

PREDATOR AND PREY

In the little jungles of the grasses underfoot, there are many beasts of prey as fierce, for their size, as tigers; none more so than the grasshopper mouse.

PHYSIOLOGY

Blood Chemical May Cause Hay-Fever Symptoms

New Evidence Points to Guilt of Histamine, Already Under Suspicion; Formed by Blood of Allergic Persons

N EW evidence that a chemical released by the blood cells may be partially responsible for some of the strange symptoms of hay-fever and other allergies, is reported. (Journal, American Medical Association, Nov. 22.)

Using human blood, two physicians of Tulane University of Louisiana School



of Medicine, found that the cells produced histamine in the presence of giant ragweed, housedust and timothy extracts.

Histamine is a chemical which stimulates the autonomic nervous system—over which we have no voluntary control. When histamine is injected into the skin, it produces the familiar "wheal" suffered by some allergy patients. It has long been suspected that this chemical may in part be responsible for many of the clinical symptoms of allergy.

Experiments with animals supported this suspicion, and encouraged Drs. Gerhard Katz and Stanley Cohen of Tulane to test blood taken from allergy patients and non-allergic persons.

When extracts of ragweed, housedust or timothy were incubated with blood of non-allergic persons, no histamine production was noted. When, however, the blood of a person sensitive to one of the irritants was similarly tested, the histamine level then rose considerably.

Further, the reaction was specific. That is, if the patient were allergic to ragweed, but not timothy, his blood produced histamine only in the presence of the ragweed extract, not timothy.

The two physicians concluded that the amounts of histamine released from the blood cells in contact with the irritant could be large enough to cause some of the symptoms of allergy. They asserted:

"We may assume that at least at points of high concentrations of allergens (irritants), such as the tissues of the respiratory or digestive tracts, the histamine released from blood cells circulating through these areas should, to a certain extent, contribute to some of the local tissue reactions."

Science News Letter, December 6, 1941

ZOOLOGY

Fierce Wild Mice Hunt For Prey Like Hounds

FIERCE wild mice that hunt like hounds, pounce on their prey like tigers and hang on like bulldogs are described in the new Smithsonian annual report by Ernest P. Walker, assistant director of the National Zoological Park.

They are the little rodents known as grasshopper mice, common in the Southwest. Like other rodents they eat seeds and other vegetable food, but unlike most other kin-animals they prefer a meat diet, preying on large insects and small mammals and lizards. They get their name from their fondness for grasshoppers and their success in catching them.

"It follows a fresh track like a hound," Mr. Walker states, "makes a slow and very careful approach, and when within reach, grabs its prey, usually with its teeth but sometimes with its hands. This action is so quick that the human eye can scarcely follow it . . . If the victim is a mouse or other creature nearly that size, the attack is particularly savage, much like that of a little bulldog, although the grip is not quite so tenacious, the hold being occasionally changed to obtain a more effective killing grip."

Mr. Walker has a pet grasshopper mouse, as well as several other wild mice, including a couple of pocket mice and a kangaroo rat. The latter animal, like its big but unrelated Australian namesake, does most of its traveling by tremendous leaps and bounds on its long hind legs.

These small rodents are often credited with being voiceless, but Mr. Walker has found that they have tiny voices that tax even a reasonably acute human ear to