

and able investigations and experiments with the diurnal Lepidoptera have thrown such a flood of light on dimorphism and what really constitutes "a species;" and last, but not least, Prof. C. V. Riley's similar discoveries among the Phylloxeræ and Pemphiginae. All have done much towards elucidating the vexed question.

Among the Aphididæ proper, although it has often been suspected in America, no recorded instance of dimorphism among them, that I am aware, exists. The discovery of its occurrence in the Orange Aphis, *Siphonophora citrifolii*, described by me in my pamphlet on "Orange Insects," in the fall of 1880, therefore is of great interest, and no doubt will prove such to many readers of the CAN. ENTOM.

From observations made this year I find that from an egg laid by a fall oviparous female hatch the brown-black and black winged male and winged viviparous female, which I describe as follows:

Young.—Length .02 inch. Dark greenish brown, with dark eyes and glassy white antennæ and legs.

♂.—Length .04 inch. Color brown and brown-black; antennæ brown, legs pale or yellowish, posterior femora slightly shaded above with brown or black; feet reddish; nectaries shorter than in female; wings hyaline, stigmal spot pale.

These are rare among the first broods, and afterwards almost or entirely disappear.

♀ Apterous.—Length .05 to .06 inch. Broadly ovate. Dark brownish black. Head between antennæ reddish; antennæ 7-jointed, pale yellowish, apical ends of joints 3, 4 and 5 brown, 6th shortest, 7th long, setaceous; legs pale yellow, latter two-thirds of femora brownish or blackish, tips of tibiæ and claws brown; nectaries slightly thickest at base, black and cylindrical; cauda distinct.

♀. Winged viviparous. Length .06 inch. Color black and shining; eyes red-brown, tubercles of antennæ black, vertex of head reddish; rostrum reaching back of middle coxæ; antennæ not quite reaching to tip of abdomen; abdomen variable, brown-black, brown or olive-green; nectaries long, cylindrical and black; cauda long and recurved, dark; wings hyaline, stigma rather broad, brown, obliquely sharpening to a point at outer edge towards apex; stigmal vein strongly curved, three oblique veins, the third forked; hind wings with two oblique veins, in some specimens but one.