

the quantity of sap which each obtains, said quantity being measured by the nature of the shoot, whether succulent or otherwise, the only rational conclusion that can be drawn is to consider the sterile form as male. The correct course to have adopted would have been a dissection of the animal, and a comparison of the organs of reproduction, but in this I was debarred by the want of suitable instruments for the purpose.

From what has been written upon European species, combined with the facts developed in this paper, it seems safe to conclude that the Aphidæ reproduce both in a sexual and asexual manner. If not sexually, then there is no getting rid of the conclusion that in the spring of the year three forms of females are produced, wingless virgin, winged virgin, and winged sterile females. As a further confirmation of the above facts, let me add that similar experiments were performed upon a small drab-colored species, which was found feeding upon the leaves and succulent shoots of *Spiraea corymbosa*, with similar results.

NOTES ON RHYNCOPHORUS ZIMMERMANII, SCH.

BY S. V. SUMMERS, NEW ORLEANS, LA.

Larvæ, long, 1.07 to 1.40 inch. Head rather large, smooth, vertical; occiput dark chestnut brown; medial line abbreviated, but well defined; lateral lines complete; vertex piceous, sculptured; front rufo-piceous; mandibles obtuse, opaque, with three large deep impressed punctures; labium 3-dentate; mentum sinuated, sub-flavous. Body sub-cylindrical, not curved, sub-flavous, middle segments largest, humeral and anal segments corneous, brownish; legs replaced by six tubercles.

Described from seven living matured larvæ.

Pupæ, long, 1.10 to 1.24 inch. Quite characteristic of imago, tawny yellow; prothorax and metasternum piceous; rostrum bent close on prosternum, and reaching anterior margin of metasternum; elytra enclosing posterior legs. Three specimens.

R. Zimmermanii. Long (exclusive of rostrum), 0.66 to 1.20 inch. Black, shining, rostrum shorter than thorax; ♂ nearly arcuate before antennæ, smooth, with rather large punctures; ♀ not arcuate, tuberculate; antennæ with outer half of first joint rufous; eyes large, finely