

or the visitor might move on, as though to seek a more friendly "bed fellow."

During most of the day the beetles were in shadow, but toward evening streaks of sunlight fell upon them, causing them to shift their position, so that the configuration of the group was materially changed. Whether light or heat or both were the disturbing factors I can not say.

At 6:10 P. M. or about 5 minutes before the sun sank behind a nearby mountain, the beetles started to ascend the trees. But while the general movement was up a few of the beetles would reverse their direction and move down for a time. At 6:20, after the sun had disappeared, there was a great pilgrimage upward, but a few laggards were still "asleep." By 7:10 all but one had ascended the particular tree which I was observing, and by 7:30 all had gone up.

The following morning was partly cloudy and still. Most of the insects had moved to other trees in the vicinity, but a few were in the same location as on the two preceding days. At 9:15 A. M., or more than two hours after the sun had reached the top of the alders, a few of the beetles had come down the trunks or were wandering aimlessly up and down, while others were still in the tree tops. At 11 A. M. I noted several groups of from 10 to 20 beetles on the trunks of several trees, but many were still resting quietly on the leaves or flying from leaf to leaf, but apparently not feeding.

Further observations on the "sleep" behavior of insects and the rôle of various environmental and physiological factors in its control are desirable.

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NOTES ON THE COMMON SHRIMP

FOR about a year I have had in my aquarium a number of the common fresh-water shrimp—*Palaemonetes exilipes*. In general these specimens were fed on bread crumbs and bits of scrambled egg. One morning during the latter part of September, I introduced quite a number of mosquito larvae—(*Culex* sp.) into the aquarium. The shrimp at once began to chase the larvae. Even among the plants and grasses of the aquarium the larvae were easily captured. The shrimp held the larvae in their pinchers, introduced the still struggling larvae into the mouth and gradually consumed them.

This does not present proof that in its natural environment *Palaemonetes exilipes* eats the larvae of the mosquito. However, since it positively occurs in an aquarium, it seems probable that such is the case in the natural habitat of these shrimp. Such feeding habits make *Palaemonetes* very valuable economically.

G. ROBERT LUNZ, JR.

CHARLESTON MUSEUM

REPORTS

RESEARCH AT MELLON INSTITUTE DURING 1934-35

THE steady advancement of Mellon Institute during the past twenty-four years is frequently cited as an illustration of the esteem in which industrial research is held by American manufacturers. The institution was one of the first organizations in the United States founded expressly for investigating the problems of the industries, and its industrial fellowships, which have now passed the one-thousand mark, have served scientifically 3,600 companies, either as individuals or as members of industrial associations. In ten instances the inventions of fellowships have created new industries and as the results of research accomplishments of other fellowships many new branches have been added to existing manufactures. The triple function of the institute as an industrial experiment station, as a training school for industrial scientists and as a center for investigation in pure as well as applied chemistry is seen in the numerous discoveries, the successful processes and products, achieved under its auspices and in the regiment of keen research men who have here acquired specialized

knowledge and experience that they are now applying productively in other fields.

In his twenty-second annual report to the institute's board of trustees, just issued, Dr. E. R. Weidlein, director, has summarized the progress during the fiscal year ended February 28, 1935. That there was a growth of the institute's activities in this period is shown by the funds contributed by the industries for the support of research, which amounted to \$596,937.68, an increase of 11 per cent. over the preceding year. The money appropriated by companies and associations to the institute during the past twenty-four years amounts to \$10,029,544.

At the close of the fiscal year, 56 industrial research programs, each relating to a major problem of technology, different in subject from the others, were being pursued, 16 by multiple industrial fellowships and 40 by individual industrial fellowships. Eighty-seven fellows and 29 assistants held positions thereon. Twenty-eight fellowships, or half the total number, have been in operation for five years or more, and of these fellowships 14 have concluded ten years of research, eight have been at work for 15 years or more,