it mated soon after casting its subimago pellicle it is probable that it would not have lived but a day or two longer. A. S. Packard.

PAIRING OF XYSTICUS TRIGUTTATUS.

The engraving shows the pairing of one of our most common crab spiders, *Xysticus triguttatus* Keyserling. The spiders were seen on the 5th of June, among the short

grass in an open pasture between Salem and Swampscott, Mass. The female held herself, head downward, on a blade of grass with the abdomen turned away only enough for the male to reach under it with his palpi. There did not appear to be any web on the grass, though there may have been a few threads for the female to hold by. J. H. Emerton.

TROX AT ELECTRIC LIGHT.

The fondness of various species of *Trox* for electric light has increased considerably the list of species known to inhabit Illinois. The following list includes all known to me.

1. *Trox scabrosus* Beauv. Taken at electric light at Springfield 20 June 1885, by Mr. C. A. Hart.

2. *Trox monachus* Hbst. There is a specimen of this species in the collection of the State entomologist from Union Co. It has also been taken near Pittsfield Ill.

3. *Trox asper* Lec. One specimen obtained at electric light at Springfield.

4. *Trox punctatus* Germ. Not uncommon throughout the state.

5. *Trox tuberculatus* Deg. Specimens in the State entomologist's collection taken at Centralia 22 April.

6. *Trox erinaceus* Lec. Rather rare but found throughout the state.

7. *Trox capillaris* Say. Specimens in the State entomologist's collection from La Salle Co.

8. *Trox unistriatus* Beauv. Quite common throughout the State.

9. *Trox foveicollis* Har. Rather rare.

10. *Trox terrestris* Say. I have seen specimens from Pittsfield.

11. *Trox aequalis* Say. Rare in northern and central Illinois.

12. *Trox scaber* Linn. Taken at Galesburg.

13. *Trox atrox* Lec. Recorded by Horn from Illinois.

Only eight other species are known in the United States.

C. W. Woodworth.

LUMINOUS EGGS OF INSECTS.—E. Mulsant observed and recorded in 1862 the fact that the eggs of *Lampyrus* were luminous. This observation was confirmed by Dr. A. Laboulbène, who published the statement in 1882, but some entomologists have doubted the fact of their luminosity. Wielowiejsky, who published a paper in 1882, that dealt thor-

oughly with the luminosity of *lamproyridae*, says the eggs can be luminous only on account of some external substance which they derived from their mother, or on account of light-giving power of the young larvae within them. Again, Laboulbène and H. Lucas have published (Bull. entom. Soc. entom. de France, 12 Sept. 1888, p. 133-134) the fact that the eggs of *Lamproyris noctiluca*, as well as its larva, are luminous, and Laboulbène states that the luminosity lasted about a week.

G: Dimmock.

PHOSPHORESCENCE OF MYRIOPODS.—M. J. Gazagnaire has lately studied the phosphorescence of *Orya barbarica*, an Algerian species of *geophilidae*, and finds that it is caused by a viscid secretion from the pores on the ventral side of the whole length of the body. This is contrary to the view of Dr. R. Dubois, who supposed the phosphorescence to have its origin in the epithelial cells of the digestive tract. M. Gazagnaire has further found that the phosphorescence does not occur at all times, but that its appearance is during the time that the genital organs of the *geophilidae* are in a state of activity.

G: Dimmock.

THE MECONIUM OF BUTTERFLIES:—M. Théodore Goossens communicated a notice to the Société entomologique de France, 11 April 1888, on the above subject. We translate the notice in full from the *Bulletin entomologique* of that Society.

"If the rearing of larvae affords gratification in studying, as far as possible, their habits, it sometimes gives one bitter disappointments. Sometimes all the caterpillars, almost full-grown, die at once without a trace of diarrhoea or of fungi, that is to say of other causes than flâcherie or muscardine. After having sought in vain the cause of the trouble, one forgets it until a similar accident happens."

"Chance taught me one of the unknown

causes of this mortality. For several years I have reared different caterpillars in colored boxes for the purpose of determining the influences of refrangibility upon lepidoptera. The blue being, among the simple colors, the one that favored best their development, I had placed some pupae of *Vanessa prorsa* in a blue box. There were already in this box some half grown caterpillars of *Fidonia atomaria*, but they were in a tube and the tube had a cork stopper. A *Vanessa prorsa* emerged, expanded itself, and, ready to take to flight, discharged the meconium which it had accumulated during the pupal state. This meconium fell upon the stopper of the tube and immediately the twenty caterpillars were dead. It was difficult to ascribe such a power to the meconium. A second *Vanessa* again furnishing this liquid, I took some of it on a brush, and put it in another box where there were some caterpillars of no value to me. In a short time they likewise died: but other caterpillars touched with dry meconium lived as usual.

"It seems then, that it is the vapor of this substance, composed mostly of uric acid, that has the property of killing caterpillars, and that when we rear caterpillars in the same vessel in which chrysalids are already formed, we subject ourselves to the same accident without suspecting the true cause."

G: Dimmock.

HOUSEHOLD PESTS.—The editor of *Good housekeeping* received a considerable number of letters in competition for the prizes mentioned on p. 59, of this volume of *Psyche*, and the decision as to the merits of the various remedies proposed was left to Dr. C. V. Riley. The numero of *Good housekeeping* for 27 Oct. 1888, gives Dr. Riley's letter in reference to the remedies proposed, and quotes not only the letters of the prize-winners, but all those mentioned by Dr. Riley as meritorious. This collection of letters is an excellent symposium on remedies for household insects.

G: Dimmock.