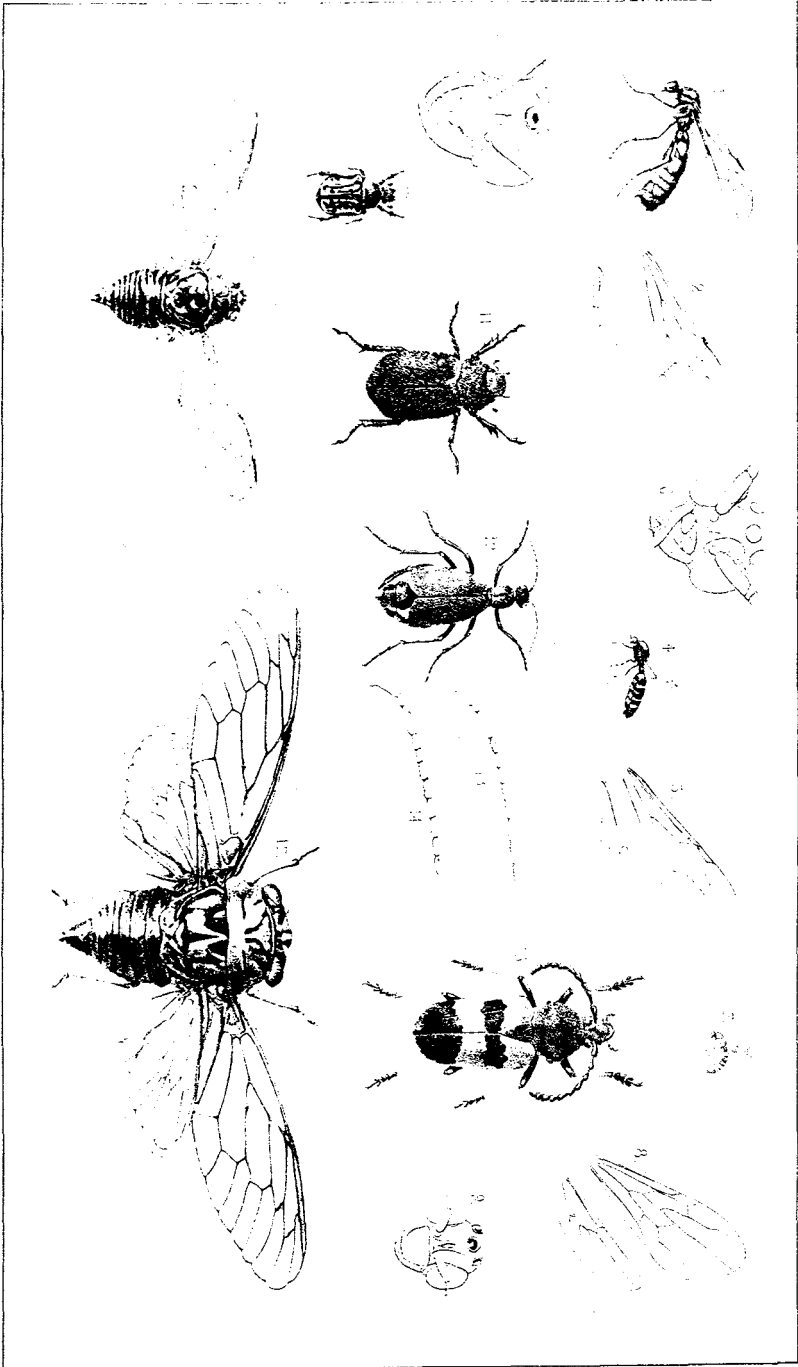


Pp. 366-378 in: Stansbury, H. An expedition to the
Valley of the Great Salt Lake of Utah.
London: Sampson, Low, Son & Co., 487 pp.

Haldeman, S.S. 1852

[1852]



INSECTS.

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By PROF. S. S. HALDEMAN.
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THERE were but few facilities for collecting, preserving, and transporting insects upon the journey, and those which were brought home are few in number and in bad condition. Under these circumstances, Captain Stansbury has allowed other species to be introduced, which have been collected by Lieutenant Horace Haldeman, U. S. A., chiefly at Fredericksburg and Fort Gates, on the western frontier of Texas; and by Mr. Richard Kern, in a journey across the plains to Santa Fé. In the latter case, the specimens were thrown into bottles of spirits as collected, so that there is nothing to distinguish those which were found upon the route from those of Santa Fé; but as the greater part probably appertain to the latter locality, this has been used to Mr. Kern's species.

LEPIDOPTERA.

PAPILIO ASTERIAS, Cramer.

A specimen with the patagia yellow, and forming a continuous lateral yellow line with the spots upon the thorax and head.

CYNTHIA CARDUI, Linnæus.

A specimen of this species, which is common in Europe and the United States, and one of the most widely spread species known, occurring in India and Africa. On this continent it has been found among the Rocky Mountains and in California.

PIERIS PROTODICE.

DEILEPHILA LINEATA, Fabr.

(—*daucus*, Cramer). Harris, Am. Journal Sci., vol. 36.

HYMENOPTERA.

Among the most interesting entomological discoveries in the imperfectly explored parts of the United States territory, that of the three new species of the genus *Labidus* must be included. This is a tropical form, and almost exclusively confined to Brazil, the most northern species hitherto described being from the West Indian Island of Saint Vincent. The three species were discovered at Fort Gates by Lieutenant Haldeman.

LABIDUS SAJI, Hald.

PL. IX. FIG. 1-3.

Luteous, head brown above, and having (with the mandibles and basal articulation of the antennæ) piliferous punctures; stemmata large, and the posterior ones twice as far from each other as from the eyes; face excavated below the antennæ, with the lateral carinæ sharp or angular, and the medial line impressed; mandibles large, tapering slowly, and curved from the base. Thorax convex and shining, with numerous piliferous punctures; dorsal line narrow and distinctly impressed from the most prominent part to the anterior margin. Peduncle triangular, excised posteriorly with well-developed exterior angles. Abdomen indistinctly pubescent, with piliferous punctures posteriorly. Feet slender, simple, and uniformly coloured; base of the anterior tarsi excavated beneath for the tibial spur; unguis bifid; posterior feet extending beyond the abdomen; tibial spurs small. Wings with the stigmata long and narrow, posterior half indistinctly sanguineous, the nervures of the colour of the body, the membrane a pale tint of the same colour, and translucent. Length eight and a-half, wing seven and a-half, posterior tarsus two and a-half lines.

LABIDUS HARRISII, Hald.

PL. IX. FIG. 4-6.

Polished and pubescent, above black, abdomen rufous. Head black, pubescent; stemmata large, posterior ones three times farther from each other than from the eyes; antennæ pale fulvous, base pilose; mouth rufous; mandibles pilose, robust, curved at the base only, the inner edge rectilinear, and the apex acute but not

incurved. Thorax convex in front, with piliferous punctures, brown, and pilose; wings very pale dusky, translucent, nervures pale yellowish-brown. Feet slender and short, anterior tarsi medial line narrow and impressed; sides and feet dark reddish, curved at the base, the outer side being parallel with the internal excavation; anterior tibial spine curved, and rather robust, posterior feet not reaching the end of the abdomen. Peduncle of the abdomen black above, pubescent, transversely quadrangular, the anterior angles rounded. Abdomen compressed, thinly clothed with fulvous hair. Length five, expanse nine and a-half, posterior tarsus one line.

LABIDUS MELSHAEMERI, Hald.

PL. IX. FIG. 7-9.

Pale polished amber-coloured and pilose; head nearly quadrate, with the vertex black; the two posterior stemmata are distant, being nearly in contact with the eyes; mandibles pilose, sickle-shaped, curved from the base and diminishing rapidly to a slender incurved point. Wings very pale dusky, with the nervures pale brown; a black point upon the thorax at their insertion. Base of the anterior tarsi slightly curved; anterior tibial spine small and slightly curved; posterior feet not extending beyond the abdomen. Abdominal peduncle pilose, transverse, basal angles strongly rounded, apex concave; abdomen compressed. Length about three and a-half, wing three lines.

AMMOPHILA ABERTI, Hald.

A large black and rufous species, the head and anterior wings of which are wanting in the only specimen collected. Thorax black cinereous primrose; patagia and feet (except the coxæ and trochanters) rufous; basal half of the posterior femora black, which extends in a line toward the apex upon the upper side; posterior tibial with the inner side darker than the outer side; posterior wings hyaline, nervures rufous. Abdomen rufous, peduncle and a blotch upon the apex above, black. Length fourteen, abdomen nine, to the constriction four lines. General form of *Ammophila sabulosa*. Named after Colonel Abert, chief of the Topographical Bureau, for his efforts toward the development of the natural history of the country, under various exploring expeditions.

HEMIPTERA.

CICADA REF, Hald.

PL. IX. FIG. 17.

Yellow, varied with black, sericeous beneath. Head yellow, pypostoma brown; the medial line yellow, and unimpressed, and the transverse ridges undulate; eyes connected by a broad transverse band. Pronotum yellow, with a narrow Y-shaped line divided to the base, a narrow transverse lateral spot on each side posteriorly, and another anteriorly, immediately behind the lateral stemmata. Mesonotum black, with a large lateral elongated yellow spot, and a pair of similarly coloured medial spots in the shape of the Hebrew letter *resh* inverted, and the points converging anteriorly upon the medial line; tergum dark brown. Wings with the nervures yellow to beyond the middle, when they become dark brown or blackish. The usual W-shaped mark is present; beneath and feet yellow; metasternal spines rather large; spines of the feet and apex of the tibial tinged with brown. Length of the body fourteen, to the end of the upper wings twenty-two lines; width of the prothorax seven lines. A large and handsome species, from the Great Salt Lake Valley.

CICADA STRIATIPES, Hald.

PL. IX. FIG. 16.

Above black, varied with a little yellow; beneath yellow, more or less primrose, particularly beneath. Head black, with a small yellow spot above the antennæ; hypostoma prominent, with the medial line yellow, and strongly impressed. Pronotum black, margined with yellow posteriorly, primrose, and indistinctly lateral. Mesonotum black, with four small yellow spots, two connected with the scutel, and two central, one on each side of the medial line; lateral margins and scutel yellow, two raised yellow lines extending laterally from the latter. Tergum black, with the apex and margins of the segments yellow. Elytra and wings with the nervures yellowish-white; those of the exterior cells blackish; the basal portion, which is doubled beneath in repose, is orange. That of the posterior alulet extending half its length and ending in a narrow fuscous band; base of the superior wings with a black

and sides of the clipeus. Length of the female ten, breadth three and a-half, length of the elytra nearly five lines.

ELAPHIDIUM MARILANDICUM.

CLYTUS IRROATUS.

“ FLEXUOSUS.

CERASPHORUS GARGANICUS.

Fort Gates, Texas.

MEGADERUS CORALLIPES, Newm.

PL. IX. FIG. 15.

Was described from an imperfect Mexican specimen by Newman, (Charlesworth, Mag. Nat. Hist., vol. iv., p. 195.) It is now figured for the first time, from a specimen taken at Fort Gates.

LETTER FROM T. R. PEALE, ESQ., UPON THE LARVÆ OF INSECTS
FOUND IN THE GREAT SALT LAKE.WASHINGTON, *May 12th*, 1852.

MY DEAR SIR:—The exuviæ of insects which you have brought from the shores of the Great Salt Lake proves, on examination, to have been deposited by aquatic diptera.

In the mass, I can detect fragments of the larvæ shells of the pupa, and small portions of a mature *Chironomus* and other Tipulidæ. More than nine-tenths of the mass is composed of larvæ and exuviæ of *Chironomus*, or some species of mosquito—probably undescribed; the fragments being too imperfect to determine.

You are best able to determine, first, whether mosquitoes exist at any time at the Great Salt Lake in such unparalleled numbers as this organic matter indicates; or, secondly, whether the salt of the lake water has preserved their exuviæ, so that it has accumulated through a great length of time.

A few fragments of insects I have been able to determine as belonging to the Linnæan genus *Nepa*, which is aquatic, and a very few others as Hymenopterous, &c.

In the hope of soon seeing your Report on the most interesting portion of our continent,

I remain

Yours truly,

T. R. PEALE.

CAPTAIN H. STANSBURY,
Corps Topographical Engineers,
Washington.

I am not aware that mosquitoes exist in such unusual abundance in the vicinity of the lake; but incline to the opinion of Mr. Peale, that the accumulation of the immense masses of these exuviæ is to be attributed to the preservative qualities of the lake water.

H. S.