

I believe that the most expert Entomologist would pronounce the *Anticosti philodice* different in habit from those found in the vicinity of Canadian cities. There appears to be a difference of opinion among Entomologists in reference to the variations in this insect. Mr. Edwards, of West Virginia, says: "I suspect that at least two species are passing under the name of *Colias philodice*. The species is known to vary widely, but some of the supposed varieties are extreme—almost too much to be considered varieties, unless proved to be so by actual breeding from the egg."

The only correct method by which to arrive at a conclusion as to the species constituting the genus *Colias*, would be the tracing of the imago (true form or variety) to the plants on which it deposits its eggs. It is possible that eggs deposited by a single female on two distinct American plants may produce larvæ showing variation from each other and from the ordinary coloration of larvæ of the original type, which may have been described in another latitude, and taken on a third food plant. These variations are known to occur, and a wide difference is seen between many species which systematists term representative American forms of European types. There is no question that great deviation exists between the species which are found on the two Continents, and the cause of such variation is what is now wished to be arrived at. We find certain butterflies localized or kept within a certain range, because climate restricts the growth of the bulk of that class of plants on which they feed. In such a case, one hundred examples of the butterfly will probably show no more variation than is general between the sexes, and I give *Pieris (Ganoris) borealis* as an illustration of this fact. Larvæ of the greater portion of North American Diurnals are said to feed on from two to ten distinct plants, and I am of opinion that it will yet be proved, when proper attention is given to Entomology in connection with Chemical Botany, that many of the perplexing varieties occurring among the true forms are produced by the food \* which sustain the larvæ.

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\* NOTE.—W. S. Coleman, in his remarks on the brilliant metallic spots which adorn the chrysalides of butterflies, says: "This golden effect is produced by a brilliant white membrane underlying the transparent yellow outer skin of the chrysalis (*Cynthia cardui*), and it may be imitated, as discovered by Lister many years ago, by putting a small piece of black gall in a strong decoction of nettles; this produces a scum which, when left on cap-paper, will exquisitely gild it, without the application of the real metal."

Late experiments made by a French Entomologist on caterpillars of a *Bombyx*,