THE DOMESTICATION OF *PAPILIO THOAS* (*CRESPHONTES*) IN
DUTCHESS COUNTY, N. Y.

BY WILLIAM BUCK DWIGHT, POUGHKEEPSIE, N. Y.

Dr. E. L. Beadle, of Poughkeepsie, N. Y., noticed, on 8 Sept. 1880, some curious caterpillars feeding on a bush of *Dictamnus fraxinella* in his front lawn. The next day he sent several of these to me, and soon after imprisoned some more in a box at his house. Recognizing them as papilios, but not being able to determine the species from the larva, I tended them until they assumed the chrysalis state the third week in September. Four of them developed into butterflies during the last week in February 1881, and the first and second weeks in March; one more expanded early in April, about which time some in Dr. Beadle's box also assumed the imago state. I had no difficulty in recognizing them at once as good specimens of *Papilio thoas*, whose proper home is on the orange tree in the southern states. I have since compared them with typical specimens, and find no essential difference. Dr. Beadle suggested, what seems to me very probable, that the eggs of these lepidoptera might have been brought here in the southern moss (in which orange leaves are very likely to be entangled) which is packed about the Florida oranges landed here.

On 30 March 1881, I announced the above facts in a paper read before the Poughkeepsie society of natural science. Attention having been thus called to the subject, this butterfly was found in several private collections here, its true character not having before been recognized.

As the spring opened, Mr. James M. De Garmo, of Rhinebeck, N. Y., set the boys in the academy of which he is the principal, on the lookout for these butterflies, and they found quite a number before long. As the autumn came in they found them to be by no means rare.

I had at first supposed that this insect was only partially domesticated, living solely in the cultivated grounds around our mansions, — on the *Dictamnus fraxinella*, and on the hot-house orange trees. Later in the season their frequency led me to suspect that they were more thoroughly established. On 17 Sept. 1881, while making geological explorations in the woods four or five miles south of Poughkeepsie, I found quite a number of laryae of *Papilio thoas* feeding on the wild "thorn bush," *Zanthoxylum americanum*, which, like the *Dictamnus fraxinella*, is a member (with the orange) of the *rutaceae*, and has orange-scented leaves. These were on different bushes about a mile apart. Subsequently I also found some chrysalids of the same, suspended for the winter under the stones of farm walls.

It is thus established that this southern papilio, which has already been reported in Canada, and six or seven of our northern States, is thoroughly domesticated in this part of New York state, finding an abundance of its orange-flavored food in our woods, and weathering our winters in safety.

VASSAR COLLEGE, 11 FEB. 1882.