

“My specimen measured seven and a half feet in length, and, from its much worn teeth and the condition of its skull, appears as if it had attained full growth, whereas *G. indicus* reaches up to from fifteen to twenty feet in length. I have only just received it; so I am not in a position to say much about it.

“Before this specimen reached me I was fully convinced, from my observations on the Irawady, that its Cetacean was a round-headed species.”

Mr. Harting exhibited an unusually fine specimen of the Dusky Redshank (*Totanus fuscus*) in summer plumage. This had been stated to have been killed on the Thames, near Surbiton, but was subsequently discovered to have been sent from Holland.

The Rev. H. B. Tristram exhibited two skins of *Lusconiola melanopogon* (Temm.), killed by Mr. Brookes near Etawah (north of Agra) in Central India, being the first instance of this rare species having been obtained in India. Mr. Tristram also exhibited some other rare Indian warblers.

The following papers were read:—

1. Description of a gigantic Amphibian allied to the Genus *Lepidosiren*, from the Wide-Bay district, Queensland. By GERARD KREFFT, F.L.S., C.M.Z.S., Curator and Secretary of the Australian Museum, Sydney, New South Wales.

The discovery of a species of *Lepidosiren* in Australia will no doubt take the scientific world by surprise—the more so as this newly found amphibian has a dentition different from that of *Lepidosiren*, and closely resembling the teeth of certain fossil Sharks described by Agassiz under the generic term of *Ceratodus* (*Recherches sur les Poissons Fossiles*, tome iii. p. 129). On this ground, and being convinced that the various species of animals classed under the name of *Ceratodus* were not sharks, but amphibians, I shall adopt Prof. Agassiz's name, and describe the Australian amphibian, in honour of its discoverer, the Hon. William Forster, M.C.A., as

CERATODUS FORSTERI.

In general shape the specimen before me (fig. 1), which is somewhat mutilated and without intestines, resembles the *Lepidosiren annectens*. It is nearly 3 feet in length, has a broad flat head, small eyes, and four limbs in the shape of flappers. The body is covered with large cycloid scales, ten rows on each side, the third row from above marked, but not very distinctly, as a lateral line. There is a large gill-opening before each pectoral limb, containing well-developed branchiæ (on account of the state of the specimen, however, a careful examination of them was impossible), and a rather large pair of

Fig. 1.



Fig. 2.



Fig. 3.

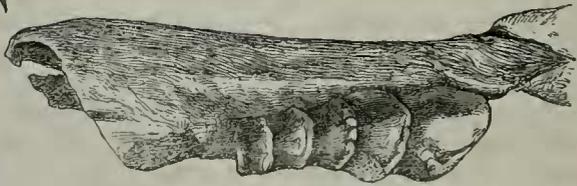


Fig. 1. *Ceratodus forsteri*, side view.
 Fig. 2. Lower jaw of ditto, from above.
 Fig. 3. Left ramus of lower jaw, seen from the front. s. Symphysis.

nostrils just below the upper lip, communicating by a short tube with the roof of the mouth.

The skeleton is partly ossified, partly cartilaginous, the vertebræ being pure cartilage, and the ribs hollow tubes filled with a cartilaginous substance. The palate and upper part of the skull are bone, and the head is covered with two enormous scales. The tongue is very small, and attached to what I believe to be a large hyoid bone ossified externally. The rays which support the dorsal and caudal fins consist of two or more quill-like hollow tubes filled with and held together by cartilage. Numerous rays branch off from the limbs, forming broad flappers, which have some resemblance to those of a Porpoise, but are covered with small scales. The teeth are very interesting; and the dental plates will be found in form (and substance, probably, also) to approach the teeth of the genus with which I have provisionally classed this animal.

The incisors are two, restricted to the upper jaw; they are flat, slightly bent, with the upper front margin cut away and the hinder one denticulated. A little behind the incisors the first and largest limb of the dental plate appears; it is almost parallel with the palate; the second joint or limb branches outward, being smaller than the first, and so on to the sixth and last, which is only half the size of the fifth. The inner margin of the dental plate is rounded off; and the two together form a triangle (if a line is drawn at their base) with serrated outer sides. The lower jaw (fig. 2) is provided with corresponding plates; the incisor teeth are wanting, and the two rami are only joined by tough skin. The opening of the mouth is not very large; and the jaws appear to work in a curious manner, which is best described by working two sections of a cog-wheel horizontally, one down upon the other, to which motion the flexibility of the lower jaw appears to be well adapted.

This short description of one of the most interesting animals ever discovered in Australia must suffice at present. I have no doubt that many and better accounts will be given of it when well-preserved spirit-specimens have come to hand.

Postscript.—It is strange that a curious creature like this, which was well known to the early settlers at Wide Bay and other Queensland districts, should so long have escaped the eyes of those interested in natural history. I remember that Mr. William Forster mentioned a “fish” with cartilaginous backbone years ago, and that I expressed an opinion that he must be mistaken. This animal is excellent eating, has Salmon-coloured flesh, and at certain seasons will rise to a fly; so that the northern squatters have named it the Burnett or Dawson Salmon, from its habits and from the rivers in which it is principally found. The poor bush-cooks who dressed these “Salmons” could have made a small fortune, had they preserved the heads and sent them to Sydney.

It is only during certain seasons that this amphibian takes bait; at other times it cannot be induced even to nibble. I think, however, that during this latter period the animals are buried in the

mud. The native name is *Baramoonda* or *Baramoondi*. We know as yet nothing about its habits, or the metamorphoses the young undergo; and I have been informed that the specimen from which the present description is taken is by no means a large one. Mr. Forster tells me that he has heard of specimens taken in the Dawson fully 6 feet in length.

2. On the Mammals of Hainan.

By R. SWINHOE, F.Z.S.

(Plate XVIII.)

On the 9th of December, 1869, I had the pleasure of reading before the Society a paper on the Cervine Animals of Hainan. I now desire to give a list of the remaining Mammals that I saw or heard of during my visit to that island.

1. BLACK APE. *Hylobates pileatus*, Gray, P. Z. S. 1861, p. 136, pl. XXI.? *Wooyuen* of the Chinese of Hainan.

In the Chinese Gazetteer of the Kiungshan district of Hainan I found among the list of Mammal products of the island a species of Gibbon thus described:—"Yuen. Male black, female white; like a Macaque but larger, with the two forearms exceedingly long. Climbs to tree-tops and runs among them backwards and forwards with great agility. If it falls to the ground, it remains there like a log. Its delight is in scaling trees, as it cannot walk on the ground. Those desiring to rear it in confinement should keep it among trees; for the exhalations of the earth affect it with diarrhœa, causing death; a sure remedy for this, however, may be found in a draught made of the syrup of fried Foo-tsze (seeds of *Abrus precatorius*, Linn.)." An extract from the work *Pun Yu liang che* is here inserted, giving the various Yuens known to the author:—"There are three kinds of Yuens—the Golden-Silk Yuen, which is yellow, the Jade-faced Yuen, which is black, and the Jet-black Yuen, which has the face also black. The Golden-Silk and the Jade-face are both difficult to procure." The Gazetteer then continues:—"Hainan has also the Rock-Yuen. It is small, about the bigness of one's fist. If allowed to drink water, it grows in size. This is also called Black Yuen, and is now likewise difficult to obtain."

In a later edition of the Gazetteer the following is added:—"From its love for climbing and its mild disposition it is called *Yuen*" (two meanings of the phonetic part of the character). The work *Pe-ya* remarks, "The Yuen does not usually walk along the ground;" the Gazetteer therefore observes that it cannot walk; but those that have lately kept it in confinement have noticed that it occasionally drops on to the ground of its own inclination, and runs backwards and forwards in as lively a manner as the Meshuy [*Loris gracilis* (Shaw)]. We consequently cannot accept the statement in the Gazetteer.