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MISCELLANEOUS.

On the Metamorphoses of the Strepsiptera. By Dr. SIEBOLD of Erlangen.

THE species on which Dr. Siebold has made his observations are *Stylops Melittæ*, and *Xenos Rossii* and *Sphecidarum*.

The diminutive, parasitic Strepsiptera, the giant of which scarcely exceeds one-fourth of an inch in length, are of especial interest to this Society. Discovered and first described by our venerable friend Mr. Kirby, we have adopted the *Stylops* as our emblem; any elucidation of its heretofore obscure natural history must therefore be of particular interest to us. This has been supplied by Dr. Siebold, who now shows that the Strepsiptera undergo a singular metamorphosis; that the males and females differ from each other, the metamorphosis of the males being complete, they alone being furnished with wings: the females, on the contrary, have neither legs, wings, nor eyes, and greatly resemble larvæ. These females are viviparous, and never quit the bodies of the Hymenoptera in which they live as parasites. The young Strepsiptera, at the moment that they burst the eggs in which they are developed, within the body of the parent, have six legs, and are furnished with organs of manducation. These are the diminutive objects described in Mr. Westwood's paper, in a former volume of our Transactions, as the parasites of *Stylops*; and as such they were regarded at first by Klug and also by Dr. Siebold. These little hexapodous larvæ infest the surface of the abdomen of bees, within which their parent-mothers live and die. In this way the young *Stylops* is carried into the nests of the Hymenoptera, and escaping on the bodies of the larvæ, penetrate their soft skins, and become parasites on them as their parents have been in the bodies of the female bees. These larvæ shed their skins, become apodal, and move very slowly. They have then a distinct mouth and jaws, and a simple caecal intestine, but no anal aperture. The body is formed of nine segments, of which the first is the largest, and may be considered as a cephalothorax. In this state the males are easily distinguished from the females. The cephalothorax of the male larva is conical and arched, and the last segment of the body is straight and pointed. In the females the cephalothorax is truncated or rounded in front, and flattened, or scale-like, in the rest of its extent, and the terminal segment of the body is large and rounded.—*From the Anniversary Address delivered at the Entomological Society, Feb. 10, 1845, by the President, G. Newport, F.R.C.S.*

Description of a new species of Nymphon. By H. D. GOODSIR, Esq.

Nymphon giganteum.—With the palpi twice as long as the rostrum, and the last two joints of equal length; with the pincers of the mandibles very long, slender and linear; and with the oviferous legs longer than the first four joints of the ambulatory legs.

Description.—The whole animal of a straw-colour, except the

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proximal extremities of the joints of the legs, which are pink-coloured. Two joints of the mandibles somewhat long and rather powerful: the pincers are weak, slender, and almost linear. The palpi are larger than the mandibles, five-jointed, slender, and the first or proximal joint is about one-sixth the length of the second; the second rather longer than the third and clavate; the fourth and fifth equal, which last is ovate and slender. The rostrum is hardly so long as the first joint of the mandibles, and is almost linear, having a very slight dilatation about the middle. It is concealed altogether on each side by the mandibles and palpi, and very slightly superiorly by the mandibles alone. The first segment of the body is much larger than any of the following, and is very much dilated anteriorly, for the attachment of the organs just described; posteriorly it is also dilated, and gives attachment on either side to the oviferous legs, and dorsally to the ocelliferous tubercle, which is erect and truncated. The oviferous legs are very strong, and have the two middle joints robust and short; the distal joints are hispid. The ambulatory legs are long and slender; the two tarsal joints of equal length, claw strong. Span of the legs 6 inches.

The above-described *Nymphon* is very similar in its characters to *Nymphon Johnstoni*. The forms, however, of the mandibles, palpi and oviferous legs are very different and sufficiently strong to justify the formation of a new species.

Taken in the sea at Embleton.—*From the Proceedings of the Berwickshire Naturalist's Club*, vol. ii. No. xii.

DESTRUCTION OF THE ORANGE-TREES IN THE AZORES.

So complete have been the ravages of the Coccus of the orange-trees, that one of the Azores, the island of Fayal, lost its entire produce from this cause alone. The usual exportation of fruit from Fayal has been 12,000 chests annually, but in 1843 not a single chest was exported. This injury has already extended to St. Michael's, and is still continuing; and the inhabitants of the whole of that group of volcanic islands, depending almost entirely on the produce of their orange-groves, and despairing of retrieving their prospects, are fast turning their attention to the cultivation of other objects of commerce. This amount of injury to a whole population by a diminutive and apparently contemptible insect has been the result of but three years. The effects of this insect on a single article of luxury may fairly be adduced to show that entomological inquiries are deserving of full attention. The orange trade between this country and the Azores gives employment to upwards of 200 sail of vessels; and, as I am credibly informed, the orange trade alone returns to the revenue of this country an import duty of more than £50,000 per year. M'Culloch, in his 'Dictionary of Commerce' (1844), has shown that the amount of duty paid by the orange and lemon trade, on an average of three years, ending with and including the year 1842, was £70,833 per year. The number of boxes of fruit, imported for home consumption, on which this duty was levied, amounted to 334,070,