

PSYCHE.

NO TEON THE ORTHOPTERAN GENUS LEPRUS SAUSSURE.

BY SAMUEL H. SCUDDER, CAMBRIDGE, MASS.

In my recent Catalogue of the Orthoptera of the United States I have given, p. 36, three species of *Leprus* as found in the west: *L. corpulentus* Sauss., *L. intermedius* Sauss., and *L. wheeleri* Thom. sp.

L. corpulentus was given on account of a single specimen from Texas in my collection, which I had referred to that species. A closer study of my material, mainly from Mexico, leads me to the conclusion that Saussure's two species *L. elephas* and *L. corpulentus* are the same, my specimens, twenty-six in number, varying considerably in all the points on which he relies to separate the two forms, and by no possibility resolvable into two series. The name *L. corpulentus* of my Catalogue should therefore be replaced by the older name *L. elephas* Sauss. My males vary in length of tegmina from 25 to 29 mm., my females from 26 to 43 mm., the small female (a single specimen) coming from Arizona. My United States specimens come from Fort Whipple, Ariz. (E. Palmer), forty miles east of Tucson, Ariz. (Palmer), and Ringgold Barracks on the lower Rio Grande, Tex. (Schott). My Mexican specimens come from Sonora (Schott), San Luis Potosi (Oct. 15, E. Palmer; Oct. 6, G. Barroeta), Mountains twelve leagues east of San Luis Potosi (Palmer), and Sierra Nola, Dec. 3-6 (Palmer).

L. intermedius, described from one sex (♀) by Saussure as coming from California, I had not recognized when my Catalogue was printed. My only Californian specimens of *Leprus* belong to a species, noted below, allied to *L. wheeleri*, with blue hind wings, and which do not differ from *L. elephas* in the way *L. intermedius* is said to differ from it. Latterly I have recognized *L. intermedius* in specimens from British Columbia collected by Crotch, which are somewhat smaller than Saussure's specimen, a female having the length of the tegmina only 25 mm.

L. wheeleri has been determined both by Prof. L. Bruner and myself from Thomas's type, and in life has the disk of the hind wings blue and not yellow as heretofore described. Saussure evidently never saw it, as he redescribes it from Thomas's description, which was based on alcoholic specimens. It varies but little in size, the tegmina of the male varying from 26 to 28.5 mm. in length, and of the female from 32 to 35.5 mm. My specimens come from Humboldt Station, Nevada, July 29, Salt Lake Valley, Utah (Bruner), Pueblo, Col., Aug. 30-31 and Dripping Springs, Organ Mts., N. Mex. (Cockrell). It was originally described by Thomas as taken by Wheeler's expeditions in the west without specification of locality. Saussure gives it as from New

Mexico, but with no apparent reason, though it is found there as stated above and indeed has been already credited to Grant Co., by Townsend.

As I have said above, there is a Californian species, hitherto undescribed, allied to *L. wheeleri* by its lesser size, hind wings blue at base and hind tibiae mostly blue, instead of, as in the larger forms and in *L. intermedius* as well, having the disk of the wings yellow and the hind tibiae yellow or red. It may be called *L. glaucipennis* and differs from *L. wheeleri* in that it is slightly smaller, the wings are of a paler blue (of the tint found in blue specimens of *Derotmema saussureanum* Brun.), the hind process of the metazona is distinctly acute and, except sometimes in the female, not subrectangulate,—though both species are variable in this respect

like *L. elephas*; the lateral carinae of the pronotum are also more sharply angulate, especially in the female, the median carina a little more prominent, and the granulations of the pronotal disk more prominent and sharper. It varies little in size, and the following measurements are taken from average individuals: Length of body, ♂, 19 mm., ♀, 33 mm.; antennae, ♂, 8.5 mm., ♀, 12 mm.; tegmina, ♂, 22 mm., ♀, 34 mm.; hind femora, ♂, 12.5 mm., ♀, 21 mm. I have seen specimens from the following California localities: Point Loma, July 23, Los Angeles, July 25, and Rubio Wash, Altadena, July 29, all collected by A. P. Morse; and Santa Rosa Island, H. Edwards; also from Durango, Mex., E. Palmer, and San Luis Potosi, Mex., G. Barroeta.

THE MELANOPLI OF KANSAS. — II.

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MELANOPLUS.

LAKINUS SERIES.

M. lakinus Scudder.—Antennae a little more (male), or a little less (female) than two thirds the length of the hind femora. Frontal costa variably sulcate. Posterior expansion of the pronotum variable, in two specimens (males) subequal, prozona elongate in female and longer than metazona. In these characteristics it varies somewhat from Scudder's description and favors *M. sonorae* but is excluded from that species by its blue hind tibiae. On the

hind femora there is a basal fuscous spot on the upper inner surface.

We have one female from Hamilton county which agrees with the specimens above described in general but has a broader interspace between the mesosternal lobes which forms the chief distinguishing characteristic of *M. marculentus*. Being an alcoholic specimen in this case the color markings distinguishing *lakinus* from *marculentus* are not to be implicitly relied upon, therefore, the exact position of the insect remains in doubt.

Two females from Ford county,



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