

## THE COCCID GENUS EULECANIUM.

BY T. D. A. COCKERELL, BOULDER, COLO.

Some years ago I attempted to make tables to separate the species of *Eulecanium*. The attempt was not wholly successful; partly on account of the difficulty of the subject, and partly because there are no doubt more names than species in this genus, and the first step should probably be to reduce a number to the synonymy. Certain characters of undoubted value could not be used because they were not known for many species; for example, the characters derived from the males and the larvæ. The minute characters described by Mr. Thro, of Cornell University, are in the same case; but their value is rather uncertain for closely-allied forms. The forms separated by Mr. Thro were nearly all widely separated otherwise—in fact, of different genera as we now understand them—and hence it remains to apply his test to a more difficult and closely-allied series.

The tables are presented herewith, not because they are perfectly safe guides to the identity of the species, but rather because of their value as indicating groupings, and suggesting the lines of future work. They will at any rate save some trouble in going through descriptions. When a name occurs twice, the species is variable.

- (1.) Long. 10–11½, lat. 6–9½ mm.
- (a) Larger as a rule, dark red-brown, with white powder; antennæ 7-jointed ..... *caryæ*.
- (b) Not over 10 mm. long; brown, sometimes varied with yellow; antennæ 6-jointed ..... *aceris*.
- (2.) Long. 8–9 mm.
- (a) Convex; antennæ 6-jointed.
- (i) Legs rather slender ..... *pyri*.
- (ii) Legs short and robust; scale reddish-brown, sometimes mottled with yellow (*pyri* is darker and not mottled).
- (b) Tibia equal to tarsus, fide Signoret ..... *aceris*.
- (bb) Tibia longer ..... *capræ*.
- (*aceris* and *capræ* are no doubt one species.)
- The distinction of *pyri* and *aceris* is further confirmed by the males:
- (i) ♂ yellow, with wide brownish thoracic band ..... *pyri*.
- (ii) ♂ light reddish-brown, with darker band on thorax; abdomen, antennæ and legs yellowish ..... *aceris*.