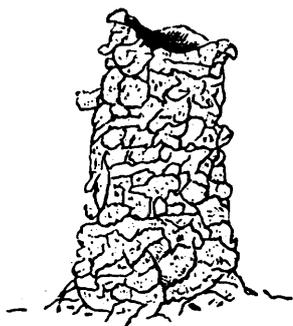


the fact that the apparent rain fell directly from the leaves, and was produced by enormous numbers of Jassidæ settled on their lower surface. All these Jassids belonged to the species named; they were fully adult and existed in countless numbers on shrubs and trees of all kinds. A favourite tree was the common fig *Ficus cunia*. Each insect sat with its proboscis buried in the substance of the leaf, to the lower surface of which it clung, and apparently sucked in the sap, for at regular intervals (roughly three minutes) several drops of a honey-like liquid was squirted with some force from the tip of its abdomen. The number of individuals was sufficiently great to give rise to the phenomenon described, but they did not appear to be in any way banded together and took flight in all directions on the slightest disturbance.

3. THE NEST OF THE BEE *Podalirius pulcherrimus*.—During a short collecting trip in the Western Himalayas round Simla at the



Entrance to nest of *Podalirius pulcherrimus*.

beginning of May, 1907, I noticed that a hard clay bank near the bungalow at Matiana (28 miles north-east of Simla) was riddled with round holes about 20 mm. in diameter. Some of these holes were surmounted by small turrets of rough clay pellets of various shapes and sizes, the turrets being about 30 to 40 mm. in height. Bees were constantly entering and emerging from the tops of the turrets, and the holes were obviously their burrows. Each burrow ended at a depth of a few inches, after one or more turns, in a small oval chamber, the base of which was lined with pollen kneaded into a paste. No eggs were found, but probably the time for oviposition had not yet come. The bees were identified for me by the late Col. Bingham as *Podalirius pulcherrimus*. Most of the turrets were washed away by a shower of rain during the night, and the bees made no attempt to rebuild them; indeed they probably would have been unable to do so without making fresh excavations. Owing to the direction in which the burrows opened, however, the rain did not enter them to any great extent. The figure has been drawn from a specimen in the collection of the Indian Museum that has been preserved by means of glue.

N. ANNANDALE.

XIPHOSURA.

THE HABITS OF INDIAN KING CRABS.—Two somewhat variable species of King Crab (*Limulus moluccanus* and *L. (Carcinoscorpius) rotundicauda*) are common in Indian waters; but little information is available as regards their habits, which seem to differ considerably from those of the Japanese and American forms. Observations made in 1901 on the east coast of the Malay Peninsula and recently

in Bengal show that whereas *L. moluccanus* is essentially a marine species, occurring on sandy and muddy bottoms from the tide-line to a depth of 20 fathoms, *L. rotundicauda* is mainly if not entirely estuarine. It ascends the river Hughli at least as far as Calcutta, that is to say, for a distance of about 90 miles from the open sea, and can live in water that is practically fresh. On the coast of Bengal *L. moluccanus* breeds at the end of the cold weather, *i.e.*, in March. The eggs, which are not very numerous, have a green colour and measure about 3 mm. in diameter, are carried on the ventral surface of the abdominal appendages, to which they adhere lightly. Further information as regards the habits of the Indian *Limuli* would be of interest.

N. ANNANDALE.

CRUSTACEA.

THE RATE OF GROWTH IN *Conchoderma* AND *Lepas*.—Dr. J. T. Jenkins has given me the information on which the following note is based; it is of interest as illustrating the relative rate of growth in two species of barnacles. A clean buoy was placed in the sea off the coast of Ganjam, on February 23rd, 1909, by the Fisheries Steamer "Golden Crown," and was lifted on March 3rd. Numerous specimens of *Lepas anserifera* and *Conchoderma virgatum* var. *hunteri* were found adhering to it. Those of the former species were all small, the largest having a capitulum 8 mm. long, whereas it is usually about 20 mm. long in fully grown examples of the species from the Bay of Bengal. The specimens of *C. virgatum* var. *hunteri* were, however, much larger, and appeared to be already adult. The capitulum of the largest measured 15 mm. in length. This individual is actually the largest specimen of the variety I have seen, although it had reached this size in eight days from that on which the larva probably settled. It is of interest to note, therefore, that the rate of growth in *C. virgatum* var. *hunteri* is considerably greater even than it is in the common *L. anserifera*. It may be noted that whereas the latter species is usually found attached to inanimate objects, *C. virgatum* var. *hunteri* is frequently taken on the skin of turtles and sea-snakes.

N. ANNANDALE.

POLYZOA.

LARGE COLONIES OF *Hislopia lacustris*.—In volume i (page 177) of the *Records of the Indian Museum*, I described the two forms of colonies of *Hislopia* that I had found in the United Provinces (Bulandshahr). Of these, one was a more or less linear arrangement of the zoecia on leaves and twigs, and the other, and more common, form was an encrusting sheath on the outer surface of the shells of *Paludina*. During the present "rains" (July 1908) I have found many examples of what may be considered a much exaggerated extension of the latter form. These colonies