

## MISCELLANEA

### FISHES.

NOTE ON *Trygon kuhlii*.—A large gravid female measuring 34.5 cm.<sup>1</sup> across the disk was captured off the Madras coast on the 15th of January, 1914. It lived in the Marine Aquarium, Madras, till the 13th of March.

In the aquarium it was habitually sluggish, lying buried in sand with only the eyes, the spiracles and a portion of the tail visible above the surface. The large spiracle, which except when fully opened is a narrow slit, extends from near the anterior level of the eye to a point about one-third of its own length behind that organ. The upper margin of the spiracle, *i.e.* the one nearest the eye, forms behind that organ a projecting fold. Both the eye and this fold are employed in closing the spiracular aperture when sand and other foreign bodies drop from above or when the water is agitated. This curious arrangement serves both for the protection of the eye and for the exclusion of foreign objects from the spiracle. Normally the spiracles are kept wide open for purposes of respiration, causing a prominent erection of the eyes considerably above the surface of the head. This gives the ray a most grotesque appearance.

The colour of the dorsal surface of the disk is chocolate brown during life with a few scattered blue ocelli, but changes after death, becoming slate-coloured<sup>2</sup> in preserved specimens.

Like other species of *Trygon*, *T. kuhlii* is viviparous. On the 12th of March the above specimen gave birth to two young, both of which were males. Immediately after birth the young died and the mother died on the following day.

#### *Description of the Young.*

The young differ in size as will be seen from measurements given below :—

	Specimen A ♂.	Specimen B ♂.
Maximum length	133 mm.	115 mm.
Maximum width of disk	60 mm.	47 mm.
Length of pectoral fin	22½ mm.	18 mm.
Length of ventral fin	8 mm.	6 mm.
Length of tail .	83 mm.	72 mm.
Umbilical chord	10 mm.	

<sup>1</sup> The measurement was taken from "point to point"; if measured with a tape across the back it is 35.5 cm. The usual size appears to be about 32 cm. See *Mem. Ind. Mus.*, Vol. II, No. 1, page 34.

<sup>2</sup> *Op. cit.*, vol. II, part 1, page 35.

The last leaves the body in the mid-ventral line immediately posterior to the gills.

*Colour*—In spirit the dorsal surface is brown and the under surface whitish. The edge of the disk all round is darker than the back. The blue ocelli are absent. The ocular portion of the disk is dark brown crossed by two light bands connecting the anterior and posterior edges of the orbit respectively.

NOTE ON THE BREEDING OF *Chiloscyllium griseum*, Müll. and Henle.—*Chiloscyllium griseum*, Müll. and Henle. (= *C. indicum* (Gmel.) of the "Fauna") is one of the commonest dog-fishes on the Madras coast. In January, 1913, one of the tanks in the Marine Aquarium at Madras contained eight adult specimens captured at different times. As the period of "gestation" is



Egg-capsule of *Chiloscyllium griseum*,  $\times \frac{1}{5}$ .

probably very long in dog-fish, there is little doubt that the fish in question must have been impregnated before entering the aquarium. Every night from January 27th to 30th a pair of egg-capsules were laid, and a single one on the night of February 1st. It could not be ascertained whether all the eggs were laid by a single individual or not.

*Description of egg.*—The horny capsule is of the usual quadrangular shape. The shorter or terminal sides of the quadrangle are contracted and irregularly folded so as to bring the angles towards the middle line. The contraction is greater at one end than at the other, consequently the angles actually meet in the former case, while they do not do so in the latter. The four angles are not prolonged into the usual filaments for attachment, their function being relegated to extremely numerous and slender silky threads which fringe the edges of the capsule. In

one of the lateral margins the threads are particularly numerous and extend to a great length, in some cases to about 180 mm., notwithstanding the fact that they are closely matted and twisted together.

Of the 9 eggs the measurements of the largest and of the smallest egg-capsule are as follows :—

	Largest egg-capsule.	Smallest egg-capsule.
Maximum length	78 mm.	70 mm.
Maximum breadth	36 mm.	32 mm.
Maximum thickness	21 mm.	18 mm.
Length of matted threads	180 mm.	

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### REPTILES.

THREE RARE HIMALAYAN LIZARDS.—Thanks to the generosity of Col. Tytler, R.E., and Major F. Wall, I.M.S., the Indian Museum has recently received specimens of three rare lizards from the Western Himalayas. They are *Alsophylax himalayensis*, Annandale, *Gymnodactylus lawderanus*, Stoliczka and *Acanthosaura major* (Jerdon).

#### *Alsophylax himalayensis*.

Annandale, *Rec. Ind. Mus.* IX, p. 305, pl. xv, fig. 1, (1913).

This lizard was recently described by myself from a single female specimen taken in the Simla Hills at an altitude of about 5000 ft. Major Wall has still more recently sent us a male from Almorah, taken at about the same altitude. It is rather darker and greyer than the female and has the markings on the dorsal surface denser. The tail is more distinctly swollen and there is a prominent tubercle on its ventral surface at each side a little behind the vent. There is, however, no trace of praeanal pores—a feature that seems to differentiate the lizard from the male of any other species in the genus, from the general facies of which *A. himalayensis* is, indeed, somewhat divergent.

#### *Gymnodactylus lawderanus*.

Col. Tytler has just sent us a specimen of this rare gecko which he took in July at Konsanie in Kumaon at an altitude of 6000 ft. So far as published records go, this is only the second specimen known, but Major Wall informs me that he has recently presented one or more to the British Museum. Col. Tytler's specimen is unfortunately mutilated, but it retains the basal part of the tail, which was deformed in the type. In his key to the Indian species of the genus in the "Fauna" (p. 60) Dr. Boulenger, relying on the original description and figures, includes *G. lawderanus* among those species which do not possess a lateral fold, and states