A NESTING COLONY OF AVOCETS AT LAKE MANYARA, TANGANYIKA

By

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On July 19, 1959, four adult Avocets, *Recurvirostra avosetta* Linn., were seen feeding on the north-west shore of Lake Manyara and further search revealed a large flock of about 400 spread out upon the soda flats in the north-east corner of the lake. This latter area is, during the dry period of the year, the first to dry up and the most susceptible to fluctuations in water level, also it provides ideal feeding grounds for the resident and palaearctic visitors along the Great Rift Valley route.

Although fed by numerous small perennial fresh-water streams that emerge at various levels from the Rift wall, the lake itself is always alkaline and on evaporation leaves large expanses of soda-covered mud-flats. During July, 1959, the north-east corner of the lake was at a level that exposed small bare areas of soda, up to 50 yards square, separated from each other by up to 100 yards of very shallow, highly alkaline water and mud. It was upon these low uncovered areas of soda that 14 pairs of Avocets were found, for the first time at Lake Manyara, building, laying and incubating their eggs.

Most of the nests were made up from the feathers of the Lesser Flamingo *(Phoeniconaias minor)*, resident at the lake in thousands during June and July, 1959, and whose shed feathers formed an almost solid carpet two feet wide for a distance of nearly five miles down the western shore of the lake. These feathers had been collected and formed a solid mound which could be removed intact from the ground, having been cemented together by reason of saturation with soda. The pink coloration in most feathers soon lost its brilliance, and by the time the eggs had been deposited the nests blended in with the white soda surroundings making them almost impossible to be seen from more than 100 yards away.

The base diameter of most nests was approximately 16 inches rising about three inches to a top diameter of eight inches. The eggs were deposited upon this build-up in a shallow depression about one to two inches deep and five inches in diameter. There was little or no effort to line the inside of the nests which soon became encrusted with a thin layer of soda to which the eggs often became firmly attached. This layer of soda is deposited in the nest and upon the eggs by the incubating parent whose lower breast and abdominal feathers are often damp with the highly alkaline water of the lake. In fact, the deposit of soda on the eggs was often so heavy that it was impossible to discern their true coloration and even after they had been cleaned with a damp cloth, they were almost permanently stained with a thin, cloudy-white film.

Mackworth-Praed and Grant (1957) give the average egg measurements as about 50 x 35 mm. This compares well with the six clutches measured from this colony of which the average measurements were 50.5 x 35.5 mm. (45.5 x 35.0 — 53.0 x 35.0). Apart from a 7.5 mm. difference in length between the largest and smallest egg

Avocet on nest, Lake Manyara, Tanganyika. The nest is largely composed of the feathers of the Lesser Flamingo.

measured, little variation in size and shape was noticeable, though some eggs were slightly more pointed at the lower end. The majority of nests contained four eggs, others only three.

Two definite, and easily discernible, colour variations were to be found in the eggs although each clutch conformed to one or other colour type. One variation was a very pale clay, lightly speckled with small spots of black, various shades of brown, and pale violet. The second was a very much darker putty colour with larger blotches of black, various shades of brown, and pale violet. The violet markings in both cases were in the form of paler cloudings rather than of well-defined blotches.

Owing to lack of opportunity to spend any considerable time in observing the behaviour of the incubating parents, the following observations are not as extensive as I would have wished. On July 20 a hide was erected overlooking two nests. During this procedure no signs were noticeable of any effort to lure away myself or my assistant. The two parent birds either remained standing in the soda mud about 50 yards from their nests, or flew overhead, occasionally calling. It was soon obvious which bird owned which nest.

An intruder approaching too closely to another nest was soon driven away by the owner, and from a sufficient distance to prevent disclosure of the actual position of the nest to anyone who might be interested in it. Three hours were spent by both birds walking in circles around the spit of land on which the nests and hide were erected. However, one bird finally approached her nest and settled down to incubate with much bobbing of head (probably a sign of nervousness) in a fashion very similar to that of many of the waders. The slightest disturbance drove her off and some minutes elapsed before she returned. During the two periods between 12 noon and 2 p.m., and from 4 p.m., when the north-east wind was blowing strongest, both birds were bolder in their approach to their nests and remained incubating longest.

The presence of Grey-headed Gulls *(Larus cirrocephalus)* had a most demoralising

effect on both birds, although they were not actually seen to drive off the intruders; these were, however, kept at bay by the numerous Kittlitz's Sand-plovers *(Charadrius pecuarius)* which I suspect were also nesting in the immediate vicinity.

On August 3, another visit was made to the colony when almost total desertion of the nests by the parent birds was the first indication that something was amiss. Practically every nest had been robbed and the few that had not, had been abandoned: the full clutch from only three nests showed signs of successful breeding, although the young birds were not to be seen. Several eggs were still stuck to the inside of the nests by means of the film of soda already mentioned; a large hole on top of each egg indicated how the contents had been removed. Other eggs similarly plundered were also found lying a few feet from the nests. No sign could be found of a four-legged predator and my earlier observations point to the Grey-headed Gulls as the most likely culprits.

Reference

1957. MACKWORTH-PRAED AND GRANT: Birds of Eastern and North-Eastern Africa.

(Received 19th January, 1960)

AN UNUSUAL THREAT DISPLAY OF THE AFRICAN ELEPHANT

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Whilst visiting the Queen Elizabeth National Park in Western Uganda during December, 1959, the writer was fortunate in witnessing an unusual threat display by a young bull elephant *(Loxodonta africana)*. Almost every herd that the writer came across at this time showed signs of excitement and frequent charges were made at the vehicle, possibly because it was a peak period for mating. Although elephants seem to breed all the year round, Perry (1953) concluded that they had a period of greater intensity from December to March.

Approaching one small herd quite closely, a young bull showed resentment at the presence of the vehicle and went through all the customary motions of threat without, however, actually making a determined charge. Even the typical sideways swing of the head as it sights its object with one eye, was not followed up with a charge. Whilst going through such motions it suddenly knelt down on all fours, and lifting one fore-leg, pawed the air with it. At the same time the mouth was held open with its trunk curled back over its head, and its male organ was also extruded.

The African Assistant Warden who was accompanying the observer stated that he had seen a similar display once or twice before, but as so few people appear to have done so, usually moving off at the first signs of aggressiveness on the part of an elephant, it seemed worthwhile recording.

Being so engrossed in this strange display, the writer omitted to take a photograph of it.

Reference

PERRY, J. S. (1953). The reproduction of the African elephant, *Loxodonta africana*. Philosophical Transactions of the Royal Society. *B*. Vol. 237, 93-148.

(Received 25th April, 1960)