THE GROWTH OF INSECT BIONOMICS.

The interesting suggestions for observation and collecting which are embodied in the now-issuing new edition (third) of the "Anleitung zu Wissenschaftlichen Beobachtungen Auf Reisen" edited by Professor von Neumayer do not, I am glad to notice, omit attention to the ethologic or bionomic aspect of natural history. In the chapter given to Arthropods, revised by Dr. L. Reh, section *H*, devoted to special hints for observation, is composed of a series of most suggestive paragraphs successively entitled polymorphism, parthenogenesis, varieties, protective resemblance, mimicry, terrifying means, weapons, death-feigning, autotomy, regeneration, directive marks, interrelations with other animals, parasitism, plant injuries, galls, etc., benefits and injuries to man, pollination of flowers, care of the young, instincts, special habits, etc., luminosity, and sound-making. In these paragraphs a glimpse is given of the fascination of the bionomic study of insects, and of the wonderful opportunities for illuminating new observations. Such observation or study need lack nothing of the exactness or detailed character of morphologic or systematic work. It is too commonly assumed that ecology, ethology, bionomics, etc., are synonyms for fads, for superficial observation and reckless generalization. In just so far as the study of insect bionomics is pursued carelessly it is worthless; pursued exhaustively, accurately and keenly it is immensely worth while. Folsom's book will help draw many entomologists into the alluring web of insect bionomic study. And this is a consummation devoutly to be wished. But don't give up the old habit of eye-straining exactness and utter fidelity to the minutiae of observation, as well as scientific caution in the formulation of generalizations.

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