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nostrils are about opposite to the middle of the length of the alveolar plate. The alveolar surface of the lower jaw is slightly concave, with a raised edge on the hinder side; it is rather broader behind, and gradually slightly narrowed towards the front. There is a large slightly elevated rounded tubercle occupying the whole of the middle of the alveolar surfaces between the two rami, and a slight elevation on the outer margin on each side of the middle, giving the edge of the jaws rather a sinuated appearance.

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X.—On the *Macleayius australiensis* from New Zealand.

By Dr. J. E. GRAY, F.R.S. &c.

DR. HAAST has sent the skeleton of a New-Zealand whale to the British Museum as that of *Caperea antipodarum*; but the examination of the bones led me at first to believe that it was *Eubalæna australis*. However, on further examination, the cervical vertebræ and the blade-bone show that it cannot belong to either of those genera; for it has a broad upper process to the atlas, while they have a small narrow one; and it has an acromial process to the scapula, which is only very rudimentary in *Caperea*, and is of very different shape in *Eubalæna*; like most whales, it has no coracoid. The form of the lobes of the atlas are so like those figured from a photograph by Mr. Krefft, which I described and figured as *Macleayius australiensis* in the 'Proc. Zool. Soc.' 1864, and in the 'Catalogue of Seals and Whales in the British Museum,' 1866, p. 105, f. 10, 11, and p. 372, f. 74, 75, that I am inclined to consider it an example of that genus, which was previously known only from a mass of cervical vertebræ in the Australian Museum at Sydney.

Upper jaw very narrow; the nasal bones oblong elongate, arched out at the front end. Cervical vertebræ united into one mass. Atlas very large and thick, with a very long upper process forming a large keeled crest, which is united to the upper process of the five following vertebræ; the upper lateral process of the atlas high, square, truncated at the end; the lower process twice as high as broad, with an oblong, rounded end. The other cervical vertebræ short, thin: the second with slender upper and lower lateral processes; the remainder with only descending superior processes (and no indication of inferior), which are slender in all but the seventh vertebra, where they are thick and truncated; and this is the only vertebra that has the upper part distinct from the bony crest. The ear-bone is very like that of *Eubalæna*. The sternum is oblong, with two or three irregular tubercles at the side. The first rib, like the others, is simple. The blade-

bone is triangular, rather wider than long. The acromial process is compressed, attenuated at the end, and bent outwards.

The chief difference between the mass of the cervical vertebræ and the specimen in the Sydney Museum, according to Mr. Kreff's photograph, is that the lower process of the axis in that figure appears to be rather longer and narrower at the end.

The mass of the cervical vertebræ in some respects resembles that of *Balæna mysticetus* of the Arctic seas, but differs in being much more united. It differs from *Caperea* and *Eubalæna* in having the lower lateral process of the second cervical vertebra well developed.

#### MISCELLANEOUS.

*On the Reproduction and Development of the Telescope-fish of China.* By M. CARBONNIER.

THE telescope-carp (*Cyprinus macrophthalmus*, Bloch; in Chinese *Long-tsing-ya*) is a native of the fresh waters of China and Japan. Its conformation is remarkably anomalous. Its body is globular; its caudal and anal fins are doubled; its eyes project from two to five centimetres from its head; in fact the entire animal is the exact model of those fishes, hitherto regarded as chimerical, that we meet with in a great many Chinese paintings. This fish seems to me to be a monstrous goldfish, a monster designedly produced by means of processes of breeding (in which the Chinese are very clever), so powerful that the original anomaly has now become hereditary.

I have already, in goldfish, met with analogous partial monstrosities, especially the gemination of the caudal fin. M. G. Pouchet, in a note presented to the Academy on the 30th May 1870, notices a similar anomaly presented by two living specimens received by him from China; but hitherto, so far as I am aware, no one has had the opportunity of studying the variety of carp which I call telescope-fish.

By the kindness of a relation, I received twenty-four specimens, all presenting the same modifications of structure; only three of these died, the remainder have recovered sufficiently to allow me to try to reproduce them since the first year.

The globular form of the body of the animal renders its equilibrium extremely unstable, and it can swim only with difficulty; hence, whilst its congener the goldfish effects its spawning by rubbing itself against aquatic plants, flexible bodies of little resistance, the telescope-fish seeks a firmer point of support, opposing a direct resistance to the impulse of the fins. It is at the bottom of the water, on the ground, that it rubs its abdomen.

While the female acts thus in oviposition, the males, which are exceedingly ardent in fecundation, pursue her several together, push her with their heads, turn her over and roll her over and over, inflicting upon her an actual punishment.

Having deposited, in a basin containing 20 cubic metres of water, four fishes belonging to a first lot, about a month afterwards (on the 14th of September last) I saw the three males pursuing the