

A Science Service Feature

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? WHY THE WEATHER ?

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INSECTS IN THE AIR

It is a familiar fact that the air always contains a considerable amount of solid material of one kind or another, but it is not so generally recognized that, besides soot and inorganic dust, this material includes a large percentage of organic matter belonging to both the plant and the animal kingdoms.

Some years ago a French entomologist, A. Bonnet, made numerous measurements of what he called the "entomological density" of the air a short distance above the ground -- i.e., the number of insects contained in it per cubic meter -- and of the relations of this quantity to the hour of the day and the prevailing weather. The measurements were made by adjusting at the front of an automobile a muslin net with an opening of one square meter, and recording the number of insects caught in the net when covering a distance of one kilometer. This number would correspond roughly to the insect population of 1,000 cubic meters of air.

The net was installed high enough to avoid catching insects in large swarms over substances on the ground, and the routes chosen were distant from human habitations, bodies of water and other places where insects collect in large numbers. The average "entomological density" along typical routes varied from one or two at sunrise to seventy about two p.m., falling again to one or two at sunset. Species generally found in the air only very early and late in the day appeared at other hours when the air was saturated with water vapor. No insects were caught while rain was falling.

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