

Capture of Adult Ground-Nesting Birds on the Nest for Ringing Purposes.

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(Med et dansk Resumé: Fangst og Ringmærkning af Rugefugle paa Reden.)

When ringing started in Europe in the beginning of the present century the main stress was laid upon the marking of nestlings, later the capture of adult birds on migration and in winter developed more and more. It was the late JACOB SCHENK, the former director of the Royal Hungarian Ornithological Institute, who started, as early as 1912, the capture of breeding birds — especially waders — on the nest, as first by snaring, as described by WITHERBY (1914), while later on small clapnets were used, in which the birds were captured automatically when settling upon their eggs. The method by snaring seems rather crude and is not to be encouraged, but the small nets work very smoothly, if used with care.

When visiting Hungary in June 1928 I accompanied SCHENK on two of his ringing trips on June 7, 8 and 15, 16 to the famous puszta Űrbö and witnessed his systematic work in ringing adult and juvenile Lapwings, Godwits, a few Redshanks and Kentish Plovers. The outstanding event, however, was the capture of a Pratincole (*Glareola pratincola*), a very beautiful bird, on its nest with 3 eggs; the bird was set free again after having been ringed. The large number of breeding birds present in this vast and extensive puszta with its wide horizons, the view of a flock of about a dozen Great Bustards (*Otis tarda*), but principally the systematic way in which the ringing of both adult birds and nestlings was done made a great impression upon me. The results, which were published in different volumes of the Institute's periodical AQUILA were so interesting that I expressed my desire to start the same work in Holland after my return. SCHENK was so kind as to present me with one of the nets and on being home again I had some more of them made and started experimenting with them immediately.

In presenting my results obtained in Holland in different years and in different localities, I wish to point out that my work was always carried out accidentally, and never systematically, as I had neither the time nor the opportunity to work constantly in a special locality, furthermore the finding of the nests and above all the actual capture of the birds took more time than I expected. SCHENK was so happy as to have a

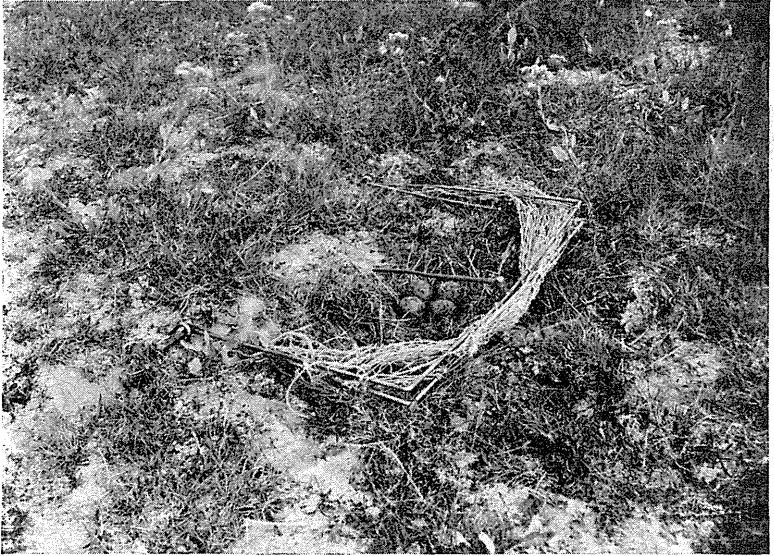


Fig. 1. The net placed at the nest of a Lapwing (*Vanellus vanellus*). The wooden stick above the eggs holds the two sides of the net together.

Nettet anbragt ved Reden af Vibe (*Vanellus vanellus*). Træpinden over Æggene holder Nettets to Sider sammen.

cooperator constantly in the field with the only object of capturing and ringing as many birds as possible.

Nevertheless, I obtained some few interesting results although my work was never completed but broken off by my departure from Europe. However, I hope that my colleagues in Denmark, the very country where bird-ringing originated, so rich in birds and in the possession of many important bird sanctuaries, will start this interesting bird ringing by which important facts about bird-life can be expected, now that it is pretty certain that it will not be resumed again in Hungary.

As to the nets the pictures give perhaps a better idea than any lengthy description. On Fig. 1 a net is seen placed at the nest of a Lapwing (*Vanellus vanellus*). The little wooden stick just above the eggs holds the two sides of the net together. The bird, upon settling on its eggs, has to push aside this stick with the effect that the upper side of the net claps down and the bird is captured. The net is fastened to the ground with two pins over its springs. As the net is clearly visible when placed at a nest, some birds hesitate for some time before taking courage to settle down. In order to minimize this disadvantage I always camouflaged the net with loose grass over it as seen on Fig. 2 on which the nest of a Common Tern with three eggs is shown on which only the little stick over the eggs is visible.

In Fig. 3 a Common Tern is seen captured under a closed net.

I have taken the following species of birds on their nests by these clapnets.

- Lapwing (*Vanellus vanellus* (L.))
- Godwit (*Limosa limosa* (L.))
- Redshank (*Tringa totanus* (L.))
- Oystercatcher (*Haematopus ostralegus* L.)
- Avocet (*Recurvirostra avosetta* L.)
- Ringed Plover (*Charadrius hiaticula* L.)
- Kentish Plover (*Charadrius alexandrinus* L.)
- Common Tern (*Sterna hirundo* L.)
- Arctic Tern (*Sterna macrura* Naum.)
- Sandwich Tern (*Sterna sandvicensis* Lath.)
- Little Tern (*Sterna albifrons* Pall.)

Most of these species were, however, taken in very small numbers and I only specialized on the Godwit, the Avocet, the Common Tern and the Little Tern. According to my experience the different species of Terns are most easily taken, as are the small plovers. In the larger birds, especially in the Lapwing and the Godwit, the nest must never be used before incubation has advanced for some time so that the birds are much attached to their eggs. Terns are quite indifferent to being taken again and again, and never forsake their eggs. The net itself must not be too loose as otherwise the larger birds may trample down their eggs when captured. In Hun-

gary quite a number of nets were used simultaneously and controlled after some time. This has the result that the bird when captured has to remain rather a long time under the net. I refrained from this and always used only one net at a time and watched each bird being captured, and then immediately set it free after it had been ringed. It is clear, however, that by this method far fewer birds can be caught and ringed, but



Fig. 2. Net placed at nest of Common Tern (*Sterna hirundo*) and camouflaged with loose gras; only the stick over the egg is visible.

Net anbragt ved Reden af Fjordterne (*Sterna hirundo*), kamoufleret med løst Græs. Kun Pinden over Æggene er synlig.

I found it absolutely necessary in order to avoid accidents, which indeed did not happen in the last few years.

My results as to the different species were the following:

Black-tailed Godwit (*Limosa limosa* (L.)).

Locality: Leersum, prov. Utrecht, where about 50 pairs of Godwit bred on a heath in colonial form. The actual capture caused some difficulties as the nests were placed in long heather which hindered the clapping down of the nets.

I started with the Godwit because no records of its annual migrations were at that time available from birds ringed in Holland, where it is quite common. As I never succeeded in finding great numbers of young birds I thought that the catching of breeding birds at the nest might give results. I succeeded in getting one recovery of a bird captured in Spain in spring, ringed as a nestling, which, being out of the scope of this article, I shall not mention.

	Number of Godwits ringed	
	Breeding birds on the nest	Nestlings
1929	9	5
1930	6	1
1931	7	13
1932	5	—
1933	3	—
1934	10	7
	<hr/> 40	<hr/> 26

Results obtained:

68230: captured on May 14, 1929 as a breeding bird on its nest with 4 eggs; recaptured at almost exactly the same spot in the same locality on May 15, 1931, sitting on 4 eggs.

68259: captured as breeding bird on May 6, 1932, on 4 eggs. Found dead in its breeding locality on May 4, 1935, quite fresh, killed by a raptorial bird, which was playing havoc among the incubating Godwits as I found at that date many killed birds at or near their nests. The predator was in all probability a male Hen Harrier (*Circus cyaneus*) on migration.

Of the nestling Godwits not one bird was taken again on the breeding-ground.

Avocet (*Recurvirostra avosetta* L.).

Locality: Hoek van Holland, then one of the best bird places in Holland, at present utterly destroyed by the building of bunkers and gun positions by the Germans during the occupation.

Avocets were not numerous and I only took a vere small number of them.

	Number of Avocets ringed	
	Breeding birds on the nest	Nestlings
1928	3	3
1929	12	3
1930	—	1
	<hr/> 15	<hr/> 7

Results obtained:

68222: captured on July 2, 1929, as a breeding bird on its nest with 4 eggs; May 17, 1932, found dead (killed by a stoat) besides its nest with 4 eggs at Oosterland, Duiveland, province of Zeeland, Netherland, at about 30 kilometres SW of its former nesting place (*Ardea* **29**, 1940, p. 181). A very interesting case in which it was proved that this bird had changed its nesting place.¹⁾

Oystercatcher (*Haematopus ostralegus* L.).

Locality: Hoek van Holland, where the species is quite common.

	Number of Oystercatchers ringed	
	Breeding birds	Nestlings
1930	7	7

Results obtained:

54344: ringed on June 17, 1930, as a breeding bird on its nest; August 1937 found dead in the same place, killed by eating poisoned eggs.

54359: ringed as a breeding bird on its nest on June 18, 1930; found killed by eating poisoned eggs in the same place August 1937.

In this bird sanctuary the Oystercatcher developed the bad habit of killing and eating the eggs and chicks of Terns (*Ardea* **20**, 1931, p. 176) whereby they were becoming a great menace to the Tern colonies. In order to stop this, poisoned eggs were distributed with the result that the Oystercatchers were held in check.

Little Tern (*Sterna albifrons* Pall.).

Locality: Makkum in the Ijsselmeer, where annually a flourishing colony of 50—100 pairs is nesting on a sandbank covered with white shells.

	Number of Little Terns ringed	
	Breeding birds on the nest	Nestlings
1943	6	44
1944	—	15
1945	21	53
	<u>27</u>	<u>112</u>

Results obtained:

I was greatly surprised when examining on June 2, 1945, a Little Tern captured when incubating its two eggs to discover that it wore a ring with the inscription Vogelwarte Helgoland 8370241. To my regret I had no success in trying to obtain particulars about this bird, as it was not possible to get into contact with the former Vogelwarte.

¹⁾ The reference in *Der Vogelzug* 11, 1940, p. 200 of my first note in *Ardea* gives a wrong date!

So unfortunately I am not able to state where and when this bird was ringed. We may assume, however, that it originated from one of the German Frisian Islands and it certainly was not ringed at its breeding place. It is quite interesting that this Little Tern settled down to breed on the coast of the IJsselmeer. I placed on its other leg a ring of the Leiden Museum D 36291 and set it free again. The next day—June 3—I took some photographs of this bird at its nest (Fig. 4) on which the rings on each of its legs are distinctly seen.

D 36258: ringed as a breeding bird on its nest on July 2, 1943; recaptured in the same locality while incubating 3 eggs on June 3, 1945. Set free again with ring D 36293 on its other leg.

Common Tern (*Sterna hirundo* L.).

Locality: Hallum, where a large number of Terns breed, widely distributed over an extensive territory.

	Number of Common Terns ringed	
	Breeding birds on the nest	Nestlings
1943	15	19
1944	13	30
1945	21	67
	<hr/> 49	<hr/> 116

Results obtained:

D 36241: ringed while incubating 3 eggs on July 5, 1944; retaken in the same place while sitting on 2 eggs on July 4, 1945 (Fig. 3).

Arctic Tern (*Sterna macrura* Naum.).

	Number of Arctic Terns ringed	
	Breeding birds on the nest	Nestlings
1943	8	3
1944	2	3
1945	2	—
	<hr/> 12	<hr/> 6

Results obtained:

D 25835: ringed on June 25, 1943, while incubating 2 eggs; May 31, 1944, captured while incubating 2 eggs in exactly the same spot.

When summarizing these scanty results it seems strange that never a bird which was ringed as a nestling was ever captured in later years as a breeding bird, though this certainly might be expected if ringing had continued in the same localities during some more seasons.

SCHENCK is quite right when he remarks: "Auf Grund meiner Erfahrungen in Ürbö, halte ich für diese Untersuchungen

diejenigen Arten am geeignetsten, welche in isolierten Kolonien nisten, wie z. B. Säbelschnäbler, Seeschwalben und Möwen, wo bei einiger Umsicht und Ausdauer der ganze Bestand an Eltervögeln und auch die gesamte Nachkommenschaft einer Kolonie beringt werden kann. Aber auch bei diesen können nur dann entscheidende Resultate erwartet werden, wenn in einer gewissen Umgebung der Bestand sämtlicher Kolonien



Fig. 3. A Common Tern (*Sterna hirundo*) captured on the nest in the net.

Fjordterne (*Sterna hirundo*) fanget paa Reden i Nettet.

beringt werden könnte, damit man bei Gelegenheit des späterhin erfolgenden systematischen Abfanges der Brutvögel und auf Grund anderer Rückmeldungen ein klares Bild darüber erhalten können, ob und in welcher Menge die verschiedenen Kolonien Überläufer an einander abgeben?"

This last question is already answered by the above mentioned recovery of the Avocet which changed its nesting place.

From what has been just said the Little Tern is in my opinion a bird especially fit for this sort of work. It nests in small communities, nearly always consisting of less than a

hundred pairs and these settlements are generally isolated. Simultaneous ringing in different places repeated during a number of years, might give very interesting data about the composition of the population of these colonies.

Accidental ringing of large communities as *e. g.* Sandwich Terneries of several hundreds of pairs seems to be of little



Fig. 4. Little Tern (*Sterna albifrons*) at nest. On one leg it has a ring of the Vogelwarte Helgoland, on the other one of the Leiden Museum. Cf. text, p. 102.

Dværgterne (*Sterna albifrons*) ved Reden. Paa det ene Ben har den en Ring fra Vogelwarte Helgoland, paa det andet en fra Leiden Museum. Se iøvrigt Teksten, p. 102.

value; it is the small settlements where the total population of adult and young birds can be taken, which will yield the best results. It is the particulars of the individual bird, if possible extended over a series of years, which have the greatest value.

I believe that it was for this reason that SCHENK complained that he did not obtain more results from his extensive ringing, as his locality was so vast that it had to be patrolled by carriage, so it seems obvious that it was impossible to obtain more than a part of the breeding population.

More interesting facts can be obtained, however, by this method. SCHENK (1930) demonstrated that the Lapwing as well as the Godwit already breed when one year old. He even stated that the same holds good for the Black Tern and the Kentish Plover; on insufficient evidence, however, as in the case of these species no recoveries were made of birds ringed as nestlings and recovered one year later as breeding birds. Only recoveries of birds shot in the neighbourhood of their birth place have been made, and this is of no conclusive proof.

It would, however, be of great importance, if it could be shown, for instance, at which age the Oystercatcher becomes mature, especially when holding in mind the large flocks of summering birds in Holland. This could be ascertained by systematically ringing chicks as well as adult birds.

The same holds true for the different species of Terns, which seems as a rule to reach maturity after two years, but there are exceptions as AUSTIN (1932) has demonstrated. At least two birds laid eggs and bred when only one year old, but these were certainly exceptions.

Finally, I want to draw the reader's attention to the fine work by GOETHE (1939), in which some particulars are given of Common Terns which bred with the same mate for more than one season. The wish to arouse an interest of the different life-habits of our seabirds is the aim of this paper. Much work has still to be done before many important problems concerning the life of the sea-birds are solved.

Dansk Resumé:

Fangst og Ringmærkning af Rugefugle paa Reden.

Tidligere blev der ved Ringmærkningen kun lagt Vægt paa at mærke Redeungerne, men i de senere Aar er det mere og mere trængt igennem at ringmærke udvoksne Fugle paa Træk eller i Vinterkvartererne. Forf. har imidlertid efter ungarsk Forbillede (SCHENK) i Holland paabegyndt Fangst paa Reden af gamle Fugle tilhørende Arter, der yngler paa Jorden. Til dette Brug anvendtes et særligt Slagnet, hvis Anbringelse ved Reden og Anvendelse er skildret paa Fig. 1—3. Der fangedes i Aarene 1929—1945 en Del Vadefugle og Terner, saaledes

som det fremgaar af Oversigterne i Artiklen. Af de vigtigste Resultater skal nævnes, at der gjordes Genfangster af Fugle rugende paa nøjagtig samme Sted flere Aar efter Mærkningen, hos følgende Arter: Sorthalet Kobbersneppe (*Limosa limosa*), Strandskade (*Haematopus ostralegus*) (7 Aar senere), Fjordterne (*Sterna hirundo*) og Havterne (*Sterna macrura*). En Klyde (*Recurvirostra avosetta*) blev 2 Aar efter Mærkningen fundet ynglende 30 km fra Mærkepladsen, et af de sjældne Beviser paa, at en Fugl skifter Yngleplads. En Dværgterne (*Sterna albifrons*) fandtes ynglende med Ring fra en tysk Station, idet den rimeligvis var udklækket paa de østfrisiske Øer.

Der fremhæves hvorledes denne Ringmærkningsmaade er til stor Hjælp under Populationsstudier eller andre Undersøgelser over Fuglenes Livsforhold.

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