at tip. Fuscous markings and cloudings are also present in varying degree on the lateral lobes of the pronotum and along the margins of the median dorsal pale stripe, on the vertex and occiput, the meso- and metapleura, and the geniculations of the hind femora. The anterior and middle femora are ferruginous.

Antenna: ♂, 7; ♀, 7; hind fem.: ♂, 9; ♀, 11.5–12.5; tegmina: ♀, 6.3–6.7; ♀, 8.5–9; total length: ♂, 16; ♀, 21 mm.

BRADYNOTES COMPACTA, sp. nov.

Four males, four females, Ormsby Co., Nev., July 6.

Nearly allied to *B. obesa*, differing from that species in its smaller size, the structure of the pronotum, the less upturned end of the abdomen, and in the form of the supra-anal plate of the male. In *obesa* this plate is as wide as long, in *compacta* it is distinctly longer than wide. The lateral carinae of the pronotum are equally as distinct or even better developed than in *obesa* and less irregular in course, in *obesa* being broken or angulate at the anterior and middle sulci, forming two pairs of lines diverging posteriorly while in *compacta* they form essentially but one pair of divergent lines though somewhat sinuous (♀) or subangulate (♂) at the crossing of the sulci.

Antenna: ♂, 7; ♀, 7; hind fem.: ♂, 10–10.6; ♀, 10.5–11–5; pronotum: ♂, 3.7–4.2; ♀, 4.2–4.5; total length: ♂, 18–19.5; ♀, 20–25 mm.

LIFE HISTORIES OF NORTH AMERICAN GEOMETRIDAE.—XLI.

BY HARRISON G. DYAR, WASHINGTON, D. C.

Erannis tiliaria Harris. This well-known larva has been frequently referred to in economic entomological literature, but I find no description of all the stages. Harris gives a good general account of the habits; Jaeger, Coquillett, Saunders, Fernald and Lugger have also written on it. The species has been bred at the Department of Agriculture and all the larval stages preserved and Mr. H. D. Merrick has sent me eggs from New Brighton, Penn., laid Oct. 31, which hatched April 6, the following year.

EGG. Elliptical, flattened on two sides, soft-shelled, concave; no flattening on micropylar end but the other end smaller and depressed; outline nearly regularly elliptical. Reticulations large and coarse, a little transversely elongate, the areas concave. Size .6 × .5 × .3 mm. Color ocherous yellow, dark gray just before hatching.

STAGE I. Head rounded, scarcely bilobed, dull, sordid, reddish luteous, held obliquely erect, vertex dark, eye dull black; width .3 mm. Body rather robust, uniform, ends rounded,

normal, no plates. Dorsum broadly sordid olivaceous with an irregular, geminate, yellowish dorsal line. Subventral region broadly pale yellow, venter sordid olivaceous. Feet slightly sordid; tubercles concolorous, obscure; setae small.

STAGE II. Head rounded, scarcely bilobed, erect; reddish luteous, sutures depressed; width .55 mm. Body normal, tubercles obscure, concolorous; dull reddish brown, the dorsum with traces of several irregular pale lines; stigmatal region broadly pale yellow, narrow on thorax. Venter dark except medio-ventrally with several irregular pale lines; feet and anal shield pale.

STAGE III. Head rounded, not notched, clypeus moderate; pale yellowish, slightly mottled, sutures of clypeus dark; width .85 mm. Dorsum broadly blackish brown with three pairs of fine irregular pale lines, of which the addorsal is the most distinct. Cervical shield and anal plate yellowish, the former divided. Stigmatal region narrowly on the thorax, broadly on the abdomen white, venter pale, all its dark marks obsolete; feet pale.

STAGE IV. Essentially as before throughout. Width of head 1.1 mm.

STAGE V. Head rounded, squarish, erect; dark red brown, uniformly irregularly reticulate with pale yellowish; width 1.7 mm. Dorsal space broadly red-brown, geminate dorsal and subdorsal brown lines on a pale field, waved; a similar, geminate, waved lateral black line on a nearly white ground, shading to brown on the anal plate; subventral ground color yellow, reddish marked behind the spiracle, faintly brown lined ventrally. (Stage V from a larva from Colorado.)

STAGE VI. Head rounded, normal, the clypeus large; rough, not shining, brownish red, pale in the sutures and around the mouth, jaws and ocelli dark; width 2.5 to 2.9 mm. Abdominal feet on joints 10 and 13, normal, the last pair large. Tubercles normal, iv stigmatal posteriorly, vi of two setae well separated, vii of three remote setae. Double dorsal and narrow, lateral black lines, crinkled, linear; a single faint addorsal; a distinct straight upper stigmatal, festooned upward anteriorly of the spiracle to touch the lower lateral. All are absent on the reddish cervical shield and anal plate. Venter and legs milky white, stigmatal region yellow, dorsal and lateral region shaded in with tan color or reddish brown of darker or lighter shades. Spiracles black rimmed. (Stage VI described from larvae from northern New York.)

Harris says the larvae prefer the lime tree, and I have found them on this plant in Plattsburgh, New York. In Colorado they were on wild cherry in the Platte Canyon.