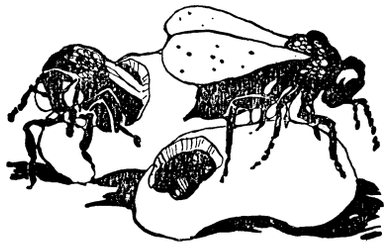
ENTOMOLOGY

NATURE RAMBLINGS

by Frank Thone



Insect Dietary

➤ INSECTS turn up practically everywhere you look, and wherever you find them, you are very likely to find them eating. The housewife finds moth larvae chewing up her woolens and furs, ants in the sugar, cockroaches in the garbage-pail, termites in the living-room floor. Her sweating spouse, trying to do his civic duty by raising a garden, has to fight potato beetles, squash bugs, cabbage worms, grasshoppers, Japanese beetles, and others too numerous to mention without profanity, while mosquitoes plague his ankles and deerflies bite his neck. It should take no argument to convince any citizen that insects will eat anything.

How near that comes to being literally true is vividly set forth in a new book, *Insect Dietary*, by the veteran Harvard entomologist, Prof. Charles T. Brues. In contrast to the dainty appetites of bees and butterflies that sip flower nectar is the very curious feeding habit of certain beetles, which causes them to chew up the lead in plumbing and the coverings of electric cables. Nothing is too dry for some insects: you will find borers in dead wood in the middle of any desert. Nothing is too wet for others; the all-liquid diets of all bloodsuckers like mosquitoes and bedbugs, and of sapsuckers like aphids and cicada larvae, are evidence enough.

Insects take what would seem to be awful chances just to get a meal for themselves or their young. Spiders by millions are victims of wasps and other predatory species—which would be a case of cat-eat-dog in the mammalian world. Poisonous plants like death-cup fungi, henbane and poison ivy are chewed up with apparent impunity by some species; in warmer lands insects devour the leaves and stems of the very plants from which insecticides are derived, like pyrethrum and derris. Even the insectivorous plants, like the pitcher-plants and bladderworts, are invaded by insects that seem to be able to eat without being eaten.

Some of the most interesting of insects, from the viewpoint of their food habits, are found among the midgets of the hexapod world—the tiny wasps and other creatures that are almost too small to see. Their multiform and often highly complex techniques of attaching their eggs to the bodies of their prospective victims, or to their eggs, so that the hatching larvae may become internal parasites, have excited the admiration of naturalists for many years. Some of them add a second parasitic twist: they fasten themselves to the bodies of their prospective victims, and ride as hitch-hikers to the latters' egg-laying site, to save the labor of looking for it themselves.

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CHEMISTRY

Relief from Hay Fever By Use of 2,4-D

➤ HAY FEVERITES whose suffering comes from ragweed pollen may get relief this coming August if communities can apply this summer the latest findings on the weed killer, 2,4-D.

Laying down a fog of 2,4-D on roadsides, empty lots and other ragweed infested areas on the right date is the way to do it, according to studies reported by Drs. Frederick G. Smith, Charles M. Hamner and Robert F. Carlson of the New York State Agricultural Experiment Station at Geneva, N. Y., and Cornell University. Their findings are reported in *Science* (April 19).

In the first tests, ragweed plants sprayed with 2,4-D on July 26 were either dead or dying on Aug. 23 without having shed any pollen. Unsprayed plants had developed normally and on that date were shedding pollen as usual. The weed killer should be used at a very early stage of flower development which botanists would recognize as being before the involucres are open.

Equally good results were obtained when the scientists used a fog machine to apply the weed killer instead of spraying it on. The fog machine method promises to be more practical because of lower cost in equipment, swifter application and avoiding the use of large volumes of water.

Other advantages of 2,4-D for ragweed control are that is is relatively non-poisonous and acts on the weeds rather than on grasses.

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A mile of *neon tubing* is included in New York's largest electric display.