

gists of the Northern Trans-continental Survey collected in 1882, in Oregon and Washington Territory, 129 specimens of *C. Edwardsii*, among which were two specimens like the one figured by Mr. Edwards as *Christina* ♀; other specimens with a faint beginning of a border were taken in copulation with *C. Edwardsii*, therefore the specimen figured by Mr. Edwards as *Christina* ♀ is *Edwardsii* ♀.

No orange male of *C. Edwardsii* has ever been reported, nor were there any among the specimens collected by Dr. Hagen and his associates, but one or two males of *Philodice* suffused with orange have been taken, and one orange male of *Pelidne* from Labrador is recorded by Moeschler; therefore there is no improbability that a few may exist of *Edwardsii*, and therefore Dr. Hagen comes to the conclusion that *Christina* cannot be separated from *Edwardsii*.

Dr. Hagen also complains that Mr. Edwards, while admitting that *Philodice* varies "in size, in color, in the extent and contour of the marginal border, in the discal spots, in all the markings of the under side, and in the degree of dusting of both sides," nevertheless uses these same characters to separate the larger number of the American species of *Colias*.

Now, though it is admitted that a very large series of *Philodice* may show variations in all of these characters, it is scarcely reasonable to say that no weight should be attached to the fact that in one form nine specimens out of ten are without a certain character, which is present in nine out of ten specimens of another form. Dr. Hagen himself admits nine good species of this genus as occurring in North America, and he surely must use some of these characters in separating these species. At least I fail to see how otherwise *C. Interior* can be separated from *C. Philodice*. Besides it by no means follows that because two species of a genus may vary extremely, all the others will vary to anything like the same extent.

Mr. Strecker, in his illustrated work on Lepidoptera*, page 133, states that *Christina* is only a variety of *C. Pelidne*, and repeats the same in his catalogue.

Mr. Edwards has effectively replied to these statements on page 56, Vov. xiv., of this journal, but I may be permitted to make a few remarks on the same subject.

In the first place Mr. Strecker's geography is sadly at fault when he calls the region immediately west of Hudson's Bay the "New North and

* Lepidoptera, Rhopaloceres and Heteroceres, Indigenous and Exotic.