ENTOMOLOGY.

Harvest Spider Notes.—A recent study of a large number of specimens of the common striped harvest-spider, from all portions of the United States, leads to the conclusion that the northern and southern forms so intergrade that they should rank as a single very variable species, instead of being considered two species as now recognized. The southern form having appeared in the original publication before the northern, has precedence, and should as now be called Liobunum vittatum (Say) while the northern form is Liobunum vittatum dorsatum (Say). An illustrated paper giving a more complete account of the species will appear in the Naturalist at an early date.

During the spring just passed I collected a number of the harvest-spiders described by Dr. Wood as Phalangium formosum, and since placed by myself in the genus Forbesium. They were confined in vivaria and fed on plant-lice; but instead of depositing eggs as I had hoped they would, they continued growing and casting their skins until they evolved themselves into another genus and species—Liobunum ventricosum (Wood). This fact accounts for their sudden disappearance each spring. It is not unlikely that the specimens referred to formosum may include, in other localities, the young of other species. If the southern Forbesium hyemale proves to be also the immature form of another species, the genus will become a synonym.—CLARENCE M. WEED.

Protective Resemblance in Trombidium.—While collecting the past spring I have frequently stooped to pick up what I supposed to be the common New England red mite (apparently Say’s Trombidium sericeum) only to find one of the seed-capsules of one of our abundant Sumachs, which in the spring are widely scattered over the ground. A few feet away the resemblance between the Trombidium and these detached capsules is very striking, the color often being precisely alike. If the mites are at all subject to attack by birds this resemblance must enable many to escape.—C. M. W.

The South Dakota Insectary.—The experiment stations are gradually perfecting their facilities for the study of injurious insects, several of them already having insectaries for carrying on observations
and experiments. A recent bulletin from South Dakota gives the following account of the new insectary at Brookings:

Recognizing the necessity of facilities for rearing insects in a situation where all external conditions could be controlled, as well as of a suitable place for keeping the collections and apparatus of the department, the board of trustees last year authorized the construction of a building for the entomological department. This was occupied about June 25. It is a structure 16x32 feet in size, with wing 12 feet square. In the main part is the general office and work room, 16 feet square, a well finished room, provided with desk, tables, balances, shelves for collections, &c. Here are kept a general collection of all orders of insects, chiefly collected in this locality; some economic collections, showing the transformations, work and parasites of some of the common injurious insects; samples of various insecticides, and a few bee supplies.

The rearing-room, or insectary proper, occupies the remainder of the main part of the building. It is an unfinished room with dirt floor, lighted by five large windows. It is as yet but partially fitted up, owing to the fact that the rearing season was almost past when we moved into the building last spring. Breeding cages and other devices for this line of work will be in operation this year.

The wing on the east side of the main building is devoted to beekeeping and storage of machinery, &c. The bees are placed on a low shelf along the side of the room, the faces of the hives toward the outside. Horizontal slits through the wall, one immediately in front of each hive, give the bees egress. This arrangement is called a house apiary, and presents several advantages in our circumstances. The hives are safe from violent winds and are in a very convenient place for working with them, as by nearly closing the door the room can be darkened until the bees will not fly in it.

**Wasps and Humming Birds.**—My attention was recently called by Prof. H. G. Jesup to a row of English white birch trees in Hanover, N. H., which had been bored by woodpeckers. Although most of the holes were old, the sap was evidently still exuding about some of the trees as they were visited by swarms of flies, and many wasps, particularly the "white faced hornet" (Vespa maculata). There were also several humming birds (Trochilus colubris) eager for a taste of the sap. But whenever one of the latter approached a wasp would dash savagely at it and drive it away. This was repeated over
and over again on different days, and it only rarely happened that the birds were rewarded by a short suck of the coveted liquid.—C. M. W.

Recent Publications.—Bulletin No. 27 of the U. S. Division of Entomology consists of reports on the damage by destructive locusts during 1891 in California, Colorado, Kansas and other Western States. The reports were prepared by Messrs. Bruner, Coquillet, and Osborn, field agents of the Division.

The April, 1892, Bulletin of the Ohio Experiment Station consists of a discussion by Mr. F. M. Webster, of the "Insects which burrow in the stem of wheat." Seven species are included. * * * Mr. Lawrence Bruner's report as entomologist to Nebraska Board of Agriculture for 1891 consists of a short, illustrated treatise on corn insects. * * * Dr. J. B. Smith's report for 1891 as entomologist of the New Jersey Experiment Station contains several excellent practical discussions of injurious insects, with many good illustrations. * * * The March Bulletin of the South Dakota Station, and the May Bulletin of the Iowa Station contain valuable entomological articles. Baron C. R. Osten-Sacken\(^1\) has a paper of additions and corrections to Dr. S. Wendell Williston's catalogue of the Asilidæ of South America published last year. The shrimp, *Palæmon ornatus*, has recently and suddenly appeared in great numbers in the Hunter River of Australia.

\(^1\)Berliner Entomolog. Zeitshrift for 1891, xxxvi, 417, 1892.