

NOTES ON THE CLUTCH-SIZE OF THE BLACK-
HEADED PLOVER

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To our knowledge the breeding habits of *Sarciophorus tectus* are not, very well known. In 1931 Bannerman (I) wrote "no other observers (besides Mr. Welman, who found two clutches on the polo ground at Maidugari in November, 1927) appear to have found, or at any rate to have described the nest. In Darfur, Lynes discovered a nest in the bare open, a slight droop in the firm sand, lined with a very few bits of dry grass, with the edge surrounded by pieces of fine gravel. It contained two eggs about to hatch on April 20th, sub-pyriform, clay coloured and with black spots and blotches."

Twenty years later the VIIIth volume of the same work relates that not much more seems to have been added to those first notes beyond a good description of the nest and eggs by Dr. William Serle.

So that we think it useful to mention what we two have noted on this plover in Senegal during the last two years, as it raises the problem of clutch-size in a rather puzzling way.

In all 117 complete clutches were found in the valley of the River Senegal. Contrarily to what normally happens with most plovers there is a great dissimilarity in the number of eggs to the clutch, though great efforts were made to check only complete ones. It was almost certainly proved by successive visits to nests and by the state of incubation of those collected. Here is the list:

February: 1 nest with 1 egg.

March: 1 with 1, 6 with 2, 4 with 3, 1 with 5.

April: 8 with 2, 10 with 3, 1 with 4, 3 with 5, 1 with 6.

May: 10 with 1, 38 with 2, 10 with 3, 1 with 4.

June: 8 with 1, 12 with 2, 1 with 3.

July: 1 with 2.

Total: 117 finds, of which 20 nests held 1 egg, 65 with 2 eggs, 25 with 3 eggs, 2 with 4 eggs, 4 with 5 eggs, 1 with 6 eggs.

Therefore one may wonder what is the normal clutch of this plover? Has it such great variations? Even if the small sized ones are due to predation or other destruction (this could explain the big number of C/2's), it still seems rather astonishing that a bird of that group can lay as many as six eggs.

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Apparently a C/3.

When an oologist comes across a 6 egg *Buteo buteo* clutch he invariably thinks it is "laid by two females," though no real proof has supported this supposition (which we quickly add, seems perfectly correct to us).

When one wanders into a colony of *Sterna sandvicensis* the 3-egg clutch can in some few areas be fairly frequent. Yet it seems doubtful that they are as frequent as at first sight appears. Actually many 3-egg scrapes have two homogeneous types, while the third egg is quite different and one has to think that it may belong to another female; this being supported by the fact that this third egg is fairly often very much like the only egg of a nest alongside. One can then logically conclude that this egg rolled into the first nest, especially when one considers how restless these birds are. Furthermore, a female may lay "by mistake" in a nest next to her own. It is then difficult to ascertain that an apparent three egg clutch, even if a homogeneous one, is the lay of the same female.

Although the number of nests observed of *Sarciophus tectus* is important it, then, seems impossible to determine the normal clutch size of this plover. Indeed, there is no chance in the cases detailed of eggs rolling from one nest into another, but community laying must still be considered.

The eggs (of which Dr. Serle gave a very accurate description) do not show great variation, yet individual differences may be easily noticed. In a C/5 collected by Etchécopar personally the eggs are very homogeneous, while in the case of a c/6 the "clutch" could easily be divided both by shape and colour into two C/3s. But if that is the case explain it. Nests of this plover are too far from each other (100 yards from the nearest) to cause us to accept the explanation given for terns. Then must we accept the principle of fairly common community laying?

The stage of incubation is difficult to appreciate because of the dark colour of the shell and lack of water for a floating test in the near vicinity of the normal biotope. Furthermore, it would not be a great help if we found a half-incubated C/3, while a C/5 was fresh.

We will now try to conclude with a definite assessment; we believe the normal clutch is 3, often 2, sometimes 4. A number of C/2s and most C/1s are due to old females or loss mainly by predation; C/5s are exceptional, and we guess that some of those C/5s reported above are the product of two females, as most probably in the case of the C/6.

We will end by stressing that the nesting season is at its best in May, though it seems a late date for *Charadriidae* in the tropical area.

The Richard Toll bird always lays on bare ground and seems to have a preference for newly burned areas, as do the sandgrouse and sparrow-larks, perhaps to avoid bush-fires.

(We have not time to refer to the author for the meaning of "Richard Toll bird"—ED.)