

The comparative anatomical part of the book is to be heartily commended. There are a number of errors here, but considering the large scope of the work and the rapidly enlarging knowledge of anatomy, these are readily pardoned.

As a whole the volume has the faults of its virtues—to mention the latter first; it accomplishes the author's purpose of making the evolutionary theory the framework for many otherwise uncorrelated facts. To do this the treatment has been made *a priori* and is therefore scarcely in accord with the method which has yielded the material of the book.

LEONARD W. WILLIAMS

*The Black Bear.* By WILLIAM H. WRIGHT. Illustrated from photographs by the author and J. B. KERFOOT. New York, Charles Scribner's Sons. 1910.

This is one of the most refreshing books on wild animals which it has been the writer's pleasure to read for some time. It is, in a way, a monograph on the habits of a single species of North American mammals. The book, which is a small one of only 127 pages with 12 photographic illustrations, is well worth the attention of those interested in the life histories of our living mammals. The observations recorded in the pages of this little book are those of a hunter-naturalist with a tendency toward scientific thought.

The book opens with a story of the capture of a cub of a black bear in the forests of the Bitter Root Mountains, in Idaho. The interest in the story is somewhat broken by the introduction of a chapter on the classification of bears, which might profitably have been omitted, since it draws only a smile from the trained mammalogist and usually contempt from popular readers. The chapter on description and distribution, as well as the ones on habits and food, is quite good. The observations are those of an actual acquaintance of the bears made through twenty-five or thirty years' experience in tramping the forests and mountains of the west. Natural history would be much sounder and natural-

ists much wiser if we had more productions like "The Black Bear." ROY L. MOODIE

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#### NOTES ON ENTOMOLOGY

THE "candle-fly" of China, like the "lantern-fly" of South America, was long thought to be luminous; now it has been investigated by Messrs. J. C. W. Kershaw and G. W. Kirkaldy and found to be entirely without light-giving powers.<sup>1</sup> The adults suck the sap of several kinds of trees; the eggs (about 80) are laid in straight rows on the bark of the trees, covered with a hardening fluid, and brushed over with a white waxy material. The young feed on various plants, but are not easily discovered, since the head is prolonged in a thick rough process resembling a broken twig. The *Pyrops* secretes a mass of waxy threads, which collects over the wax-pockets and near the spiracles; a species of mite lives in this material. The adult insect is the host of a remarkable parasitic moth (*Epipyrops*), as many as three in one insect.

A RECENT number of the *Memorias do Instituto Oswaldo Cruz* (Rio Janeiro, Vol. I., 1909) contains two articles of interest to entomologists. One by Dr. A. Lutz, "Beitrag zur Kenntnis der brasilienschen Simuliumarten," is a revision of the black flies of South America. Eleven species are recognized, six being described as new. The other article is by Dr. C. Chagas, "Ueber eine neue Trypanosomiasis des Menschen," pp. 159-218, 5 pls. This disease is similar to the African sleeping sickness, and is considered to be transmitted by certain blood-sucking reduviid bugs, especially *Conorhinus megistus* Burm. A small species of monkey, *Callithrix penicillata*, is thought to be the reservoir of the disease. One of the plates illustrates the *Conorhinus*.

AN elaborate investigation into the amount of variation within a genus has been completed by A. Delcourt.<sup>2</sup> He selected the aquatic hemiptera of the genus *Notonecta*,

<sup>1</sup> "A Memoir on the Anatomy and Life-history of the Homopterous Insect, *Pyrops candelaria* (or Candle-fly)," *Zool. Jahrb., Abt. Syst.*, XXIX., pp. 107-128, 1910, 3 plates.

well known as varying greatly in coloration. He has examined large series of six (one new) European and three North American species, and given many notes on geographic distribution, replacement of one species by another, habits, comparative abundance, etc. The plates illustrate the variation in color, several species ranging from pale yellowish to black.

"THE Fauna of British India" is rapidly becoming a very important work for all entomologists. To the several valuable volumes already issued Mr. Malcom Burr has added a volume on the earwigs (Forficulidæ) of India.<sup>3</sup> The author has examined nearly all the types, and figures almost all of the 133 species. He gives an outline classification of the earwigs of the world; structural characters, habits, food, maternal care of young, and geographical distribution of the group. He considers that the forceps are weapons of offense and defense, but are also used to test and hold food. Their food is usually dead insects.

VOLUME XVII. of the *Memoirs of the Entomological Society of Belgium* contains two important papers on coleoptera. One, by Professor A. Lameere, a continuation of his revision of the Prionides, pp. 1-70, contains synopses of genera, *Derancistrus*, *Pæcilosoma*, *Calocomus*, *Pyrodes* and *Sobarus*. The other paper is by F. Eichebaum, a catalogue of the genera of Staphylinidæ, pp. 71-278. Under each genus are the references, the generic description, distribution, number of species and habits of the known larvæ. Over 800 genera are thus treated, containing nearly 12,000 species.

THE new parts of Schenkling's "Coleopterorum Catalogus" are part 4, Ipidæ, by M. Hagedorn, 134 pages (this name is used for the beetles known to us as Scolytidæ); he also includes references to the habits of these bark-beetles; part 5, Cupedidæ and Paussidæ,

<sup>2</sup> "Recherches sur la variabilité du genre *Notonecta*," Contribution à l'étude de la notion d'espèce, *Bull. Sci. France Belgique*, XLIII., pp. 373-421, 2 col. plates, 1910.

<sup>3</sup> "The Fauna of British India, Dermaptera (Earwigs)," London, 1910, pp. 217, 10 pls.

by R. Gestro, 31 pages; part 6, Apioninæ, by H. Wagner, 81 pages; part 7, Brenthidæ, by H. von Schönfeldt, 57 pages; part 8, Lucanidæ, by G. van Roon, 70 pages; part 9, Lampyridæ, by E. Olivier, 68 pages, he also gives references to descriptions of larvæ; part 10, Rhagophthalmidæ and Drilidæ, by E. Olivier, 10 pages; part 11, Temnochilidæ, by A. Leveillé, 40 pages, and part 12, Endomychidæ, by E. Csiki, 68 pages. Each part can be purchased separately.

DR. O. M. REUTER with aid of B. Poppius has issued a first part of a monograph of the Nabidæ.<sup>4</sup> This part deals with all of the family except the Reduviolina. There are but few new species; eight genera and eighty species are described in this part.

R. BECKER is the author of a valuable paper on the mouth parts of dipterous larvæ.<sup>5</sup> The article treats almost wholly of the lower groups of Diptera, *Chironomus*, *Simulium* and *Tipula*, but has a chapter on the reduction of the head as found in *Musca* and *Anthomyia*.

DR. KERTÉSZ has issued another volume of his world catalogue of flies.<sup>6</sup> This includes three families, the Empidæ, with 1,547 species; the Dolicopodidæ, with 1,386 species, and the Musidoridæ, with nine species. The genus *Lonchoptera* is replaced by the earlier name *Musidora*, although this name was abandoned by its author.

MR. W. F. KIRBY has completed the catalogue of the Orthoptera by the issuance of the third volume,<sup>7</sup> which treats of the Locustidæ, better known to us as Acrididæ, or grasshoppers. This volume also includes additions to the previous volumes.

NATHAN BANKS

<sup>4</sup> "Monographia Nabidarum orbis terrestris," *Act. Soc. Sci. Fenn.*, XXXVII., No. 2, 62 pp. 1 pl., 1909.

<sup>5</sup> "Zur Kenntnis der Mundteile und des Kopfes der Dipteren-Larven," *Zool. Jahrb.*, Abt. Anat., XXIX., pp. 281-314, 3 pls., 1910.

<sup>6</sup> "Catalogus Dipteriorum husque descriptorum," Vol. VI., pp. 362, 1909, Budapest.

<sup>7</sup> "A Synonymic Catalogue of Orthoptera," III., British Museum, 1910, pp. 674.