

**Descriptions of New Species and Notes on  
North American Orthoptera**

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# Descriptions of New Species and Notes on North American Orthoptera

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## PHASMIDAE

Through the courtesy of Mr. A. D. Barnes, Director of Dade County Parks, I have been permitted to do restricted collecting of insects in Matheson Hammock, a jungle about five miles south of the university. On night excursions I have observed the large walkingstick insect, *Aplopus mayeri* Caudell, in both immature and mature stages. Some were observed feeding on the leaves of black ironwood (*Krugiodendron ferreum*). A female taken *in coitu* measures 160 mm. in length. Caudell described *A. mayeri* from specimens taken on Dry Tortugas and it has been reported from several localities on the keys and from Everglades in Collier County. Hitherto this phasmid has been considered as restricted in its feeding to bay cedar (*Suriana maritima*). Very recently I captured an adult male on buttonwood (*Conocarpus erecta*) growing along a road through a mangrove swamp. No *Suriana* or *Krugiodendron* is to be found within several miles of this spot.

## GRYLLIDAE

Soon after moving into a newly-built house in September 1948 I noticed tiny crickets were present. The first of these taken and examined proved to be *Cycloptilum squamosum zebra* Rehn and Hebard, and I assumed without study that several specimens subsequently captured were of the same species. Recently, however, on tracing a feeble song I found the singer to be a cricket evidently different from *zebra*. Examination of it and the small series already collected showed that three males and five females of *Cycloptiloides americanus* had been taken.

*C. americanus* was described by Saussure as from Cuba, and Rehn and Hebard in 1912 listed additional records, including Vera Cruz, Mexico and San José del Cabo, Lower California, but Hebard did not treat the species in his 1931 synopsis of the Mogoplistini of the United States. The present report is apparently the first record of its occurrence in this country. All the houses in our vicinity were built in 1948 and it thus appears probable that *C. americanus* was already present in the pine woods which was removed prior to building. The records of capture extend from March 1949 to October 1950 and the presence of immature individuals is evidence of reproduction. Evidently the little insect is established and should prosper on the crumbs<sup>4</sup> of animal crackers scattered by my small daughters.

## TETTIGONIIDAE

*Microcentrum minus* sp. n.

Figs. 1, 2

*Holotype*: Male, Hidalgo County, Texas IV-7-50 (D. J. & J. N. Knull).

Similar to *M. rhombifolium* (Saussure) but much smaller and differing particularly in the cerci and subgenital plate. Head with fastigium of vertex flat, narrowed anteriorly and at apex little wider than the first joint of antenna. Front margin of pronotum weakly bisinuate, roundly advanced at middle; lateral lobes perpendicular, deeper than long. Tegmen with the median vein terminating in sutural margin, its stridulatory area similar to that of *rhombifolium* but with the veins less strongly developed. Supra-anal plate triangular, vertical, with a deep median groove in basal two-thirds, its tip acutely rounded and reflexed. Cercus broad at base, tapering rapidly in basal third to the almost straight shaft, the apex of the shaft abruptly incurved with rounded tip, which bears a triquetrous tooth. The shaft of the cercus is flattened, hence appears much narrower in lateral than in dorsal view. Subgenital plate narrow, with a strong carina and deeply v-excised apex; styles short. Front femur with three small, widely-spaced spines on distal third of ventrocephalic carina, its ventrocaudal carina unarmed. Middle femur similarly armed. Caudal femur with six small, widely-spaced spines on distal half of each ventral carina (five on ventrocephalic of left femur). The insect was undoubtedly uniform green in life but now shows diffuse brown areas due to postmortem changes.

*Measurements* (mm.): Length of body 20, of pronotum 5.5, of tegmen 34.2, of hind femur 18.3; maximum width of tegmen 10.3.

*Allotype*: Female, data as for type.

This specimen differs from the holotype only in its greater body length, broader tegmina, without stridulatory area, and terminal abdominal structures. The ovipositor is very similar to that of *M. suave* as described and figured by Hebard (1923, p. 336; p. 329, fig. 9).

*Measurements* (mm.): Length of body 25.4, of pronotum 5.7, of tegmen 35.5, of hind femur 19.6; maximum width of tegmen 11.

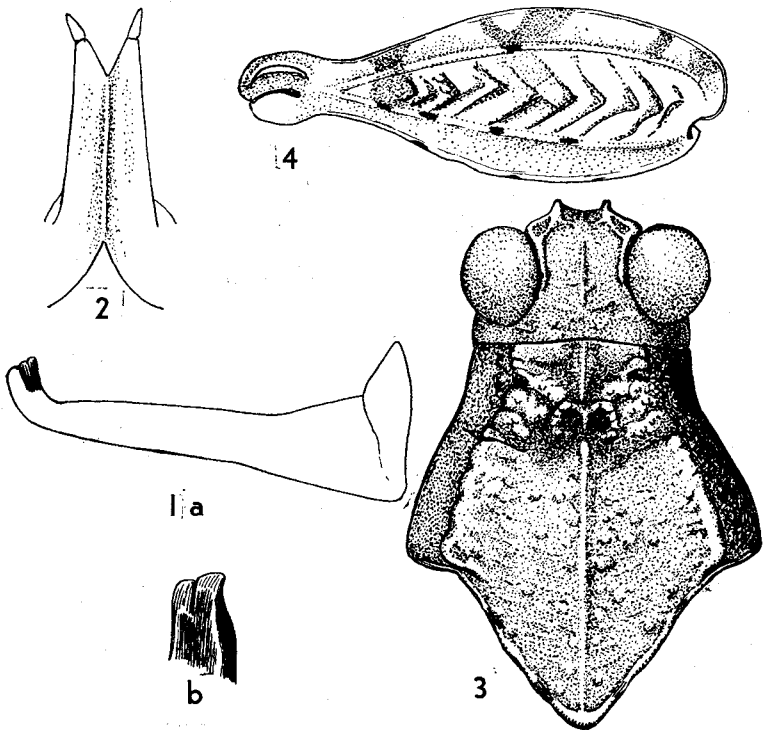
This species is probably most closely related to *M. suave* Hebard from which it differs in its broader tegmina, shorter hind femora and, in the male, straight cercal shaft and carinate and acutely excised subgenital plate.

## LOCUSTIDAE

*XANTHIPUS CORALLIPES* (Haldeman)

Numerous names have been applied to specimens of this species, originally described from Utah material. Many of these names have been relegated to synonymy but persisting in racial status are *pantherinus*, *latefasciatus*, *leprosus*, *cupidus* and *altivolus*. Rather than showing geographic correlations these "races" occur in certain environments over much of the range of the species. *X. corallipes buckelli* Hebard (1928, p. 241), however, is a definite geographic race of the extreme northwestern part of the range of the species.

Two seasons of collecting in the vicinity of Las Vegas, New Mexico yielded interesting lots of *corallipes*. At Montezuma, in the Gallinas Canyon, I took small, dark specimens, the males about an inch in overall length, the females about one and one-eighth inches but with tegmina not shorter than the body. According to the descriptions these specimens are referable to *cupidus* or *altivolus*. Not over eight miles from Montezuma, on the plains northeast of Las Vegas, are found individuals best referred to the race *leprosus*, while at La Liendre, twenty miles southeast of Las Vegas, occur individuals of similar size but lighter coloration and among these some specimens showing the elytral pattern and dark inner face of the hind femur characteristic of the race *pantherinus*. While the three localities cited are close together they undoubtedly have different moisture characteristics; the plains vegetation is wholly grass, including grama, while at La Liendre grass is scarce and yucca abundant. Quite certainly the floor of Gallinas Canyon, in addition to greater moisture, has lower average temperatures. Subject to air drainage from high mountains and protected from direct sunlight for much of the day



Figs. 1-4.—1. *Microcentrum minus* sp. n.. a. Right cercus of holotype, dorsal view. b. Detail of apical tooth of cercus; 2. *M. minus* sp. n. Subgenital plate of holotype, ventral view; 3. *Agymnastus haemopterus* sp. n. Head and pronotum of holotype, dorsal view; 4. *A. haemopterus* sp. n. Right caudal femur of holotype.

by the canyon's steep walls, the water of Gallinas Creek remains frozen long after ice has disappeared elsewhere.

It appears from examination of these and other specimens from New Mexico, Arizona, Utah and Nevada that about all gradations of size, elytral maculation and wing length may be encountered within rather small areas widely scattered in the range of the species. While genetic bases for these differences are not ruled out, it seems more probable, in the light of such experiments as Faure's, that *X. corallipes* is a species of great adaptability and plasticity and the races mentioned above are ecophenes rather than genetic units.

In spite of the above discussion there remains, in my opinion, a form of *corallipes* which, like *buckelli* Hebard, shows distinctive characters correlated with geographic distribution. It has been reported by Rehn and Hebard (1909, p. 438) as *Hippiscus pardalimus* (Saussure).

***Xanthippus corallipes miniatus* subsp. n.**

*Holotype*: Male, June Lake, California, VI-20-48 (G. P. McKenzie).

Slenderer than is usual in the species. Head much less rugose than in other races, the vertex and occiput practically smooth except for a feeble median carina, which is extended anteriorly through the fastigium of the vertex. Fastigium as long as broad, its walls well elevated, its disc smooth except for the median carina. Frontal costa shallowly sulcate, expanded between the antennal bases and abruptly constricted a short distance below the ocellus. Front and clypeus smooth, sparsely punctured. Pronotum with median carina low, almost obliterated between the sulci, very low on posterior part of metazone. Hind margin of pronotum right angled. The disc of the metazone is granulately rugose without the strong verrucae usual in the species. The most notable feature of coloration is the vermilion wing disc, beyond which is a very narrow black band interrupted along several of the veins and ending considerably short of the anal angle. The humeral taenia of the wing is extended not quite halfway to the base of the wing. At its apex the wing bears a rounded dark blotch and just proximad to this two small, dark spots transversely arranged. Tegmen with four dark crossbars in proximal half; these almost reach the sutural margin but are broadly interrupted by the pale anal stripe. The distal half of the tegmen bears four clearly delimited dark crossbars, which end posteriorly at the anal stripe. Posterior femur with three groups of dark spots on outer face, the middle and distal of which are continuous with dark bars on the upper flange. Lower and inner face of femur and lower internal genicular lobe carmine red. Hind tibia largely yellow with a few red spots internally near base. The bases of the spines of the internal series are pink; these pink areas are continued as a streak which broadens to cover the distal fourth of the inner and upper face of the tibia.

*Measurements* (mm.): Length of body 29, of pronotum 6.1, of hind femur 14.

*Allotype*: Female, data as for holotype.

Differs from holotype in the usual sexual features: terminal abdominal

appendages, larger size, more robust form and shorter antennae. Vertex of head slightly uneven. Disc of metazone of pronotum with a few low verrucae, its posterior margin slightly obtuse. Color similar to that of holotype but with the inner face of caudal tibia more extensively pink.

*Measurements* (mm.): Length of body 41.4, of pronotum 8.8, of hind femur 18.3.

Five males collected at June Lake and Mono Lake and three females collected at June Lake by Mr. McKenzie are designated paratypes. The paratype series offers no features deserving further comment.

It is surprising that the large insect described below has escaped the attention of entomologists. Probably its maximum abundance is in early spring before orthopterists take to the field. In appearance this insect is somewhat like a *Xanthippus* but it has certain morphological features most similar to those of *Agymnastus ingens* (Scudder).

#### *Agymnastus haemopterus* sp. n.

*Holotype*: Male, Hesperia, Calif., IV-14-48 (G. P. McKenzie).

Head small, not at all elevated above the pronotum, eyes moderate in size, prominent, antennae about as long as head and pronotum combined, heavy and not at all attenuate. Frontal costa fairly deeply sulcate with flaring carinae, which are abruptly but not greatly constricted below the ocellus, thence gently divergent to the clypeal suture. Above, the frontal carinae are continuous with the bounding ridges of the foveolae, which are distinctly impressed. Between the foveolae the frontal costa is divided by an elongate tubercle and separated from the vertical fastigium by low, transverse ridges. Fastigium with a fine median carina and high walls, which extend posteriorly to mid-length of the eyes. Occiput rough. Pronotum over two and a half times as long as head, its hind margin acutely rounded and a little reflexed, its median carina strong. On the metazone the lateral carinae are elevated and callous, the hind margin much thickened and continuous at apex with the subcristate median carina, disc with low, rounded tubercles. The median carina is visible on the posterior lobe of the prozone, which is here deeply scutellate. On the anterior lobe of the prozone the carina is cristate. The disc of the prozone is occupied by heavy callosities. Tegmina and wing narrower than in *Xanthippus*. Hind femur short, stout, broadly flanged above and below, its outer face very rough. In color the insect is generally griseous, some of the pronotal callosities yellowish and with patches of similar color on the head. Hind femora buffy on outer face with a complete black band before the apex, a broad, less defined black area at middle and two smaller, dark patches on the upper flange near base; lower and inner faces deep black with preapical paler band which is red internally and yellow below. Hind tibiae bright red with black-tipped spines. Tegmen brownish gray, subhyaline in distal half of sutural region. The costal field has a short, pale bar at the humeral angle, a broader, pale bar just beyond the angle, while the distal half of the tegmen has an elongate pale area along the discoidal vein. Wing narrow, orange-red on the disc, with a narrow, fuscous band which fails to reach the anal angle. The humeral tenia is broad and reaches three-fourths of

the distance to the base of the wing. Apical fourth of wing hyaline with dark veins, its extreme apex smoky.

*Measurements* (mm.): Length of body 21, of pronotum 6, of hind femur 10, of tegmen 25.5; breadth of hind femur 4.1, of metasternum 6.1.

*Allotype*: Female, no data (A. T. McClay).

Much larger than the holotype male and differing from it chiefly in quantitative manner. Head, across the eyes, little more than half as broad as greatest breadth of pronotum, in length about one-third that of pronotum. Frontal costa broad, feebly sulcate. Fastigium of vertex with high walls and a pair of transverse ridges between the eyes. Occiput tuberculate and verrucose, numerous ridges radiating from the hind margins of the eyes. Pronotum rapidly expanding to base of tegmina, its posterior margin slightly acute, its lateral carinae strong but not as elevated and calloused as in the male, its median carina evident throughout but intersected twice. Hind femur massive, its flanges, especially the lower, strongly expanded, its outer face coarsely ridged. Coloration similar to that of the type except that the pale areas of the tegmina are extended as spots behind the discoidal vein and there is an almost complete pale crossbar just beyond mid-length. The red of the wing disc is also deeper than in the holotype.

*Measurements* (mm.): Length of body 53, of pronotum 14, of tegmen 43, of hind femur 24; breadth of hind femur 6.3, of metasternum 15.

A male specimen collected in Mint Canyon, Los Angeles County, VI-22-49 by H. E. Cott is designated a paratype. Its coloration is more intensive than that of the holotype and the pale areas of the distal half of the tegmen consist of three small spots behind the discoidal vein. The hind margin of the pronotum is right angled, the tubercles of the metazonal disc are stronger and the hind femur broader than in the holotype.

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