

Another very remarkable fact, which has not previously been observed, is a difference in the number of ganglia in the same species according to the sex. The workers and the females of *Bombus* have six abdominal ganglia, while the male has only five; the working bees have five abdominal ganglia, while the queen and the males have but four; the male *Megachile* has four abdominal ganglia, while the female has five; the working wasps have five ganglia, the females and the males six.

The stomato-gastric system is composed of a frontal ganglion, two anageian ganglia, two trachean ganglia, and a ventricular ganglion.

II. *Nervous System of the Larvæ.*—The nervous system of the larvæ is very uniform. The larvæ have thirteen ganglia, while the caterpillar of the Lepidoptera has only twelve. The larvæ of the Hymenoptera have eight abdominal ganglia, which are all simple; in very young larvæ, however, the subœsophageal and the last abdominal ganglia show traces of the fusion of three embryonic ganglia.

III. *Nervous System of the Embryo.*—The researches of O. Rietschli and of A. Kowalewski on the development of the bee have proved that the embryos possess seventeen ganglia—that is to say, one supra-œsophageal ganglion, three small subœsophageal ganglia (which unite to form a single subœsophageal ganglion in the larva), three thoracic and ten abdominal ganglia (of which the last three form afterwards the last abdominal ganglion of the larva).

IV. *Metamorphoses of the Nervous System.*—The changes which the nervous system undergoes during the metamorphoses of the larva are produced by the fusion of several ganglia. The first thoracic ganglion of the larva remains isolated in the adult insect; the second and third thoracic ganglia of the larva approach one another more or less, and in some they blend into one medullary mass. The first abdominal ganglion always joins with the last thoracic, so that the adult insect has never more than seven abdominal ganglia; but in most cases the second abdominal ganglion also unites with the last thoracic ganglion. If the number of abdominal ganglia diminishes yet more in the adult insect (5, 4, 3 ganglia), this is effected by the fusion of some ganglia with the last abdominal ganglion.—*Comptes Rendus*, Sept. 18, 1876, p. 613.

*On some remarkable Species of Mantidæ.* By Prof. J. WOOD-MASON.

These insects belong to that division of the family in which either the legs or some parts of the body are provided with appendages, and to that section of it in which in males as well as in females the antennæ are simple and setaceous and not pectinated; and I invite attention to some sexual differences presented by them which, I believe, have never before been noticed.

In *Hestias Brunneriana* the head of the female is prolonged vertically in the form of a cone bilobed at its extremity, while in the opposite sex this great cone is represented by a mere tubercle as in both sexes of the species belonging to the genus *Creobrota*; the fore femora, which are wanting in the specimen from which the species was described by Saussure, are equally conspicuous in both sexes, being very broadly oval, with their upper margins very strongly crested.

In the next specimen to which I would draw attention, a small (22 millims. long) female insect brought from Pegu by Mr. Kurz, and apparently allied to *Hestias* and *Oxyopilus bicingulata*, De Haan, the upper edges of the fore femora are sharply crested, but not so greatly expanded; the cephalic cone is bicuspid at the extremity, and armed with two pointed cusps on each side; the occiput presents behind each eye a pointed tubercle directed backwards; the face is carinate, the keel of the "facial shield" terminating above in a stout conical tooth; the two upper ocelli are surmounted by a pair of long and slender conical spines; the organs of flight do not nearly reach to the extremity of the abdomen; and the disk of the prothorax is armed with four sharp, erect, spiniform tubercles. From the analogy of *Hestias*, I confidently expect that the male will prove to have its head similarly armed with a tubercle. I have named this curious insect *Ceratomantis Saussurii*.

I also exhibit the two sexes of an insect captured, the female by Mr. Peal in the Naga hills, and the male by Dr. Cameron in the Bhutan Doars. In the former the head is provided with a long and slightly tapering foliaceous frontal horn, truncated at the apex, longitudinally obtusely carinate in front, and sharply crested behind, and nearly three times as long as the head is high; in the latter this great foliaceous horn is reduced to little more than a tubercle only about half as long as the head is high. I have named this insect *Phyllocrania Westwoodi*, notwithstanding that the prothorax has no foliaceous expansions.

Similar sexual differences may be looked for in *Phyllocrania*, *Parablepharis*, and *Sibylla*, the males of which are still unknown.

In the Phasmidæ we meet with apparently similar sexual differences; but in these insects the great reduction in size and thickness of body that has taken place in the males may well have effaced the horns and foliaceous lobes, which after all are generally relatively not very greatly developed in the females. We see the truth of this in the case of the genus *Phyllium*, wherein the foliaceous lobes of the abdomen and legs of the female are relatively very large, and those of the male are consequently by no means inappreciable, and in the case of *Lonchodes insignis*, in which in males more than ordinarily stout the cephalic horns reappear in rudiment though they have disappeared in slenderer individuals.

Prof. Wood-Mason also announced that he had ascertained by actual observation of living specimens belonging to several species that the femoral brushes are used by the Mantidæ to keep their eyes and ocelli in a functional condition, and that they are present in the young when these quit the egg.—*Proceedings of the Asiatic Society of Bengal*, August 1876.

*On Rhabditis stercoralis.* By M. BAVAY.

The Nematode discovered by Dr. Normand in the fæces of patients affected with Cochin-China diarrhœa, and provisionally named by me *Anguillula stercoralis*, may justly retain that designation; but it