

Taxonomic changes in American Orgeriinae (Homoptera: Dictyopharidae)

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The following new taxa are described: *Ticrania* gen. n. (type species *Ticida chamberlini* V.D.), *Ticida* subgen. *Helcophora* subgen. n. (type species *T. dammersi* V.D.), *Orgerius* subgen. *Opsigonus* subgen. n. (type species *O. minor* Ball), *Ticida rakitovi* sp. n. (California), *T. subapplanata* sp. n. (Arizona), *Orgerius glaucus* sp. n. (California). *Loxophora* V.D. is placed in synonymy with *Ticida* Uhl., and *Timodema* Ball is reduced to subgenus of *Ticida*. *Aridia nodosa* Ball is transferred to *Timonidia*.

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The generic classification of American Orgeriinae (all belonging to the tribe Orgeriini) established by Ball & Hartzell (1922) and Doering & Darby (1943) is quite perfect, but needs some corrections and additions.

The type specimens of new species described in this paper are deposited at Zoological Institute RAS, St.Petersburg.

Genus *Ticrania* gen. n.

Type species: *Ticida chamberlini* Van Duzee, 1923.

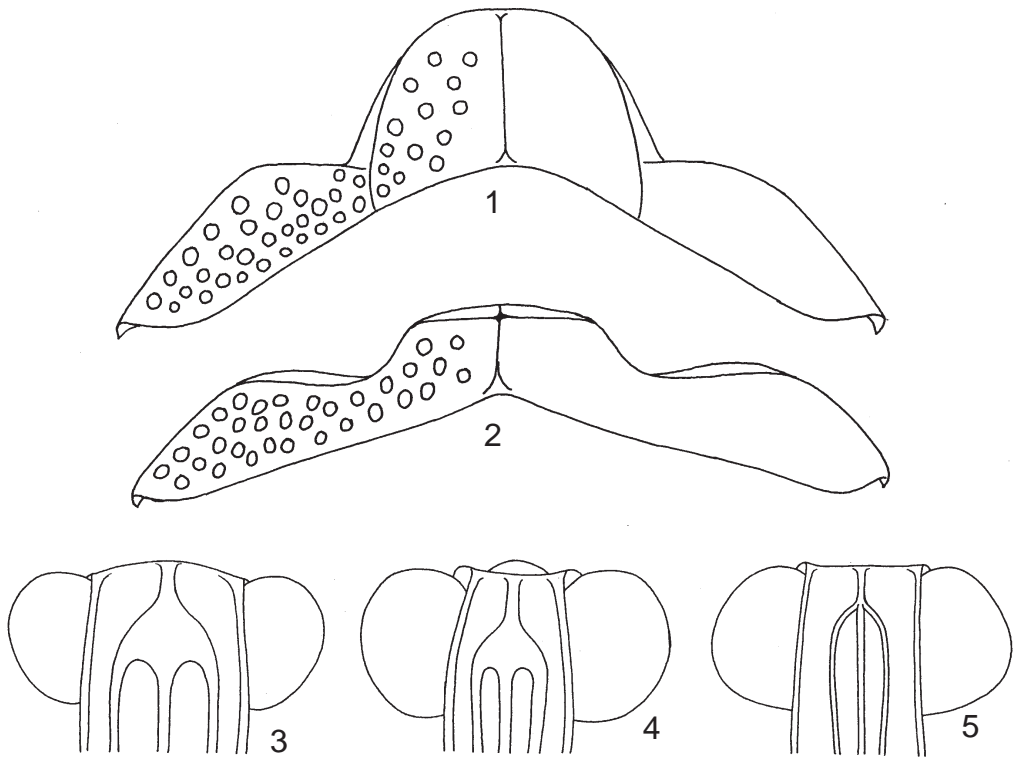
Description. Structure of head similar to that of *Ticida* Uhler; coryphe shortened, transverse; upper part of metope turned up- and backwards, occupying the anterior part of the upper surface of head. Apical carina of head dilated callus-like by conjunction with intermediate carinae, as in *Loxophora dammersi* V. D. (Fig. 3, 4). Intermediate carinae of metope almost equidistant from median carina and adjacent lateral carinae. Post-ocular calli not developed. Rostrum long, its apical segment extending entirely beyond abdominal apex. Pronotum with protruded forwards large disc, its lateral carinae reaching hind margin of pronotum. Paradiscal areas of pronotum strongly narrowed toward the disc. Humeral area of pronotum with 3 sensory pits. Paranotal lobe without round polished convexities (mammoids). Elytra with a net of identical prominent veins; subcostal ridge moderately developed. Legs linear, slender. Fore coxae without angulate projection. Hind tibiae with 5-6 lateral spines, apex with 3 + 5 spines. First and second hind tarsomere with 8 spines on each. Sublateral carinae of abdominal tergites almost absent. Medial sensory pit of medial group shifted aside of last 3 pits.

Comparison. Main differences between *Ticrania* gen. n. and *Ticida* Uhler are as follows. In *Ticrania*, (1) large pronotal disc with lateral carinae (Fig. 1); (2) flat paranotal lobes without mammoids; (3) elytra with uniform net of veins. In *Ticida*, (1) pronotal disc short, without lateral carinae, not separated from paradiscal areas (Fig. 2); (2) paranotal lobes with mammoids; (3) elytra with prominent median and claval carinae.

Genus *Ticida* Uhler, 1891

= *Loxophora* Van Duzee, 1908, **syn. n.**

Examination of the holotype of *Loxophora transversa* Van Duzee, the type species of the genus *Loxophora*, shows that *L. transversa* and *Ticida cingulata* are very similar or identical species and, consequently, *Loxophora* is a junior synonym of *Ticida*. Unfortunately, Van Duzee or his technician introduced confusion in the type labels of *Loxophora transversa*. The specimen, which, judging from the label "Chads Rch./Ut Jul. 22/ Wickham" (in the original description, "Ch. Ranch, Utah, July 22"), is the holotype of *Loxophora transversa*, is labelled as holotype of *Ticida cingulata* Uhler ("Holotype *cingulata*"), and the label "*Loxophora transversa*" is absent. Uhler's type is from California, not from Utah, and is not preserved in the California Academy of Sciences. I did not examine Uhler's type, but specimens of *Ticida cingulata* from various localities in California and the type of *Loxophora transversa* from Utah show insignificant differences, which are hardly specific. Extensive material is needed to decide are *T. cingulata* and *T. transversa* separate species or not.



Figs 1-5. 1, 2, pronotum, dorsal view (1, *Ticrania chamberlini* V.D.; 2, *Ticida cingulata* Uhl., after holotype of *T. transversa* V.D.); 3-5, upper part of head, anterior view (3, *Ticrania chamberlini*; 4, *Ticida dammersi* V.D.; 5, *T. cingulata* Uhl.).

I consider that the character of foliate fore legs taken isolated is insufficient for distinguishing separate genera. Strongly foliate fore legs are characteristic of the genus *Timodema*, but some species among *Ticida* have moderately foliate fore legs, e.g. *T. dammersi* V.D. and two new species described here. In this connection, I propose to reduce the genus *Timodema* to subgenus and to establish a new subgenus for *Ticida dammersi*. The subgenera of *Ticida* are distinguished as follows.

- 1(2). Conjunction of intermediate carinae with median one developed as a large callus (Fig. 4). Intermediate carinae equidistant from median and adjacent lateral carinae. Coryphe with a round polished swelling Subgenus **Helcophora** subgen. n. (type species: *Loxophora dammersi* V. D.)
- 2(1). Conjunction of intermediate and median carinae not dilated (Fig. 5). Intermediate carinae nearer to the median than to lateral carinae. Coryphe without swelling, flat.
- 3(4). Fore legs simple, linear (Fig. 6). Coryphe shorter than its width. Median carina of metope on black band always white Subgenus **Ticida** s. str.

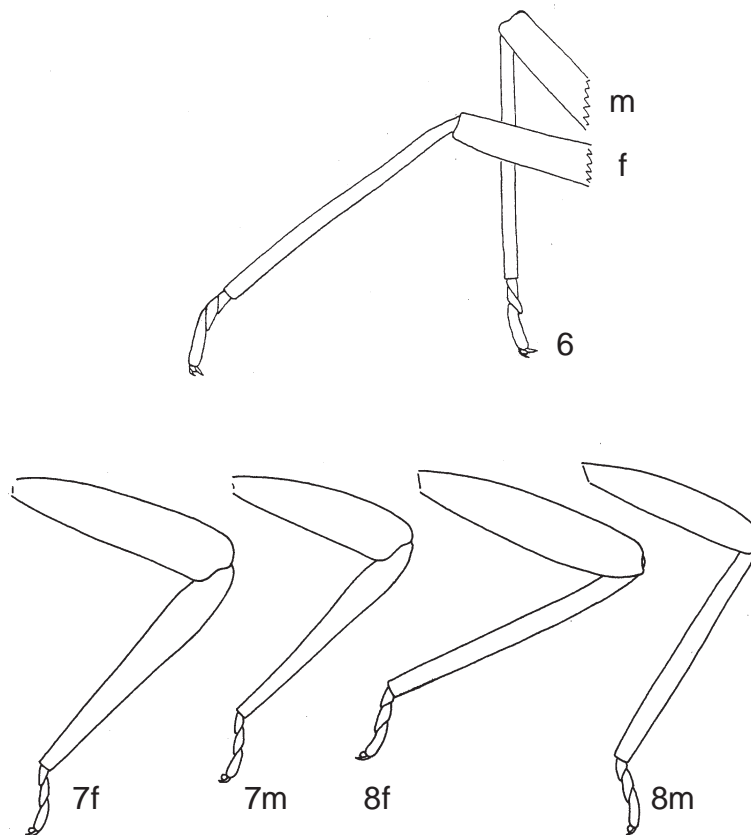
- 4(3). Fore legs dilated, foliate. Median carina of metope almost always black Subgenus **Timodema** Ball, stat. n.

Ticida (Timodema) rakitovi sp. n. (Fig. 8)

Holotype. ♂, USA, California, San Diego Co., Laguna Mts., Cibbets Flat campground (Kitchen Creek Rd.), 32°78'N, 116°45'W, 4158 ft., 24.VIII.2005 (Rakitov).

Paratype. 1 ♀, same data as in holotype.

Description. Coryphe almost as long as broad. Fore margin acute-angulately (almost rectangularly) produced. Apical carina without callus-like dilatation around conjunction with intermediate carinae. Fore femora strongly dilated, in apical and middle parts parallel-sided; middle femora gradually widened from base to apex. Fore tibiae distinctly dilated in basal third, twice as broad as at apex; middle femora slightly, but distinctly dilated in basal third (Fig. 9). Number of sensory pits on abdominal tergite V lesser than in neighbouring species.



Figs 6-8, fore and middle legs, flat ventral view (f, fore leg; m, middle leg). **6**, *Ticida cingulata* Uhl., after holotype of *T. transversa* V. D.; **7**, *T. subapplanata* sp. n.; **8**, *T. rakitovi* sp. n.

Strongly pigmented. Coryphe black entirely or with light speckles. Metope with non-interrupted black band, sensory pits blackened. White band under the black band runs across proepimere and lower part of paranota. Pronotum with black sensory pits, black brilliant mammoids and humeral area out of mammoids. Scutellum yellowish white in fore half, dark brown in hind part; sensory pits darkened. Elytra dark brown, with white band in hind part; net of veins out of the band lighter than ground; hind margin of elytra darkened, also sutural line on the white band darkened and interrupting the band. Abdomen nearly entirely black, but fore margin of tergite V medially with a transverse segment-like yellowish white spot and sides of this tergite a little lightened. Anal tube in both sexes and median part of two preceding tergites (VII and VIII) in female lightened. Pleurosternal part of mesothorax darkened, lower carina and upper corner of episterna white; epimere with three longitudinal white stripes. Metathorax and hind coxae light brown. Fore and middle coxae in laterobasal part

darkened; subbasal ridge-like projection lightened. Fore femora light brown, with broad dark bands in middle and apical parts. Middle femora with apical band only. Fore and middle tibiae dark brown, with light band in third quarter. Hind femora light brown, diffusely darkened at apex. Hind tibiae light brown, with blackened base, darkened ventral side and lateral and apical spines. Abdomen ventrally irregularly coloured, light brown, lateral parts with dark speckles around bases of sensory hairs. Tarsi darkened, but basal segment of hind tarsus light with black apical spines.

Length ♂ 3.5 mm, ♀ 3.9 mm.

Comparison. The new species differs from *T. miracula* Ball, the type species of the subgenus *Timodema*, in not so strongly dilated fore and middle legs.

***Ticida (Timodema) subapplanata* sp. n.**
(Fig. 7)

Holotype. ♂, USA, Arizona, Mohave Co., Hualapai Mt., Road (S of Kingman), 35°17'N, 113°97'W, 4224 ft., *Agave schottii*, 18.VIII.2005 (Rakitov).

Paratypes. USA, Arizona: 2 ♂, 9 ♀, same data as in holotype; 1 ♀, Mohave Co., Hwy 93 S of Wikieup, 34°49'N, 113°35'W, 3157 ft., saguaro desert with ocotillo, *Nolina bigelovii*, 18.VIII.2005 (Emeljanov).

Description. Similar to *T. rakitovi* sp. n., but differs in less dilated fore and middle legs and more developed light pattern. Fore femora comparatively narrow (about $\frac{3}{4}$ as broad as in *T. rakitovi*), parallel-sided, about 3 times as broad as tibiae; middle femora at apex as broad as fore ones, but gradually narrowed to base. Fore and middle tibiae almost not dilated, a little broader at apex than in basal half (Fig. 7).

Colour and ornamentation similar to those of *T. rakitovi*, but slightly different. Coryphe darkened in hind part only. Median carina of metope sometimes light on black band. Scutellum yellowish white or greenish white, narrowly darkened at apex. White band on elytra broader interrupted along commissural suture. Abdominal tergite V entirely lightened, but with darkened sensory pits; on other tergites, interspaces between sensory pits and ringlets around them light. Coloration of legs as in *T. rakitovi*, but light bands narrower and dark parts consequently broader.

Length ♂ 3.5-3.8 mm, ♀ 4.1 mm.

Genus *Orgerius* Stål, 1859

Two groups of species are distinguished in the genus (Doering & Darby, 1943): *O. rhyparus* Stål group and *O. minor* Ball group. I consider these groups as subgenera. The subgenera are geographically and ecologically distinct. *Orgerius* s. str. is Californian, inhabiting chaparral and woody glades. *Opsigonus* subgen. n. is deserticolous, living on *Atriplex canescens*.

- 1(2). Medial abdominal group of sensory pits numbers 3 + 1 pit. Upper part of lateral carinae of metope weak, but distinct. Hind tibiae with 7-9 lateral spines connected in basal half by foliate ridge Subgenus *Orgerius* s. str.
- 2(1). Medial abdominal group of sensory pits numbers 3 pits. Upper part of lateral carinae of metope indistinct. Hind tibiae with 5-6 lateral spines without connecting ridge Subgenus *Opsigonus* subgen. n. (type species: *Orgerius minor* Ball)

Orgerius (s. str.) *glaucus* sp. n.

Holotype. ♂, USA, California, Los Angeles Co., I-5 Hwy., exit to Pyramid Lk (2-3 mi S of jct. Hwy. 138), 34°71'N, 118°80'W, 2869 ft., rabbitbrush (*Chrysothamnus*), 25.VIII.2005 (Emeljanov).

Paratype. 1 ♂, same data as in holotype.

Description. General colour bluish green. Upper surface of body with dark speckles denser on coryphe and scutellum; on pronotum, speckles present only near median carina. Coryphe pen-

tagonal, with three weakly marked darker transverse bands: subapical, middle and hind. Metope between eyes with three confluent indistinct obscure bands, under eyes with a more distinct light band, and at level of antennae again a little darkened. Disc of pronotum with a pair of dark spots. Elytra with dark spots along hind margin. Lower surface of body and legs more densely or more sparsely covered with dark speckles, as in other species of the subgenus *Orgerius* s. str. Parantolalobe in middle part with large, diffuse darker spot covered by speckles, under this part with light portion devoid of speckles. Hind margins of hemelytra form a concave obtuse angle.

Length ♂ 5.2-5.5 mm.

Comparison. The new species is similar in habitus to *O. bucculentus* D. & D., but distinctly differs in the pentagonal coryphe (in *O. bucculentus*, coryphe nearly parabolic). Other differences: (1) hind margins of hemelytra form a concave obtuse angle (vs. a straight line in *O. bucculentus*); (2) general colour bluish green (vs. brown in *O. bucculentus* and other species of the subgenus *Orgerius* s. str.).

Note. The new species is collected on rabbitbrush together with *Deserta raptoria* Ball, which in vivo is also bluish green, concolorous with the host plant.

Genus *Timonidia* Ball & Hartzell, 1922

Timonidia nodosa (Ball), comb. n.

= *Aridia nodosa* Ball.

The apical cell in the genus *Aridia* is well defined, pentagonal, surrounded by strong carinae, in contrast to the apical cell in *Timonidia*, which is swollen, with unsharply limited oval depression (properly cell).

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