

RESEARCH ARTICLE

Annotated key to weevils of the world. Part 2. Subfamily Molytinae (Coleoptera, Curculionidae)

A.A. Legalov^{1,2}

¹ Institute of Systematics and Ecology of Animals, Siberian Branch, Russian Academy of Sciences, Frunze Street, 11, Novosibirsk 630091, Russia, E-mail: fossilweevils@gmail.com

² Altai State University, pr. Lenina, 61, Barnaul, 656049, Russia.

Received: 12.10.2018. Accepted: 01.12.2018

Two new tribes Tranesini Legalov, trib. n. (type genus *Tranes* Schoenherr, 1843) and Eudyasmini Legalov, trib. n. (type genus *Eudyasmus* Pascoe, 1885) are described. The systematic position of the tribe Arachnopodini Lacordaire, 1865, placem. n. and genus *Paracamptopsis* Hustache, 1929, placem. n. are changed. Changes of status for Cotasteromimini Morimoto, 1962, stat. n., Thrombosternini Voss, 1965, stat. n., Sclerocardiini Lacordaire, 1865, stat. n. and Styanacina Chujo et Voss, 1960, stat. n. are made. Statuses of Colobodini Voss, 1958, stat. res., Plinthini Lacordaire, 1863, stat. res. and Cnemidontini Kuschel, 1955, stat. res. are recovered. A key to the tribes and subtribes of Molytinae is provided. Systematic list of tribes and subtribes of Molytinae is given.

Keywords: Insecta, Coleoptera; Curculionoidea, new taxa, new statuses, check list, key.

In the second part (first part see in Legalov, 2018), a key to the tribes and subtribes, and a check list of the tribes and subtribes of the subfamily Molytinae are given.

Materials and methods

The Molytinae species used for this study are deposited in the Borissiak Paleontological Institute of the Russian Academy of Sciences (Russia: Moscow), Institut Royal des Sciences Naturelles de Belgique (Belgium: Brussels), Institute of Systematics and Ecology of Animals (Russia: Novosibirsk), Leibniz-Institut für Evolutions- und Biodiversitätsforschung, Museum für Naturkunde (Germany: Berlin), Musée Royal de l'Afrique Centrale (Belgium: Tervuren), Museum für Tierkunde, Senckenberg Naturhistorische Sammlungen Dresden (Germany: Dresden), Museum National d'Histoire Naturelle (France: Paris), Zoological Institute of Russian Academy of Sciences (Russia: St. Petersburg), Zoological Museum of Moscow State University (Russia: Moscow), Zoological Museum, University of Copenhagen (Denmark: Copenhagen), etc. General publications are given after subfamily.

Results

Subfamily Molytinae Schoenherr, 1823

Lacordaire, 1865; Champion, 1906-1909, 1914; Aurivillius, 1926; Dalla Torre et al., 1932a, 1932b; Marshall, 1932; Schenkling and Marshall, 1934, 1937; Klima, 1935, 1936; Schenkling, 1935; Hustache, 1936; Vaurie, 1954, 1974; Kuschel, 1957, 1964, 1972, 1987; Morimoto, 1962, 1978, 1982; Aslam, 1963; Viana, 1975; Vanin and Reichardt, 1976; O'Brien and Wibmer, 1982; Wibmer and O'Brien, 1986; Zherikhin, 1987; Wibmer, 1989; Zherikhin, Egorov, 1991; Howden, 1992; Voisin, 1992; Morrone, 1996; Lyal, 1993, 1997, 2014a, 2014b, 2018; Oberprieler, 1988, 1995; Morimoto and Miyakawa, 1995; Alonso-Zarazaga and Lyal, 1999; Craw, 1999; Lyal and Curran, 2000; Anderson, 2002a, 2002b; Kojima and Idris, 2005; Morimoto and Kojima, 2007; Stüben, 2007; Andrew and Ramamurthy, 2010; Legalov, 2010, 2015, 2016, 2018b, 2018; Poinar and Legalov, 2014; Legalov and Poinar, 2015; Alonso-Zarazaga et al., 2017; Anderson et al., 2018; etc.

Key to tribes and subtribes of Molytinae

1. Prosternum with rostral channel bounded by carinae (figs. 1-2).....	2
- Prosternum without rostral channel bounded by carinae.....	30
2. Apex of rostral channel bounded by carina (fig. 1).....	3
- Apex of rostral channel not bounded by carina (fig. 8).....	12

3. Rostral channel not reaching mesoventrite. Sclerolepidia absent.....4
- Rostral channel reaching mesoventrite (fig. 1).....5
4. Rostral channel with scales. Ventrite 1 shorter than ventrite 2. Body subcylindrical. Femora passing beyond apex of abdomen. Tarsi narrow. Claws free.....*Camptorhinini*
- Rostral channel bare. Ventrite 1 longer than ventrite 2. Body wide. Femora not reaching apex of ventrite 5. Tarsi wide. Claws fused at base.....*Guiperini*
5. Postcoxal portion of prosternum bounded by carinae. Sclerolepidia present*Aedemonini*
- Postcoxal portion of prosternum not bounded by carinae.....6
6. Eyes absent or small. Rostrum usually separated by groove. Sclerolepidia absent.....*Torneumatini*
- Eyes well developed, large. Rostrum not separated by groove.....7
7. Mesotibiae sometimes with tooth in middle of outer margin. Prosternum convex at base with very weakly carina in males (fig. 3). Rostral channel on mesoventrite flattened, smooth to prosternum in females (fig. 4). Sclerolepidia absent.....*Psepholacini*
- Mesotibiae always without tooth in middle of outer margin. Rostral channel on mesoventrite usually identical in both sexes, evenly impressed, its apex bounded by carina.....8
8. Scape usually as long as funicle and passing beyond eye. Antennae inserted subapically in male. Sclerolepidia absent.....*Mecistostylini*
- Scape shorter than funicle and not reaching eye or reaching only front edge of eye.....9
9. Sclerolepidia present. Rostral canal on metaventrite reaches middle coxae, often located between them (fig. 1). Rostrum usually curved, not flattened or slightly flattened. Metaventrite usually shorter than ventrite 1. Femora often bare ventrally. *Cryptorhynchini*.....11
- Sclerolepidia absent. Femora usually with scales ventrally. Rostral channel on mesoventrite located in front of metacoxae (fig. 2). Rostrum short, flattened. Metaventrite shorter or longer than ventrite 1.....10
10. Metaventrite longer than ventrite 1. Rostrum straight.....*Gasterocercini*
- Metaventrite shorter than ventrite 1. Rostrum curved.....*Eudyasmini*
11. Metaventrite short, usually shorter than ventrite 3. Abdominal process as broad as coxa. Metepisternum narrow or partly hidden, or metepisternal sutures absent. Elytra with more or less reduced humeri.....*Tylocina*
- Metaventrite more or less long, longer than ventrite 3. Abdominal process narrower than coxa. Metepisternum distinct, broader. Elytra often with rectangular humeri.....*Cryptorhynchina*
12. Claws with teeth or appendiculate. Sclerolepidia present or absent.....13
- Claws without teeth. Sclerolepidia absent.....16
13. Claws appendiculate (fig. 5). Sclerolepidia absent. Tibiae quite short and wide.....*Carciliini*
- Claws with teeth (fig. 6). Sclerolepidia present. Tibiae simple.....14
14. Body oval, usually with greatest width in humeri. Pterygia not visible or barely visible dorsally.....*Cleogonini*
- Body elongate, with greatest width behind middle. Pterygia well visible dorsally.....15
15. Rostrum more or less distinctly separated by groove from forehead.....*Aminyopini*
- Rostrum not separated by groove from forehead.....*Euderini*
16. Metacoxae subglobular. Abdominal process broadly truncate.....17
- Metacoxae transversely elongate. Abdominal process acuminate or oval, much narrower than metacoxa.....19
17. Rostrum distinctly separated by groove from forehead. Carinae on prosternum weak. Rostral channel wide, looks like depression. Segment 1 of club slightly longer than segment 2.....*Anchonini* (*Oncorhinus* Schoenherr, 1836)
- Rostrum not separated from forehead. Carinae on prosternum distinct. Segment 1 of club longer than subsequent segments combined.....18
18. Procoxal cavities widely separated. Antennal scrobes visible from above.....*Thrombosternini*
- Procoxal cavities contiguous. Antennal scrobes not visible from above.....*Sthereini* (part)
19. Segments of club shortened, fused with antennomere 8. Labial palpi not visible or absent.....20
- Club well different from flagellum, not fused with antennomere 8. Labial palpi 3-segmented.....21
20. Antennomeres 7 and 8 not fused. Antennomere 8 elongate. Scutellum absent. Protibiae without mucro.....*Brachyceropseini*
- Antennomeres 7 and 8 fused, of approximately equal length. Scutellum distinct. Protibiae with long mucro (fig. 7).....*Dinomorphini*
21. Claws fused at base.....22
- Claws free.....23
22. Procoxal cavities contiguous or narrowly separated. Body elongate.....*Pacholenini*
- Procoxal cavities separated. Body wide, more or less rounded.....*Sternechini*
23. Tibiae widened and flattened. Protibiae with 3 teeth on outer margin.....*Sclerocardiini*
- Tibiae not widened not flattened. Protibiae without 3 teeth on outer margin.....24
24. Rostral channel extending onto metaventrite (fig. 8).....*Sophrorhinini*
- Rostral channel not extending onto metaventrite.....25
25. Ventrite 1 considerably narrower than ventrite 2. Rostrum usually sharply narrowed beyond place of antennal insertion.....*Ityporini*

- Ventrile 1 approximately equal to than ventrile 2.	Rostrum slightly narrowed behind place of antennal insertion.....	26
26. Procoxal cavities contiguous.....		27
- Procoxal cavities widely separated.....		29
27. Rostrum elongate, thin. Pronotal process extending beyond head.....	Pacholenini (<i>Antilophus</i> Kuschel, 1952)	
- Rostrum short and thick. Pronotal process absent. (Lithinini, part).		28
28. Basisternum almost vertical.	Styanacina	
- Basisternum flattened.....	Lithinina (part)	
29. Protibiae with large mucro. Rostrum flattened and straight.....	Nettarhinini	
- Protibiae without large mucro (fig. 9). Rostrum convex and curved.....	Colobodini	
30. Mandibles with apices divergent (fig. 10). (Cholini).....		31
- Mandibles convergent.....		33
31. Meso- and metatibiae with apical comb of setae. Claws connate at base and as long as terminal antennomere.	Cholomina	
- Meso- and metatibiae with comb of setae ascending on exterior margin of tibiae. Claws free, if connate then short.....		32
32. Tarsomere 1 narrower than tarsomere 2. Tibiae usually with large mucro and uncus.....	Cholina	
- Tarsomere 1 wider than tarsomere 2. Tibiae with mucro or small mucro and uncus.	Rhinastina	
33. Body very depressed (fig. 12). Surfaces of prosternum, meso- and metaventrite uninterrupted.....	Petalochilini (part)	
- Body more or less convex. Surfaces of prosternum, meso- and metaventrite interrupted.....		34
34. Apices of tibiae with elongate tooth-like uncus and mucro, and 2-3 denticles. Tibiae short, strongly dilated. Antennomere 2 greatly expanded, much wider other antennomeres (fig. 11). Sclerolepidia present.....	Amorphocerini	
- Apices of tibiae with simple uncus and mucro, without denticles. Tibiae simple. Antennomere 2 not greatly expanded, narrower than club.....		35
35. Tarsomere 2 wide bilobed. Body narrow.....	Phoenicobatini	
- Tarsomere 2 conical.....		36
36. Protibiae with carina bearing longitudinal posterior comb of setae.....		37
- Protibiae without carina for comb of setae.....		40
37. Eyes subcontiguous ventrally (fig. 16). Tibiae especially protibiae, with dense setae (fig. 13). Elytral striae 3 and 6 sometimes fused apically.....	Tranesini	
- Eyes not subcontiguous ventrally. Tibiae without dense setae. Elytral striae 3 and 8 fused apically.....		38
38. Tibia with 4-5 denticles on interior margin (fig. 14). Body elongate. Sclerolepidia absent.....	Amalactini	
- Tibiae without denticles on interior margin. Body more or less wide.....		39
39. Sclerolepidia absent. Rostrum usually widened apically. Eyes sometimes very narrow, transverse.....	Petalochilini (part)	
- Sclerolepidia present. Rostrum simple. Eyes oval or rounded.....	Juanorhinini	
40. Meso- and metepisternum, meso- and metepimeron fully or partially covered with dense plumose scales.....		41
- Meso- and metepisternum, meso- and metepimeron covered with simple scales.....		44
41. Procoxal cavities widely separated.....	Laemosaccini	
- Procoxal cavities contiguous or narrowly separated.....		42
42. Tibiae flattened.....	Cnemidontini	
- Tibia simple.....		43
43. Elytra oval, widest in middle (fig. 19). Claws appendiculate.....	Mesoptiliini	
- Elytra with subparallel sides, widest at apex. Claws with or without teeth.....	Magdaliniini	
44. Elytral base with anterior projection near interstria 3 which extends over pronotum.....		45
- Elytral base straight or weakly concave.....		48
45. Mesepimera enlarged and visible from above. Pronotum more than half of elytral length. Pygidium exposed.....	Trigonocolini	
- Mesepimera simple. Pronotum less than half of elytral length. Pygidium not exposed.....		46
46. Labial palpi present. Claws usually with long teeth. Procoxal cavities more or less separated. Front legs often larger than other.....	Mecysolobini	
- Labial palpi absent. Claws without teeth. Procoxal cavities contiguous. Front legs not enlarged.		47
47. Body wide. Prementum present. Rostrum lacking two grooves dorsally.....	Metatygini	
- Body elongate. Prementum absent. Rostrum with two longitudinal grooves dorsally.....	Paipalesomini	
48. Labial palpi 1-segmented. Antennomere 8 fused with club and longer than antennomere 9. Eyes narrow.....	Rhytidophloeina (Lithinini)	
- Labial palpi 3-segmented. Antennomere 9 as rule free and shorter than antennomere 9. Eyes as rule rounded or oval.....		49
49. Rostrum narrowed to apex, with oblique antennal scrobes located dorsally.....	Lithinina , part (Lithinini)	
- Rostrum subcylindrical or widened to o apex. Antennal scrobes, if oblique then located laterally.....		50
50. Metacoxae subglobular. Abdominal process broadly truncate, as wide as or wider than metacoxa.....		51
- Metacoxae transverse-elongate. Abdominal process acuminate, much narrower than metacoxae.....		60
51. Femora and tibiae laterally with two rows of curved setae (fig. 15).....	Arachnopodini	
- Femora and tibiae simple.....		52



Figure 1-19. Molytinae spp. 1 – *Dysopirhinus grandis* Lea, 1903, rostral channel; 2 – *Gasterocercus depressirostris* (Fabricius, 1792), rostral channel; 3 – *Psepholax dentipes* (Bohemian, 1845), male, rostral channel; 4 – *Psepholax barbifrons* White, 1846, female, rostral channel; 5 – *Carcilia tenuistriata* Heller, 1941, claws; 6 – *Niphades variegatus* (Roelofs, 1873), claws; 7 – *Dinomorphus pimelioides* Perty, 1832, apex of protibia; 8 – *Sophrorhinus quadricristata* Faust, 1894, rostral channel; 9 – *Colobodes matsumurai* Kôno, 1932, apex of protibia; 10 – *Cholus* sp., mandible; 11 – *Amorphocerus talpa* Schoenherr, 1826, antenna; 12 – *Trypetes guildingii* Fahraeus, 1844; 13 – *Tranes* sp., protibia; 14 – *Aorus* sp., protibia; 15 – *Arachnobas gazella* Boisduval, 1835, part of mesofemur and mesotibia; 16 – *Tranes* sp., eyes, ventral view; 17 – *Acicnemis albofasciata* (Ter-Minasian, 1953), club; 18 – *Pissodes pini* (Linnaeus, 1758), club; 19 – *Mesoptilius apicalis* Labram et Imhoff, 1845.

52. Eyes located on rostral part of head. Rostrum separated by impression from head.....	Lymantini
- Eyes not located on rostral part of head, if as in previous then rostrum not separated by impression from head.....	53
53. Procoxal cavities narrowly separated. Rostrum separated by impression from head. Sclerolepidia present.....	Cotasteromimini
- Procoxal cavities contiguous. Rostrum usually not separated by impression from head. Sclerolepidia present or absent.....	54
54. Rostrum separated by impression from head. Sclerolepidia absent.....	Anchonini
- Rostrum not separated by impression from head.....	55
55. Antennal scrobes not visible from above.....	56
- Antennal scrobes distinctly visible from above in apical part.....	57
56. Eyes simple. Uncus distinct. Species from the boreal coasts of the Pacific.....	Sthereini
- Eyes absent. Uncus absent. If eyes simple or tibiae with uncus then species from New Zealand, Australia, Tasmania and Chile.....	Phryinxini
57. Sclerolepidia present. Antennomere 8 as long as club. Antennomere 9 shorter than antennomeres 10 and 11 combined. Elytra more or less rounded.....	Cycloterini
- Sclerolepidia absent. Antennomere 8 distinctly shorter than antennomere 9. Antennomere 9 as long as antennomeres 10 and 11 combined. Elytra as rule more or less oval. (Plintini, part).....	58
58. Antennal scrobes directed to eye.....	Plintina (part)
- Antennal scrobes directed under eyes.....	59
59. Eyes absent or located between rostral part of head and head capsule. Sculpture of body coarse.....	Typoderina
- Eyes located on head capsule. Sculpture of body gentle.....	Leiosomatina
60. Antennal scrobes not visible from above even in apical part.....	61
- Antennal scrobes distinctly visible from above in apical part.....	62
61. Club segment 1 with dense pubescence, not lustrous (fig. 17). Femora with tooth.....	Acicnemidini
- Club segment 1 with quite sparse pubescence, lustrous (fig. 18). Femora without tooth.....	Pissodini
62. Antennomere 9 as long as antennomeres 10 and 11 combined. (Plintini).....	Plintina (part)
- Antennomere 9 shorter than antennomeres 10 and 11 combined.....	63
63. Forehead much wider than base of rostrum.....	64
- Forehead narrower, equal to or barely wider than base of the rostrum.....	65
64. Body naked. Femora without teeth. Sclerolepidia present.....	Thalasselephantini
- Body covered with scales. Femora with teeth. Sclerolepidia absent. (Molytini).....	Epistrophina
65. Mandibles outside with hairs. Sclerolepidia present. Eyes convex.....	Lepyrini
- Mandibles with sparse hairs or bare. Sclerolepidia usually absent. Eyes usually not protruding from contour of head.	66
66. Procoxal cavities distinctly separated, if procoxal cavities contiguous then eye convex and rostrum much longer than pronotum. Sclerolepidia absent.....	Orthorhinini
- Procoxal cavities contiguous, if narrowly separated then rostrum at most slightly longer than pronotum. (Molytini).....	67
67. Humeri convex. Sclerolepidia usually present.....	Hylobiina
- Humeri smoothed. Sclerolepidia absent.....	Molytina

Systematic list of tribes and subtribes of Molytinae

Tribe **Molytini** Schoenherr, 1823

Subtribe **Hylobiina** W. Kirby, 1837

=Heilipinae Faust, 1892

=Syphorbina Marshall, 1932

Subtribe **Epistrophina** Marshall, 1932

Subtribe **Molytina** Schoenherr, 1823

=Liparides Latreille, 1828

Tribe **Lepyrini** W. Kirby, 1837

Tribe **Plinthini** Lacordaire, 1863, **stat. res.**

Subtribe **Leiosomatina** Reitter, 1913

Subtribe **Plinthina** Lacordaire, 1863

=Minyopidae Marseul, 1863

Subtribe **Typoderina** Voss, 1965

Tribe **Orthorhinini** Jekel, 1865

=Angianides Sharp, 1919

Tribe **Pissodini** Gistel, 1856

Tribe **Cotasteromimini** Morimoto, 1962, **stat. n.**

Tribe **Thalasselephantini** Alonso-Zarazaga et Lyal, 1999

Tribe **Sthereini** Hatch, 1971

- Tribe **Acicnemidini** Lacordaire, 1865
 =Trachodini LeConte, 1876
 Tribe **Amorphocerini** Voss, 1939
 Tribe **Anchonini** Imhoff, 1856
 Tribe **Cycloterini** Lacordaire, 1863
 Tribe **Cholini** Schoenherr, 1825
 Subtribe **Cholina** Schoenherr, 1825
 Subtribe **Cholomina** Vaurie, 1974
 Subtribe **Rhinastina** Vaurie, 1973
 Tribe **Mesoptiliini** Lacordaire, 1863
 Tribe **Magdalinini** Pascoe, 1870
 =Thamnophilides Schoenherr, 1823
 Tribe **Cnemidontini** Kuschel, 1955, *stat. res.*
 Tribe **Laemosaccini** Lacordaire, 1865
 Tribe **Carciliini** Pierce, 1916
 Tribe **Lymantini** Lacordaire, 1865
 =Ithaurinae Kuschel, 1959
 =Caecossonina Osella, 1980
 Tribe **Mecysolobini** Reitter, 1913
 =Alcidides Jekel, 1865
 Tribe **Metatygini** Pascoe, 1888
 =Omophorinae Marshall, 1917
 =Stemechosomini Voss, 1958
 Tribe **Paipalesomini** Marshall, 1932
 Tribe **Trigonocolini** Lacordaire, 1863
 =Megarhininae Faust, 1888
 Tribe **Amalactini** Lacordaire, 1863
 Tribe **Tranesini** Legalov, *trib. n.*

urn:lsid:zoobank.org:act:28564EB7-ED26-44AA-9586-B082B763E64B

Figs. 13, 16

Type genus. *Tranes* Schoenherr, 1843

Diagnosis. Body brown or black, with sparse scales. Rostrum usually long, longer than pronotum, sometimes slightly shorter one, weakly curved. Mandible large. Antennal scrobes laterally, directed to eye. Eyes large, not protruding from contour of head, subcontiguous ventrally. Forehead narrower than rostrum base. Antennae inserted near middle, sometimes before one. Scape long, usually not reaching eye, or sometimes reaching front edge of eye. Club compact. Pronotum bell-shaped, finely punctate. Scutellum small, semi-oval. Base of elytra weakly wider than base of pronotum. Elytra elongate. Humeri smoothed. Elytral striae distinct. Stria 10 merges with stria 9 near metacoxa or at apical fourth. Striae 3 and 8 or 3 and 6 fused apically. Interstriae weakly convex or almost flat, punctate. Prosternum without rostral channel, with ocular lobe. Precoxal portion long. Procoxal cavities separated. Mesocoxal cavities widely separated. Metaventrite long, weakly flattened. Sclerolepidia present or absent. Abdomen flattened. Ventrites 1 and 2 long, fused. Ventrites 3 and 4 short. Ventrite 5 long, without anal setae. Pygidium not exposed. Procoxae spherical. Femora clavate, toothed or not. Tibiae narrow or wide, uncinate, with two apical groups of setae at apex, with dense setae on interior margin. Protibiae with carina bearing longitudinal posterior comb of setae. Tarsi long. Tarsomere 1 conical. Tarsomere 2 short-conical. Tarsomere 3 bilobed. Claws free, divergent.

Comparison. The new tribe differs from the tribe Amalactini in the fused apically elytral striae 3 and 6, subcontiguous ventrally eyes, and tibiae, especially protibiae, with dense setae.

Composition. Six genera (*Tranes* Schoenherr, 1843, *Demyrsus* Pascoe, 1872, *Howeotranes* Zimmerman, 1994, *Melanotranes* Zimmerman, 1994, *Miltotranes* Zimmerman, 1994, *Paratranes* Zimmerman, 1994) from Australia concern to the new tribe.

Tribe **Juanorhinini** Aurivillius, 1926

- Tribe **Petalochilini** Lacordaire, 1863
 =Epipedides Lacordaire, 1865
 =Hormopini LeConte, 1876
 =Trypetides Lacordaire, 1865
 =Schoenherriellinae Viana, 1952
 Tribe **Phenicobatini** Champion, 1914
 Tribe **Phrynxini** Kuschel, 1964
 Tribe **Arachnopodini** Lacordaire, 1865, *placem. n.*

Tribe **Euderini** Lacordaire, 1865

- Tribe **Aminyopini** Voss, 1956
 =Niphadini Voss, 1963c
 =Niphadonothina Voss, 1965
 Tribe **Cleogonini** Gistel, 1856

= Conotrachelini Jekel, 1865

= Echinaspini Blatchley, 1922b

Tribe **Thrombosternini** Voss, 1965, stat. n.

Remarks. I studied the type of *Paracamptopsis oblonga* Hustache, 1929 (figs. 20-23) from the Museum National d'Histoire Naturelle. It is characterized by protibia distally without groove and row of dense erect setae, prosternum with rostral channel bounded by carinae, metacoxae subglobular, rostrum not separated from forehead, club segment 1 longer than subsequent segments combined, procoxal cavities widely separated, and antennal scrobes visible from above, because I transfer the genus *Paracamptopsis* Hustache, 1929, **placem. n.** from the tribe *Nesiobiini* Alonso-Zarazaga et Lyal, 1999 of the subfamily Cossoninae to the tribe Thrombosternini of the subfamily Molytinae.



20



22



23



21

Figures 20-23. *Paracamptopsis oblonga* Hustache, 1929, type. 20 - dorsal view; 21 - prosternum, ventral view; 22 - lateral view; 23 - protibia.

Tribe **Dinomorphini** Lacordaire, 1863

Tribe **Brachyceropseini** Aurivillius, 1926

Tribe **Pacholenini** Lacordaire, 1863

Tribe **Sternechini** Lacordaire, 1863

Tribe **Sclerocardiini** Lacordaire, 1865, stat. n.

Tribe **Sophrorhinini** Lacordaire, 1865

Tribe **Ithyporini** Lacordaire, 1865

Tribe **Lithinini** Lacordaire, 1863

Subtribe **Lithinina** Lacordaire, 1863

Subtribe **Styanacina** Chujo et Voss, 1960, stat. n.

Subtribe **Rhytidophloeina** Voss, 1963

Tribe **Colobodini** Voss, 1958, stat. res.

Tribe **Nettarhinini** Lacordaire, 1865

Tribe **Camptorhinini** Lacordaire, 1865

Tribe **Guiperini** Lacordaire, 1865

Tribe **Aedemonini** Faust, 1898

= **Mecistocerini** Morimoto, 1978

= **Derbyiellina** Zimmerman, 1994

Tribe **Torneumatini** Bedel, 1884

Tribe **Psepholacini** Lacordaire, 1865

=Strongylopterides Lacordaire, 1865

=Sympiezoscelides Lacordaire, 1865

Tribe **Gasterocercini** Zherikhin, 1991

Tribe **Eudyasmini** Legalov, trib. n.

Figs. 24-25

urn:lsid:zoobank.org:act:0645B74C-7E13-4733-91BA-055E5DD3EB03

Type genus. *Eudyasmus* Pascoe, 1885

Diagnosis. Body black, with scales. Rostrum quite short, weakly curved, shorter than pronotum, flattened. Mandible large. Antennal scrobes laterally, directed ventrally, not reaching eye. Eyes large, not protruding from contour of head. Forehead narrower than rostrum base. Antennae inserted near middle. Scape long, not reaching eye. Club compact. Pronotum bell-shaped, densely punctate. Scutellum small, rectangular, wide. Base of elytra equal in wide to base of pronotum. Elytra semi-oval. Humeri absent. Elytral striae distinct. Stria 10 merges with stria 9 near metacoxa. Interstriae convex, punctate. Prosternum with rostral channel. Pro- and mesocoxal cavities widely separated. Metaventrite short. Sclerolepidia absent. Abdomen flattened. Ventrites 1 and 2 long, fused. Ventrites 3 and 4 short. Ventrite 5 long, without anal setae. Pygidium not exposed. Procoxae conical. Femora long, with small teeth, laterally without two rows of curved setae. Tibiae with two apical groups of setae at apex, with uncus and mucro, with row of setae on outer margin, laterally without two rows of curved setae. Tarsi long. Tarsomere 1 long-conical. Tarsomere 2 conical. Tarsomere 3 wide-bilobed. Claws free.

Comparison. The new tribe differs from the tribe Gasterocercini in the metaventrite shorter than ventrite 1 and curved rostrum. This tribe is similar to the tribe Arachnopodini but differs in the prosternum with rostral channel and remora and tibiae laterally without two rows of curved setae.

Composition. One genus from New Guinea.



Figure 24. *Eudyasmus albertisii* Pascoe, 1885, dorsal view. **Figure 25.** *Eudyasmus albertisii* Pascoe, 1885, prosternum, ventral view.

Tribe **Cryptorhynchini** Schoenherr, 1825

Subtribe **Tylocina** Lacordaire, 1865

Subtribe **Cryptorhynchina** Schoenherr, 1825

Tribe **Mecistostylini** Lacordaire, 1865

Appendix

Argentinomacerini Legalov, 2017 (urn:lsid:zoobank.org:act:2D6250AD-F45D-45DA-B55E-C7483BC2298C), Zimmiellini Legalov, 2017 (urn:lsid:zoobank.org:act:1AF28FA1-B1E9-4912-93BD-7C1C34260E4C), Bunyaeina Legalov, 2017 (urn:lsid:zoobank.org:act:2C34AADD-1D81-4C9D-AD73-837749AC907D), Argentinomacer Legalov, 2017 (urn:lsid:zoobank.org:act:A3B084B6-A0B4-438B-887B-ACC70AE54479), Nothofagomacer Legalov, 2017 (urn:lsid:zoobank.org:act:911BB85D-78B2-4D25-8CFD-B96FD4E40510), Argentinomacer unicus Legalov, 2017 (urn:lsid:zoobank.org:act:80E39954-CD84-409D-B489-6BE7475C03EA), Setapiitiae Legalov, 2018 (urn:lsid:zoobank.org:act:89881532-14E4-4560-B66D-7C26F624BA82), Acanthopygini Legalov, 2018 (urn:lsid:zoobank.org:act:296EC7B0-CA4A-46B4-A96C-04ECA7ACAF96), Apiomorphini Legalov, 2018 (urn:lsid:zoobank.org:act:6BFCCDD53-3E2B-4B1F-

B41E-8E91041E83EF), Setapiini Legalov, 2018 (urn:lsid:zoobank.org:act:4E8389B6-D3AA-4FA1-B957-B8780A6B7506), *Philippinaule-tes* Legalov, 2018 (urn:lsid:zoobank.org:act:6BFCDD53-3E2B-4B1F-B41E-8E91041E83EF), *Apiomorphilus* Legalov, 2018 (urn:lsid:zoobank.org:act:4E8389B6-D3AA-4FA1-B957-B8780A6B7506), *Auletanus banggiensis* Legalov, 2018 (urn:lsid:zoobank.org:act:03B0CCFD-85F4-4236-A38D-87E4C1EBB4A6), *A. kurimansis* Legalov, 2018 (urn:lsid:zoobank.org:act:BEE7710C-CA6E-49CE-AAF7-26DDD6F21BBA), *A. kuscheli* Legalov, 2018 (urn:lsid:zoobank.org:act:300C4A28-C5A8-4056-B369-84EEB4D53B4B), *A. mabilabole-nsis* Legalov, 2018 (urn:lsid:zoobank.org:act:3C8BF401-388C-4995-AB5C-3CFD30E5E6E8), *A. palawanensis* Legalov, 2018 (urn:lsid:zoobank.org:act:5F2E071E-A54C-432F-A31D-25CA296DE36C), *A. versicolor* Legalov, 2018 (urn:lsid:zoobank.org:act:DA7B2926-DEDB-4422-9E13-7DD297F1417A), *A. barligensis* Legalov, 2018 (urn:lsid:zoobank.org:act:7C469C2D-50DE-452D-9B66-FF8CAFA52789), *Auletobius crockerensis* Legalov, 2018 (urn:lsid:zoobank.org:act:72A5C3DB-0BA6-4598-8C9B-D9551BF08AA0), *A. emeljanovi* Legalov, 2018 (urn:lsid:zoobank.org:act:9DB3B34E-7420-4E74-AC24-CE23D06E2F7C), *A. hartmanni* Legalov, 2018 (urn:lsid:zoobank.org:act:53F03051-2917-4FE1-B96B-B4FFCF1ADE5F), *A. indochinensis* Legalov, 2018 (urn:lsid:zoobank.org:act:910E45FB-8BFA-4D34-B493-954542D1A821), *A. kapataganensis* Legalov, 2018 (urn:lsid:zoobank.org:act:32D16E4D-63CB-49A1-BBAE-9189164FECC6), *A. weigeli* Legalov, 2018 (urn:lsid:zoobank.org:act:FBEE5035-2165-42EC-9942-18804AF06AD1), *Cyllo-rhynchites limbourgi* Legalov, 2018 (urn:lsid:zoobank.org:act:ACAFB56F-C14B-47D7-A1CD-E9E015B15A89), *Deneauletes lackneri* Legalov, 2018 (urn:lsid:zoobank.org:act:70E96040-AD63-475D-864C-DEFB046EB893), *Lasioauletes insolitus* Legalov, 2018 (urn:lsid:zoobank.org:act:B12B0E18-2F3E-4411-9F6E-ECA40F025BAF), *Macroauletes luzonensis* Legalov, 2018 (urn:lsid:zoobank.org:act:FCEBAE61-34B8-4243-9594-C747453E577A), *M. philippinensis* Legalov, 2018 (urn:lsid:zoobank.org:act:66051149-19BF-4799-94FC-592D2179F26C), *Orthorhynchoides telnovi* Legalov, 2018 (urn:lsid:zoobank.org:act:E906E04B-FB18-488D-80F3-87F2110D5458), *Philippinauletes rubrauletiformis* Legalov, 2018 (urn:lsid:zoobank.org:act:2E9095B1-42D3-4AA6-8538-C8E54E9B8FDB), *Pseud-auletes parvus* Legalov, 2018 (urn:lsid:zoobank.org:act:EFCAE931-F0A0-4A51-B917-9864B6A1FC95), *Pseudomesauletes boettcheri* Legalov, 2018 (urn:lsid:zoobank.org:act:45F4549F-32F7-4BD9-A80B-09DCAC4005C3), *P. luzonensis* Legalov, 2018 (urn:lsid:zoobank.org:act:8CFA9DF8-D2E5-46EB-9D55-B826130A2926), and *Vossicartus kakumensis* Legalov, 2018 (urn:lsid:zoobank.org:act:F0663780-78A3-4D36-B173-AB765AABDD1F) were described by Legalov (2017, 2018a) in Ukrainian Journal of Ecology.

Acknowledgments

The author thanks O. Jaeger (Germany: Dresden), K.-D. Klass (Germany: Dresden), B.A. Korotyaev (Russia: St.-Petersburg), P. Limbourg (Belgium: Bruxelles), A. Nel (France: Paris), N.B. Nikitsky (Russia: Moscow), H. Perrin (France: Paris), A.Yu. Solodovnicov (Denmark: Copenhagen), D. Van Den Spiegel (Belgium: Tervuren), J. Willers (Germany: Berlin) for the opportunity to study of material.

References

- Alonso-Zarazaga, M.A., Barrios, H., Borovec, R., Bouchard, P., Caldara, R., Colonnelli, E., Gürtekin, L., Hlavá, P., Korotyaev, B., Lyal, C.H.C., Machado, A., Meregalli, M., Pierotti, H., Ren, L., Sánchez-Ruiz, M., Sforzi, A., Silfverberg, H., Skuhrovec, J., Trýzna, M., Velázquez de Castro, A.J. & Yunakov, NN. (2017). Cooperative catalogue of Palaearctic Coleoptera Curculionoidea. *Monografías electrónicas*, 8, 1–729.
- Alonso-Zarazaga, M.A., Lyal, C.H.C. (1999). *A world catalogue of families and genera Curculionoidea (Insecta: Coleoptera) (excepting Scolytidae and Platypodidae)*. Barcelona: Entomopraxis.
- Anderson, R.S. (2002a). XV. Mesoptiliinae Lacordaire 1863. *American Beetles (Vol. 2) – Polyphaga: Scarabaeoidea through Curculionoidea*. Arnett, Jr. R.H., Thomas, M.C., Skelley, P.E., Frank, J.H. (eds.). CRC Press, Boca Raton, 786.
- Anderson, R.S. (2002b). XVI. Molytinae Schoenherr 1823. *American Beetles (Vol. 2) – Polyphaga: Scarabaeoidea through Curculionoidea*. Arnett, Jr. R.H., Thomas, M.C., Skelley, P.E., Frank, J.H. (eds.). CRC Press, Boca Raton, 786–792.
- Anderson, R.S., Oberprieler, R.G., Setliff, G.P. (2018). A review of the Araucaria-Associated weevils of the tribe Orthorhinini (Coleoptera: Curculionidae: Molytinae), with description of new species of *Ilacuris* Pascoe, 1865 and *Notopissodes* Zimmerman & Oberprieler, 2014 and a new genus, *Kuschelorhinus* Anderson & Setliff. *Diversity*, 10 (2), 54. <https://doi.org/10.3390/d10030054>
- Andrew, J.P., Ramamurthy, V.V. (2010). A checklist of weevils of the tribe Mecysolobini (Coleoptera: Curculionidae: Molytinae). *Oriental Insects*, 44, 271–336.
- Aslam, N.A. (1963). On the genera of Indo-Pakistan Cleoninae and Hylobiinae (Coleoptera: Curculionidae). *Bulletin of the British Museum (Natural History), Entomology*, 13, 47–66.
- Aurivillius, C. (1926). 49. Coleoptera-Curculionidae von Juan Fernandez und der Oster-Insel. Skottsborg, C. (ed.). *The Natural History of Juan Fernandez and Easter Island. Vol. 3 (Zoology)*. Almqvist & Wiksell's Boktryckeri, Uppsala, 461–478 + pl. 15–16.
- Champion, G.C. (1906–1909). *Biologia Centrali-Americanana. Insecta. Coleoptera. Rhynchophora. Curculionidae. Curculioninae (part)*, 4 (5).
- Champion, G.C. (1914). Reports of the Percy Sladen Trust expedition to the Indian Ocean in 1905, under the leadership of Mr J. Stanley Gardiner, M. A. Vol. 5. XIX. Coleoptera, Curculionidae. *Transactions of the Linnean Society of London*, (2) 16, 393–497 + pls. 322–324.
- Craw, R.C. (1999). Molytini (Insecta: Coleoptera: Curculionidae: Molytinae). *Fauna of New Zealand*, 39, 1–65.
- Dalla Torre, K.W., Schenkling, S., Marshall, G.A.K. (1932a). Curculionidae: Subfam. Hylobiinae. Schenkling, S. (ed.). *Coleopterorum Catalogus auspiciis et auxilio W. Junk*, 122, 1–112.
- Dalla Torre, K.W., Schenkling, S., Marshall, G.A.K. (1932b). Curculionidae: Subfam. Pissodinae. Schenkling, S. (ed.). *Coleopterorum Catalogus auspiciis et auxilio W. Junk*, 125, 1–29.
- Howden, A.T. (1992). Review of the New World eyeless weevils with uncinate tibiae (Coleoptera, Curculionidae; Molytinae, Cryptorhynchinae, Cossoninae). *Memoirs of the Entomological Society of Canada*, 162, 1–76.
- Hustache, A. (1936). Curculionidae: Cryptorrhynchinae. Schenkling, S. (ed.). *Coleopterorum Catalogus auspiciis et auxilio W. Junk*, 151, 1–317.

- Klima, A. (1935). Curculionidae: Trigonocolinae, Euderinae, Acicnemidinae. Schenkling, S. (ed.). *Coleopterorum Catalogus auspiciis et auxilio W. Junk*, 145, 1-3, 1, 1-10.
- Klima, A. (1936). Curculionidae: Cholinae. Schenkling, S. (ed.). *Coleopterorum Catalogus auspiciis et auxilio W. Junk*, 146, 1-32.
- Kojima, H., Idris, A.G. (2005). *Cotasteromorphus*, a new Cotasteromimina (Coleoptera, Curculionidae, Molytinae, Pissodini) from the Malaysian Moss Forests. *Elytra*, 33, 133-141.
- Kuschel, G. (1957). Revisión de la subtribu Epistrophina. *Revista Chilena de Entomología*, 5, 251-364.
- Kuschel, G. (1964). Insects of Campbell Island. Coleoptera: Curculionidae of the Subantarctic Islands of New Zealand. *Pacific Insects Monograph*, 7, 416-493.
- Kuschel, G. (1972). The Australian Phrynxinae (Coleoptera: Curculionidae). *New Zealand Journal of Science*, 15, 209-231.
- Kuschel, G. (1987). The subfamily Molytinae (Coleoptera: Curculionidae) general notes and descriptions of new taxa from New Zealand and Chile. *New Zealand Entomologist*, 9, 11-29.
- Lacordaire, T. (1865). *Histoire Naturelle des Insectes. Genera des Coléoptères ou exposé méthododique et critique de tous les genres proposés jusqu'ici dans cet ordre d'insectes*. 7. Paris. Roret.
- Legalov, A.A. (2010). Checklist of Mesozoic Curculionoidea (Coleoptera) with description of new taxa. *Baltic Journal of Coleopterology*, 10 (1), 71-101.
- Legalov, A.A. (2015). Fossil Mesozoic and Cenozoic weevils (Coleoptera, Obrienioidae, Curculionoidea). *Paleontological Journal*, 49 (13), 1442-1513. <http://doi.org/10.1134/S0031030115130067>
- Legalov, A.A. (2016). New weevils (Curculionidae) in Baltic amber. *Paleontological Journal*, 50 (9), 970-985. <https://doi.org/10.1134/S0031030116090057>
- Legalov, A.A. (2017). Contribution to the knowledge of the family Nemonychidae (Coleoptera) with descriptions of new taxa. *Ukrainian Journal of Ecology*, 7 (2), 64-87. http://dx.doi.org/10.15421/2017_22
- Legalov, A.A. (2018a). Annotated key to weevils of the world. Part 1. Families Nemonychidae, Anthribidae, Belidae, Ithyceridae, Rhynchitidae, Brachyceridae and Brentidae. *Ukrainian Journal of Ecology*, 8(1), 780-831. https://doi.org/10.15421/2018_280
- Legalov, A.A. (2018b). New weevils (Coleoptera, Curculionoidea) from the Eocene of the Green River, United States: Part 1. *Paleontological Journal*, 52 (3), 294-302. <https://doi.org/10.1134/S0031030118030061>
- Legalov, A.A., Poinar, G.Jr. (2015). New tribes of the superfamily Curculionoidea (Coleoptera) in Burmese amber. *Historical Biology*, 27 (5), 558-564. <https://doi.org/10.1080/08912963.2014.896908>
- Lyal, C.H.C. (1993). Cryptorhynchinae (Insecta: Coleoptera: Curculionidae). *Fauna of New Zealand*, 29, 1-307.
- Lyal, C.H.C. (1997). Weevil (Coleoptera: Curculionoidea) seed-predators of Syzygium and Eugenia spp. (Myrtaceae), with description of the Alcidodes expansitarsis species group (Coleoptera: Curculionidae: Molytinae: Mecysolobini). *Journal of Natural History*, 30, 1683-1706.
- Lyal, C.H.C. (2014a). 3.7.7. Molytinae Schoenherr, 1823. *Arthropoda: Insecta. Handbook of Zoology. Tb. 40: Coleoptera (Beetles). Vol. 3: Morphology and Systematics (Phytophaga)*. Editor(s): R.A.B. Leschen and R.G. Beutel, 529-569.
- Lyal, C.H.C. (2014b). 3.7.8. Mesoptiliinae Lacordaire, 1863. *Arthropoda: Insecta. Handbook of Zoology. Tb. 40: Coleoptera (Beetles). Vol. 3: Morphology and Systematics (Phytophaga)*. Editor(s): R.A.B. Leschen and R.G. Beutel, 570-576.
- Lyal, C.H.C. (2018). The problematic genus *Sclerocardius* (Coleoptera: Curculionidae: Molytinae: Ithyporini). *Diversity*, 10 (2), 74. <https://doi.org/10.3390/d10030074>
- Lyal, C.H.C., Curran, L.M. (2000). Seed feeding beetles of the weevil tribe Mecysolobini (Insecta: Coleoptera: Curculionidae) developing in seeds of trees in the Dipterocarpaceae. *Journal of Natural History*, 34, 1743-1847.
- Marshall, G.A.K. (1932). Notes on the Hylobiinae (Col., Curc.). *Annals and Magazine of Natural History*, (10) 9, 341-355.
- Morimoto, K. (1962). Key to families, subfamilies, tribes and genera of the superfamily Curculionoidea of Japan excluding Scolytidae, Platypodidae and Cossoninae, (Comparative morphology, phylogeny and systematics of the superfamily Curculionoidea of Japan. III). *Journal of the Faculty of Agriculture, Kyushu University*, 12, 21-66.
- Morimoto, K. (1978). On the genera of Oriental Cryptorhynchinae (Coleoptera: Curculionidae). *Esakia*, 11, 121-143.
- Morimoto, K. (1982). The family Curculionidae of Japan. 1. Subfamily Hylobiinae. *Esakia*, 19, 51-121.
- Morimoto, K., Kojima, H. (2007). Taxonomic notes on the tribe Mecysolobini (Coleoptera, Curculionidae), with descriptions of three new taxa from Japan. *Elytra*, 35, 226-237.
- Morimoto, K., Miyakawa, S. (1995). The family Curculionidae of Japan. VIII. Subfamily Acicnemidinae. *Esakia*, 35, 17-62.
- Morrone, J.J. (1996). The South American weevil genus Rhyephenes (Coleoptera: Curculionidae; Cryptorhynchinae). *Journal of the New York Entomological Society*, 104, 1-20.
- O'Brien, C.W., Wibmer, G.J. (1982). Annotated checklist of the weevils (Curculionidae sensu lato) of North America, Central America, and the West Indies (Coleoptera: Curculionoidea). *Memoirs of the American Entomological Institute*, 34, i-ix, 1-382.
- Oberprieler, R.G. (1988). The life history of Paramecops stapheliae (Marshall), with a review of the genus *Paramecops* (Coleoptera: Curculionidae: Molytinae). *Journal of Natural History*, 22, 1451-1464.
- Oberprieler, R.G. (1995). The weevils (Coleoptera: Curculionoidea) associated with cycads 1. Classification, relationships and biology. *Proceedings of the International Conference on Cycad Biology*, 295-365.
- Poinar, G.Jr., Legalov, A.A. (2014). New Cryptorhynchinae (Coleoptera: Curculionidae) in Dominican amber. *Historical Biology*, 26 (4), 502-534. <https://doi.org/10.1080/08912963.2013.797971>
- Schenkling, S. (1935). Curculionidae: Subfam. Magdalinae. Schenkling, S. (ed.). *Coleopterorum Catalogus auspiciis et auxilio W. Junk*, 141, 1-31.
- Schenkling, S., Marshall, G.A.K. (1934). Curculionidae: Laemosaccinae. Schenkling, S. (ed.). *Coleopterorum Catalogus auspiciis et auxilio W. Junk*, 139, 1-8.
- Schenkling, S., Marshall, G.A.K. (1937). Curculionidae: Trachodinae. Schenkling, S. (ed.). *Coleopterorum Catalogus auspiciis et auxilio W. Junk*, 154, 14.
- Stüben, P.E. (2007). Vorstudien zu einer Revision der westpaläarktischen Torneumatini – Taxonomie, Biologie und Ökologie (Coleoptera: Curculionidae: Cryptorhynchinae). Ein Blick unter die Grasnarbe des Lebens. *Snudebiller*, 8, 26-126.
- Vanin, S.A., Reichardt, H. (1976). Revision of the genera of Pacholenini, a Neotropical tribe of Hylobiinae (Coleoptera, Curculionidae). *Papéis Avulsos de Zoologia*, 29, 155-176.
- Vaurie, P. (1954). Revision of the genera *Anchyloynchus* and *Petalochilus* of the Petalochilinae (Coleoptera, Curculionidae). *American Museum Novitates*, 1651, 1-58.
- Vaurie, P. (1974). Revision of the South American genus *Odontoderes* (Coleoptera, Curculionidae, Cholinae). *American Museum Novitates*, 2542, 1-35.

- Viana, M.J. (1975). Revision de 'Petalochilinae' argentinos (Coleoptera, Curculionidae). *Revista del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia" e Instituto Nacional de Investigacion de las Ciencias Naturales (Entomologia)*, 5, 1–51.
- Voisin, J.-F. (1992). Notes sur les genres de la tribu des Anchonini 1. Généralités, redéfinition du genre *Anchonus* Schoenherr et description de cinq genres et de deux sous-genres nouveaux (Coleoptera, Curculionidae). *Nouvelle Revue d'Entomologie (N.S.)*, 9, 259–271.
- Wibmer, G.J. (1989). Revision of the new World Weevil genus *Tyloderma* Say (Coleoptera: Curculionidae) in Mexico, Central America, South America and West Indies. *Ecological Monographs*, 11, 1–118.
- Wibmer, G.J., O'Brien, C.W. (1986). Annotated checklist of the weevils (Curculionidae sensu lato) of South America (Coleoptera: Curculionoidea). *Memoirs of the American Entomological Institute*, 39, i–xvi, 1–563.
- Zherikhin, V.V., Egorov, A.B. (1991). *Zhuki-dolgonosiki (Coleoptera, Curculionidae) Dal'nego Vostoka SSSR (obzor podsemeistv s opisaniem novykh taksonov) [Weevils (Coleoptera, Curculionidae) from Russian Far East (review of subfamilies with description of new taxa)]*. Vladivostok. (in Russian).
- Zherikhin, V.V. (1987). Curculionidae from the Nepal Himalayas. Part 1. Molytinae (Insecta: Coleoptera). *Stuttgarter Beiträge zur Naturkunde*, (A), 1;1–43.

Citation:

Legalov, A.A. (2018). Annotated key to weevils of the world. Part 2. Subfamily Molytinae (Coleoptera, Curculionidae). Ukrainian Journal of Ecology, 8(4), 340–350.



This work is licensed under a Creative Commons Attribution 4.0. License