

black spots (three per segment), besides the oblique black mark on sub-ventral ridge and minute ventral dots anterior to the legs; all bear short, stiff, black setæ.

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Fifth stage.—Head clear light orange-red, shining, minutely sparsely black pilose; eye on black spot; width, 1.4 mm. Abdominal feet on joints 6-10 and 13, small with indications of feet also on joints 11 and 12; thoracic ones pale with slight black marks. Body as before; anal plate black.

Sixth stage.—Head well rounded, full at vertex, but narrowing to a central apex; sutures obsolete, but four dents in front indicate clypeus; shining light red with a few black setæ; eye black; width, 1.8 mm. Body cylindrical, of nearly even width to joint 13, which is a little smaller; abdominal feet, corresponding spots on the apodal segments and anal plate black; no cervical shield: thoracic feet pale brownish. Segments not annulate, shining green, yellowish laterally; nine large elevated rounded black spots, .2 mm. in diameter, in a square on each side above the stigmatal line on each segment, one below posteriorly to the spiracle, and several small ones on the conspicuous, obliquely divided sub-ventral ridge; a small black patch at base of abdominal feet 7-10 and minute ventral spots. Anal feet pale orange. A series of round medio-ventral orange spots, almost between the feet on joints 7-12.

Seventh stage.—Width of head, 2.2 mm. (1.8 mm. in male?). Much as before throughout, but the black spots are larger (.25 mm.), shining blue-black.*

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Cocoon.—Double, open reticular, of yellow silk, the outer layer of large meshes; spun at the surface of the ground.

Lophyrus Lecontei, Fitch.

Gregarious, eating down the needles of the pine. When disturbed, the larvæ raise the thoracic feet and eject a white fluid from their mouths.

Head light red, eye and mouth black; width: ♂, 1.8 mm.; ♀, 2.2 mm. Thoracic feet rather small, black except at the joints. Abdominal feet present on joints 6-12 and 13 (22 feet), all well-developed. Body rather greenish-white, nearly opaque, slightly shining; segments not very distinctly 4-annulate, with rows of microscopic black spinules on the

* The eighth stage was not noted. It probably escaped observation, as there should be no increase in size of the head, and I neglected to isolate one larva.