

A REVIEW OF *ANCISTRONYCHA* MÄRKEL WITH THE DESCRIPTION OF  
*ATALANTYCHA*, A NEW NEARCTIC GENUS (COLEOPTERA: CANTHARIDAE)

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**Abstract**

The genus *Ancistronycha* Märkel is reviewed. *Atalantycha*, **new genus**, is described. *Ancistronycha rufidens* Marseul is transferred to *Cantharomorphus* Fiori as *Cantharomorphus rufidens* (Marseul), **new combination**. *Ancistronycha bilineata* (Say), *A. dentigera* (Leconte) and *A. neglecta* (Fall) are transferred to *Atalantycha* as *Atalantycha bilineata* (Say), **new combination**, *Atalantycha dentigera* (Leconte), **new combination**, and *Atalantycha neglecta* (Fall), **new combination**. *Ancistronycha taygetana* Pic, **new synonym**, is synonymized with *Ancistronycha occipitalis* (Rosenhauer). Keys to the species of *Ancistronycha* and *Atalantycha* are provided.

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*Ancistronycha* Märkel is a relatively small genus of soldier-beetles that previously included seven species from Europe (with one species extending into the Caucasus) and three species from North America (Delkeskamp 1977). Study of this group, with its apparently remarkable distribution pattern, has revealed that one of its species, *A. erichsonii*, occurs as far south as southern Turkey and that all of its Nearctic representatives need to be excluded from *Ancistronycha* and placed in a new genus.

One of the Mediterranean species, *A. rufidens* Marseul, also appeared to have little in common with *Ancistronycha* proper, except in having simple claws in the male and metallic blue elytra and is tentatively transferred to *Cantharomorphus* Fiori, as *Cantharomorphus rufidens* (Marseul), **new combination**.

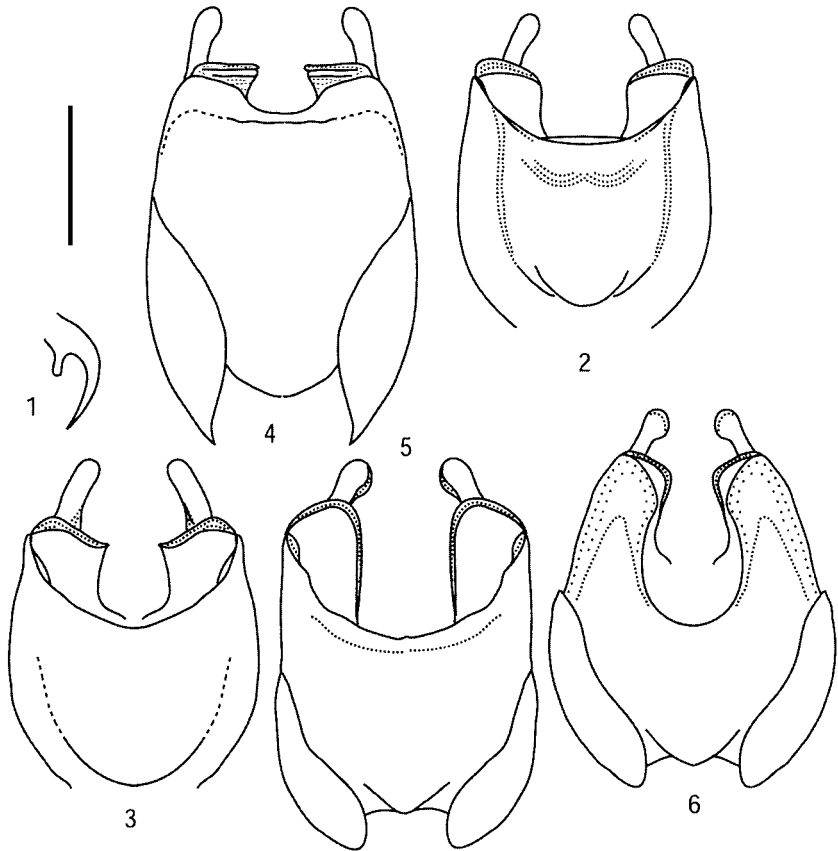
The following abbreviations are used in the paper: FMNH—Field Museum of Natural History, Chicago; ICM—Insect Centre, Severtzov Institute of Evolution and Ecology Problems of the Russian Academy of Sciences, Moscow.

***Ancistronycha* Märkel, 1852**

**Type species.** *Cantharis abdominalis* Fabricius, 1798.

**Redescription.** Head flat, finely punctured behind eyes, with inconspicuous impressions behind antennal insertions. Mandibles simple, externally slightly concave in the middle third. Distal maxillary palpomere about twice as long as wide, widest near apex. Clypeus weakly convex anteriorly, anterior margin with inconspicuous emargination medially. Antennae long, filiform, antennomere 2 about 2.5 times as short as antennomere 3, antennomeres 4–10 with minute glabrous groove near apices in males, median antennomeres unadorned in females. Primary antennal pubescence relatively short, decumbent, with additional robust longer hairs, more abundant on apices of antennomeres.

Pronotum transverse, with lateral margins rounded and anterior, lateral and posterior margins broadly deflexed. Scutellum widely triangular, with posterior margin finely punctured and rounded. Elytra coarsely rugose-punctate, with traces of 4 costae. Elytral pubescence simple, short and decumbent, with sparse more elongate erect hairs in humeral area. Caudal abdominal ventrite in females broadly triangular, posterior margin with inconspicuous median emargination. Legs long and slender, all tarsomeres bearing plantar pads; metatibial spurs similar; all claws simple in



**Figs. 1–6.** Protarsal claw and aedeagi (without median lobe) of *Ancistronycha*. **1–2)** *A. abdominalis* (Fabricius); **1)** female, protarsal claw; **2)** male, aedeagus, dorsal view; **3)** *A. erichsonii* Bach, aedeagus, dorsal view; **4)** *A. lucens* Moscardini, aedeagus, dorsal view; **5)** *A. occipitalis* (Rosenhauer), aedeagus, dorsal view; **6)** *A. violacea* (Paykull), aedeagus, dorsal view. Scale: 0.5 mm.

male and with conspicuous narrow basal tooth in females (Fig. 1). Aedeagus with widely incised dorsal plate, large dorso-ventrally dilated laterophyses and apically bulging parameres (Figs. 2–6).

**Comments.** *Ancistronycha* can be easily differentiated from other groups of Cantharini by the combination of the following characters: simple claws in males and conspicuously toothed claws in females (Fig. 1), the rounded sides and deflexed margins of the pronotum, the minute median incision of the posterior margin of the caudal ventrite in females, the widely incised dorsal plate and the large dorso-ventrally dilated laterophyses of the aedeagus, with apically bulging apices of the parameres (Figs. 2–6). *Ancistronycha* may be distinguished from other genera of West Palaearctic Cantharini using the key by Dahlgren (1979).

*Ancistronycha* consists of the following species:

1. *Ancistronycha abdominalis* (Fabricius)  
*Cantharis abdominalis* Fabricius, 1798: 67

- Ancistronycha consobrina* Märkel, 1852: 589  
*Cantharis cyanea* Curtis, 1828: 215  
*Ancistronycha cyanea* Dietrich, 1857: 119  
*Ancistronycha cyannipennis* Bach, 1854: 64  
*Ancistronycha maculithorax* Pic, 1904: 2

Distribution: Western and Central Europe, including the British Isles. Distribution limits in the Mediterranean are not clear due to the possible confusion with *A. astur* and *A. occipitalis*.

2. *Ancistronycha astur* Heyden  
*Ancistronycha astur* Heyden, 1880: 298

Distribution: Spain and Portugal.

The male copulatory organs of *A. astur* are hardly distinguishable from those of *A. abdominalis*.

3. *Ancistronycha erichsonii* Bach  
*Ancistronycha erichsonii* Bach, 1854: 68  
*Ancistronycha rotundicollis* Dietrich, 1857: 131

Distribution: Austria, Czech Republic, France, Germany, Hungary, Italy, Poland, Slovakia, Switzerland, Ukraine, Turkey. New record for Turkey (S Turkey, Anthalya, Akdag Mts, env. Gombe, 1,200–2,200 m, June 11–12, 2000, S. & I. Kazantsev, ICM). A subspecies *A. erichsonii kurbatovi* Kazantsev 1989, distinguishable by the shape of the laterophyses, occurs in South Russia and Georgia (in the Northern Caucasus).

4. *Ancistronycha lucens* Moscardini  
*Ancistronycha lucens* Moscardini, 1967: 32

Distribution: Croatia, Italy.

5. *Ancistronycha occipitalis* (Rosenhauer)  
*Cantharis occipitalis* Rosenhauer, 1847: 18  
*Ancistronycha taygetana* Pic, 1902: 63, **new synonym**

Distribution: Bulgaria, Greece, Hungary, Italy, Poland, Slovakia, Ukraine.

I had a chance to study *Ancistronycha* material from the Taygetos Mountains in Greece, the type locality of *A. taygetana*. The specimens that appeared to be *A. occipitalis* completely agreed with Pic's description (1902), which strongly suggests that the two taxa are identical. *Ancistronycha occipitalis* was recently illustrated and reported for the first time from Bulgaria, Poland, Slovakia and Ukraine by Kuska (1995).

6. *Ancistronycha violacea* (Paykull)  
*Cantharis violacea* Paykull, 1798: 260  
*Ancistronycha violacea* Dietrich, 1857: 118

Distribution: This is the most widely distributed species of the genus. It is known to occur in almost all of Europe, with the exception of the British Isles and the Mediterranean. Its range extends as far east as the Ural Mountains in Russia.

The six valid species of *Ancistronycha* may be differentiated by the characters given in the following key.

### Key to Species of *Ancistronycha* Märkel of the World

(Due to the need to use characters from the male genitalia to differentiate several species, it is not possible to readily differentiate unassociated females of *Ancistronycha* in the key)

1. Elytra rufous, with only their apices black, or uniformly shining black ..... 2
- Elytra black, with a metallic bluish tint ..... 3
2. Aedeagus with apically convex laterophyses, their inner angles rounded (Fig. 2) .....  
..... *A. erichsonii* Bach
- Aedeagus with apically concave laterophyses, their inner angles pronounced and acute (Fig. 3) ..... *A. lucens* Moscardini
3. Head behind eyes dorsally always black ..... 4
- Head behind eyes at least partly testaceous. Dorsal plate of aedeagus with apical margin deeply incised, its blades wide and elongate (Fig. 6) .....  
..... *A. violacea* (Paykull)
4. Dorsal plate of aedeagus only slightly emarginate at apical margin (Fig. 4) .....  
..... *A. occipitalis* (Rosenhauer)
- Dorsal plate of aedeagus deeply incised apically (Fig. 5) ..... 5
5. Head completely black. Pronotum black, with only lateral margins testaceous. ....  
..... *A. astur* Heyden
- Anterior part of head and pronotum mostly testaceous .....  
..... *A. abdominalis* (Fabricius)

#### *Atalantycha*, new genus

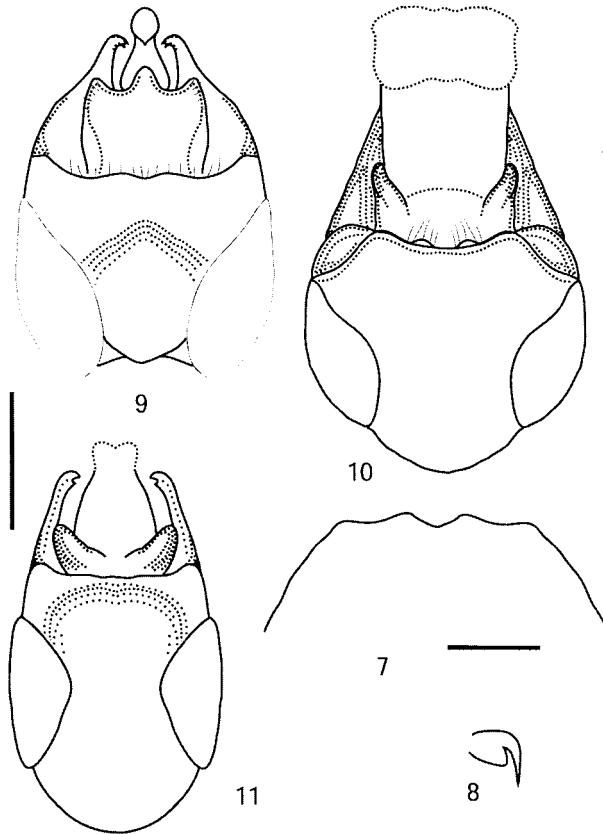
**Type species.** *Telephorus dentiger* Leconte, 1851.

**Description.** Head coarsely and densely punctured behind eyes, with oblique impressions behind antennal insertions. Mandibles simple, externally straight in the middle third. Distal maxillary palpomere relatively small, widest near the middle. Clypeus semi-triangular, with anterior margin rounded, with weak median emargination. Antennae long, filiform, with antennomere 2 about twice as short as antennomere 3, median antennomeres without glabrous grooves. Primary antennal pubescence short and decumbent, with more elongate robust hairs, more abundant on apex of each antennomere.

Pronotum transverse, slightly constricted anteriorly, anterior angles rounded and posterior angles pronounced, anterior and lateral margins deflexed. Scutellum widely triangular, with posterior margin finely punctured and rounded. Elytra coarsely rugose-punctate, with no traces of longitudinal costae. Elytral pubescence simple, short and decumbent. Female caudal abdominal ventrite trapezoidal, with conspicuous median emargination apically (Fig. 7). Legs long and slender, all tarsomeres bearing plantar pads; metatibial spurs similar; all claws in both sexes with conspicuous tooth (Fig. 8) (except in *A. bilineata* wherein only anterior claw of each tarsi toothed at base). Aedeagus dorso-ventrally flattened, with dorsal plate greatly reduced, median lobe dorso-ventrally flattened, laterophyses reduced and parameres internally hooked and apically bifid (Figs. 9–11).

**Comments.** McKey-Fender (1950) transferred three species of Nearctic Cantharini from *Cantharis* Linnaeus, 1758, to *Ancistronycha*, considered by her as a subgenus of *Cantharis*, on the basis of alleged similarity of the male genitalia and the tarsal claws. Oddly, these very characters, at least at the current level of knowledge of the family, place these species and *Ancistronycha* in completely different groups of genera. This has necessitated the erection of *Atalantycha*, new genus, to accommodate these species.

The structure of the pronotum and claws in *Atalantycha* resembles those of *Rhaxonycha* Motschulsky, 1860, but these genera must be differentiated by the very different structures of their aedeagi. Characters separating the new genus from the remainder of the genera of Cantharini are more obvious and include the conspicuously toothed claws in both sexes, the rounded anterior and pronounced posterior angles of the pronotum, the shape of the caudal abdominal ventrite in female, the aedeagus with a reduced dorsal plate and laterophyses, the bifid apex of the parameres, etc. The structure of the aedeagus suggests that a possible close relationship exists between *Atalantycha* and *Cantharis*. The type species of the latter, *C. fusca* Linnaeus, 1758, has



**Figs. 7–11.** Protarsal claw, caudal abdominal ventrite and aedeagi of *Atalantycha*. **7–9)** *A. dentigera* (Leconte); **7)** female, caudal abdominal ventrite; **8)** male, protarsal claw; **9)** male, aedeagus, dorsal view; **10)** *A. neglecta* (Fall), aedeagus, dorsal view; **11)** *A. bilineata* (Say), aedeagus, dorsal view. Scale: 0.5 mm.

similar male genitalia—but very differently shaped pronotum and dissimilar structure of the claws. Therefore, expansion of the definition of any existing genus of Cantharini to accommodate the species placed in *Atalantycha* without compromising its monophyly is not possible.

*Atalantycha*, as “Ancistronycha,” may be differentiated from all other genera of Nearctic Cantharini using the key provided by Ramsdale (2002), except for *Pacificanthia* Kazantsev, which was described subsequently (Kazantsev 2001). *Atalantycha* may be easily distinguished from *Pacificanthia* by the different structure of the pronotum, tibiae, claws and aedeagus.

The generic name is derived from Atlantic, as all species of the new genus occur in eastern, mostly Atlantic, states/provinces of the USA and Canada. Gender feminine.

*Atalantycha* contains the following taxa:

1. *Atalantycha bilineata* (Say), **new combination**  
*Cantharis bilineata* Say, 1823: 182

Distribution: USA: eastern states, south to Florida, west to Oklahoma and Minnesota (A. S. Ramsdale, pers. comm.); Great Smoky Mountains National Park (NC, Purchase Knob, 8–10 Apr. 2004, Malaise trap, Sutton, and Steck leg.). Canada: Nova Scotia, Ontario and Quebec (A. S. Ramsdale, pers. comm.).

2. *Atalantycha dentigera* (Leconte), **new combination**

*Telephorus dentiger* Leconte, 1851: 341

Distribution: USA: north-eastern states, west to Wisconsin (A. S. Ramsdale, pers. comm.) and Iowa (Scott Co., Davenport, V.10.1964, S. B. Peck leg., FMNH), south to Virginia (A. S. Ramsdale, pers. comm.) and Texas (Delkeskamp 1977). Canada: Ontario and Quebec (A. S. Ramsdale, pers. comm.).

3. *Atalantycha neglecta* (Fall), **new combination**

*Telephorus neglectus* Fall, 1919: 215

Distribution: USA: eastern states, south to Kentucky, West Virginia (A. S. Ramsdale, pers. comm.) and New Jersey (McKey-Fender 1950), west to Minnesota, South Dakota (A. S. Ramsdale, pers. comm.) and Oklahoma (McKey-Fender 1950). Canada: Ontario, Quebec (A. S. Ramsdale, pers. comm.).

### Key to the species *Atalantycha* of the World

1. Only exterior claw of all tarsi toothed. Pronotal maculation usually bilineate. Aedeagus as in Figure 11 ..... *A. bilineata* (Say)
- Both claws of all tarsi toothed. Pronotal maculation confluent medially ..... 2
2. Pronotum smooth, shining. Aedeagus as in Figure 10 ..... *A. neglecta* (Fall)
- Pronotum rugulose. Aedeagus as in Figure 9 ..... *A. dentigera* (Leconte)

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