

plant and bordering on the shores of the lake. Here, after nightfall, their webs were very abundant. An abundance of aquatic dipterous and neuropterous insects in the imaginal stage afforded an ample supply of food. These latter were partly from the sewage and partly from the lake.

Since a single female of this spider probably deposits several or more masses of eggs during its life, the average given should not be taken as the average total progeny of a pair but rather as the approximate average number of eggs per mass.

An *Aleyrodes* on *Euphorbia*, and its Parasite (Rhynch., Hym.).

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A short time ago Mr. E. Bethel collected at Glenwood Springs, Colorado, some material of *Euphorbia robusta* badly infested by an *Aleyrodes*. I was able to breed out the adults of the *Aleyrodes*, and also large numbers of an undescribed parasite. This appears to be the first record of *Aleyrodes* on *Euphorbia* in this country, though *A. euphorbiae* Loew was found on *Euphorbia peplus* in Austria. *Euphorbia robusta* is also the food plant of the very interesting moth *Doa ampla* (Grote), which I have bred at Boulder. Dr. Dyar, who kindly determined the moth, will describe the larva.

Aleyrodes pruinosus euphorbiarum n. subsp.

Adult ♀.—(measurements in microns). Length of body 1200; head and legs grey, thorax grey with the scutellum light yellowish; abdomen light clear lemon yellow, with the apex broadly grey, and dorsal markings as in *A. pruinosus*; eyes completely divided; third antennal joint 160; joints 4 to 7 subequal, all together 224; length of antennae about 432; anterior wing about 1595 long and 640 wide; main vein distinctly angulate beyond middle (about 770 from base), but with no upper branch, though this is represented by a slight fold; anterior wings white with a faint greyish patch in apical field; border of wing as in *pruinosus*.

Pupa.—Broad-oval, 1280 microns long, 1040 wide, or sometimes

smaller; nearly black, but variably brownish, becoming brown at sides; usually no fringe of wax, but there is a very easily deciduous fringe in good specimens, about 30 across, finely striate; no dorsal wax; an obscure median keel, and the usual strong transverse sutural marks; a more or less evident pale marginal zone, the edge of which is finely crenulate. Immature specimens are brown. Vasiform orifice triangular; operculum very broad (62 broad and 30 long), truncate apically, much as in *A. amnicola*, except that the sides form a much wider angle with the truncation; lingua 30 broad at broadest part, and extending 27 beyond operculum, the apex broadly rounded, very minutely irregularly beaded, slightly notched on each side just above widest part, below which it rapidly narrows; a dark band crosses the lingua at the widest part.

I had regarded this as a new species, but it was so close to *A. pruinus* Bemis, found on *Heteromeles* in California, that I thought it prudent to send specimens to Mr. Quaintance to be compared with type material of *pruinus*. Mr. Quaintance kindly replies that it seems to be structurally identically with *pruinus*, though there are differences in color. He adds that probably *A. spiraeoides* Quaintance will prove to be conspecific with *pruinus*. *A. spiraeoides*, also from California, has a bright lemon-yellow pupa and the anterior wings of the adult have two dusky spots. On comparing the *Euphorbia* species with the description and figures of *A. pruinus*, it seems to differ in having the pupa flatter (certainly not "very convex"), the vasiform orifice more produced apically, and the operculum different. These characters are, however, somewhat evasive, and it seems probable that the insect does not deserve more than subspecific rank. It is rather contrary to expectation, that the form from the arid interior of the country should be characterized by its extremely dark coloration in the pupa.

The parasite, reared from this species in great numbers, is a member of the interesting group Aphelininæ. On looking it up, I found that it would not fit well into any known genus, but combined the characters of *Encarsia* and *Coccophagus*. Specimens were accordingly submitted to Dr. L. O. Howard, who replied: "The truth is, it belongs to a new genus. It has the antennæ of *Coccophagus*, but its wing veins are quite different. I suggest that you make a new genus for it."

MIMATOMUS n. gen.

Runs in Howard's table (Bureau of Entomology, Tech. Ser. No. 12, part iv), to *Coccophagus*, having the wings without a hairless line, the antennæ 8-jointed, with the slender club 3-jointed, the stigmal vein well developed, the marginal a little longer than the submarginal, the hind tibiæ normal, etc. The small size and the parasitism on *Aleyrodes* suggest *Encarsia*; so also does the large stigmal vein, which is directed apicad and is without a definite knob. The tarsi are 5-jointed; eyes very distinctly hairy, the hairs quite long; ovipositor projecting very little beyond the abdomen.

Mimatomus peltatus n. sp.

♀—(measurements all in microns). Length 670; width of head 312; length of anterior wing 720, its breadth 312; length of fringe on its lower margin 30; length of submarginal vein 176, of marginal 208, of stigmal 30, end of stigmal vein to end of wing 304; length of antennal club 152; ovipositor projecting beyond abdomen 27. Black, with the scutellum bright yellow, suffused with brown basally, its surface with an irregular coarse network sculpture; wings clear; antennæ ferruginous; legs pale yellowish or ferruginous, the hind femora and coxæ brown. Antennal joints with longitudinal dark lines; scape ordinary; pedicel moderately swollen; funicle joints successively longer, all conspicuously longer than broad; parapsidal grooves straight; axillæ formed as in Howard's figure of *Prospaltella murtfeldtii*; middle tibia 256 long, its spur about three-quarters the length of the basitarsus, but very slender and sharp apically.

ENTOMOLOGICAL THESES FOR DOCTORATES IN AMERICAN UNIVERSITIES.—According to the list of theses offered by those who received the degree of doctor of philosophy from American Universities in 1911, published in *Science* for August 18, 1911, the following bore entomological titles:

University of Chicago, Robert Kirkland Nabours, Mendelian Inheritance in Orthoptera.

Columbia University, Charles Virgin Morrill, The Chromosomes in the Oogenesis, Fertilization and cleavage of Coreid Hemiptera.

Cornell University, Robert Matheson, The structure and Metamorphosis of the Fore-intestine of *Corydalis cornutus* L. Edith Marion Patch, Homologies of the Wing-veins of the Aphididae, Psyllidae, Aleurodidae and Coccidae.

Harvard University, Edward* Gaige Titus, Monograph of the species of *Hypera* and *Phytonomus* in America.

University of Cincinnati, Annette Frances Braun, Observations on the Development of Color in the Pupal Wings of Several Species of *Lithocolletes*.

University of Pennsylvania, Norman Eugene McDoo, Lyriform Organs and Tactile Hairs in Araneads.