ENTOMOLOGY

NATURE RAMBLINGS

by Frank Thone

Necessary Insects

WE HEAR much about the warfare between mankind and the insects —usually with prophesies that the winged, many-legged hordes will win in the end, and wipe out man and perhaps all other mammals.

That insects do constitute a grave menace there can be no doubt. Yet it is equally true that without insects man would probably never have come into being at all. Indeed, it is dubious whether mammals and birds, to us the most familiar forms of animal life and the most useful, could ever have existed.

The very earliest mammals that ever lived on the earth, so far as we know, were insignificant mouse-sized things that crept among the matted fallen leaves tramped down by the mighty saurians of the Mesozoic Age, and climbed and scampered among the branches. About all that is ever found of these remotest of our warm-blooded forebears is an occasional skull or jaw-bone, with little sharp teeth somewhat like those of present-day shrews.

These first mammals may have lived partly on the thin, pulpy rinds of fruits that grew on the trees of those days, but it is most probable that they gained their food mainly at the expense of the insect life that was already beginning to increase and multiply on the earth. Unless the scientists are badly mistaken, insects thus became the first nurses of the particular line of descent that eventually brought forth man. St. John in the desert, munching locusts, was only reverting to an exceedingly ancient ancestral behavior-pattern.

Our main debt to the insects is of course less direct than this. Insects made possible the thousands upon thousands of plant species that delight us with their blossoms and feed us with their fruits. Important groups like the potato-tomato family, the apple-peach-cherry cousinship, the peas and beans and clovers, all have insect-pollinated flowers. The grasses and grains, on which we depend for most of our sustenance, depend on the wind; but it is possible that their flowers were once insect-pollinated also. Certainly this exceedingly important family did not appear on earth until pollen-bearing insects had been on the scene for a long time.

Even the destructive insects have their place, in making the earth habitable for man and other warm-blooded creatures. It is a truism that fallen trees and lesser plants, and the dead bodies of animals of all degrees, must return to the dust from whence they came, lest all available food materials presently be locked up in undecaying mummies. This grisly but necessary office is undertaken by hosts of organisms, ranging from vultures and coyotes down to fungi and bacteria. And in this corps of natural undertakers a great deal of the work is done by insects.

Insects thus attended the earliest births of our race, they have given million-fold care to our feeding, they perform the necessary ultimate rites for us after we are dead. Our world could not exist without insects.

Scienee News Letter, December 5, 1936

GENERAL SCIENCE

"Nature" Urges Protest Against Science Use in War

IN THESE days when bombs and shells are ruining the new university city at Madrid and annihilating the hope of cultural progress in Spain for years to come, it is significant that scientists in more than one country still not at war are stirring themselves.

There is being realized the practical need of doing something to offset use of science in the growing preparations for war.

There is fear arising that the extinction of the scientific method and the freedom of inquiry will spread to countries not now throttled.

Because England is closer to the danger zone than America, British scientists are more vocal in urging that something be done. The leading British scientific journal, *Nature,* suggests in an editorial that the British and American Associations for the Advancement of Science arrive at a rapprochement for some action to save science from being engulfed in war or the war spirit.

Some scientific workers may regard it as of little use to protest against the use of war. But *Nature's* editorial says "they should not be unmindful of the necessity for science first to deliver her spiritual message regardless of whether it is heeded or not, and for her followers to seek to achieve the educational work which is an essential condition of transition to a better order." Before a new world-wide social order can be built up worthy of the limitless powers which the advance of science has put into the hands of men, the editorial holds, the general community and its leaders must be persuaded that acquaintanceship with scientific forces is an essential condition of enlightened government. Without an adequate scientific background, it is impossible to evolve a social and political system in which progressive knowledge is used for the wisest and best purposes.

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