

and it is notable that while the plant is abundant and flowers so profusely as to whiten the landscape, the seeds have never been found. It grows upon the dry hillsides and covers uncounted square miles of waste land.

This plant, growing at a distance from the usual haunts of *Piasus*, is that butterfly's food plant. While the flower buds are as yet but in their merest infancy, the female *Piasus* of the first brood deposits her eggs, singly, on the bud and between it and the stem. The female of the second brood finds the flowers in blossom. The egg is white, round, flattened, with a depressed point in the center, like other *Lycaena* eggs.

While *Adenostoma* is entirely foreign to any plant in the Atlantic States or Europe, it is placed by botanists in the Order Rosacæa, and among eastern plants those nearest it are: *Alchemilla*, "lady's mantle;" *Agrimonia*, "agrimona," and *Poterium*, "burnet," though all of these are very unlike in appearance to *Adenostoma*. It is possible that the buds or the immature seeds of other Rosaceous plants might feed *Piasus* larvæ, as cherry, plum, strawberry, etc.

CORRESPONDENCE.

WIND-VISITING MOTHS.

Dear Sir: I have given in the CANADIAN ENTOMOLOGIST a preliminary list of those moths which do not breed continuously in our North American Territory, as defined by Leconte. It has been my theory, stated in numerous papers within the past fifteen or twenty years, that a number of species of moths, found as moths within our limits, are wind visitors. I have been at some pains to point out that the Cotton Worm Moth is, so far as the Central Cotton Belt is concerned and the territory north of this, only a summer breeder, and that it is winter-killed over the larger portion of our continent over which it flies. I ascertained, while in the employ of the Agricultural Department, that, on the coast of Georgia, the earlier or later appearance of the Cotton Worm depended, at least in some seasons, upon the average direction and force of the wind. No continued observations could be taken, but as the general course of the wind is from south to north during the summer, what I heard agreed with my previously published conclusions. My theory as to the Cotton Worm has been ingeniously covered up in his Reports by

Prof. Riley, but I refer to my statements in print and to the fact that the line of continuous breeding is yet unfixd, while it is the primary object to be ascertained by practical entomologists. On page 56 of this volume, Mr. Smith "dissents from the idea" that certain Sphingidæ or Hawk Moths determined from our territory by Mr. Edwards should be taken into our fauna in papers on our fauna. He demands that the right should be made clear by ascertaining that the insect breeds within our territory. I agree with Mr. Edwards that we should take all species found within our territory into our lists and treat them as belonging to our southern fauna, until it is proved that they do not breed with us; and *then* with the remark that they do not breed, but are merely wind-visitors as moths. How can we pass over such a fact, as their being found with us, in silence? Again, seeing the large extent both of our territory and of our ignorance of the conditions under which our moths live, how can we pronounce whether or no these moths may not be summer breeders, or occasional breeders? Who knows that *Philampelus typhon* does not breed seasonally in Arizona? Mexican moths are probably more often found in Texas than we have yet any idea; and Cuban in Florida. Mr. Roland Thaxter has bred the Spanish moth, *Euthisanotia timais* in Florida. This is quite a pronounced tropical form. The moth in numbers is beaten by the wind into the light-houses on the coast at least as far north as New Jersey, probably much higher up. We must keep a busy record of the habits of these moths to understand their geographical distribution and their habits. Any ignoring of them in monographic works will tell against the completeness of such works, while the moths, unhindered by the defects in our literature, will wing their way northward and become at least adopted citizens of our domains every summer. As to the Hawk Moths, the Blue and Green Hawk (*labruscæ*) has been taken in Missouri and in New Jersey. Tropical species of the Owlet Moths allied to *Erebus odora* have been taken so far north as Wisconsin, coming up the valley of the Mississippi. I refer the student to my general paper on the Geographical Distribution of our Moths in these pages, and I earnestly hope that all our wind-visitors will be catalogued, described and put on record, since it seems to me we can get no complete picture of our fauna without them. The limit of their continuous breeding must be ascertained, as also of their summer migrations. Do not our ornithologists take into their works and

distinguish between continuous residents, summer breeders, and birds of passage? These moths are our birds. The ornithologists have already a trinomial nomenclature, which we may come to use in time. After awhile the most self-important classifier will come to appreciate the fact, that the laws of Nature are of general application, and that the value of Natural Science is tested by its ability to broaden our views and widen our understanding. It is clear we must compare our results with those reached in other branches of Natural Science.

A. R. GROTE, Bremen, Germany.

A RARE MOTH.

Dear Sir: Permit me, in the pages of your valuable journal, to record the capture here of an interesting moth,—the rare and beautiful *Hepialus auratus*, Grote. Towards the close of last July, while strolling through a cool shady ravine at Lancaster, near this city, I came upon my treasure resting upon the leaf of a wild gooseberry bush that grew on a knoll, surrounded by as rich a growth of vegetation as nature can well produce in this latitude. As it hung to the leaf with its wings steeply closed over its back, and the tip of its long body elevated, it was a very difficult object to detect; and in the deep shade in which it occurred, greatly resembled a yellow, partially dead, leaf. The well known larvæ of *Grapta progne*, which feed on this plant, derive perhaps some protection from a similar coloring. May not this circumstance indicate the gooseberry as the food-plant of the golden *Hepialus*? The type specimen of this species was taken by the late Mr. W. W. Hill in the Adirondacks; July, 1877, and was described by Mr. Grote in the CAN. ENT., vol. x., page 18. As I find no reference to the capture of another example, I presume the present to be its second recorded occurrence.

E. P. VANDUZEE, Buffalo, N. Y.

CELIPTERA BIFASCIATA, BATES.

Dear Sir: Mr. John B. Smith has compared my types of *Celiptera bifasciata*, described as a new species in the CAN. ENT., May, 1886, page 94, and informs me that it is evidently identical with *Phurys vinculum*, Guen.

J. ELWYN BATES.

Mailed May 2nd.