conditions, whereas the virus travels as quickly along the leaf at 85° F. as at 75° F. (Fig. 2). It is slower above 85° F. and below 75° F. The greatest facility of movement for the virus is apparently provided by a temperature between these two values, and is therefore, in all probability, different from that of the host.

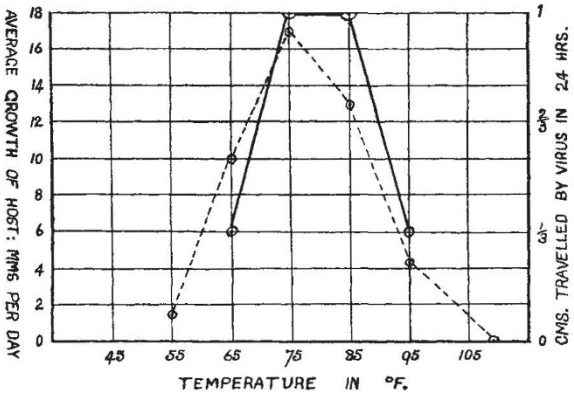

FIG. 2.

Growth of the plant was determined by measuring the average daily increase in length of the leaves, whilst activity of the virus was measured by estimating the distance it would travel along the leaf in 24 hr., 48 hr. and 72 hr. For convenience of expression, the distance travelled in 24 hr. has been adopted in the diagram (Fig. 2); the later records are similar in form. All the determinations round the peaks of the curves were duplicated in constant-temperature chambers controlled within 1° C., but experiments are in progress to test this question further.

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[1] "The Relation of Air Temperature to Certain Plant Diseases" *Phytopath.*, **11**, No. 11, 446-458 (1921).

Habitat of *Procerodes* (*Gunda*) *ulvae*

IN his description of the adaptation of *Procerodes ulvae* to salinity, Pantin[1] has given an account of the environment of this estuarine form. During a survey of the freshwater of Bardsey Island (Caernarvonshire) in the past summer, *P. ulvae* was found in two places under similar conditions. In one of these the habitat was almost exactly the same, topographically, as the beach at Wembury described by Pantin.

It is thus of interest to compare the faunistic results in the two cases. In July, the distribution of *P. ulvae* corresponded roughly to that at Wembury, but in September the freshwater stream flowing over the shore and feeding the rocky pools in which *Procerodes* was found had been dammed higher up its course to provide a drinking place for sheep and cattle. The rocky pools were thus dry except at high tide. Under these conditions, *P. ulvae* was found several inches below the surface under much smaller stones (1–2 inches diameter) where a thin layer of salt water remained. As the tide rose, a migration up to the surface took place, followed by a gradual retreat downwards as the tide fell and the surface stones dried. At the same time a migration up the shore was taking place, and *P. ulvae* was found occupying the lower three feet of the 'desert' area of loose shingle between high water springs and high water neaps. Again, *Procerodes* was only to be found deeper down.

Thus *P. ulvae* must be able to withstand at least two sets of conditions, at one time of the year, alternations between sea- and freshwater (measurements of this show that the change is rapid, from 0·3396 gm. Cl_2/litre to 18·38 gm. Cl_2/litre within half an hour), and at another time, constant immersion in sea-water. In confirmation of Pantin's[2] conclusions, it is interesting to note that the calcium content of the stream water was high (50·75 mgm. Ca/litre in July).

Pantin also points out that *Procerodes* is most abundant where the alternation of sea- and fresh-water is most rapid, and that it dies out farther down the beach. Observations on the Bardsey system seem to indicate that the dominant factor in the zoning of this species on the shore is the nature of the sub-stratum. *Procerodes* only occurred under moderate sized stones resting on shingle; under smaller stones, stones of similar size resting on coarse sand, or under large boulders, it was absent. This suggestion is supported by the occurrence of *Procerodes* in a large brackish water-pool (chloride content 12·23 gm. Cl_2/litre—approximately 62 per cent sea-water) farther up the coast, where no alternation between sea- and freshwater took place, but where the sub-stratum was more suitable.

In all the cases described, the planarians appeared to be healthy and active.

A full account of this survey will be published elsewhere.

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[1] Pantin, C. F. A., *J. Exp. Biol.*, **8**, 63 (1931)
[2] Pantin, C. F. A., *ibid.*, 73.

Discriminative Ability of a Parasitoid

IN a previous communication[1], Dr. Salt and Miss Laing asserted that individual females of *Trichogramma evanescens* avoid host eggs which have already received the attention of other individuals of the same species. In the experiment described, a parasite was allowed to walk on, but not to parasitise, some host eggs. The parasite was then removed, and clean eggs placed alternately with the others. A second parasite was introduced which "avoided the hosts that had been visited by the first, as though they had already been parasitised". From this is deduced that the sense of smell warns the parasites of those eggs which have received attention, so that they leave them alone.

I was interested in this conclusion, which is contrary to my experience, as I have noticed super-parasitism even in such small eggs as those of *Ephestia kühniella*, in which there is room only for one full-sized parasite to develop. The following experiments may, therefore, be of interest, carried out on the same general lines as the one referred to above, *Trichogramma evanescens* and the eggs of *Ephestia kühniella* being used: