found till last year, when they began to be numerous again, and are more abundant this year.

C. AMASIA, A.-S. Var. VIRENS, *n. var.*—This differs from the usual form in having more clear white for the ground color, very few brown scales in the median space below the median vein, the costal brown patch inside the t. a. line mixed vith olive, a similar patch on the hind or inner margin, with traces only of brown and olive between. In the usual form this forms a continuous shade across the wing. The subterminal shade has only traces of brown in its anterior part, while the rest of the way the brown is pale. But the principal feature is an olive green shading that accompanies nearly all the black markings and forms shades below the forks of the median vein, and shades the terminal space. Described from one  $\mathcal{J}$ , but it does not seem to be a sexual variation. I have males and females without these characters, as well as integrades.

In the 16th Report of the Ontario Ent. Soc., Mr. Bowles quotes me as whipping trees and taking the Catocalæ that fly up in a net. They should be taken by placing the mouth of the poison bottle over them when they settle on the same or another tree. Taking in a net spoils them. While on this subject, I might add that I seldom capture females on trees in the afternoon, while half of those taken at sugar are likely to be females. Can any one say where the females are during the day time?

It is generally understood that Catocalæ are to be found on trees in the afternoons if the wind blows from the south or southwest. I find that during extreme dry weather the direction of the wind makes little or no difference.

## ON THE GEOGRAPHICAL DISTRIBUTION OF NORTH AMERICAN LEPIDOPTERA.

BY AUG. R. GROTE, A. M.

In the preparation of the present paper I have used articles by myself which have appeared in the "Popular Science Monthly," in the pages of "Silliman's Journal," and elsewhere. I have also noticed what has been printed bearing on the subject by other writers. I have tried to present the whole subject as it now appears to me, at the risk of repeating myself in part. This seemed at times excusable if not unavoidable, but as it is