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the elytral declivity dissimilar in the two sexes (*P. carinulatus*, *pullus*, *plagiatus*, etc.) should, in all probability, be removed from this genus and placed near *Tomicus*. *P. minutissimus* and allied species form another well-defined group which could easily be elevated to the rank of a subgenus. The remaining species, still very numerous, are very homogeneous in structure and can be distinguished with certainty only by the secondary male characters, as exhibited in the sculpture or pubescence of the head. Very often even the determination of the males is rendered very difficult without dissection, because in many cabinet specimens the head is retracted within the thorax and entirely concealed from view. To obviate this difficulty it will be advantageous, I think, to use chloroform or acetic ether in killing the specimens instead of cyanide of potassium.

MARCH 5, 1891.

President Marx in the chair. Nine members and two visitors present.

Mr. Schwarz was elected to the position of Corresponding Secretary made vacant by the departure of Mr. Townsend, who had been called from the city to take the position of Entomologist in the New Mexico Agricultural College.

Mr. Fernow was elected a member of the Executive Committee vice Mr. Schwarz, resigned.

Mr. Banks called attention to specimens of *Scolopendrella*, *Machilis* and *Lepisma*, in different stages, taken this winter in Rock Creek Valley, D. C.

Two papers by Prof. Riley were read in his absence, the first being as follows :

NOTE ON THE LIFE HABITS OF MEGILLA MACULATA.

BY C. V. RILEY.

In accordance with my promise at a previous meeting (September 4, 1890,) I present herewith a comparative description, with specimens, of the larva of *Megilla maculata*, simply because it furnishes another illustration of a very common insect that has never been described or figured in its adolescent states. I have had the larvæ, obtained at St. Louis, ever since 1870, where they were found abundantly in connection with the adult

upon maize. In 1872 I also reared the beetle from pupæ found on Croton. We have long known that the imago in this species departed from the normal habits of the family, in that it feeds upon various substances and approaches more nearly in this respect the genus *Epilachna*. Its food habits have been pretty well investigated and recorded by Forbes (12th Illinois Entomological Report, 1883), and it was found devouring the pollen of *Taraxacum densleonis* by Mr. Webster (American Entomologist, Vol. III, 1880, p. 173), while I have recorded its injury to blades of corn and its eating the eggs, larvæ and pupæ of *Lina scripta* (American Naturalist, 1881, p. 326). I have also shown in the same periodical for 1883, pp. 322, 323 that the beetles in confinement did not eat various kinds of leaves offered them. They have, however, been found eating into the soft kernels of corn, and quite extensively by Mr. Pergande in some observations he made on corn insects for me. He found both adults and larvæ eating into the soft kernels of sugar corn. Mr. Webster has also found both the imago and larvæ of *Diplosis tritici* and the imago on the wheat blossom. So many insects belonging to genera or families which are essentially plant feeders will also feed upon soft insects and *vice versa*, that this combined habit in the adult *Megilla* is not so strange as would at first appear, and there is, so far as I know, no evidence to show that the larva is ever anything else than entomophagous.

The larva of *Megilla maculata* closely resembles that of *M. 13-punctata*, for which it might easily be mistaken. That of *13-punctata* is, however, paler, with black markings of the prothorax distinctly bi-lobed posteriorly, whereas in *maculata* the posterior margin is entire. It also closely resembles the larva of *Coccinella bipunctata*, the tuberculation and thoracic markings of which are almost identical, though the general color is darker, more dingy and without the bright band across the fourth abdominal segment. The larva of *C. 9-notata* is also very similar, but the hairs of the tubercles are distinctly enlarged and not simple as in *maculata*. In the markings of the prothorax the larva of *maculata* is almost identical with that of *C. bipunctata*.

Mr. Schwarz remarked that the life histories of our Coccinellidæ do not seem to present any special features, and the only peculiarity in *Megilla maculata* that occurred to him was the habit of congregating or huddling together in great numbers under stone, bark, boards, etc., during cold weather, not only in winter-time, but also in spring and summer. The

species also seem to be more numerous on plants growing in swamps than on those growing on dry land. The wide geographical range of this beetle was also pointed out, as well as the fact that in the more northern climates it is remarkably constant in coloration, but quite variable in more southern latitudes.

Mr. H. W. Turner stated that he had seen in California a Coccinellid, probably *Megilla vittigera*, which likewise congregates in enormous numbers.

Mr. Howard said that Mr. C. D. Walcott at a recent meeting of the Biological Society of Washington had called attention to the congregation in large numbers of a lady bird (probably *Hippodamia convergens*) on rocks just at the snow line in the Rocky mountains. Mr. Schwarz replied that this should not be considered as a voluntary congregation; the beetles were carried upwards by ascending currents of air along the slope of the mountain and falling upon the snow fields either perished from cold or managed to reach rocks or other objects projecting from the snow. While in Colorado he had seen at an altitude of about 12,000 feet the snow fields thickly covered with such multitudes of *Phyllotreta pusilla* and *Hippodamia convergens* that the glare from the snow, otherwise so trying to the eyes, was perceptibly diminished.

Mr. Mann said that he had not been able to get *Coccinella bipunctata* to feed indoors in winter-time on Aphides, and that this species did not occur very abundantly in houses.

Prof. Riley's second paper was as follows:

ON THE LARVA AND SOME PECULIARITIES OF THE COCOON OF SPHECIUS SPECIOSUS.

BY C. V. RILEY.

In elaboration of some former remarks on the life-history of *Sphécus speciosus* made at the meeting for September 4, 1890, I wish to submit a more detailed description of the larva, and at the same time to draw attention to a remarkable peculiarity of the cocoon. The larva in form, color and general appearance resembles the typical larvæ of the fossorial wasps, so far as we already know them. It possesses great extensile and contractile power, the anterior segments, more particularly,