

lithographic drawings, illustrative of the species described in his 'History of the Birds of Jamaica.' The figures will be drawn on the stone by the author himself, partly from original drawings and partly from preserved specimens, with the advantage of his own notes and personal knowledge of attitudes, &c. ; and they will be very carefully coloured. The number of species proposed to be illustrated amounts to about a hundred and twenty ; of which more than one-half are not figured in English works, worthy of reference, while a considerable number are new to science.

The work is to be issued monthly, and is not to exceed the extent of thirty numbers.

PROCEEDINGS OF LEARNED SOCIETIES.

COTSWOLD NATURALISTS' CLUB.

At a Meeting of the Cotswold Naturalists' Club, held at Rodborough Common, May 18th, 1847, Dr. Wright of Cheltenham exhibited a beautiful preparation of the *Geophilus longicornis*, Leach, in which he had observed the veneniferous glands of that Myriapod. He had found no description of these glands in any of the great authorities on the structure of the articulate animals whom he had consulted, from which he inferred that these bodies had hitherto escaped observation.

Dr. Wright observed that the salivary glands in the vertebrate animals are in general absent in those classes and tribes which live habitually in water. In Fishes they are absent, an increased mucous secretion being poured into the mouth by a great development of the buccal follicles. In Batrachia distinct glands are absent, a compensative secretion being supplied by the mucous glands of the mouth and tongue. In the Cetacea they exist only in a rudimentary state. Hence the conclusion that animals that seize their prey in the water and swallow it without mastication have no necessity for saliva as a preliminary solvent for the digestive process, the gastric juice in these animals being sufficient to complete the chemical changes in the stomach. In the invertebrate classes salivary glands are absent in all the Radiata, nor do we observe these bodies in the Tunicated or Acephalous Mollusca ; but they are found in the Gasteropoda and Cephalopoda ; they are absent in the Entozoa, but exist in a rudimental state in the Annelida and Crustacea. In all the classes of the Articulata that respire air, as Myriapoda, Insecta and Arachnida, salivary vessels can be demonstrated : these organs may be subdivided into simple and compound glands.

A. When the secretion supplied is a fluid concerned in the digestive process, the secreting organ is a simple tube with its distal extremity closed.

B. When the secretion supplied is used for the destruction of prey, the secreting organ is a compound body or gland.

In the majority of Insecta the salivary vessels are simple ramified tubes that open into the gullet, but in Hemiptera simple tubes and

glandular bodies coexist; the former I regard as the true salivary organs, the latter as veneniferous glands for the destruction of prey. In *Nepa*, *Notonecta*, *Naucoris* and *Ranatra* these bodies are beautifully developed.

In pulmonary Arachnida the veneniferous glands are situated in the cephalothorax; their excretory ducts arise from the anterior part of the gland and traverse a minute canal in the mandibles, and open at the perforated extremity of these organs.

In Myriapoda, as in the preparation of *Geophilus longicornis* now before us, the veneniferous glands lie at the base of the mandibles among the striped or voluntary muscles that occupy this region. With an inch glass we see these organs most satisfactorily; they consist of two oblong compact bodies composed of bundles of diaphanous cells closely pressed together and inclosed in a distinct capsule reposing loosely at the base of the jaws and occupying the hollow part of these organs; from the anterior part of the gland rises a single excretory duct, which passes forwards in an arched direction and enters a canal in the horny part of the perforated jaw and opens near its apex, as in the Arachnida. By this mechanism, when *Geophilus* inserts its mandibles into the body of its victim, it at the same moment introduces a poison into the wound which destroys life, after the same principle as the parotid glands in some ophidian reptiles, as *Crotalus*, *Naja* and *Vipera*, are metamorphosed into veneniferous glands for the destruction of living prey. After this communication was made, Dr. Wright demonstrated the preparation to the members of the Club, and exhibited the singular structure with the aid of the microscope.

ENTOMOLOGICAL SOCIETY.

January 5th, 1846.—The Rev. F. W. Hope, F.R.S., President, in the Chair.

Mr. Edward Doubleday exhibited a large web, of a delicate silken texture and four or five yards long, sent from Mexico, and intended for the collection of the British Museum, known by the name of the *Tela de Maiz*, spun by the caterpillars of some small *Yponomeuta* or *Anacamptis* over heaps of maize laid up in store.

The President exhibited a portion of Mr. Fortnum's collection of insects formed at Adelaide in South Australia, with drawings of some of the more remarkable kinds, and announced that it was intended that a share of the duplicates should be placed in the collection of the Entomological Society.

Mr. Bedell (who was present as a visitor) exhibited a specimen of *Argyromiges Roborella* of Zeller, a species new to Great Britain.

A note was read by Mr. Brayley, accompanied by a species of *Anthomyia* (*A. pluvialis*, Linn.?), observed by a druggist to settle in great numbers on the filter when he was preparing tincture of cantharides, and at no other time. They did not however come out of the cantharides.

Extracts were read from letters addressed by Mr. Benson to Mr.



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