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? WHY THE WEATHER ?

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INSECTS AND AIR CURRENTS

Recent investigations conducted by the United States Bureau of Entomology have revealed surprising facts concerning the insect population of the atmosphere at high levels and the important part played by winds and vertical air currents in transporting insects from place to place. By means of numerous flights of airplanes carrying specially designed traps, insects have been collected at heights ranging from 50 feet to 14,000 feet above the ground. Figures obtained from flights made in Louisiana indicate that in that region a column of air one mile square extending from the 50-foot to the 14,000-foot levels contains, on an average for all seasons, about 25,000,000 insects; the range being from 12,000,000 in January to 36,000,000 in May. Though the population is naturally densest at the lower levels, insects are very numerous as far up as flights have been made.

"It is particularly interesting," says a report on this subject, "to note that many absolutely wingless insects are collected at very high altitudes; for example, the balloon spiders, which have no powers of flight but are carried entirely by air currents, have been collected as high as 10,000 feet, and numerous other small forms, including mites, are found at similar elevations." Wingless and weak-flying insects are evidently carried far aloft by rising currents, due to convection. In the strong winds that commonly prevail at high levels they may be carried great distances horizontally before descending currents permit them to return to the earth; a fact of much significance in connection with the spread of some of the harmful species.

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