POLYGAMY OF MOTHS.

Callosamia promethea.— This was confirmed in 1894 by two experiments. One ♀ was mated with four ♂♂, the first three being removed after twenty minutes each, and each succeeding ♂ mating eagerly. The second ♀ was even more eagerly sought, mated with four ♂♂, was left over night with the last one, and, on being put on the windowsill the following afternoon, drew more ♂♂ than on the first day.

Caroline G. Soule.

Anisota stigma. — On July 1st, 1894, two ♀♀ emerged, and were tied out that night. July 2nd, one was found *in coitu* at 8 A. M., and so remained until after 6.30 P. M., laying eggs that night. July 3rd, the two moths were again *in coitu*, but were disturbed and separated at about 10 A. M., the ♂ being put into a box containing the second ♀. July 4th, the ♂ and this ♀ were *in coitu* at 8 A. M. and so remained until between 8 and 11 P. M. July 6th, ♂ died. July 7th the ♀ died having laid no eggs, although they were fully formed in the body. The first ♀ laid many eggs, and died on July 9th.

Ida M. Eliot.

ENTOMOLOGICAL NOTES.

During the summer just passed an unusual number of papers dealing with N. A. Orthoptera have been published. Foremost in extent is Scudder's account of the group Ceuthophili (Proc. Amer. Acad.) in which more than fifty species are described in the genus Ceuthophilus alone. Morse has described in detail (Proc. Bost. Soc. Nat. Hist.) the New England species of Sphargemon, and contributes to this number of Psyche a similar account of N. E. Tettiginae. Beutenmüller has described several Gryllidae (Journal N. Y. Ent. Soc., Bull. Am. Mus. Nat. Hist.) and Scudder has given (Can. Ent.) a brief revision of the genera of N. A. Decticidae with tables. Blatchley has also (Can. Ent.) continued his account of the Acrididae of Indiana, and Garman has published a list of the Kentucky Orthoptera.

Nicolas has been making some experiments upon the time of eclosion of a species of Osmia (Ass. franç. av. sc., 1893) by placing nests at five different elevations at Mont-Ventoux, France, varying from 860 to 1912 metres in altitude and finds a difference of two months at the extremes with a progressive difference at intermediate points.

Two species of Argynnis and three of Chionobas form the illustrative subjects of the last (xv) part of Edwards' Butterflies of North America, reproduced with a fidelity and grace which is scarcely short of perfection. Of two of the species details are given of the early stages, those of *C. semidea* being nearly complete and highly satisfactory. *A. astarte* is for the first time adequately figured after being known forty-six years, and the author's account of the same, drawn from Bean's unpublished observations, form a very interesting addition to our knowledge. A similar account of *A. alberta* is also drawn from the same source. There is less that is new in the fuller story of *C. semidea*, but the illustrations are far superior to any we have had and of special interest from the inclusion of forms regarded as the same from Pike's Peak and Hudson Strait. No less than thirteen species of this genus have now been figured in the last five parts of Edwards' work, seven of them with illustrations more or less full, generally very full, of the early stages. Considering how especially difficult they are to rear and from what inaccessible regions the material has to be procured, this is certainly an extraordinary showing.

Mr. A. P. Morse took at Stamford, Conn., on Aug. 22, in rather dilapidated condition, the black female of *Euphoeades glaucus;* it has only once before been recorded from New England.

PAPILIO PHILENOR was found, for the first time, on *Aristolochia* in Nonquitt, Mass., in August. It is the first time I have seen these larvae or butterflies in Massachusetts.

C. G. Soule.