

## REVIEW

*COLORADO BUTTERFLIES. PART I. SATYRIDÆ.* By F. Martin Brown, assisted by Donald Eff and Bernard Rotger. *Proc. Denver Museum Nat. Hist.*, no. 3: 32 pp., 23 figs. 30 Sept. 1954. [Price \$0.50; available from Curator of Publications, Denver Museum of Natural History, City Park, Denver, Colo., U.S.A.]

At last a careful, authoritative, and well illustrated treatment of the butterflies of Colorado is being published. Colorado is one of the favorite states for travelling collectors, for good reasons, but no adequate work on the butterflies has existed. The section on the Satyridæ is the first of five. It includes 21 species, which may be the largest number of Satyridæ for any one state or province in North America. There are 7 species of *Eneis*, alone, and 4 of *Erebia*, as is appropriate for the state with the largest area of high mountains.

The author gives two aims for *Colorado Butterflies* (p. 3): "First, to present for the first time a fully illustrated account of the butterflies found in Colorado for the beginning collector; second, to record for the more serious students something about the geography of the various species as they are found in Colorado." While both aims have been substantially fulfilled, it is a reviewer's duty to point out several more or less minor difficulties in the first part, which it may prove desirable to consider in later parts. Every species is illustrated by a photograph of the upper and undersides, and while the reproduction is less perfect than might have been hoped, these figures are fine for identifying all but the most confusing species. They all have one very serious omission in the total lack of explanatory captions. It is of great importance that the sex and precise locality of capture be stated for every specimen figured. If possible, this information should be given for the Satyridæ part, perhaps as an *addendum* in one of the later parts. Even beginners might be misled into mistaking sexual differences for species differences. More serious lepidopterists will need to know whether the *Lethe eurydice* and *Cænonympha haydeni* figured are Colorado specimens, what part of Colorado the *Cænonympha tullia* and *Cercyonis pegala* races are from, what the four photographs of *Erebia theano* show, which subspecies of *Eneis uhleri* is shown, and so on.

It is a surprise to find how little the life histories of Colorado butterflies have been studied since the time of W. H. EDWARDS, before the turn of the Century. Among the few new observations is one on *Eneis alberta oslari* in which it is not clear whether the species is known to feed on *Festuca* naturally, or only in confinement.

There is no guide to the meaning of collectors' or institutions' initials, and some of these initials cannot be understood by reading the text.

Aside from the absence of figure captions, these are minor points. *Colorado Butterflies* will be of great value to all of us working with the Rocky Mountains fauna and an important item for the bookshelf of lepidopterists in North America and elsewhere. Messrs. BROWN, EFF, AND ROTGER have had more experience with Colorado butterflies than any other collector of this century. The appearance of the remaining parts will be eagerly expected. Mr. BROWN has just noted that Part II, on the Danaidæ, Heliconiidæ, and Nymphalidæ, is expected to be issued in March. Part III, on the Libytheidæ, Riodinidæ, and Lycænidæ, is due in September. Some colored plates are expected with the index and *addenda*. All parts will have the same format and price, and they are paged consecutively so that they can be bound as a single volume.

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