tions and the highest competence for the task, but it has no need to wait for ideas to reach it from outside. The committee itself is a kind of scientific power house from which great things may be expected.—*The London Times.*

THE FUTURE OF POLISH SCIENCE

SINCE the restoration of Poland after the War of 1914–18 concentrated efforts have been made to develop and coordinate the scientific work of the country. During a difficult period of reconstruction, great progress was achieved and, in addition to the six universities, a number of other centers were available for learning and research. Before the outbreak of the present war, there were approximately 850 professors, 520 assistant professors and 1,600 research assistants and readers; the number of students being about 48,000. With the overrunning of Poland by Germany and the U.S.S.R., systematic and thorough methods have been employed to destroy its scientific life. This is being achieved in German-occupied Poland by the imprisonment of university staffs and scholars, the commandeering of specimens and equipment for use in the German Reich, the destruction of publications and libraries, and the closing of all centers of learning and higher education. Similar conditions exist in Soviet-occupied territory. Professors and research students have no means of continuing their work and the future of Polish science has been further jeopardized by the closing of secondary schools, thus destroying the source of future students. Fortunately, however, some forty-six Polish scientific workers have been able to reach England. They comprise among their subjects, anatomy, zoology, bacteriology, chemistry, physics and branches of engineering and mechanics; the majority can speak at least three languages. It is the Polish Government's earnest endeavor to conserve, through these men, the future of science in Poland. A few will be able to obtain British Council scholarships and will be placed by the council in British research institutions. The remainder will be given partial assistance from the very modest funds possessed for this purpose by the Polish Government.

The difficulties confronting the research workers who have no personal contacts in Great Britain are very great, not least among them the understandable antipathy and mistrust of foreigners which now exists in the country. The importance of securing the future of science and learning in Poland, however, will be fully realized, and by assisting to bring about the admission of Polish workers to research institutions in the British Commonwealth of Nations, British men of science can thus help to ensure a nucleus of Polish intellectuals. Also it must not be forgotten that Poland is an ally of Great Britain, who has at no time and in no way failed her, and that a common bond of hardship has drawn the two countries together in friendship.—*Nature.*

SCIENTIFIC BOOKS

RECENT PUBLICATIONS OF THE BRITISH MUSEUM (NATURAL HISTORY)

THE war has been going on for more than a year, but the British Museum continues to publish valuable works on various aspects of natural history. These publications, at least in the main, represent work done prior to the beginning of the war, but it is the policy to continue scientific work as circumstances permit, work which will have a permanent value when the war is only a matter of history. In the same spirit, the British journal *Nature* frequently reviews German scientific books, accepting them according to their merits, regardless of the conflict between the countries. The books and papers listed below are those which I have just received from the office of SCIENCE.

Karl Fiedler. Monograph of the South American Weevils of the Genus Conotrachelus. February, 1940. 365 pp., many illustrations. Dr. Fiedler, Sanitätsrat in Thuringia, had been studying the South American weevils for a number of years, and a few years ago was invited to revise and describe the material of this large genus which had accumulated in the British Museum. He found in the collection no less than 216 new species, and included in his study about 200 new species obtained from other sources. The complete list, including those previously described, includes about six hundred species. Many of these are important pests of cultivated plants, but for the majority the habits and life history are unknown. The large and well-drawn figures greatly facilitate determination. This excellent book, by a citizen of an enemy country, is published in German. It is remarked in the preface that it would be a heavy expense to translate it into English, and mistakes might be made in the process.

W. H. Evans. A Catalogue of the African Hesperiidae, indicating the classification and nomenclature adopted in the British Museum, 1937. 212 pp., 29 plates. Brigadier Evans, well known for his studies of the Oriental skipper butterflies, undertook to revise those of the African fauna, represented in the Museum by nearly 25,000 specimens, belonging to 70 genera, 421 species and 157 subspecies. The descriptions are very brief, but there are good colored figures of the new species, and of others which had

not previously been figured. There are also small diagrammatic figures of the genitalia of all the species. Thus it would seem that it should be possible to recognize the species, and with this aid, a worker in Africa would find ample opportunity to work out the life histories, most of which are unknown. It is a peculiarity of this author (certainly not a policy of the Museum) that when describing new forms; he hardly ever cites the collectors. This is much to be regretted, and I think it would be justifiable to publish an article supplying the missing information. The Museum has depended so much for its rich collections on collectors who have worked, often under very trying conditions, to supply desirable materials that it seems inexcusable to ignore them when publishing their discoveries. There is an excellent bibliography, and when the species have been previously figured, references to the figures are given.

W. D. Lang, Stanley Smith and Henry Dighton Thomas. Index of Palaeozoic Coral Genera. April, 1940, pp. 231. This is, in the main, a carefully compiled and fully annotated index of the genera of Paleozoic corals, but it is of general interest because of the long and very interesting introduction by Dr. Lang, which deals with such matters as the Old and New Paleontology, Polyphyletic Genera, Taxonomy, Nomenclature, etc. When I was a boy, I resided for a time at Margate, on the coast of Kent; the coast which from its white chalk cliffs was long ago named Albion. There lived in the town a Dr. Arthur Rowe, a physician, who took for his hobby the detailed study of the fossils in the chalk. He discovered that this apparently uniform deposit in reality represented a series of epochs, which could be distinguished by their fossils. Rarely has a hobby-horse been ridden to such good purpose. Now, after a long interval, Lang writes under the heading "The New Palaeontology," "Although a new movement can seldom be attributed to one individual, I suppose that no single author, in Britain at least, did so much to introduce the new paleontology as did the late Arthur Rowe in following up the pioneer work of Charles Barrois. His classic work on the sea-urchins of the chalk, published in 1899, at once gave an opening (so it seemed to his generation) to the floods of pent thought which had been accumulating in the minds of many paleontologists, but lacked a means of expression." (The further, highly illuminative, discussion of this topic is too long to quote.) At the end of his introduction, Lang dramatizes the subject as follows: "With due regard to the considerations detailed above, and after more than twenty years of research upon the Paleozoic corals, we enter with some diffidence upon a formidable task. But, after all, the play's the thing; the stage is set, the curtain is rung up. The genera with their attendant genotypes will enter, make their bow, and retiring to collect each its appropriate species, will reappear with them to unfold the evolutionary plot as formation succeeds formation until, in the Permian act, the curtain falls upon an unfinished drama. A coral fauna is there left in the midst of its evolution. Its future is an enigma, and we have no present knowledge as to whether complete extinction overtook it, or whether it underwent a rapid and radical reorganization, to reappear in Triassic times as a fauna of typical Hexacorals."

Thomas Maxwell Harris. British Purbeck Charophyta. 1939, pp. 83 and 17 excellent photographic plates. The subject is treated with beautiful exactness and detail, but it is not found that the Purbeck fossils throw any real light on the evolution of the group. In that remote period were plants with "the vegetative organization of *Chara,* the most elaborate of the modern forms."

Lucien and Jean Morellet. Tertiary Siphoneous Algae in the W. K. Parker Collection. 1939. 55 pp. and six photographic plates. A careful revision, with much interesting detail.

Max H. Hey. Second Appendix to the Catalogue of Meteorites. 1940. 136 pp. Since the publication of the first appendix in 1927, specimens representative of 91 falls new to the collection has been incorporated. The new catalogue lists the meteorites alphabetically under their names (each fall receiving a special name), with annotations. There is a list of meteorite craters, with full references to literature.

Catalogue of the Books, Manuscripts, Maps and Drawings in the British Museum (Natural History), Vol. viii, supplement P–2. Feb., 1940. 515 pp. A great catalogue, invaluable to librarians, curators of museums and others.

Carolus Linnaeus. Systema Naturae. Tenth edition, Vol. 1 (the animal kingdom). 1939. As the tenth edition of the Systema Naturae, the foundation of our binomial nomenclature for animals, had become extremely rare, the museum reprinted it in facsimile, and it can be obtained for the modest sum of ten shillings and sixpence. It should have a great sale in America.

Ruwenzori Expedition. Vol. iii, Nos. 6 to 10. February, 1940. Deals with representatives of five families of beetles found on the expedition to Mt. Ruwenzori in Africa.

The John Murray Expedition. 1933–34. Scientific Reports. These reports, dealing with the work of the expedition in the Indian Ocean, are full of interesting details which invite comment, but we can only enumerate the titles here:

Published October, 1939. Mortensen on the Echinoidea. Chopra (Zoological Survey of India) on the

Stomatopoda. Stanley Gardiner on the Madreporaria and on the Ecology of Solitary Corals. Foxon on Stomatopod Larvae. H. L. Clark (Harvard University) on Ophiuroidea.

Published November, 1939. E. F. Thompson on Chemical and Physical Investigations. Stubbings on Stratification of Biological Remains in Marine Deposits (attempt to determine the warm and cold periods of the past by the foraminifera). Norman on the Fishes. (With a synopsis of the oceanic genera of Brotulidae.)

Published February, 1940. S. J. Hickson on the Gorgonacea, with notes on two species of Pennatulacea.

Published March, 1940. Stubbings on the Cirripedia. Wiseman and Bennett on the Distribution of Organic Carbon and Nitrogen in Sediments from the Arabian Sea. Seymour Sewell on the Copepods, Harpacticoida (a large report, with much interesting discussion).

T. D. A. COCKERELL

AQUATIC PLANTS

A Manual of Aquatic Plants. By NORMAN C. FASSETT. vi + 382 pp. New York: McGraw-Hill Book Company, Inc. 1940. $4.00.

THE aim of this book is to aid in the identification of aquatic plants, whether in sterile or in flowering condition. The forms included are those obvious to the unaided eye and which under normal conditions germinate and grow with at least the base of the plant in water. This interpretation eliminates most of the algae but permits the liberal inclusion of terrestrial forms normally found in moist habitats, thereby greatly increasing the usefulness of the book for general purposes. The region covered includes Minnesota, Iowa and Missouri, then broadens eastward to the Gulf of St. Lawrence and Virginia. A few helpful references are included with each group, and there is a bibliography on the uses of aquatic plants by wildlife.

The volume consists mainly of keys and figures. The former, which include most of the descriptive material, cover more than one hundred pages, while the latter fill considerably over two hundred pages. This liberality of illustration is especially helpful. The figures are original drawings supplemented by a limited number of habitat photographs. In general, the figures are excellent, both in outline and in sampling of detail; a feature of value is the inclusion of the major venation of leaves illustrated. The plate including *Vallisneria* might well be modified, since one drawing involves figures of unequal scale. On the preceding page, in connection with the illustrations of *Anacharis,* terms relating to the elongated portions of the pistillate and staminate flowers appear reversed. A brief appendix dealing with the uses of water plants by animals is both a useful summary and a model of compactness. The portion devoted to fish perhaps merits extension, but this would have involved greater emphasis on algae.

This book is a welcome addition to the literature of aquatic biology. Because of its organization it may be used by the layman, since the author adheres to the plan of aiding the practical worker, but it will be welcomed as well by the experienced botanist. Convenience of the user is greatly facilitated by having keys and figures closely associated. Brevity of treatment is achieved by leaving much to the manuals to which necessary references are made. But the volume is not a crutch to help to bigger books, for its treatment usually affords a satisfying definiteness without supporting references.

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REPORTS

THE COTTON ROOT-ROT TOUR AND CONFERENCE OF 1940

WORKERS on the cotton root-rot disease, caused by *Phymatotrichum omnivorum,* assembled for a tour and series of conferences, extending from Greenville to College Station, Texas, August 6–9, 1940. Call for this meeting was issued by Dr. A. A. Dunlap, chairman of the root-rot committee of the Cotton Disease Council. Periodic meetings of this kind, at which research workers on the problem have met to exchange ideas, viewpoints and results, have played a part in the rapid advance of knowledge about this very serious disease. The geographic limitation of the work to Southwest United States has made it possible for a majority of those engaged in studies on the problem to attend some if not all of the conferences. Group discussion of the results and of points to be attacked has doubtless avoided some needless duplication of work, aided in encouraging a wider range of attack on the problem, and has obviously facilitated rapid confirmation of new findings.

The root-rot conferences were at first winter meetings with more or less formal reports of progress. The series began with a meeting at College Station on December 13–15, 1927. Accounts of the meetings and abstracts of papers presented at the second to fifth conferences (1929–32, respectively at College Station, Temple, College Station, and Austin) were published in *Phytopathology.* The sixth conference, held at