

Out of 211 species of fish which I have brought in safety to this country from Cochin, nearly one in eight appear to have been hitherto undescribed. As zealous Dutch and French travellers have more efficiently collected ichthyological specimens in Malabar than elsewhere on the shores of India, it shows the vast field still left to be explored. The freshwater fishes of the inland hills appear almost unknown; for out of eight species kindly furnished me by the Rev. H. Baker, jun., five were entirely new.

The difficulty in India of obtaining fresh specimens, of preserving them when obtained, the damage they receive on being conveyed from place to place, and the almost impossibility of procuring at out-stations good ichthyological works of reference make the study of the finny tribes more difficult, perhaps, than that of any other branch of zoology. At the same time these very difficulties render it more productive than most others in new forms and hitherto unknown species.

March 28th, 1865.

John Gould, Esq., F.R.S., in the Chair.

The Secretary called the attention of the Meeting to the valuable addition recently made to the Society's collection in the shape of a pair of the rare Fruit-Pigeon of the Seychelles Islands, *Erythrænas pulcherrima* (Scop.), remarkable for the curious naked wattles at the base of the bill, and for other peculiarities. This pair of birds, believed to be the only individuals of the species ever received alive in this country, had been presented to the Society by Lady Barkly, the wife of H. E. Sir Henry Barkly, K.G., Governor of Mauritius.

The Secretary also announced the arrival on the preceding day of a fine specimen of the King Penguin (*Apterodytes pennanti*) of the Falkland Islands. This bird, which was believed to be the only Penguin ever brought alive to Europe, had been obtained at the Falklands, and skilfully conveyed to this country by Commander Fenwick, of H.M.S. 'Harrier,' by whom it had been liberally presented to the Society.

The following papers were read :—

1. NOTICE OF A NEW SPECIES OF PORPOISE (*PHOCÆNA TUBERCULIFERA*) INHABITING THE MOUTH OF THE THAMES. BY DR. JOHN EDWARD GRAY, F.R.S., F.L.S., ETC.

The fact of a new species of Porpoise being found on our own shores, at the mouth of the Thames, must be considered as a proof of how little we at present know of the species of Cetacea.

The Zoological Society, who are so anxious to obtain specimens of these animals that their habits may be studied, procured with considerable trouble a fine male Porpoise, which had been caught at Margate. It was carried to the Gardens, and placed in the pond formed for these animals; but, though showing no external injury, it was in so weak a state when it arrived that it sank to the bottom, and was obliged to be taken out and suspended by bands on the surface of the water so that it might not be choked. After a time it recovered so as to be able to swim about by its own exertion, but it only survived the transport a few days.

Messrs. Bartlett and Gerrard, when it was alive, said that it differed so much in general appearance from the Common Porpoise that they were induced to believe that it might be a species of *Lagenorhynchus* or *Grampus*.

The general form of the head, and examination of the teeth after death, proved at once that it was a species of *Phocæna*, very nearly allied to, if not identical with, *Phocæna communis*.

Dr. Burmeister's description of a *Phocæna* from the River La Plata (contained in the Museum at Buenos Ayres), which is peculiar for having some spines on the upper edge of the dorsal fin, naturally made me careful in examining the edge of the fin of this specimen; and to my astonishment I discovered that this species also was provided with a series of compressed tubercles, giving the fin a sharp, hard, serrated appearance.

The tubercles or spines on the dorsal fin having been observed in two specimens from very different localities, I was induced to inquire if it was a character common to the genus, which had been overlooked; but, on examining the stuffed specimen of the Common English Porpoise in the Museum, it is clear that they are not found in the common state of the species. It then occurred to me that it might be a peculiarity of the male sex; but Mr. Flower informs me that the male specimen which lived for some weeks in the Gardens of the Society, and which he lately dissected, certainly had no spines on the edge of the dorsal fin; so that cannot be the case.

Under these circumstances I think I am justified in considering that the existence of these spinous tubercles is a peculiarity of the species, and probably a specific character. The examination of the skull shows that there are differences in its form which confirm this opinion.

The species of *Phocæna* may be thus defined:—

- a. *Back in front of the dorsal fin, and upper edge of the dorsal fin, smooth, without tubercles or spines. Dorsal fin on the middle of the back.*

1. *PHOCÆNA COMMUNIS.*

Hab. North Sea and mouths of rivers.

- b. *Back in front of the dorsal fin smooth; the upper edge of the dorsal fin with a single series of oblong compressed tubercles,*

which are more crowded near the upper end of the fin. Dorsal fin in the middle of the back.

2. *PHOCÆNA TUBERCULIFERA*, sp. nov.

Hab. Mouth of the Thames, Margate.

- c. *Back in front of the dorsal fin with a single series, and upper surface of the dorsal fin with three series, of square-based compressed tubercles or spines. Dorsal fin behind the middle of the back.*

3. *PHOCÆNA SPINIPINNIS*, Burmeister, P. Z. S. 1865, p. 228.

Hab. Rio de la Plata.

The new species may be described as follows :—

The specimen was 52 inches, measured along the side from the end of the nose to the notch in the middle of the tail. The front edge of the dorsal fin is 23 inches from the tip of the nose, measured over the arch of the back; the hinder edge of the dorsal fin, measured in the same manner, is 22 inches from the notch in the tail. The front edge of the base of the pectoral fin is 9 inches from the end of the nose; and the fin itself is 9 inches long, measured along its front margin. The tail is 13 inches wide, measured across the hinder edges; the lobes are rounded, and rather overlap each other at the central notch.

The hinder part of the back, the whole of the dorsal fin, and the upper and lower surfaces of the pectoral and caudal fins are black; the head, the lower lip, the front part of the back, and the sides to the base of the pectoral fins are greyish black; the upper parts of the sides of the body behind the pectoral fins are grey, more or less mottled with a darker shade; the chin, throat, chest, belly, and under parts of the body white. The upper and lower jaws are of the same length. The upper lip covers the edge of the lower one, the covered part being pale-coloured, flattened, and gradually shelving in towards the upper margin. There are two minute pits (which may have been the places from which whiskers arose) in the upper part of the upper lip, situated about where the depression is placed that separates the beak from the head in those genera which have the beak marked.

The dorsal fin is scarcely falcate, with a rather broad, rounded upper margin, which is armed with a single series of distinct compressed tubercles; the tubercles have an oblong base, with a slightly raised conical centre, and the surface is covered with irregular radiating wrinkles. Those on the front part of the edge are largest, and separate from one another; they diminish in size and become crowded near the hinder upper part of the fin, forming a ridge, which is hard and serrated to the touch.

The skull is much like that of *Phocæna communis* in size, general form, and in the number, disposition, form, and size of the teeth; but



Gray, John Edward. 1865. "1. NOTICE OF A NEW SPECIES OF PORPOISE (PHOCaena TUBERCULIFERA) INHABITING THE MOUTH OF THE THAMES." *Proceedings of the Zoological Society of London* 1865, 318–321.
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