D. Seasonal Pulse of [illegible] Breeding and Photoperiodism

The graphs in Figures 1 and 3 indicate a strong pulse of energy in the spring and summer [illegible] to the less lighted months. This is actually a greater difference in the aquatic community than on land because of the angle effect of the trees and water reflection.

One is accustomed to [illegible] big seasonal differences in energy flux with succession and blooms among the planktonic organisms in lakes and in the ocean. It [illegible] to consider the fate of the [illegible] pulse in Silver [illegible] no large successional changes have been observed even in the microscopic algae of the aufwuchs.

In Figures 4 and 5 are shown annual pictures of breeding in the apple snail Pomacea which lays its eggs above the water line and in Pal[illegible]monetes which carries its eggs. From these graphs it may be concluded that in these [illegible] breeding occurs throughout the year in this constant temperature environment but at different rates that are likely to be [illegible] controlled. Thus these species seem adapted to the [illegible] pulse of the whole community. As Forbes [illegible] ago described, the survival of any particular community complex requires the components to eat neither too much or too little. As mentioned in the report on [illegible] below there is some evidence that similar round the [illegible] occurs in the fishes with a large [illegible] pulse.

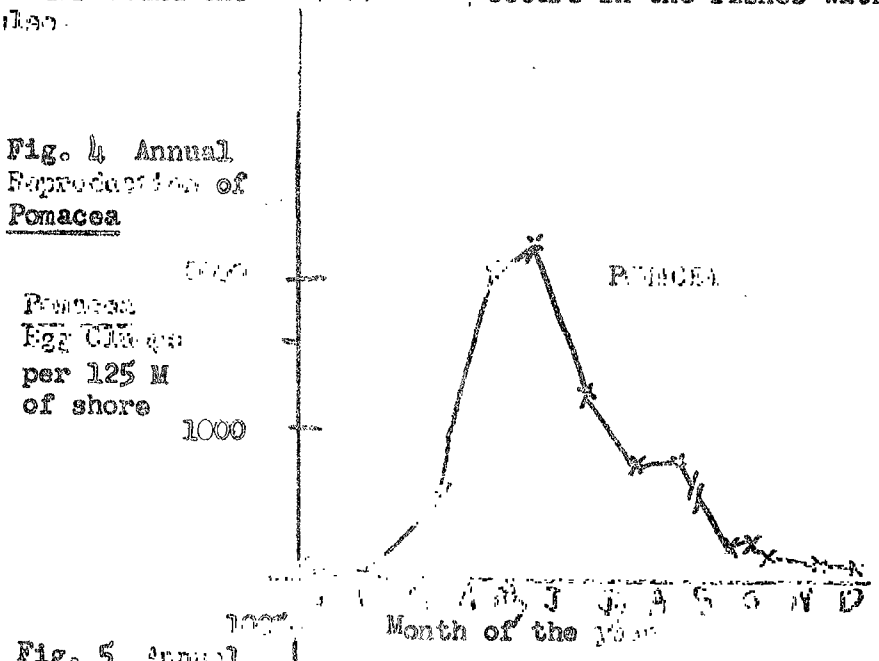

Fig. 4 Annual Reproduction of Pomacea

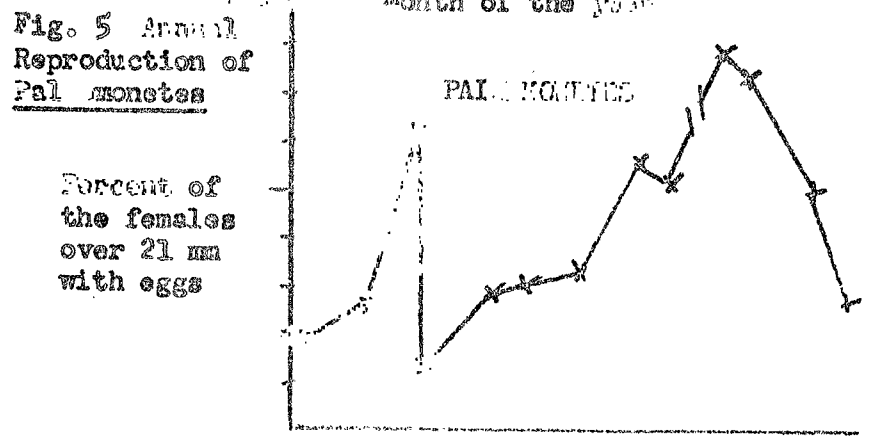

Fig. 5 Annual Reproduction of Pal[illegible]monetes