

When quite fresh the wings are clear white and black, and rather opaque, but with exposure speedily become sordid, yellowish and less opaque. Veins all are honey color. Discal spots thin black, touching the costa, but separated from black base, and yet more widely from dark margin; at the cross vein in centre is the lunule, narrow, obtusely angled, the angle clean cut and pointing toward the head. Discal spots on secondaries small, black, never with any lunule or central mark whatever. Habitat, Southern California. Types in author's museum.

This species has heretofore been run in with *H. Nevadensis*, Stretch, but must be separated because of the red tufts on thorax, the white spots on abdomen beneath, the color of the nervules across the black margin, the angled lunules on primaries and absence of lunules on secondaries, in all of which the differences are persistent and without intergrades. Indeed, there appears to be as great difference between *H. Californica* and *Nevadensis*, as between *Nevadensis* and the Eastern *Maia*.

#### NOTES ON THE LIFE HISTORY OF HEMILEUCA CALIFORNICA.

This insect is quite local, being found in comparatively few places, but is fairly abundant in such localities as it frequents. Like many other species of Lepidoptera, it is often abundant one year, and nearly wanting the next. This present season it has been more scarce than I have ever before found it.

It is first seen on the wing in the latter part of October, males and females appearing at about the same time, and it continues about three weeks. The flight is labored and clumsy, so that they often fly against sticks or twigs, yet vigorous and sustained. It flies only in the heat of the day, and by three o'clock, or at the first whiff of cool afternoon air, it hangs up for the night. The line of flight is undulatory, with a wavy up and down motion, and slow, so that it is very easily taken in the net, or it may be often caught in the hands.

The insect does not feed at all, nor drink, but spends the whole time of its few days of life in the business of reproduction solely; its large body contains sufficient nutriment to sustain it a sufficient length of time to enable it to fulfil its destiny. They are rather handsome when fresh, but a clumsy flight among weeds and bushes speedily ruins all good looks. The male is gay with his showy red anal tuft, and his deeply pectinated antennæ show off beautifully as he flies slowly past with them gracefully arched in front of him. If caught when fresh, he flaps his