

# THE RHOPALOCERA, OR BUTTERFLIES, OF HATLEY, STANSTEAD COUNTY, QUEBEC, 1919.

BY H. MOUSLEY.

In January of 1840 there was published in London a book entitled, "The Canadian Naturalist," written by P. H. Gosse, who afterwards became a Fellow of the Royal Society, and a well known author of works pertaining to invertebrate zoology. Gosse who was born in 1810, came to reside at Compton, a village some seven miles to the north-east of Hatley in 1835, and remained there for about three years. During that time he wrote the above book, which contains probably the first and only general account of the Rhopalocera and Heterocera of this district.

Of the first named I find there are twenty-five species and forms enumerated in the work. Of this number I have to-day verified twenty-three, besides adding another twenty, thus making a total in all of forty-five to the present day, certainly not a very large proportion of the six hundred or more species to be found in North America, north of the Gulf of Mexico and the Rio Grande. Hatley, therefore, cannot be said to be nearly so rich in butterflies as it is in birds, for of the latter I have already recorded one hundred and seventy-five species, or nearly one quarter of all those known to inhabit the United States and Canada. Before proceeding further, however, it may be well to state that my data regarding the butterflies has been gathered casually during the past nine years, whilst pursuing my favorite study of ornithology, and therefore the list does not profess to be final in any way, but may serve as a basis for further systematic work. Of the nine seasons referred to, the present one (1919) has been by far the most prolific, many species such as the Great Spangled and Silver-spot Fritillaries literally swarming, whilst the Yellow-spot and Tawny-edged skippers appeared in myriads, it being almost impossible to walk anywhere without putting them up in clouds. Apparently a similar state of things existed eighty years ago, for Gosse in his "The Canadian Naturalist," 1840, p. 228, says, "Among the clover blossoms, hundreds of little skippers are dancing in their peculiar jerking way from flower to flower. The Yellow-spot (*Pamphila peckius*) is abundant, and another species much resembling it, the Tawny-edged skipper (*Pamphila cernes*)." Other species such as the Red Admiral, Hunter's Butterfly and most of the Graptas (now genus *Polygonia*), were more numerous than usual, the hot, and for the most part humid weather of June and July, no doubt, accounting

for this extra abundance. In seeming contrast to this profusion, however, might be noticed the unusual scarcity of the Black Swallow-tail, as well as the total absence of the Monarch, both of these species being as a rule fairly plentiful.

The country around Hatley is of an undulating character, the village itself standing at an elevation of 1,000 feet above the sea level, with Lake Massawippi, a fine sheet of water, nine miles in length, and about one mile in width, lying on the western side. It is between this lake and the village, that most of my records have been made, and I know of no species on the eastern side of the village, that cannot be found on the western, although a few are somewhat more abundant on the former side.

Of the nine families of butterflies represented in the United States and Canada, namely, Papilionidæ, Pieridæ, Danaidæ, Satyridæ, Nymphalidæ, Lybtheidæ, Riodinidæ, Lycaenidæ and Hesperidæ, all but two have been found at Hatley, the missing families being Lybtheidæ and Riodinidæ.

The Nymphalidæ or "Brush-footed Butterflies," the largest of all the families of butterflies, is also the best represented here with twenty species, then follows the Hesperidæ or "Skippers," with nine, the Lycaenidæ or "Blues," "Coppers," and "Hair-streaks," with six, and the remaining four families with ten representatives. Most of these species are to be found generally distributed and in fair numbers, but there are some that seem to call for special remarks, and I propose to deal with these, in the order in which they appear in the latest check list.

THE BLACK SWALLOW-TAIL, *Papilio polyxenes* Fabr. In view of the general abundance of this species in most seasons, it is interesting to note what Gosse says about it in his "The Canadian Naturalist," 1840, p. 184: "Another species, the Black Swallow-tail (*Papilio asterius*), is likewise found in Newfoundland and the Southern States, in both of which I have found it numerous, and I have seen it mentioned in lists of New England insects, yet I have not met with it in this province. I should suppose, however, that it is a native, but probably, as in Newfoundland, only appears plentifully in particular seasons." Considering that Gosse lived three years at Compton, we can only come to the conclusion, that he could hardly have passed it over, if it had been there in those days, for he records another of the same genus, the Tiger Swallow-tail, as being plentiful.