THE INTERNATIONAL SCIENTIFIC ASSOCIATION

To the Editor of Science: Will you permit me, through the columns of Science, to call the attention of American scientists to the meeting of the International Scientific Association (*Internacia Scienca Asocio*), which will occur in conjunction with the Sixth International Esperanto Congress, in Washington, D. C., next August. It is requested that all scientists who are interested in Esperanto, but not yet members of the *Internacia Scienca Asocio*, and also all scientists who wish to investigate for themselves the practicability of Esperanto as an international language for scientists, attend these meetings. The Esperanto Congress opens August 14, and closes August 20. The *Internacia Scienca Asocio* will convene not later than August 17. For information concerning tickets, program, hotel accommodation, reduced railway rates, etc., address the Secretary of the Sixth International Esperanto Congress, Washington, D. C.

Edwin C. Reed,
Secretary

SCIENTIFIC BOOKS

History of the Human Body. By Harris Hawthorne Wilder, Professor of Zoology in Smith College. New York, Henry Holt and Company. 1909. Pp. 573, 150 figs., 8 pls.

The author states in the preface that

> This book has a twofold purpose: *first*, to present the results of modern anatomical and embryological research relative to the human structure in a form accessible to the general student, and, *secondly*, to furnish students of technical human anatomy with a basis upon which to rest their knowledge of details.

The volume can be read with interest and profit by persons who have no special training in biology and consequently it meets most excellently the requirements of the first part of the author's purpose. It is perhaps not so well adapted to the needs of the human anatomist. The plan of the book is somewhat unique. The first three and last chapters are of a very general nature and contain an exposition of the general principles of evolution, phylogenesis and embryology. Its main part, consisting of eight chapters, contains a detailed discussion of the several organ systems from the standpoint of the comparative anatomist.

After discussing the continuity of life and distinguishing between ontogeny and phylogeny, the author presents, in the first chapter, a series of twelve "laws," six of which describe "the characteristics of the phylogenetic record," the remainder being devoted to "an exposition of developmental history or ontogenesis." These so-called laws are merely short statements of certain biological facts or deductions, as will be seen from one example (p. 24).

> In studying an embryological record one must constantly distinguish between palingenetic characters, or those which are true repetitions of the past history, and cœnogenetic characters, or those which have been more recently acquired as the result of some special adaptation. One of the most universal among these latter is the presence of yolk, a food supply for the embryo, which lies between or within the cells and, when excessive, causes misleading distortions in the proportion of parts and effects the obliteration of many important features.

These statements, owing to their brevity, are necessarily inaccurate and incomplete, but, as a whole, they give the reader a general conception of evolution.

In the second chapter, The Phylogenesis of Vertebrates, the author traces the ancestry of man from *Amphioxus* upward through the vertebrates and mammals. The last chapter, which really belongs with the second, contains a discussion of various theories of the origin of vertebrates. These chapters probably form, for the general reader, the most interesting part of the book, but, owing to the indefiniteness of our knowledge of animal descent, are of less value to the student of anatomy.

The third chapter is entitled The Ontogenesis of Vertebrates. It gives as accurate an account of so large a subject as can well be condensed into so short a space, but it may be questioned whether the limitation of the treatment to human development would not have given a better knowledge of the history of the human body.

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 naturalists 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.[1] 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 brasilianschen 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 pencillata,* 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.[2] He selected the aquatic hemiptera of the genus *Notonecta,*

[1] "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.