

INSECT FOOD HABIT RATIOS OF THE LLOYD-CORNELL RESERVATION

By HARRY B. WEISS

The Lloyd-Cornell Reservation is a quadrangular, uncultivated area of approximately 81 acres, fifteen miles northeast of Ithaca, N. Y. The reservation is more than 1,100 feet above sea-level and its topographic features consist of a pond, streams, ridges and bogs. This area and its flora and fauna are described in Bulletin 27, Entomological Series No. 5, of the Lloyd Library of Botany, Pharmacy and Materia Medica, entitled "A Preliminary Biological Survey of the Lloyd-Cornell Reservation," by members of the scientific staff of Cornell University. This was published in 1926.

In addition to other animals, over 2,400 species of insects are listed in this bulletin as occurring on the reservation. These have been classified in accordance with their predominating family food habits. The weakness of such a classification is appreciated and has been admitted in former papers. The terms phytophagous, saprophagous, etc., are used in their broadest sense and represent apparent rather than actual food habits.

The distribution ratios of food habit types for the reservation are as follows:

	No. species	Phytophagous, per cent	Saprophagous, per cent	Harpactophagous, per cent	Parasitic, per cent	Pollen feeders, etc., per cent
Lloyd-Cornell Reservation	2,449	40	26	19	13	2

Regardless of the numerical abundance of individual species, these ratios are the percentages of the total number, 2,449. As various species maintain themselves in certain numerical ratios

with respect to factors tending to reduce their numbers and as such relationships are usually normal, these numerical ratios have been considered as constant.

It is of interest to compare the Lloyd-Cornell Reservation ratios with those for the entire state of New York* which are given below.

	No species	Phytophagous, per cent	Saprophagous, per cent	Harpactophagous, per cent	Parasitic, per cent	Pollen feeders, etc., per cent
New York State	15,343	48	23	17	10	2

There is not as much difference between the two sets of figures as I had supposed there would be. The entire state of New York embraces different types of vegetation and I had assumed that the Lloyd-Cornell reservation, a relatively small area with fewer vegetation types, would show a greater deviation from the state ratios. On the other hand the Lloyd-Cornell reservation does not have a uniform type of vegetation and includes water, bogs, and ridges. Aside from a reduction in the number of phytophagous species the remaining food habit types do not differ significantly from those for the state as a whole.

* Jour. N. Y. Ent. Soc., vol. 52: 283-284, 1944.



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