

wanting in the more primitive, being apparently a modern improvement adapted to some purpose of mechanical utility and developed only at an advanced stage of *Coliad* progress. Perchance 'tis a refinement in the mechanism of flight, or mayhap some new sort of musical implement, dispensing ultimate atoms of harmony inaccessible to our coarse sense as the "music of the spheres." Of the North American forms of *Colias* only three beside *Elis* are possessed of this peculiar apparatus. These are *Meadii*, *Casonia* and *Eurydice*, and the possession of this character brings them into very good society indeed, comprising such fine species as *Lesbia*, *Aurora*, *Vautieri*, *Fieldii* and *Electra*, in all of which I have examined this structure, as also in *Edusa* and *Myrmidone*. In *Elis* it appears in all the males I have obtained, whether bred or caught. This "glandular space" is not peculiar to *Colias*. I have noticed it in several species of *Catopsilia*, among them *Rurina*, *Trite* and *Pyranthe*. In *Gonopteryx clorinde* ♂ the structure is well developed, being in the specimen I examined 17 mm. long, and 2 mm. broad in the middle; the colour pale brown. In *Colias elis* the "glandular space" varies from a pale—slightly greenish—yellow to a bright orange.

The foregoing parts of this description, relating to the size and proportions of the butterfly, the breadth of the dark borders, and the size of the several spots and marks on the wings, have been taken from captured butterflies, because bred specimens seldom present the natural averages, but instead exhibit differentiations constituting either type retardation or race progress resulting from and proportioned to the conditions under which they are reared; conditions usually diverse from those of nature. It will not be necessary to adhere to this discrimination in describing the colors and the minute details, and these can more profitably be derived from observation of the bred specimens, where they are displayed in a perfection almost impossible to find intact in flown specimens.

The material of *Elis* bred during three seasons, 1887 to 1889 inclusive, consists of three families *ex ovo*, and four butterflies matured from larvæ found wild—altogether 37 ♂ and 28 ♀, not to mention a lot of parasites from one of the estray larvæ. These bred specimens mostly show a departure from the average type developed under ordinary out-of-doors conditions. In general this diversion is a progress, an advance of type, a presentation of the ideal instead of the practical *Elis*. In natural conditions *Elis* is subject to somewhat severe limitations. The caterpillar