

been shot at this spot, which was found to be a female with eggs inside. The nest was not observed until after the shot was fired. At the second visit on the 28th of May, there were two eggs in the nest, and again a bird was shot, which turned out to be a new female with a fully-formed egg inside, through which the bullet had passed. The skin is now in England. The birds seemed on both occasions remarkably fearless.

The eggs are smoother, and, as might be expected, considerably smaller than those of the Eagle Owl. The dimensions of the two in the last-mentioned nest are 2 in.  $\times$  1.6 in. and 2.1 in.  $\times$  1.65 in.

At the meeting of Scandinavian naturalists in Christiania last summer, before I heard of these two nests having been found, I was able to announce that the Lap Owl generally makes its nest on the top of a stump. I had received several reliable accounts from different woodsmen, but had never found a nest myself, or been able to get the eggs, which indeed have, I believe, hitherto been unknown to ornithologists. It appears that three is the ordinary number of eggs.

#### TENGMALM'S OWL. *Strix Tengmalmi*, Gmel.,

lays its eggs in holes of trees and occasionally in egg-boxes. When once established it cannot easily be made to leave its quarters, and it can, as it is said, keep possession against a much larger bird; yet from the present nest (the only one I have had the good fortune to meet with), after having laid four eggs, the mother was ejected by a Golden Eye. The dimensions of the egg accompanying this paper are 1.32 in.  $\times$  1.05.

Muoniovara, February 2nd, 1857.

## 2. ON THE SKULL OF A SPECIES OF MECISTOPS INHABITING THE RIVER BÍNUË OR TSÁDDA, IN CENTRAL AFRICA.

BY DR. BALFOUR BAIKIE, F.R.Geogr.S., ETC.

The genus *Mecistops*, from the fewness of its numbers and the retired localities which it inhabits, is but little known, scarcely any mention of it being found in zoological writings. It was first distinguished as a species of *Crocodilus* by Cuvier, from a specimen still preserved in the Museum of the Royal College of Surgeons in London, and which he named *C. cataphractus*. Since that time two other species have been described, *M. Bennettii* or *M. leptorhynchus* from Western Africa, and *M. Journei*, said to be from New Guinea. With the exception of this latter species it is quite an African genus, inhabiting the various rivers falling into the Atlantic. In the 'Proceedings of the Zoological Society' for 1835, p. 128, the *C. leptorhynchus* of Bennett is said to have come from Fernando Po; but I should think that this, except established on undoubted authority, must be incorrect, chiefly because in that island the physical conditions requisite for its existence are wanting. Fernando Po is a small volcanic island, totally without the muddy rivers delighted in by



*Crocodylidae*, and possessing nothing beyond streams which, during the rainy season, are tumultuous mountain torrents with rocky beds. It is much more likely that the specimen alluded to was obtained from some of the numerous rivers opening into the Bight of Biafra, opposite to Fernando Po, and that it came to England *via* Fernando Po, that island being a common point of call for vessels on their way home.

In August 1854, while at the town of Ojogo on the river Bínuë, my assistant procured from a native the skull of a *Mecistops*; and as this was the only occasion on which I met with its remains, and as I never saw one in the river, I conclude that it is there a comparatively scarce species. I have since described the animal to Dr. Barth, who informs me that during his lengthened wanderings he never remembers to have met with it. Crocodiles again were everywhere to be seen, and in many places most abundant.

The skull seems from its appearance to be that of an adult animal. Its extreme length is  $22\frac{1}{4}$  inches, the greatest breadth being  $9\frac{1}{4}$  inches, or nearly in the proportion of  $2\frac{1}{2}$  to 1. From this it may be inferred to be most probably *M. cataphractus*, that being the proportion of the length to the breadth in that species, while in *M. Bennettii* (if distinct) it is said to be as 3 to 1. It has seventeen alveolar sockets on each side of the upper jaw, and fifteen in the lower, in which particulars it agrees with the characters originally given by Cuvier in the 'Ossemens Fossiles,' "la longueur de sa tête étant comprise deux fois et demie dans sa largeur," \* \* \* "On lui compte dix sept dents de chaque côté à la mâchoire supérieure et quinze à l'inférieure," 4 ed. tom. ix. p. 116. In each are intermaxillary sockets; but for various reasons I am inclined to believe that this is the case only in the adult, and that in the young animal there are five intermaxillary teeth on each side. The ninth remaining upper tooth is the most prominent, and it is distant from the extremity of the snout  $7\frac{1}{2}$  inches.

In all essentials the skull of the *Mecistops* shows it to be properly a member of the family *Crocodylidae* rather than the *Gavialidae*. The teeth are irregular, the sides of the jaws are not parallel, there is a distinct swelling opposite the ninth remaining upper molar, and the lower canines are received in notches in the upper jaw.

The skull is considerably depressed, much produced anteriorly, and the extremity of the snout somewhat enlarged. Upper surface smooth. Forehead nearly flat, pitted, sides not raised, converging anteriorly. Cranial fossæ nearly circular, resembling those of the Gavial. Orbits rather more convergent than in the Crocodiles, and the nasal aperture more circular. Nasal bones more prolonged than in *Gavialis*, yet not reaching, as in the *Crocodyli*, the nasal opening, but distant from it an inch and a half. Anterior spine of middle-frontal very long, slender, tapering, and pointed. Lacrymal bones lengthened and narrow. Notch for lower canines about an inch beyond posterior edge of nasal foramen, and about half an inch from the anterior extremity of the nasal bones. Anterior palatine foramen small. Palatine bones tapering and pointed anteriorly.



Extreme length of lower jaw  $24\frac{1}{2}$  inches, suture  $5\frac{3}{4}$  inches in length, extending to opposite the seventh tooth on each side. Narrowest portion of lower jaw between fifth and sixth teeth, where it does not exceed an inch and three-eighths. Tenth and eleventh teeth nearly equal, the latter being rather the larger, but by no means exceeding the others in the same proportion that it does in *Crocodylus*. Its attenuated snout, narrow jaws, and small teeth would seem to indicate that it lives principally on fish.

Thus while it offers some analogies with the *Gavialidæ*, its true affinities are undoubtedly with the *Crocodylidae*, though it may be held to represent the former in the African and other rivers which it inhabits.

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April 28, 1857.

John Gould, Esq., F.R.S., V.P.Z.S., in the Chair.

The following papers were read :—

1. OBSERVATIONS ON THE SPECIES OF THE GENUS MANATUS.  
BY DR. J. E. GRAY, F.R.S., F.L.S., V.P.Z. & ENT. SOC. ETC.

Dr. Balfour Baikie having requested me to examine the skull of the Manatee from Africa, which he described at a preceding meeting, I am induced to send you the following observations.

There appears to be considerable confusion respecting the nomenclature of the skulls of these animals.

M. Cuvier and De Blainville figure the skeleton and skull of the American Manatee (*M. australis*) from the same specimen sent from Cayenne in the Paris Museum. This animal differs essentially from all the four skulls from the American coast which are in the British Museum Collection, in the great elongation of the front of the lower jaw, and the comparative length and narrowness of the nasal opening. A copy of the front part of Cuvier's figures is given by Dr. Harlan as that of *M. americanus*. On the other hand, the four skulls (two of which come from the West Indies and one from Cuba) in the British Museum all agree with the skull figured by M. Cuvier as the *Lamatin du Sénégal*\*, and also with that (which is probably from the same specimen as Cuvier's in a more imperfect state) which De Blainville figures under the name of *M. latirostris* of Harlan, in the short rounded form of the front end and the prominence of the gonyx on the under side of the lower jaw, and in the shortness and breadth of the nasal opening; and this appears to be different from the skull which De Blainville figured under the name of *M. Senegalensis*. The skeleton of a young female

\* The front part of this figure is copied by Dr. Harlan for comparison with that of his *M. latirostris*.





Baikie, William Balfour. 1857. "ON THE SKULL OF A SPECIES OF MECISTOPS INHABITING TIIK RIVER BNUE OR TSDDA, IN CENTRAL AFRICA." *Proceedings of the Zoological Society of London* 1857, 57–59.

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