

On the hill back of Richmond village, on Staten Island, I have seen them carrying heavy harvest flies to these burrows, several of which are dug there nearly every summer. The task of carrying so great a burden as a Cicada is a particularly laborious one, and they do not fly very fast when thus heavily laden. Sometimes they drag the harvest-flies a distance along the ground, and sometimes they resort to an ingenious method to finally get them to their burrows.

In August, 1889, I observed a *Stizus* carrying a Cicada and flying slowly up a hill side. It lit at the base of a black birch on the hill top, and dragged the harvest-fly, holding the smooth dorsal surface to the bark, to the topmost branches finally disappearing among the leaves. I did not see it leave the tree, for I was unable to command a view on all sides at the same time, and then there was a neighboring birch whose branches interlocked with the one where the hornet was. I satisfied myself that it did leave, by climbing up and violently shaking the branches and tree top, *Stizus* employs this method of transporting the heavy Cicada; it climbs the tree with the insect, and then flies from the branches, the excessive weight gradually bringing it to the ground again but nearer to its burrow.

Professor Morse, in his annual address before the American Association in 1887, notices the following:—Dr. Thomas Meehan describes a hornet that was gifted with great intelligence. He saw this insect struggling with a large locust in unsuccessful attempts to fly away with it. After several fruitless efforts to fly up from the ground with his victim, he finally dragged it fully thirty feet to a tree, to the top of which he laboriously ascended, still clinging to his burden, and having attained this elevated position he flew off in a horizontal direction with the locust."

Commenting upon this, Mr. C. G. Rockwood, jr., in *Science* for August 19th, 1887, gives an account of a large insect evidently of the wasp family, that carried a Cicada for a distance of twenty feet up a maple tree and then flew away with it as described above.

Wishing to ascertain the relative weights of these insects, I had dried specimens, including pins, weighed in a druggist's scales. *Cicada tibicen* weighed thirteen grains and *Stizus speciosus* seven and one half.—W. T. DAVIS, Tompkinsville, Staten Island, N. Y.

EXPERIMENTS FOR THE DESTRUCTION OF CHINCH BUGS.

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These experiments have been continued through the two seasons of 1889 and 1890 and have been remarkably successful. As entomologist to the Kansas State Board of Agriculture I had prepared an article for the annual meeting of that Board in January, 1889, stating what was known at that time upon the subject, and calling attention to the investigations of Professors Forbes, Burrill and Luggier. In June, 1889, a letter was received from Dr. J. T. Curtiss, of Dwight, Morris County, Kansas, announcing that one of the diseases mentioned in the article (*Entomophthora*) was raging in various fields in that region, and stating that in many places in fields of oats and wheat the ground was fairly white with the dead bugs. Some of these dead bugs were at once obtained and experiments were begun in the entomological laboratory of the University. It was found that living healthy bugs, when placed in the same jar with the dead