

BIRD-BANDING

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METHODS OF CAPTURING BIRDS AT THE ORNITHOLOGICAL STATION OF CASTEL FUSANO, ITALY.¹

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THE Italian Ornithological Observatories, although established comparatively recently, have already ringed noteworthy numbers of birds, besides serving as centers for the recovery of rings placed on migratory birds in other countries. Italian stations differ from others in that they capture birds with nets and special methods of decoy, already used for centuries in Italy, where the art of bird-catching, now much limited by rigorous laws, was much in vogue in the past.

For taking birds in nets special skill is necessary, besides a knowledge of the habits of the different species, hence only the most expert bird-catchers are able to use nets with the maximum of efficiency.

Two principal types of nets are used—the simple, movable net, the purpose of which is merely to cover and hold the bird on the ground, and the fixed trammel net. The latter consists of a rather fine cotton net with meshes $2\frac{1}{2}$ to $3\frac{1}{2}$ centimeters wide, contained between two other nets of rather strong cotton with meshes about ten times as large. The inner net has a larger surface than the others, but the sides of all three coincide. The inner net must be loose, for otherwise it would not form a pocket in which the bird remains prisoner, when, flying into the middle net, it draws it through one of the large meshes and is held fast.

The Station of Castel Fusano² was founded in 1930 through the initiative of the National Fascist Federation of Italian Sportsmen in coöperation with the Institute of Zoölogy of the Royal University of Rome, and is under the control of the Minister of Agriculture and Forests. The personnel occupy

¹Translated from the Italian by Margaret Morse Nice.

²Castel Fusano the country seat of Prince Chigi, is a mile or two from that part of the Mediterranean known as the Tyrrhenian Sea and is about fifteen miles from Rome.

themselves alternately on the shores of the Tyrrhenian Sea with the taking of Quail, and inland with the capture of birds of the woods and fields, using three different methods and working in three different environments. In early summer they devote themselves to the search for nests, the study of nesting, and the ringing of nestlings. Little is done in late summer, but complete inactivity—i.e. of field work, for that of the writing-desk never exists—lasts only from the end of July to the beginning of October.

The Boschetto. With the coming in the fall of the first Red-breasts (*Erithacus rubecula* L.) and the first bands of Wood Pigeons (*Columba palumbus* L.) the *boschetto* (little grove) is made ready—a type of place used everywhere in Umbria for the capture of woods birds in general and especially of Thrushes (*Turdus philomelus* Brehm, *Turdus muscius* L.) and Blackbirds (*Turdus merula* L.). The *boschetto* of Castel Fusano is situated in scrubby growth on the borders of the pine woods about two kilometers from the sea. The evergreen shrubs (*Quercus Ilex* L., *Phillyrea angustifolia* L., *Arbutus Unedo* L., *Juniperus phœnicea* L., *Juniperus communis* L., etc.) form a kind of hedge and are clipped in a special way so that when the birds alight they entangle themselves in the nets hidden there. The trammel nets, two meters in height, are concealed in corridors and galleries made in the line of shrubs. At the strategic center of the *boschetto* a little cabin of greenery is constructed; in this the bird-catchers hide.

Outside of the *boschetto* subsidiary nets are placed to take birds that frequent the undergrowth, among them the Woodcock (*Scolopax rusticola* L.).

The first Thrushes and Blackbirds that are caught are placed in small cages and well fed so as to serve as decoys; these help to acquaint the bird-catcher with the approach of migrating birds, and to encourage the latter to descend to the nets of the *boschetto*.

In the early light of dawn the bird-catchers take their posts in the green blind. The Redbreast is the first to awaken with his petulant *chick, chick* that he repeats every instant. There follow immediately the clucking of the Blackbird and some moments later the short, thin, mysterious whistle of the Song Thrush (*Turdus philomelus*). In the mean time a song is heard from the *boschetto*. It is that of the bird-catchers, who imitate the love song of the Thrush with a special kind of metal whistle held between the lips and the teeth. It is a strong, full, insistent song that is heard nowhere else in the woods at this season. The attention of the Thrushes and Blackbirds is aroused;

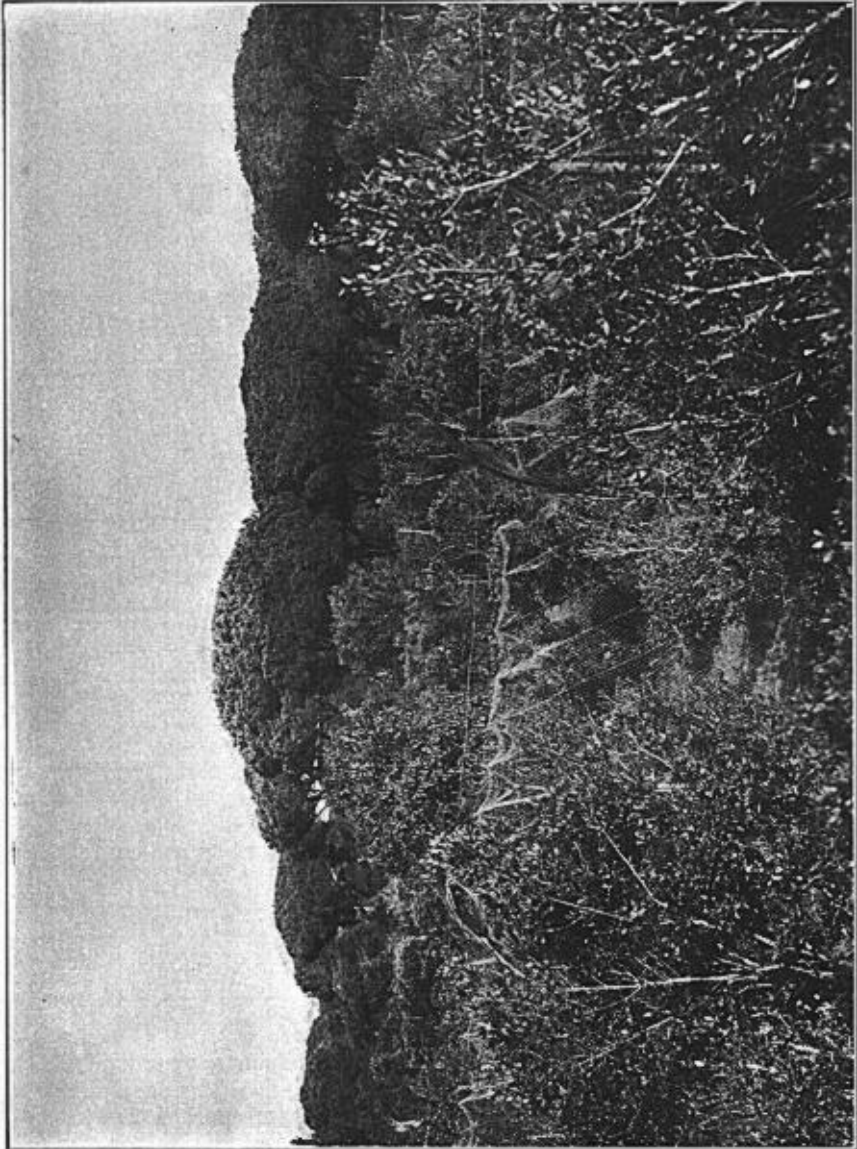


Figure 1. View of the "Boschetto" and Surrounding Woods.

clucking and whistling, they approach and find others of their kind (in the cages) clucking and whistling; they gain more and more confidence and are taken in the nets.

But day draws near rapidly; to the cautious Thrushes that passed the night near the *boschetto* and that have now departed, there succeed bands of migrants in tens, hundreds, and sometimes thousands. Before they are visible to the men, they are perceived by the decoys, which unceasingly give their characteristic call notes, while the bird-catchers continue to imitate the love song of the Thrush. As the birds draw nearer, attracted by the calls and the song, many lower themselves to rest; then the *zi zi zi zi* becomes louder, and they launch themselves like meteors into the *boschetto*. Then a commotion is heard in the nets, often followed by notes of alarm. In such cases it is necessary to run to liberate the prisoner, which might cause his frightened companions to leave, and himself become a victim of the Sparrow Hawk (*Accipiter nisus* L.). And the prisoners pass several hours of the morning in a comfortable willow basket, until they are ringed and liberated.

Not always, however, do the migrating Thrushes listen to the calls of their caged companions or the counterfeit song of the bird-catchers; they often continue their journey with indifference. Then the art of the bird-catcher must be refined. A caged Thrush is held ready for the occasion; and when Thrushes are noted that seem uncertain as to whether or not they will come to the *boschetto*, a stuffed owl is suddenly brought before the Thrush, or even a rag or a hand. The bird gives a cry of alarm and defense—*schiamazza*. At this cry the Thrushes passing above the *boschetto* drop down and are caught. But the Thrush that serves as *schiamazzo* must be well proved; if, instead of a cry of alarm, it gives that of terror, all the other birds will flee precipitously, even those that had had the best of intentions to come into the nets of the *boschetto*.

Sometimes, indeed, the Thrushes are too credulous and come into the blind occupied by the bird-catchers. In our *boschetto* the blind is surrounded by nets.

Although each of the three species—Song Thrush, Blackbird, and Redwing (*Turdus musicus* L.)—has its own call notes and different songs, yet all are attracted by the false song and also, of course, by the calls of the caged birds of any of the three species.

Throughout the autumn and almost all the winter migrating or wandering Song Thrushes, Blackbirds, and Redwings fall into our nets in the *boschetto*. And in the same period many other small woods birds are taken, especially a large number of



Figure 2. The Trammel Net in a Corridor of the "Boschetto."

Redbreasts, which have a great attachment to their chosen winter quarters, as is shown by the numerous recoveries in the same station of ringed birds.

In February and March the winter wandering of the Thrushes and Blackbirds ceases, and the migrating birds, returning to their homes, believe no longer in the decoys, nor do they stop in the forests by the coasts; so the activity of the *boschetto* comes to an end.

The *boschetto* of Castel Fusano uses about 700 meters of nets; there are, besides, 500 meters of auxiliary nets, and half of these are four meters in height. The bird-catchers are chosen from the best in Umbria for the experience they have had in bird-catching in general and *whistling* in particular.

The *boschetto* of Castel Fusano is protected by more than 2000 hectares (about 5000 acres) of land in which hunting of all small birds, and of Thrushes, Blackbirds, and Redwings is forbidden, while other hunting is limited. In the seasons of 1930-31 and 1931-32 (the last being noteworthy for the abundance of the migration) the complete take was 4000 Thrushes and Blackbirds and about 2500 small birds. In the current year, when the migration was small, only a few more than 1500 Thrushes and Blackbirds were captured.

Netting of the Quail. By the end of March activity in the *boschetto* is ended and the work is transferred to the sea-coast for the netting of the Quail (*Coturnix coturnix* L.). This powerful flyer begins to arrive from North Africa on the coast of the Tyrrhenian Sea near the end of February, but at this time there are only a few scattered individuals. Later, towards the middle and end of March, there is a fair flight, and finally the migration becomes regular, occurring nearly every day, with gaps, increases, and decreases in the number of the birds in April, to continue throughout May, part of June, and even in July, according to weather conditions. After days of the heaviest flights when many thousands of Quail land and penetrate into the Italian peninsula, sometimes there will be weeks of no flight or almost none; but the full number of Quail that cross our coast during the course of a season runs into many hundreds of thousands.

The Quail is the only gallinacious migrant of our country and has the aspect of a heavy bird little adapted to flight. But appearances are deceptive, for it is now proved that in a few hours it is capable of crossing the Mediterranean and Tyrrhenian Seas from Tunisia to the Roman coast and to pursue the journey to the Adriatic across the highest part of the Apennines, departing from the Tyrrhenian coast the evening

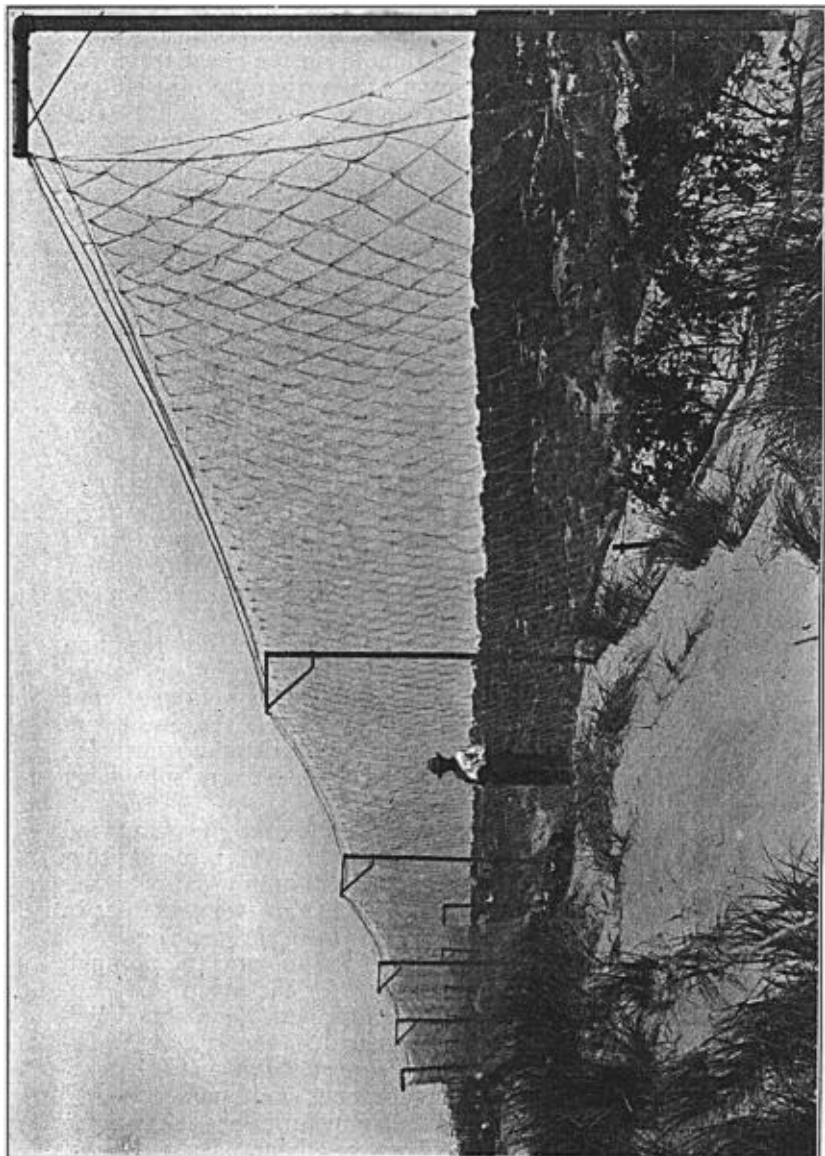


Figure 3. The Trammel Net Shore
on Dunes for the Capture of Migratory Quail.

of the same day as it arrives from Africa, about 800 kilometers (480 miles) of flight in less than 30 hours, without counting any flight in Africa before reaching the Mediterranean coast. And it is certain that no Quail remain on the coast from one day to another, but that all, except those that are injured, are ready to take up their flight after, on an average, twelve hours of rest. Nor can we be sure that this rest is absolutely necessary, since, as these birds travel only by night, the stop is due to the presence of the sun above the horizon and probably only in part to the necessity of repose.

The Quail leave the African coast in the early evening and reach us normally at dawn or a little before until about 9 in the morning, or even later until 3 o'clock. A large number stop on the coast, either on the bare sand or where there is sufficient vegetation to give them shelter; another portion fly without stopping towards the interior of the peninsula. The birds arrive with a very rapid flight, so much so, that often, alighting on the bare sand, they spin for some meters before they can recover their equilibrium, and then run quickly towards some tuft of grass that offers shelter and food.

For capturing the Quail we use vertical trammel nets three meters high, set up on the crest of natural dunes parallel to the seashore. Many escape because they are flying higher than the nets, or by passing through the very small space between the lower edge of the net and the earth.

The length of the principal nets, situated on the first dune nearest the sea, is 400 meters. Other nets are set up on the dunes farther from the sea, either parallel or obliquely, and these serve sometimes for the catching of Quail that are flying toward the interior, sometimes for other birds migrating from Africa. There are about 500 meters of these lower subsidiary nets.

In the three seasons the station on the coast has captured and ringed about 1200 Quail besides about 1000 birds of other species. It is remarkable that in June and July many young Quail arrive not fully grown and with one or two primaries in molt; these were hatched in North Africa in early spring.

The Field Birds. Between Castel Fusano and the borough of Ostia Antica clap nets are installed for the capture of Lapwings (*Vanellus vanellus* L.), Golden Plover (*Charadrius aprincarius* L.), Ruffs (*Philomachus pugnax* L.), Stock Doves (*Columba aenas* L.), Wood Pigeons (*Columba palumbus* L.), Starlings (*Sturnus vulgaris* L.) and sometimes small passerines.

The nets, one-ply and rectangular in form, are laid on the ground in pairs with a space between them. By means of

planting sticks and pull-lines, the nets are pulled over in such a way that one overlaps the other. In the free space between the two nets decoys are mounted of the species one wishes to catch, usually made with skins stuffed with straw or hay or stretched on cork models; these are placed with the beak to the wind. Live decoys are used for doves and also for shore-birds; with a simple contrivance they are caused to move at the opportune moment.

Like other forms of bird-catching, this also calls for much professional skill in the operator. He must know to perfection the habits of the birds he wishes to catch, to foresee their intentions, to be able at the opportune moment, neither too early nor too late, to bring the decoys into play, to imitate the call-notes of the birds that pass, and to be able to choose the proper instant for drawing the nets and taking, either on the wing or on the ground, the largest possible number of birds at one time. Removing the birds from the horizontal nets is no easy matter; skill and dexterity are needed, especially when Starlings, comparatively small birds and very quick to escape are caught in the nets with relatively large meshes designed for Lapwings.

In two years there have been taken in these nets about 300 Lapwings, 100 shore-birds of various species, 200 Doves, and 200 Starlings.

The last form of activity of our station, that of the study of nesting and the ringing of nestlings, begins in April with the first nests of the Blackbird and lasts until July, when the diurnal birds of prey are nesting in numbers. Up to the end of 1932 there have been ringed about 500 Starlings, 300 Blackbirds, and 400 other birds.

Castel Fusano, November, 1932.