THE CANADIAN ENTOMOLOGIST

To these are added a chapter on British species and a final one on "Collecting, Rearing and Biological Methods,"

The book teems with suggestive ideas, particularly regarding the phylogeny of various characteristic structures, such as the anal appendages, the pterostigma, the nodus and other venational features, the rectal gills of the Anisoptera, the caudal gills of the Zygoptera and the types of colour pattern. The wings of the Zygoptera are regarded as having been originally anisopterous, as were those of the fossil order Protodonata, their general reduction, especially in the anal area of the hind wings having been correlated with their use as mere "sculling organs" with no power of soaring or "planing."

In the scheme of classification adopted, the chief deviation from the systems usually followed is the separation of the family Lestidæ, with three subfamilies Epiophlebiinæ, Lestinæ and Synlestinæ. This change is based upon both imaginal (venational) and larval characters and appears to be well founded. Diagnostic characters are given for all the groups as far as the tribes.

The subject of Zoogeographical Distribution is considered from a somewhat novel viewpoint. The fauna of each geographical region is divided into three main groups, palæogenic, entogenic and ectogenic. The palæogenic fauna consists of isolated remnants of a past age, formerly more widely distributed than at present; the entogenic fauna of those groups which are most characteristic of the region in question, where they may form definite "zoocentres;" while the ectogenic fauna consists of such groups ashave invaded the region from some neighbouring region in which they are entogenic. The same genus may be entogenic in more than one region. Separate tables are given of both ectogenic and entogenic genera, and their distribution in the various regions.

The fossil record, described in the next chapter, also contains many interesting suggestions, such as the probability that the larvæ of the Protodonata dwelt in damp earth rather than water, no larval forms having been preserved among the abundance of imaginal remains in the Commentry deposits, and the larval tracheal system of recent forms being a modification of an originally

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