

erations. Long but concise carefully prepared descriptions covering all parts are given. These are amplified by the numerous figures of the insects as a whole and of their various parts in great detail. The figures of a species are grouped together and printed as text-figures. While it is always of importance to have a figure near the description for comparison, yet the effect and detail of figures printed upon plate-paper is so much better than those printed on ordinary print-paper that convenience should have been overlooked, particularly in a work of such value to future students of the Coccidæ as this one. Figures where one half shows the dorsal surface and the other half the ventral surface are being produced by many authors. This is to be deplored because such figures never give the perspective of the insect as a whole that can be secured from complete figures of each surface while there is always confusion and doubt as to the accuracy of the structures located on and near the meson, and so long as the government is financing the project, the question of expense should not be a serious one. This is particularly unfortunate in figures of the anal ring, a structure that is going to be used much more in the future than in the past, especially in the subfamily Eriococcinæ and its allies. The figures showing the anal ring are all on too small a scale or very indifferently done and do not bring out their pertinent characteristics. An admirable feature of this contribution is the attention given to other individuals than the adult female, the first nymphal stage and the adult male where available being described.

This is one of the very best studies of the Coccidæ made by an American in many years, regardless of my criticisms, and the authors are to be congratulated on starting this series of studies with such a thoroughgoing piece of work. It is to be hoped that they will follow the policy of Maskell and publish at least one large contribution each year until the study is completed. If our National Museum is to retain its supremacy so far as the Coccidæ are concerned it must be by contributions to their study and not by number of insects in cases.

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## SCIENTIFIC EVENTS

### SHAD INVESTIGATIONS IN CONNECTICUT

AN investigation of the cause of the marked depletion of the Connecticut River shad is being undertaken by the Connecticut State Board of Fisheries and Game. The commercial catch of shad has decreased alarmingly since 1919. The number of eggs obtained for artificial propagation has also decreased during recent years. The work now in progress includes: (1) Experimentation with methods of catching shad for spawn taking, (2) a study of the feeding habits, periods of migration and other phases of the life history of the shad, (3) studies of the enemies of larval and young shad, of parasitism and of other phases of pathology, (4) a detailed study of ecological conditions, including pollution, of the tributaries of the Connecticut in which shad are known to spawn, and (5) tagging of adult shad in an attempt to follow successive migrations. Another experiment is designed to test the possibility of furnishing comparative security to young shad by retaining a part of the product of the hatchery in specially prepared ponds freed from other fish.

The staff engaged in this work includes: Mr. J. W. Titcomb, superintendent of the fisheries and game of Connecticut; Dr. P. H. Mitchell, of Brown University, director of the investigations; Dr. Emmeline Moore, who is enabled to undertake this work through the courtesy and cooperation of the New York State Conservation Commission of which she is biologist; Dr. J. E. Blair, of Leland Stanford University; Mr. H. E. Gallup and Mr. F. B. Littlefield, of Harvard Medical School.

The Connecticut legislature has appropriated \$10,000 for this work. The investigations will be continued through the summers of 1923 and 1924.

### PASTEUR CELEBRATIONS IN FRANCE

THE official French celebration of the centenary of Pasteur began in Paris on May 24. According to an article in the *British Medical Journal* many delegates from universities and institutions throughout the world attended a reception given by the president of the French Republic. On the following morning the delegates were welcomed by Dr. Roux at the Pas-