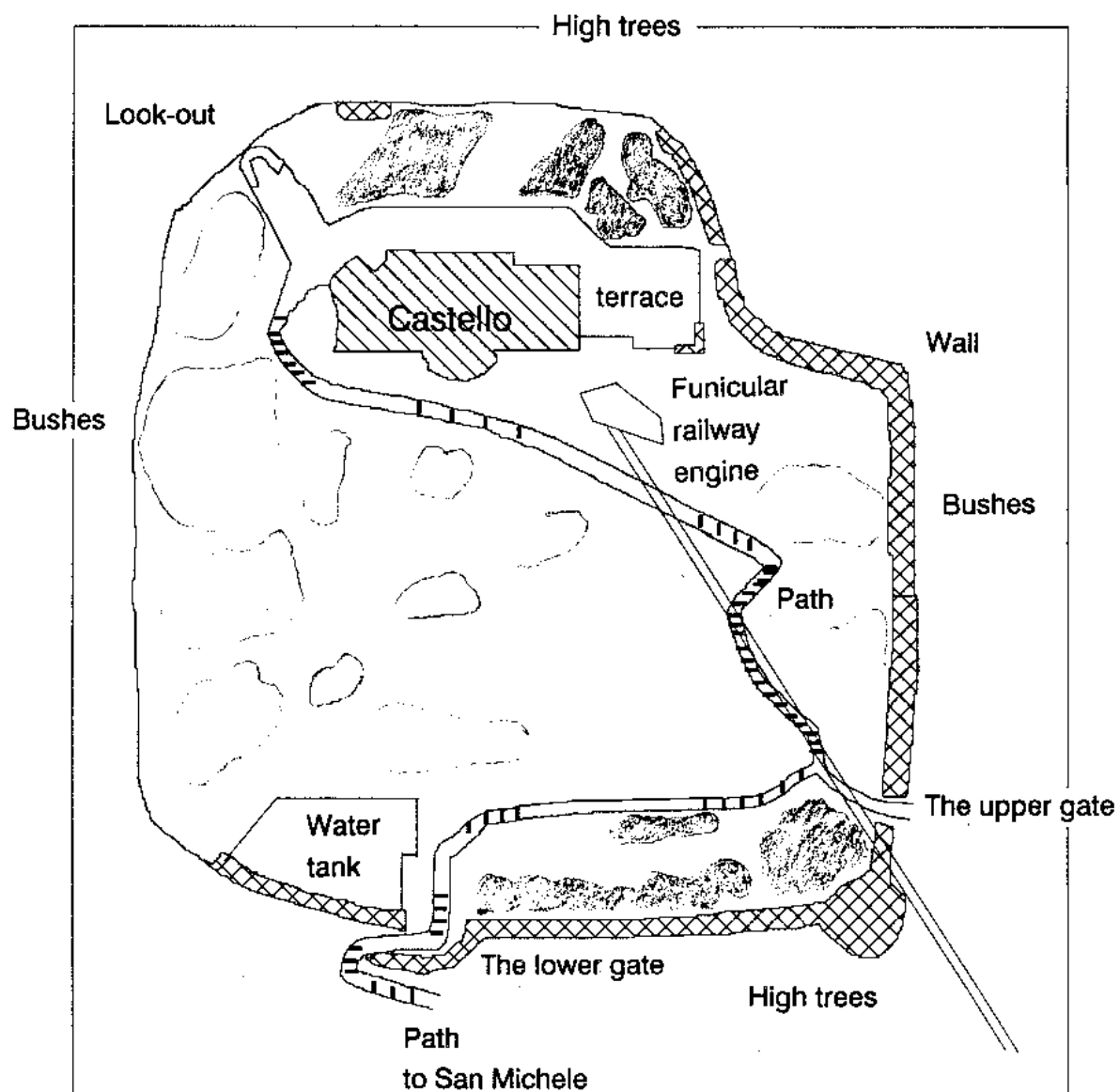


Figure 4. The garden of Castello Barbarossa



CAPRI BIRD OBSERVATORY TODAY

Since 1986 Ottenby Bird Observatory, in cooperation with Italian ornithologists, carries out trapping and ringing on Capri. The activities are concentrated to the period April-May every year. Ottenbys particular interest is to study the migrating birds on their way up towards Scandinavia. We surveyed the earlier trapping figures and found that it would be possible to intensively study about ten species. In the springs 1986-87 we worked with the LIPU group under Marco Gustin, but from spring 1988 it is a joint venture between Ottenby and a group from Bologna Ringing Centre. Since 1986 only Italian rings are used and the ringing permits, issued to the Italian group. The ornithologists from Ottenby concentrate on collecting data on the ten most abundant species during the spring passage, which all are common also at Ottenby in Sweden. We collect data on winglength, fat amount, weight and the colouration of feathers and legs to enable separation of subspecies. All birds are aged and most also sexed. One aim of this project is to study the migration speed and fat loads of different age- and sex groups and compare with corresponding data from Ottenby. One question to be answered is whether different arrival times of the different age- and sexclasses to the breeding areas in Scandinavia are the effects of different takeoff times in the winterquarters, or of different migration speed ?

Even if the ringing during more than thirty years have resulted in a number of recoveries from the breeding areas, the information on where the birds go to breed is very limited. This is one reason why we started orientation tests on individuals of the ten most abundant species. The project started in spring 1987 and comprises about 150 tests per spring. The results of these tests do not always show us the direction straight to the breeding area, but gives a rough idea of the direction, as good as most recoveries.

This report gives an overview of the Swedish work on Capri. The trapping figures may not be absolutely complete, because some information has got lost through the years. But they are close to the truth ! As to the recoveries, we have not yet got full access to those made during the very last years.

TRAPPING

Trapping techniques and efforts have of course varied somewhat over the years. The number of mistnets used are now around 25 of which 18-20 are placed in the garden and the others on the slope outside the wall (fig. 5). All nets are up day and night and are checked and emptied every hour during daytime, from dawn to an hour after dark. The birds are transported in small bags to Castello Barbarossa, where they are ringed and measured before being released. The numbers of nets and their sites have varied, but the netsites have always been in or close to the garden.

AGEING AND SEXING

The ageing techniques used at Capri and Ottenby are based on feather-condition and colour pattern and in some cases on soft-parts as eye, bill etc. Ageing on feather condition, structure and colour is based on the moult patterns described in Lars Svensson's book "Identification Guide to European Passerines" and Jan Pettersson's "Åldersbestämningar av tättingar och vadare" (only in Swedish). All Swedish ringers which have worked during the last five years at Capri have also worked at Ottenby before and have good knowledge of the methods of ageing and sexing birds. The measurements taken by different ringers are comparable because of frequent calibration. The Italian ringers also measure and age the same birds, but their data are not mixed with ours.

Redstart (*Phoenicurus phoenicurus*)

Both 3y+ and 2y birds moult partially in winter. Very few birds moult all greater coverts in winter and it is possible to age the birds on the colour of the greater coverts. The coverts of 3y+ males are edged grey while they are edged brown in the 2y males. This difference is more difficult to see among females.

Sexing is possible. The males in spring have black chin- and throatfeathers, orange-red breast and white forehead. The females have no black throatfeathers.

Whinchat (*Saxicola rubetra*)

Shows the same moult pattern as described for Wheatear. The best age

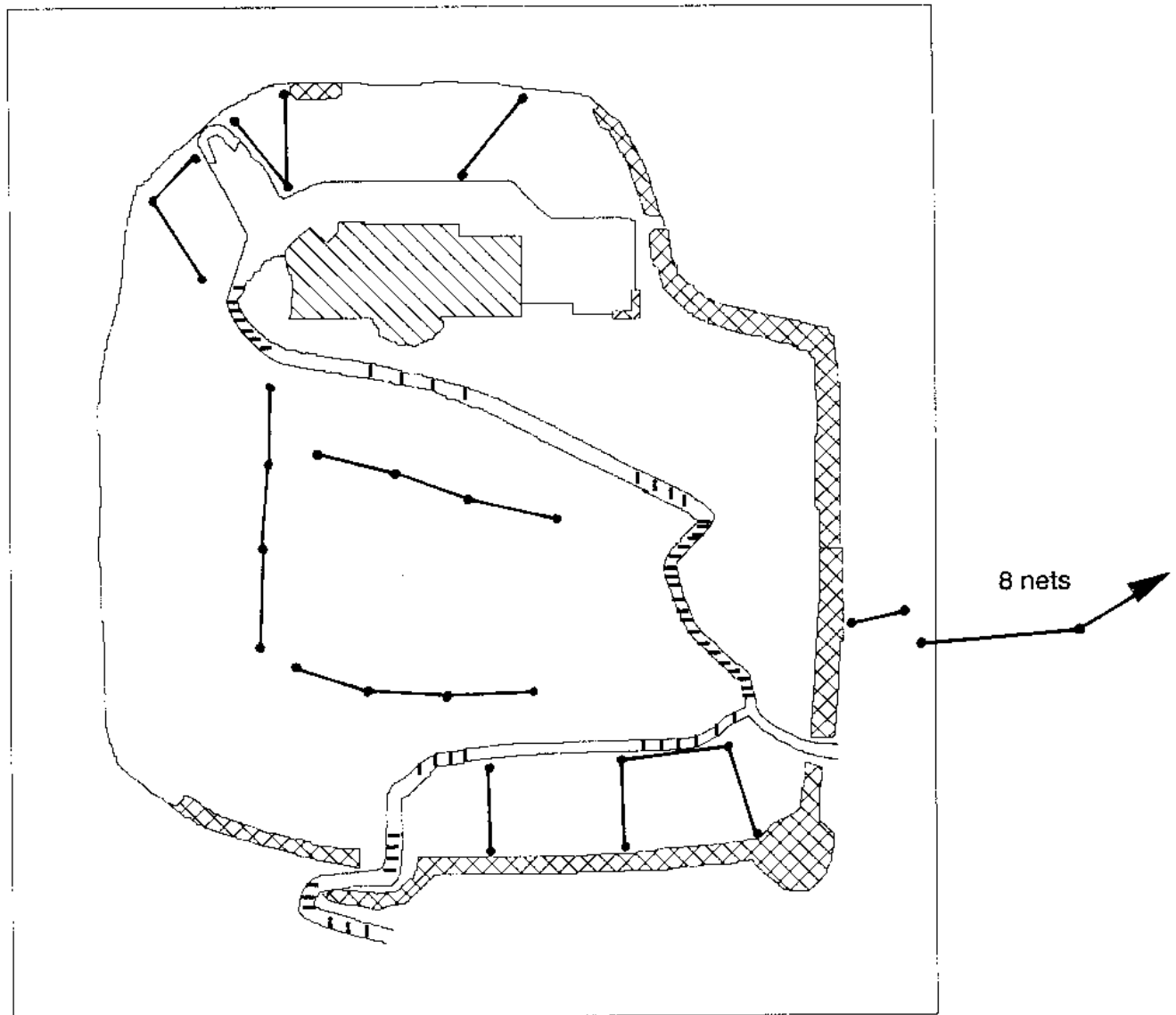


Figure 5. Positions of 27 mistnets spring 1990.

criteria in spring is the structure and shape of the primary coverts (see Garden Warbler). Eyestripe and chin are pure white in males and buffish white in females. There is also more white on the inner greater coverts in males and nearly no white at all in females.

Wheatear (*Oenanthe oenanthe*)

Both age groups moult partially in winter. The adult (breeding) birds moult completely at the breeding place before autumn migration. Consequently 2y birds in spring still have the first year wing- and tailfeathers, which are more brown-coloured compared with the corresponding feathers of 3y+ birds which are black or deep black. It is also possible to age the birds according to colour of the unmoulted greater coverts (see Pied Flycatcher). The males, having black coverts and earcoverts, a purer white eyestripe and the breast tinged pinkish, can be separated from the females.

Icterine Warbler (*Hippolais icterina*)

Both age groups (3y+ and 2y birds) moult completely in the winter quarters prior to spring migration, and thus ageing on plumage is impossible. Also sexing on plumage characters is impossible.

Whitethroat (*Sylvia communis*)

Both adult and juvenile birds moult partially in winter (the eastern population however moult completely). Adult birds moult completely at the breeding place prior to autumn migration. 2y birds in spring still have juvenile feathers and these are of poorer quality compared to the next generation of feathers. Hence juvenile birds are paler and more worn than 3y+ birds. We also sex as many birds as possible. The males have pinkish tinged breast contrasting to the pure white on the throat. The females are uniformly brown-white on breast and throat. Females also have a browner head than males, which are more grey on the head.

Garden Warbler (*Sylvia borin*)

The adult (3y+) birds moult completely during winter whereas the juvenile (2y) birds moult partially completely at this time. During spring passage at Capri 3y+ birds have all dark and fresh wing- and tailfeathers. The juvenile birds



have some paler and more worn flightfeathers. The best age character, however, is the shape of the primary coverts. On 3y+ birds these coverts are more rounded and less worn compared to the primary coverts of 2y birds which have worn edges and are narrower. Sex separation on plumage is impossible.

Wood Warbler (*Phylloscopus sibilatrix*)

Both age groups moult completely in winter, which makes it impossible to separate young birds from adults in spring.

Willow Warbler (*Phylloscopus trochilus*)

Both age groups moult completely in winter and in spring it is thus impossible to separate the age groups on plumage characters. It is however possible to distinguish the two subspecies *Ph. t. trochilus* and *Ph. t. acredula* on plumage. The northern *Ph. t. acredula* has white breast and greyish back, whereas the southern *Ph. t. trochilus* has yellow breast and green back (Hedenström et. al 1985).

Spotted Flycatcher (*Muscicapa striata*)

Both age groups moult completely in the winter quarters. The adult birds start the moult very early in the winter and the juvenile moult in February-March. Ageing is based on this moult difference. Birds with dark and fresh primary coverts in the same colour as the wingfeathers, we class as 2y birds. The adult birds have their primary coverts greyer than the wingfeathers. Sexing on plumage is impossible.

Pied Flycatcher (*Ficedula hypoleuca*)

The adult and the young birds moult only partially in winter and no birds seems to complete the moult of all greater coverts. The colour pattern of the unmoulted greater coverts, as well as the colour on the inside of the upper mandible and the shape of the tailfeathers, are all characters used to separate 3y+ birds from 2y. Also the shape of the primary coverts (being narrower in 2y birds) is a helpful cue. Sexing is possible on tailfeathers and tailcoverts. Birds with tail and most of the upper tailcoverts black are males whereas birds with grey-brown tail and grey upper tailcoverts (although some may have black edges) are classified as females (Karlsson et. al 1986).

FATCLASSES

The visual method to measure the birds fatload used at Ottenby and Capri was described by Pettersson & Hasselquist (1985). The amount of fat is judged according to a scale with seven classes (see figure 6). Ringers at Capri and Ottenby regularly intercalibrate this visual method of judging the amount of fat.

ORIENTATION-TEST

Experiments were conducted during the spring migration (April-May). Test birds were captured during the ringing at Capri. The birds were housed in spacious individual cages, under the natural photoperiod outdoors, i.e. within the local geomagnetic field. Individual birds were held in captivity between one and three days. Orientation was recorded in modified "Emlen-funnels" (Emlen & Emlen 1966) with the sloping walls subdivided into eight 45° sectors. A micro-switch is placed below each sector and when a bird jumps on one of the sectors, the corresponding switch closes. Each microswitch is connected to a specific counter, and mean vectors of orientation were calculated on the basis of readings from the set of eight counters per cage. The orientation cages are made of non-magnetic materials and covered by a fine-meshed plastic net allowing the bird to see the sky above. All tests were performed outdoors and the test birds could see approximately 90° of the sky above. The experiments commenced 5 minutes after local sunset and lasted 45 minutes. In this presentation, only tests under clear skies (less than 5/8 cloud cover) are included. Vector calculation based on counter registrations yielded a mean heading for each individual and test. Testtime with less than 30 counter registrations or a highly scattered and unreliable migratory orientation ($P > 0,05$ according to the Rayleigh test, Batschelet 1981) were excluded from the analysis. The mean activity was normally around 600 registrations/test. On the basis of individual heading, second order mean vectors and axes of orientation were calculated for each experimental condition according to Batschelet (1981). Similar orientation tests is carried out at Ottenby (Sandberg et. al 1988).

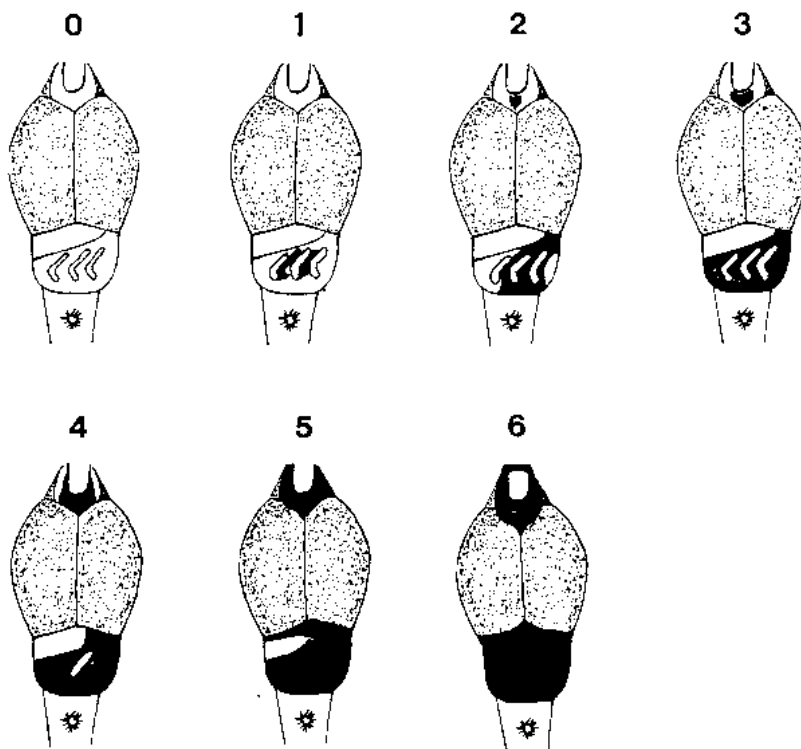
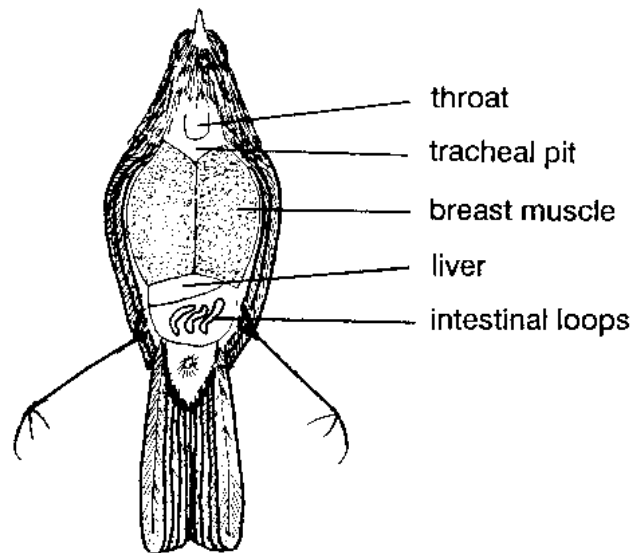


Figure 6. Visual fat classification used when estimating fat deposits on birds; according to Pettersson and Hasselquist 1985. Black illustrating fat.

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REFERENCES

- Andren, A. 1980: Capri- from the stone age to the tourist age. Paul Åströms Förlag, Göteborg.
- Batschelet, E. 1981: Circular Statistics in Biology. Academic Press: New York.
- Bender, H. & Schwark, H.G. 1988: Capri - ein Lesebuch. Insel Verlag, Frankfurt am Main.
- Cerio, I. 1890: in E. H. Giglioli: Primo Resconto Dei Risultati Dell'Inchiesta Ornitologica in Italia, Vol 2, 500-505. Le Monnier, Firenze.
- Edelstam, C., Broberg, L., Engström, B., Jennings, W. & Lundberg, S. 1963: Den svenska fågelstationen på Capri och dess verksamhet 1956-61 (The Capri Bird Observatory and its activities 1956-61). Vår Fågelvärld 22, 225-270.
- Emlen, S.T. & Emlen, J.T. 1966: A technique for recording migratory orientation of captive birds. Auk, 83: 361-367.
- Hedenström, A. & Pettersson, J. 1984: The migration of Willow Warblers, *Phylloscopus trochilus*, at Ottenby. Vår Fågelvärld 43: 217-228.
- Hörstadius, S. 1927: Fågellivet i Neapeltrakten (Bird life in the Naples area; in Swedish). Fauna och Flora 22, 7-25.
- Karlsson, L., Persson, K. & Walinder, G. 1986: Ageing and sexing in Pied Flycatchers, *Ficedula hypoleuca*. Vår Fågelvärld 45:131-146.
- Kesel, H. 1983: Capri - Biographie einer Insel. Prestel Verlag, München.
- Munthe, A. 1929: The Story of San Michele. John Murray, London.
- Munthe, "P". 1930: Boken om San Michele. Albert Bonniers Förlag, Stockholm.
- Pettersson, J. 1983. Åldersbestämning av tättingar och vadare. (Ageing of Passerines and waders; in Swedish). Special Report no. 1 from Ottenby Bird Observatory.
- Sandberg, R., Pettersson, J. & Alerstam, T. 1988: Why do migrating robins, *Erithacus rubecula*, captured at two nearby stop-over sites orient differently ? Animal Behaviour 36: 865-876.
- Svensson, L. 1984: Identification Guide to European Passerines. Stockholm.
- Tucker, B.W. 1927: Contribution to the ornithology of Naples and the Phlegraean Fields, with notes on some other neighbouring localities. Ibis 3, 87-114.

Ringling activity

The Swedish group which have worked on Capri in springs have consisted of 2-4 persons. During the 1986-90 seasons there have been two Swedes together with 2-6 Italians. The figures shown below refer only to the Swedish activity.

Springs	Number of days	Springs	Number of days
1956	1.5 - 31.5 = 31	1971	24.3 - 5.6 = 74
1957	1.4 - 30.5 = 60	1972	25.4 - 26.5 = 32
1958	1.5 - 11.6 = 42	1973	8.4 - 26.5 = 49
1959	26.4 - 20.6 = 56	1974	19.4 - 27.5 = 39
1960	15.4 - 23.5 = 39	1975	11.4 - 2.6 = 53
1961	23.3 - 3.6 = 73	1976	4.4 - 28.5 = 55
1962	9.3 - 5.6 = 89	1977	19.4 - 23.5 = 35
1963	24.3 - 31.5 = 69	1978	23.4 - 30.5 = 38
1964	2.5 - 27.5 = 26	1979	14.4 - 23.5 = 40
1965	14.4 - 27.5 = 44	1980	2.5 - 27.5 = 26
1966	8.4 - 27.5 = 50	1981	15.4 - 22.5 = 38
1967	11.4 - 7.6 = 58		
1968	9.4 - 23.5 = 45	1986	15.4 - 22.5 = 41
1969	1.4 - 25.5 = 55	1987	11.4 - 24.5 = 44
1970	7.4 - 29.5 = 53	1988	16.4 - 23.5 = 38
		1989	18.3 - 24.5 = 68
		1990	5.4 - 23.5 = 49

Autumns	Number of days	Autumns	Number of days
1959	7.8 - 3.10 = 58	1963	14.6 - 13.8 = 61
1960	4.10 - 4.11 = 32	1964	3.9 - 14.9 = 12
1961	29.6 - 16.11 = 141	1965	7.9 - 24.9 = 18
1962	22.9 - 23.10 = 32	1989	10.10 - 13.10 = 4



Trapping numbers 1956-1990

+A = numbers in spring and in autumn

A = numbers in autumn

Species	-56	-57	-58	-59	-60	-61	-62	-63	-64	62-64
<i>Falco tinnunculus</i>	-	-	1	1	1	2	1	1	-	-
<i>Falco subbuteo</i>	-	-	-	2	-	1	-	-	-	-
<i>Coturnix coturnix</i>	-	1	-	-	-	-	-	-	-	-
<i>Porzana porzana</i>	-	-	-	1	-	-	-	-	-	-
<i>Crex crex</i>	-	-	-	-	-	1	-	-	-	-
<i>Streptopelia turtur</i>	1	2	22	40	41	42	-	13	1	-
<i>Clamator glandarius</i>	-	-	-	-	-	-	-	-	-	-
<i>Cuculus canorus</i>	1	1	-	2	6	6	-	3	-	-
<i>Tyto alba</i>	-	-	-	1	1	-	-	-	-	-
<i>Otus scops</i>	-	1	1	9	13	8	-	9	1	1
<i>Athene noctua</i>	-	-	1	4	1	-	-	-	-	-
<i>Caprimulgus europaeus</i>	4	19	18	50	60	32	-	38	2	-
<i>Apus apus</i>	-	-	-	-	-	-	-	-	-	-
<i>Merops apiaster</i>	-	-	-	1	-	-	-	-	-	-
<i>Upupa epops</i>	-	2	2	3	21	5	6	2	-	-
<i>Jynx torquilla</i>	-	4	2	5	11	13	11	15	1	2
<i>Calandrella brachydactyla</i>	1	-	-	-	-	-	-	-	-	-
<i>Lullula arborea</i>	-	-	-	-	-	-	-	-	-	-
<i>Alauda arvensis</i>	-	-	-	-	-	-	-	-	-	-
<i>Riparia riparia</i>	7	4	-	1	1	7	-	1	-	-
<i>Hirundo rustica</i>	10	62	5	19	177	59	130	31	1	-
<i>Delichon urbica</i>	2	26	5	16	202	67	-	19	-	-
<i>Anthus novaeseelandiae</i>	-	-	-	-	-	-	-	-	-	-
<i>Anthus campestris</i>	1	-	7	6	5	1	-	1	1	-
<i>Anthus trivialis</i>	-	6	4	22	29	17	10	15	1	-
<i>Anthus pratensis</i>	-	-	-	-	-	1	4	-	-	-
<i>Anthus cervinus</i>	-	-	-	-	-	1	-	-	-	-
<i>Anthus spinoletta</i>	-	-	-	-	-	-	-	-	-	-
<i>Motacilla flava</i>	-	-	-	-	1	-	-	-	-	-
<i>Motacilla alba</i>	-	-	-	-	1	-	-	-	-	-
<i>Troglodytes troglodytes</i>	1	1	-	1	2	2	-	-	3	-
<i>Prunella modularis</i>	-	-	-	-	11	10	5	2	-	1
<i>Erithacus rubecula</i>	-	8	1	51	318	247	134	24	-	84
<i>Luscinia megarhynchos</i>	2	42	10	42	60	35	28	21	6	-
<i>Luscinia svecica</i>	-	-	-	-	1	-	-	-	-	-
<i>Monticola solitarius</i>	-	-	-	2	1	3	-	1	-	-
<i>Monticola saxatilis</i>	-	2	-	4	5	4	-	-	-	-
<i>Phoenicurus ochruros</i>	-	-	-	-	15	11	9	1	-	1
<i>Phoenicurus phoenicurus</i>	25	167	177	205	621	279	105	194	45	16
<i>Saxicola rubetra</i>	68	26	54	166	227	206	79	126	18	1

Trapping numbers 1956-1990

Species	+A									
	-65	-66	-67	-68	-69	-70	-71	-72	-73	-74
<i>Falco tinnunculus</i>	-	-	-	-	-	-	-	-	-	-
<i>Falco subbuteo</i>	-	-	-	-	-	-	-	-	-	-
<i>Coturnix coturnix</i>	-	-	-	-	-	-	-	-	-	-
<i>Porzana porzana</i>	-	-	-	-	-	-	-	-	-	-
<i>Crex crex</i>	-	-	-	-	-	-	-	-	-	-
<i>Streptopelia turtur</i>	8	4	9	9	7	11	20	21	8	6
<i>Gallinago glandarius</i>	-	-	-	-	-	-	-	-	-	-
<i>Cuculus canorus</i>	1	3	2	1	-	-	1	-	1	-
<i>Tyto alba</i>	-	-	-	-	-	-	-	-	-	-
<i>Otus scops</i>	4	1	-	3	3	-	2	4	-	-
<i>Athene noctua</i>	-	-	-	-	-	-	-	-	-	-
<i>Caprimulgus europaeus</i>	9	15	8	5	1	3	8	4	-	4
<i>Apus apus</i>	-	-	-	-	-	-	-	1	-	-
<i>Merops apiaster</i>	-	-	-	-	-	7	4	2	-	-
<i>Upupa epops</i>	16	1	3	5	5	-	6	1	2	6
<i>Jynx torquilla</i>	11	1	6	10	14	3	7	1	4	1
<i>Calandrella brachydactyla</i>	-	-	-	-	-	-	3	-	-	1
<i>Lullula arborea</i>	-	-	1	-	-	-	-	-	-	-
<i>Alauda arvensis</i>	-	-	-	-	1	-	-	-	-	-
<i>Riparia riparia</i>	-	-	3	-	-	-	3	-	-	-
<i>Hirundo rustica</i>	16	4	54	12	58	18	101	35	29	4
<i>Delichon urbica</i>	13	-	27	9	9	4	44	10	22	1
<i>Anthus novaeseelandiae</i>	-	-	-	-	-	-	-	-	-	-
<i>Anthus campestris</i>	-	2	1	1	2	-	-	2	3	1
<i>Anthus trivialis</i>	12	7	25	52	20	18	17	3	5	7
<i>Anthus pratensis</i>	1	-	1	-	-	-	-	-	1	-
<i>Anthus cervinus</i>	-	-	-	-	-	-	-	-	-	-
<i>Anthus spinoletta</i>	-	-	-	-	-	-	-	-	-	-
<i>Motacilla flava</i>	-	-	-	-	-	-	1	-	1	-
<i>Motacilla alba</i>	-	-	-	-	-	-	-	-	-	-
<i>Troglodytes troglodytes</i>	3	6	13	-	4	4	10	2	7	3
<i>Prunella modularis</i>	2	-	1	-	3	-	10	-	6	-
<i>Erithacus rubecula</i>	27	53	6	4	68	47	41	1	11	1
<i>Luscinia megarhynchos</i>	43	14	17	20	26	18	13	5	7	3
<i>Luscinia svecica</i>	-	-	-	-	-	-	-	-	-	-
<i>Monticola solitarius</i>	-	-	-	1	-	-	1	-	-	-
<i>Monticola saxatilis</i>	4	-	3	2	4	1	1	-	1	-
<i>Phoenicurus ochruros</i>	-	-	-	-	10	1	11	1	4	1
<i>Phoenicurus phoenicurus</i>	186	170	285	231	197	101	140	193	90	75
<i>Saxicola rubetra</i>	71	93	74	94	233	135	278	98	60	72



Trapping numbers 1956-1990

Species	-75	-76	-77	-78	-79	-80	-81	-86	-87	-88
<i>Falco tinnunculus</i>	1	-	-	-	2	-	-	1	-	-
<i>Falco subbuteo</i>	1	-	-	-	-	-	-	-	-	-
<i>Coturnix coturnix</i>	-	-	-	-	-	-	-	-	-	-
<i>Porzana porzana</i>	-	-	-	-	-	-	-	-	1	-
<i>Crex crex</i>	-	-	-	-	-	-	-	-	-	-
<i>Streptopelia turtur</i>	29	5	19	17	44	10	2	9	19	16
<i>Clamator glandarius</i>	-	-	-	-	-	-	-	-	-	-
<i>Cuculus canorus</i>	1	1	3	3	20	2	5	9	7	3
<i>Tyto alba</i>	-	-	-	-	-	-	-	-	-	-
<i>Otus scops</i>	1	1	-	2	4	-	3	6	5	5
<i>Athene noctua</i>	-	-	-	-	-	-	-	-	-	-
<i>Caprimulgus europaeus</i>	10	-	3	5	12	-	2	7	-	2
<i>Apus apus</i>	-	-	1	1	-	-	-	-	-	-
<i>Merops apiaster</i>	-	-	-	-	-	1	-	1	-	3
<i>Upupa epops</i>	10	6	3	2	5	-	3	5	10	8
<i>Jynx torquilla</i>	4	6	2	2	3	1	2	2	4	5
<i>Calandrella brachydactyla</i>	-	-	-	1	-	-	-	-	-	-
<i>Lullula arborea</i>	-	-	-	-	-	-	-	-	-	-
<i>Alauda arvensis</i>	1	-	-	-	-	1	-	1	-	-
<i>Riparia riparia</i>	-	-	6	-	-	-	5	-	-	-
<i>Hirundo rustica</i>	40	24	22	101	61	15	38	27	7	25
<i>Delichon urbica</i>	53	28	31	16	9	7	20	11	9	13
<i>Anthus novaeseelandiae</i>	-	-	-	1	-	-	-	-	-	-
<i>Anthus campestris</i>	3	3	-	1	-	1	-	6	1	4
<i>Anthus trivialis</i>	30	13	18	21	28	6	7	54	28	25
<i>Anthus pratensis</i>	1	-	-	-	-	-	-	-	-	-
<i>Anthus cervinus</i>	-	-	-	-	-	-	-	-	-	-
<i>Anthus spinoletta</i>	1	-	-	-	-	-	-	-	-	-
<i>Motacilla flava</i>	1	1	1	-	1	-	-	-	-	1
<i>Motacilla alba</i>	-	-	-	-	-	-	-	-	-	-
<i>Troglodytes troglodytes</i>	3	3	8	2	5	4	3	8	8	1
<i>Prunella modularis</i>	1	1	-	-	1	-	-	-	1	-
<i>Erithacus rubecula</i>	8	7	5	2	2	-	3	11	24	1
<i>Luscinia megarhynchos</i>	14	-	13	4	7	2	13	21	52	5
<i>Luscinia svecica</i>	-	-	-	-	-	-	-	-	-	-
<i>Monticola solitarius</i>	2	-	-	-	1	1	-	1	-	1
<i>Monticola saxatilis</i>	2	4	6	1	2	1	-	3	3	2
<i>Phoenicurus ochruros</i>	9	-	2	1	4	1	1	2	5	2
<i>Phoenicurus phoenicurus</i>	160	52	94	84	108	37	88	122	80	41
<i>Saxicola rubetra</i>	401	110	109	38	236	62	71	421	250	154

Trapping numbers 1956-1990

Species	A			TOTALS
	-89	-89	-90	
<i>Falco tinnunculus</i>	1	-	-	12
<i>Falco subbuteo</i>	-	-	-	4
<i>Coturnix coturnix</i>	2	-	-	3
<i>Porzana porzana</i>	-	-	-	2
<i>Crex crex</i>	-	-	-	1
<i>Streptopelia turtur</i>	4	-	7	446
<i>Clamator glandarius</i>	1	-	-	1
<i>Cuculus canorus</i>	1	-	6	89
<i>Tyto alba</i>	-	-	-	2
<i>Otus scops</i>	7	-	9	103
<i>Athene noctua</i>	-	-	-	6
<i>Caprimulgus europaeus</i>	-	-	5	326
<i>Apus apus</i>	-	-	-	3
<i>Merops apiaster</i>	10	-	1	30
<i>Upupa epops</i>	11	-	10	159
<i>Jynx torquilla</i>	12	-	3	168
<i>Calandrella brachydactyla</i>	-	-	1	7
<i>Lullula arborea</i>	1	-	-	2
<i>Alauda arvensis</i>	5	-	3	12
<i>Riparia riparia</i>	-	-	-	38
<i>Hirundo rustica</i>	54	-	2	1241
<i>Delichon urbica</i>	12	-	-	685
<i>Anthus novaeseelandiae</i>	-	-	-	1
<i>Anthus campestris</i>	3	-	2	58
<i>Anthus trivialis</i>	30	-	143	673
<i>Anthus pratensis</i>	20	-	1	30
<i>Anthus cervinus</i>	-	-	-	1
<i>Anthus spinoletta</i>	-	-	-	1
<i>Motacilla flava</i>	-	-	1	9
<i>Motacilla alba</i>	-	-	-	1
<i>Troglodytes troglodytes</i>	8	1	2	118
<i>Prunella modularis</i>	5	1	-	61
<i>Erithacus rubecula</i>	197	24	3	1413
<i>Luscinia megarhynchos</i>	5	-	15	563
<i>Luscinia svecica</i>	-	-	-	1
<i>Monticola solitarius</i>	5	-	1	21
<i>Monticola saxatilis</i>	5	-	4	64
<i>Phoenicurus ochrurus</i>	121	-	2	215
<i>Phoenicurus phoenicurus</i>	61	2	95	4526
<i>Saxicola rubetra</i>	440	-	755	5226



Trapping numbers 1956-1990

Species	-56	-57	-58	+A -59	+A -60	+A -61	-62	-63	A -64	62-64
<i>Saxicola torquata</i>	-	-	-	1	1	-	-	-	-	-
<i>Oenanthe oenanthe</i>	26	32	24	40	240	97	65	38	7	1
<i>Oenanthe hispanica</i>	-	8	17	1	59	17	12	9	2	-
<i>Oenanthe isabellina</i>	-	-	-	-	-	-	-	-	-	-
<i>Turdus torquatus</i>	-	-	-	-	1	-	-	-	-	-
<i>Turdus merula</i>	-	-	-	-	36	30	9	1	-	3
<i>Turdus philomelos</i>	-	7	1	2	226	52	64	19	-	15
<i>Turdus viscivorus</i>	-	-	-	-	1	1	2	-	-	1
<i>Locustella naevia</i>	-	-	-	-	-	-	-	-	-	-
<i>Cisticola juncidis</i>	-	-	-	-	-	-	-	-	-	-
<i>Acrocephalus schoenobaenus</i>	-	1	-	2	2	16	-	1	23	-
<i>Acrocephalus scirpaceus</i>	-	2	7	1	1	1	1	-	1	-
<i>Acrocephalus arundinaceus</i>	-	4	-	4	3	5	-	1	1	-
<i>Hippolais icterina</i>	52	321	501	937	405	888	101	433	608	-
<i>Hippolais polyglotta</i>	-	1	-	1	-	-	-	2	-	-
<i>Sylvia cantillans</i>	-	27	4	6	19	41	9	35	1	1
<i>Sylvia hortensis</i>	-	-	-	-	-	-	-	-	-	-
<i>Sylvia curruca</i>	-	-	-	-	-	-	-	-	-	5
<i>Sylvia rueppelli</i>	-	-	-	-	-	1	-	-	1	-
<i>Sylvia communis</i>	57	230	361	455	661	568	524	323	289	14
<i>Sylvia borin</i>	77	445	1248	1341	1327	1489	170	689	993	13
<i>Sylvia atricapilla</i>	-	4	-	3	37	36	17	8	-	10
<i>Sylvia melanocephala</i>	-	4	1	9	4	62	23	7	4	4
<i>Sylvia conspicillata</i>	-	-	-	-	1	-	-	1	-	-
<i>Sylvia undata</i>	-	-	-	-	-	-	-	-	-	-
<i>Sylvia sarda</i>	-	-	-	1	-	-	9	-	-	-
<i>Phylloscopus bonelli</i>	-	1	-	-	-	2	-	1	-	-
<i>Phylloscopus sibilatrix</i>	12	73	106	211	279	372	206	331	114	4
<i>Phylloscopus collybita</i>	-	3	-	2	49	6	-	2	-	10
<i>Phylloscopus inornatus</i>	-	-	-	-	-	-	-	-	-	-
<i>Phylloscopus trochilus</i>	1	71	26	53	235	120	207	132	33	3
<i>Regulus regulus</i>	-	-	-	-	1	5	-	-	-	-
<i>Regulus ignicapillus</i>	-	2	-	1	14	24	17	8	-	13
<i>Muscicapa striata</i>	14	125	339	671	348	901	429	579	229	23
<i>Ficedula semitorquata</i>	-	-	-	-	-	-	-	-	-	-
<i>Ficedula albicollis</i>	2	2	-	10	5	7	7	6	-	-
<i>Ficedula hypoleuca</i>	16	92	54	265	539	30	152	342	37	-
<i>Parus caeruleus</i>	-	-	-	-	-	-	-	-	-	-
<i>Parus major</i>	-	9	13	34	17	14	22	7	7	8
<i>Certhia brachydactyla</i>	-	3	3	11	3	4	1	1	5	-
<i>Oriolus oriolus</i>	10	19	96	112	90	143	34	72	49	-

Trapping numbers 1956-1990

Species	+A									
	-65	-66	-67	-68	-69	-70	-71	-72	-73	-74
<i>Saxicola torquata</i>	-	-	-	-	-	-	-	-	-	-
<i>Oenanthe oenanthe</i>	83	35	77	147	207	30	179	88	86	100
<i>Oenanthe hispanica</i>	13	8	30	95	68	1	43	32	8	8
<i>Oenanthe isabellina</i>	-	-	-	-	-	-	1	-	-	-
<i>Turdus torquatus</i>	-	-	1	-	-	-	-	-	-	-
<i>Turdus merula</i>	-	-	-	1	-	-	-	1	-	-
<i>Turdus philomelos</i>	27	23	10	1	21	6	32	-	-	-
<i>Turdus viscivorus</i>	-	-	-	-	-	-	-	-	1	-
<i>Locustella naevia</i>	-	-	-	-	-	-	1	-	-	-
<i>Cisticola juncidis</i>	-	-	1	-	-	-	-	-	-	-
<i>Acrocephalus schoenobaenus</i>	5	6	-	8	5	1	8	-	-	-
<i>Aerocephalus scirpaceus</i>	1	1	1	2	1	-	-	-	-	1
<i>Acrocephalus arundinaceus</i>	1	-	1	-	1	1	-	-	1	3
<i>Hippolais icterina</i>	421	427	368	265	213	403	195	250	403	1029
<i>Hippolais polyglotta</i>	-	-	-	-	-	-	-	-	-	-
<i>Sylvia cantillans</i>	49	60	80	47	86	31	123	46	37	7
<i>Sylvia hortensis</i>	-	-	-	-	-	-	-	-	-	-
<i>Sylvia curruca</i>	4	3	-	-	-	-	-	-	-	-
<i>Sylvia rueppelli</i>	-	-	-	1	1	-	-	-	-	-
<i>Sylvia communis</i>	448	354	240	401	408	593	305	201	178	364
<i>Sylvia borin</i>	569	504	384	381	163	583	222	387	266	910
<i>Sylvia atricapilla</i>	27	13	27	3	22	7	3	3	12	2
<i>Sylvia melanocephala</i>	12	3	3	8	9	15	14	4	10	7
<i>Sylvia conspicillata</i>	-	1	-	-	2	-	-	1	1	1
<i>Sylvia undata</i>	-	-	-	-	-	-	-	-	-	-
<i>Sylvia sarda</i>	-	-	-	-	-	-	-	-	1	-
<i>Phylloscopus bonelli</i>	-	-	1	2	1	-	3	4	1	2
<i>Phylloscopus sibilatrix</i>	151	274	304	201	189	202	209	148	97	163
<i>Phylloscopus collybita</i>	11	12	3	1	21	7	18	3	7	3
<i>Phylloscopus inornatus</i>	-	-	-	-	-	-	-	-	-	-
<i>Phylloscopus trochilus</i>	379	260	257	288	384	200	140	224	101	250
<i>Regulus regulus</i>	-	-	-	-	-	-	1	-	-	-
<i>Regulus ignicapillus</i>	-	1	1	1	2	3	21	-	1	-
<i>Muscicapa striata</i>	202	471	194	346	294	384	300	193	327	447
<i>Ficedula semitorquata</i>	-	-	-	-	-	-	-	-	-	-
<i>Ficedula albicollis</i>	2	10	4	72	8	5	15	2	-	1
<i>Ficedula hypoleuca</i>	138	218	350	351	180	219	145	141	113	89
<i>Parus caeruleus</i>	-	-	-	-	-	-	-	-	-	-
<i>Parus major</i>	9	8	11	7	4	6	12	10	2	8
<i>Certhia brachydactyla</i>	2	11	4	9	3	-	2	-	1	1
<i>Oriolus oriolus</i>	31	60	52	30	9	32	18	17	32	6



Trapping numbers 1956-1990

Species	-75	-76	-77	-78	-79	-80	-81	-86	87	-88
<i>Saxicola torquata</i>	-	-	-	-	-	-	-	-	-	-
<i>Oenanthe oenanthe</i>	240	70	46	32	76	12	28	60	144	174
<i>Oenanthe hispanica</i>	70	11	19	5	17	7	2	6	15	38
<i>Oenanthe isabellina</i>	-	-	-	-	-	-	-	-	-	-
<i>Turdus torquatus</i>	-	-	-	-	1	-	-	-	-	-
<i>Turdus merula</i>	3	-	-	-	1	1	1	4	1	-
<i>Turdus philomelos</i>	11	3	1	-	5	-	-	1	4	3
<i>Turdus viscivorus</i>	-	-	-	-	-	-	-	-	-	-
<i>Locustella naevia</i>	-	-	1	-	-	-	-	-	-	-
<i>Cisticola juncidis</i>	-	-	2	1	-	-	-	-	-	-
<i>Acrocephalus schoenobaenus</i>	4	1	4	6	8	5	3	6	4	3
<i>Acrocephalus scirpaceus</i>	-	-	1	-	-	1	-	1	-	-
<i>Acrocephalus arundinaceus</i>	-	-	-	-	1	-	-	-	-	-
<i>Hippolais icterina</i>	373	457	147	358	625	876	485	730	600	366
<i>Hippolais polyglotta</i>	1	-	-	-	-	-	-	1	-	-
<i>Sylvia cantillans</i>	48	50	17	29	17	16	13	38	41	37
<i>Sylvia hortensis</i>	-	-	1	1	-	-	-	-	-	-
<i>Sylvia curruca</i>	-	-	-	-	1	-	-	-	-	-
<i>Sylvia rueppelli</i>	-	-	-	-	-	-	-	-	-	-
<i>Sylvia communis</i>	401	221	193	157	366	174	171	570	623	185
<i>Sylvia borin</i>	546	233	207	275	666	423	180	1115	729	237
<i>Sylvia atricapilla</i>	5	3	5	9	11	3	5	45	32	9
<i>Sylvia melanocephala</i>	24	7	10	20	14	4	5	20	26	1
<i>Sylvia conspicillata</i>	1	-	1	-	-	-	-	-	-	1
<i>Sylvia undata</i>	2	-	-	-	-	-	-	-	-	-
<i>Sylvia sarda</i>	2	-	-	-	-	-	-	-	-	-
<i>Phylloscopus bonelli</i>	3	1	1	-	-	-	-	-	-	-
<i>Phylloscopus sibilatrix</i>	367	234	191	197	491	127	204	987	595	265
<i>Phylloscopus collybita</i>	3	1	-	1	1	-	1	9	12	5
<i>Phylloscopus inornatus</i>	-	-	-	-	-	-	-	-	-	-
<i>Phylloscopus trochilus</i>	124	74	70	81	280	63	98	273	259	125
<i>Regulus regulus</i>	-	-	-	-	-	-	-	-	-	-
<i>Regulus ignicapillus</i>	1	1	-	-	-	-	-	1	2	1
<i>Muscicapa striata</i>	722	310	241	174	297	175	195	474	134	280
<i>Ficedula semitorquata</i>	-	-	-	-	-	-	-	-	-	1
<i>Ficedula albicollis</i>	20	1	7	-	4	1	8	26	35	9
<i>Ficedula hypoleuca</i>	260	108	110	116	181	46	174	465	256	176
<i>Parus caeruleus</i>	-	-	-	-	-	-	-	-	-	-
<i>Parus major</i>	-	4	6	4	5	7	3	8	11	-
<i>Certhia brachydactyla</i>	1	1	-	4	2	2	4	3	-	5
<i>Oriolus oriolus</i>	22	5	30	19	82	21	8	30	26	11

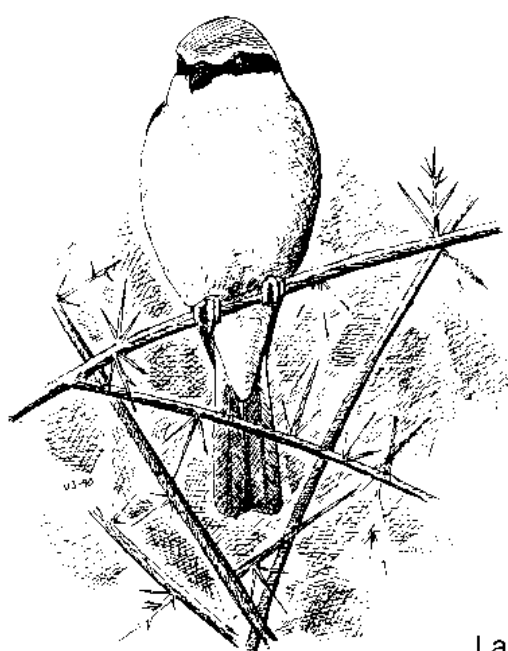
Trapping numbers 1956-1990

Species	A			TOTALS
	-89	-89	-90	
<i>Saxicola torquata</i>	35	-	-	37
<i>Oenanthe oenanthe</i>	402	-	141	3027
<i>Oenanthe hispanica</i>	52	-	43	716
<i>Oenanthe isabellina</i>	-	-	-	1
<i>Turdus torquatus</i>	-	-	-	3
<i>Turdus merula</i>	-	1	1	94
<i>Turdus philomelos</i>	46	2	2	584
<i>Turdus viscivorus</i>	-	-	-	6
<i>Locustella naevia</i>	-	-	-	2
<i>Cisticola juncidis</i>	2	-	-	6
<i>Acrocephalus schoenobaenus</i>	3	-	12	137
<i>Acrocephalus scirpaceus</i>	1	-	1	26
<i>Acrocephalus arundinaceus</i>	-	-	1	28
<i>Hippolais icterina</i>	776	-	757	14780
<i>Hippolais polyglotta</i>	-	-	1	7
<i>Sylvia cantillans</i>	307	-	53	1375
<i>Sylvia hortensis</i>	-	-	-	2
<i>Sylvia curruca</i>	-	-	-	13
<i>Sylvia rueppelli</i>	1	-	-	5
<i>Sylvia communis</i>	630	-	902	11567
<i>Sylvia borin</i>	471	-	616	17859
<i>Sylvia atricapilla</i>	60	2	13	436
<i>Sylvia melanocephala</i>	28	4	12	378
<i>Sylvia conspicillata</i>	14	-	1	26
<i>Sylvia undata</i>	-	-	-	2
<i>Sylvia sarda</i>	-	-	-	13
<i>Phylloscopus bonelli</i>	-	-	1	24
<i>Phylloscopus sibilatrix</i>	319	-	540	8163
<i>Phylloscopus collybita</i>	69	4	30	294
<i>Phylloscopus inornatus</i>	-	1	-	1
<i>Phylloscopus trochilus</i>	352	1	197	5361
<i>Regulus regulus</i>	2	5	-	14
<i>Regulus ignicapillus</i>	5	-	-	120
<i>Muscicapa striata</i>	261	-	572	10651
<i>Ficedula semitorquata</i>	-	-	1	2
<i>Ficedula albicollis</i>	2	-	51	322
<i>Ficedula hypoleuca</i>	131	-	465	5959
<i>Parus caeruleus</i>	-	-	1	1
<i>Parus major</i>	15	-	8	279
<i>Certhia brachydactyla</i>	2	-	-	88
<i>Oriolus oriolus</i>	2	-	37	1205



Trapping numbers 1956-1990

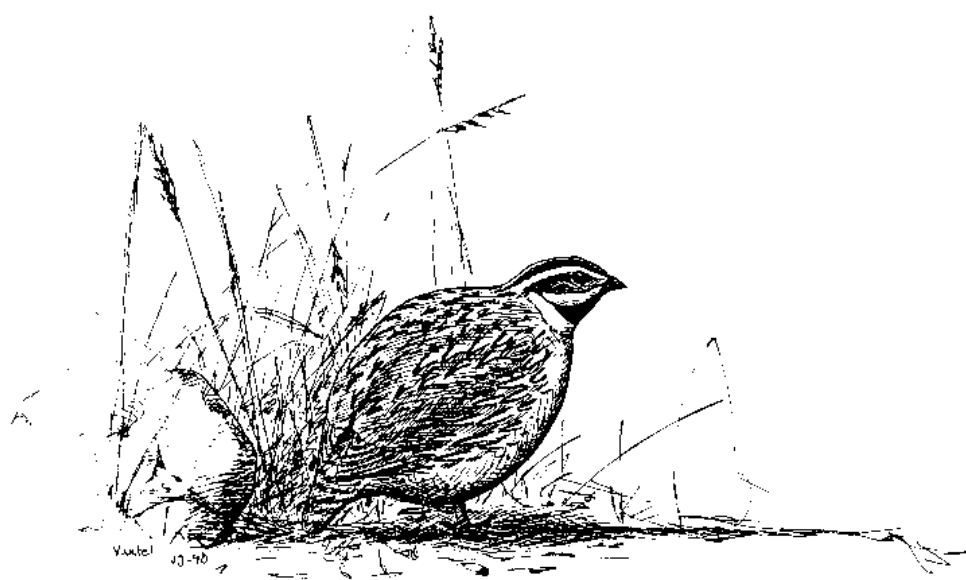
Species	-56	-57	-58	+A -59	+A -60	+A -61	-62	-63	-64	A 62-64
<i>Lanius collurio</i>	-	6	5	12	8	6	-	3	3	3
<i>Lanius minor</i>	-	-	1	-	-	-	-	-	-	-
<i>Lanius senator</i>	14	73	119	297	465	103	99	70	15	-
<i>Sturnus vulgaris</i>	-	-	-	-	2	-	1	1	-	1
<i>Passer domesticus italiae</i>	-	11	9	13	15	19	35	8	2	2
<i>Passer hispaniolensis</i>	-	-	-	-	-	-	-	-	-	1
<i>Passer montanus</i>	-	-	-	-	-	-	-	-	-	-
<i>Fringilla coelebs</i>	1	11	15	31	81	51	40	46	2	5
<i>Fringilla montifringilla</i>	-	-	-	-	-	-	-	-	-	-
<i>Serinus serinus</i>	-	9	17	19	12	24	34	13	8	4
<i>Carduelis chloris</i>	-	3	15	19	21	27	4	9	4	1
<i>Carduelis carduelis</i>	-	-	-	2	3	2	1	2	-	-
<i>Carduelis spinus</i>	-	-	-	-	5	-	6	-	-	-
<i>Carduelis cannabina</i>	-	-	1	2	3	7	-	1	-	-
<i>Loxia curvirostra</i>	-	-	-	4	-	-	-	-	-	-
<i>Carpodacus erythrinus</i>	-	-	-	-	-	-	-	-	-	-
<i>Coccothraustes coccothraustes</i>	-	1	-	-	1	-	1	-	-	-
<i>Emberiza cia</i>	-	-	-	4	3	-	1	-	-	-
<i>Emberiza hortulana</i>	-	2	2	2	13	10	-	2	-	-
<i>Emberiza melanocephala</i>	-	-	-	-	-	1	-	-	-	-
<i>Miliaria calandra</i>	-	-	1	3	3	1	-	-	-	1
Annual totals	405	1976	3296	5227	7081	6243	2825	3720	2518	252



Lanius collurio

Trapping numbers 1956-1990

Species	+A									
	-65	-66	-67	-68	-69	70	-71	-72	-73	-74
<i>Lanius collurio</i>	2	6	3	2	1	-	3	8	1	2
<i>Lanius minor</i>	-	-	1	-	-	-	-	-	-	-
<i>Lanius senator</i>	94	98	67	65	84	41	45	25	36	18
<i>Sturnus vulgaris</i>	-	-	-	-	-	-	-	-	-	-
<i>Passer domesticus italiae</i>	3	4	4	3	11	2	10	1	1	-
<i>Passer hispaniolensis</i>	-	-	-	-	-	-	-	-	-	-
<i>Passer montanus</i>	-	-	-	-	2	1	-	-	-	-
<i>Fringilla coelebs</i>	27	9	22	10	16	2	7	1	6	1
<i>Fringilla montifringilla</i>	-	-	-	-	-	-	1	-	-	-
<i>Serinus serinus</i>	10	5	10	12	13	8	10	10	4	11
<i>Carduelis chloris</i>	19	4	4	4	4	4	5	2	1	4
<i>Carduelis carduelis</i>	1	1	6	8	-	-	2	4	2	3
<i>Carduelis spinus</i>	-	-	-	-	-	-	1	-	1	-
<i>Carduelis cannabina</i>	1	-	-	-	13	5	12	-	3	-
<i>Loxia curvirostra</i>	-	-	-	-	-	-	-	-	-	-
<i>Carpodacus erythrinus</i>	-	-	-	-	-	-	-	-	-	-
<i>Coccothraustes coccothraustes</i>	1	-	-	-	-	-	-	-	1	-
<i>Emberiza cia</i>	-	-	-	-	-	-	-	-	-	-
<i>Emberiza hortulana</i>	2	-	1	-	2	-	3	2	-	3
<i>Emberiza melanocephala</i>	-	-	-	1	-	-	-	-	-	-
<i>Miliaria calandra</i>	1	-	-	-	3	-	1	-	-	-
Annual totals	3173	3264	3061	3232	3116	3163	2832	2191	2004	3640



Coturnix coturnix



Trapping numbers 1956-1990

Species	-75	-76	-77	-78	-79	-80	-81	-86	-87	-88
<i>Lanius collurio</i>	5	1	3	9	-	-	1	1	-	6
<i>Lanius minor</i>	-	-	-	-	-	-	-	-	-	-
<i>Lanius senator</i>	21	11	41	11	26	20	14	49	19	8
<i>Sturnus vulgaris</i>	1	-	-	-	-	-	-	-	-	-
<i>Passer domesticus italiae</i>	10	6	5	11	12	2	3	8	4	56
<i>Passer hispaniolensis</i>	-	-	-	-	-	-	-	-	-	-
<i>Passer montanus</i>	1	-	-	-	-	-	-	-	-	-
<i>Fringilla coelebs</i>	5	6	2	2	2	1	4	4	4	3
<i>Fringilla montifringilla</i>	-	1	-	-	-	-	-	-	-	-
<i>Serinus serinus</i>	10	6	9	22	14	3	5	8	2	36
<i>Carduelis chloris</i>	2	2	8	12	3	-	1	3	-	4
<i>Carduelis carduelis</i>	3	2	-	1	2	-	-	1	-	2
<i>Carduelis spinus</i>	-	1	-	-	-	-	-	-	-	-
<i>Carduelis cannabina</i>	4	6	-	1	1	-	1	1	7	3
<i>Loxia curvirostra</i>	-	-	-	-	-	-	-	-	-	-
<i>Carpodacus erythrinus</i>	-	-	-	-	-	-	1	-	-	-
<i>Coccothraustes coccothraustes</i>	-	-	-	-	-	-	-	-	-	-
<i>Emberiza cia</i>	-	-	-	-	-	-	-	-	-	-
<i>Emberiza hortulana</i>	2	2	-	-	-	-	-	4	1	5
<i>Emberiza melanocephala</i>	-	-	1	-	-	-	-	-	-	-
<i>Miliaria calandra</i>	-	-	-	-	-	-	1	-	1	2
Annual totals	4105	2105	1726	1863	3767	2142	1885	5680	4101	2374

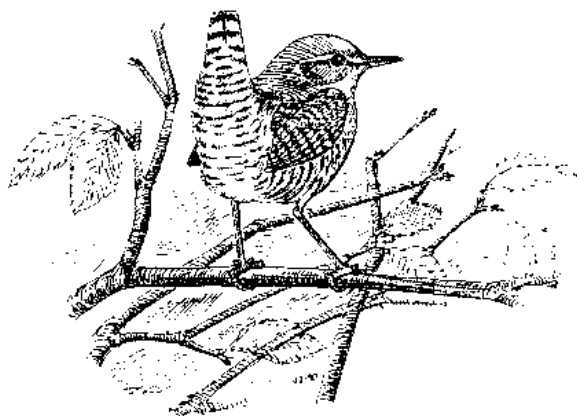


Serinus serinus

Trapping numbers 1956-1990

Species	A			TOTALS
	-89	-89	-90	
<i>Lanius collurio</i>	6	-	2	108
<i>Lanius minor</i>	-	-	-	2
<i>Lanius senator</i>	30	-	43	2121
<i>Sturnus vulgaris</i>	-	-	-	6
<i>Passer domesticus italiae</i>	25	-	12	307
<i>Passer hispaniolensis</i>	-	-	-	1
<i>Passer montanus</i>	-	-	-	4
<i>Fringilla coelebs</i>	38	1	2	458
<i>Fringilla montifringilla</i>	-	-	-	2
<i>Serinus serinus</i>	61	-	3	412
<i>Carduelis chloris</i>	2	-	2	193
<i>Carduelis carduelis</i>	2	-	1	51
<i>Carduelis spinus</i>	-	-	-	14
<i>Carduelis cannabina</i>	-	-	3	75
<i>Loxia curvirostra</i>	-	-	-	4
<i>Carpodacus erythrinus</i>	-	-	-	1
<i>Coccothraustes coccothraustes</i>	-	-	-	5
<i>Emberiza cia</i>	-	-	-	8
<i>Emberiza hortulana</i>	-	-	1	59
<i>Emberiza melanocephala</i>	-	-	-	3
<i>Miliaria calandra</i>	1	-	2	21
	5173	49	5601	GRAND TOTAL 103 791

TOTAL NUMBER OF SPECIES 102



Trogodytes troglodytes

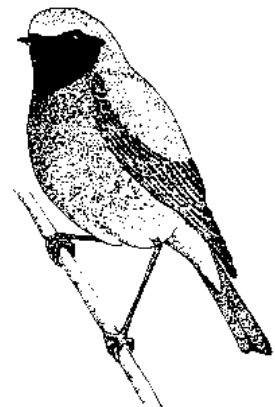
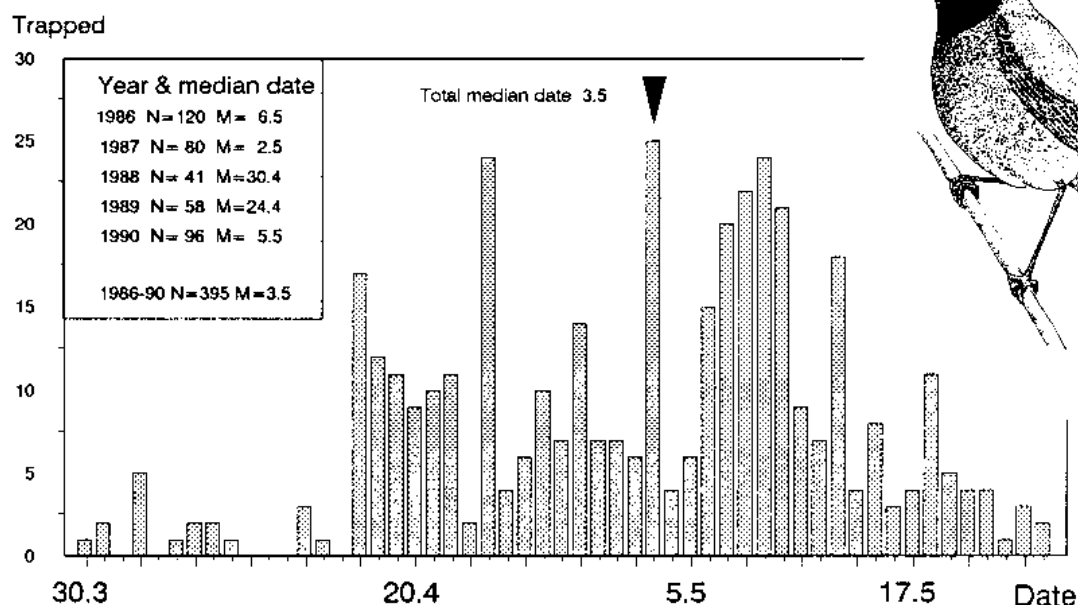


REDSTART *Phoenicurus phoenicurus* CODIROSSO

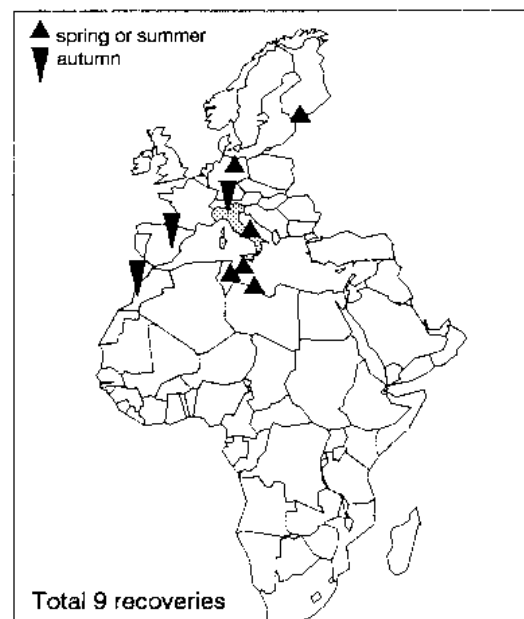
Breeds from the northern shores of the Mediterranean sea (including Italy) northwards to the Arctic Ocean. It also has small populations in the North African mountains, and to the east it breeds in Turkey, the Caucasus and the mountains of Iran. The main winter quarters lie in the dry savannas and forests of West and Central Africa from the Sahel zone and southwards.

Its spring passage on Capri starts in early April and culminates around the beginning of May. Including 1990 4526 Redstarts had been ringed there, but only 9 recovered. The breeding time recoveries (2) come from Germany and Estonia, the migration period recoveries (7) from Italy, Spain, Libya, Morocco and Tunisia. So far we have no recoveries from the winter quarters.

Ackumulated trapping sums springs 1986-90

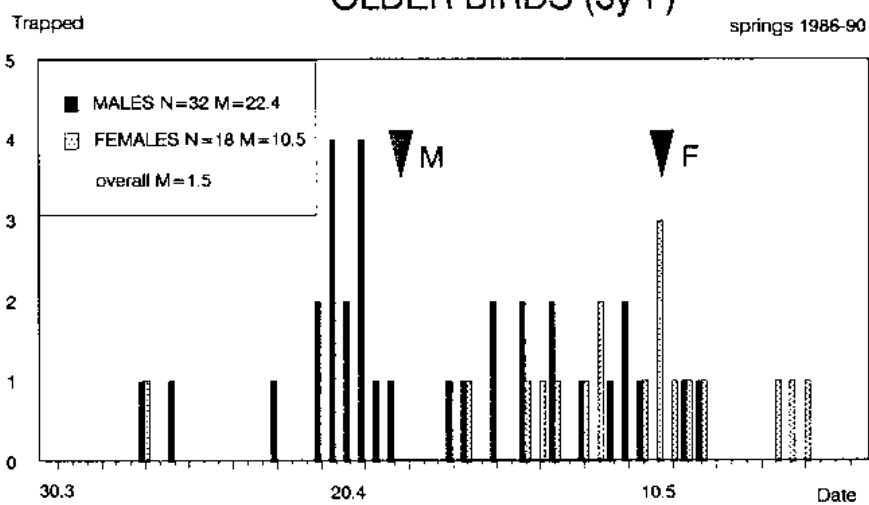


Recoveries of Redstarts ringed on Capri

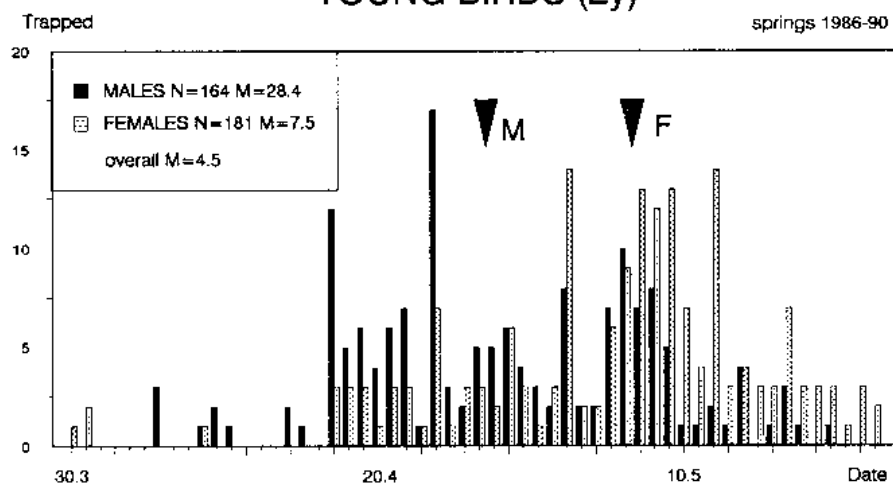


Trapping sums of different age and sex groups

OLDER BIRDS (3y+)



YOUNG BIRDS (2y)



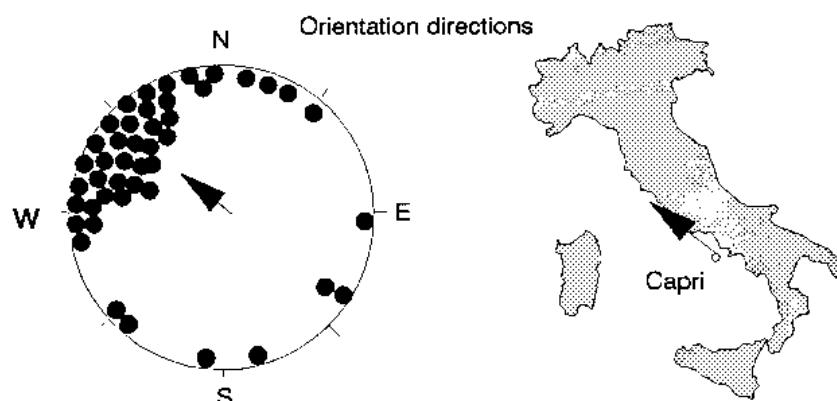
Wing-length, weight and fat classes springs 1986-90

		Wing-length					
		Before			Median-day After		
Young 2y	Males	N	Mean	SD	N	Mean	SD
	Females	95	81,4	1,8	63	80,9	1,7
Older 3y+	Males	99	81,3	1,5	77	78,9	1,6
	Females	19	81,7	1,7	11	82,0	1,6
	Males	12	79,6	1,6	6	80,9	1,2
	Females						

		Weight					
Young 2y	Males	95	14,0	1,8	63	13,4	1,7
	Females	99	13,3	1,5	77	13,1	1,6
Older 3y+	Males	19	14,1	1,7	14	13,0	1,7
	Females	10	14,2	2,0	4	13,8	2,1

		Fat					
Young 2y	Males	95	3,8	1,1	63	3,4	1,3
	Females	100	3,4	1,2	77	3,2	1,3
Older 3y+	Males	21	3,9	1,4	11	2,8	1,4
	Females	12	3,1	1,7	6	3,4	1,7

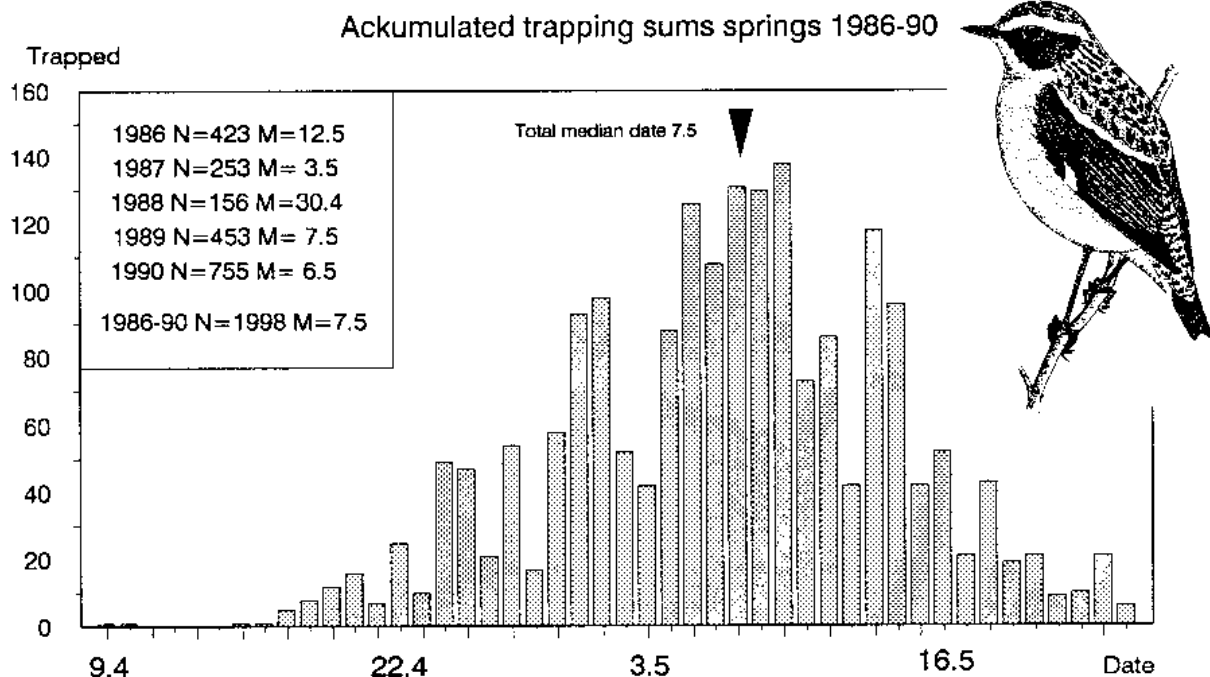
Orientation-test in Emlen-funnel after sunset.
The tests have been made in the springs 1987-90.
The mean vector from 45 birds is 314° and $r=0,42$.



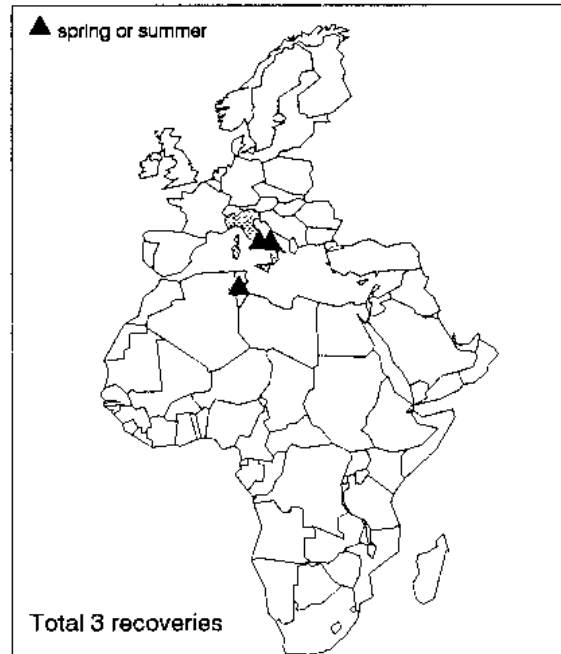
WHINCHAT *Saxicola rubetra* STIACCINO

This species has a small breeding population in Italy, in the central and northern parts of the country. Also in other Mediterranean countries as Spain and Greece it is a rare breeder. In the rest of Europe the Whinchat is a numerous species, up to and including the Nordic countries. The wintering areas are south of Sahara, in central and eastern Africa.

The total spring trapping number on Capri is 5226 birds, which is a high number for that species. Two local Italian recoveries, and one from Tunisia have been made.

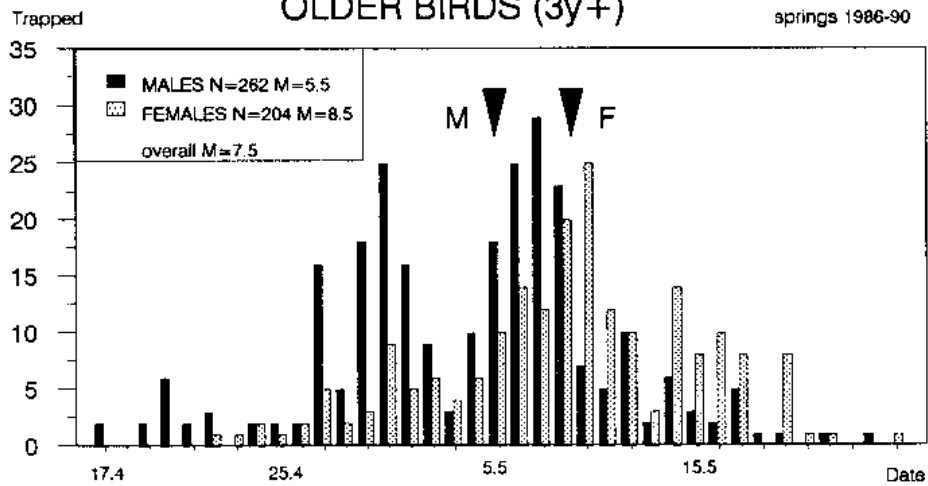


Recoveries of Whinchats ringed on Capri

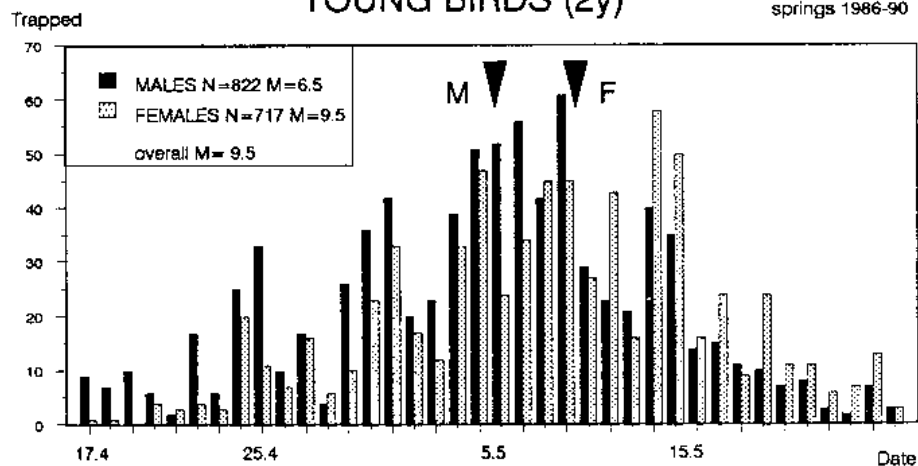


Trapping sums of different age and sex groups

OLDER BIRDS (3y+)



YOUNG BIRDS (2y)



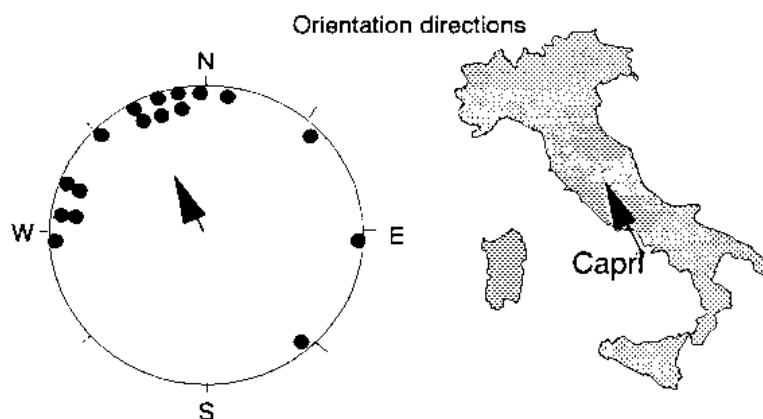
Wing-length, weight and fat classes springs 1986-90

		Wing-length					
		Before			Median-day		
Young 2y	Males	N	Mean	SD	N	Mean	SD
	Females	414	78.0	1,8	391	77.3	1,9
Older 3y+	Males	384	76,3	1,7	329	75.6	1,8
	Females	117	78,5	1,7	146	78,2	1,7
	Males	101	76,4	1,9	102	75,9	1,9
	Females						

		Weight					
Young 2y	Males	N	Mean	SD	N	Mean	SD
	Females	410	14,9	1,7	391	14,9	1,5
Older 3y+	Males	354	14,2	1,4	356	14,1	1,5
	Females	117	15,0	1,7	148	14,9	1,3
	Males	101	14,4	1,2	103	14,6	1,4
	Females						

		Fat					
Young 2y	Males	N	Mean	SD	N	Mean	SD
	Females	413	3,4	1,5	396	3,3	1,6
Older 3y+	Males	356	3,2	1,5	326	3,2	1,5
	Females	117	3,1	1,7	146	3,2	1,6
	Males	95	3,1	1,6	102	3,3	1,5
	Females						

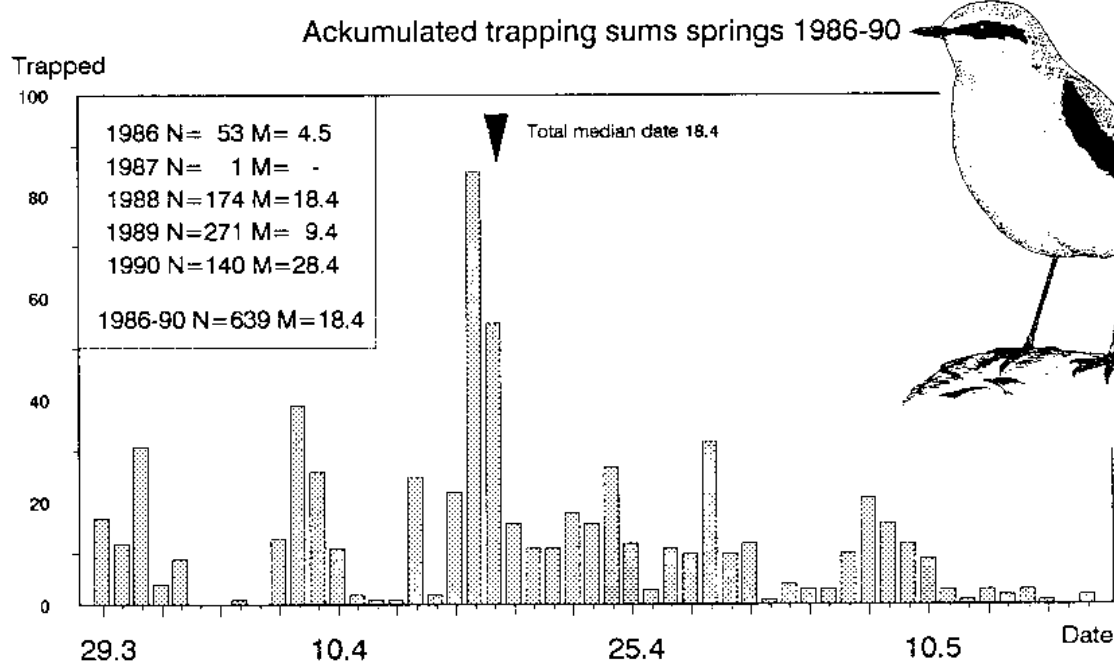
Orientation-test in Emlen-funnels after sunset. The tests have been made in the springs 1987-90. The mean vector from 17 birds is 322° and $r=0,51$.



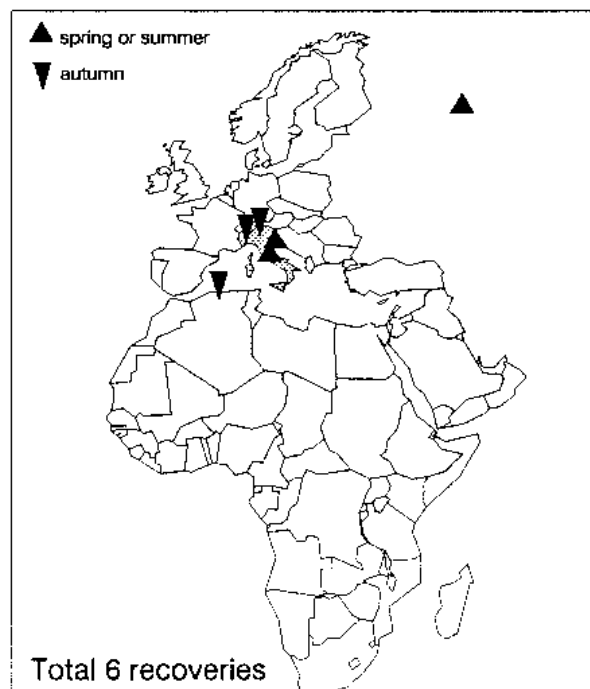


WHEATEAR *Oenanthe oenanthe* CULBIANCO

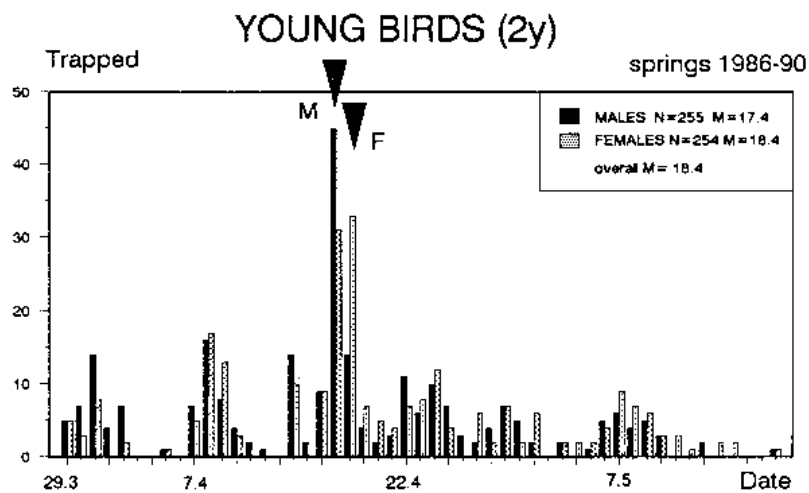
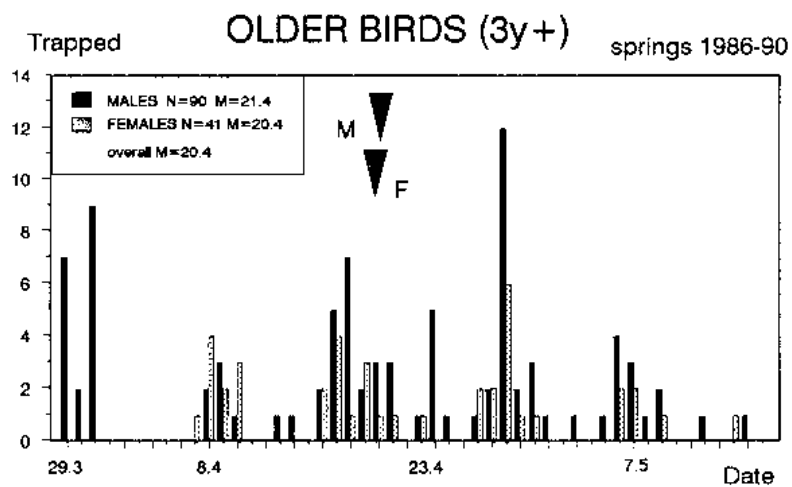
This species breeds commonly all over Europe, including Italy. The wintering areas lie in Africa just north of the equator. Passes Capri mainly in April and early May. Some days hundreds of Wheatears can be seen on the slopes of the Barbarossa mountain, hunting insects. Around 3000 birds have been ringed and 6 of these recovered, the most distant in the Soviet Union.



Recoveries of birds ringed on Capri



Trapping sums of different age and sex groups



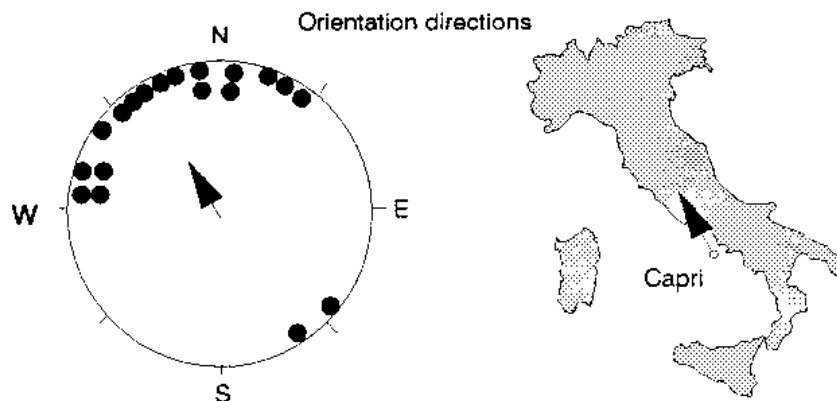
Wing-length, weight and fat classes springs 1986-90

		Wing-length					
		Before		Median-day		After	
Young 2y	Males	N	Mean	SD	N	Mean	SD
		136	95,8	2,0	119	96,0	1,9
Older 3y+	Females	150	93,5	1,6	102	93,4	1,5
	Males	56	97,6	1,7	34	97,3	1,6
	Females	28	94,3	1,8	13	94,4	1,8

		Weight					
Young 2y	Males	136	23,2	2,0	119	23,2	2,0
	Females	151	22,0	1,8	102	21,3	1,9
Older 3y+	Males	56	24,0	1,6	33	23,0	1,5
	Females	28	22,4	1,8	13	22,8	1,9

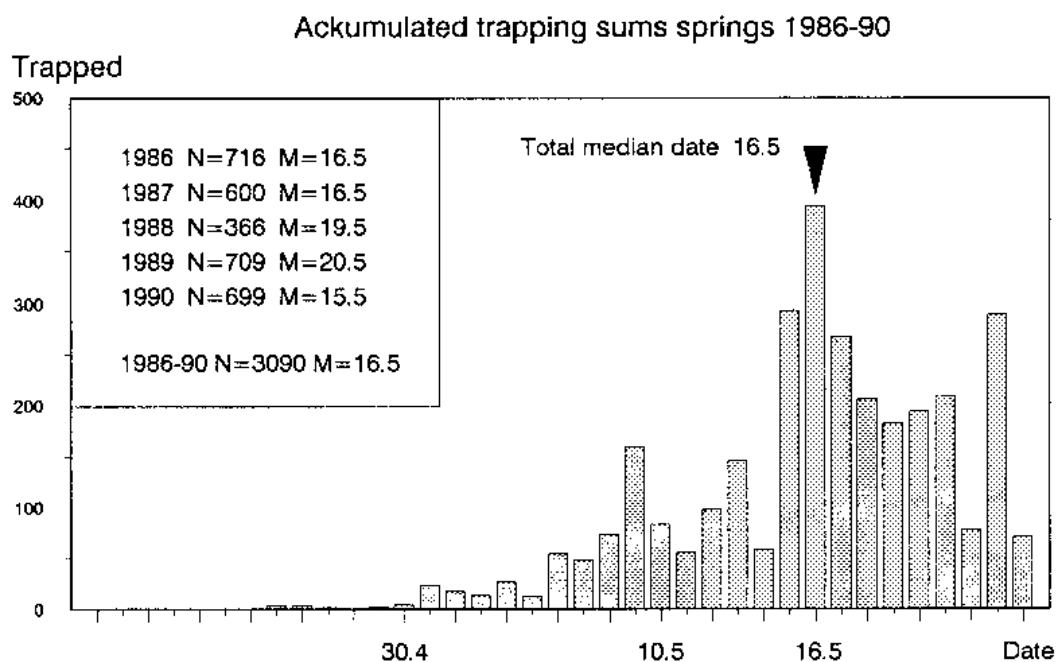
		Fat					
Young 2y	Males	136	3,7	1,0	119	3,6	1,0
	Females	151	3,6	1,2	82	3,5	1,3
Older 3y+	Males	56	4,0	1,0	34	3,3	1,2
	Females	28	3,6	1,1	13	3,5	1,8

Orientation-test in Emlen-funnel after sunset.
The tests have been made in the springs 1987-90.
The mean vector from 19 birds is 335° and $r=0,53$.

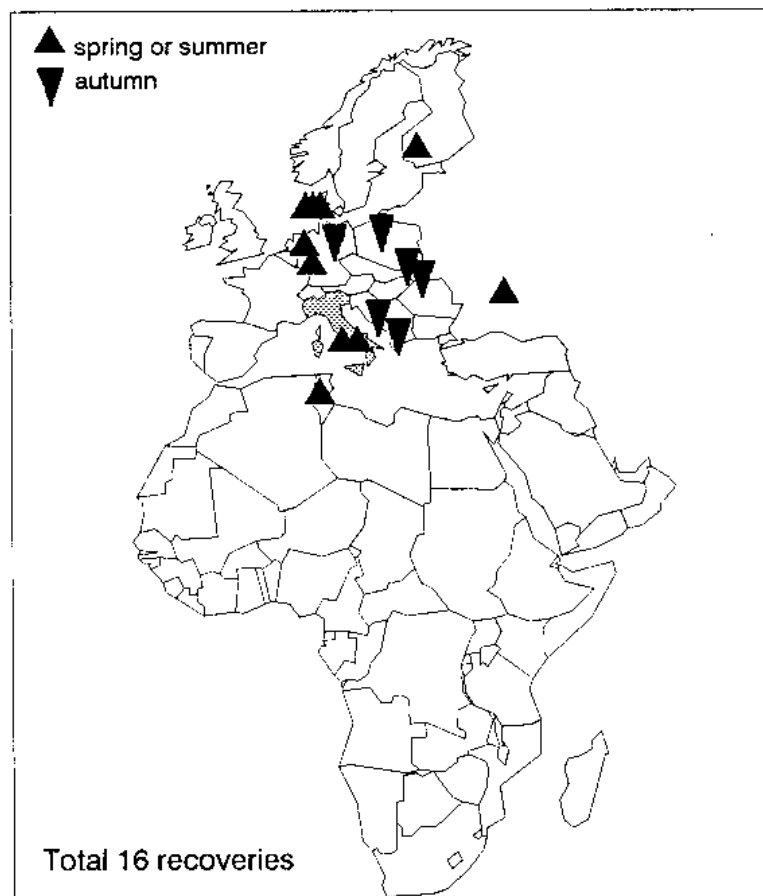


ICTERINE WARBLER *Hippolais icterina* CANAPINO MAGGIORE

This species does not breed in Italy, but in the northern and eastern parts of Europe. During winter is it found in Africa south of Sahara. On Capri it occurs on migration during spring and autumn. The first Icterine Warblers appear in the end of April, but the migration peaks first around 20 May. At this time it is one of the most common passerines on Capri. The total ringing figure exceeds 14000 birds. Only 16 have been recovered, mostly in eastern and central Europe and Fennoscandia.



Recoveries of birds ringed on Capri



Wing-length, weight and fat classes springs 1986-90

Wing-length

Before			Median-day			After		
N	Mean	SD	N	Mean	SD	N	Mean	SD
1717	80,1	2,5				1426	79,5	2,3

Weight

1711	11,8	1,4	1428	12,0	1,7
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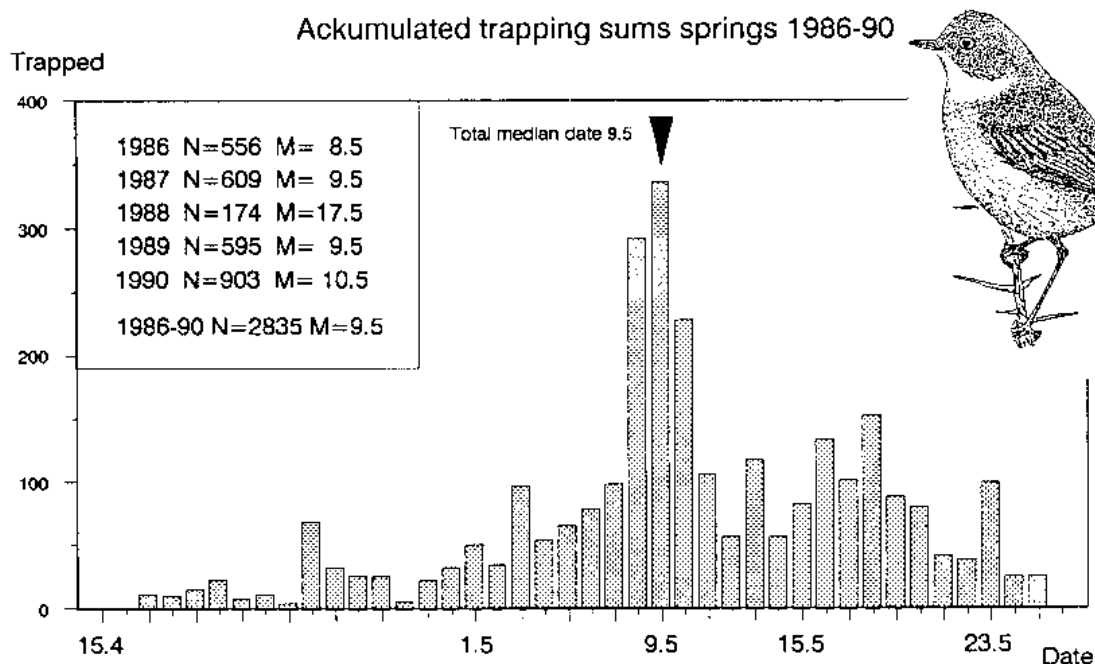
Fat

1688	2,9	1,3	1428	3,1	1,4
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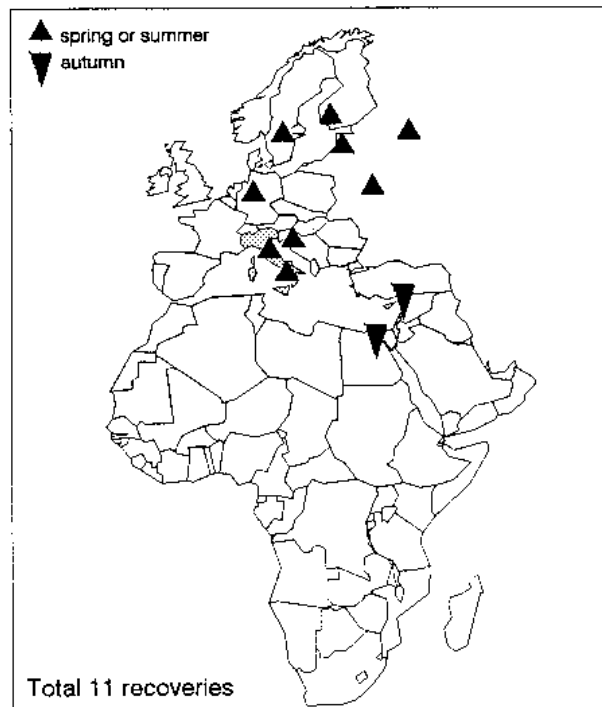
COMMON WHITETHROAT *Sylvia communis* STERPAZZOLA

Breeds from the Mediterranean (including North Africa, Asia Minor and parts of the Middle East) northwards to central Scandinavia, the White Sea and eastwards from there. Its winter quarters lie in the drier savannas and forests, of West Africa (mainly north of 10 N), and in eastern and southern Central Africa.

The spring passage on Capri takes place in May, usually culminating before the middle of the month. Around 13000 Whitethroats have been ringed there, but only 11 have been recovered. Of these the breeding time recoveries (6) come from Germany, Sweden, Finland, Estonia and Russia, three migration period ones from Italy one from Yugoslavia and one from Egypt. The status of a February recovery from Syria is uncertain.

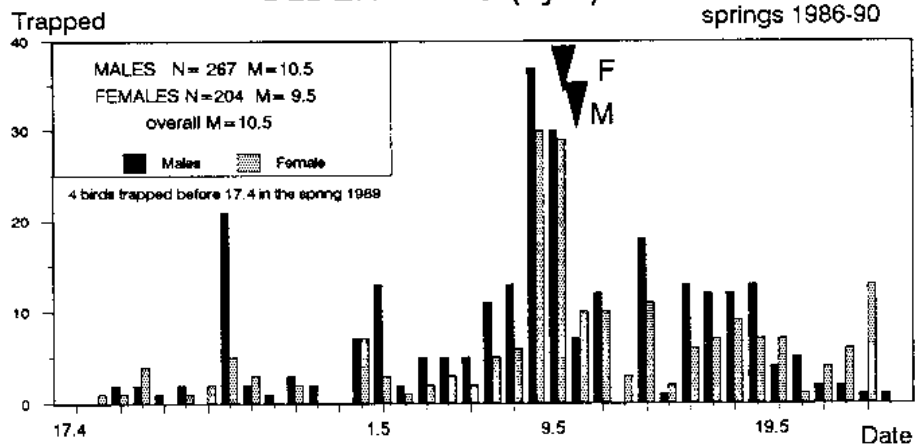


Recoveries of Common Whitethroats ringed on Capri

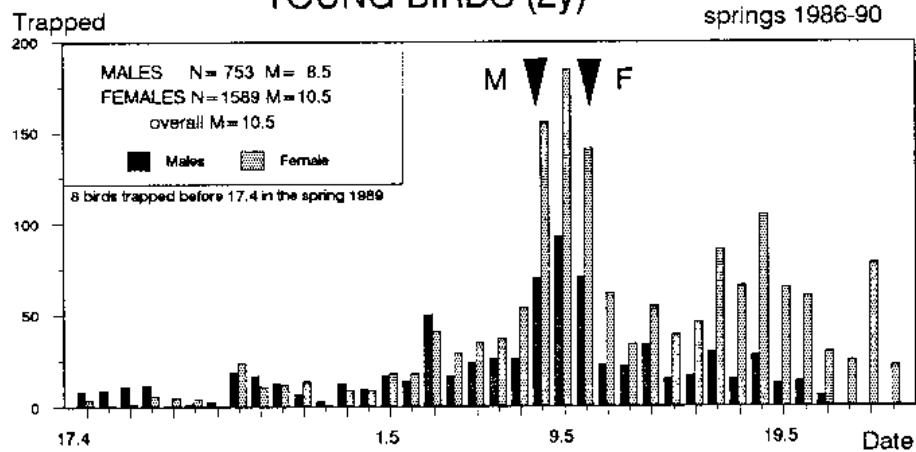


Trapping sums in different age and sex groups

OLDER BIRDS (3y+)



YOUNG BIRDS (2y)



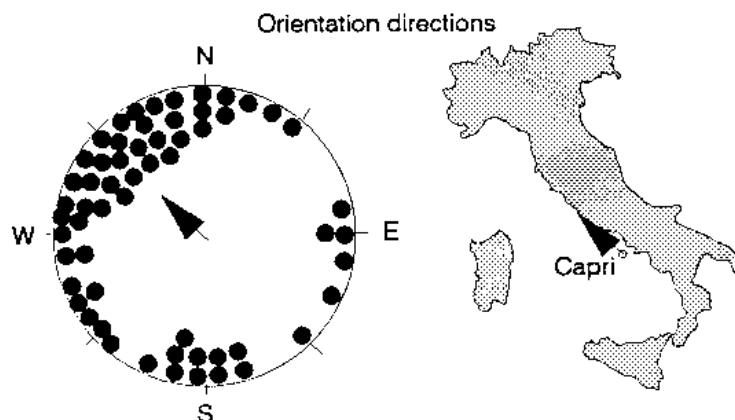
Wing-length, weight and fat classes springs 1986-90

		Wing-length					
		Before		Median-day	After		
Young 2y	Males	N	Mean	SD	N	Mean	SD
		421	75,0	1,9	357	74,5	1,8
Older 3y+	Females	912	73,2	1,7	671	72,9	1,8
Older 3y+	Males	153	75,3	2,0	111	74,8	1,8
	Females	111	73,3	1,6	93	73,3	1,7

		Weight					
Young 2y	Males	420	13,8	1,8	351	13,7	1,9
	Females	928	13,5	1,9	651	13,3	1,9
Older 3y+	Males	152	13,7	1,8	112	13,7	1,9
	Females	113	13,6	1,8	82	13,3	2,0

		Fat					
Young 2y	Males	421	3,9	1,4	347	3,8	1,5
	Females	929	3,6	1,5	642	3,7	1,4
Older 3y+	Males	152	3,8	1,6	113	4,0	1,7
	Females	111	3,8	1,6	92	3,4	1,4

Orientation-test in Emlen-funnels after sunset. The tests have been made in springs 1987-90. The mean vector from 59 birds is 315° and $r=0,39$.

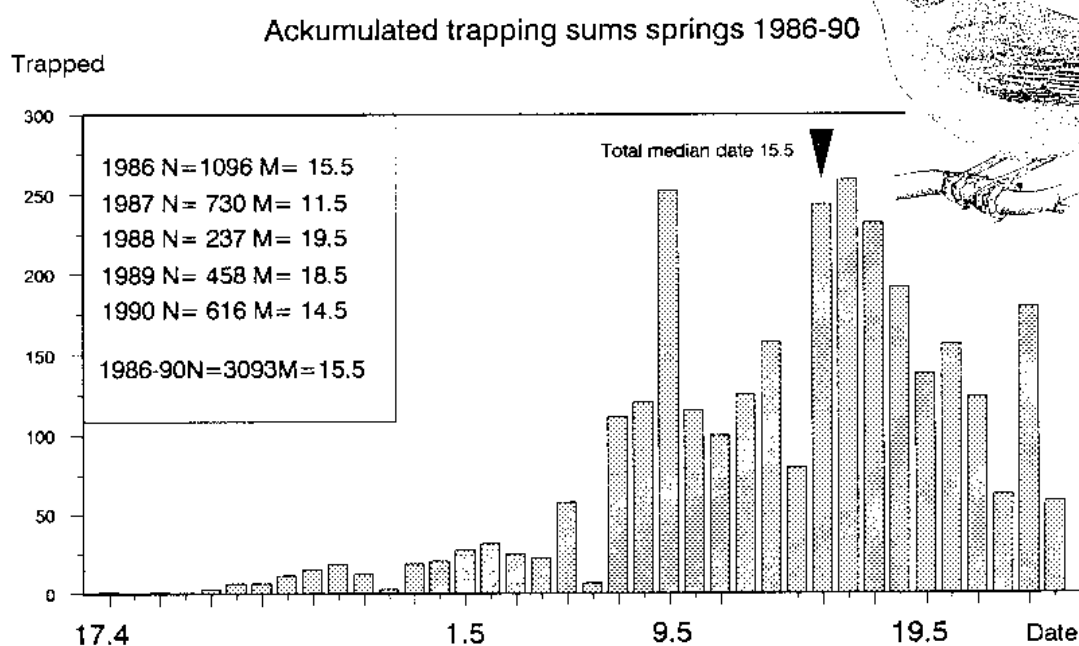




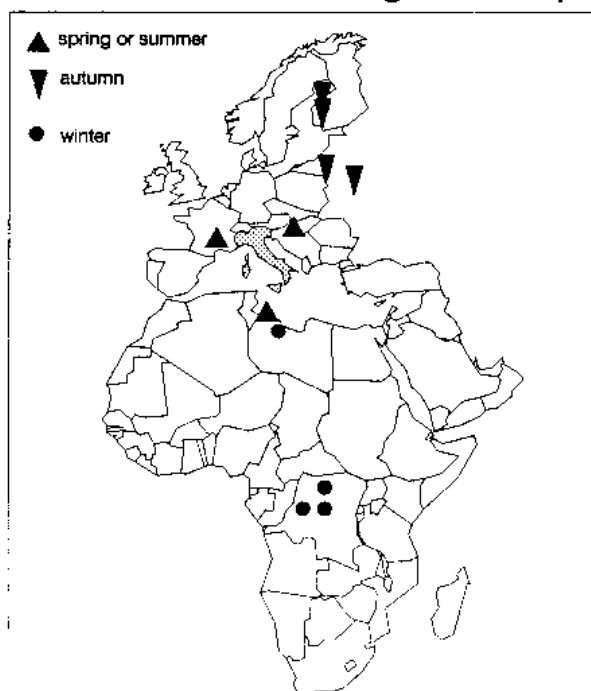
GARDEN WARBLER *Sylvia borin* BECCAFICO

This species has a breeding area which starts just north of the Mediterranean (and includes northernmost Italy), and reaches northwards to the Arctic Ocean in Norway, to the White Sea in Russia and southeastwards from there. The winter quarters lie in the wetter parts of West Africa, and in the central and southern parts of that continent.

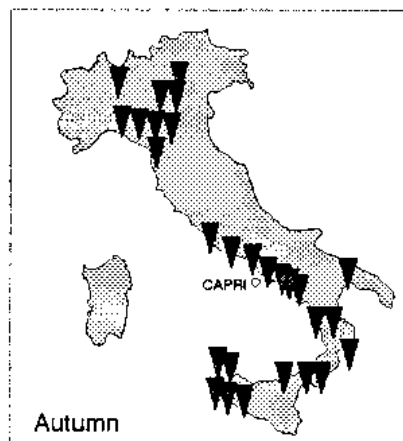
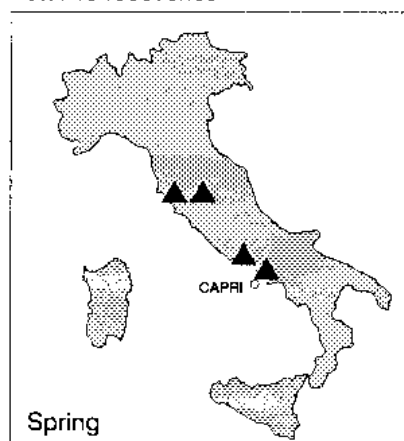
The spring passage on Capri takes place in May, culminating in the later half of the month. Almost 18000 Garden Warblers have been ringed there, and 43 of them recovered until 1990. Breeding time recoveries (3) come from Finland, Lithuania and Belorussia, and the migration period records from Italy (19), Hungary (1) and Libya (2). To this come (3) recoveries from the winter quarters, all from Congo and Zaire.



Recoveries of birds ringed on Capri



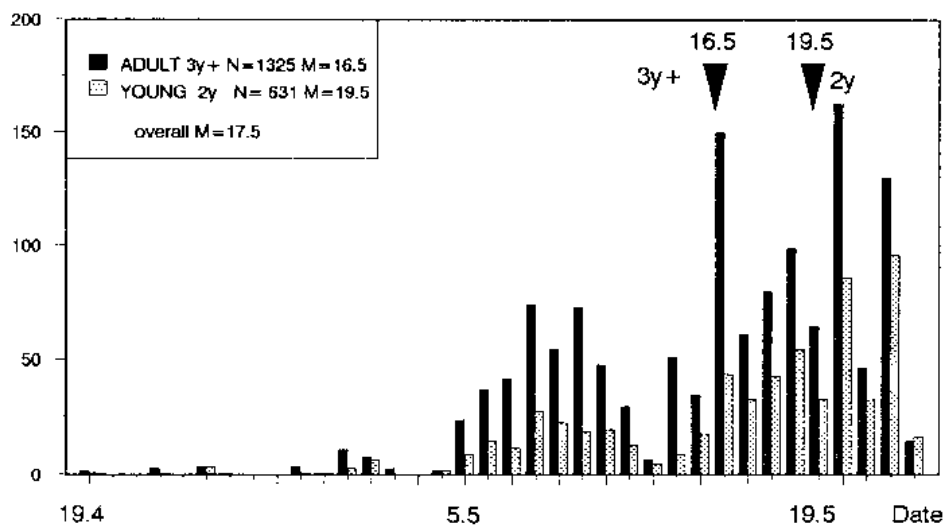
Total 43 recoveries



Trapping sums in springs 1987-90 for younger and older birds

Trapped

springs 1987-90



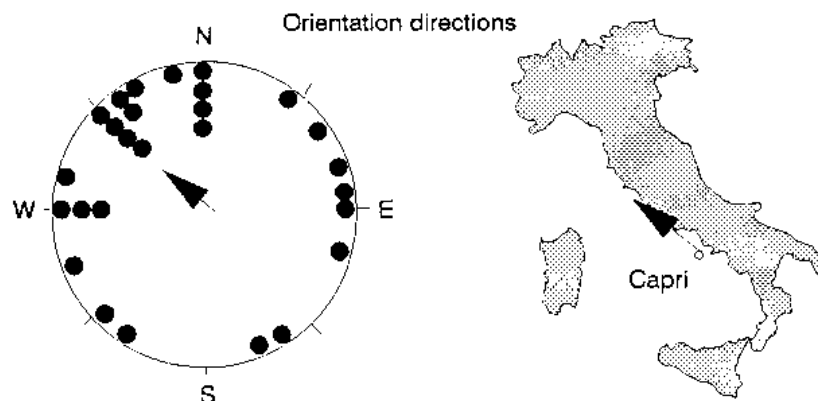
Wing-length, weight and fat classes springs 1986-90

	Wing-length					
	Before		Median-day		After	
Young 2y	N	Mean	SD	N	Mean	SD
Young	489	81,1	2,1	529	80,7	2,2
Older 3y+	N	Mean	SD	N	Mean	SD
Old	136	80,9	2,1	128	80,6	2,0

Weight						
Young 2y	N	Mean	SD	N	Mean	SD
Young	487	15,5	1,8	530	15,4	1,6
Older 3y+	N	Mean	SD	N	Mean	SD
Old	135	15,7	1,6	128	15,9	1,5

Fat						
Young 2y	N	Mean	SD	N	Mean	SD
Young	489	2,7	1,5	531	2,7	1,5
Older 3y+	N	Mean	SD	N	Mean	SD
Old	136	2,9	1,7	128	3,0	1,7

Orientation-test in Emlen-funnel after sunset.
The tests have been made in the springs 1987-90.
The mean vector from 27 birds is 318° and $r=0,32$.

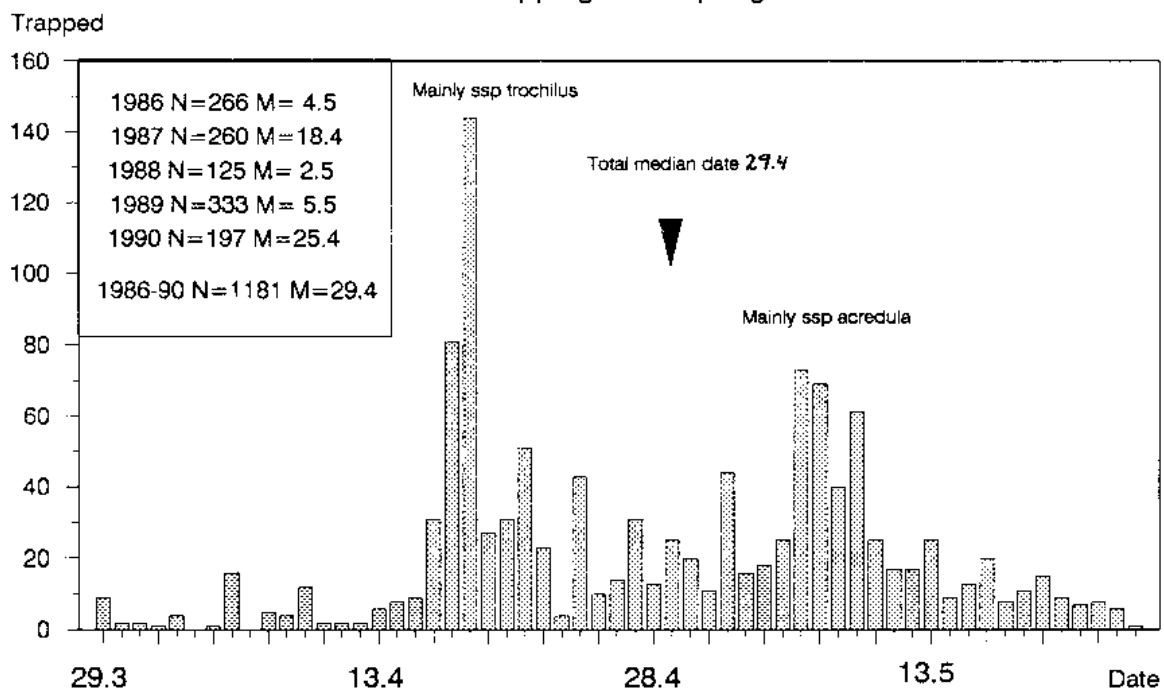


WILLOW WARBLER *Phylloscopus trochilus*

LUI GROSSO

The Willow Warbler is very common in northern Europe but in Italy it breeds only in the very northern part. The wintering areas are in tropical Africa. During migration it passes Capri. It is most common in April and until the middle of May. The nominate race passes Capri on average 20 days earlier than the northern subspecies *acredula*. More than 5000 have been ringed and 7 recoveries exist, including 3 in Sweden. One of these was ringed on Capri 5 May 1983 and controlled on Gotland, Sweden 9 days later !

Accumulated trapping sums springs 1986-90



Wing-length, weight and fat classes springs 1986-90

Wing-length

Before			Median-day			After		
N	Mean	SD	N	Mean	SD	N	Mean	SD
557	67,6	1,9	562	65,8	2,1			

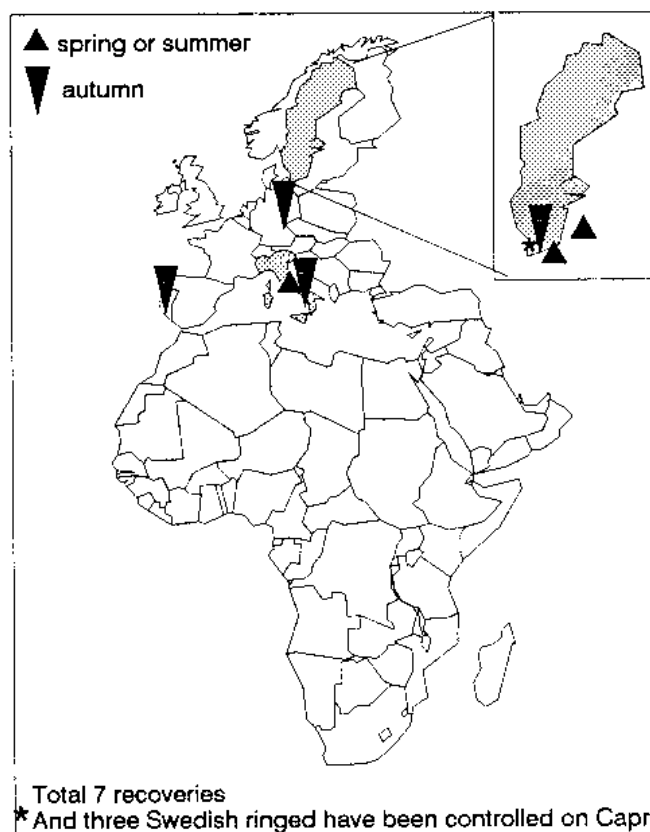
Weight

554	8,4	1,5	558	8,0	1,7
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Fat

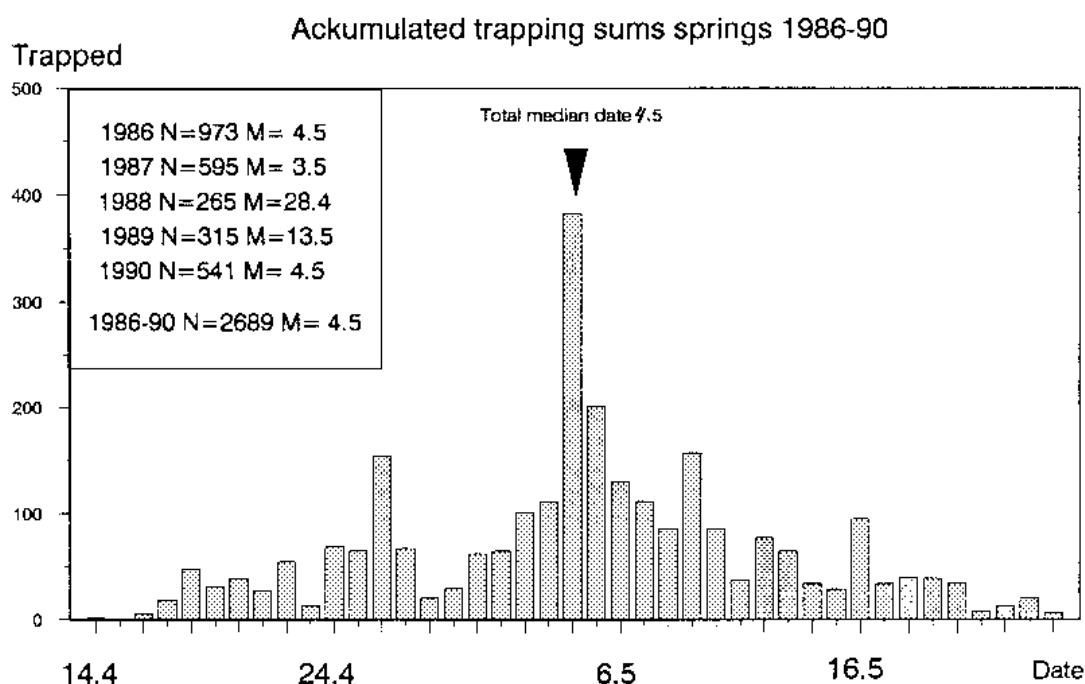
591	4,1	1,5	560	3,7	1,7
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Recoveries of birds ringed on Capri



WOOD WARBLER *Phylloscopus sibilatrix* LUI VERDE

This species has a wide breeding range in Europe except for the Iberian peninsula. In Italy it breeds in deciduous forests. It is a trans-Sahara migrant and the wintering areas lie just north of the equator. On Capri it is common during April and early May. All together 8163 birds had been ringed including 1990. There are only 2 recoveries of which 1 in Sweden.



Wing-length, weight and fat classes springs 1986-90

Wing-length

Before			Median-day			After		
N	Mean	SD	N	Mean	SD	N	Mean	SD
1307	76,7	2,1	1362	75,6	2,2			

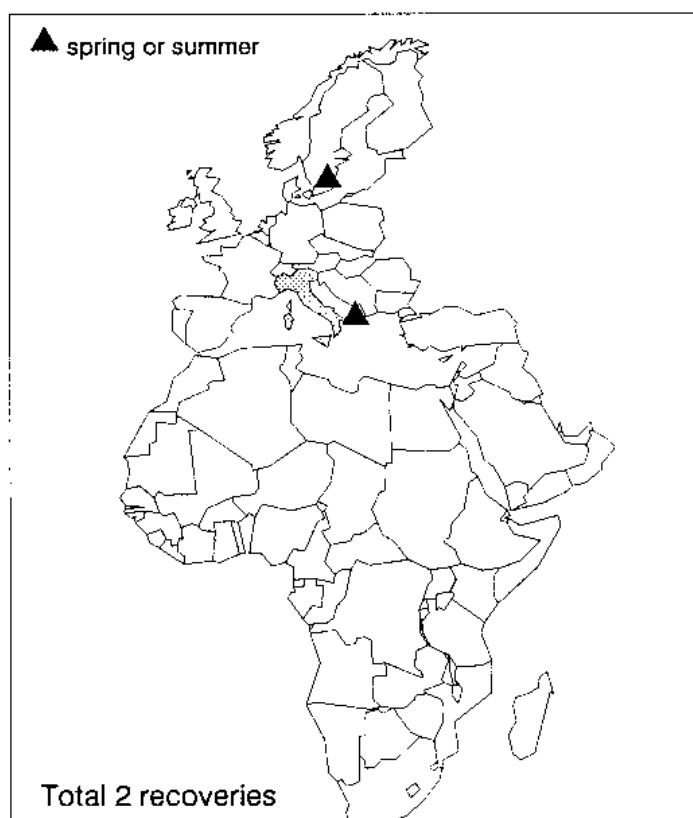
Weight

1112	8,2	1,7	1361	8,1	1,6
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Fat

1113	2,6	2,0	1266	2,7	2,0
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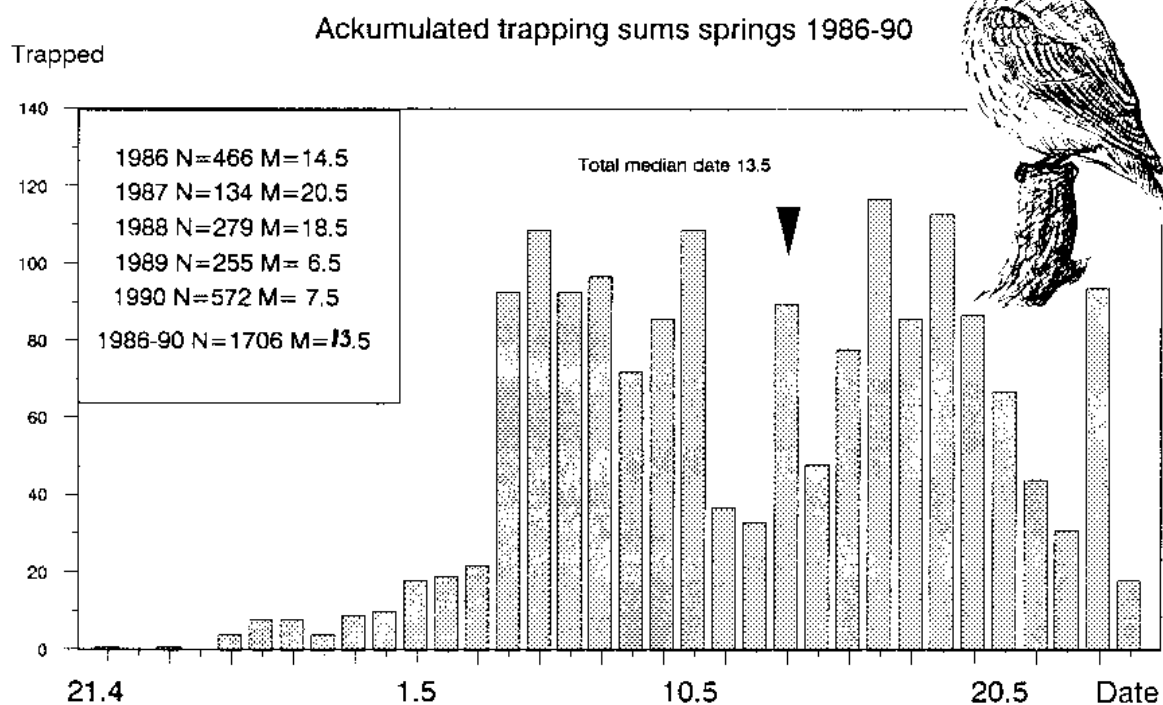
Recoveries of birds ringed on Capri



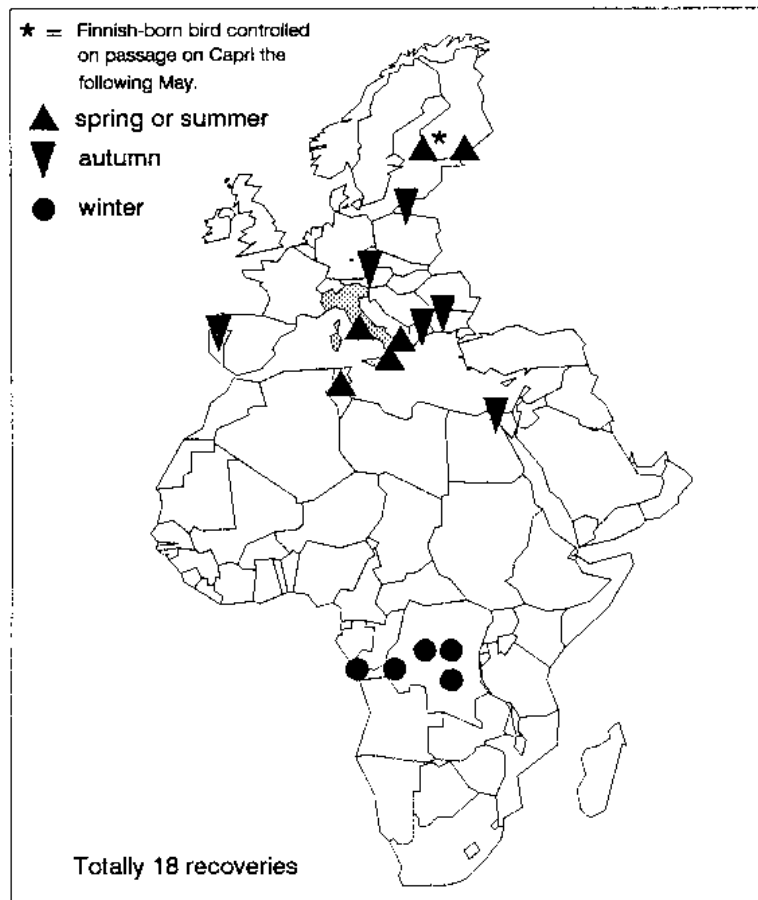
SPOTTED FLYCATCHER *Muscicapa striata* PIGLIAMOSCHE

Breeds from the Mediterranean (including North Africa and parts of Asia Minor and the Middle East) northwards to the Arctic Ocean. The winter quarters are central and southern Africa.

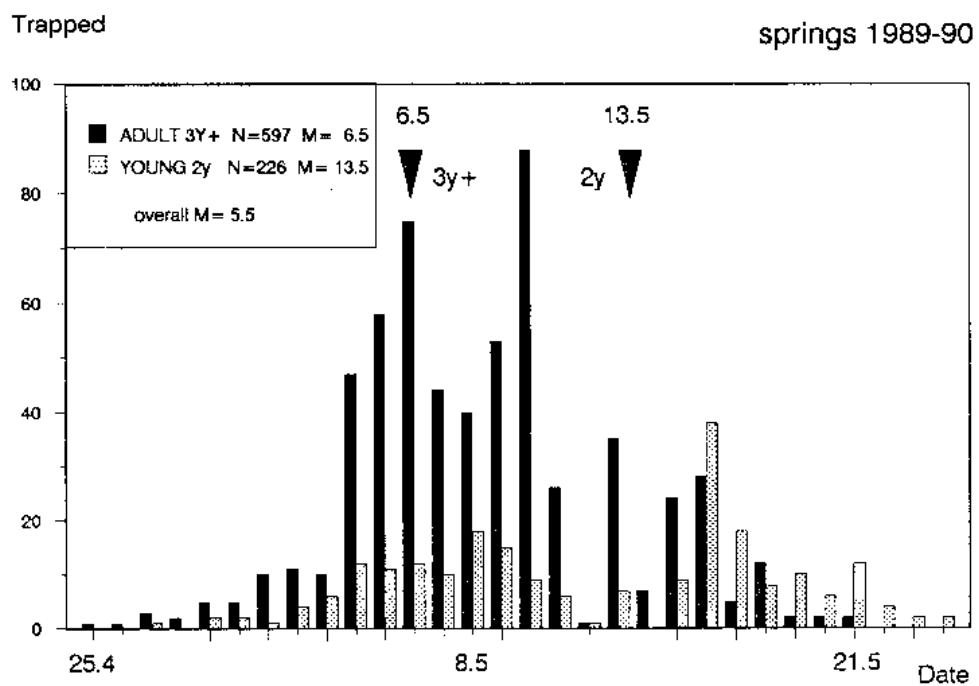
The spring passage on Capri takes place in May, culminating in the middle of the month. Around 10 000 Spotted Flycatchers have been ringed, but only 18 of these recovered. Of the 4 undisputable breeding time recoveries 3 come from Finland, and one from the Soviet Union, whereas one recovery from Bulgaria in early August could be a migrating bird. Migration period recoveries otherwise come from Portugal, Italy, Yugoslavia, Greece, Egypt and Tunisia - and there are 5 winter quarter recoveries, all from Congo and Zaire.



Recoveries of Spotted Flycatchers ringed on Capri



Trapping sums in springs 1989-90 for younger and older birds



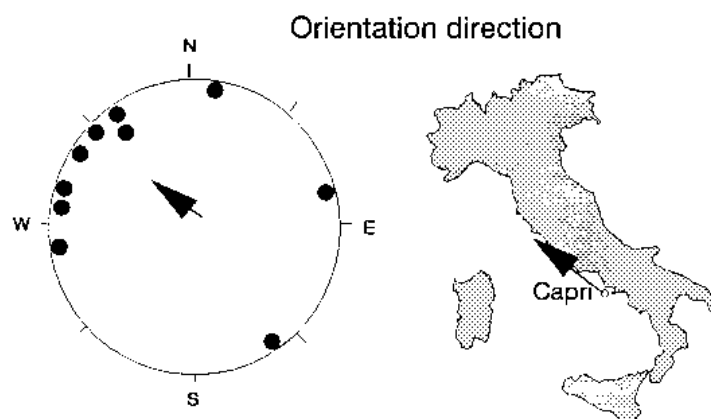
Wing-length, weight and fat classes springs 1989-90

		Wing-length					
		Before		Median-day		After	
Young 2y	Young	N	Mean	SD	N	Mean	SD
		392	89,1	1,8	268	88,6	1,8
Older 3y+	Old	N	Mean	SD	N	Mean	SD
		60	89,6	1,9	43	89,1	2,1

		Weight					
Young 2y	Young	N	Mean	SD	N	Mean	SD
		388	13,3	1,5	267	13,4	1,8
Older 3y+	Old	N	Mean	SD	N	Mean	SD
		60	13,3	1,6	43	13,6	2,1

		Fat					
Young 2y	Young	N	Mean	SD	N	Mean	SD
		381	2,4	1,4	268	2,5	1,4
Older 3y+	Old	N	Mean	SD	N	Mean	SD
		60	2,3	1,4	43	2,7	1,9

Orientation-test in Emlen-funnels after sunset. The tests have been made in the springs 1987-90. The mean vector from 10 birds is 315° and $r=0,38$.

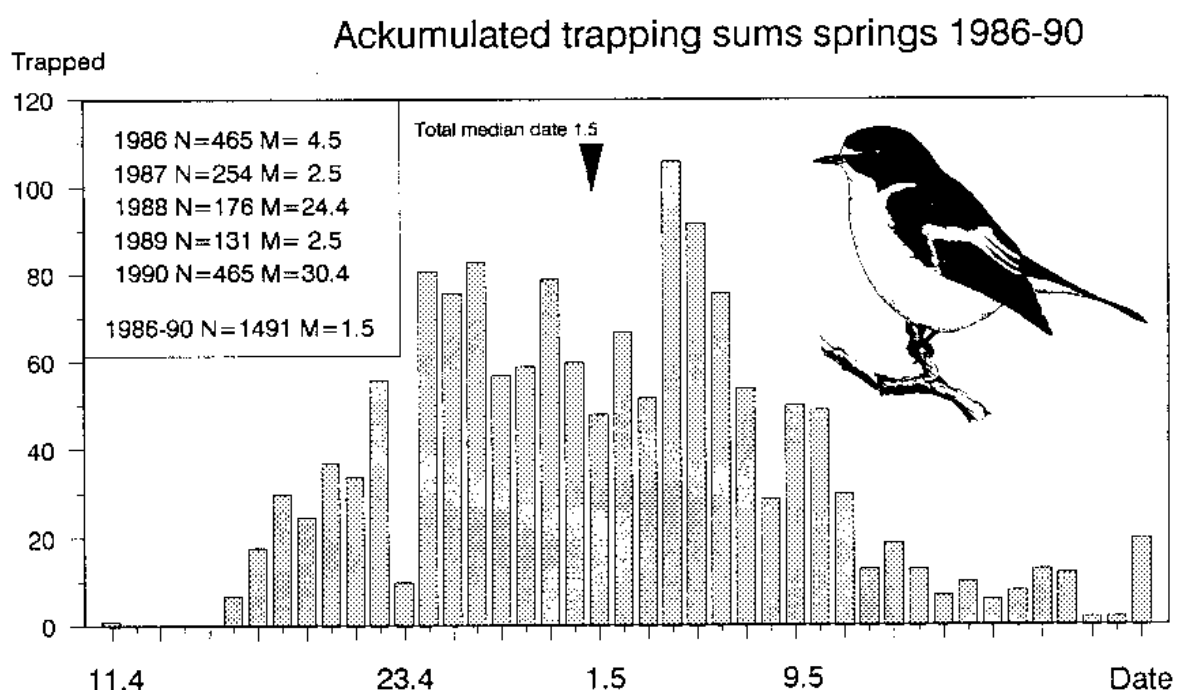




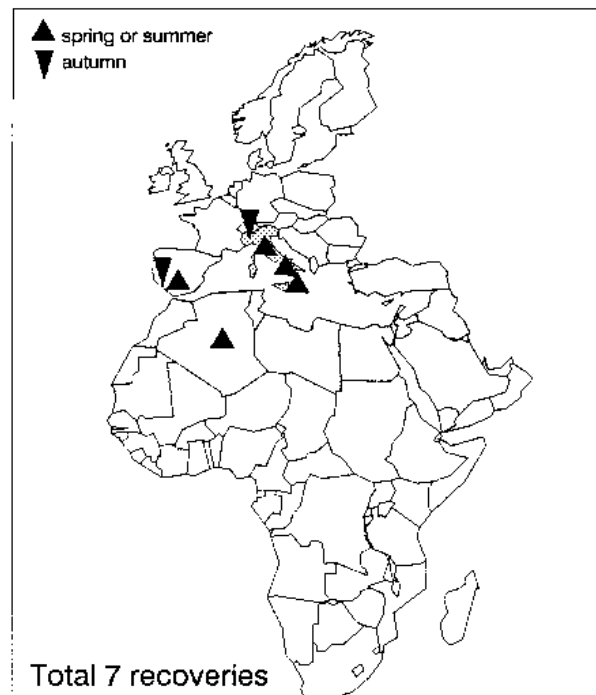
PIED FLYCATCHER *Ficedula hypoleuca* BALIA NERA

The Pied Flycatcher does not breed in Italy but is very common in central and northern Europe. There is also a population in Spain. The wintering areas are mainly in western tropical Africa.

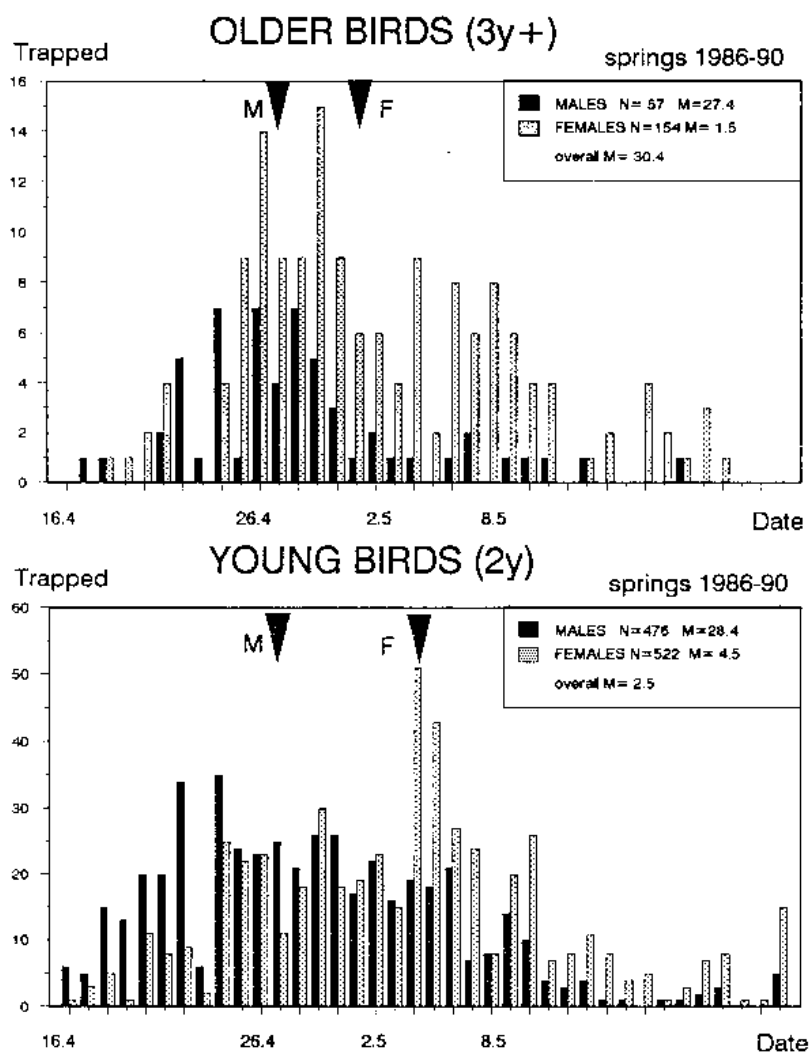
During spring the first individuals are seen on Capri in early April and in the beginning of May. It is one of the most common passerines resting in the gardens. Almost 6000 Pied Flycatchers have been ringed, but only 7 recovered. Unfortunately there are no recoveries from tropical Africa or from Scandinavia.



Recoveries of birds ringed on Capri



Trapping sums of different age and sex groups



Wing-length, weight and fat classes springs 1986-90

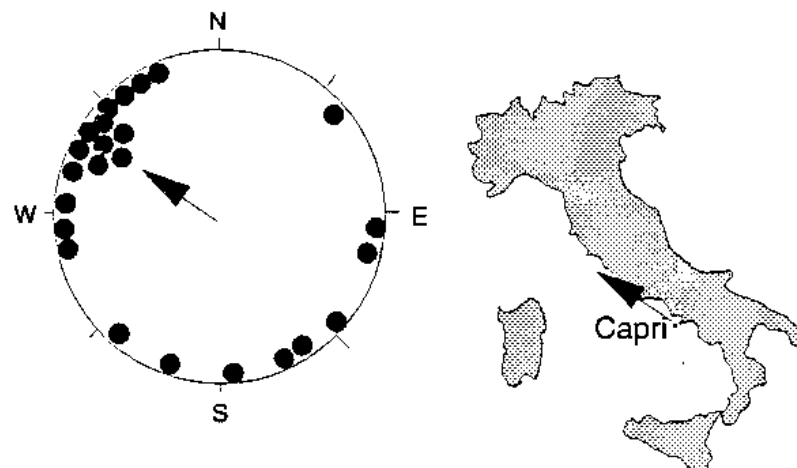
		Wing-length					
		Before			Median-day		
Young 2y	Males	N	Mean	SD	N	Mean	SD
		268	80,8	1,5	207	80,7	1,4
Older 3y+	Females	288	79,5	1,4	236	79,3	1,4
Older 3y+	Males	37	81,7	1,3	19	81,4	1,7
	Females	97	79,4	1,2	57	79,8	1,7

		Weight					
Young 2y	Males	268	11,4	1,5	205	11,2	1,4
	Females	287	11,0	1,9	235	10,8	1,9
Older 3y+	Males	37	11,5	1,7	19	11,6	1,6
	Females	97	11,1	1,8	57	10,8	1,6

		Fat					
Young 2y	Males	259	3,0	1,4	206	2,6	1,4
	Females	282	2,8	1,1	236	2,5	1,1
Older 3y+	Males	35	3,3	1,6	19	3,4	1,4
	Females	96	3,0	1,2	57	2,6	1,2

Orientation test in Emlen-funnels after sunset under clear skies.

The tests have been made in the springs 1987-90. The mean vector from 24 birds is 305° and $r=0,28$.

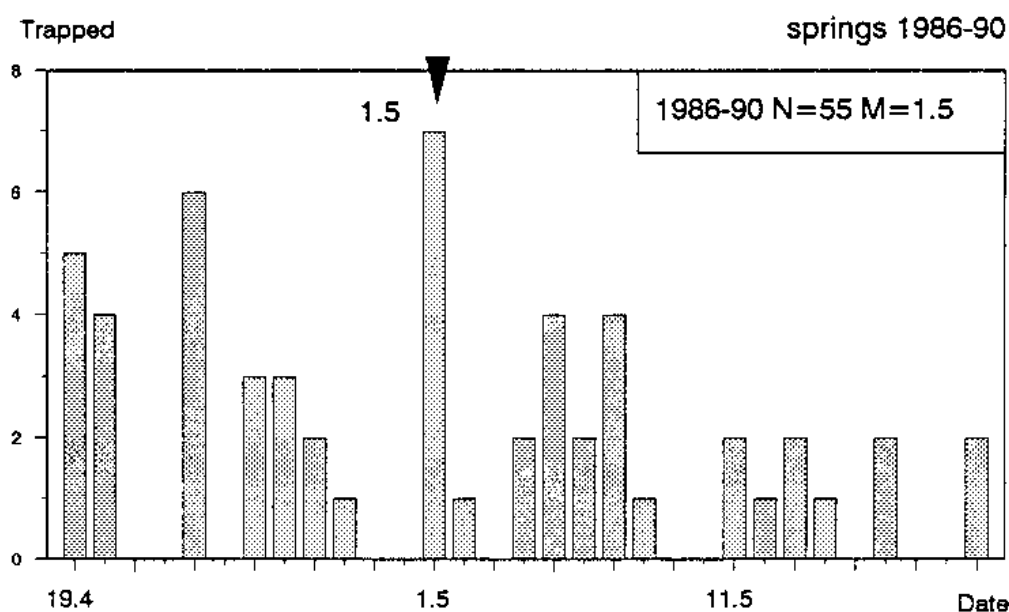


TURTLE DOVE *Streptopelia turtur*

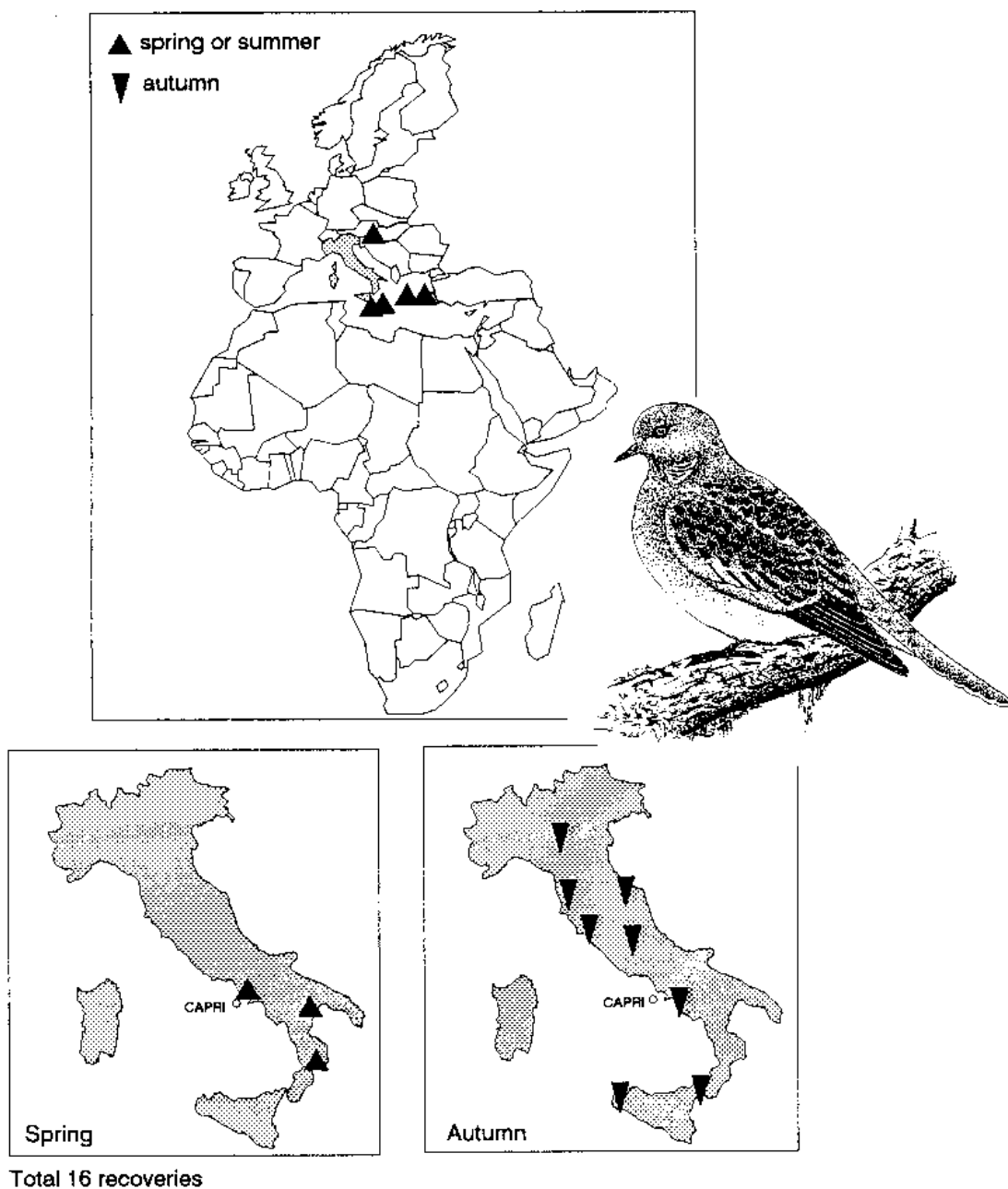
TORTORA

This is one of the most well known birds in Italy. The recovery rate is high, because it is a hunted species. The migration period in spring is short and intense around the last week in April and the beginning of May. The ringers working at Barbarossa count all shots they hear. The most intense periods for shooting are the days with Turtle Dove migration, with around one hundred shots per hour. The highest numbers of shots ever recorded was one hour with nearly 3000, which means almost one shot per second.

The recoveries indicate that the Turtle Doves which pass Capri breed in eastern and central Europe. Also the autumn migration seems to pass Italy. The winterquarters lie in Central Africa.

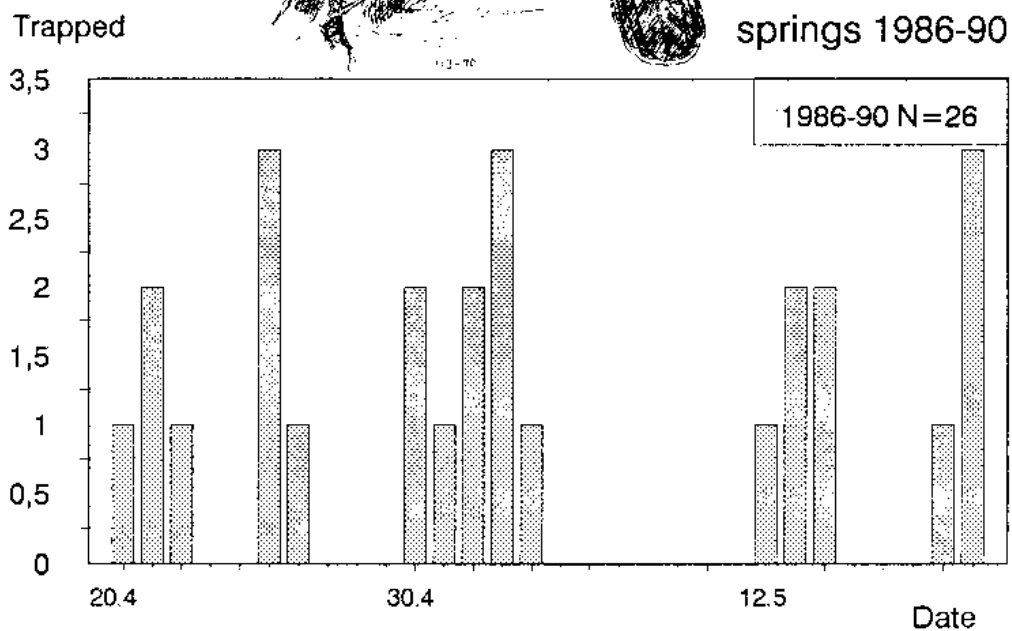
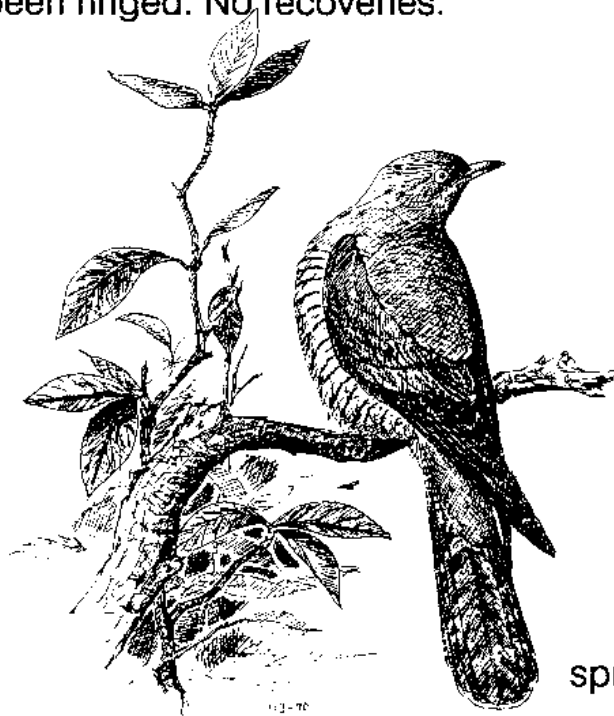


Recoveries of birds ringed on Capri

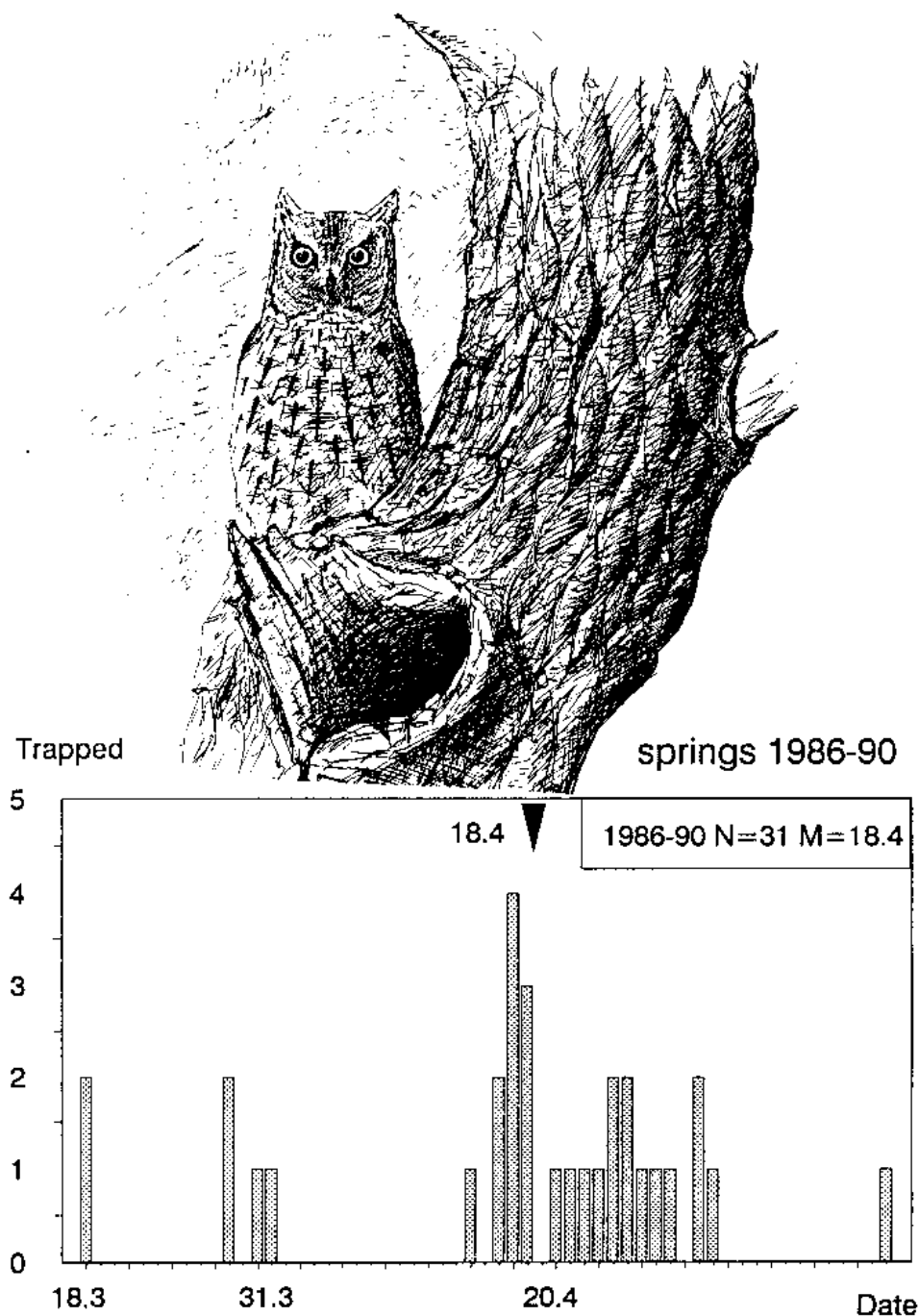


CUCKOO *Cuculus canorus* CUCULO

It breeds in the whole of Europe and northern Africa. The winter quarters are located in eastern and southern Africa. Its spring passage on Capri starts in early April and culminates around the beginning of May. Totally 89 birds have been ringed. No recoveries.



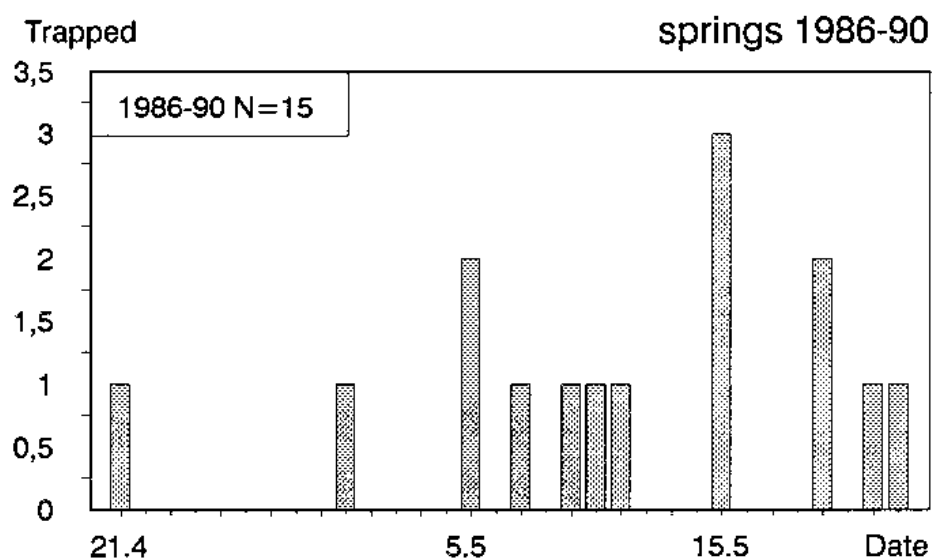
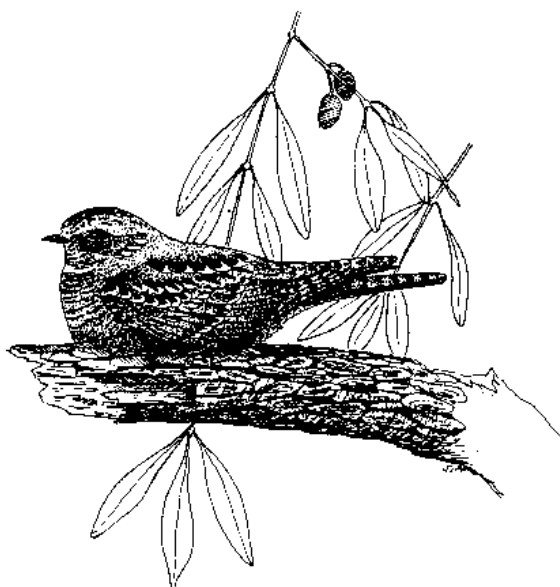
Common breeder in the Mediterranean area, also on Capri. The wintering areas are situated just south of the Sahara. 94 birds have been ringed and one recovery has been reported from Malta, plus one from Capri.



NIGHTJAR *Caprimulgus europaeus*

SUCCIACAPRE

A very well spread breeding bird throughout Europe, wintering south of the Sahara. The trapping peaks in the middle of May on Capri and could involve Scandinavian birds, as the arrival in Sweden is around the last days in May.

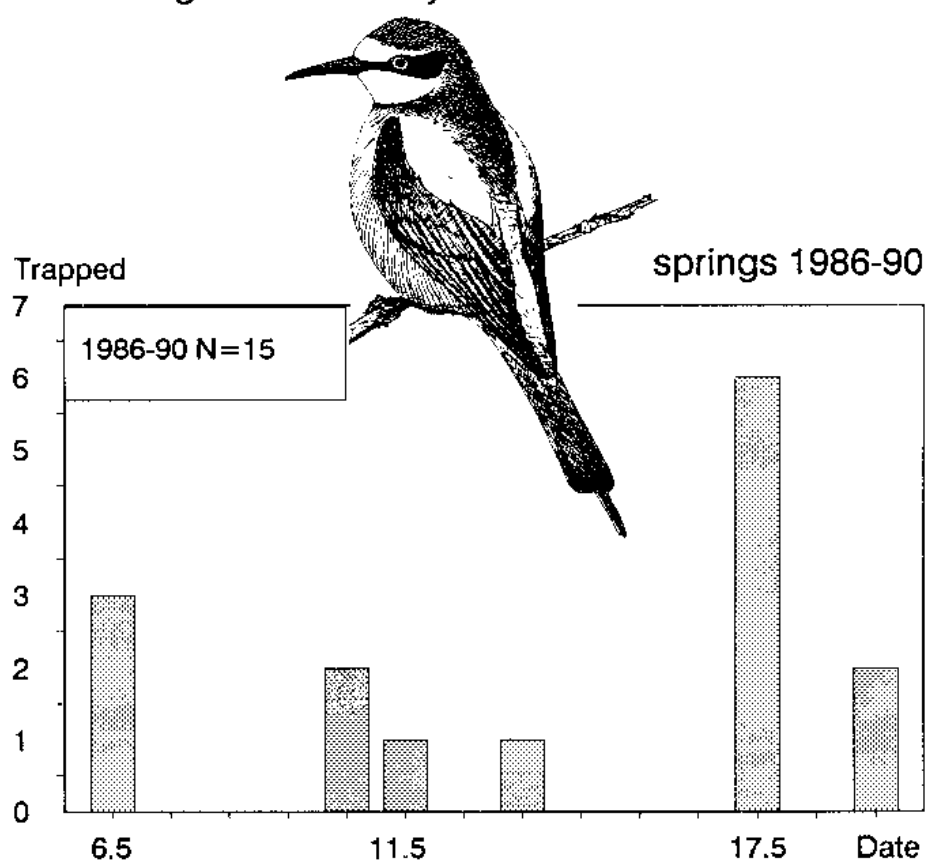




BEE-EATER *Merops apiaster* GRUCCIONE

Breeds in NW Africa, in the countries immediately north of the Mediterranean (including Italy), in Asia Minor and parts of the Middle East, and in a wide area west and north of the Black Sea. Winters mainly in the southern third of Africa, to some extent also in westernmost Africa.

The spring passage on Capri culminates in the first half of May. Although the Bee-eater is commonly seen on passage it is not so often trapped, and the grand total ringed including 1990 was only 30. No recoveries.



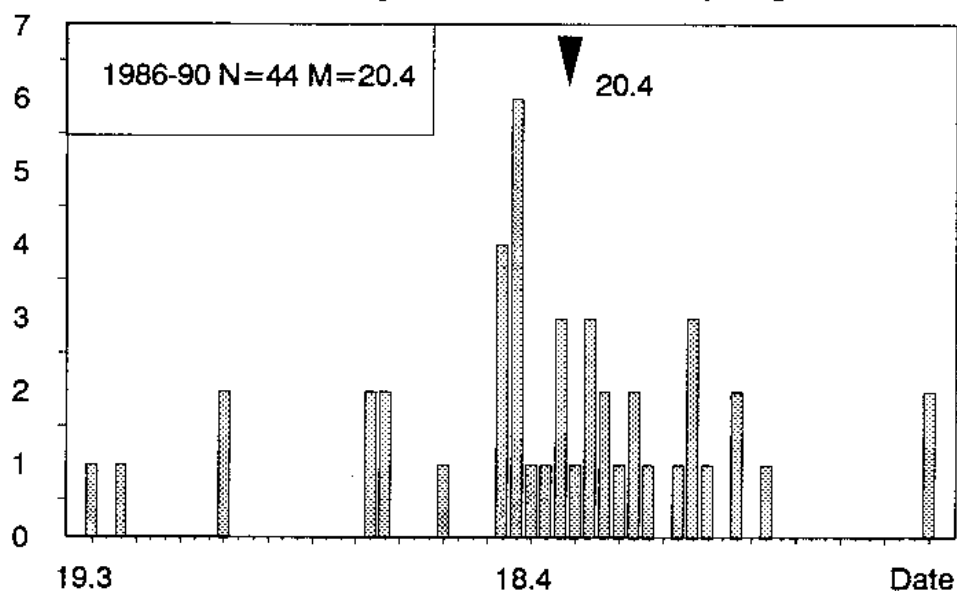
HOOPOE *Upupa epops* UPUPA

Breeds from the Mediterranean (including Italy) northwards to the Baltic Sea, and eastwards through the Soviet Union, Asia Minor and the Middle East. Winters from the southern Mediterranean down to West Africa and northern Central and East Africa. Spring passage on Capri in March and April, mainly April, with 159 ringed as to 1990 and with one recovery from Italy.



Trapped

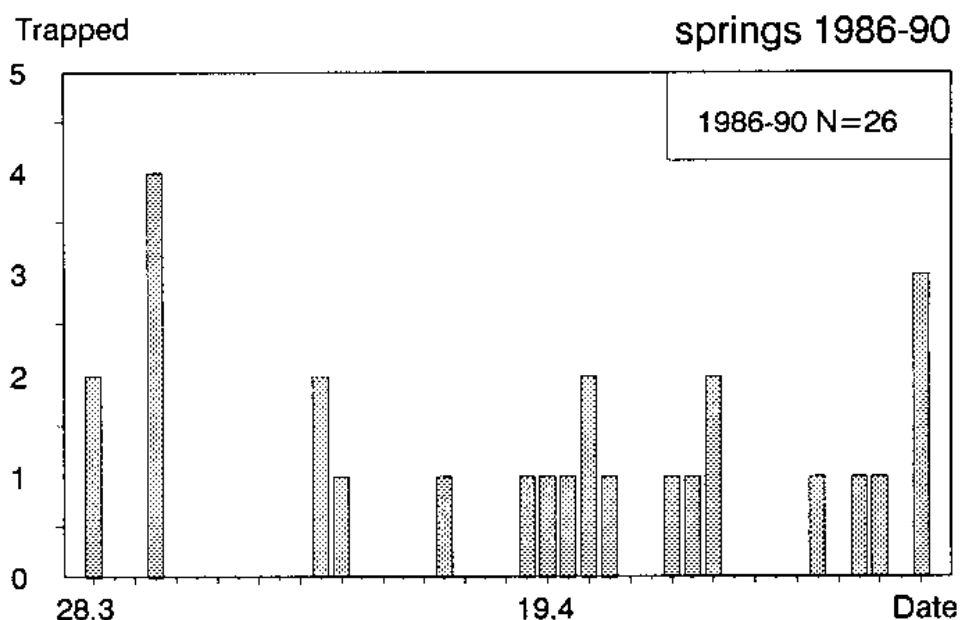
springs 1986-90





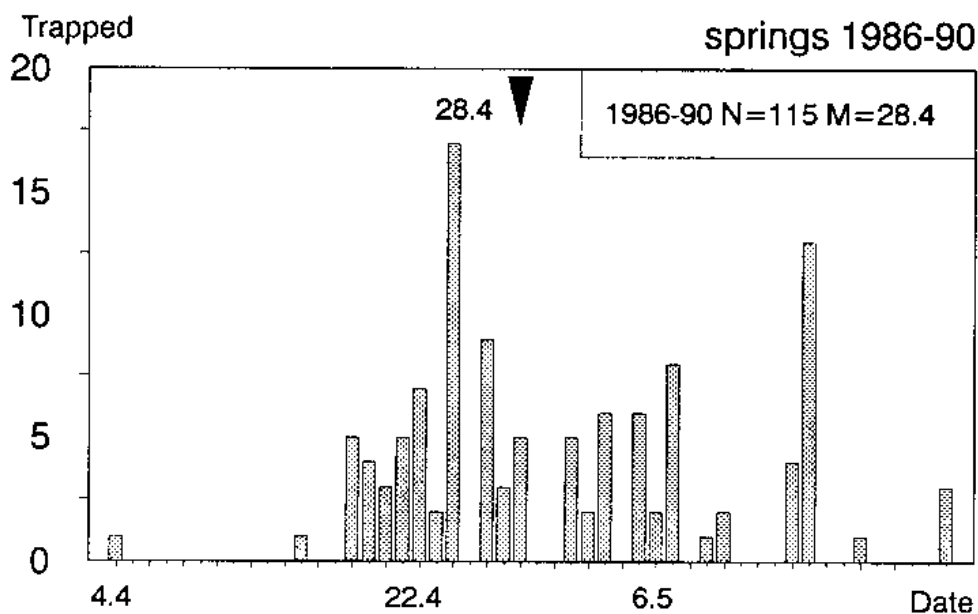
WRYNECK *Jynx torquilla* TORCICOLLO

A bird which breeds in nearly all of Europe and winters in North Africa or just south of the Sahara. However, some birds winter in southern Italy and perhaps even on Capri, but these are perhaps from the South European breeding populations ? The migrating Wrynecks pass Capri mainly in April. Including 1990 168 had been ringed, and there is one recovery from the Soviet Union.

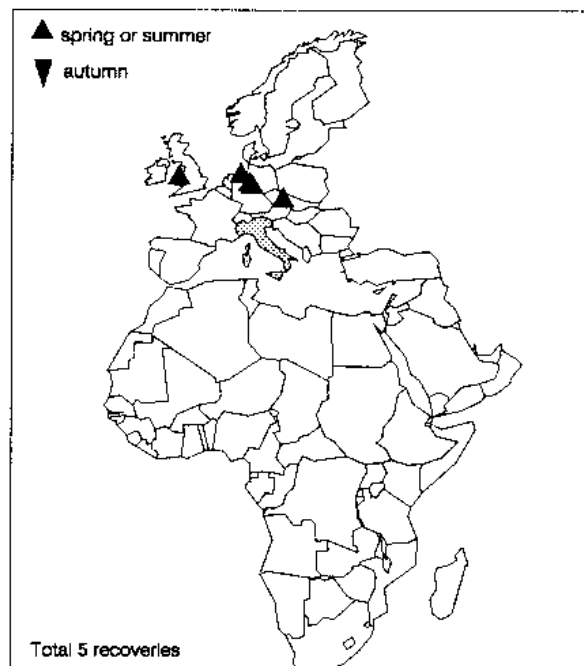


SWALLOW *Hirundo rustica* RONDINE

The breeding and wintering area resembles that of the House Martin. During some days in early May, thousands of Swallows and House Martins pass Capri. 1241 Swallows have been ringed including 1990 and 5 there are recoveries.



Recoveries of birds ringed on Capri

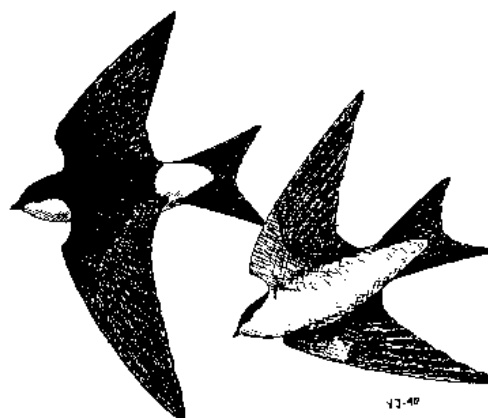




HOUSE MARTIN *Delichon urbica*

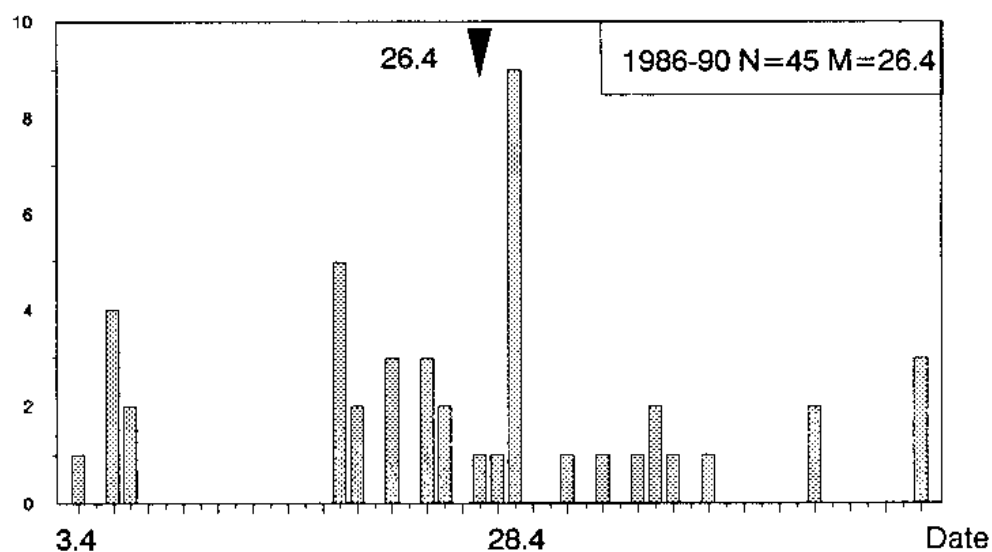
BALESTRUCCIO

Breeds all over Europe. During winter it is found in all Africa south of the Sahara. Very common on Capri during spring migration. Totally 685 birds ringed and 2 recoveries - from Norway and Poland.



Trapped

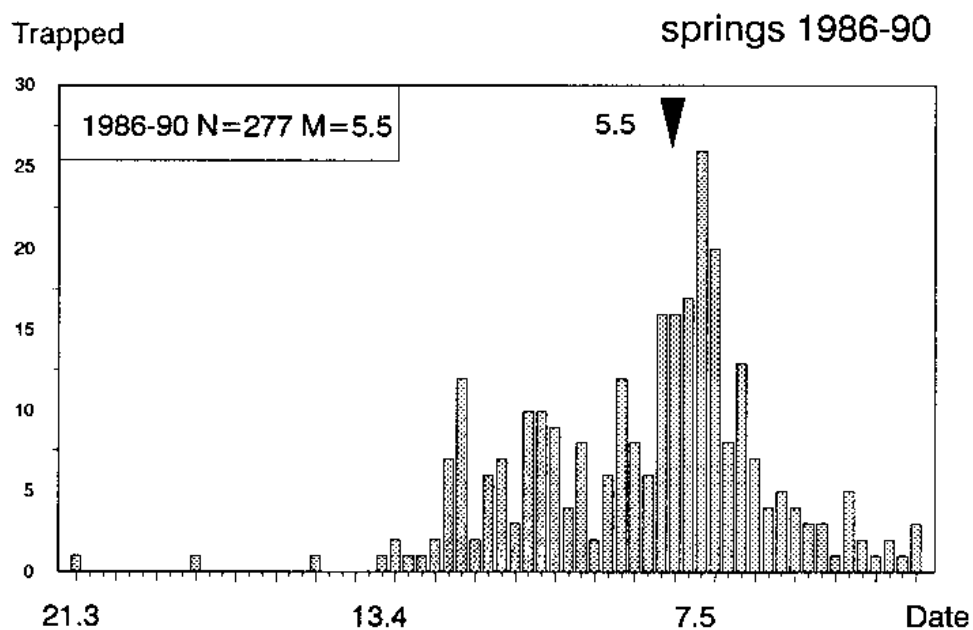
springs 1986-90



TREE PIPIT *Anthus trivialis*

PRISPOLONE

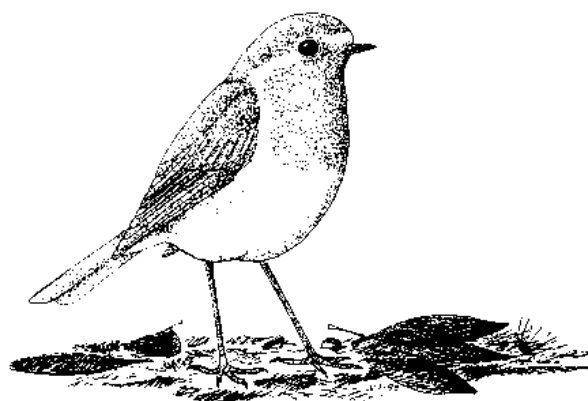
Breeds from the northern shores of the Mediterranean (including Italy) and northern Asia Minor up to the tree line in northern Scandinavia. Winters in West Africa around 10° N and in East and Central Africa to south of the Zambesi. Spring passage on Capri in April and early May with 673 ringed as to 1990, but no recoveries.





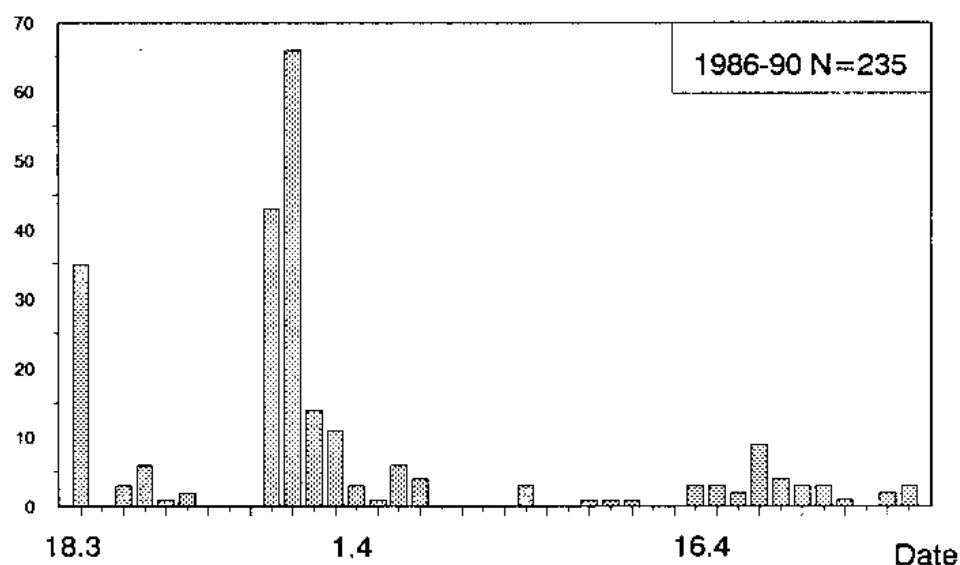
ROBIN *Erithacus rubecula* PETTIROSSO

The spring migration seems to have passed Capri in the last days of March. The autumn arrival takes place in the middle of October. A lot of Robins spend the winter on Capri but probably also birds on the way south to and north from the winter areas in Sicily, Tunisia and Algeria come this way. Including 1990 a total of 1413 Robin have been ringed, resulting in 4 recoveries.

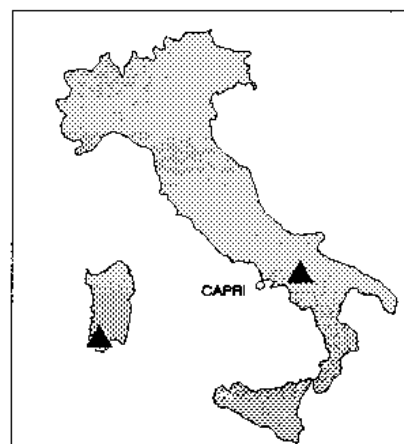
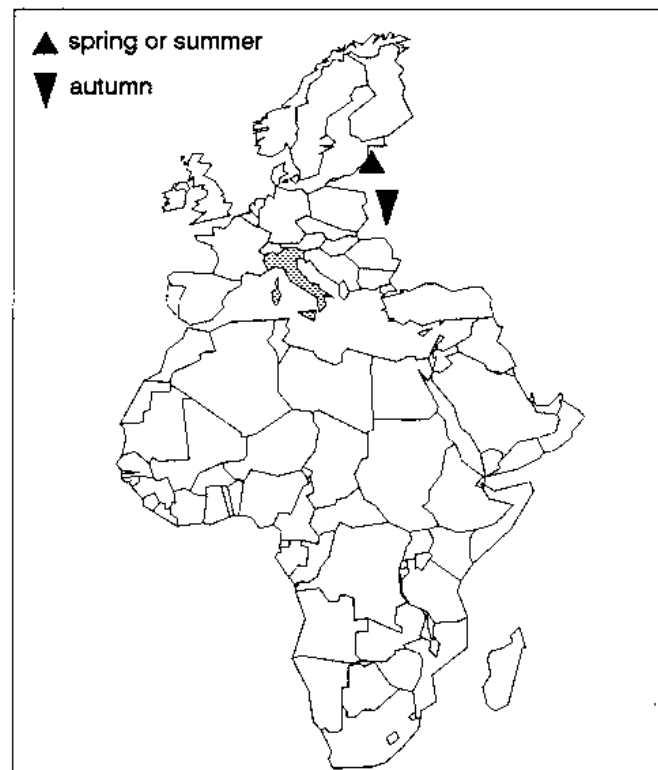


Trapped

springs 1986-90



Recoveries of birds ringed on Capri



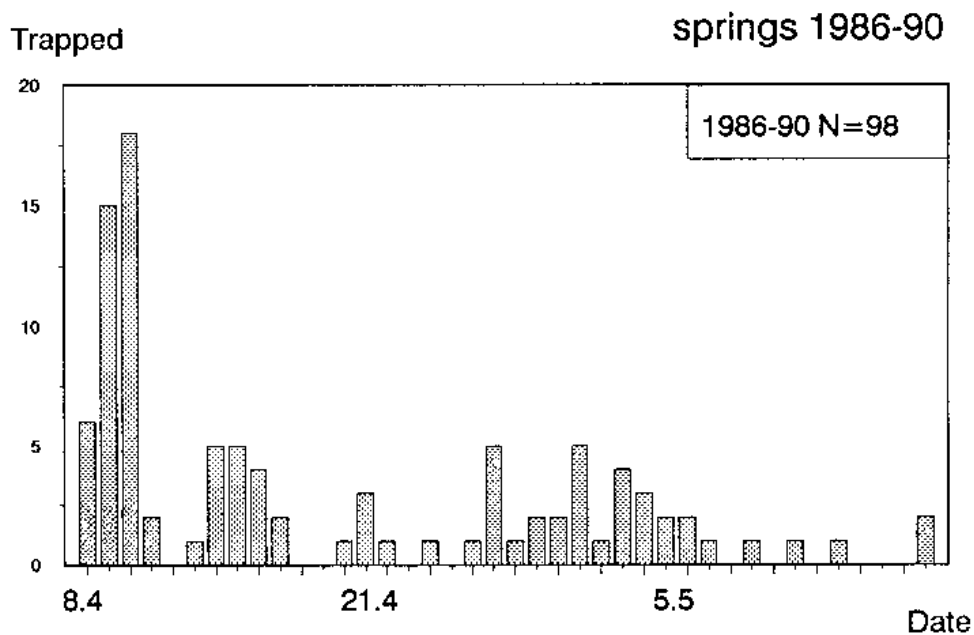
Totally 4 recoveries



NIGHTINGALE *Luscinia megarhynchos*

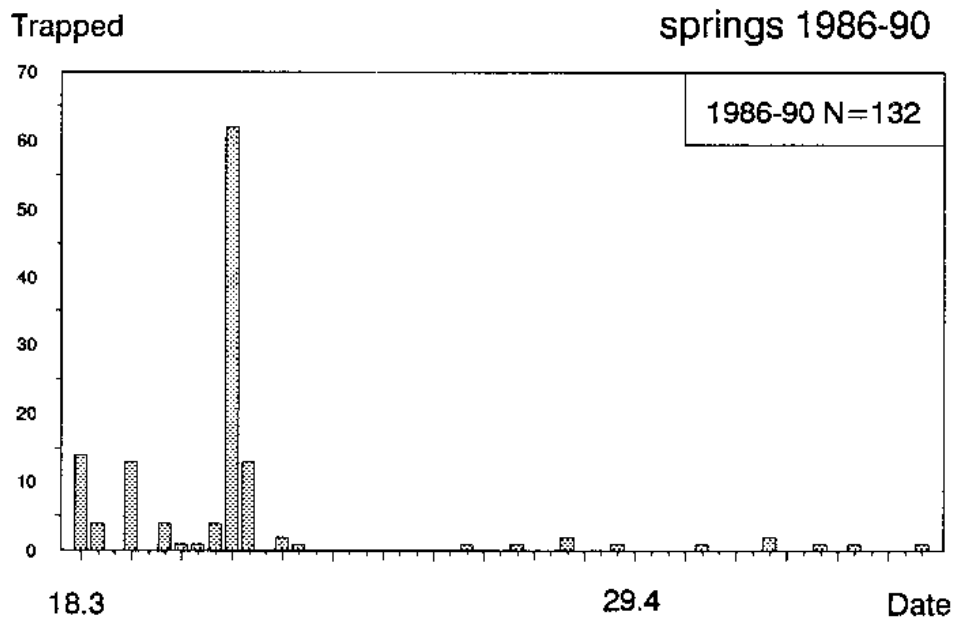
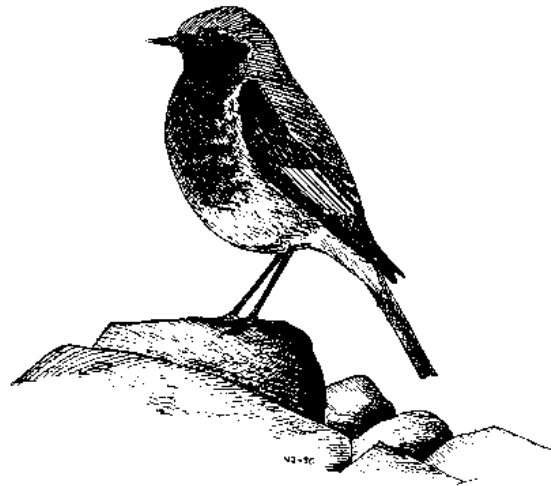
USIGNOLO

Breeds in western, central and southern Europe, also on Capri.
Winters south of the Sahara. Quite common at the beginning
of April into early May. Including 1990 563 have been ringed.
No recoveries.



BLACK REDSTART *Phoenicurus ochruros* CODIROSSO SPAZZACAMINO

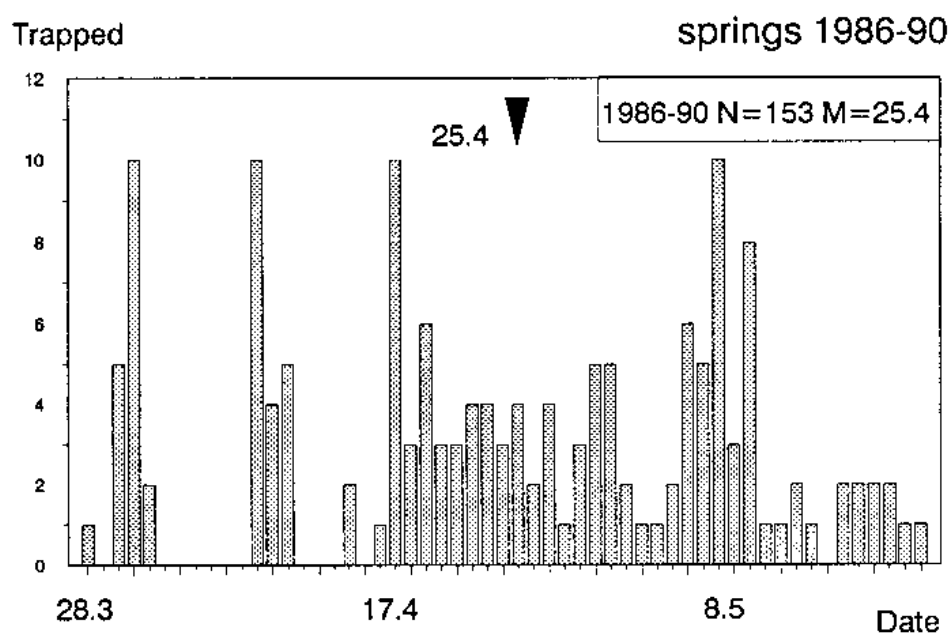
Common breeder in western, central and southern Europe. On Capri it is seen most frequently in March. 215 birds have been ringed up to and including 1990 and there is one recovery from Italy.





BLACK-EARED WHEATEAR *Oenanthe hispanica* MONACHELLA

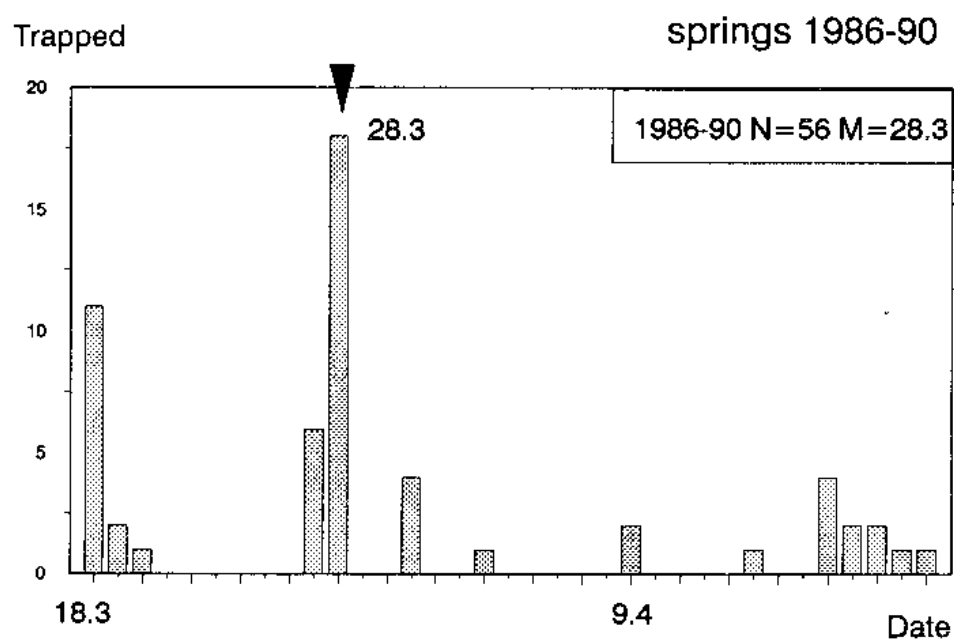
This species breeds over the whole Mediterranean area, but not north of the Alps. The breeding birds in southern Italy belongs to the eastern race *O.h.melanoleuca*, but also the western race *O.h.hispanica* occurs on Capri, mainly in the beginning of spring. But as there aren't two birds of this species which look alike it is nearly impossible to do a correct separation of the races. Including the spring 1990 716 Black-eared Wheatears have been ringed, but none recovered.



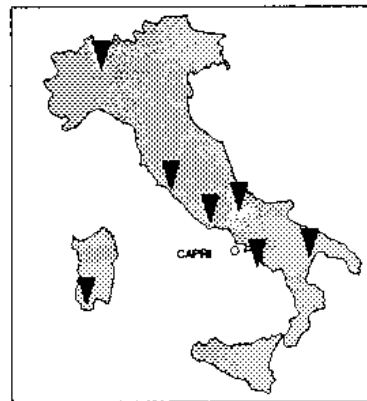
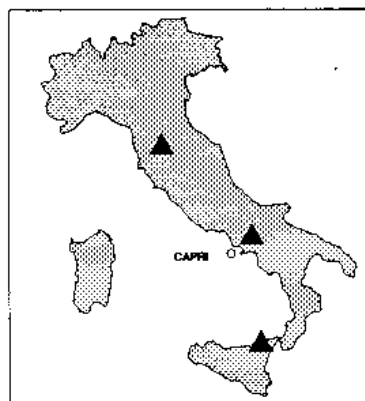
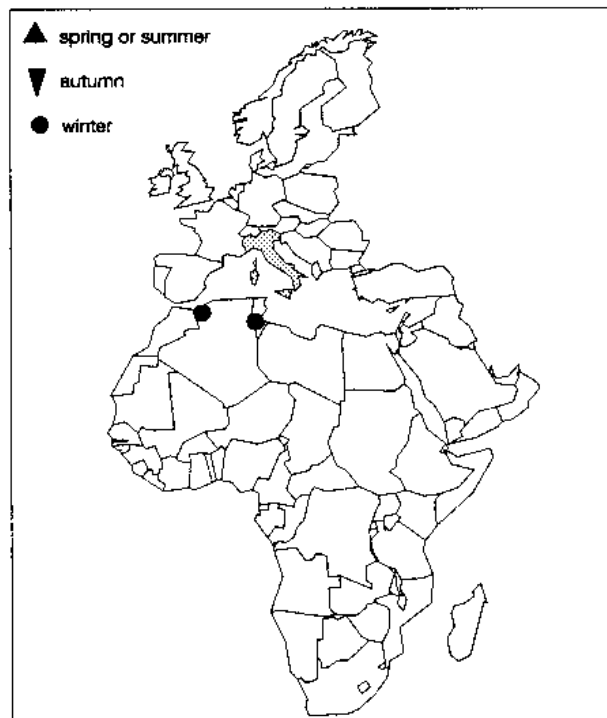
SONG THRUSH *Turdus philomelos*

TORDO BOTTACCIO

Breeds in northern Italy and in most other parts of Europe. On Capri it is common on migration during October and in March/April. 584 birds ringed as to 1990 and 12 recoveries, most in Italy but one each in Tunisia and Algeria.



Recoveries of birds ringed on Capri

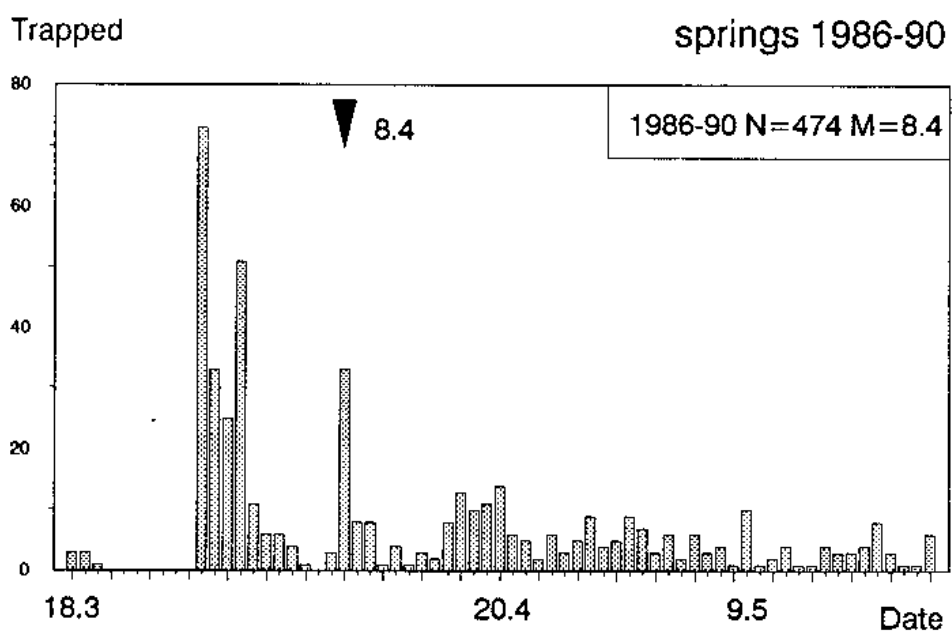


Total 12 recoveries

SUBALPINE WARBLER *Sylvia cantillans*

STERPAZZOLINA

Occurs in the Mediterranean region and breeds in the typical macchia on Capri. Its winter distribution is in tropical West Africa. As to 1990 1375 birds ringed and one recovery in Italy.



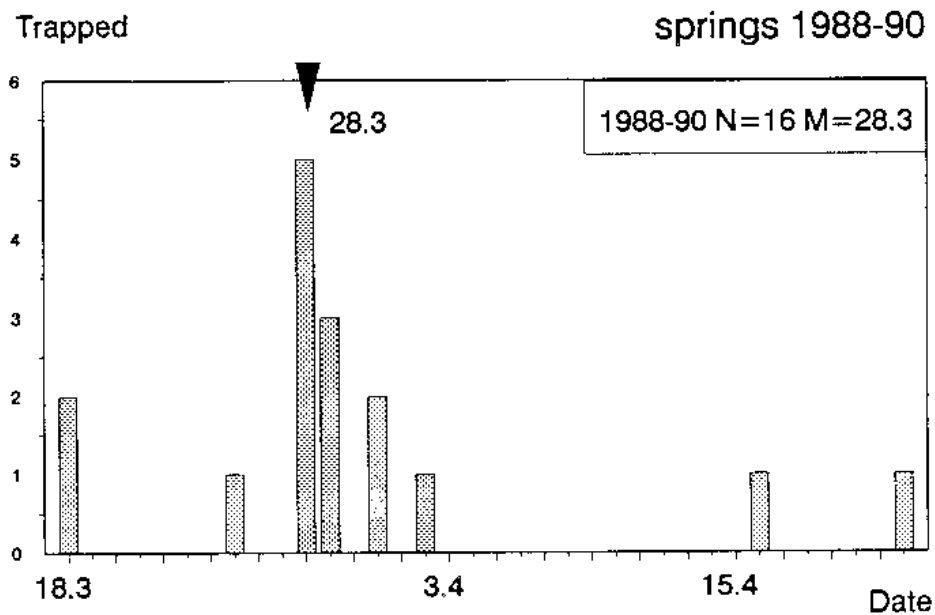


SPECTACLED WARBLER

Sylvia conspicillata

STERPAZZOLA DI SARDEGNA

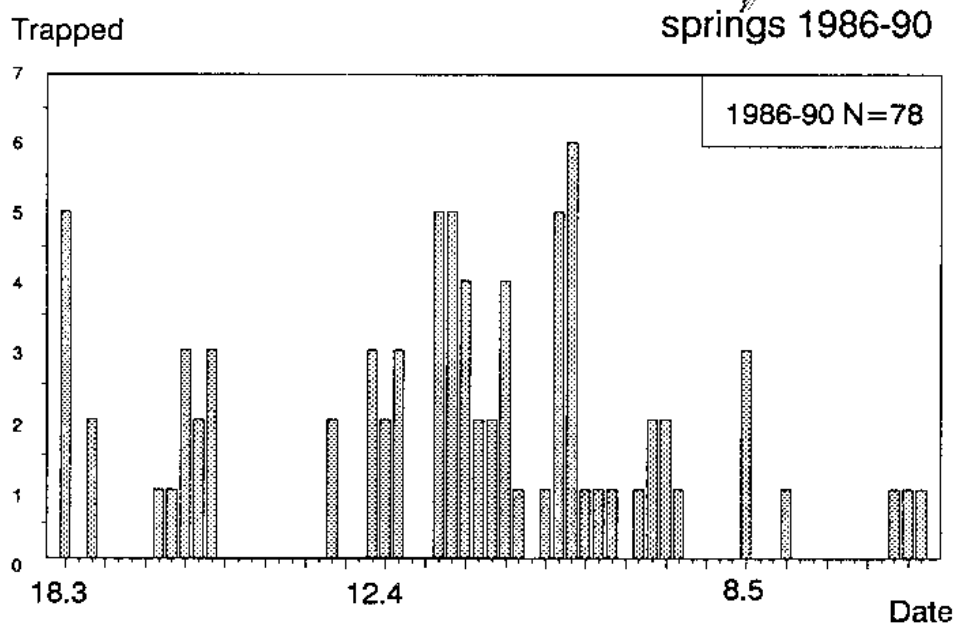
More or less sedentary breeder in the Mediterranean region, but only an irregular breeding bird on Capri. In all 26 have been ringed up to 1990.



SARDINIAN WARBLER *Sylvia melanocephala*

OCCHIOCOTTO

More or less sedentary breeder in the Mediterranean region, where it is very common. On Capri 378 have been ringed as to 1990 but only local retraps have been made.

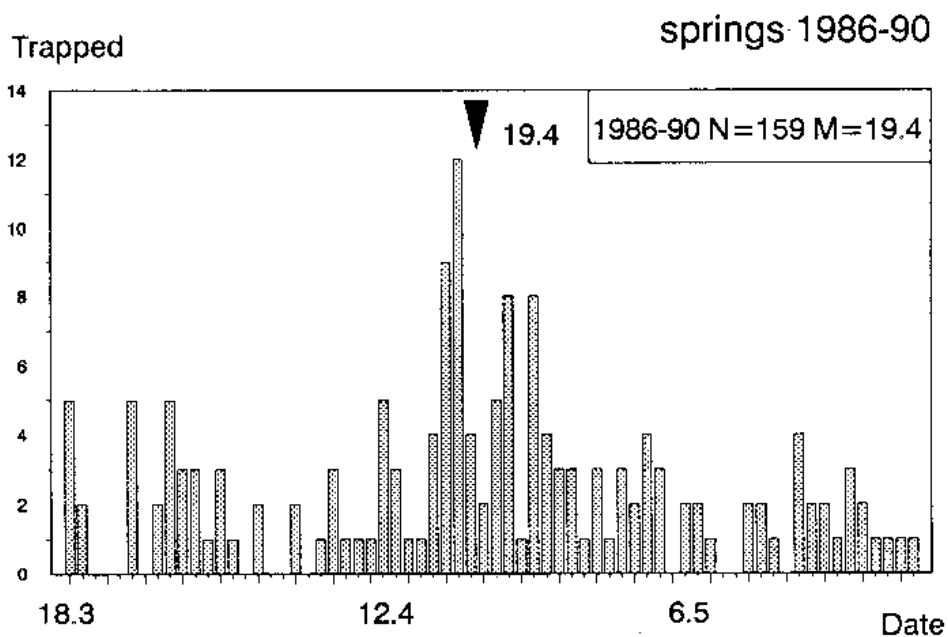




BLACKCAP *Sylvia atricapilla*

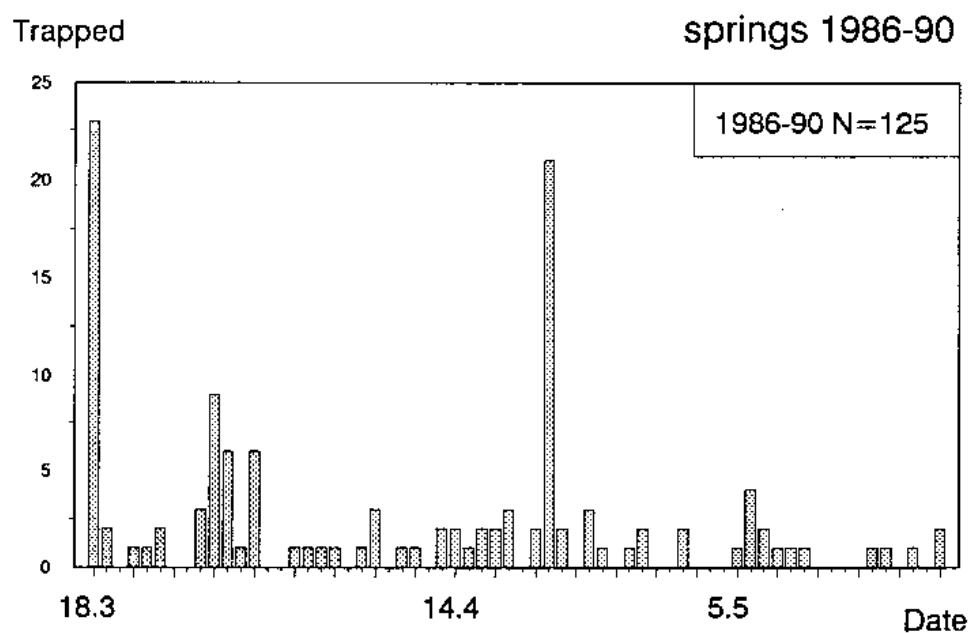
CAPINERA

Breeds in NW Africa, Asia Minor, and from the northern shores of the Mediterranean (including Italy) up to central Scandinavia and eastwards through the Soviet Union. Winters in southern Europe (also in Italy), in North Africa and also in West, East and Central Africa. Main spring passage on Capri in March/April, with 436 ringed as to 1990, but no recoveries.



CHIFFCHAFF *Phylloscopus collybita* LUI PICCOLO

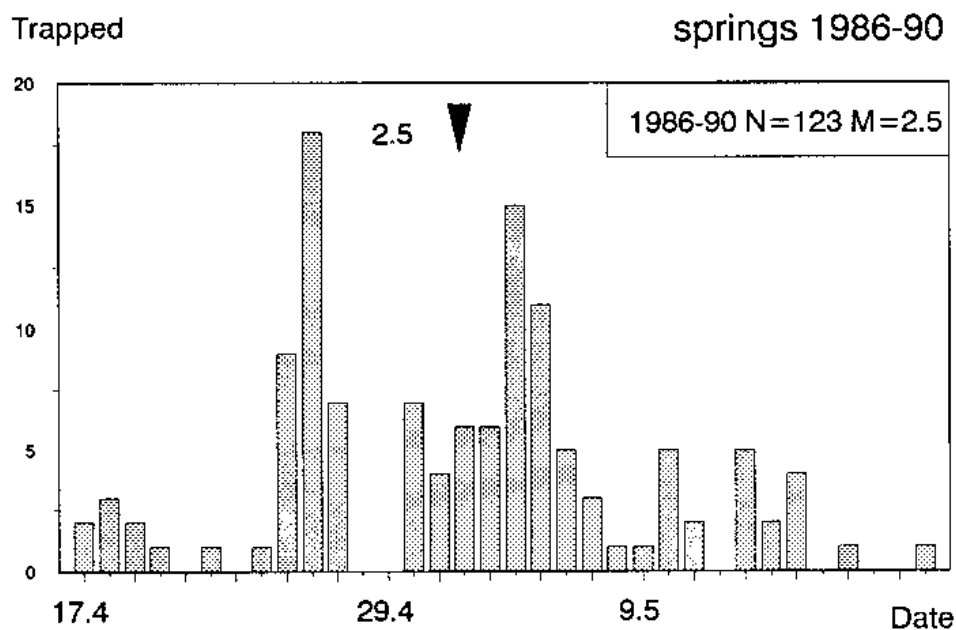
Common all over Europe. Its wintering quarters range from the Mediterranean area to tropical Africa. 294 have been ringed on Capri as to 1990. No recoveries.





COLLARED FLYCATCHER *Ficedula albicollis* BALIA DAL COLLARE

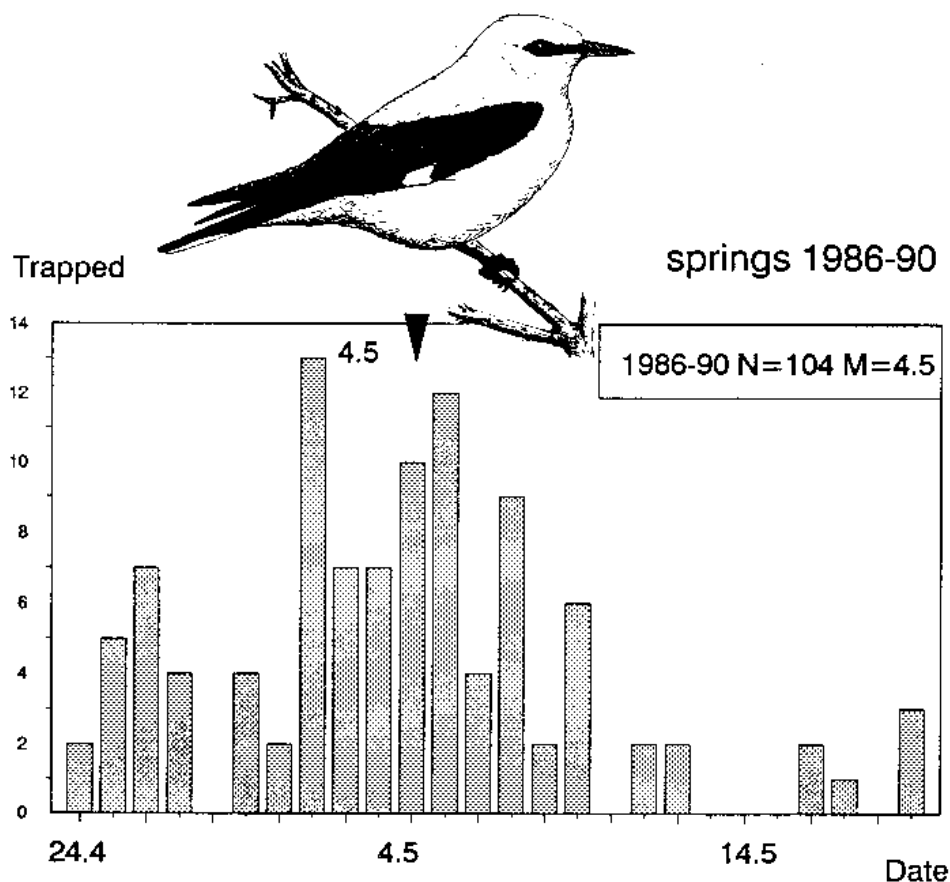
Central or eastern Africa south of the Sahara are this specie's wintering areas - opposite to the Pied Flycatcher, which winters in West Africa. The breeding areas for this species are in eastern Europe and probably most of the spring migration normally passes east of Capri. As to 1990 322 ringed, but no recoveries.



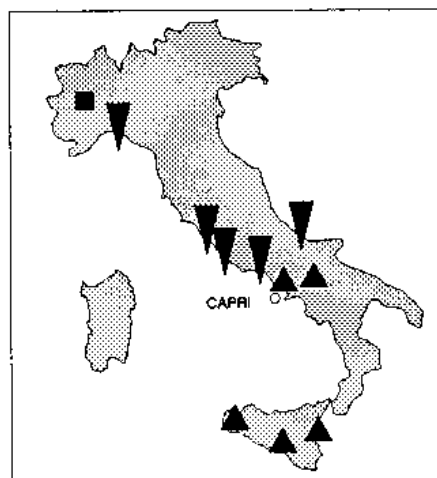
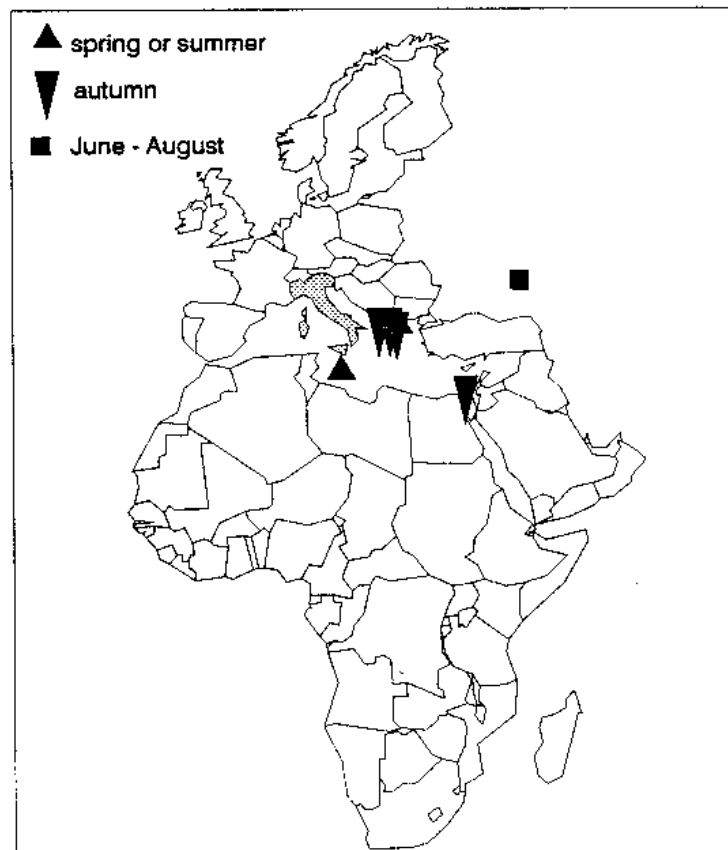
GOLDEN ORIOLE *Oriolus oriolus*

RIGOGOLO

Breeds in NW Africa and Asia Minor, and from the northern shores of the Mediterranean (including Italy) northwards to the Baltic Sea and southeastern Finland, and eastwards from there. Winters in Africa south and east from the Congo basin, and also in westernmost Africa. Spring passage on Capri in late April and May, 1205 ringed as to 1990. Of 18 recoveries 11 were from Italy during the general period of migration and one each from Malta and Egypt, and 4 from Greece also during migration. To this comes one breeding time record from the Ukraine.



Recoveries of birds ringed on Capri

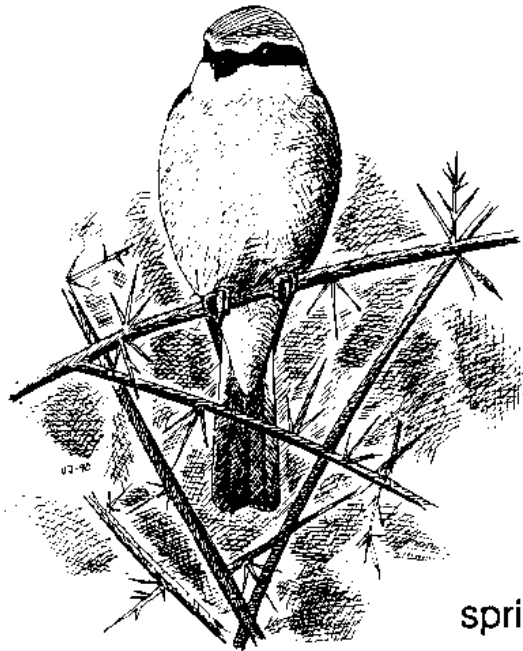


Total 18 recoveries

RED-BACKED SHRIKE *Lanius collurio*

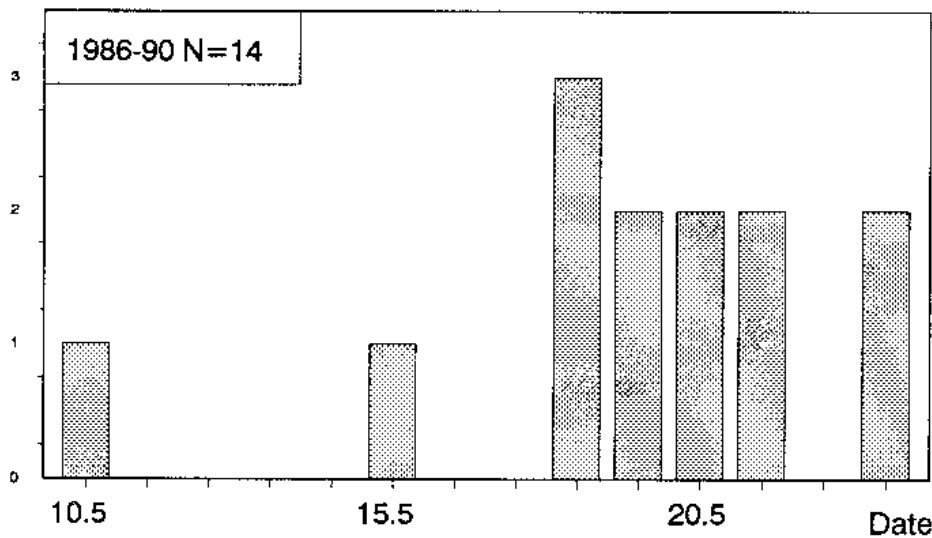
AVERLA PICCOLA

Breeds in most parts of Europe including Italy. Its winter quarters are eastern, central and southern Africa. On Capri it is observed especially at the end of May. 108 have been ringed as to 1990 and one recovery reported from Syria.



Trapped

springs 1986-90

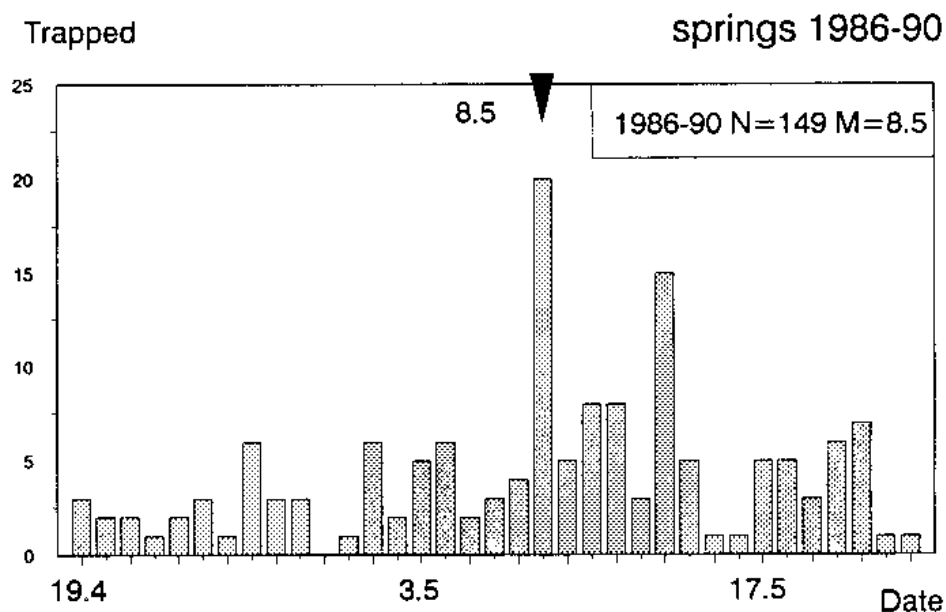
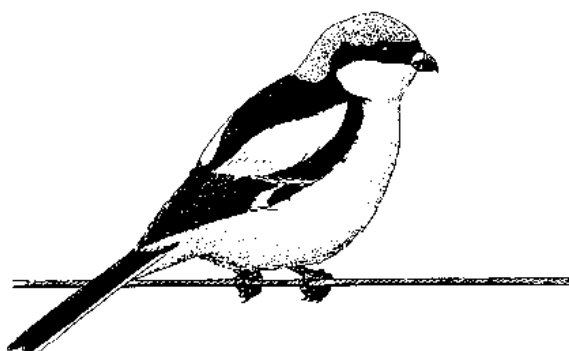




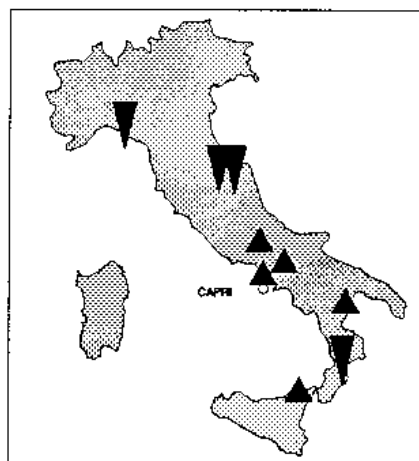
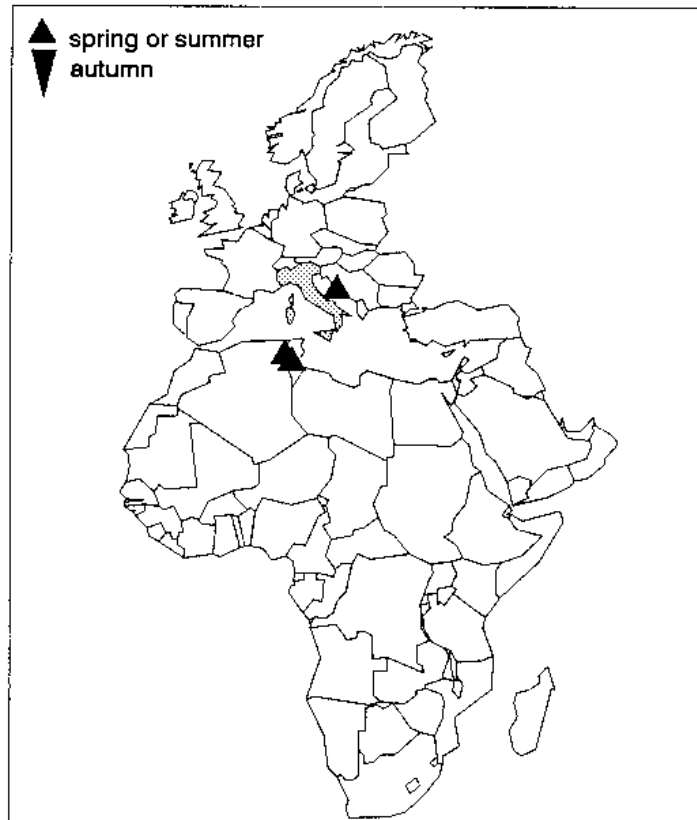
WOODCHAT SHRIKE *Lanius senator*

AVERLA CAPIROSSA

Breeds in NW Africa and in southern and central Europe. The winter quarters are located in tropical Africa. On Capri it is very common at the end of April and in early May and as most 117 have been trapped in one day. Totally 2121 have been ringed as to 1990 and 12 recovered.



Recoveries of birds ringed on Capri



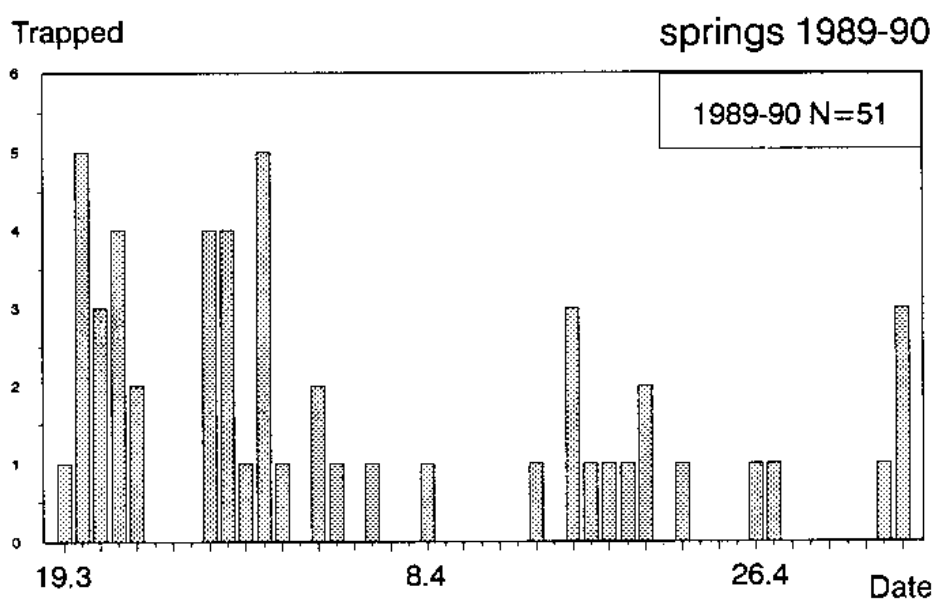
Total 12 recoveries



CHAFFINCH *Fringilla coelebs*

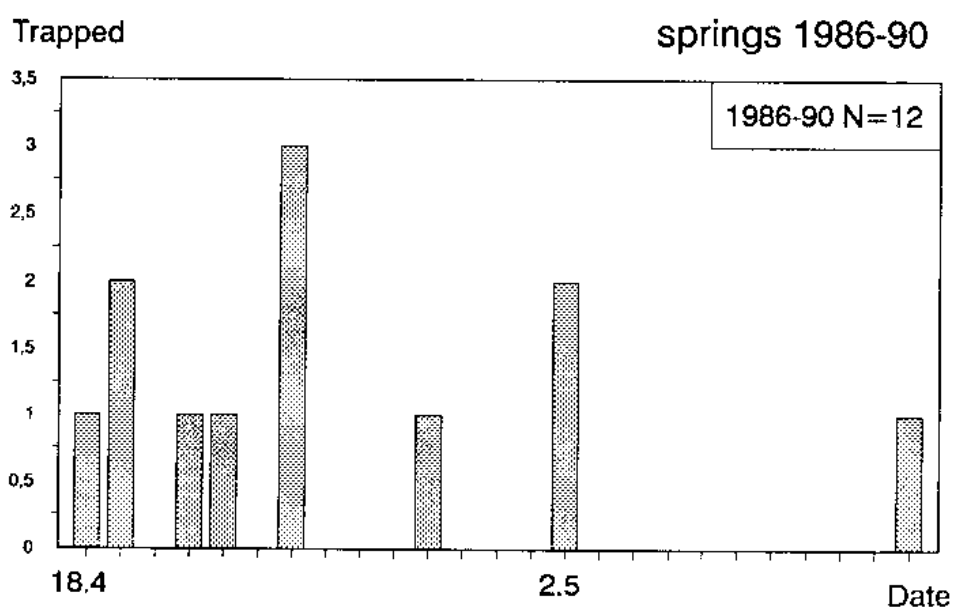
FRINGUELLO

A very common breeding bird throughout Europe. Spring migration on Capri peaks in March and the autumn migration in October. As to 1990 458 have been ringed and 4 recovered, all in northern Italy.



ORTOLAN BUNTING *Emberiza hortulana* ORTOLANO

Breeds from the northern shores of the Mediterranean to northern Scandinavia and eastwards well into Siberia. The winter quarters lie in northeastern Africa (Sudan, Eritrea, Ethiopia) and in West Africa along a zone north of 10°N . Its spring passage on Capri culminates around 1 May, the grand total ringed including 1990 is only 59 and none of these have been recovered.





List of recoveries 1956-1990

This list of recoveries and controls of Capri-trapped birds is not complete but as complete as it have been possible to get it after four years work trying to assemble all the data.

Ageing of the birds before the spring 1986 was not consequent, which is the reason why so few aged birds occur in this list.

Up to and including 1989 we have recovery data from the Italian Ringing Office.

- * = male
- * * = female
- △ = finnish-born bird which was controlled on passage on Capri the following May.
- = recovery only known from map (Edelstam et. al. 1963 p. 240,244).

TURTLE DOVE *Streptopelia turtur* TORTORA

Trapped Capri / Recoveries

1958.07.02 3y+	/ 1959.06.01 Istria, Croatia, Yugoslavia 45.14N/13.56E
1958.05.20	/ 1958.09.30 Reggio, Calabria, Italy 38.06N/15.39E
1959.05.04	/ 1960.04.27 Malta 35.44N/14.30E
1963.05.13	/ 1972.08.27 Bazzano, Italy 44.30N/11.05E
1966.05.12	/ 1970.04.30 Caulonia, Italy 38.23N/16.24E
1967.04.26	/ 1967.08.28 Monteriggioni, Siena, Italy 43.23N/11.14E
1968.04.30	/ 1969.04.28 Malta 35.55N/14.25E
1971.04.23	/ 1971.08.31 Macerata, Italy 43.12N/13.16E
1972.05.14	/ 1972.06.25 Capri, Italy 40.33N/14.15E
1972.05.14	/ 1973.04.26 Trebisacce, Italy 39.52N/16.32E
1973.05.05	/ 1974.04.15 Laviron, Greece 37.43N/24.03E
1973.05.06	/ 1975.05.14 Greece 39.30N/22.00E
1975.05.14	/ 1975.08.31 Giardino-Capalbio, Italy 42.27N/11.25E
1977.05.11	/ 1977.09.02 Favignana, Italy 37.56N/12.22E
1978.04.30	/ 1978.08.20 Casoli, Italy 42.07N/14.18E
1979.04.30	/ 1979.08.19 Salerno, Italy 40.40N/14.46E

SCOPS OWL *Otus scops* ASSIOLO

Trapped Capri / Recoveries

1960.10.14	/ 1960.10.24 Malta 35.44N/14.30E
1979.05.16	/ 1983.04.21 Anacapri, Italy 40.33N/14.13E

SHORT-EARED OWL *Asio flammeus* GUFO DI PALUDE

Trapped Capri / Recoveries

1955.10.26 / 1955.11.13 Salerno, Campania, Italy 40.40N/14.46E

HOOPOE *Upupa epops* UPUPA

Trapped Capri / Recoveries

1967.04.15 / 1967.04.17 Santeramo, Italy 40.48N/16.35E

WRYNECK *Jynx torquilla* TORCICOLLO

Trapped Capri / Recoveries

1957.04.11 / 1957.05.09 Peno, Velikolukkaja, USSR 56.55N/32.38E

SWALLOW *Hirundo rustica* RONDINE

Trapped Capri / Recoveries

1957.04.12 / 1958.04.12 Kreis Paderborn, W. Germany 51.43N/08.44E
1959.05.05 / - Strmilov, Jihlava, Czechoslovakia 49.10N/15.12E
1960.04.27 / 1960.05.15 Altfraunhofen, Landshut, W. Germany 48.31N/12.10E
1960.04.27 / 1960.06.29 Landshut, Germany 48.31N/12.10E
1972.04.26 / 1972.07.15 Adlington, England 53.19N/02.08W *

HOUSE MARTIN *Delichon urbica* BALESTRUCCIO

Trapped Capri / Recoveries

1961.05.17 / 1963.08.13 Moss, Norway 59.26N/10.41E
1975.05.23 / 1976.06.06 Pruszcz, Gdansk, Poland 54.16N/13.38E

WREN *Troglodytes troglodytes* SCRICCIOLO

Trapped Capri / Recoveries

1965.04.25 / 1966.04.08 Capri, Italy 40.33N/14.15E
1977.04.22 / 1983.05.03 Anacapri, Italy 40.33N/14.13E

DUNNOCK *Prunella modularis* PASSERA SCOPAIOLA

Trapped Capri / Recoveries

1961.11.10 2y+ / 1962.02.17 Graguano, Italy 40.42N/14.31E



ROBIN *Erithacus rubecula* PETTIROSSO

Trapped Capri / Recoveries

1959.10.02 2y+ / 1959.12.09 Avellino, Idem, Italy 40.54N/14.46E
 1960.04.27 / 1960.05.16 Kaliningrad, USSR 55.11N/20.49E
 1960.11.03 2y+ / 1960.12.05 Santadi, Cagliari, Italy 39.06N/08.42E
 1961.11.03 2y+ / 1963.11.15 Kraislov, Ukraine, USSR 49.38N/26.56E

BLACK REDSTART *Phoenicurus ochruros* CODIROSSO SPAZZACAMINO

Trapped Capri / Recoveries

1962.10.28 1y / 1963.01.08 Caltanissetta, Sicily, Italy 37.29N/14.04E

REDSTART *Phoenicurus phoenicurus* CODIROSSO

Trapped Capri / Recoveries

1958.05.19 / 1960.04.09 Gabes, Tunisia 33.52N/10.06E * *
 1960.05.12 / 1960.06.11 Halberstadt, DDR 51.54N/11.04E * *
 1965.04.30 / 1965.05.02 S. Agata, Z. Golfi, Italy 40.50N/14.15E * *
 1965.05.06 / 1966.10.04 Alta Valtellina, Italy 46.10N/09.51E * *
 1968.04.17 / 1970.04.06 Tripoli, Libya 32.53N/13.12E * *
 1968.04.23 / (1968.08.28) Torres de Berellen, Spain 41.45N/01.04W *
 1971.05.07 / 1973.04.19 Zerk, Gabes, Tunisia 33.52N/10.06E *
 1971.05.07 / 1971.05.20 Tapa, Estonia, USSR 59.16N/25.57E * *
 1974.05.04 / 1977.11.16 Safi, Morocco 32.20N/09.17W *

WHINCHAT *Saxicola rubetra* STIACCINO

Trapped Capri / Recoveries

1962.04.18 / 1962.04.25 Sorrento, Italy 40.37N/14.23E *
 1968.04.26 / 1968.04.30 S. Agata, Italy 40.35N/14.22E *
 1971.04.27 / 1973.04.20 Arram, Tunisia 33.35N/10.19E *

WHEATEAR *Oenanthe oenanthe* CULBIANCO

Trapped Capri / Recoveries

1965.04.29 / 1965.05.02 S. Agata, Italy 40.36N/14.22E
 1965.04.30 / 1965.09.13 Dossena, Italy 45.53N/09.42E *
 1968.04.21 / 1969.05.17 Rudnichnyi, USSR 59.43N/60.14E *
 1972.05.08 / 1972.11.10 Ain Trik, Algeria 36.22N/06.40E *
 1972.05.12 / 1972.09.25 Pisa, Italy 43.43N/10.24E * *
 1975.05.12 / 1975.06.23 Monteporzio, Italy 43.41N/13.02E *

BLACKBIRD *Turdus merula* MERLO

Trapped Capri / Recoveries

1960.10.19 1y / 1967.10.29 Sinnai, Sardinia, Italy 39.18N/09.12E
 1961.10.25 / 1962.02.03 Sorrento, Italy 40.37N/14.23E
 1979.05.17 / 1983.05.08 Anacapri, Italy 40.33N/14.13E *

SONG THRUSH *Turdus philomelos* TORDO BOTTACCIO

Trapped Capri / Recoveries

1960.10.18 1y / 1960.nov. Montemesola, Italy 40.34N/17.20E
 1960.10.18 / 1960.11.05 Amalfi, Italy 40.39N/14.34E
 1960.10.19 / 1961.Feb. Terni, Italy 42.34N/12.39E
 1960.10.19 1y / 1963.03.10 Caccitvi, Italy 40.54N/15.26E
 1960.10.19 / 1961.03.14 Reggio, Calabria, Italy 38.06N/15.39E
 1960.10.28 / 1963.00.00 Italy 42.-N/13.-E
 1960.11.03 / 1961.11.07 Rom, Italy 41.53N/12.30E
 1961.10.26 2y+ / 1961.12.29 Sermoneta, Italy, 41.33N/12.59E
 1962.04.01 / 1963.11.05 Capoterra, Sardinia, Italy 39.11N/08.57E
 1962.04.09 / 1967.02.20 Bovtavik, Algeria 36.30N/02.54E
 1971.04.13 / 1971.10.13 Arosio, Italy 45.42N/09.12E
 1971.04.13 / 1973.02.10 Akouda, Tunisia 35.55N/10.30E

MISTLE THRUSH *Turdus viscivorus* TORDELA

Trapped Capri / Recoveries

1961.10.22 2y+ / 1965.10.18 Pistone, Italy 44.04N/10.56E
 1962.04.02 / 1963.03.11 Fayence, France 43.10N/06.43E

ICTERINE WARBLER *Hippolais icterina* CANAPINO MAGGIORE

Trapped Capri / Recoveries

1957.05.26 / 1957.06.04 Mellum, Jadebusen, Germany 53.72N/08.21E
 1959.05.18 / 1959.06.10 Herning, Denmark
 1959.05.19 / 1963.07.20 Pilica, Poland 50.28N/19.40E
 1960.05.18 / 1960.09.02 Romania, 45.-N/25.-E
 1960.05.19 / 1960.09.02 Sacele, Stalin, Romania
 1961.05.08 / - Anacapri, Italy 40.33N/14.15E
 1961.05.09 / 1962.07.03 Berlin, DDR 52.32N/13.24E
 1961.05.12 / 1961.05.26 Capri, Italy 40.33N/14.15E

1961.05.24 / 1963.08.12 Nerezisce, Yugoslavia 43.20N/16.30E
 1965.05.09 / 1966.05.06 Ouslatia, Tunisia 35.40N/10.00E
 1965.05.16 / 1965.06.17 Linden, W. Germany 54.16N/09.11E
 1965.05.22 / 1965.06.25 Luopiois, Aitoo, Finland 61.20N/24.30E
 1967.05.12 / 1969.Sept.-Okt. Skutari, Albania 42.03N/19.31E
 1974.05.21 2y / 1974.05.29 Ivanino, USSR 51.35N/35.33E
 1983.05.07 / 1986.05.29 Bjerringbro, Jylland, Denmark 56.23N/09.40E
 1983.05.17 / 1983.05.27 Vrinnes, Jylland, Denmark 56.14N/10.30E

**SUBALPINE WARBLER *Sylvia cantillans* STERPAZZOLINA**

Trapped Capri / Recoveries

1957.04.07 / 1963.04.10 Torretta di Ancona, Italy 43.37N/13.32E

WHITETHROAT *Sylvia communis* STERPAZZOLA

Trapped Capri / Recoveries

1959.04.29 / 1959.05.19 Holmens industriomr., Örebro 59.18N/15.05E
1960.05.03 / 1960.10.02 Monopoli, Italy 40.57N/17.18E
1965.04.28 / 1965.05.03 Capri, Italy 40.33N/14.15E
1966.05.18 / 1966.07.13 Kedainiai, USSR 55.17N/23.58E
1966.05.18 / 1966.05.22 Prijedor, Yugoslavia 45.00N/16.41E
1966.05.22 / 1966.09.23 Alexandria, Egypt 31.13N/29.55E
1969.05.02 / 1970.07.05 Narva, Estonia 59.23N/28.12E
1969.05.02 / 1972.02.15 Derwothan, Syria 35.15N/35.55E
1970.05.14 / 1971.05.20 Jurmo, Korpoo, Finland 59.50N/21.37E *
1972.05.23 / 1972.07.25 Vladimirets, USSR 51.23N/26.22E
1973.04.27 / 1973.07.22 Hundisburg, W. Germany 52.15N/11.25E

GARDEN WARBLER *Sylvia borin* BECCAFICO

Trapped Capri / Recoveries

● 1956-62 November-March, Luluabourg, Zaire 01.00S/23.00E
" 1956-62 September-October, Sicily, Italy 37.00N/12.50E
" 1956-62 September-October, Sicily, Italy 36.50N/12.00E
" 1956-62 September-October, Sicily, Italy 36.50N/12.30E
" 1956-62 September-October, Reggio, Italy 38.07N/15.38E
" 1956-62 September-October, Reggio, Italy 38.20N/15.00E
" 1956-62 September-October, Cosenza, Italy 39.17N/16.14E
" 1956-62 September-October, Cosenza, Italy 39.20N/16.00E
" 1956-62 September-October, Taranto, Italy 40.30N/17.11E
" 1956-62 September-October, Caserta, Italy 41.05N/14.20E
" 1956-62 September-October, Ostia, Italy 41.50N/12.25E
" 1956-62 April-May, Napoli, Italy 40.50N/14.05E

1957.04.26 / 1957.10.08 Avellino, Campania, Italy 40.49N/14.47E
1957.05.13 / 1958.09.07 Lari, Pisa, Italy 43.31N/10.32E
1958.05.17 / 1958.09.05 Saline, Isonzo, Italy 43.22N/10.48E
1959.05.09 2y / 1960.09.15 Gerzetto, Italy 40.55N/14.12E
1959.06.06 / 1960.09.03 Bergamo, Italy 45.42N/09.40E
1960.05.02 / 1961.09.13 Marina, Italy 38.12N/16.10E
1960.05.13 / 1961.05.24 Föryed, Hungary 46.43N/18.18E

Continuation GARDEN WARBLER

Trapped Capri / Recoveries

1961.05.05	/ 1961.05.10 Gragvano, Italy 40.42N/14.31E
1961.05.15	/ 1963.05.26 Santa Severa, Italy 42.01N/12.59E
1961.05.18	/ 1962.09.12 Salemi, Sicily, Italy 37.48N/12.48E
1961.05.25	/ 1962.09.10 Pistoia, Italy 44.02N/10.46E
1963.05.08	/ 1965 May Kikwit, Congo 05.02S/18.51E
1964.03.15	/ 1964.08.14 Lida, Belorossia, USSR 53.53N/25.18E
1964.05.10	/ 1966.01.07 Kolomba, Congo 05.53S/22.26E
1964.05.10	/ 1968.05.11 Formello, Italy 42.05N/12.24E
1964.05.13	/ 1967.09.15 Rovigo, Italy 45.02N/11.38E
1964.05.22	/ 1966.05.15 Gauzev, Libya 32.53N/13.12E
1964.05.22	/ 1970.01.12 Libya
1965.05.12	/ 1966.09.23 Ginestra, Italy 43.47N/11.15E
1966.05.19	/ 1967.09.18 Trapani, Sicily, Italy 37.48N/12.48E
1967.05.06	/ 1967.09.01 Sammonti-Gamaio, Italy 43.57N/10.10E
1967.05.09	/ 1968.08.31 Cassino, Italy 41.29N/13.49E
1967.05.27	/ 1967.09.17 Palmi, Italy 38.21N/15.51E
1968.05.04	/ 1970.09.05 Arezzo, Italy 43.19N/11.42E
1968.05.16	/ 1969.10.01 Torre Orsaia, Italy 40.08N/15.30E
1968.05.18	/ 1968.08.31 Lari, Italy 43.34N/10.35E
1970.05.08	/ 1970.10.07 Mercato S., Italy 40.47N/14.44E
1970.05.24	/ 1970.09.14 Grosseto, Italy 42.46N/11.06E
1974.05.16	/ 1978.05.24 Luri, France 42.53N/09.28E
1986.05.16	/ 1987.08.24 Kokemaki, Turun ja Porin, Finland 61.15N/22.19E
1986.05.17	/ 1986.07.21 Gudeliai, Kapsukas, Lithuania 54.31N/23.42E

WOOD WARBLER *Phylloscopus sibilatrix* LUI VERDE

Trapped Capri / Recoveries

1961.05.06	/ 1962 April, Galatina, Italy 40.10N/18.10E
1968.05.02	/ 1971 June, Ångelsberg, Sweden 56.58N/16.00E

WILLOW WARBLER *Phylloscopus trochilus* LUI GROSSO

Trapped Capri / Recoveries

1964.05.14	/ 1965.09.25 San Giuseppe, Vesuviano, Italy 40.50N/14.31E
1966.04.11	/ 1966.04.13 A. Capri, Italy 40.33N/14.15E
1969.04.14	/ 1969.07.20 Rathenow, W. Germany 52.37N/12.21E
1972.05.06	/ 1972.09.29 Estoril, Portugal 37.05N/07.54W
1975.04.16	/ 1975.05.01 Beddinge, Sweden 55.22N/13.26E
1979.04.18	/ 1979.07.31 Vademöller, Sweden 55.42N/13.11E
1983.05.05	/ 1983.05.14 Skoge, Sweden 56.55N/18.11E



SPOTTED FLYCATCHER *Musicapa striata* PIGLIAMOSCHE

Trapped Capri / Recoveries

1957.05.28	/ 1960.05.13 Gabes, Tunisia 33.52N/10.06E
1958.07.12	/ 1959.05.10 Capri, Italy 40.33N/14.15E
1959.05.09	/ 1960.04.25 Tshene, Congo 04.-S/19.30E
1959.05.09	/ 1960 April Zaire 05.-S/20.-E
1959.05.18	/ 1962.11.14 Luiza, Zaire 07.40S/22.30E
1961.05.12	/ 1963.05.02 Messina, Italy 38.13N/15.33E
1961.05.25	/ 1963.10.10 Gungu, Zaire 05.43S/19.20E
1965.05.02	/ 1965.10.07 Braga, Portugal 41.30N/08.25W
1965.05.23	/ 1969 August Martouo, Bulgaria 42.08N/24.45E
1966.05.09	/ 1966.07.08 Bagrationovsk, USSR 54.23N/20.37E
1968.05.03	/ 1968.09.23 Stinghi-Mariut, Egypt 31.13N/29.55E
1970.05.08	/ 1970.09.20 Zagorje, Yugoslavia 46.08N/15.00E
1970.05.24	/ 1970.06.06 Salo, Finland 60.23N/23.08E
1971.05.08	/ 1971.10.01 Alonissos of Uolos, Greece 39.09N/23.50E
1975.05.17	/ 1979.04.02 Kingala, Zaire 04.28S/18.26E
1977.05.11	/ 1978.05.07 Troiannata, Greece 38.15N/20.30E
1979.05.16	/ 1979.06.05 Turku-Pori, Finland 61.30N/22.36E
△ ●	1956-62.07.12 Helsinki, Finland 60.15N/25.03E

PIED FLYCATCHER *Ficedula hypoleuca* BALIA NERA

Trapped Capri / Recoveries

1960.05.04	/ 1960.09.20 Brescia, Italy 45.33N/10.13E * *
1963.05.04	/ 1965.09.20 Abrantes, Portugal 39.28N/08.12W *
1967.05.01	/ 1967.05.19 Capri, Italy 40.33N/14.15E *
1967.05.07	/ 1970.05.03 Aoulef, Algeria 27.00N/01.04E * *
1968.04.25	/ 1968.04.25 S. Agata, Italy 40.35N/14.22E
1970.04.25	/ 1973.04.24 S. Maria di Tridetti, Italia 38.00N/16.02E
1972.05.02	/ 1973.11.28 Nueva Cartega, Spain 37.35N/04.27W

GREAT TIT *Parus major* CINICIALLEGRA

Trapped Capri / Recoveries

1978.05.09 3y+	/ 1983.05.22 Anacapri, Italy 40.33N/14.13E *
1980.05.08	/ 1983.04.21 Anacapri, Italy 40.33N/14.13E *

GOLDEN ORIOLE *Oriolus oriolus* RIGOGOLO

Trapped Capri / Recoveries

●	1956-62 March-May, Trapani, Italy 38.01N/12.30E
"	1956-62 March-May, Catania, Italy 37.31N/15.04E
"	1956-62 August, Ukraine, USSR 47.50N/37.00E
*	1956-62 June-August, Alessandria, Italy 44.54N/08.37E

Continuation **GOLDEN ORIOLE**

Trapped Capri / Recoveries

●	1956-62 September-November, Pilos, Greece 36.55N/21.42E
"	1956-62 September-November, Napoli, Italy 40.50N/14.05E
"	1956-62 September-November, Gaeta, Italy 41.12N/13.35E
"	1956-62 September-November, Terracina, Italy 41.17N/13.12E
1959.05.06	/ 1968.05.15 Takuljat Hill, Malta 36.04N/14.15E *
1961.04.26 3y+	/ 1961.06.05 Sorrento, Italy 40.38N/14.23E *
1961.05.02 3y+	/ - Val Boumida, Italy 44.55N/08.57E *
1961.05.12	/ 1963.08.20 Gastouni, Greece 37.51N/21.15E
1961.05.12	/ 1961.09.25 Messinias, Greece 37.10N/22.00E
1961.05.24	/ 1964.04.25 Mogghi-Acate, Italy 37.02N/14.30E
1967.04.30	/ 1969.08.25 Fara Filiorum Petri, Italy 42.10N/14.30E * *
1968.04.29 3y+	/ 1968.05.01 Monte Faito, Italy 40.40N/14.28E *
1979.05.13	/ 1986.04.24 Katastari, Greece 37.50N/20.45E *
1984.04.26	/ 1984.09.04 El Heiz-Bahariya, Egypt 28.02N/28.38E

RED-BACKED SHRIKE *Lanius collurio* **AVERLA PICCOLA**

Trapped Capri / Recoveries

1961.08.28 2y	/ 1962.05.10 Latakia, Syria 35.31N/35.49E
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WOODCHAT SHRIKE *Lanius senator* **AVERLA CAPIROSSA**

Trapped Capri / Recoveries

1957.05.04	/ 1958.05.24 Procida, Campania, Italy 40.47N/14.02E * *
1958.05.05 3y+	/ 1958.05.12 Capri, Italy 40.33N/14.15E *
1958.05.10	/ 1958.05.15 Agata di Puglia, Foggia, Italy 41.11N/15.22E *
1959.05.09	/ 1959.05.16 Zadar, Yugoslavia 44.08N/15.08E
1959.05.13	/ 1961.06.11 Pisticci, Italy 40.23N/16.33E
1960.05.11	/ 1960.09.04 Lupra Montera, Italy 43.47N/13.30E*
1960.05.11	/ 1962.08.30 Montefiore Aso, Italy 44.22N/10.37E
1966.05.03	/ 1966.08.09 S.Andrea di Suasa, Italy 43.45N/12.50E*
1966.05.06	/ 1967.04.20 Messina, Sicilien 38.00N/15.00E *
1966.05.23	/ 1966.12.00 Terranova di Sibari, Italy 39.39N/16.20E * *
1971.04.26	/ 1972.04.22 Requeb, Tunisia 35.02N/09.44E *
1973.05.01	/ 1974.05.04 Ben-Gardane, Tunisia 33.11N/11.13E * *

CHAFFINCH *Fringilla coelebs* **FRINGUELLO**

Trapped Capri / Recoveries

1956.05.06 2y	/ 1958.04.05 Italy *
1961.10.26 2y+	/ 1962.10.07 Asiago, Italy 45.53N/11.31E
1967.04.17	/ 1967.11.22 Follonica, Italy 42.55N/10.44E * *
1970.04.05	/ 1971.12.21 Chianciano, Italy 43.02N/11.42E* *



BIRDS OBSERVED ON CAPRI 1956 - 1990.

CORY'S SHEARWATER (*Calonectris diomedea*)

Observed occasionally, mainly from the Napoli - Capri ferry. It breeds on a number of Mediterranean islands.

MANX SHEARWATER (*Puffinus puffinus*)

Probably common in the area. The subspecies *Puffinus p. yelkouan* is breeding on Sardinia and Sicily. From Capri, however, it is only seen occasionally in spring.

LITTLE BITTERN (*Ixobrychus minutus*)

One was seen near the path to Castello Barbarossa 20 May 1986.

NIGHT HERON (*Nycticorax nycticorax*)

Two Night Herons were seen on migration 24 April 1974 and one 31 March 1989. One injured Night Heron was found and taken care of in late May 1988.

SQUACCO HERON (*Ardeola ralloides*)

Occasionally seen on migration in spring. A flock of 8 rested on the western part of the island 22 April 1957.

LITTLE EGRET (*Egretta garzetta*)

Recorded at last 16 times. Flocks of 11 birds have been observed on two occasions; 21 April 1974 and 7 May 1988. Two birds were seen on 9 October 1989.

HERON (*Ardea cinerea*)

On 23 May 1986 a flock of 6 migrated towards northwest, and one was seen on 11 May 1956. This seems to be the only records of this species.

PURPLE HERON (*Ardea purpurea*)

One was resting in a rocky area on the western part of the island 22 April 1957.

WHITE STORK (*Ciconia ciconia*)

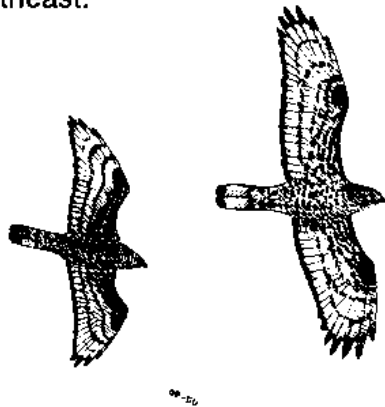
15 observations during spring of which some are worth mentioning.

Continuation WHITE STORK

28 April 1974 15 birds migrated north and 20 April 1987 11 birds were seen on migration (two of them rested for a short while on the castle roof).

HONEY BUZZARD (*Pernis apivorus*)

Seen annually on migration from late April to the end of May. During spring 1986 no less than 70 individuals were observed on migration towards northeast.



RED KITE (*Milvus milvus*)

In mid April 1989 3 birds were seen migrating towards north.

BLACK KITE (*Milvus migrans*)

A few individuals are seen on migration every year. A rather odd observation was made on 8 April 1957, when 27 birds were resting in the garden of the castle.

EGYPTIAN VULTURE (*Neophron percnopterus*)

Egyptian vultures have been observed 12 times, all recorded as single birds in late April or in May.

SHORT TOED EAGLE (*Circaetus gallicus*)

Only recorded once, when two individuals were soaring over the castle on 30 June 1961.

MARSH HARRIER (*Circus aeruginosus*)

Seen almost every spring on migration.

HEN HARRIER (*Circus cyaneus*)

A female was observed migrating south 22 October 1960. It is the only record.



MONTAGU'S HARRIER (*Circus pygargus*)

Several observations have been made in spring, but not annually. On 25 April 1979 9 birds were seen migrating north.

SPARROWHAWK (*Accipiter nisus*)

Just a few records have been made.

BUZZARD (*Buteo buteo*)

Not seen every spring. 18 individuals is the highest number recorded in one season.

BOOTED EAGLE (*Hieraetus pennatus*)

3 observations have been made in spring; 3 birds were recorded 31 March 1961, 7 May 1974 one dark bird was seen on migration and on 14 April 1987 one was soaring over the castle. Autumn observations are one each towards south on 9 and 10 October 1989.

BONELLI'S EAGLE (*Hieraetus fasciatus*)

The only record made is from 12 May 1957.

OSPREY (*Pandion haliaetus*)

Recorded 7 times. All observations were made during spring.

LESSER KESTREL (*Falco naumanni*)

Observed at two occasions; one was seen on 25 April 1979, another on 16 May 1989.

KESTREL (*Falco tinnunculus*)

One or two pairs breed annually on Capri. Furthermore a few birds are seen on migration every year.

RED FOOTED FALCON (*Falco vespertinus*)

The Red Footed Falcon is observed on migration annually. In May 1986 & 1987 several individuals were soaring around the castle.

HOBBY (*Falco subbuteo*)

A few observations are made every spring.

MERLIN (*Falco columbarius*)

Two males were seen migration 19 March 1989.

ELEONORA'S FALCON (*Falcon eleonora*)

In early May the first Eleonora's Falcon is generally seen from the castle. One to ten birds are observed every spring. No observation indicating breeding has been made.

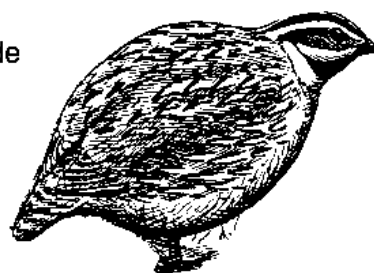


PEREGRINE FALCON (*Falco peregrinus*)

One or two pairs breed annually.

QUAIL (*Coturnix coturnix*)

The number of passing Quails have declined dramatically since the end of the 19th century. In 1880 no less than 60 000 Quails were caught and sent to the restaurants in Rome, Naples and Marseille. During the last two decades, just a few records of Quails have been made in spring.



SPOTTED CRAKE (*Porzana porzana*)

Two have been ringed; one in the autumn 1959 and one in spring 1987.

CORNCRAKE (*Crex crex*)

One bird was ringed in spring 1961.

MOORHEN (*Gallinula chloropus*)

A Moorhen was seen walking about in the macchia vegetation on 22 April 1977.

CRANE (*Grus grus*)

Recorded twice during autumn; 8 birds migrating south in 1960 and a flock of 26 observed in the autumn the same year.

AVOCET (*Recurvirostra avosetta*)

On 15 April 1968, 8 birds were seen flying south on low altitude.

RINGED PLOVER (*Charadrius hiaticula*)

There are spread spring observations of birds resting on the western shores of Capri.



GREY PLOVER (*Pluvialis squatarola*)

Heard occasionally on migration during autumn nights.

DUNLIN (*Calidris alpina*)

Spread night migrating birds were heard in the autumn 1959.

WHIMBREL (*Numenius phaeopus*)

A flock of 40 were migrating north at Marina Grande 8 April 1987.

COMMON SANDPIPER (*Actitis hypoleucos*)

On the western shore just north of Faro, 4 birds were seen resting 10 May 1972 and one 23 May 1956.

MEDITERRANEAN GULL (*Larus melanocephalus*)

Seen occasionally at Marina Grande. On 15 March 1989 20 birds were observed there.

BLACK HEADED GULL (*Larus ridibundus*)

Common in Golfo di Napoli during autumn and winter.

LITTLE GULL (*Larus minutus*)

Recorded on two occasions in spring.

BLACK BACKED GULL (*Larus marinus*)

One adult and one juvenile bird were seen at Marina Grande 25 May 1956 and one bird was observed there 18 May.

HERRING GULL (*Larus argentatus*)

At least 4 colonies exists on Capri, the largest at Faraglioni.

AUDOUIN'S GULL (*Larus audouinii*)

One juvenile bird at Punta del Tuono 10 October 1989.

SANDWICH TERN (*Sterna sandvicensis*)

One seen from the Capri - Napoli ferry 15 April 1989.

CASPIAN TERN (*Sterna caspia*)

Seven birds were seen fishing at Marina Grande 15 April 1986.

BLACK TERN (*Chlidonias niger*)

Two migrating north of Villa Jovis 11 May 1987.

WOOD PIGEON (*Columba palumbus*)

Three observations. One at the castle 6 May 1956, one 24 April 1975 and one in the small pine grove at San Michele 19 May 1976.

DOMESTIC DOVE (*Columba livia*)

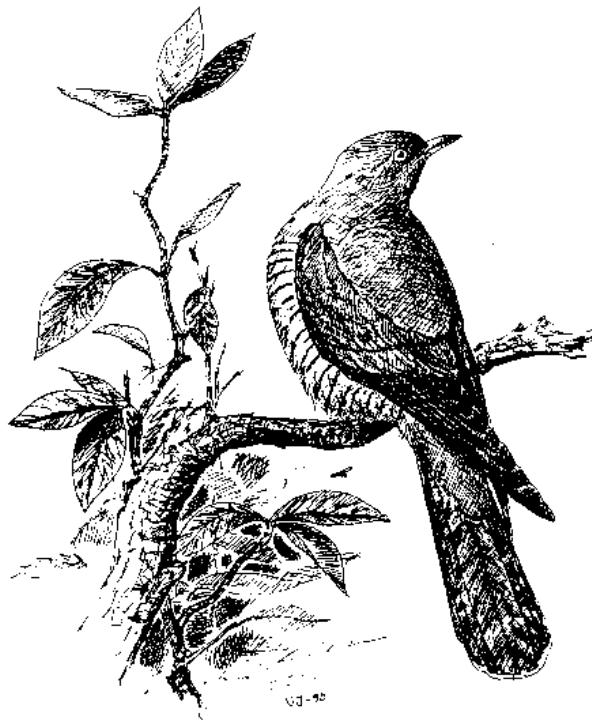
Common.

TURTLE DOVE (*Streptopelia turtur*)

The most intense migration period extends from late April to the middle of May. Despite the ban on all hunting lots of shots are heard at this time.

CUCKOO (*Cuculus canorus*)

During April and in the beginning of May, Cuckoos appear almost daily. During a few days in early May 1987, around 20 - 40 Cuckoos rested in the castle garden.



GREAT SPOTTED CUCKOO (*Clamator glandarius*)

One was ringed 28 March 1989.

BARN OWL (*Tyto alba*)

Two birds have been ringed over the years (1959 & 1960), and spread field observations made.



SCOPS OWL (*Otus scops*)

A few pairs breed annually. Occasionally one can hear 3 - 5 calling Scops Owls from the castle and Villa San Michele.

LITTLE OWL (*Athene noctua*)

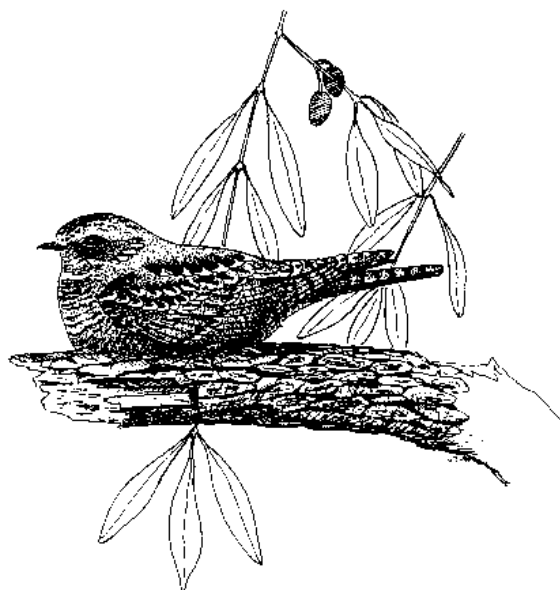
Six birds have been trapped and ringed (one in 1958, four in 1959 and one in 1960). Occasional birds have been heard during the 1960's and 1970's. In the 1980's one was heard in spring 1988 and two in 1989.

SHORT EARED OWL (*Asio flammeus*)

Two observations. One 3 May 1956 and one 9 April 1960, both migrating north.

NIGHTJAR (*Caprimulgus europaeus*)

Observed every spring, especially in May. Occasionally several birds can be seen hunting around the castle. One odd observation was made in 1956, when 16 Nightjars migrated south just above the sea.



SWIFT (*Apus apus*)

Seen daily from the end of April onwards to the middle of May in variable numbers. In good days, several thousands pass over the castle.

PALLID SWIFT (*Apus pallidus*)

Is probably breeding on the island. In the latter part of May a few flocks are often seen.

ALPINE SWIFT (*Apus melba*)

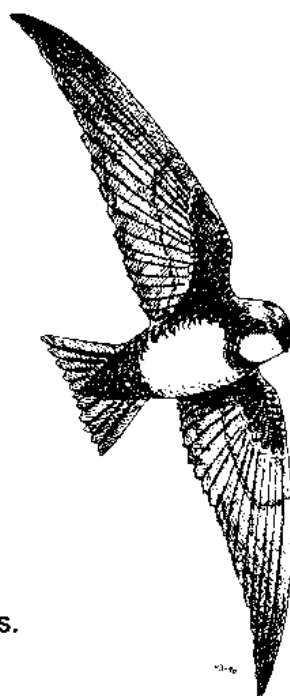
Observed on migration during April and May. On one occasion, a flock of 70 birds were seen migrating together.

KINGSFISHER (*Alcedo atthis*)

One at Faro 16 August 1978.

BEE-EATER (*Merops apiaster*)

Bee-eaters are observed annually. Occasional flocks are seen already in April, but in May they are seen more frequently and may include 30 - 40 birds.



ROLLER (*Coracias garrulus*)

A rarely seen migrant. Ten observations have been made over the years.

HOOPOE (*Upupa epops*)

Rather commonly seen every year in April and early May.

WRYNECK (*Jynx torquilla*)

A few are seen and ringed annually.

CALANDRA LARK (*Melanocorypha calandra*)

Recorded once, on 6 May 1986 migrating towards north.

SHORT-TOED LARK (*Calandrella brachydactyla*)

A few birds pass Capri every spring.

WOOD LARK (*Lullula arborea*)

Observed occasionally in spring. Only two have been ringed.

SKY LARK (*Alauda arvensis*)

Spread observations during spring and autumn. Nine birds were observed 12 October 1989.

SAND MARTIN (*Riparia riparia*)

Not so many Sand Martins seem to pass Capri on migration. A couple of hundreds are seen during each spring.



SWALLOW (*Hirundo rustica*)

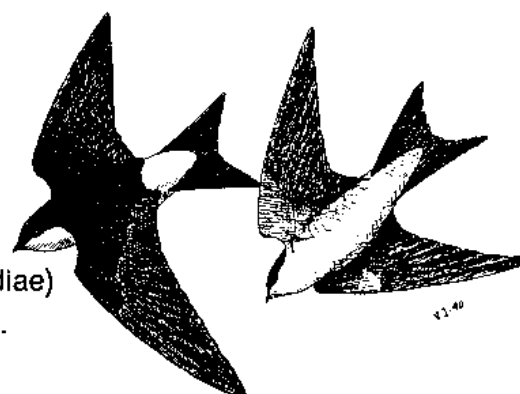
Seen daily during spring. In good days, thousands of Swallows are circling around the castle.

RED-RUMPED SWALLOW (*Hirundo daurica*)

Occasional birds are seen every year among the Swallows and House Martins.

HOUSE MARTIN (*Delichon urbica*)

Just like the Swallow, it is very common and can appear in numbers well over a thousand per day.



RICHARD'S PIPIT (*Anthus novaeseelandiae*)

On 25 April 1978 one bird was ringed.

TAWNY PIPIT (*Anthus campestris*)

Some flocks of Tawny Pipits pass Capri every spring. One bird observed 22 August 1978.

TREE PIPIT (*Anthus trivialis*)

Observed almost daily from April to mid May. When migration is most intense at the end of April and early May, up to a hundred Tree Pipits may be seen in a day.

MEADOW PIPIT (*Anthus pratensis*)

Occasionally seen every year.

RED-THROATED PIPIT (*Anthus cervinus*)

Passes Capri occasionally during spring. In all 12 observations have been made.

ROCK PIPIT (*Anthus spinoletta*)

Seen very rarely during spring.

YELLOW WAGTAIL (*Motacilla flava*)

A few are observed almost daily from the end of April.

GREY WAGTAIL (*Motacilla cinerea*)

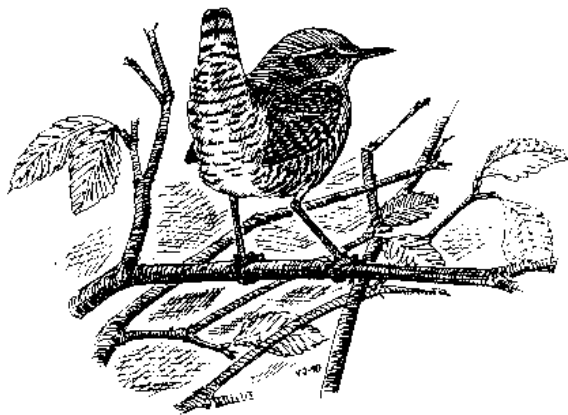
Four birds were observed on 11 October 1989.

WHITE WAGTAIL (*Motacilla alba*)

Very rare in spring, but very common during autumns.

WREN (*Troglodytes troglodytes*)

The Wren is commonly breeding on Capri.



HEDGE SPARROW (*Prunella modularis*)

Occasional birds are seen in April. Common on migration in October 1989.

ROBIN (*Erithacus rubecula*)

Breeds in sparse numbers on Capri. Spring migration in March and in early April a few migrating birds are still resting there. Very common in autumn.

NIGHTINGALE (*Luscinia megarhynchos*)

Observed from April to mid May. In April 1987 no less than 41 Nightingales were trapped and ringed.

BLUETHROAT (*Luscinia svecia*)

Observed on a few occasions in spring. On 8 May 1974 a bird of the cyanecula ssp. was singing at the castle.

BLACK REDSTART (*Phoenicurus ochruros*)

Sparse annual observations, principally in April. However, on 27 March 1989, 200 birds were seen at the Castle.



REDSTART (*Phoenicurus phoenicurus*)

Common during spring, especially in early May. On 11 May 1960 110 individuals were caught.

WHINCHAT (*Saxicola rubetra*)

Like the Redstart it is most common in early May. Occasionally several hundred Whinchats are resting around the castle and on the slope of the Barbarossa mountain.

STONECHAT (*Saxicola torquata*)

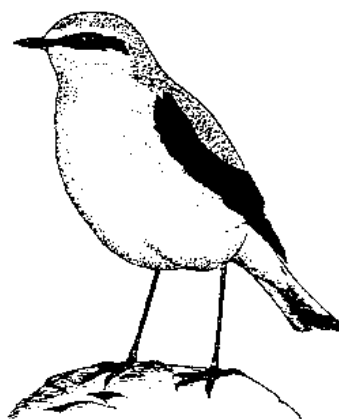
Observed a few times in autumn. Ten birds were seen 10 - 13 October 1989. Two birds were ringed in early April 1989.

ISABELLINE WHEATEAR (*Oenanthe isabellina*)

The only find is from 1971 when one bird was ringed.

WHEATEAR (*Oenanthe oenanthe*)

Rests at Capri mainly in April and early May. Some days, when as much as 400 Wheatears may stay around the castle, the Italian hunters catch a lot of them in snaptraps.



PIED WHEATEAR (*Oenanthe pleschanka*)

One bird was observed in April 1961.

BLACK-EARED WHEATEAR (*Oenanthe hispanica*)

Not so common as the Wheatear, but occurs during the same period in spring. As much as 95 birds have been ringed in one spring season. Also the *melanoleuca* ssp. is seen annually.

ROCK THRUSH (*Monticola saxatilis*)

Observed occasionally every year, mainly in April, and is probably a rare breeder on the island.

BLUE ROCK THRUSH (*Monticola solitarius*)

A few pairs breed in the precipices near the castle.

RING OUZEL (*Turdus torquatus*)

Observed 5 times in spring when 3 birds have been ringed. Three birds belonging to the *alpestris* ssp. were seen 13 October 1989.

BLACKBIRD (*Turdus merula*)

Breeds on Capri. In 1986, one pair bred in the castle garden.

SONG THRUSH (*Turdus philomelos*)

Common during autumn and early spring in March and April.

MISTLE THRUSH (*Turdus viscivorus*)

Observed occasionally during spring and autumn. 6 have been ringed.

CETTI'S WARBLER (*Cettia cetti*)

Breeds on Capri.

FAN-TAILED WARBLER (*Cisticola juncidis*)

Earlier bred on Capri. Was not observed between 1979 and April 1988.

In May 1988 2 birds were ringed and one observed in October 1989.

GRASSHOPPER WARBLER (*Locustella naevia*)

Two birds were ringed in 1971 and 1977, respectively.

SEDGE WARBLER (*Acrocephalus schoenobaenus*)

A few birds are trapped and ringed annually.

REED WARBLER (*Acrocephalus scirpaceus*)

A total of 26 have been ringed.

GREAT REED WARBLER (*Acrocephalus arundinaceus*)

A total of 28 have been ringed, and a few observations of singing males made in spring.

ICTERINE WARBLER (*Hippolais icterina*)

Appears from the end of April, but they are most common in the middle of May. As much as 1039 were caught in the spring 1974.

MELODIOUS WARBLER (*Hippolais polyglotta*)

Seven have been ringed.

MARMORA'S WARBLER (*Sylvia sarda*)

A total of 13 birds have been ringed and 3 additional observations made in spring.



DARTFORD WARBLER (*Sylvia undata*)

Recorded twice in 1975, when 2 birds were ringed.

SPECTACLED WARBLER (*Sylvia conspicillata*)

Occasionally seen in spring. 26 birds have been ringed (14 in 1989).

SUBALPINE WARBLER (*Sylvia cantillans*)

Common breeder on Capri, preferably in and around gardens.

SARDINIAN WARBLER (*Sylvia melanocephala*)

Breeds commonly in the macchia vegetation.



RUPPELL'S WARBLER (*Sylvia ruppelli*)

Five birds have been ringed.

ORPHEAN WARBLER (*Sylvia hortensis*)

Two have been ringed, one in 1977 and one in 1978.

LESSER WHITETHROAT (*Sylvia curruca*)

Observed only at 4 occasions in spring.

WHITETHROAT (*Sylvia communis*)

Common throughout the whole spring period. As much as 661

Whitethroats were ringed in 1960 and on 24 April the same year 110.

GARDEN WARBLER (*Sylvia borin*)

The most common bird ringed on Capri in al 17 859 birds have been ringed up to and including 1990. Especially common in May.

BLACKCAP (*Sylvia atricapilla*)

Breeds sparsely on Capri. Most birds are trapped in April.

BONELLI'S WARBLER (*Phylloscopus bonelli*)

One or two birds are ringed almost every year. A few field observations also made.

WOOD WARBLER (*Phylloscopus sibilatrix*)

Common in April and early May. In the beginning of May 1986, hundreds of Wood Warblers were resting in the vicinity of the castle. On 4 May 234 birds were ringed.

CHIFFCHAFF (*Phylloscopus collybita*)

Normally around 20 birds or fewer are ringed every spring. But in the autumn 1960 48 were ringed.

WILLOW WARBLER (*Phylloscopus trochilus*)

A few hundred birds are ringed every spring. Most common in April until the middle of May. The nominate race passes Capri on average 20 days earlier than the *acredula* ssp.

YELLOW-BROWED WARBLER (*Phylloscopus inornatus*)

One trapped 13 October 1989. Probably belonged to the *humei* ssp.

GOLDCREST (*Regulus regulus*)

Only 2 records in spring (1971 & 1989). In the autumn 1960 & 1961 6 birds were ringed. Seen several times 9-13 October 1989.

FIRECREST (*Regulus ignicapillus*)

Breeds sparsely on the island.

SPOTTED FLYCATCHER (*Muscicapa striata*)

Most common after the first week in May. As much as 880 birds were ringed in the spring 1961.

COLLARED FLYCATCHER (*Ficedula albicollis*)

Observed annually, especially in April and early May. 72 birds were ringed in 1968.

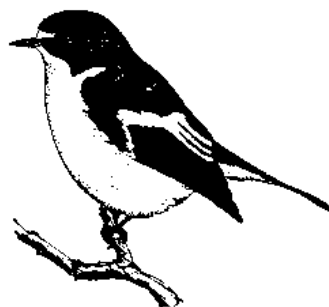


BALKAN FLYCATCHER (*Ficedula semitorquata*)

One bird was ringed 22 April 1988 and another in May 1990.

PIED FLYCATCHER (*Ficedula hypoleuca*)

Most common in late April and early May. The all-time high is from 1960, when 539 birds were ringed.



BLUE TIT (*Parus caeruleus*)

One bird each were seen in the castle garden 29 March and 4 April 1989.

GREAT TIT (*Parus major*)

Breeds commonly on Capri.

WALLCREEPER (*Trichodroma muraria*)

Observed occasionally in spring and autumn.

SHORT-TOED TREECREEPER (*Certhia brachydactyla*)

Breeds commonly on Capri.

GOLDEN ORIOLE (*Oriolus oriolus*)

Seen under the major part of the spring period. Days with around 50 Orioles resting in the castle garden are very fascinating for ears and eyes. Those days you never forget. Over 1200 birds have been ringed.

RED-BACKED SHRIKE (*Lanius collurio*)

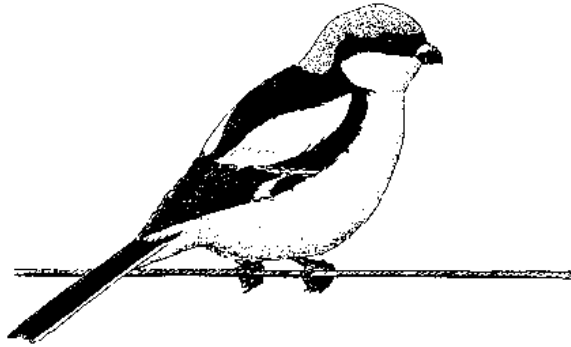
Observed occasionally every spring, especially in late May. In all 108 birds have been ringed.

LESSER GREY SHRIKE (*Lanius minor*)

Recorded on 8 occasions. One was ringed in 1958 & 1967, respectively.

WOODCHAT SHRIKE (*Lanius senator*)

Common in late April and May. The highest ringing figures are 465 in one spring season 1960 and 117 in a day 11 May 1960.



RAVEN (*Corvus corax*)

One or two pairs breed annually on the island.

STARLING (*Sturnus vulgaris*)

Observed occasionally in spring. Six birds have been ringed.

HOUSE SPARROW (*Passer domesticus italiae*)

Breeds commonly on Capri.

SPANISH SPARROW (*Passer hispaniolensis*)

Recorded once.

TREE SPARROW (*Passer montanus*)

Four birds have been ringed.

CHAFFINCH (*Fringilla coelebs*)

Breeds commonly on Capri. A passage migrant, especially in autumn.

BRAMLING (*Fringilla montifringilla*)

Two spring records; one in 1971 & one in 1976. Several heard among flocks of Chaffinches 9-13 October 1989.

SERIN (*Serinus serinus*)

Breeds very commonly on Capri.

GREENFINCH (*Carduelis chloris*)

Breeds on Capri.





GOLDFINCH (*Carduelis carduelis*)

Common breeder on the island.

SISKIN (*Carduelis spinus*)

Recorded occasionally in spring. In all 14 birds have been ringed.

LINNET (*Carduelis cannabina*)

Breeds sparsely on Capri.

CROSSBILL (*Loxia curvirostra*)

Observed on a few occasions in spring. Four have been ringed.

SCARLET ROSEFINCH (*Carpodacus erytrinus*)

One bird was ringed in 1981, the only record.

HAWFINCH (*Coccothraustes coccothraustes*)

Observed occasionally in spring. In all 5 birds have been ringed.

Several south-migrating flocks 9-13 October 1989.

CIRL BUNTING (*Emberiza cirius*)

Observed a few times in spring. One bird was singing in the castle garden 4 May 1978.

ROCK BUNTING (*Emberiza cia*)

During the 1960's a few pairs were breeding. Since then it was observed occasionally in the 1970's. No records exist from the 1980's. Eight birds have been ringed.

ORTOLAN BUNTING (*Emberiza hortulana*)

In all 59 birds have been ringed.

CRETZCHMAR'S BUNTING (*Emberiza caesia*)

One male was seen in the castle garden 19 May 1989.

BLACK-HEADED BUNTING (*Emberiza melanocephala*)

Over 20 records. The majority are from the end of May, but it has also been observed in autumn. Three birds have been ringed.

CORN BUNTING (*Miliaria calandra*)

Normally observed on a few occasions every spring, from April to May.

Total 162 species.

Riassunto

A circa trenta chilometri fuori Napoli, sulla costa occidentale dell'Italia, si trova l'isola di Capri. Ha dimensioni poco importanti (10 km^2), ma questa roccia imponente giunge con il suo punto più alto, il Monte Solaro, a un'altezza di 589 metri sopra il livello del Mediterraneo. La macchia, così tipica per la regione mediterranea, ne copre le cime, mentre le due cittadine dell'isola, Capri e Anacapri, sono circondate da oliveti e vigneti.

L'isola ha una posizione molto strategica per gli uccelli che in primavera, appena passato il Mediterraneo, hanno bisogno di un posto di riposo. Le grandi schiere di uccelli riposanti a Capri sono da molto tempo l'oggetto di una caccia estesa.

Quando il medico svedese Axel Munthe si stabilì a Capri costruendo la sua Villa San Michele, oggi tanto famosa, fu colpito in modo molto negativo vedendo la grande estensione della caccia agli uccelli a Capri. Perciò Munthe acquistò il Monte Barbarossa con il Castello di Barbarossa per darvi un rifugio agli uccelli.

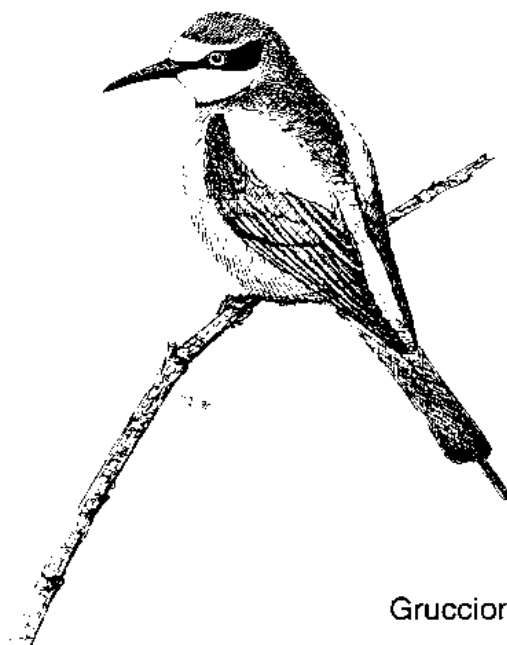
Alla morte di Munthe nel 1949 le sue proprietà furono donate allo Stato svedese, e all'Associazione Ornitologica Svedese (Sveriges Ornitologiska Förening) fu offerta la possibilità di occuparsi di inanellamento di uccelli al Castello di Barbarossa. Tali attività cominciarono nel 1956 sotto la guida di Carl Edelstam e si svolsero i primi anni sia in primavera che in autunno, ma dalla metà degli anni sessanta le attività hanno luogo solo in primavera, soprattutto in aprile e maggio. Dal 1986 sono responsabili della ricerca a Capri per quanto riguarda gli uccelli migratori la Stazione Ornitologica di Ottenby (Ottenby fågelstation), Svezia e ornitologi dell'Istituto Nazionale di Biologia della Selvaggina a Bologna.

Durante il periodo 1956 - 1990 162 specie di uccelli sono state osservate a Capri e un po' più di 100 000 uccelli di 102 specie sono stati inanellati. Le otto specie più comuni sono, in ordine di frequenza:



Beccafico (17 859), Canapino maggiore (14 780), Sterpazzola (12 942),
Pigliamosche (10 651), Lui verde (8 163), Balia nera (5 959), Lui grosso
(5 361) e Stiaccino (5 226).

Questo rapporto rende conto dei 213 uccelli inanellati che sono
stati ritrovati e di osservazioni, cifre di cattura e dati biometrici raccolti
durante gli anni 1956 - 1990.



Gruccione

The Swedish Ornithological Society's Bird Observatories
where the speed of spring migration in different species,
and between different age and sex-categories, are studied



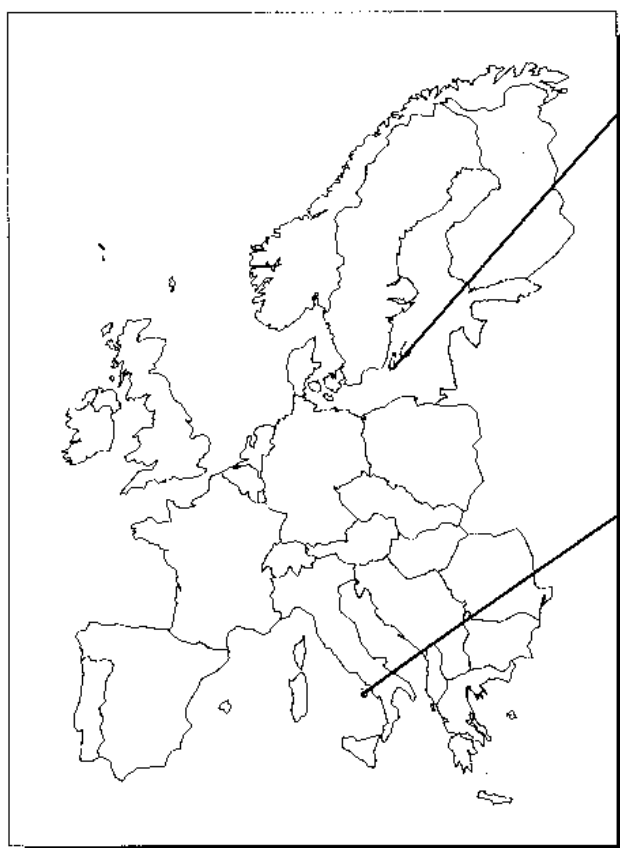
Ottenby Bird Observatory

Start year 1946
Spring working period
15.3 - 15.6
Mean ringing figure 4500



Capri Bird Observatory

Start year 1956
Spring working period
15.4 - 25.5
Mean ringing figure 3000



Ottenby Bird Observatory
PI 1500
S-380 65 Degerhamn
SWEDEN
