J. J. Rivers

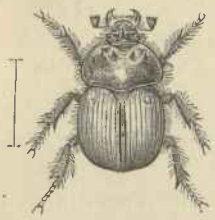
A new Species of Californian Coleoptera

A NEW SPECIES OF CALIFORNIAN COLEOPTERA.

By J. J. Rivers, University of California.

BRADYCINETUS, Horn.

Bradycinetus Hornii n. sp.



MALE.

HEAD.

Male: Form robust, elliptical. Color ferruginous brown, shining; head, tips of armature, margins of prothorax and a spot near the outer margin of prothorax either dusky or black. Head: Clypeus transverse and feebly angulate at the sides, the front edge rising increasingly backward, until just before reaching the clypeal suture it ends in a well formed tubercle on either side; behind the sutural line on the vertex is a very prominent, stout, conical horn in front of the base of which the surface of the head is slightly concave; three-fourths of the lower portion of the horn and the whole of the frontal area finely rugose. Antennæ: funicle shining, chestnut; club paler, not shining. Thorax: subtriangular, deepest longitudinally through the center; noticeably wider than the elytra at their juncture, and rather wider than their greatest breadth; seen from above the front margin appears truncate in the middle, then trends obliquely forward to the angles which are prominent; sides straight for a short distance, posterior angles strongly rounded; posterior margin much extended in the middle with distinct sinuations toward the angles. The front area deeply concave, surmounted by four well formed tubercles; two occupying the center, bold and projecting over the concavity, two others, one on either side of the central two, situated near the anterior margin of the thorax at its exterior angles. The area around the two anterior tubercles very rugosely punctate; and transversely across the disc are large distinct punctures nowhere extending to the posterior margin. A well defined margin, reflexed at the sides, surrounds the whole. Elytra: very convex, obtusely rounded behind, having fourteen well defined and regularly punctured striæ, the interstices of which are flattened and indistinctly wrinkled. The under side paler than the upper; dense fringes of light chestnut hair line the reflexed portion of the thorax and elytra, while the femora, tibia and tarsal joints, as well as the lower side generally, are well supplied with rather long chestnut hair. Length, .48—.52 inch.

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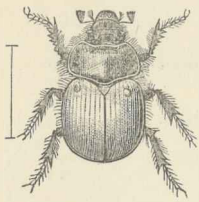

FEMALE.

Female: Form andcolor as in male. Labrum projecting, rugose, covering the mandibles. Head: clypeal margin raised; a feeble tubercle just in front of the clypeal suture, immediately behind which is a central transverse ridge, undivided, slightly higher in the middle and slightly apiculate at either end. Antennæ less robust than in the male. Thorax: very convex, shining; outline obtusely triangular; anterior margin seen from above, truncate in the centre; angles produced; sides rounded; posterior margin much produced to meet the scutellum, sinuate toward the angles which are rounded; the front discal area characterized by a bi-lobed transverse raised line at either end of which, outward and forward, is a well formed but depressed tubercle; behind which line the disc is dense with coarse corrugated punctures, which become scattered and plain, nowhere reaching the posterior margin, but taking a transverse course, barely reach the side margins, where they become less distinct. Elytra: much the same as in the male, but the interstices of the fourteen punctate striæ a trifle more wrinkled and much more convex. Length, smaller than the male.

Habitat: burrowing in the ground near the city of Sonora, Tuolumne Co., Cal.; found also in Sacramento Co.

The name selected for this species is intended to be a slight tribute of honor to Dr. Geo. H. Horn, the eminent Coleopterist, as a slight return for many favors.

STRIDULATING ORGANS.

Chas. Fuchs, Esq., having obtained living specimens of the above new species of Bradycinetus discovered that it possessed the power of stridulating. His researches through coleopterological literature disclose nothing relative to the stridulating faculty in this genus. The latest work on classification, that of Le Conte and Horn, makes no mention of it, and as these able authors always notice such biologic characters when aware of them, it is safe to affirm that the observations of Mr. Fuchs are new, and that to him belongs the credit of the discovery of these particulars.

The anatomical investigation by Mr. Fuchs of this beetle discloses the stridulating apparatus to be well developed, and to consist of three transverse bands situated respectively upon the fourth, fifth and

sixth dorsal segments, that on the fourth segment showing boldest. Each of these bands is seen with a high power to consist of cernuous bristles set in oblique rows, alternating and interlacing with one another; the point of each bristle is bent downward, forming a bow, and the band, as a whole, gains elasticity by the pressure of each bristle thus bowed against the next in the series. The rubbing of these three bands against the edges of the elytra produces the stridulation. The examination of species of the allied genus Bolbocerus shows the same stridulating power, but the outline of the bands in each case so differs as to show specific characters.