A Directory of Workers in Hemiptera. During February a circular letter and data blank was sent to all entomologists in this country known to be particularly interested in Hemiptera, the object being to get together a directory of workers within the order, listing their projects in hand and past publications. To date more than 30 blanks have returned with detailed data. If any field men connected with the Bureau, or otherwise, are at present engaged in any problem—economic, biologic, or systematic—relative to Hemiptera and have not received a blank to fill in, they will be conferring a favor by sending data under the following headings to Edmund H. Gibson, Divison of Insects, U. S. National Museum, (a) Name, (b) Address, (c) Position and institution affiliated with, (d) Character of work, (e) Problems in hand or expecting to undertake, (f) List of publications.

Monthly Letter, Bureau of Entomology, February, 1917.

The Mediterranean Flour Moth (Ephestia kuchniella Zell.). This insect has attracted more attention during 1916 than for several years. It has made its appearance in warehouses and mills where it was not formerly found. The list of localities includes mostly small towns and cities. It is interesting that while formerly when this species was so very abundant, nearly all millers knew the insect as the Mediterranean flour moth, at the present time they refer to it as "weevil," "flies," and infested material is seldom accompanied by other species of insects. One correspondent writes "We are worried with a fly that lays eggs, apparently these hatch, and a worm gets in all elevators and spouts, causing a web which takes a very little time to fill cups and spouts, causing web in the flour, and interfering with the flow of the mill."

Hymenia perspectalis Hubner, a Greenhouse Pest. My good friend, Mr. William Falconer, the superintendent of the Allegheny Cemetery, Pittsburgh, on January 10, 1917, came to me, bringing with him a number of specimens of Hymenia perspectalis Hübner, and several potted plants of Alternanthera which showed the ravages of the larvæ of this little moth.

He reports to me that the insect has confined its attentions to the young plants of Alternanthera, which is extensively propagated in the green-house for use in the borders of parterres. Its work has been almost ruinous, and, as this is the first time he has ever seen the thing, he was naturally anxious to learn more about it. I have not taken the time to make a search of the recent literature of the subject to ascrtain whether it has been recorded as a pest in other places, but simply call attention in these lines to the fact that, if allowed to propagate in green-houses and conservatories, it may do great damage to the above-mentioned plants.

W. J. HOLLAND.

Carnegie Museum, Pittsburgh, January 25, 1917.

The Life-histories of the Cattle Lice. The life-histories of these species have been worked out during this winter. Ten specimens of the short-nosed ox louse (Hamatpinus eurysternus) were placed on a restricted region on the shoulder of a Holstein calf that was less then twenty-four hours old. The white eggs were soon laid. The were observed once each day and the eggs hatched in from seven to eight days after they were laid. These young were removed and placed on another calf and these laid eggs in from fifteen to sixteen days after hatching, making a life-cycle of from twenty-two to twenty-four days. The female of this species lays from thirty-five to fifty each. The life-history was checked on other calves.

The life-history of the long-nosed ox louse (*Hæmatopinus vituli* Linn.) was similar though it was slightly longer. The method used was the same as in the viously mentioned louse. These insects were placed in a white patch where the highest longer hatched in from eight to nine days and the lice again laid eggs in from

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seventeen to eighteen days after hatching, making a life-cycle of from twenty-five to twenty-seven days.

The little red biting lice (*Trichodectes scalaris* Nitz) have been much harder to determine owing to the difficulty in keeping them confined. From the writer's observations supplemented by the hatching of eggs in an electric incubator it is believed that they hatch from the eggs in from five to six days and mature in two weeks though more work must be done on this species to determine its life-cycle with the accuracy of the two previously mentioned species. This would indicate that a treatment might be repeated with the best results from ten days to two weeks after the first treatment.

The experimental work on the control measures will appear in the future in a bulletin from the Storrs Experiment Station.

G. H. LAMSON, JR.,

Storrs, Conn.

An Infestation of Lasius niger L. var. americana with Laboulbenia formicarum Thaxter. On April 7 the writer collected a number of ants of the species Lasius niger L. var. americana. Upon close examination under a binocular microscope fungus growths were observed on the ants. The fungus occurred particularly on the posterior part of the head, the dorsal surface of the abdomen, and the femora and tibiæ. Every worker examined from one colony was affected, some having more hyphal outgrowths than others. The fungus was identified by Professor R. F. Griggs of Ohio State University as Laboulbenia formicarum Thaxter. The fungus apparently had no injurious effects upon the ants, which were as lively as those not parasitized, and the organism is of interest because of its rareness rather than through its effect upon the host. The writer examined the ants of several adjoining colonies but found the individuals of only one other colony infested. This colony was about fifteen feet from the original colony and may have been connected with the former by means of subterranean galleries. Dr. Thaxter of Harvard University has made an interesting study of this and other Laboulbenia, all of which affect insects exclusively.

M. R. SMITH,

Department of Entomology and Zoölogy, Ohio State University.

Credit to Whom Credit is Due. On a recent visit to the Bureau of Entomology, through the courtesy of Dr. L. O. Howard the following facts were ascertained:

The anonymous person mentioned by C. V. Riley in his article on the Ox Bot of the United States 1892, was Mr. F. G. Schaupp of Shovel Mount, Texas, a special field agent of the U. S. Department of Agriculture. Dr. Howard kindly showed me a number of letters from Mr. Schaupp dated March, 1892, proving conclusively that he was the experimentor and that Riley merely recorded his observations. The anonymity of that time was on account of personal matters relating to Mr. Schaupp. The principal reason for my writing this note is on account of a somewhat severe criticism I made of the late Professor Riley in Parasitology, 1915, saying that his records were not his own, and also to give credit to Mr. Schaupp for his excellent and valuable experiments on the life-history of H. lineatum. Seeing that Professor Riley is dead and that Mr. Schaupp was buried at San Antonio on November 10, 1903, there seems to be no further necessity for keeping his name secret. Mr. Schaupp was the first president of the Brooklyn Entomological Society and is well known for his work in Entomology, especially on the Coleoptera. In conclusion it might be mentioned that Mr. Schaupp was the first discoverer of the eggs of H. lineatum and that he also made some valuable notes on the method of oviposition; therefore I think that in future his name should be mentioned in all articles relating to past experiments on Warble-flies.

SEYMOUR HADWEN, Agassiz, B. C.