

mostly naked, the hairs on their bases behind rufous, passing into a darker postauricular spot, which may be more or less mixed with blackish rufous. Hands white, forearms and edges of the patagial cartilage mixed rufous and white, as are also the edges of the parachute, the proportions of the rufous and white hairs varying in the two specimens. Hind feet dark rufous proximally, more or less grizzled with white terminally. Tail mixed black and rufous, the tip with a black or black-and-white tuft.

Skull, as compared with that of *P. grandis*, readily distinguishable by its much longer and narrower nasals, which are far less expanded anteriorly; the nasal opening is consequently much narrower, while of about the same height.

Dimensions of the type (measured in skin):—

Head and body 350 mm.\*; tail 440; hind foot (wet) 76; ear (wet) 40.

Skull: upper length to hinder edge of parietal 68; greatest breadth 47.5; nasals 23.5 × 12.5; interorbital breadth 17.2; palatilar length 32; length of upper tooth-row exclusive of  $p^3$  16.

*Hab.* Tapposha, Central Formosa.

*Type.* Adult female. Collected 18th February, 1907, by native hunters for Mr. Alan Owston. Original number 60. Two specimens.

This striking flying-squirrel is one of the most beautiful species ever described, owing to the wonderful contrast between the rich red body and the pure white head and underparts. The two specimens are practically the same throughout, and the skull-difference from *P. grandis*, also a native of Formosa, shows that *P. lena* is not a mere colour-phase of that animal.

LXXVIII.—Notes on Two Species of African Freshwater Sponges. By R. KIRKPATRICK.

MR. J. STUART THOMSON has sent to the Natural History Museum several small specimens of freshwater sponges which he collected from a pond at Valkenberg Vlei, near Cape Town. The specimens, which are in the form of crusts on the stems of rushes, belong, in my opinion, to a new variety of *Ephydatia fluviatilis*, Linn. This almost cosmopolitan species has been found in Europe, Asia, and America, but, I believe, is now recorded for the first time from Africa.

A specimen of a second species, viz. of *Spongilla cerebellata*, Bowerbank, from a pond near Cairo, has been presented to the Museum by Dr. Innes Bey, through Mr. C. Boulenger.

\* Probably shrunk; the other specimen is 430 mm. in length.

*S. cerebellata* has been recorded from Central India. If Dr. Annandale is right in regarding this species as a form of *S. lacustris*, then the two commonest European species, *E. fluviatilis* and *S. lacustris*, have to be added to the list of African freshwater sponges, of which twenty-one species are now known.

A description of the new variety of *E. fluviatilis* is given below.

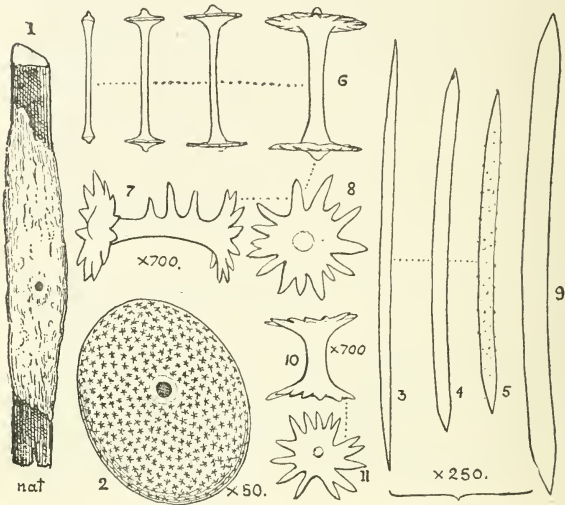


Fig. 1.—*Ephydatia fluviatilis*, var. *capensis*, on reed, nat. size.

Fig. 2.—Gemmule.

Fig. 3.—Oxea.

Figs. 4, 5.—Smooth and spined tornotes.

Figs. 6, 7.—Amphidisks.

Fig. 8.—End view of same.

Fig. 9.—Oxea of *E. fluviatilis* from Thames, London.

Figs. 10, 11.—Amphidisk from Thames specimen, side and end view.

*Ephydatia fluviatilis*, Linn., var. *capensis*, nov.

Sponge encrusting; colour, alive or in alcohol, of a medium brown; surface in part smooth and uniform, in part pitted and finely hirsute. Oscules scattered, level with surface, inconspicuous, about 1 to 1.5 mm. in diameter. Flagellated chambers small, oval,  $20 \times 16 \mu$ .

Gemmules large, oval, .75 mm. in length by .54 mm. in breadth, with funnel-shaped tube opening flush with the

surface ; with thick ( $10\ \mu$ ) chitinous inner shell and a single layer of amphidisks embedded in a vesicular layer.

Spicules : slender oxeads (fig. 3)  $288 \times 8\ \mu$ , curved, attenuating gradually, smooth or finely and sparsely spined ; tornote oxeads (figs. 4, 5)  $240 \times 12\ \mu$ , smooth or finely spined.

Gemmule spicules : amphidisks (figs. 6-8)  $35.6\ \mu$  long, shaft  $4.3\ \mu$  thick, smooth or with one or several spines ; diameter of deeply incised disks  $24.3\ \mu$  ; with a knob at centre of disk.

Numerous developmental forms scattered in the tissues of the sponge.

*Hab.* Valkenberg Vlei, near Cape Town (*J. Stuart Thomson*).

There are seven specimens of this sponge, all encrusting, the largest being 5 cm. long and .5 cm. thick. The chief point of interest lies in a comparison with the typical European form. In the latter the subtornote oxeads (fig. 9) are considerably longer and thicker, viz.  $320 \times 20\ \mu$  ; the amphidisks (figs. 10, 11) are much shorter, viz.  $18.5\ \mu$ , with disks  $21.4$  in diameter and shafts  $4.5$  thick ; lastly, the gemmules are smaller, on an average about  $.36 \times .31$  mm. These differences led me at first to regard the Cape specimens as representatives of a new species, but I ultimately came to regard them as belonging to a new strongly marked variety of *Ephydatia fluviatilis*.

#### BIBLIOGRAPHICAL NOTICES.

*Memoirs of the Department of Agriculture in India (Entomological Series)*. 4to. Agricultural Research Institute, Pusa. Printed by Thacker, Spiuk, & Co., Calcutta.

A USEFUL periodical, recently commenced under the editorship of the energetic Imperial Entomologist, Prof. H. Maxwell-Lefroy, F.E.S., F.Z.S. The following parts have already appeared :—

Vol. I. No. I. The Bombay Locust.

II. The more important Insects injurious to Indian Agriculture.

Both by Prof. Maxwell-Lefroy.

III. The Indian Surface Caterpillars of the Genus *Agrotis*. By Prof. Maxwell-Lefroy and his Assistant, C. C. Ghosh, B.A.

IV. Individual and Seasonal Variations in *Helopeltis theivora*, Waterhouse, with Description of a new Species of *Helopeltis*. By Harold H. Mann, D.Sc., Scientific Officer, Indian Tea Association.

The following is announced as in the press :—

V. The Coccidae attacking the Tea-plant in India and Ceylon. By E. E. Green, F.E.S., and Harold H. Mann, D.Sc.