

**New genera of Alleculinae (Coleoptera: Tenebrionidae: Alleculinae: Alleculini)
based on morphological differences in the genus *Hymenalia* Mulsant,
with descriptions of two new species**

Vladimír NOVÁK

Nepasické náměstí 796, CZ-190 14 Praha 9 - Klánovice, Czech Republic
e-mail: alleculinae.vn@centrum.cz

Taxonomy, new genera, new status, new species, descriptions, Coleoptera, Tenebrionidae, Alleculinae, Alleculina, Doranalia, Havanalia, Hymenalia, Magdanalia, Nikomenalia, Prionalia, Palaearctic Region

Abstract. New genus *Doranalia* gen. nov. (with type species *Cistela rufipennis* Marseul, 1876) is described with species transferred from genus *Hymenalia* Mulsant, 1876 as follows: *Doranalia asahiensis* (Maeda & Nakane, 1991) comb. nov., *D. becvarei* (Novák, 2010) comb. nov., *D. bocaki* (Novák, 2010) comb. nov., *D. habashanica* (Novák, 2010) comb. nov., *D. holzschuhi* (Novák, 2010) comb. nov., *D. horaki* (Novák, 2010) comb. nov., *D. jaroslavi* (Novák, 2010) comb. nov., *D. kakadu* (Novák, 2010) comb. nov., *D. klapperichi* (Pic, 1955) comb. nov., *D. leigongshanica* (Novák, 2015) comb. nov., *D. merkli* (Novák, 2010) comb. nov., *D. pallidipennis* (Pic, 1926) comb. nov., *D. puetzi* (Novák, 2010) comb. nov., *D. rufipennis* (Marseul, 1876) comb. nov., *D. ryoi* (Akita & Masumoto, 2016) comb. nov., *D. sasajii* (Saitō, 2001) comb. nov., *D. unicolor* (Nakane, 1963) comb. nov., *D. wuliangica* (Novák, 2010) comb. nov. and *D. yunnanica* (Novák, 2010) comb. nov. New monotypical genus *Havanalia* gen. nov. is described with type species *Havanalia qazvinica* sp. nov. from Iran. Genus *Hymenalia* Mulsant is redescribed (based on type species *Cistela fusca* Illiger, 1794 (= *Cistela rufipes* Fabricius, 1792)) with following species: *Hymenalia castaneipennis* Fairmaire, 1884, *H. crassicollis* Fairmaire, 1866, *H. crassicollis obscurimembris* Pic, 1938, *H. darjeelingica* Novák, 2015, *H. graeca* Seidlitz, 1896, *H. gravida* (Küster, 1850), *H. morio* (L. Redtenbacher, 1849), *H. murzini* Novák, 2008, *H. rufipes* (Fabricius, 1792), *H. smirnovi* Dubrovina, 1978, *H. thailandica* Novák, 2015 and *H. wrasei* Novák, 2008. New genus *Magdanalia* gen. nov. (with type species *Prionychus denticulatus* Muche, 1982) is described with species transferred from genus *Hymenalia* Mulsant as follows: *Magdanalia afghanica* (Novák, 2015) comb. nov., *M. alenae* (Novák, 2007) comb. nov., *M. badia* (Kiesenwetter, 1861) comb. nov., *M. basalis* (Faust, 1877) comb. nov., *M. brignolii* (Muche, 1974) comb. nov., *M. denticulata* (Muche, 1982) comb. nov., *M. elongata* (Pic, 1925) comb. nov., *M. genuensis* (Novák, 2007) comb. nov., *M. iranica* (Novák, 2007) comb. nov., *M. jakli* (Novák, 2007) comb. nov., *M. kadleci* (Novák, 2015) comb. nov., *M. lalai* (Novák, 2007) comb. nov., *M. minyops* (Peyerimhoff, 1943) comb. nov., *M. obscuriceps* (Pic, 1925) comb. nov., *M. obscuripennis* (Pic, 1905) comb. nov., *M. orszuliki* (Novák, 2015) comb. nov., *M. picheyrei* (Peyerimhoff, 1943) comb. nov., *M. pseudojakli* (Novák, 2007) comb. nov., *M. purkynei* (Obenberger, 1917) comb. nov., *M. reticulata* (Seidlitz, 1896) comb. nov., *M. rungsi* (Peyerimhoff, 1943) comb. nov. and *M. zabitica* (Novák, 2015) comb. nov. Genus *Nikomenalia* Dubrovina, 1975 stat. nov. (with type species *Hymenalia kaszabi* Muche, 1972) is elevated from level of subgenus with species transferred from genus *Hymenalia* Mulsant as follows: *Nikomenalia impunctaticollis* (Dubrovina, 1975) comb. nov., *N. jinshanica* (Novák, 2015) comb. nov., *N. kaszabi* (Muche, 1972) comb. nov., *N. medvedevi* (Dubrovina, 1975) comb. nov., *N. minuta* (Pic, 1910) comb. nov., *N. pseudominuta* (Novák, 2015) comb. nov. and *N. schawalleri* (Novák, 2015) comb. nov. New genus *Prionalia* gen. nov. (with type species *Gonodera atronitens* Fairmaire, 1892) is described with species transferred from genus *Hymenalia* Mulsant as follows: *Prionalia atronitens* (Fairmaire, 1892) comb. nov. and *P. ehdonica* (Novák, 2017) comb. nov. New species are described as follows: *Havanalia qazvinica* sp. nov. and *Magdanalia alhazimiica* sp. nov. New distributional data on the species *Magdanalia picheyrei* (Peyerimhoff, 1943) (Morocco) is added.

INTRODUCTION

The genus *Hymenalia* was introduced by Mulsant (1856) for *Cistela fusca* Illiger, 1794 (= *Cistela rufipes* Fabricius, 1792) as a type species (Bousquet et al. 2015, Novák 2020 in press). Borchmann (1910) knew 11 species, Mader (1928) 15 species, and Novák & Pettersson (2008) listed 33 species in two subgenera. Further species were described later (Akita & Masumoto 2016, Novák 2007, 2008a, 2010, 2015a, b, 2017). In present, we know 61 species (Novák 2020 in press) in the Palaearctic Region, one of them and one further live in the Oriental Region.

Some species were described as *Allecula* Fabricius, 1801, *Mycetocharina* Seidlitz, 1890, *Prionychus* Solier, 1835, *Gonodera* Mulsant, 1856, *Isomira* Mulsant, 1856 or *Cistela* Fabricius, 1775. It is clear that this is a group with different morphological features. Dubrovina (1975) also noticed this and introduced new subgenus *Nikomenalia* Dubrovina, 1975, with type species *Hymenalia* (*Nikomenalia*) *kaszabi* Muche, 1972 and divided species of *Hymenalia* into four groups. Based on this and the study of individual species and their morphological features as listed in the Table 1 makes it possible to divide the original genus *Hymenalia* into new genera. Thus, we have *Doranalia* gen. nov., the species living in eastern parts of the Palaearctic Region (with type species *Cistela rufipennis* Marseul, 1876), monotypical *Havanalia* gen. nov. from Iran (with type species *Havanalia qazvinica* sp. nov.), *Hymenalia* Mulsant, 1856 mainly from western parts of the Palaearctic Region (with type species *Cistela fusca* Illiger, 1794 (= *Cistela rufipes* Fabricius, 1792)), *Magdanalia* gen. nov. from south-western parts of the Palaearctic Region (with type species *Prionychus denticulatus* Muche, 1982), *Nikomenalia* stat. nov. from eastern parts of the Palaearctic region (with type species *Hymenalia kaszabi* Muche, 1972) and *Prionalia* gen. nov. from western parts of the Palaearctic Region (with type species *Gonodera atronitens* Fairmaire, 1892).

New genus *Doranalia* gen. nov. is described with species transferred from genus *Hymenalia* Mulsant, 1876 as follows: *Doranalia asahiensis* (Maeda & Nakane, 1991) comb. nov., *D. becvarei* (Novák, 2010) comb. nov., *D. bocaki* (Novák, 2010) comb. nov., *D. habashanica* (Novák, 2010) comb. nov., *D. holzschuhi* (Novák, 2010) comb. nov., *D. horaki* (Novák, 2010) comb. nov., *D. jaroslavi* (Novák, 2010) comb. nov., *D. kakadu* (Novák, 2010) comb. nov., *D. klapperichi* (Pic, 1955) comb. nov., *D. leigongshanica* (Novák, 2015) comb. nov., *D. merkli* (Novák, 2010) comb. nov., *D. pallidipennis* (Pic, 1926) comb. nov., *D. puetzi* (Novák, 2010) comb. nov., *D. rufipennis* (Marseul, 1876) comb. nov., *D. ryoi* (Akita & Masumoto, 2016) comb. nov., *D. sasajii* (Saitô, 2001) comb. nov., *D. unicolor* (Nakane, 1963) comb. nov., *D. wuliangica* (Novák, 2010) comb. nov., *D. yunnanica* (Novák, 2010) comb. nov.

New monotypical genus *Havanalia* gen. nov. is described with type species *Havanalia qazvinica* sp. nov. from Iran.

Genus *Hymenalia* Mulsant is redescribed (based on type species *Cistela fusca* Illiger, 1794 (= *Cistela rufipes* Fabricius, 1792)) with following species: *Hymenalia castaneipennis* Fairmaire, 1884, *H. crassicollis* Fairmaire, 1866, *H. crassicollis obscurimembris* Pic, 1938, *H. darjeelingica* Novák, 2015, *H. graeca* Seidlitz, 1896, *H. gravida* (Küster, 1850), *H. morio*

(L. Redtenbacher, 1849), *H. murzini* Novák, 2008, *H. rufipes* (Fabricius, 1792), *H. smirnovi* Dubrovina, 1978, *H. thailandica* Novák, 2015, *H. wrasei* Novák, 2008.

New genus *Magdanalia* gen. nov. is described with species transferred from genus *Hymenalia* Mulsant as follows: *Magdanalia afghanica* (Novák, 2015) comb. nov., *M. alenae* (Novák, 2007) comb. nov., *M. badia* (Kiesenwetter, 1861) comb. nov., *M. basalis* (Faust, 1877) comb. nov., *M. brignolii* (Muche, 1974) comb. nov., *M. denticulata* (Muche, 1982) comb. nov., *M. elongata* (Pic, 1925) comb. nov., *M. genuensis* (Novák, 2007) comb. nov., *M. iranica* (Novák, 2007) comb. nov., *M. jakli* (Novák, 2007) comb. nov., *M. kadleci* (Novák, 2015) comb. nov., *M. lalai* (Novák, 2007) comb. nov., *M. minyops* (Peyerimhoff, 1943) comb. nov., *M. obscuriceps* (Pic, 1925) comb. nov., *M. obscuripennis* (Pic, 1905) comb. nov., *M. orszuliki* (Novák, 2015) comb. nov., *M. picheyrei* (Peyerimhoff, 1943) comb. nov., *M. pseudojakli* (Novák, 2007) comb. nov., *M. purkynei* (Obenberger, 1917) comb. nov., *M. reticulata* (Seidlitz, 1896) comb. nov., *M. rungsi* (Peyerimhoff, 1943) comb. nov. and *M. zabitica* (Novák, 2015) comb. nov.

Genus *Nikomenalia* Dubrovina, 1975 stat. nov. is elevated from level of subgenus with species transferred from genus *Hymenalia* Mulsant as follows: *Nikomenalia impunctatocollis* (Dubrovina, 1975) comb. nov., *N. jinshanica* (Novák, 2015) comb. nov., *N. kaszabi* (Muche, 1972) comb. nov., *N. medvedevi* (Dubrovina, 1975) comb. nov., *N. minuta* (Pic, 1910) comb. nov., *N. pseudominuta* (Novák, 2015) comb. nov. and *N. schawalleri* (Novák, 2015) comb. nov.

New genus *Prionalia* gen. nov. is described with species transferred from genus *Hymenalia* Mulsant as follows: *Prionalia atronitens* (Fairmaire, 1892) comb. nov. and *P. ehdonica* (Novák, 2017) comb. nov.

Differences between new genera are illustrated (mainly based on type species) and compared together.

New species are illustrated and described as follows: *Havanalia qazvinica* sp. nov. and *Magdanalia alhazimiica* sp. nov.

New distributional data on the species *Magdanalia picheyrei* (Peyerimhoff, 1943) (Morocco) is added.

MATERIAL AND METHODS

Two important morphometric characteristics used for the descriptions of species of the subfamily Alleculinae, the ‘ocular index’ dorsally (Campbell & Marshall 1964) and ‘pronotal index’ (Campbell 1965), are used in this paper as well. The ocular index equals $(100 \times \text{minimum dorsal distance between eyes}) / (\text{maximum width of head across eyes})$. The pronotal index is calculated as $(100 \times \text{length of pronotum along midline}) / (\text{width across basal angles of pronotum})$.

In the list of type material, a slash (/) separates data in separate rows, a double slash (//) separates different labels.

The following collection codes is used:

DFPC private collection of David Frank, Praha, Czech Republic;
HNHM Hungarian Natural History Museum, Budapest, Hungary;

MNHN Muséum National d'Histoire Naturelle, Paris, France;
 MTDG Staatliches Museum für Tierkunde, Dresden, Germany;
 NMPC National Museum, Praha, Czech Republic;
 OKZC private collection of Ondřej Konvička, Zlín, Czech Republic;
 VKBC private collection of Vítězslav Kubáň, Brno, Czech Republic;
 VNPC private collection of Vladimír Novák, Praha, Czech Republic;
 ZSMG Zoologische Staatssammlung München, Germany.

Measurements of body parts and corresponding abbreviations used in text are as follows:
 AL - total antennae length, BL - maximum body length, EL - maximum elytral length, EW - maximum elytral width, HL - maximum length of head (visible part), HW - maximum width of head, OI - ocular index dorsally, PI - pronotal index dorsally, PL - maximum pronotal length, PW - pronotal width at base, RLA - ratios of relative lengths of antennomeres 1-11 from base to apex ($3=1.00$), RL/WA - ratios of length / maximum width of antennomeres 1-11 from base to apex, RLT - ratios of relative lengths of tarsomeres 1-5 respectively 1-4 from base to apex ($1=1.00$).

Other abbreviations are used: bf= black frame; hb= handwritten black; pb= printed black; pl= pink label; pr= printed red; rl= red label; wl= white label; yl= yellow label.

Measurements were made with Olympus SZ 40 stereoscopic microscope with continuous magnification and with Soft Imaging System AnalySIS. Snapshots were taken by using camera Canon EOS 550 D and Canon Macro Photo Lens MP-E and software Helicon Focus 5.2.

TAXONOMY

Table 1: Main distinguishing morphological features in genera.

Genus / character	<i>Doranalia</i> gen. nov.	<i>Havanalia</i> gen. nov.	<i>Hymenalia</i> Mulsant	<i>Magdanalia</i> gen. nov.	<i>Nikomenalia</i> Dubrovina stat. nov.	<i>Prionalia</i> gen. nov.
Antenna long/short	Long	Short	Long	Short	Long	Long
Antennomeres 4-10	A little serrate	A little serrate	A little serrate	A little serrate	A little serrate	Serrate
Antennomeres 3/2	A little longer	Much longer	A little longer	Much longer	A little longer	Appr. 3=2
Antennomeres 3/4	Much shorter	A little shorter	Much shorter	Appr. 3=4	Much shorter	Much shorter
Body convex/flat	Rather flat	Rather flat	Convex	Rather flat	Rather flat	Convex
Dorsal surface glabrous/setose	Glabrous	Setose	Setose	Setose	Glabrous	Setose
Elytra oval/parallel	More parallel	Parallel	Oval	More parallel	More parallel	Oval
Pronotum Semicircular/Square shaped	Square shaped	Square shaped	Semicircular	Semicircular	Square shaped, lateral margin arcuate	Semicircular
Pronotum wide/narrow	Wide	Narrow	Wide	Wide	Wide	Wide
Sexual dimorphism	OI; Antenna; Ants 2-4	Ants 3-4	OI; Antenna; Ants 2-4	OI	OI; Antenna	Antenna; Ants 2-4
Space between eyes (male) narrow/wide	Narrow	Wide	Narrow	Narrow	Wide	Wide
Rows of punctures in elytral striae	Distinct	Indistinct	Indistinct	Distinct	Distinct	Indistinct

KEY TO THE GENERA

- | | | |
|-------|---|---|
| 1(2) | Space between eyes in males wide, distinctly wider than diameter of one eye. | 3 |
| 2(1) | Space between eyes in males narrow, distinctly narrower than diameter of one eye. | 7 |
| 3(4) | Dorsal surface of pronotum and elytra setose. | 5 |
| 4(3) | Dorsal surface of pronotum and elytra glabrous. | <i>Nikomenalia</i> Dubrovina, 1975 stat. nov. |
| 5(6) | Body oval, wide, convex, pronotum wide, antennomeres 3-10 strongly serrate, antennomere 2 of male approximately as long as antennomere 3. | <i>Prionalia</i> gen. nov. |
| 6(5) | Body elongate, narrow, more flat, pronotum narrow, antennomeres 3-10 slightly serrate, antennomere 3 of male distinctly longer than antennomere 2. | <i>Havanalia</i> gen. nov. |
| 7(8) | Dorsal surface of pronotum and elytra glabrous, pronotum square shaped. | <i>Doranalia</i> gen. nov. |
| 8(7) | Dorsal surface of pronotum and elytra setose, pronotum almost semicircular. | 9 |
| 9(10) | Body more oval, wide, convex, antennomere 2 of male approximately as long as or slightly shorter than antennomere 3. | <i>Hymenalia</i> Mulsant, 1856 |
| 10(9) | Body more elongate and narrow, rather flat, antennomere 3 of male approximately twice longer than antennomere 2. | <i>Magdanalia</i> gen. nov. |

Doranalia gen. nov.

(Figs. 1-4)

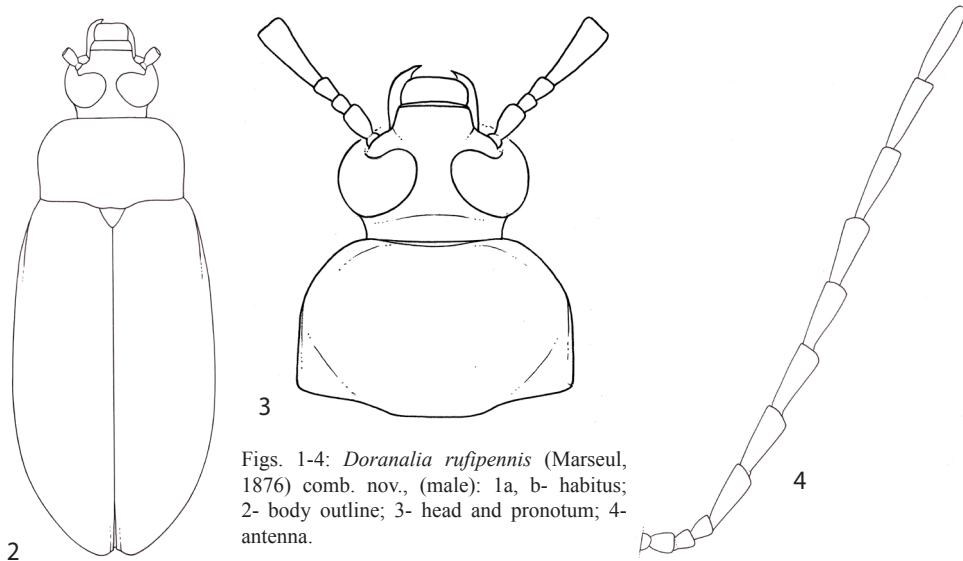
Type species: *Cistela rufipennis* Marseul, 1876.

Description (based on type species). Habitus as in Fig. 1, body outline (Fig. 2), body elongate oval, relatively narrow, parallel, dorsal surface glabrous, rather flat with punctuation. Widest near middle of elytra or in apical half elytra length. Head (Fig. 3) approximately as long as wide, widest through the eyes, slightly narrower than anterior margin of pronotum, distinctly narrower than base of pronotum. Dorsal surface with punctuation, microgranulation and sparse setae mainly in apical part and clypeus. Mandibles glabrous dorsally, shiny, with lateral margins parallel. Eyes very large, transverse, distinctly excised, space between eyes very narrow, distinctly narrower than diameter of one eye; distinctly wider than length of antennomere 2, approximately as wide as length of antennomere 2. Antenna (Fig. 4) long, distinctly exceeding two thirds body length, antennomeres with short setation, fine microgranulation and small punctures. Antennomere 2 shortest, antennomeres 3-10 little serrate, antennomere 2 little longer than antennomere 3, antennomere 3 much shorter than antennomere 4. Palpomeres 2 and 3 distinctly narrowest at base and widest at apex, ultimate palpomere triangular. Pronotum (Fig. 3) wide, transverse, square shaped, slightly narrower than base of elytra. Dorsal surface glabrous, with punctuation. Border lines very narrow, lateral margins parallel in basal half, arcuate in apical part. Base bisinuate, anterior margin almost straight. Posterior angles slightly obtuse or rectangular, anterior angles indistinct. Elytra elongate oval, glabrous, shiny. Elytral striae with distinct rows of small punctures. Elytral intervals with small, sparse and shallow punctures. Elytral epipleura well-developed, regularly narrowing to ventrite 1, then narrow and parallel. Legs long and narrow, with small punctures and dense, long setation. Tibiae widened anteriorly, protibiae with strong, short setae in outer side. Penultimate tarsomeres widened (distinctly wider than tarsomeres 1-3



1a

1b



Figs. 1-4: *Doranalia rufipennis* (Marseul, 1876) comb. nov., (male): 1a, b- habitus; 2- body outline; 3- head and pronotum; 4- antenna.

or 1-2) and lobed. Protarsal claws with 5 visible teeth. Ventral side of body with punctures. Abdomen with pale setae. Basal piece of aedeagus rounded laterally and narrowing dorsally, apical piece short, triangular dorsally and narrow in lateral view.

Females have body and space between eyes wider than in male. Antenna is slightly shorter than in male, antennomere 3 is much longer than antennomere 2.

Differential diagnosis (for main distinguishing features see Table 1). Similar genera are *Havanalia* gen. nov., *Hymenalia* Mulsant, 1856, *Magdanalia* gen. nov., *Nikomenalia* Dubrovina, 1975 stat. nov. and *Prionalia* gen. nov.

Species of *Doranalia* gen. nov. distinctly differs from species of similar genera by the main distinguishing morphological features listed in Table 1, which are as follows: body rather flat, dorsal surface of pronotum and elytra glabrous, pronotum wide and square shaped, elytra more parallel, antenna long, antennomeres 4-10 little serrate, antennomere 3 little longer than antennomere 2, antennomere 3 much shorter than antennomere 4, space between eyes in male narrow, rows of punctures in elytral striae distinct, sexual dimorphism present (OI and antennomeres 2-4).

Etymology. Compound name formed by *Dora-* (name of my granddaughter) and the ending *-alia* marking similarity to the genus *Hymenalia* Mulsant, 1856. Gender: feminine.

Distribution. China, East Siberia, Far East, Japan, South Korea, Taiwan, Oriental Region.

New combinations

Doranalia asahiensis (Maeda & Nakane, 1991) comb. nov.

Hymenalia asahiensis Maeda & Nakane, 1991: 6.

Type locality. Japan, Honshu, N. Echigo, Asahi Mountains, Mount Dorokujin.

Remarks. After checking the habitus of a male specimen in fig. 239 (Plate 56) in Akita & Masumoto (2016), it is clear that characters are consistent with the parameters in Table 1 and the species clearly belongs to *Doranalia* gen. nov.

Distribution. Japan.

Doranalia becvari (Novák, 2010) comb. nov.

Hymenalia becvari Novák, 2010: 194.

Type locality. China, Yunnan Province, Habashan Mountains, 27°20' N, 100°09' E, 2800-3150 m.

Material examined: Holotype (♂): wl: CHINA - YUNNAN / HABASHAN - Habashan Mts / 5.-13.vi.2002, alt.2800-3150 m / WGS 84: 27°20' N, 100°09' E / lgt. Bečvař S. & Fouque R.+H., (OKZC).

Remarks. *Doranalia becvari* (Novák, 2010) comb. nov. was described as *Hymenalia* (figs. in Novák 2010: 224: 1- habitus of holotype; 2- head and pronotum). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Doranalia* gen. nov.

Distribution. China (Yunnan Province).

***Doranalia bocaki* (Novák, 2010) comb. nov.**

Hymenalia bocaki Novák, 2010: 196.

Type locality. China, Southern Sichuan, 30 km northwest of Muli, 28°07'N 101°05'E, 3500 m.

Material examined: Paratype (♂): CHINA S Sichuan / 30 km NW Muli (BOWA) / 28°07'N 101°05'E, 3500 m / M. Bocak lgt., 2.vii.1998, (VNPC).

Remarks. *Doranalia bocaki* (Novák, 2010) comb. nov. was described as *Hymenalia* (figs. in Novák 2010: 224: 6- habitus of holotype; 7- head and pronotum). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Doranalia* gen. nov.

Distribution. China (Sichuan Province).

***Doranalia habashanica* (Novák, 2010) comb. nov.**

Hymenalia habashanica Novák, 2010: 198.

Type locality. China, Yunnan Province, Habashan Mountains, 27°19' N, 100°08' E, 3150-3500 m.

Material examined: Holotype (♂): wl: CHINA - YUNNAN / HABASHAN - Habashan Mts. / 6.-11.vi.2002, alt.3150-3500 / WGS 84: 27°19' N, 100°08' E / lgt. Bečvař S.& Fouque R.+H., (OKZC); (1 ♂): CHINA: N. Yunnan / 30km N of LIJIANG / 3000m, 3.VIII.1990 / L. &M. Bocák lgt., (VNPC).

Remarks. *Doranalia habashanica* (Novák, 2010) comb. nov. was described as *Hymenalia* (figs. in Novák 2010: 225: 11- habitus of holotype; 12- head and pronotum). In all morphological characters (as shown in Table 1), the species clearly belongs to the newly established genus *Doranalia* gen. nov.

Distribution. China (Yunnan Province).

***Doranalia holzschuhi* (Novák, 2010) comb. nov.**

Hymenalia holzschuhi Novák, 2010: 200.

Type locality. Central China, Shaanxi Province, Qinling Shan, 6 km East of Xunyangba, 1000-1300 m.

Material examined: Holotype (♂): C-CHINA, Shaanxi, Qinling / Shan, 6 km E of Xunyangba, / 1000-1300 m, 23.v.-13.vi. / leg. C. Holzschuh 2000, (VNPC).

Remarks. *Doranalia holzschuhi* (Novák, 2010) comb. nov. was described as *Hymenalia* (figs. in Novák 2010: 225: 15- habitus of holotype; 16- head and pronotum). In all morphological characters (as shown in Table 1), the species clearly belong to newly established genus *Doranalia* gen. nov.

Distribution. China (Shaanxi and Sichuan Provinces).

***Doranalia horaki* (Novák, 2010) comb. nov.**

Hymenalia horaki Novák, 2010: 202.

Type locality. North Vietnam, Tonkin, Vinh Phu Province, Tam Dao.

Material examined: Holotype (♂): N VIET NAM (Tonkin) / pr. Vinh Phu 1990 / TAM DAO 6.- 9.v. / Vit. Kubaň leg., (VNPC).

Remarks. *Doranalia horaki* (Novák, 2010) comb. nov. was described as *Hymenalia* (figs. in Novák 2010: 226: 20- habitus of holotype; 21- head and pronotum). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Doranalia* gen. nov.

Distribution. China (Yunnan Province), Oriental Region (Vietnam).

***Doranalia jaroslavi* (Novák, 2010) comb. nov.**

Hymenalia jaroslavi Novák, 2010: 204.

Type locality. China, N Jiangxi, Lushan Mountains, Guling, 29.6N 116.0D.

Material examined: Holotype (♂): China, N Jiangxi, 29.v. / Lushan mts. GULING / 29.6N 116.0E / Jaroslav Turna leg., 2004, (VNPC).

Remarks. *Doranalia jaroslavi* (Novák, 2010) comb. nov. was described as *Hymenalia* (figs. in Novák 2010: 226: 24- habitus of holotype; 25- head and pronotum). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Doranalia* gen. nov.

Distribution. China (Hubei, Hunan and Jiangxi Province).

***Doranalia kakadu* (Novák, 2010) comb. nov.**

Hymenalia kakadu Novák, 2010: 206.

Type locality. China, west of Hubei Province, Shennongjia Co., Yanzi Pass, 31°43'N, 110°28'E, 2200 m.

Material examined: Holotype (♂): CHINA, W - HUBEI, / SHENNONGJIA Co., YANZI / PASS, 31°43'/110°28', / 2200 m, 23.-26.6.95 / L.+ R. BUSINSKY lgt., (VNPC).

Remarks. *Doranalia kakadu* (Novák, 2010) comb. nov. was described as *Hymenalia* (figs. in Novák 2010: 227: 29- habitus of holotype; 30- head and pronotum). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Doranalia* gen. nov.

Distribution. China (Hubei Province).

Doranalia klapperichi (Pic, 1955) comb. nov.

Hymenalia klapperichi Pic, 1955: 30.

Hymenalia tschungseni Pic, 1955: 30.

Type locality. China, Fujian (Fukien) Province, Kuatun.

Material examined: Syntype (♂): wl: KUATUN, FUKIEN / China, [pb] 5.5 [hb]. 46 / (TSCHUNG SEN.) [pb] // wl with rf: Paratype [pr] / Hymenalia / klapperichi / Pic [hb] // rl: Paratype [pb] / Hymenalia / klapperichi / det. Pic [hb], (HNHM).

Remarks. *Doranalia klapperichi* (Pic, 1955) comb. nov. was described as *Hymenalia* (Pic 1955: 30); see figs. in Novák (2010: 227: 34- habitus of holotype; 35- head and pronotum). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Doranalia* gen. nov.

Distribution. China (Fujian, Sichuan Provinces, Taiwan).

Doranalia leigongshanica (Novák, 2015) comb. nov.

Hymenalia leigongshanica Novák, 2015a: 380.

Type locality. China, Guizhou prov., Leigongshan, Xijiang.

Material examined: Paratype: (♂): CHINA, W GUIZHOU prov. / LEIGONGSHAN, Xijiang / 29 May - 2 Jun 1997 / 1200-1900 m, Bolm lgt., (VNPC).

Remarks. *Doranalia leigongshanica* (Novák, 2015) comb. nov. was described as *Hymenalia* (figs. in Novák 2015a: 381: 43- habitus of holotype; 44- head and pronotum). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Doranalia* gen. nov.

Distribution. China (Guizhou Province).

Doranalia merkli (Novák, 2015) comb. nov.

Hymenalia merkli Novák, 2010: 210.

Type locality. Taiwan, Ilan county, Mingchyh Forest.

Material examined: Paratype (♂): TAIWAN, Ilan county, / Mingchyh Forest / Recreation Area, 1200 m, // swept from vegetation, / 5.iv.2002, / leg. Gy. Fabian & O. Merkl, (VNPC).

Remarks. *Doranalia merkli* (Novák, 2010) comb. nov. was described as *Hymenalia* (figs. in Novák 2010: 228: 43- habitus of holotype; 44- head and pronotum). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Doranalia* gen. nov.

Distribution. China (Taiwan).

Doranalia pallidipennis (Pic, 1926) comb. nov.

Hymenalia pallidipennis Pic, 1926: 31.

Type locality. China, Yunnan Province.

Material examined: Holotype (♂): wl: Yunnan / fou [pb] // pl: type [hb] // rl: TYPE [pb] // wl: Hymenalia / pallidipennis / n sp? [hb], (MNHN).

Remarks. *Doranalia pallidipennis* (Pic, 1926) comb. nov. was described as *Hymenalia* (figs. in Novák 2010: 228: 52- habitus of holotype; 53- head and pronotum). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Doranalia* gen. nov.

Distribution. China (Yunnan Province).

Doranalia puetzi (Novák, 2010) comb. nov.

Hymenalia puetzi Novák, 2010: 214.

Type locality. China, Prov. Sichuan, Ganzi Tibetan Auton. Pref., Shaluli Shan River Valley.

Material examined: Paratype (♂): China, Prov. Sichuan / Ganzi Tibetan Auton. Pref. / Yajiang Co., Shaluli Shan / River Valley, 6 km WSW / Yajiang, 3250 m / 30°08.07N, 100°42.36E / 4.vii.1999, leg. A. Putz, (VNPC).

Remarks. *Doranalia puetzi* (Novák, 2010) comb. nov. was described as *Hymenalia* (figs. in Novák 2010: 228: 54- habitus of holotype; 55- head and pronotum). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Doranalia* gen. nov.

Distribution. China (Sichuan Province).

Doranalia rufipennis (Marseul, 1876) comb. nov.

(Figs. 1-4)

Cistela rufipennis Marseul, 1876: 328.

Hymenalia rufipennis (Marseul, 1876): (Seidlitz 1896: 76, Borchmann 1910: 26, Novák & Pettersson 2008: 322).

Type locality. Japan, Nagasaki, Hiogo.

Material examined: (2 ♂♂): USSR - Far East; Primorski / reg., Benevskoe env., 24.vii. / 1993; M. Trýzna lgt., (VNPC).

Remarks. *Doranalia rufipennis* (Marseul, 1876) comb. nov. was described as *Cistela*. In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Doranalia* gen. nov.

Distribution. China, East Siberia, Far East, Japan, South Korea, Taiwan.

***Doranalia ryoii* (Akita & Masumoto, 2016) comb. nov.**

Hymenalia ryoii Akita & Masumoto, 2016: 6.

Type locality. Japan, Kumamoto-ken, Yatsushiro-shi, Izumi, Momiki, Mount Shiratori-yama.

Remarks. After checking habitus of male holotype in fig. 238 (Plate 56) in Akita & Masumoto (2016), it is clear that characters are consistent with the parameters in Table 1 and the species belongs to *Doranalia* gen. nov.

Distribution. Japan.

***Doranalia sasajii* (Saitô, 2001) comb. nov.**

Hymenalia sasajii Saitô, 2001: 347.

Type locality. Japan, Okinawa Prefecture, Ishigaki Island, Mount Omoko-dakD.

Remarks. After checking habitus of male fig. 241-1 and female paratype in fig. 241-2 (Plate 56) in Akita & Masumoto (2016), it is clear that characters are consistent with the parameters in Table 1 and the species belongs to *Doranalia* gen. nov.

Distribution. Japan.

***Doranalia unicolor* (Nakane, 1963) comb. nov.**

Hymenalia unicolor Nakane, 1963: 30.

Type locality. Japan, Honshu Island, Nagano, Shimashimadani.

Material examined: (1 ♂): JAPAN:Yamanashi-ken / Narusawa-mura / Fuji-rindô, 1300-1700m / 28.VII.20012 / Takashi OGASAWARA leg, (VNPC).

Remarks. After checking habitus of male and figs. 237-1, 2 and 4 (male) and fig. 237-3 (female) (Plate 56) in Akita & Masumoto (2016), it is clear that characters are consistent with the parameters in Table 1 and the species belongs to *Doranalia* gen. nov.

Distribution. Far East, Japan, South Korea.

***Doranalia wuliangica* (Novák, 2010) comb. nov.**

Hymenalia wuliangica Novák, 2010: 218.

Type locality. China, Yunnan, Dali Bai Auton. Pref., Wuliang Shan.

Material examined: Paratype (♂): CHINA (Yunnan) / Dali Bai Auton. Pref., / Wuliang Shan, 9 km SW / Weishan, 2450-2500 m, / 25°10'14"N/ 100°14'22"E / (sec. oak/pine for., beaten / from trees and bushes) / 13.vi.2007 D.W.Wrase [35D], (VNPC).

Remarks. *Doranalia wuliangica* (Novák, 2010) comb. nov. was described as *Hymenalia* (figs. in Novák 2010: 228: 68- habitus of holotype; 69- head and pronotum). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Doranalia* gen. nov.

Distribution. China (Yunnan Province).

***Doranalia yunnanica* (Novák, 2010) comb. nov.**

Hymenalia yunnanica Novák, 2010: 220.

Type locality. China, Yunnan, Dali zhou.

Material examined: Holotype (♂): CHINA, Yunnan prov. / Dali zhou, 31.vii. / 1993, 2500-3200 m / Binchuan c., JIZUSHAN / leg. C. Holzschuh, (VNPC).

Remarks. *Doranalia yunnanica* (Novák, 2010) comb. nov. was described as *Hymenalia* (figs. in Novák 2010: 228: 72- habitus of holotype; 73- head and pronotum). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Doranalia* gen. nov.

Distribution. China (Yunnan Province).

***Havanalia* gen. nov.**

(Figs. 5-10)

Type species: *Havanalia qazvinica* sp. nov.

Description. Habitus as in Fig. 5, body outline (Fig. 6), body small, elongate, sides parallel, shiny, rather flat with punctuation, very fine microgranulation and dense, pale setation. Widest near middle elytra length. Head (Fig. 7) relatively small, approximately as long as wide, as wide as anterior or posterior margin of pronotum, with relatively dense punctuation and sparse, short setae, shiny. Clypeus with long setae, excised in middle of apex. Mandibles rounded, glabrous, shiny, dorsal surface with sparse microgranulation. Eyes smaller, transverse, excised, space between eyes wide, distinctly wider than diameter of one eye and wider than length of each antennomere. Antenna (Fig. 8) relatively short, slightly exceeding half body length, antennomeres with short, dense setation, microgranulation and shallow punctures. Antennomeres 1 and 2 slightly shiny, rest of antennomeres matte. Antennomere 2 shortest, ultimate antennomere longest, antennomere 3 much longer than antennomere 2 and little shorter than antennomere 4, antennomeres 4-10 distinctly longer than antennomere 3 and slightly serrate. Maxillary palpus shiny, with a few setae and small punctures.

Ultimate palpalomere narrow, widest in apex. Pronotum (Fig. 7) slightly convex, narrow, distinctly narrower than base of elytra, square shaped, almost as long as wide, widest near middle. Dorsal surface shiny, with dense, recumbent setation, dense punctuation, punctures medium sized, interspaces between punctures as wide as or slightly wider than diameter of punctures. Border lines narrow. Lateral margins arcuate. Anterior margin finely arcuate, posterior margin slightly rounded, very finely bisinuate, anterior angles indistinct, posterior angles widely obtuse. Elytron more flat than convex, elongate, sides parallel, widest near middle elytra length. Dorsal surface with short and dense setation, dense punctuation and microgranulation, shiny. Rows of punctures in elytral striae indistinct. Scutellum roundly triangular with coarse punctures, shiny. Elytral epipleura well developed, with small punctures, regularly narrowing to ventrite 1, then leads narrow and parallel. Legs long and narrow, dorsal surface with setation and small punctures. Protibiae with a few short, strong setae in inner side. Penultimate tarsomeres lobed, approximately as wide as other tarsomeres. Both anterior tarsal claws with visible teeth. Ventral side of body shiny with short setation and small punctuation. Abdomen with six visible ventrites, shiny with long, recumbent setation, very fine microgranulation and shallow punctures. Penultimate ventrite with narrow, longitudinal keel in middle, ultimate ventrite roundly excised in middle. Aedeagus (apical piece as in Figs. 9 and 10) shiny. Basal piece rounded in lateral view and slightly narrowing dorsally. Apical piece elongate triangular and beak-shaped dorsally and laterally.

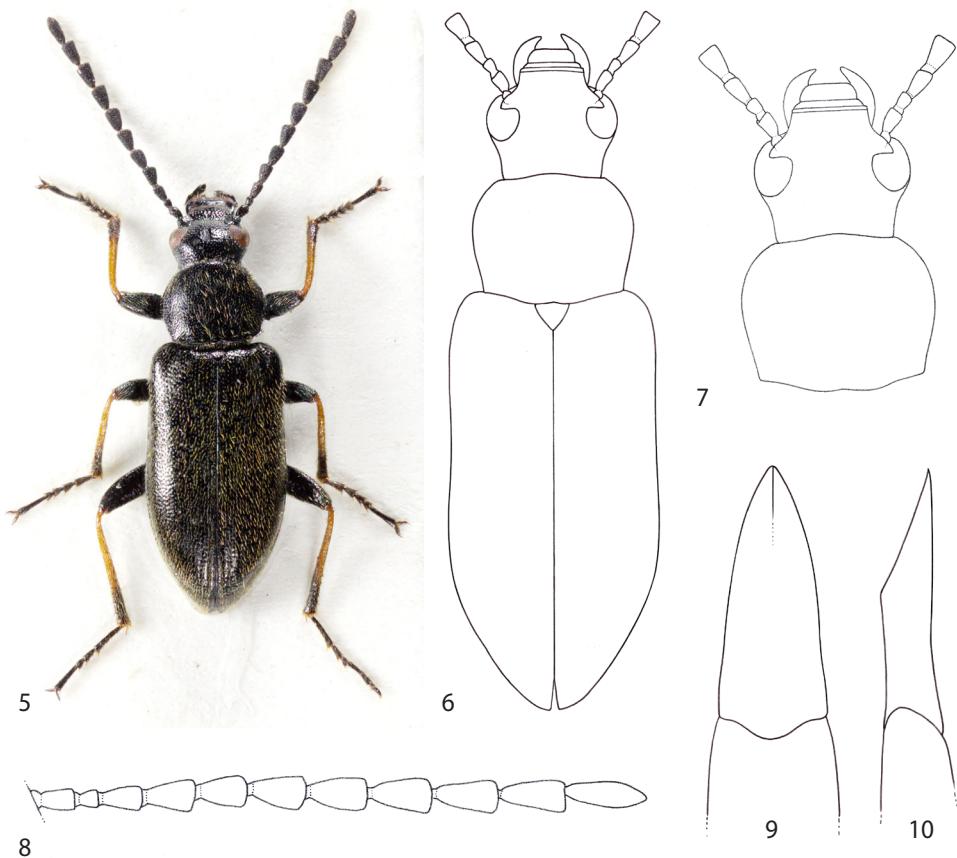
Females have more robust and wider body and shorter antenna than in male. Antennomere 3 is slightly longer than antennomere 4, anterior tarsal claws have less teeth than in male.

Differential diagnosis (for main distinguishing features see Table 1). Similar genera are *Doranalia* gen. nov., *Hymenalia* Mulsant, 1856, *Magdanalia* gen. nov., *Nikomenalia* Dubrovina, 1975 stat. nov. and *Prionalia* gen. nov.

Species of *Havanalia* gen. nov. distinctly differs from species of similar genera by the main distinguishing morphological features listed in Table 1, which are as follows: body rather flat, dorsal surface of pronotum and elytra setose, pronotum narrow and square shaped, elytra parallel, antenna short, antennomeres 4-10 little serrate, antennomere 3 much longer than antennomere 2, antennomere 3 little shorter than antennomere 4, space between eyes in male wide, rows of punctures in elytral striae indistinct, sexual dimorphism present (antennomeres 2-4).

Etymology. Compound name formed by *Hava-* (name of my friend Jiří Háva, Únětice, Czech Republic - word known expert in beetle family Dermestidae) and the ending *-nalia* marking similarity to the genus *Hymenalia* Mulsant, 1856. Gender: feminine.

Distribution. Iran.



Figs. 5-10: *Havanalia qazvinica* sp. nov.: 5-8: male holotype: 5- habitus; 6- body outline; 7- head and pronotum; 8- antenna; 9- aedeagus, dorsal view; 10- aedeagus, lateral view.

***Havanalia qazvinica* sp. nov.**
(Figs. 5-10)

Type locality. Northern Iran, Qazvin Province, Alborz mountains, 36°05'36''N, 50°30'16''E, 50 km SEE of QAZVIN, 2.5 km SWW of Ziyaran, 1475 m.

Type material. Holotype (♂): IRAN-N, Qazvin prov., 1475m, / Alborz mts., 36°05'36''N / 50°30'16''E, 50 km SEE of / QAZVIN: Ziyaran (2.5 km SWW), / 16.v.2016, Vit. Kubáň leg., (NMPC). Paratypes: (6 ♂♂, 8 ♀♀): same data as holotype, (VKBC, VNPC); (1 ♂, 4 ♀♀): IRN, E Qazvin prov., / 2 km W Ziyaran, 1820 mm / 36°06'36''N, 50°30'14''E, / 16.V.2016 leg. David Frank, (DFPC, VNPC). The types are provided with a printed red label: 'Havanalia / qazvinica sp. nov. / HOLOTYPE [or PARATYPE] / V. Novák det. 2020'.

Description of holotype. Habitus as in Fig. 5, body outline (Fig. 6), body elongate, sides parallel, dorsal surface black, shiny, with punctuation, very fine microgranulation and dense, pale setation, BL 5.12 mm. Widest near middle elytra length; BL/EW 3.07.

Head (Fig. 7) black, relatively small, approximately as long as wide, as wide as anterior or posterior margin of pronotum, with relatively dense punctuation and sparse, short setae, shiny. Clypeus with long, pale setae, excised in middle of apex. Mandibles black, rounded, glabrous, shiny, dorsal surface with sparse microgranulation. HW 0.94 mm; HW/PW 0.94. HL (visible part) 0.91 mm. Eyes smaller, transverse, excised, space between eyes wide, distinctly wider than diameter of one eye and wider than length of each antennomere; OI equal to 53.54.

Antennae (Fig. 8). Short, black (AL 2.65 mm, slightly exceeding half body length, AL/BL 0.52), antennomeres with short, dense, dark setation, microgranulation and shallow punctures. Antennomeres 1 and 2 slightly shiny, rest of antennomeres matte. Antennomere 2 shortest, ultimate antennomere longest, antennomeres 4-10 distinctly longer than antennomere 3 and slightly serrate.

RLA(1-11): 0.77 : 0.55 : 1.00 : 1.18 : 1.18 : 1.31 : 1.37 : 1.45 : 1.55 : 1.49 : 1.80.

RL/WA(1-11): 1.44 : 1.33 : 1.96 : 1.71 : 1.77 : 1.81 : 1.89 : 1.90 : 2.03 : 2.05 : 3.07.

Maxillary palpus black, shiny, with a few setae and small punctures. Ultimate palpomere narrow, widest in apex.

Pronotum (Fig. 7) black, slightly convex, narrow, distinctly narrower than base of elytra, almost as long as wide, widest near middle. Dorsal surface shiny, with dense, recumbent, golden setation, dense punctuation, punctures medium sized, interspaces between punctures as wide as or slightly wider than diameter of punctures. Border lines narrow. Lateral margins arcuate. Anterior margin finely arcuate, posterior margin slightly rounded, very finely bisinuate, anterior angles indistinct, posterior angles widely obtuse. PL 0.98 mm; PW 1.11 mm; PI equal to 88.29.

Elytron black, more flat than convex, elongate, sides parallel, widest near middle elytra length. Dorsal surface with short and dense, pale setation, dense punctuation and microgranulation, shiny. Rows of punctures in elytral striae indistinct. EL 3.23 mm; EW 1.67 mm; EL/EW 1.93.

Scutellum. Black, roundly triangular with coarse punctures, shiny.

Elytral epipleura well developed, black, with small punctures, regularly narrowing to ventrite 1, then leads narrow and parallel.

Legs black, long and narrow, tibiae pale reddish brown with darker, blackish brown apical part. Dorsal surface with pale setation (tibiae and femora) and dark setation (tarsi) and small punctures. Protibiae with a few short, strong setae on inner side. Penultimate tarsomeres lobed, as wide as other tarsomeres. RLT: 1.00 : 0.70 : 0.53 : 0.65 : 2.25 (protarsus), 1.00 : 0.61 : 0.53 : 0.52 : 1.71 (mesotarsus), 1.00 : 0.38 : 0.25 : 0.87 (metatarsus).

Anterior tarsal claws with 9 and 11 visible teeth.

Ventral side of body black, shiny with short, pale setation and small punctuation. Abdomen with six visible ventrites, black, shiny with long, recumbent, pale setation, very fine microgranulation and shallow punctures. Penultimate ventrite with narrow, longitudinal keel in middle, ultimate ventrite roundly excised in middle.

Aedeagus (Figs. 9 and 10). Pale brown, shiny. Basal piece rounded in lateral view and slightly narrowing dorsally. Apical piece elongate triangular and beak-shaped dorsally and laterally. Ratio of length of apical piece to length of basal piece in dorsal view 1: 3.63.

Female has body more robust and wider and antenna is shorter than in male. Anterior tarsal claws have 6 visible teeth.

Measurements. BL 5.31 mm; HL 0.86 mm; HW 0.90 mm; OI 55.22; PL 1.08 mm; PW 1.23 mm; PI 87.81; EL 3.37 mm; EW 1.91 mm; AL(1-11) 2.23 mm; AL(1-11)/BL 0.42; BL/EW 2.78; HW/PW 0.73; EL/EW 1.76.

RLA(1-11): 0.57 : 0.39 : 1.00 : 0.93 : 0.85 : 1.00 : 0.93 : 1.18 : 1.11 : 1.07 : 1.48.

RL/WA(1-11): 1.72 : 1.40 : 3.00 : 2.17 : 1.64 : 1.86 : 1.72 : 1.87 : 2.00 : 1.93 : 2.67.

RLT: 1.00 : 0.64 : 0.72 : 0.51 : 2.49 (protarsus); 1.00 : 0.60 : 0.44 : 0.40 : 1.56 (mesotarsus); 1.00 : 0.39 : 0.26 : 0.93 (metatarsus).

Variability. The type specimens somewhat vary in size; each character is given as its mean value, with full range in parentheses. Males (n=8). BL 5.02 mm (4.53-5.41 mm); HL 0.90 mm (0.80-0.98 mm); HW 0.94 mm (0.83-1.02 mm); OI 53.33 (50.49-58.37); PL 0.98 mm (0.86-1.12 mm); PW 1.13 mm (0.94-1.27 mm); PI 87.35 (83.63-91.49); EL 3.10 mm (2.87-3.36 mm); EW 1.65 mm (1.43-1.81 mm). Females (n=12). BL 5.92 mm (5.31-7.01 mm); HL 0.99 mm (0.86-1.11 mm); HW 1.03 mm (0.90-1.16 mm); OI 54.51 (50.34-58.36); PL 1.14 mm (1.03-1.43 mm); PW 1.33 mm (1.16-1.55 mm); PI 85.21 (82.03-92.26); EL 3.79 mm (3.37-4.47 mm); EW 2.07 mm (1.91-2.44 mm).

Differential diagnosis. See Differential diagnosis in new genus *Havanalia* gen. nov.

Etymology. Toponymic, after the name of Qazvin Province in Iran.

Distribution. Iran (Qazvin Province).

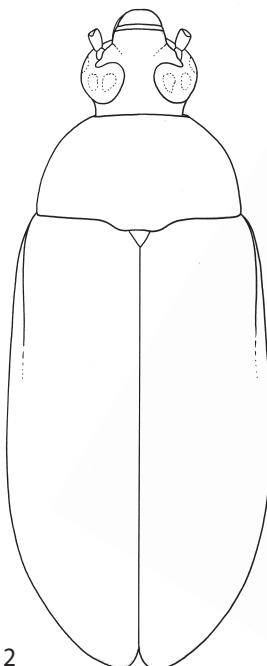
genus *Hymenalia* Mulsant, 1856
(Figs. 11-14)

Type species: *Cistela fusca* Illiger, 1794 (= *Cistela rufipes* Fabricius, 1792).

Redescription (based on type species). Habitus as in Figs. 11, body outline (Fig. 12), body wide, convex, oval, dorsal surface with setation, microgranulation and punctuation. Widest near middle or in apical part of elytra length. Head (Fig. 13) approximately as long as wide, widest through the eyes distinctly wider than anterior part of pronotum, with punctuation, microgranulation and setation. Eyes very large, transverse, distinctly excised, space between eyes very narrow, distinctly narrower than diameter of one eye; wider than length of antennomere 2 or 3, narrower than length of each antennomere 4-11. Antenna (Fig. 14) long, exceeding two thirds body length, with short, dense setation, small punctures and fine microgranulation. Antennomeres 4-10 widened apically and much longer than antennomere 3, antennomere 2 shortest, antennomere 3 short, only little longer than antennomere 2. Ultimate palpomere axe-shaped. Pronotum (Fig. 12) wide, transverse, semicircular, approximately as wide as base of elytra. Dorsal surface with setation, microgranulation and punctuation, shiny. Border lines very narrow, lateral and anterior margins arcuate. Base bisinuate. Posterior angles obtuse, anterior angles indistinct. Elytra wide, oval,



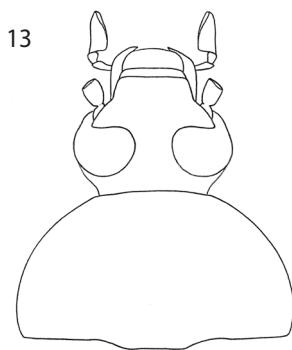
11



12



14



13

Figs. 11-14: *Hymenalia rufipes* (Fabricius, 1792) (male): 11- habitus; 12- body outline; 13- head and pronotum; 14- antenna.

convex, dorsal surface with setation, punctuation and microgranulation, shiny. Elytral striae indistinct. Elytral epipleura well-developed, with short setation regularly narrowing from base to apex. Legs long and narrow, with dense setation. Tibiae narrow, widened anteriorly. Penultimate tarsomeres weakly widened and lobed, as wide as other tarsomeres. Protarsal claws with 8 visible teeth. Abdomen with dense, recumbent setation, fine microgranulation and sparse, small punctures. Ultimate ventrite roundly excised. Aedeagus strong, basal piece rounded laterally, beak-shaped dorsally and laterally.

Material examined: (1 ♂): Slovakia mer. / Zádiel 20.7. / lgt. T. Janů 98., (VNPC); (1 ♀): Bohemia c. pb 29.6.1993 hb / Praha-Radotín / Slavičí údolí / J. Strejček lgt., (VNPC).

Female has space between eyes wider than in male, wider than diameter of one eye. Antennomere 3 is more than twice longer than antennomere 2 and antennomere 4 is less than twice longer than antennomere 3. Protarsal claws have less teeth.

Differential diagnosis (for main distinguishing features see Table 1). Similar genera are *Doranalia* gen. nov., *Havanalia* gen. nov., *Magdanalia* gen. nov., *Nikomenalia* Dubrovina, 1975 stat. nov. and *Prionalia* gen. nov.

Species of *Hymenalia* Mulsant, 1856 distinctly differs from species of similar genera by the main distinguishing morphological features listed in Table 1, which are as follows: body convex, dorsal surface of pronotum and elytra setose, pronotum wide and semicircular, elytra oval, antenna long, antennomeres 4-10 little serrate, antennomere 3 little longer than antennomere 2, antennomere 3 much shorter than antennomere 4, space between eyes in male narrow, rows of punctures in elytral striae indistinct, sexual dimorphism present (OI and antennomeres 2-4).

Distribution. Western parts of the Palaearctic Region: Europe, North Africa. Asia: China (Yunnan Province), India (Sikkim and Darjeeling), Iran, Turkey. Oriental Region: Thailand.

List of species

- genus *Hymenalia* Mulsant, 1856: 48, type species: *Cistela fusca* Illiger, 1794 (= *Cistela rufipes* Fabricius, 1792)
Hymenalia castaneipennis Fairmaire, 1884: 172
Hymenalia crassicollis *crassicollis* Fairmaire, 1866: 47
= *Isomira bispilosa* Desbrochers des Loges, 1884: 169
Hymenalia crassicollis *obscurimembris* Pic, 1938: 14
Hymenalia darjeelingica Novák, 2015: 373
Hymenalia graeca Seidlitz, 1896: 80
= *Gonodera delagrangei* Fairmaire, 1892: 150
Hymenalia gravida Küster, 1850: 77 (*Cistela*)
Hymenalia morio (L. Redtenbacher, 1849: 602) (*Cistela*)
= *Cistela amplicollis* Linder, 1864: 251
Hymenalia murzini Novák, 2008: 208
Hymenaia rufipes (Fabricius, 1792: 44) (*Cistela*)
= *Cistela fusca* Illiger, 1794: 610
= *Gonodera pauliani* Pic, 1931: 13
= *Hymenaia sericans* Rey, 1892: 65
Hymenalia smirnovi Dubrovina, 1978: 54
Hymenalia thailandica Novák, 2015: 386
Hymenalia wrasei Novák, 2008: 211

***Magdanalia* gen. nov.**
(Figs. 15-18)

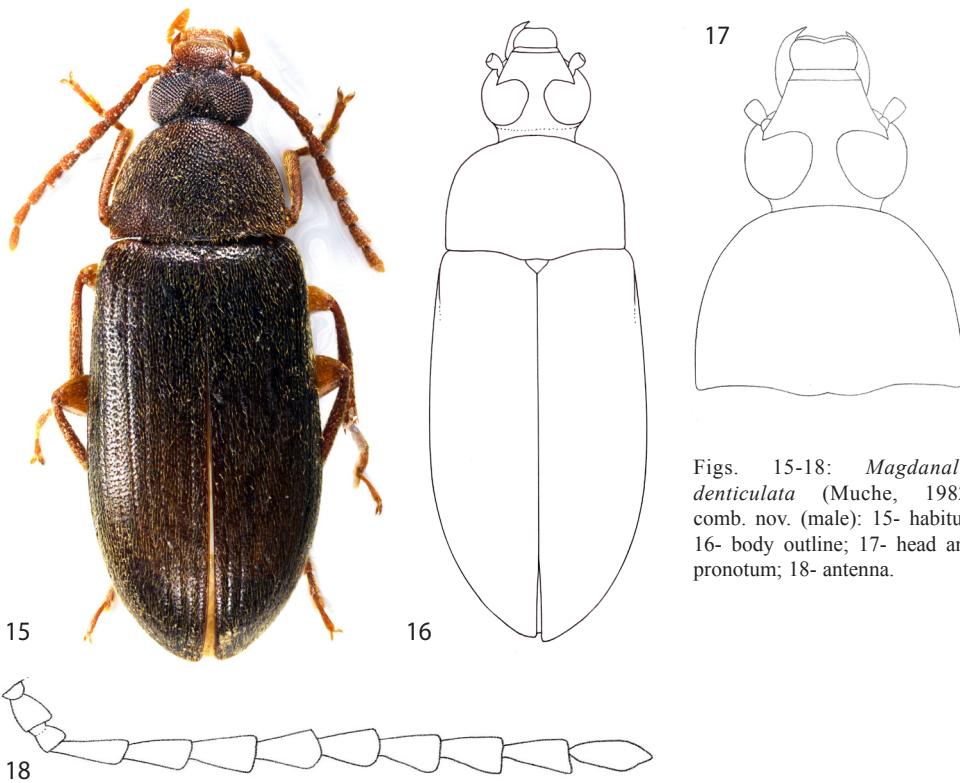
Type species: *Prionychus denticulatus* Muche, 1982.

Description (based on type species). Habitus as in Fig. 15, body outline (Fig. 16), body narrow, elongate, parallel, rather flat, dorsal surface with setation, microgranulation and punctuation. Widest near middle or in two thirds elytra length. Head (Fig. 17) approximately as long as wide, widest through the eyes, with punctuation, microgranulation and setation. Clypeus with small and shallow punctures and microgranulation, rounded apically. Mandibles glabrous dorsally, shiny. Eyes very large, transverse, distinctly excised, space between eyes narrow, narrower than diameter of one eye; as wide as length of antennomere 2. Antenna (Fig. 18) short, not reaching half body length, antennomere 2 shortest, antennomere 3 much longer than antennomere 2, antennomere 3 approximately as long as antennomere 4, antennomeres 4-10 little serrate, surface with setation, fine microgranulation and small punctures. Palpomeres 2 and 3 distinctly narrowest at base and widest at apex, ultimate palpomere triangular, axe shaped. Pronotum (Fig. 17) wide, transverse, almost semicircular, slightly convex, approximately as wide as base of elytra. Dorsal surface with setation, microgranulation and punctuation. Border lines very narrow, lateral margins parallel in posterior part and arcuate in apical half. Base finely bisinuate, anterior margin arcuate. Posterior angles rectangular, anterior angles indistinct. Elytra long and relatively narrow, slightly oval, rather flat, with setation. Elytral striae with distinct rows of small punctures. Elytral intervals with fine microgranulation and punctures as large as those in striae. Elytral epipleura well-developed, with punctures and setation, narrowing to ventrite 2, then narrow leads parallel. Legs narrow with very small punctures, setation and fine microgranulation. Tibiae widened apically. Penultimate tarsomeres as wide as other tarsomeres, distinctly lobed. Tarsal claws with 8 and 10 teeth. Ventral side of body with setation and punctuation. Basal piece of aedeagus arcuate laterally and narrowing in dorsal view, apical piece narrow, beak-shaped dorsally and laterally.

Females have space between eyes slightly wider than in male. Anterior tarsal claws have less teeth than in male.

Differential diagnosis (for main distinguishing features see Table 1). Similar genera are *Doranalia* gen. nov., *Havanalia* gen. nov., *Hymenalia* Mulsant, 1856, *Nikomenalia* Dubrovina, 1975 stat. nov. and *Prionalia* gen. nov.

Species of *Magdanalia* gen. nov. distinctly differ from species of similar genera by the main distinguishing morphological features listed in Table 1, which are as follows: body rather flat, dorsal surface of pronotum and elytra setose, pronotum wide and semicircular, elytra more parallel, antenna short, antennomeres 4-10 little serrate, antennomere 3 much longer than antennomere 2, antennomere 3 approximately as long as antennomere 4, space between eyes in male narrow, rows of punctures in elytral striae distinct, sexual dimorphism present (OI).



Figs. 15-18: *Magdanalia denticulata* (Muche, 1982) comb. nov. (male): 15- habitus; 16- body outline; 17- head and pronotum; 18- antenna.

Etymology. Compound name formed by *Magda-* (first name of my second daughter) and the ending *-nalia* marking similarity to the genus *Hymenalia* Mulsant, 1856. Gender: feminine.

Distribution. Western parts of the Palaearctic Region: Northern Africa. Europe: Armenia, Azerbaijan, Bulgaria, Caucasus, Greece, Macedonia, Romania, Turkey. Asia: Arabian Peninsula, Afghanistan, Iran, Iraq, Jordan, Turkey, Turkmenistan.

New combinations

Magdanalia afghanica (Novák, 2015) comb. nov.

Hymenalia afghanica Novák, 2015b: 72.

Type locality. East Afghanistan, Sarobi, 1 100 m.

Material examined: Holotype (♂): O. Afghanistan / Sarobi 1 100 m / 4.VI.1961 / leg. G. Ebert, (ZSMG).

Remarks. *Magdanalia afghanica* (Novák, 2015) comb. nov. was described as *Hymenalia*

(figs. in Novák 2015b: 72: 1- habitus of holotype; 2- head and pronotum). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Magdanalia* gen. nov.

Distribution. Afghanistan.

***Magdanalia alenae* (Novák, 2007) comb. nov.**

Hymenalia alenae Novák, 2007: 152.

Type locality. Southern Yemen, North of Lahij, N 13°10', E 44°49', 258 m.

Material examined: Holotype (♂): S YEMEN, N of Lahij, N 13°10', E 44°49', 258 m, 23.x.2005, lgt. P. Kabatek, (VNPC).

Remarks. *Magdanalia alenae* (Novák, 2007) comb. nov. was described as *Hymenalia* (figs. in Novák 2007: 153: 1- habitus of holotype; 2- head and pronotum; 3- antenna). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Magdanalia* gen. nov.

Distribution. Yemen.

***Magdanalia badia* (Kiesenwetter, 1861) comb. nov.**

Cistela badia Kiesenwetter, 1861: 234.

Hymenalia badia (Kiesenwetter, 1861): (Seidlitz 1896: 76, Borchmann 1910: 25, Novák & Pettersson 2008: 322).

Type locality. Greece, Crete Island, Zebe.

Material examined: (1 ♂): wl with bf: Kaisariani [hb] / Athen [pb] 18.VI. [hb] 1914 [pb] // wl: *Hymenalia / badia* [hb] / Dr. Mařan det. [pb], (NMPC); (1 ♂): TURCIA occ. / Pamukkale env. / 28.vi.2002 / leg. P. Heřman, (VNPC).

Remarks. Based on checking the species material examined, the characters were shown to be consistent with the parameters in Table 1 and the species clearly belongs to *Magdanalia* gen. nov.

Distribution. Azerbaijan, Greece, Turkey.

***Magdanalia basalis* (Faust, 1877) comb. nov.**

Allecula basalis Faust, 1877: 320.

Hymenalia basalis (Faust, 1877): (Seidlitz 1896: 76, Borchmann 1910: 26, Novák & Pettersson 2008: 322).

Type locality. South Russian territory, Dagestan, Derbent.

Material examined: (1 ♂, 1 ♀): IRAN, 17.-18.V.2006 / Khorasan Razni Prov. / 7 km E Bazangan / (stream valley; at light) 36°16,9'N 60°31,3'E; 740 m / Jiří Hájek & Pavel Chvojka leg., (VNPC).

Remarks. Based on checking the material examined (figs. in Novák 2015b: 74: 5- habitus; 6- head and pronotum), it is obvious that characters are consistent with the parameters in Table 1 and the species clearly belongs to *Magdanalia* gen. nov.

Distribution. Armenia, Azerbaijan, Caucasus, Iran, South Russian territory (Dagestan), Turkmenistan.

***Magdanalia brignolii* (Muche, 1974) comb. nov.**

Allecula brignolii Muche, 1974: 219.

Hymenalia brignolii (Muche, 1974): (Novák 2007: 155, Novák & Pettersson 2008: 322).

Type locality. Turkey, Canakkale village, Intepe.

Material examined: Holotype (♀): wl: TURCHIA vill. Canakkale, Intepe 31.vii.67, Sbordoni leg. [pb] LUCE [hb] // rl: det. Muche 19 [pb], Holotypus, *Allecula brignolii* n. 74 [hb], coll. Muche (MTDG).

Remarks. After checking the holotype, Novák (2007: 155) states that the characters are consistent with the parameters in Table 1 and the species clearly belongs to *Magdanalia* gen. nov.

Distribution. Turkey.

***Magdanalia denticulata* (Muche, 1982) comb. nov.**

(Figs. 15-18)

Prionychus denticulata Muche, 1982: 122.

Hymenalia denticulata (Muche, 1982): (Novák 2007: 156; Novák & Pettersson 2008: 322).

Type locality. Oman, Dhofar.

Material examined: Paratype (♀): wl: Dhofar, Oman, x.1979, TB Larsen [pb] // rl: *Paratypoid* [pb] // 1981, *Prionychus denticulatus* nov., W. Heinz MUCHE [pb], coll. Muche (MTDG). (1 ♂): UAE Wadi Safad, 21.ii.- / 4.iii.2006, light traps / A. van Harten lgt., (VNPC).

Remarks. After checking paratype Novák (2007: 156) and examining male, it is clear that characters are consistent with the parameters in Table 1 and the species clearly belongs to *Magdanalia* gen. nov.

Distribution. Arab Emirates, Oman, Saudi Arabia.

***Magdanalia elongata* (Pic, 1925) comb. nov.**

Hymenalia elongata Pic, 1925: 2.

Type locality. Greece, Kefalonia.

Remarks. Following Dubrovina (1975) and her dividing into groups, *Hymenalia elongata* Pic, 1925 belongs to *Magdanalia* gen. nov. as *Magdanalia elongata* (Pic, 1925) comb. nov.

Distribution. Greece.

***Magdanalia genuensis* (Novák, 2007) comb. nov.**

Hymenalia genuensis Novák, 2007: 156.

Type locality. Southern Iran, Hormozgan Province, 25 km. Northeast of Khamir, 27° 05' N, 55° 50' E.

Material examined: Paratype (♂): Loc. no. 317: S Iran, 25 km NE Khamir, 26.-27.iv.1977, Exped. Nat. Mus. Praha, (VNPC).

Remarks. *Magdanalia genuensis* (Novák, 2007) comb. nov. was described as *Hymenalia* (figs. in Novák 2007: 153: 8- habitus of holotype; 9- head and pronotum; 10- antenna). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Magdanalia* gen. nov.

Distribution. Iran.

***Magdanalia iranica* (Novák, 2007) comb. nov.**

Hymenalia iranica Novák, 2007: 159.

Type locality. Southern Iran, Kermān Province, 2231 m, 45 km NNE of Sabzvārān (Jiroft), N 28° 58', E 57° 54'.

Material examined: Holotype (♂) labelled: S Iran, Pro Kermān, 2231 m, 45 km NNE Sabzvārān (Jiroft), N 28° 58', E 57° 54', 19.vii.2004, leg. Petr Kabátek (VNPC).

Remarks. *Magdanalia iranica* (Novák, 2007) comb. nov. was described as *Hymenalia* (figs. in Novák 2007: 161: 13- habitus of holotype; 14- head and pronotum; 15- antenna). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Magdanalia* gen. nov.

Distribution. Iran.

***Magdanalia jakli* (Novák, 2007) comb. nov.**

Hymenalia jakli Novák, 2007: 163.

Type locality. Southern Oman, Dzhophar province, Wadi 10 km of Al Muchsayl, 20 m.

Material examined: Holotype (♂): OMAN, Dzhophar prov., Wadi 10 km of AL MUCHSAYL, 1.-2.x.2003, 20 m, St. Jákl Igt., (VNPC).

Remarks. *Magdanalia jakli* (Novák, 2007) comb. nov. was described as *Hymenalia* (figs. in Novák 2007: 165: 19- habitus of holotype; 20- head and pronotum; 21- antenna). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Magdanalia* gen. nov.

Distribution. Oman, Yemen.

***Magdanalia kadleci* (Novák, 2015) comb. nov.**

Hymenalia kadleci Novák, 2015b: 76.

Type locality. S Jordan, Dānā N Ash. Shawbak, N30°39', E35°37', 1153 m.

Material examined: Paratypes: (1 ♂, 1 ♀): S JORDAN, Dānā N Ash / Shawbak, N30°39', E35°37' / 1153 m, 25.V.2008, / lgt. P. Kabátek, (VNPC).

Remarks. *Magdanalia kadleci* (Novák, 2015) comb. nov. was described as *Hymenalia* (figs. in Novák 2015b: 76: 9- habitus of holotype; 10- head and pronotum of holotype). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Magdanalia* gen. nov.

Distribution. Jordan.

***Magdanalia lalai* (Novák, 2007) comb. nov.**

Hymenalia lalai Novák, 2007: 166.

Type locality. Southern Iran, Fars province, 30 km East of Kazerun, 29° 33' N, 51° 54' E, 1300 m.

Material examined: Paratype (♂): Loc. no. 229: S Iran, 30 km E Kazerun, 1300 m, 8.-10.vi.1973, Exp. Nat. Mus. Praha, (VNPC).

Remarks. *Magdanalia lalai* (Novák, 2007) comb. nov. was described as *Hymenalia* (figs. in Novák 2007: 167: 24- habitus of holotype; 25- head and pronotum; 26- antenna). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Magdanalia* gen. nov.

Distribution. Iran.

***Magdanalia minyops* (Peyerimhoff, 1943) comb. nov.**

Mycetocharina minyops Peyerimhoff, 1943: 17.

Hymenalia minyops (Peyerimhoff, 1943): (Novák 2008b: 39, Novák & Pettersson 2008: 322).

Type locality. Algeria, Frenda near Oran.

Material examined: (1 ♂): MAROC, prov Meknes- Taflatec / 30km W of Errachidia, / 2.-3.5.2018, lgt. M. Šárovec, (VNPC).

Remarks. After checking the male examined and comparison with Peyerimhoff (1943: 19, fig. 6) is clear that characters of species are consistent with the parameters in Table 1 and species clearly belongs to *Magdanalia* gen. nov.

Distribution. Algeria, Morocco, Tunisia.

***Magdanalia obscuriceps* (Pic, 1925) comb. nov.**

Hymenalia obscuriceps Pic, 1925: 2.

Type locality. Greece, Athens.

Material examined: (1 ♂): wl: Athen [pb] // J. Fleischer / Mus. Praha [pb] // Gonodera euboica [hb] // *Hymenalia* / *obscuriceps* Pic [hb] / opr. / M. Dubrovina [pb], (NMPC).

Remarks. In all morphological characters (as shown in Table 1), the species clearly belongs to *Magdanalia* gen. nov.

Distribution. Greece, Macedonia.

***Magdanalia obscuripennis* (Pic, 1905) comb. nov.**

Hymenalia obscuripennis Pic, 1905: 162.

Type locality. Turkey, Adana.

Material examined: (1 ♂): Tr -W- 1990 / Bergama 1.-2.V. / Strnad Jan lgt., (VNPC).

Remarks. Based on checking the male examined (figs. in Novák 20015b: 78-79; 13- habitus; 14- head and pronotum), it is obvious that characters are consistent with the parameters in Table 1 and the species clearly belongs to *Magdanalia* gen. nov.

Distribution. Greece, Turkey.

***Magdanalia orszuliki* (Novák, 2015) comb. nov.**

Hymenalia orszuliki Novák, 2015b: 80.

Type locality. Iran, Bandar-e Ganeve.

Material examined: Holotype (♂): IRAN 11.5.1999 / Bandar-e Ganeve / lgt. Orszulik, (VNPC).

Remarks. *Magdanalia orszuliki* (Novák, 2015) comb. nov. was described as *Hymenalia* (figs. in Novák 2015b: 19- habitus of holotype; 20- head and pronotum). In all morphological

characters (as shown in Table 1), the species clearly belongs to newly established genus *Magdanalia* gen. nov.

Distribution. Iran.

***Magdanalia picheyrei* (Peyerimhoff, 1943) comb. nov.**

Mycetocharina picheyrei Peyerimhoff, 1943: 20.

Hymenalia picheyrei (Peyerimhoff, 1943): (Novák 2008b: 39, Novák & Pettersson 2008: 322).

Type locality. Algeria, Tamanrasset.

Material examined: (1 ♂): MOROCCO, Haut Atlas mts. / Tizi-n-Test, 30°48,0'N, / 08°24,4'W, 1.170 m, 8. V. / 2007, leg. P. Kabátek, (VNPC).

Remarks. Checking the male examined and comparison with Peyerimhoff (1943: 21, fig. 6), obviously show that characters of the species are consistent with the parameters in Table 1 and the species clearly belongs to *Magdanalia* gen. nov.

Distribution. Algeria. New to Morocco.

***Magdanalia pseudojakli* (Novák, 2015) comb. nov.**

Hymenalia pseudojakli Novák, 2015b: 82.

Type locality. Yemen, Al Hudaydah government, Jabal Bura valley forest National Preserve. 14°52'N, 43°24'E, 225-600 m.

Material examined: Paratypes: (1 ♂, 1 ♀): YEMEN - Al Hudaydah gov. / Jabal Bura valley forest NP / 14°52'N, 43°24'E, / 30.x.-1.xi.2005, S. Kadlec leg., 225-600 m, (VNPC).

Remarks. *Magdanalia pseudojaklii* (Novák, 2015) comb. nov. was described as *Hymenalia* (figs. in Novák 2015b: 83: 21- habitus of holotype; 22- head and pronotum of holotype). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Magdanalia* gen. nov.

Distribution. Yemen.

***Magdanalia purkynei* (Obenberger, 1917) comb. nov.**

Hymenalia purkynei Obenberger, 1917: 38.

Type locality. Bulgaria, Suflu.

Material examined: Holotype (♂): wl: Suflu. Bulg. [hb] // rl with bf: Typus [pb] // wl: Hymenalia Typus / purkynei m. [hb] / Det. Obenberger pb // wl with bf: COLLECTIO / Dr. OBENBERGER / MUS. PRAGENSE [pb], (NMPC).

Remarks. After checking examined male holotype, the species has characters consistent with the parameters in Table 1 and clearly belongs to *Magdanalia* gen. nov.

Distribution. Bulgaria, Romania.

***Magdanalia reticulata* (Seidlitz, 1896) comb. nov.**

Hymenalia reticulata Seidlitz, 1896: 77.

Type locality. Mesopotamia.

Remarks. In accordance with Dubrovina (1975) and her dividing into groups, the species belongs to *Magdanalia* gen. nov. as *Magdanalia reticulata* (Seidlitz, 1896) comb. nov.

Distribution. Iran, Iraq.

***Magdanalia rungsi* (Peyerimhoff, 1943) comb. nov.**

Mycetocharina rungsi Peyerimhoff, 1943: 19.

Hymenalia rungsi (Peyerimhoff, 1943): (Novák 2008b: 39; Novák & Pettersson 2008: 322).

Type locality. Morocco, El Aïoun du Drâa.

Material examined: (1 ♂): MAROC, prov Meknes- Taflatec / 30km W of Errachidia, / 2.-3.5.2018, lgt. M. Šárovec, (VNPC).

Remarks. Based on checking the male examined and comparison with Peyerimhoff (1943: 21, fig. 6), it is clear that characters of the species are consistent with the parameters in Table 1 and the species clearly belongs to *Magdanalia* gen. nov.

Distribution. Morocco.

***Magdanalia zabilica* (Novák, 2015) comb. nov.**

Hymenalia zabilica Novák, 2015b: 85.

Type locality. Southwestern Yemen, Wādi Zabid, East of Zabid, N14°09', E43°31', 325 m.

Material examined: Paratype (1 ♂): SW Yemen, Wādi Zabid, / E Zabid, 22.iii.2007 / N14°09'E43°31', 325 m, / lgt. S. Kadlec, (VNPC).

Remarks. *Magdanalia zabilica* (Novák, 2015) comb. nov. was described as *Hymenalia* (figs. in Novák 2015b: 86: 25- habitus of holotype; 26- head and pronotum of holotype). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Magdanalia* gen. nov.

Distribution. Yemen.

New species

Magdanalia alhazimiica sp. nov. (Figs. 19-22)

Type locality. Western Iraq, Western Desert, Wádí al Hazimi.

Type material. Holotype (♂): IRAQ occ. [pb] 6.6.[hb] 1979 [pb] / Western Desert / Wádí al Hazimi / Jan Macek lgt. [pb], (VNPC). Paratype: (1 ♀): same data as holotype, (OKZC). The types are provided with a printed red label: 'Magdanalia / alhazimiica sp. nov. / HOLOTYPE [or PARATYPE] / V. Novák det. 2020'.

Description of holotype. Habitus as in Fig. 19, body elongate, slightly oval, sides parallel, dorsal surface from reddish brown to brown, with punctuation, microgranulation and short, pale setation, BL 9.72 mm. Widest near middle elytra length; BL/EW 3.10.

Head (Fig. 20) relatively small, distinctly longer than wide, with dense punctuation and sparse, short, pale setation, shiny. Posterior part reddish brown slightly darker than anterior part and distinctly darker than pale reddish brown clypeus. Clypeus with long and dense, pale setation. Mandibles brown, with lateral margins dark, glabrous, shiny. HW 1.50 mm; HW/PW 0.58. HL (visible part) 1.87 mm. Eyes large, transverse, excised, space between eyes distinctly narrower than diameter of one eye, slightly narrower than length of antennomere 3; OI equal to 25.69.

Antenna. Short, brown (AL 3.48 mm, not reaching half body length, AL/BL 0.36), antennomeres with relatively long, dense, pale setation, microgranulation and shallow punctures. Antennomeres 1 and 2 slightly shiny and distinctly paler than rest of antennomeres, antennomeres 3-11 rather matte. Antennomere 2 shortest, ultimate antennomere longest, antennomeres 4-10 distinctly shorter than antennomere 3. Apex of ultimate antennomere pale brown.

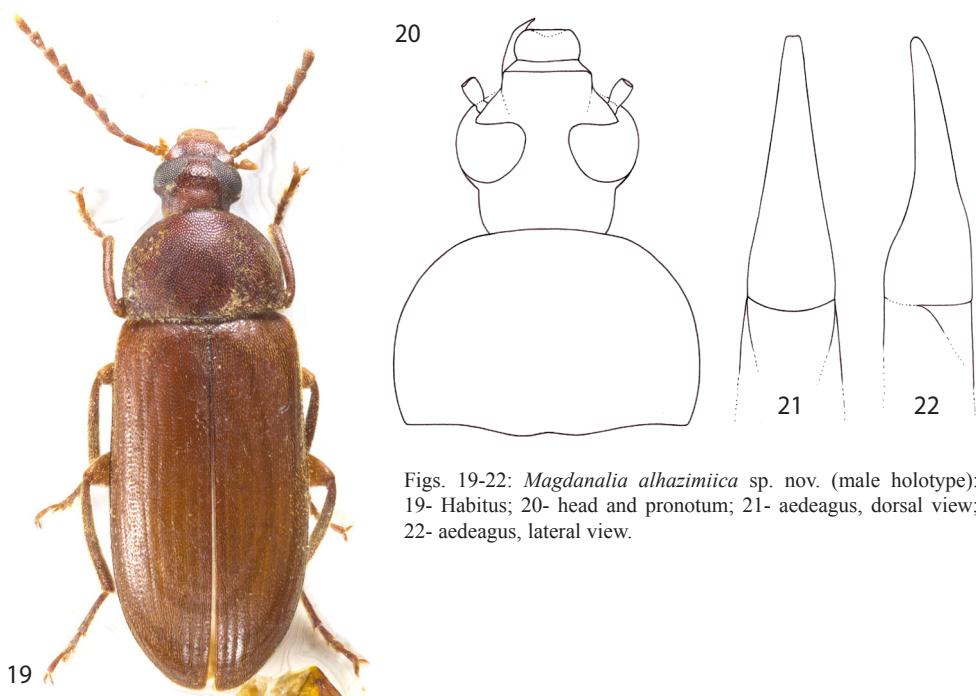
RLA(1-11): 0.48 : 0.36 : 1.00 : 0.87 : 0.73 : 0.77 : 0.78 : 0.87 : 0.92 : 0.90 : 1.14.

RL/WA(1-11): 1.28 : 1.33 : 3.21 : 2.16 : 1.65 : 1.60 : 1.62 : 1.81 : 1.92 : 1.87 : 2.84.

Maxillary palpus pale brown, rather matte, with fine microgranulation, short, pale setation and long, pale setae in apex of palpomere 2 and 3. Ultimate palpomere wide, axe-shaped, palpomeres 2 and 3 distinctly dilated anteriorly.

Pronotum (Fig. 20). Reddish brown, convex, wide and transverse, widest near middle, slightly wider than semicircular, dorsal surface with short and sparse, golden setation, dense punctuation, punctures medium sized, interspaces between punctures very narrow, shiny, with fine microgranulation. Border lines narrow, distinct and complete. Lateral margins arcuate. Anterior margin almost straight or very slightly arcuate, posterior margin almost straight, very finely bisinuate, anterior angles indistinct, posterior angles obtuse. PL 1.78 mm; PW 2.59 mm; PI equal to 68.73.

Elytron brown, slightly convex, elongate, slightly oval, sides parallel, widest near middle elytra length. Dorsal surface with short, pale setation, slightly shiny. Elytral striae with distinct rows of small punctures distinctly smaller than those on disc of pronotum, elytral interspaces with microgranulation and small, shallow punctures, distinctly smaller than those in elytral striae. EL 6.07 mm; EW 3.14 mm; EL/EW 1.93.



Figs. 19-22: *Magdanalia alhazimica* sp. nov. (male holotype):
19- Habitus; 20- head and pronotum; 21- aedeagus, dorsal view;
22- aedeagus, lateral view.

Scutellum. Brown, sides dark brown, triangular with a few shallow punctures.
Elytral epipleura well developed, brown, with a few pale setae and small punctures, regularly narrowing to apex.

Legs brown, femora reddish brown, with pale setation, very small punctures and fine microgranulation. Protibiae with short, strong setae in inner side. Penultimate tarsomeres widened and lobed. RLT: 1.00 : 0.64 : 0.51 : 0.93 : 1.78 (protarsus), 1.00 : 0.70 : 0.43 : 0.53 : 1.19 (mesotarsus), 1.00 : 0.35 : 0.31 : 0.59 (metatarsus).

Both anterior tarsal claws with 11 and 12 visible teeth.

Ventral side of body reddish, prothorax distinctly darker than meso- and metaventrite. Prothorax with dense, short, pale setation and punctuation denser than those in meso- and metaventrite. Abdomen brown or reddish brown with pale setation, fine microgranulation and longitudinal rugosities.

Aedeagus (Figs. 21 and 22). Ochre yellow, slightly shiny. Basal piece rounded in lateral view and narrowing dorsally. Apical piece elongate triangular and beak-shaped dorsally and laterally. Ratio of length of apical piece to length of basal piece from dorsal view 1: 4.28.

Female without distinct differences, anterior tarsal claws have only 6 and 7 visible teeth.
Measurements. BL 8.59 mm; HL 1.65 mm; HW 1.32 mm; OI 30.74; PL 1.57 mm; PW 2.23 mm; PI 70.40; EL 5.37 mm; EW 2.86 mm; AL(1-11) 3.09 mm; AL(1-11)/BL 0.36; BL/EW 3.00; HW/PW 0.59; EL/EW 1.88.
RLA(1-11): 0.39 : 0.37 : 1.00 : 0.93 : 0.81 : 0.81 : 0.84 : 0.88 : 0.91 : 0.96 : 1.13.

RL/WA(1-11): 1.00 : 1.32 : 2.91 : 2.21 : 1.93 : 1.86 : 1.70 : 1.79 : 1.91 : 2.07 : 3.04.
RLT: 1.00 : 0.44 : 0.47 : 0.51 : 1.46 (protarsus); 1.00 : 0.59 : 0.35 : 0.42 : 0.94 (mesotarsus);
1.00 : 0.32 : 0.21 : 0.48 (metatarsus).

Differential diagnosis. The most similar large species is *Magdanalia kadleci* (Novák, 2015) comb. nov. from Jordan (see Novák 2015b: 76–78; figs. 9–12).

Magdanalia alhazimiica sp. nov. clearly differs from similar species *H. kadleci* mainly by longer and narrower body (BL/EW 3.1), by shorter antenna (AL/BL 0.36), by antennomeres 5–10 wider and shorter (RLW/A(5–10) 1.60–1.92), by rows of punctures in elytral striae clearly distinct and punctures in elytral striae larger than those in elytral interspaces; while *H. kadleci* has body wider and shorter (BL/EW 2.7), antenna is longer (AL/BL 0.46), antennomeres 5–10 are longer and narrower (RLW/A(5–10) 1.86–2.29), rows of punctures in elytral striae are not clearly distinct in middle of elytron and punctures in striae are as large as punctures in elytral interspaces.

Etymology. Toponymic, named after type locality Wadí al Hazímí in Western Desert of Iraq.

Distribution. Iraq.

Nikomenalia Dubrovina, 1975 stat. nov.
(Figs. 23–26)

Type species: *Hymenalia kaszabi* Muche, 1972.

Diagnosis (based on *Hymenalia minuta* Pic, 1910). Habitus as in Fig. 23, body outline (Fig. 24), body narrow, elongate, slightly oval, widest in elytral half, more flatter, dorsal surface glabrous with punctuation. Head wide, approximately as long as wide, widest through the eyes, wider than anterior part of pronotum, dorsal surface with punctuation, shiny. Clypeus rounded apically, mandibles glabrous dorsally, shiny. Eyes small, transverse, distinctly excised, space between eyes wide, wider than diameter of one eye or each of antennomeres. Antenna (Fig. 26) long, reaching two thirds body length, antennomeres little serrate, with setation, microgranulation and punctures. Antennomere 2 shortest, antennomere 3 little longer than antennomere 2, antennomere 4 much longer than antennomere 3, antennomeres 4–10 little serrate. Palpomeres 2 and 3 distinctly narrowest at base and widest at apex, ultimate palpomere triangular. Pronotum (Fig. 25) wide, transverse, square shaped, slightly narrower than base of elytra. Dorsal surface glabrous, with punctuation. Border lines very narrow, lateral margins arcuate. Posterior margin arcuate, anterior margin straight. Posterior and anterior angles obtuse. Elytra long, narrow, almost parallel, glabrous, shiny. Elytral striae with distinct rows of small punctures. Elytral epipleura well-developed, regularly narrowing from base to apex. Legs narrow, with small punctures, setation and fine microgranulation. Tibiae widened anteriorly, protibiae with short, strong setae in inner side. Penultimate tarsomeres little wider and lobed. Both protarsal claws with 5 teeth. Abdomen with sparse setation, sparse, small punctures and very fine microgranulation. Basal piece of aedeagus rounded laterally and narrowing dorsally, apical piece short, beak-shaped dorsally and laterally.

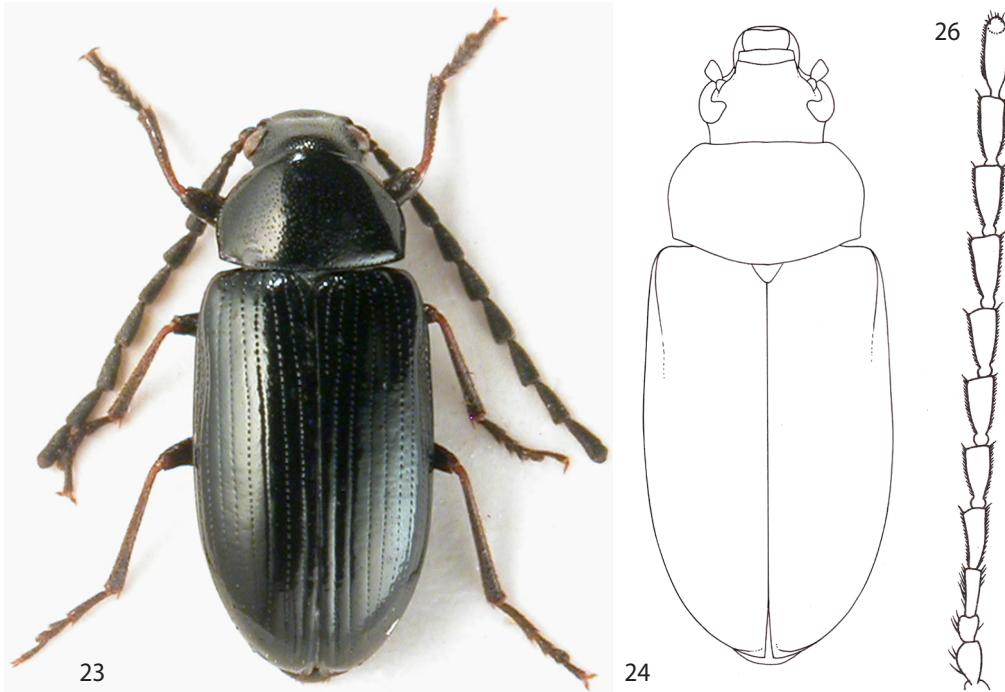
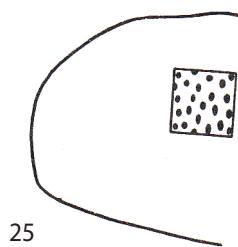


Fig. 23, 24: *Nikomenalia minuta* (Pic, 1910) comb. nov.; 25, 26: *Nikomenalia kaszabi* (Muche, 1972) comb. nov., figs. according to Dubrovina 1975: 23-habitus; 24- outline of body; 25- pronotum; 26- antenna.



25

Females have space between eyes slightly wider and antenna is a little shorter than in male.

Differential diagnosis (for main distinguishing features see Table 1). Similar genera are *Doranalia* gen. nov., *Havanalia* gen. nov., *Hymenalia* Mulsant, 1856, *Magdanalia* gen. nov. and *Prionalia* gen. nov.

Species of *Nikomenalia* Dubrovina, 1975 stat. nov. distinctly differs from species of similar genera by the main distinguishing morphological features listed in Table 1, which are as follows: body rather flat, dorsal surface of pronotum and elytra glabrous, pronotum wide and square shaped with lateral margins arcuate, elytra more parallel, antenna long, antennomeres 4-10 little serrate, antennomere 3 little longer than antennomere 2, antennomere 3 much shorter than antennomere 4, space between eyes in male wide, rows of punctures in elytral striae distinct, sexual dimorphism present (antenna and antennomeres 2-4).

Distribution. China (Gansu, Inner Mongolia, Yunnan Provinces), Mongolia.

New combinations

Nikomenalia impunctaticollis (Dubrovina, 1975) comb. nov.

Hymenalia (Nikomenalia) impunctaticollis Dubrovina, 1975: 171.

Type locality. China, Gansu Province, Kyan-Tin.

Remarks. Following Dubrovina (1975) and her establishing new subgenus *Nikomenalia* Dubrovina, 1975, the species belongs to *Nikomenalia* stat. nov. (see fig. 9 in Dubrovina 1975: 169) as *Nikomenalia impunctaticollis* (Dubrovina, 1975) comb. nov.

Distribution. China (Gansu and Inner Mongolia Provinces).

Nikomenalia jinshanica (Novák, 2015) comb. nov.

Hymenalia (Nikomenalia) jinshanica Novák, 2015a: 377.

Type locality. China, Yunnan, Jinsha river, 27°18'N, 100°12'E, 2050 m.

Material examined: Paratype: (♂): YUNNAN 2050m / 27.18N 100.12E / JINSHA riv. 15.6. / Vít Kubáň leg. 1993, (VNPC).

Remarks. *Nikomenalia jinshanica* (Novák, 2015) comb. nov. was described as *Hymenalia (Nikomenalia)* (figs. in Novák 2015a: 377: 8- habitus of holotype; 9- head and pronotum). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Nikomenalia*.

Distribution. China (Yunnan Province).

Nikomenalia kaszabi (Muche, 1972) comb. nov.

(Figs. 25, 26)

Hymenalia kaszabi Muche, 1972: 224.

Hymenalia (Nikomenalia) kaszabi Muche, 1972: (Dubrovina 1975: 168).

Type locality. Mongolia, South Gobi desert.

Remarks. Following Dubrovina (1975) and her establishing new subgenus *Nikomenalia* Dubrovina, 1975, the species belongs to *Nikomenalia* stat. nov. (see figs. 4-6 in Dubrovina 1975: 169) as *Nikomenalia kaszabi* (Muche, 1972) comb. nov.

Distribution. China (Inner Mongolia Province), Mongolia.

***Nikomenalia medvedevi* (Dubrovina, 1975) comb. nov.**

Hymenalia (Nikomenalia) medvedevi Dubrovina, 1975: 170.

Type locality. China, Inner Mongolia Province, Muni-Ula.

Remarks. Following Dubrovina (1975) and her establishing new subgenus *Nikomenalia* Dubrovina, 1975, the species belongs to *Nikomenalia* stat. nov. (see figs. 7, 8 in Dubrovina 1975: 169) as *Nikomenalia medvedevi* (Dubrovina, 1975) comb. nov.

Distribution. China (Inner Mongolia Province), Mongolia.

***Nikomenalia minuta* (Pic, 1910) comb. nov.**

(Figs. 23, 24)

Hymenalia minuta Pic, 1910: 85.

Type locality. China, Yunnan Province.

Material examined: 2 syntypes on one wl: Yunnan / (Chine) [hb] // yl: type [hb] // rl: TYPE [pb] // wl: Hymenalia / minuta Pic [hb], (MNHN). (2 ♂♂, 1 ♀): China Yunnan, 8-9.vii. / LUGU LAKE-Luo Chui / 27.45N 100.45E / lgt. S. Beevar 1992, (VNPC).

Remarks. *Nikomenalia minuta* (Pic, 1910) comb. nov. was described as *Hymenalia* (figs. in Novák 2010: 229: 48- habitus of holotype; 49- head and pronotum). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Nikomenalia* Dubrovina, 1975 stat. nov.

Distribution. China (Yunnan Province).

***Nikomenalia pseudominuta* (Novák, 2015) comb. nov.**

Hymenalia pseudominuta Novák, 2015a: 383.

Type locality. China, Yunnan, Dali, Cangshan Mountains.

Material examined: Paratypes: (1 ♂, 1 ♀): CHINA: N. Yunnan / DALI, 1600-2000 / 5. - 8. VII. 1990, L.&M. Bocák lgt., (VNPC).

Remarks. *Nikomenalia pseudominuta* (Novák, 2015) comb. nov. was described as *Hymenalia* (figs. in Novák 2015a: 385: figs. 23- habitus of holotype; 24- head and pronotum). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Nikomenalia* Dubrovina, 1975 stat. nov.

Distribution. China (Yunnan Province).

Nikomenalia schawalleri (Novák, 2010) comb. nov.

Hymenalia (Nikomenalia) schawalleri Novák, 2010: 216.

Type locality. China, Yunnan Province, Dali.

Material examined: Paratype (♂): CHINA: Yunnan / above Dali, 2000-2200 m / 4.-17.iv.1999 / leg. W. SCHAWALLER, (VNPC).

Remarks. *Nikomenalia schawalleri* (Novák, 2010) comb. nov. was described as *Hymenalia (Nikomenalia)* (figs. in Novák 2010: 230: 63- habitus of holotype; 64- head and pronotum). In all morphological characters (as shown in Table 1), the species clearly belongs to newly established genus *Nikomenalia* stat. nov.

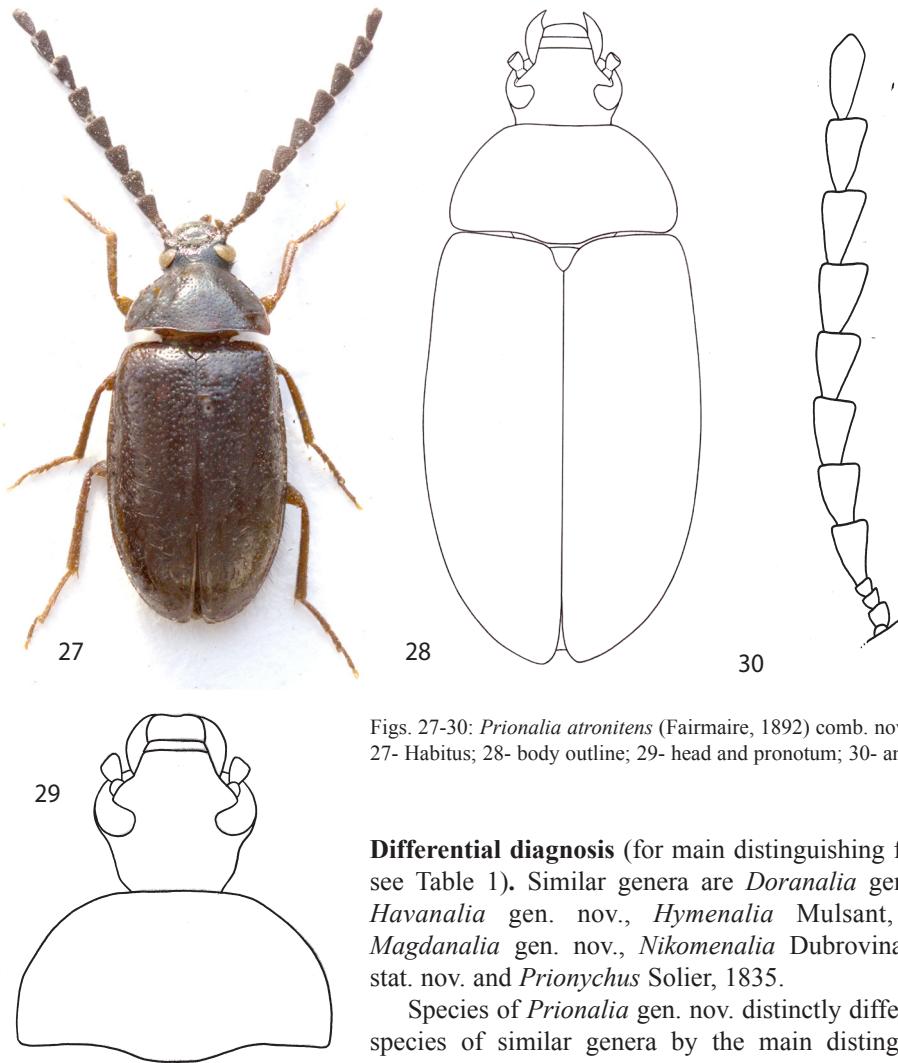
Distribution. China (Yunnan Province).

***Prionalia* gen. nov.**
(Figs. 27-30)

Type species. *Gonodera atronitens* Fairmaire, 1892

Description (based on type species). Habitus as in Fig. 27, body outline (Fig. 28), body small, *Prionychus* shaped, oval, convex, shiny, dorsal surface with sparse setation, very fine microgranulation and punctuation, widest in elytra half. Head (Fig. 29) slightly wider than long, widest through the eyes, dorsal surface with sparser punctuation and a few setae behind eyes. Clypeus short, rounded apically, mandibles glabrous dorsally, shiny. Eyes smaller, transverse, distinctly excised, space between eyes wide, wider than diameter of one eye. Antenna (Fig. 30) long, distinctly exceeding half body length, with recumbent setation, fine microgranulation and dense, small punctures. Antennomere 3 shortest, antennomere 2 approximately as long as antennomere 3, antennomere 4 much longer than antennomere 3, antennomeres 4-10 serrate. Palpomeres 2 and 3 distinctly narrowest at base and widest at apex, ultimate palpomere triangular. Pronotum (Fig. 29) wide, transverse, semicircular, approximately as wide as base of elytra. Dorsal surface glabrous, with relatively sparse punctuation. Border lines very narrow, lateral margins arcuate. Base bisinuate, anterior margin almost straight. Posterior angles roundly obtuse, anterior angles indistinct. Elytra oval, convex, dorsal surface with punctuation, sparse and long setation near lateral margins and in apex, shiny. Rows of punctures in elytral striae indistinct. Elytral epipleura well-developed, parallel from base to metaventrite, then narrowing to ventrite 1 and leading narrow and parallel. Legs narrow, with small punctures, dense, recumbent setation and very fine microgranulation. Tibiae widened anteriorly, protibiae with strong, short setae in outer part. Penultimate tarsomeres as wide as other tarsomeres and lobed. Protarsal claws both with 2 visible teeth. Ventral side of body with punctures.

Females have antennomeres 4-10 less serrate and antenna is shorter than in males, antennomere 3 is more than twice longer than antennomere 2.



Figs. 27-30: *Prionalia atronitens* (Fairmaire, 1892) comb. nov. (male):
27- Habitus; 28- body outline; 29- head and pronotum; 30- antenna.

Differential diagnosis (for main distinguishing features see Table 1). Similar genera are *Doranalia* gen. nov., *Havanalia* gen. nov., *Hymenalia* Mulsant, 1856, *Magdanalia* gen. nov., *Nikomenalia* Dubrovina, 1975 stat. nov. and *Prionychus* Solier, 1835.

Species of *Prionalia* gen. nov. distinctly differs from species of similar genera by the main distinguishing morphological features listed in Table 1, which are as follows: body convex, dorsal surface of pronotum and

elytra setose, pronotum wide and semicircular, elytra oval, antenna long, antennomeres 4-10 serrate, antennomere 3 approximately as long as antennomere 2, antennomere 3 much shorter than antennomere 4, space between eyes in male wide, rows of punctures in elytral striae indistinct, sexual dimorphism present (antenna and antennomeres 2-4).

Species of *Prionalia* gen. nov. is clearly different from species of *Prionychus* mainly by antenna long and antennomeres 4-10 serrate, antennomere 3 approximately as long as antennomere 2 and much shorter than antennomere 4, by sexual dimorphism (antenna and antennomere 2-4); while species of *Prionychus* have antenna short, antennomere 3 is much

longer than antennomere 2 and approximately as long as antennomere 4, sexual dimorphism in antenna and antennomeres is indistinct.

Etymology. Compound name formed by *Prio-* marking similarity to species of the genus *Prionychus* Solier, 1835 and the ending *-nalia* marking similarity to the genus *Hymenalia* Mulsant, 1856. Gender: feminine.

Distribution. Iran, Israel, Lebanon, Serbia, Syria, Turkey.

New combinations

***Prionalia atronitens* (Fairmaire, 1892) comb. nov.**
(Figs. 23, 24)

Gonodera atronitens Fairmaire, 1892: 151.

Hymenalia atronitens (Fairmaire, 1892): (Novák 2008b: 39, Novák & Pettersson 2008: 322).

Type locality. Syria, Akbes.

Material examined: (1 ♂): TR vill. SIVAS / Koyalhisar env. / 31.5.-1.6.2000 / Josef MERTLÍK LGT., (VNPC).

Remarks. *Prionalia atronitens* (Fairmaire, 1892) comb. nov. was described as *Gonodera* (Fairmaire 1892: 85); the species was transferred later to the genus *Hymenalia* Mulsant, 1856 (Novák 2008b). In all morphological characters (see figs. in Novák 2017: 434: 6-habitus of holotype; 7- head and pronotum; 8- antenna) the species clearly belongs to the newly established genus *Prionalia* gen. nov. (as shown in Table 1).

Distribution. Iran, Israel, Serbia, Syria, Turkey.

***Prionalia ehdenica* (Novák, 2017) comb. nov.**

Hymenalia ehdenica Novák, 2017: 434.

Type locality. Lebanon, northern government, Ehden, Horsh Ehden Natural Reserve, 34°18'33''N, 35°59'14''E, 1525 m.

Material examined: Paratype: (♂): LEBAN., Northern gov., Ehden / Horsch Ehden Natural Reserve, / singled 34°18'33''N, / 35°59' / 14''E, 1525 m, 21.V.2015, leg. M. / Boustani, A. Márkus & T. Németh, (VNPC).

Remarks. *Prionalia ehdenica* (Novák, 2017) comb. nov. was described as *Hymenalia* (figs. in Novák 2017: 435: 11- habitus of holotype; 12- head and pronotum; 13- antenna). In all morphological characters, the species clearly belongs to the newly established genus *Prionalia* gen. nov. (as shown in Table 1).

Distribution. Lebanon.

ACKNOWLEDGEMENTS. Sincere thanks are due to Jiří Hájek (NMPC), Olaf Jäger (MTDG), Antoine Mantilleri (MNHN), Ottó Merkl (HNHM), Katja Neven and Michael Balke (ZSMG) for the loan of material under their care, also I thank to David Frank (DFPC), Ondřej Konvička (OKZC) and Vítězslav Kubáň (VKBC) for bringing me a new material. Special thanks are due to Zuzana Čadová (Liberec, Czech Republic) for excellent drawings.

REFERENCES

- AKITA K. & MASUMOTO K. 2016: *The Tenebrionid beetles of Japan*. In: FUJITA H. (ed.): *Mushi-Sha's Iconographic Series of Insects* 9. Tokyo: Shinano Co. Ltd. 302 pp.
- BORCHMANN F. 1910: Pars 3: Alleculidae. In: JUNK W. & SCHENKLING S. (eds.): *Coleopterorum Catalogus*. W. Berlin: Junk, 80 pp.
- BOUSQUET Y., BOUCHARD P. & CAMPBELL J. M. 2015: Catalogue of Genus-Group Names in Alleculinae (Coleoptera: Tenebrionidae). *The Coleopterists Society Monograph Number* 14: 131-151.
- CAMBELL J. M. 1965: A revision of the genus *Charisius* (Coleoptera: Alleculidae). *The Coleopterist's Bulletin* 19: 41-56.
- CAMBELL J. M. & MARSHALL J. D. 1964: The ocular index and its applications to the taxonomy of the Alleculidae (Coleoptera). *The Coleopterist's Bulletin* 18: 42.
- DESBROCHERS DES LOGES J. 1884: Diagnoses de coléoptères nouveaux Algériens. *Bulletin de l'Academie d'Hippone, Société de Recherches Scientifiques et d'Acclimatation* 19: 169.
- DUBROVINA M. I. 1975: A new subgenus and new species of pollen beetles of the genus *Hymenalia* Muls. (Coleoptera, Alleculidae) from Mongolia and from adjacent regions of China. *Nasekomye Mongolii* 3: 165-172.
- DUBROVINA M. I. 1978: Novye dannye o vidakh tribu Alleculini (Coleoptera, Alleculidae) evropeyskoy chasti SSSR. *Nauchnye Doklady Vysshey Shkoly Biologicheskie Nauki* 7: 53-55.
- FABRICIUS J. C. 1792: *Entomologia systematica emendata et aucta. secundum classes, ordines, genera, species adjectis synonymis, locis, observationibus descriptionibus. Tomus. I. Pars I.* Hafniae: C. G. Proft, xx + 330 pp.
- FAIRMAIRE L. 1866: [new taxa]. In: FAIRMAIRE L. & COQUEREL C.: Essai sur les Coléoptères de Barbarie. Quatrième partie. *Annales de la Société Entomologique de France* 6: 17-74.
- FAIRMAIRE L. 1884: Liste des Coléoptères recueillis par M. l'abbé David à Akbès (Asie-Mineure) et description des espèces nouvelles. *Annales de la Société Entomologique de France* 24: 165-180.
- FAIRMAIRE L. 1892: Description de Coléoptères des environs d'Akbes (Syrie). *Annales de la Société Entomologique de Belgique* 36: 144-159.
- ILLIGER J. C. W. 1794: Beschreibung einiger neuen Käferarten aus dem Sammlung des Herrn Professore Hellwig in Braunschweig. *Neuestes Magazin für die Liebhaber der Entomologie* (5) 1: 593-620.
- KIESENWETTER D. A. H. von 1861: Beitrag zur Käferfauna Greichenlands. Siebentes Stück: Tenebrionidae, Cistelidae, Lagriariae, Pedilidae, Anthicidae, Mordellonae, Meloidae, Oedemeridae. *Berliner Entomologische Zeitschrift* 5: 221-252.
- KÜSTER H. C. 1850: *Die Käfer Europa's. Nach der Natur beschrieben. 20. Heft.* Nürnberg: von Bauer & Raspe (J. Merz), [4 pp.] + 100 sheets + 2 pls.
- MADER L. 1928: Alleculidae. Columns 901-913. In: WINKLER A. (ed.) 1932: *Catalogus coleopterorum regionis palaearcticae*. Wien: Winkler & Wagner, 1698 pp.
- MAEDA M. & NAKANE T. 1991: [new taxa]. In: NAKANE T.: Notes on some little-known beetles (Coleoptera) in Japan. 7. *Kita-Kyūshū no Konchū* (1) 38: 1-9.
- MARSEUL S. A. DE 1876: Coléoptères du Japan recueillis par M. Georges Lewis. 2^e Mémoire (1). Énumération des Hétéromères avec la description des espèces nouvelles. *Annales de la Société Entomologique de France* (5) 16: 315-340.
- MUCHE W. H. 1972: Ergebnisse der zoologischen Forschungen von Dr. Z. Kaszab in der Mongolei 288. Coleoptera, Alleculidae. *Annales Historico-naturales Musei Nationalis Hungarici* 64: 223-225.
- MUCHE W. H. 1974: Eine neue *Allecula* aus Anatolien (Coleoptera, Alleculidae). *Fragmenta Entomologica* 10: 219-222.
- MUCHE W. H. 1982: Insects of Saudi Arabia Coleoptera: Fam. Alleculidae. *Fauna of Saudi Arabia* 4: 116-123.
- MULSANT D. 1856: *Histoire naturelle des Coléoptères de France. Pectinipèdes*. Paris: L. Maisson, 96 pp.

- NAKANE T. 1963: New or little-know Coleoptera from Japan and its adjacent Regions XVI.-XXII. *Fragmenta Coleopterologica* 12: 18-48.
- NOVÁK V. 2007: New species of the genus *Hymenalia* Mulsant, 1856 (Coleoptera: Tenebrionidae: Alleculinae) from Palaearctic region. *Studies and Reports of District Museum Prague-East, Taxonomical series* 3(1-2): 149-170.
- NOVÁK V. 2008a: New Alleculinae from China (Coleoptera: Tenebrionidae). *Vernate* 27: 207-220.
- NOVÁK V. 2008b: New Acts and Comments. P. 39. In: LÖBL I. & A. SMETANA (eds.): *Catalogue of Palaearctic Coleoptera, Vol. 5. Tenebrionoidea*. Stenstrup: Apollo Books, 670 pp.
- NOVÁK V. 2010: Review of *Hymenalia* species (Coleoptera: Tenebrionidae: Alleculinae) from China. *Studies and Reports, Taxonomical Series* 6(1-2): 190-231.
- NOVÁK V. 2015a: New *Hymenalia* species (Coleoptera: Tenebrionidae: Alleculinae) from China and Oriental Region. *Studies and Reports, Taxonomical Series* 11(2): 371-389.
- NOVÁK V. 2015b: Contribution to the knowledge of *Hymenalia badia* species group from the Palaearctic Region (Coleoptera: Tenebrionidae: Alleculinae). *Folia Heyrovskyana, Series A* 23(2): 71-88.
- NOVÁK V. 2017: New species and nomenclatory acts in Alleculini (Coleoptera: Tenebrionidae: Alleculinae) from the Palaearctic Region. *Studies and Reports, Taxonomical Series* 13(2): 429-446.
- NOVÁK V. 2020: Subfamily Alleculinae Laporte, 1840. In: IWAN D. & LÖBL I. (eds.). *Catalogue of Palaearctic Coleoptera. Revised and Updated Edition. Volume 5. Tenebrionoidea*. Brill, Leiden/Boston (in press).
- NOVÁK V. & PETTERSSON R. 2008: Subfamily Alleculinae. Pp. 319-339. In: LÖBL I. & A. SMETANA (eds.): *Catalogue of Palaearctic Coleoptera, Vol. 5. Tenebrionoidea*. Stenstrup: Apollo Books, 670 pp.
- OBENBERGER J. 1917: II. Beitrag zur Kenntnis der palaearktischen Käferfauna. *Archiv für Naturgeschichte* 82: 9-45.
- PEYERIMHOFF DE FONTENELLE P. M. 1943: Matériaux pour un Catalogue des Coléoptères Sahariens. II - Descriptions d'espèces nouvelles. *Bulletin de la Société d'Histoire Naturelle de l'Afrique du Nord* 34: 7-35.
- PIC M. 1905: Coléoptères nouveaux Provenant de France, Grèce, Algérie et Turquie d'Asie. *L'Échange, Revue Linnéenne* 21: 161-163.
- PIC M. 1910: Descriptions ou diagnoses et notes diverses. *L'Échange, Revue Linnéenne* 26: 12-14.
- PIC M. 1925: Notes diverses, descriptions et diagnoses. *L'Échange, Revue Linnéenne* 41: 1-3.
- PIC M. 1926: Nouveautés diverses. *Mélanges Exotico-Entomologiques* 47: 1-32.
- PIC M. 1931: Notes diverses, nouveautés. *L'Échange, Revue Linnéenne* 47: 13-14.
- PIC M. 1938: Notes diverses, nouveautés. *L'Échange, Revue Linnéenne* 54: 13-14.
- PIC M. 1955: Coléoptères nouveaux de Chine (Suite). *Bulletin de la Société Entomologique de Mulhouse* 1955: 29-32.
- REDTENBACHER L. 1849: *Fauna Austriaca. Die Käfer. Nach der analytischen Methode bearbeitet. Zweite, ganzlich umgearbeitete vermehrte Auflage*. Wien: C. Gerold, xxvii + 883 pp., 2 tafeln.
- REY C. 1892: Remarques en passant. *L'Échange, Revue Linnéenne* 8: 65.
- SAITÔ M. 2001: A New Species of the Genus *Hymenalia* (Coleoptera: Tenebrionidae: Alleculinae) from the Yaeyama Islands, Japan with Notes of Japanese species. *Special Publication of Japan Coleoptorological Society of Osaka* 1: 347-350.
- SEIDLITZ G. C. M. von 1896: Alleculidae. Pp. 1-305. In: ERICHSON W. F. ET ALL. (eds.): *Naturgeschichte der Insecten Deutschlands, I. Abt., Bd. 5, 2. Halfte*. Berlin: Nicolaische Verlags-Buchhandlung R. Stricker, 305 pp.

Received: 25.5.2020

Accepted: 20.6.2020

Printed: 5.10.2020

