

during this summer were found upon the leaves. If these latter were floating, the larvæ were exposed on the upper surface, in other cases they were beneath or concealed in folds. A different habit of swimming to that of *Arzama obliquata*, which progresses by horizontal undulations was noted. *E. caduca* swims strongly, but by an entirely different motion. The posterior third of the body is bent downwards like the tail of a crayfish and then quickly pushed backwards, thus driving the insect ahead by jerks.

Discussed by Messrs. Weed, Webster and others.

Prof. Cook reported having bred *Agrotis C-nigrum* through all its stages upon black currant, the eggs having been laid in a cluster upon leaves of that plant on 1st of June—the perfect insect appearing on the 1st of August.

Prof. H. Osborn read a note on the "Period of Development in *Mallophaga*." The habits of the species of *Mallophaga* render accurate observations upon the time required in development of the eggs a matter of considerable difficulty. While in some of the species upon very common birds it is possible to get an abundance of material, in other cases the opportunities for obtaining such material are very rare. But in the most common species the difficulty of determining the exact time of deposition of eggs, and then of keeping individuals in such conditions as to insure a normal development, makes positive observations difficult. This being the case, any observations which may add to our knowledge of the subject seem of interest, and the present note is offered as one such contribution.

The species chosen in the present case is the *Nitzschia pulicæ*, which is almost invariably to be found in abundance on the common chimney swift (*Chatura pelagica*). This bird is an abundant resident of the building in which my laboratory is located, and being readily obtained on account of its tendency to fly in at the windows, I suggested to Mr. P. H. Rolfs, a graduate student in biology, that he attempt the rearing of larvæ from eggs with a view to determine length of developmental period in connection with studies of its embryology.

For this first purpose he secured on two separate occasions a number of the eggs, and kept them, part in a tight paste-board box, which was kept warm by the heat of his body, the others were enclosed in