

fruit of their labors, for the work would have been a credit to any country, and is therefore the more remarkable for having been written entirely in India.

EVOLUTION OF THE COLOUR PATTERN IN THE MICROLEPIDOPTEROUS GENUS LITHOCOLLETIS. By Annette Frances Braun. Journ. Acad. Nat. Sci., Phila. (2), XVI, p. 105-168; with 26 text figures and pls. III and IV with 99 coloured figures.

In this work Miss Braun, who is well known to readers of the Canadian Entomologist for her work on the Tineidæ, has made a careful study of the numerous species of the genus *Lithocolletis*, with the object of determining the primitive colour pattern of the genus and the principles involved in its evolution among the various species. The work is based upon a comparative study of the adults of 95 species as well as the development of the pupal wings in 11 representative forms.

The general conclusions arrived at are as follows: The primitive pattern of the fore wing consists of a series of seven pale yellow transverse bands separated by unpigmented areas, the arrangement of the bands having a definite relation to the course of the longitudinal veins. These primitive bands constitute the ground colour of the wings and tend to become broader during both ontogenetic and phylogenetic development, in some species suffusing the entire wing. Dark markings appear only at the limits between the ground colour and the unpigmented areas, but these markings once firmly established in the species become independent of extension of the ground colour.

It is suggested that "the uniform yellowish ground colour which suffuses the wing in the higher Lepidoptera, beginning at the base and spreading distalward, is the outcome of a phylogenetically older type of marking, originally banded, and later fused to a uniform colour, and that the markings are a second series superimposed upon the first." The occurrence in some of the higher Lepidoptera of dark bands in pairs seems to be an indication of their origin on each side of a primitive band of the ground colour, as in *Lithocolletis*.

The work is illustrated by many text-figures and two coloured plates on which the figures of 92 species are grouped in the form of a phylogenetic tree.