ON THE LIFE DURATION OF THE HETEROCERA (MOTHS).

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I have been requested by Mr. Edwards, who has presented to the Association an interesting and valuable paper, "On the Length of Life of Butterflies," to supplement it with some remarks on the *Life Duration of the Heterocera.*

The period of time passed by insects in their perfect stage, is an item in their history to which, so far as I know, very little attention has been paid. It has not hitherto been made a special subject of inquiry. When we seek to answer the question, we find that very few of our published observations bear upon it. The little that is known upon this point, in the Heterocera, would not authorise the presentation of these notes before this body, were it not that a confession of our ignorance should, and I hope may, serve as an incentive to the examination of the interesting question.

It must prove a difficult field of investigation. Observations made upon species in confinement, deprived of food and subjected to other unnatural conditions, would give only approximate results. Even here we find our knowledge extremely limited. Outside of the Sphingidæ and the Bombycidæ, scarcely anything has been done by our Lepidopterists in rearing entire broods of species. In these two families the eggs can be easily obtained, either by the "sembling" method (attraction of the male by the exposure of a newly-emerged female), or by simply pinning a captured female. Several species of the Phalænidæ are quite prompt in extruding their eggs upon being pinned, even after having been temporarily subjected to anæsthetic influence. But in the extensive family of Noctuidæ—with the winged forms of which we are so familiar, and of which our knowledge, therefore, should be the more complete—it is difficult to obtain the eggs under the restraint of confinement. I have never