PARASITES OF THE LARVA OF LACHNOSTERNA FUSCA. In an item quoted in PSYCHE, v. 4, p. 211, from *Science record*, Mr. Otto Lugger is reported as saying that "*Tiphia* lays its eggs in the larva of *Lachnosterna fusca*," and the larva "when nearly mature eats the white grub." Further, that the eggs of *Rhipiphorus*, a secondary parasite, "become fastened to the *Tiphia*." These statements are not strictly accurate. The conjecture in my 6th Missouri report,[1] p. 123-126, that the *Tiphia* larva preys externally on that of *Lachnosterna*, I have since verified, and of course it begins feeding as soon as hatched; while it would be quite exceptional for *Rhipiphorus* to lay its eggs on *Tiphia*. The probability, as stated in the report cited, is that the eggs are deposited on flowers frequented by *Tiphia*, to which the triungulin fastens and by which it is carried into the ground. It would be interesting to know whether Mr. Lugger speaks from observation or conjecture.—C. V. RILEY, *at meeting of Entomological society of Washington, 6 Nov. 1884.*

FOOD-PLANTS OF PULVINARIA INNUMERABILIS. On p. 338 of J. D. Putnam's "Biological and other notes on *coccidae*" [Psyche, Rec., no. 1989], it is stated that Mr. Putnam has observed *Pulvinaria innumerabilis* in great abundance on *Acer dasycarpum*, *A. saccharinum*, *Negundo aceroides* and *Tilia europaea*, on each of which it thrives well, best on the *Negundo*, but least on *A. saccharinum*. Mr. Putnam knew personally of the occurrence of this species also on *Robinia pseudacacia*, *Vitis labrusca* and *Rhus glabra*, in the vicinity of infested maples. In one instance he found a single undersized specimen, with its "nest," on *Vitis riparia*, more than 800 metres from the nearest infested *Acer*. He adds *Rosa* and *Fagus* to the list of food-plants, on the authority of S. S. Rathvon, who found it once on each of these plants, and mentions with doubtful credence the opinions of Emily A. Smith and C. V. Riley that they had also found it on *Salix*, *Maclura*, *Quercus*, *Ulmus*, *Platanus*, *Ribes*, *Euonymus* and *Celtis*. It undoubtedly occurs in very great abundance on *Maclura* hedges in Washington, D. C., as I have observed. On the 30th of June this year (1884) I received from F. R. Rathbun, of Auburn, N. Y., three twigs of *Ulmus*, gathered on the 28th, in Auburn, bearing respectively 1, 1 and 3 specimens of mature *Pulvinaria innumerabilis*, with fully developed nests, from which the larvae have since hatched in great numbers. These all came from one tree. In sending specimens previously, Mr. Rathbun wrote that "the maples [*Acer*] especially have the silky pussys or cocoons to a large extent, and they are invariably found on the under sides of the twigs. Sometimes they are arranged thickly, in rows, and again singly." Mr. Putnam says "there is enough evidence to show that this insect is capable of thriving on quite a variety of food-plants, and in the cases where it has been directly introduced from the maple there is no question of its identity." The specimens referred to in this communication will be deposited in the Museum of comparative zoology at Cambridge, Mass., where they are more certain of good care and of being accessible to students than in any other collection of national extent in the country.—B: PICKMAN MANN *at meeting of Cambridge entomological club, 10 Oct. 1884.*

[1] PSYCHE, Rec., no. 39.

PROCEEDINGS OF SOCIETIES.

CAMBRIDGE ENTOMOLOGICAL CLUB.

(*Continued from p. 186.*)

14 MAR. 1884.—The 100th meeting of the club was held at 61 Sacramento St., Cambridge, 14 Mar. 1884, the president, Mr. S: H. Scudder, in the chair.

The secretary announced the withdrawal from the club of Mr. Henry Savage, of Boston, Mass.

Mr. S: H. Scudder showed fossil specimens and figures of *Anthracomartus*, to illustrate the remarks which he had made at the last meeting.

Dr. G: Dimmock showed samples of the different grades of Central American cochineal, carmin of commerce, carminic acid and some of its salts.

Mr. S: H. Scudder exhibited some lithographic work and wood-cuts for comparison of methods of depicting fossil insects.

Mr. S: H. Scudder reviewed Part 1 of A. E. Eaton's "A revisional monograph of recent *ephemeridae*" (Trans. Linn. soc. Lond., Zool., s. 2, v. 3, p. 1-77, pl. 1-24).

11 APRIL 1884.—The 101st meeting was held at 61 Sacramento St., Cambridge, 11 April 1884. In the absence of the president, Mr. T. W: Harris was chosen chairman.

Mr. H. Hinkley showed several insects, among them a larva, probably that of *Eucronia maia*.

Dr. G: Dimmock showed specimens of several curious insects. Among them was a *Culex* with a parasitic nematod (? *Gordius*) dissected from its abdomen. The specimen was taken near Leipzig, Germany. The parasite was very large, relatively to the size of the *Culex*. No parasitic worms had been previously recorded from *Culex*, except *Filaria sanguinis-hominis*, altho *Mermis* had been found in *Simulium reptans*, in *Tanypus nebulosus* and in a species of *Chironomus*, and *Gordius* had been taken from *Chironomus plumosus*.

9 MAY 1884. — The 102nd meeting was held at 19 Brattle St., Cambridge, 9 May 1884, the president, Mr. S: H. Scudder, in the chair.

The secretary announced that Dr. C: E. Webster had removed his residence to Chicago, Ill., and had sent notice of withdrawal from membership in the club, to take effect at end of 1884. The secretary read a statement, from the treasurer, of the financial condition of the club on 1 May 1884.

Mr. S: H. Scudder made some remarks concerning the late Dr. J: L. LeConte, who was an associate member of the club.

Dr. G: Dimmock mentioned certain habits of *Corixa* and *Notonecta*, a fuller account of which will be published later.

13 JUNE 1884.—The 103rd meeting of the club was held at 19 Brattle St., Cambridge, 13 June 1884, the president, Mr. S. H: Scudder in the chair.

The secretary announced the death of Mr. Francis Gregory Sanborn, an associate member of the club, who died 4 June 1884, at Providence, R. I. Mr. Sanborn was born 18 Jan. 1838, at Andover, Mass.

Mr. S: H. Scudder showed a portrait of the late Dr. J: L. LeConte.

Mr. S: H. Scudder gave the results of his studies upon the "Arachnidae of paleozoic formations." Numerous figures and specimens of fossils were shown. [*See* Proc. Amer. acad. arts and sci., 1884, v. 20, p. 13-22.]

Dr. G: Dimmock explained an apparatus by which he was enabled to rear insects in gases of different kinds or in determinate proportions of gases and air.

Dr. G: Dimmock described the way in which the red mites that were so abundant about Cambridge this year produced the fine, light colored lines upon leaves of clover, grass and other plants. Leaves which had been marked by these mites were shown.

Mr. R. Hayward stated that an *Onthophagus* which he had for some time supposed to be a new American species proved to be *O. luteicornis* from Europe.

10 OCT. 1884.—The 104th meeting was held at 61 Sacramento St., Cambridge, 10 Oct. 1884. The meeting was called to order at 8 p. m. In the absence of the president, Mr. R. Hayward was chosen chairman.

The secretary announced the withdrawal from the club of Mr. F. C. Bowditch, of Brookline, Mass.

Dr. H. A. Hagen made some inquiries in regard to the condition and accessibility of the library of the Club, and offered some

suggestions in regard to its management. After considerable discussion it was decided to refer the matter to the Executive committee.

Mr. B: P. Mann presented (through the secretary) a communication upon "Food-plants of *Pulvinaria innumerabilis*." [Printed in *Psyche*, Oct.-Dec. 1884, v. 4, p. 224.]

Dr. G: Dimmock showed a large larva of some species of *oestridae* (? *Cuterebra emasculator*), which had been sent to him by Mr. Leroy H. Sykes, of Suffield, Conn. This larva was taken by Mr. Sykes, about 20 Sept. 1884, from beneath the skin of a chip-squirrel (*Tamias striatus*) just at the right of the median ventral line near the umbilicus. Mr. Sykes thinks the squirrel was a castrated male.

Dr. H. A. Hagen commented upon and read some notes from a manuscript journal of Christoph Zimmermann, chiefly concerning the coleopterist Dr. F. E. Melsheimer and his relatives. Zimmermann, who came to Philadelphia in 1832, later visited Melsheimer at his home in Hanover, Pa., and describes his visit. [See *Canadian entomologist*. Oct. 1884, v. 16, p. 191-197.]

14 Nov. 1884.—The 105th meeting was held at 19 Brattle St., Cambridge, 14 Nov. 1884, the president, Mr. S: H. Scudder in the chair.

The secretary gave notice of the withdrawal from the club of Prof. E. L. Mark, of Cambridge, Mass.

Dr. H. A. Hagen alluded to some interesting points in the histology of the rectal muscles of a lepidopterous larva, recently brought to light by Rev. F. T. Hazlewood, of Lynn, Mass.

Mr. S: H. Scudder exhibited a piece of leather-like fabric produced by the larvae of some species of Mexican lepidoptera; and also showed seed-capsules of a species of *Pelargonium*, which were perforated by some insect in escaping from them.

Mr. S: H. Scudder exhibited a specimen of a carboniferous arachnid (*Geralinura carbonaria*) recently discovered at Mazon Creek, Illinois, which was of interest because it was the first recorded instance of a fossil of the order to which it belongs,—the *pedipalpi*. It was described in June last in the Proceedings of the American academy of arts and sciences. Curiously enough, only nine days later, another species of the same genus, from Rakowitz, Bohemia, was described by Kusta under the name *Thelyphonus bohemicus*, in a paper in the Transactions of the Bohemian academy, which has just reached this country. This adds still another to the already frequent instances of the occurrence of the same generic type of arthropods in the carboniferous deposits of Europe and America.

Dr. H. A. Hagen made some remarks in regard to swarming of *Atropos divinatorius* in houses.

12 Dec. 1884.—The 106th meeting was held at 19 Brattle St., Cambridge, 12 Dec. 1884, the president, Mr. S: H. Scudder in the chair.

Mr. S: H. Scudder made some remarks upon a fossil beetle from Ontario, Canada, and upon a fossil scorpion from the silurian. This scorpion had been mentioned by Linström in a letter to a friend in this country, and an extended notice of it will be prepared in conjunction with Thorell. This discovery is important, as it places the origin of the *arachnoidea* back in the silurian, and because of its showing further peculiar characters which may ally it to the *merostomata*.

Dr. G: Dimmock showed pieces of the excrement of the larva of *Sphinx drupiferarum*, which are often of excessive length in proportion to their diameter, in comparison with the excrement of other *sphingidae*. This prolongation of the excrement of the larva of this species is coordinate with a prolongation of the part of the larva behind the "caudal horn." Dr. Dimmock also exhibited excrement of an undetermined larva which feeds on *Pinus strobus;* the excrement consisted of pieces, each made up of three spheroids arranged in a straight line.

Mr. S: H. Scudder reviewed a paper on fossil insects, mostly cockroaches, published by Moritz Kliver, in *Palaeontographica* for 1883, under the title "Ueber einige neue blattinarien-, zwei dictyoneura- und zwei arthropleura-arten aus der Saarbrucker steinkohlenformation."