

## Review of *Hymenalia* species (Coleoptera: Tenebrionidae: Alleculinae) from China

Vladimír NOVÁK

District Museum Prague-East  
Masarykovo náměstí 97, CZ-250 01 Brandýs nad Labem  
e-mail:aleculinae.vn@centrum.cz

**Taxonomy, new species, description, key, Coleoptera, Tenebrionidae, Alleculinae, *Hymenalia*, Palaearctic region**

**Abstract.** Twelve new species from China are presently described, illustrated and keyed with nine species which were described earlier. New species are *Hymenalia becvari* sp. nov., *Hymenalia habashanica* sp. nov., *Hymenalia wuliangica* sp. nov. and *Hymenalia yunnanica* sp. nov., all from Yunnan, *Hymenalia bocaki* sp. nov. and *Hymenalia puetzi* sp. nov. both from Sichuan and *Hymenalia kakadu* sp. nov. from Hubei – all belonging to new *Hymenalia bocaki* - group; and *Hymenalia holzschuhi* sp. nov. from Shaanxi, *Hymenalia horaki* sp. nov. from Yunnan and North Vietnam, *Hymenalia jaroslavi* sp. nov. from Hubei, Hunan and Jianxi and *Hymenalia merkli* sp. nov. from Taiwan belonging to the *rufipennis* - group according Dubrovina (1975). Finally, last new species *Hymenalia (Nikomenalia) schawalleri* sp. nov. from Yunnan distinctly belongs to the subgenus *Nikomenalia* Dubrovina, 1975. Species of the *bocaki* group are characterized mainly by glabrous upper part of body, males with narrow space between eyes and antennomeres 2 and 3 very short, from the species of *H. rufipennis* group, they differ by relatively flat body and elytra regularly broadened to two thirds or three fourth of their length, while species of *H. rufipennis* group have usually elytra oval and body more vaulted. New distributional data on the species *Hymenalia klapperichi tschungseni* Pic, 1955 for the territory of Sichuan and redescriptions of the species *Hymenalia klapperichi klapperichi* Pic, 1955, *H. klapperichi tschungseni* Pic, 1955, *H. minuta* Pic, 1910 and *H. pallidipennis* Pic, 1926 are added.

### INTRODUCTION

Mulsant (1856) described the genus *Hymenalia* in 1856. This palaearctic genus belongs to the subtribe *Allecula* Laporte, 1840. Borchmann (1910) knew 11 species, Mader (1928) 16 species, and Novák & Pettersson (2008) listed 33 species of the genus *Hymenalia*. Novák (2007) recently described five new species of this genus from Iran, Yemen and Oman and later two new species from China (Novák 2008). Now, we know 9 species from China - *Hymenalia klapperichi klapperichi* Pic, 1955 from Fujian and Sichuan, *H. klapperichi tschungseni* Pic, 1955 from Fujian, *H. minuta* Pic, 1910, *H. murzini* Novák, 2008, *H. pallidipennis* Pic, 1926 all from Yunnan, *H. rufipennis* Marseul, 1876 from China, Russia - East Siberia, Far East, Japan, South Korea and Taiwan and *H. wrasei* Novák, 2008 from Yunnan and two species of the subgenus *Nikomenalia* Dubrovina, 1975 - *H. (N.) impunctaticollis* Dubrovina, 1975 from China - Gansu and Nei Mongol and *H. (N.) medvedevi* Dubrovina, 1975 from China - Nei Mongol. Twelve new species from China - *Hymenalia becvari* sp. nov. from Yunnan, *H. bocaki* sp. nov. from Sichuan, *H. habashanica* sp. nov. from Yunnan, *H. holzschuhi* sp. nov. from Shaanxi, *H. horaki* sp. nov. from Yunnan and North Vietnam, *H. jaroslavi* sp. nov. from Hubei, Hunan and Jiangxi, *H. kakadu* sp. nov. from Hubei, *H. merkli* sp. nov. from Taiwan, *H. puetzi* sp. nov. from Sichuan, *H. wuliangica* sp. nov., *H. yunnanica* sp. nov. and *H. (Nikomenalia) schawalleri* sp. nov. all from Yunnan are presently described, illustrated and keyed with all known Chinese species.

Redescriptions of the species *Hymenalia klapperichi klapperichi* Pic, 1955, *H. klapperichi tschungseni* Pic, 1955, *H. minuta* Pic, 1910 and *H. pallidipennis* Pic, 1926 are added.

Now we recognize 21 species of the genus *Hymenalia* occurring in China. Species *H. impunctaticollis*, *H. medvedevi* and *H. schawalleri* belong to the subgenus *Nikomenalia*. Species *H. murzini* and *H. wrasei* belong to the second - *H. rufipes* group according to Dubrovina (1975). Species *H. holzschuhi*, *H. horaki*, *H. jaroslavi*, *H. klapperichi klapperichi*, *H. klapperichi tschungseni*, *H. merkli*, *H. minuta*, *H. pallidipennis* and *H. rufipennis* belong to the third - *H. rufipennis* group according to Dubrovina (1975). Finally, species *H. becvari*, *H. bocaki*, *H. habashanica*, *H. kakadu*, *H. puetzi*, *H. yunnanica* and *H. wuliangica* belong to the new - *H. bocaki* group. Species of this group are characterized mainly by glabrous upper part of body, males with narrow space between eyes and antennomeres 2 and 3 very short, from the species of *H. rufipennis* group, they differ by relatively flat body and elytra regularly broadened to two thirds or three fourth of their length, while species of *H. rufipennis* group have usually elytra oval and body more vaulted.

New distributional data on the species *Hymenalia klapperichi tschungseni* Pic, 1955 for the territory of Sichuan are added.

## MATERIAL AND METHODS

Two important morphometric characteristics used for the descriptions of species of the subfamily Alleculinae are employed: the 'ocular index' dorsally (Campbell & Marshall, 1964), calculated by measuring the minimum distance between the eyes and dividing this value by the maximum dorsal width across eyes, the quotient resulting from this division being converted into an index by multiplying by 100, and the 'pronotal index' (Campbell, 1965), the ratio of the length of the pronotum along the midline to the width at the posterior angles, this ratio being multiplied by 100 for convenience.

The following codens are used in the paper:

- APEG private collection of Andreas Pütz, Eisenhüttenstadt, Germany;
- DHBC private collection of David Hauck, Brno, Czech Republic;
- HNHM Hungarian Natural History Museum, Budapest, Hungary;
- MNHN Muséum National d'Histoire naturelle, Paris, France;
- NMEG Naturkundes Museum Erfurt, Germany;
- OKZC private collection of Ondřej Konvička, Zlín, Czech Republic;
- SMNS Staatliches Museum für Naturkunde Stuttgart, Germany;
- VNPC private collection of Vladimír Novák, Prague, Czech Republic.

Measurements were made with Olympus SZ 40 stereoscopic microscope with continuous magnification and with soft imaging system Analysis. 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
- EL/EW ratio maximum length of elytron / maximum width of elytron
- 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 in 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
RLP	ratios of relative lengths of palpomeres 2-4 from base to apex (3=1.00)
RL/WP	ratios of length / maximum width of palpomeres 2-4 from base to apex
RLT	ratios of relative lengths of tarsomeres 1-5 respectively 1-4 from base to apex (1=1.00)

Slash (/) separates data in different rows on locality labels, double slash (//) separates data on different labels.

## TAXONOMY

### KEY TO THE MALES OF CHINESE SPECIES

- 1 (2) Antennomere 3 distinctly longer than antennomere 2 and less than twice shorter than antennomere 4 ..... subgenus *Nikomenalia* Dubrovina, 1975 3
- 2 (1) Antennomere 3 approximately as long as antennomere 2 and more than twice shorter than antennomere 4 .. subgenus *Hymenalia* Mulsant, 1856 9
- 3 (4) Anterior part of pronotum with distinct angles. Habitus as in Fig. 63; Head and pronotum as in Fig. 64. China: Yunnan. .... *Hymenalia (Nikomenalia) schawalleri* sp. nov.
- 4 (3) Anterior part of pronotum rounded ..... 5
- 5 (6) Antennomere 3 approximately as long as antennomere 4. China: Gansu, Nei Mongol ..... *Hymenalia (Nikomenalia) impunctaticollis* Dubrovina, 1975
- 6 (5) Antennomere 3 distinctly shorter than antennomere 4 .....7
- 7 (8) Punctuation of pronotum denser. Mongolia, China: Nei Mongol. .... *Hymenalia (Nikomenalia) medvedevi* Dubrovina, 1975
- 8 (7) Punctuation of pronotum sparser. Mongolia. .... *Hymenalia (Nikomenalia) kaszabi* Muche, 1972
- 9 (10) Eyes small, space between eyes very broad. Habitus as in Fig. 48; Head and pronotum as in Fig. 49. China: ..... *Hymenalia minuta* Pic, 1910
- 10 (9) Eyes large, space between eyes narrow ..... 11
- 11 (12) Upper part of body with distinct setation ..... *rufipes* group [the second group according Dubrovina (1975)] 13
- 12 (11) Upper part of body glabrous ..... 15
- 13 (14) Space between eyes very narrow, narrower than length of antennomere 2. China: Yunnan ..... *Hymenalia murzini* Novák, 2008
- 14 (13) Space between eyes broader than length of antennomere 2. China: Yunnan ..... *Hymenalia wrasei* Novák, 2008
- 15 (16) Smaller species, body vaulted, elytra oval ..... *rufipennis* group [the third group according Dubrovina (1975)] 17
- 16 (15) Larger species, body more flat, elytra broadened to two thirds or three fourth ..... *bocaki* group 31
- 17 (18) Eyes almost touching on frons. Habitus as in Fig. 20; Head and pronotum as in Fig. 21. China: Yunnan, North Vietnam ..... *Hymenalia horaki* sp. nov.
- 18 (17) Space between eyes narrow, but distinct ..... 19
- 19 (20) Antennomere 3 distinctly longer than antennomere 2 ..... 21
- 20 (19) Antennomere 3 almost as long as antennomere 2 ..... 23

- 21 (22) Space between eyes as wide as antennomere 3 long. Habitus as in Fig. 58; Head and pronotum as in Fig. 59. China, Russia - East Siberia, Far East, Japan, South Korea, Taiwan .. *Hymenalia rufipennis* Marseul, 1876
- 22 (21) Space between eyes as wide as antennomere 2 long. Habitus as in Fig. 43; Head and pronotum as in Fig. 44. China: Taiwan .....*Hymenalia merkli* sp. nov.
- 23 (24) Elytra broadest near middle ..... 25
- 24 (23) Elytra broadest near two third of length from base ..... 27
- 25 (26) Pronotum and antenna black. Habitus as in Fig. 24; Head and pronotum as in Fig. 25. China: Hubei, Hunana, Jiangxi ..... *Hymenalia jaroslavi* sp. nov.
- 26 (25) Pronotum and antenna pale brown. Habitus as in Fig. 52; Head and pronotum as in Fig. 53. China: Yunnan .....*Hymenalia pallidipennis* Pic, 1926
- 27 (28) Lateral margins of pronotum rounded, pronotum reddish-brown, elytra dark blue-blackish. Habitus as in Fig. 39; Head and pronotum as in Fig. 40. China ..... *Hymenalia klapperichi tschungseni* Pic, 1955
- 28 (27) Lateral margins of pronotum straight, parallel ..... 29
- 29 (30) Pronotum and elytra brilliant. Habitus of male as in Fig. 15; Head and pronotum as in Fig. 16. China: Shaanxi ..... *Hymenalia holzschuhi* sp. nov.
- 30 (29) Pronotum and elytra with microgranulation, rather dull. Habitus as in Fig. 34; Head and pronotum as in Fig. 35. China: Fukien, Sichuan .....*Hymenalia klapperichi klapperichi* Pic, 1955
- 31 (32) Pronotum relatively narrow (PI=66.38). Habitus as in Fig. 29; Head and pronotum as in Fig. 30. China: Hubei. .... *Hymenalia kakadu* sp. nov.
- 32 (31) Pronotum broader, PI no higher than 60 ..... 33
- 33 (34) Space between eyes very narrow as long as length of antennomere 2 ..... 35
- 34 (33) Space between eyes distinctly broader than length of antennomere 2 ..... 37
- 35 (36) Antennomere 3 distinctly longer than antennomere 2. Habitus as in Fig. 68; Head and pronotum as in Fig. 69. China: Yunnan. .... *Hymenalia wuliangica* sp. nov.
- 36 (35) Antennomere 3 approximately as long as antennomere 2. Habitus as in Fig. 1; Head and pronotum as in Fig. 2. China: Yunnan ..... *Hymenalia becvari* sp. nov.
- 37 (38) Antennomere 3 twice as long as antennomere 2. Habitus as in Fig. 11; Head and pronotum as in Fig. 12. China: Yunnan. .... *Hymenalia habashanica* sp. nov.
- 38 (37) Antennomere 3 only slightly longer than antennomere 2 ..... 39
- 39 (40) Punctuation of pronotum dense, punctures relatively large. Habitus as in Fig. 6; Head and pronotum as in Fig. 7. China: Sichuan ..... *Hymenalia bocaki* sp. nov.
- 40 (39) Punctuation of pronotum sparse, punctures small ..... 41
- 41 (42) Space between eyes almost as long as length of antennomere 3. Habitus as in Fig. 72; Head and pronotum as in Fig. 73. China: Yunnan. .... *Hymenalia yunnanica* sp. nov.
- 42 (41) Space between eyes distinctly broader than length of antennomere 3. Habitus as in Fig. 54; Head and pronotum as in Fig. 55. China: Sichuan. .... *Hymenalia puetzi* sp. nov.

### *Hymenalia becvari* sp. nov.

(Figs 1-5)

**Type locality.** China, Yunnan, Habashan Mts.

**Type material.** Holotype (1 ♂): labelled: white label CHINA - YUNNAN / HABASHAN - Habashan Mts / 5.-13.vi.2002, alt.2800-3150 m / WGS 84: 27°20' N, 100°09' E / lgt. Bečvář S. & Fouquè R.+H., (OKZC); Paratypes: (2 ♀♀): same data as holotype, (OKZC, VNPC); (1 ♂): white label CHINA - YUNNAN / HABASHAN – Habashan Mts / 6.-11.vi.2002, alt.3150-3500 m / WGS 84: 27°19' N, 100°08' E / lgt. Bečvář S. & Fouquè R.+H., (VNPC). The types are provided with a printed red label: 'Hymenalia becvari sp. nov. HOLOTYPUS [resp. PARATYPUS] V. Novák det. 2010'.

**Description of holotype.** Habitus as in Fig. 1, body elongate-oval, from reddish-brown to dark blackish-brown, shiny, glabrous, body length 6.65 mm. Widest near two thirds of elytra length; BL/EW 2.70.

Head (Fig. 2). Posterior part dark blackish-brown, glabrous, with microgranulation, slightly shiny, anterior part and clypeus with pale brown setation, clypeus slightly paler. Posterior part behind eyes with small-sized, shallow punctures. Punctuation of anterior part sparser, space between eyes impunctate. HW 1.14 mm; HW/PW 0.73. HL (visible part) 1.03 mm. Eyes dark, large, transverse, deeply excised, space between eyes approximately as broad as antennomere 2 long; OI 10.31.

Antennae. Long, AL 5.64 mm, AL/BL 0.85. Antennomeres unicoloured brown with microgranulation. Antennomeres 1-3 shiny with sparse and longer pale brown setation, antennomeres 4-11 dull with short and dense brown setation; antennomeres 4-10 distinctly serrate. Antennomeres 4-11 with dense punctuation. Antennomere 2 shortest, antennomere 3 only slightly longer than antennomere 2. RLA (1-11): 1.67: 0.85: 1.00: 3.64: 3.97: 4.38: 4.56: 4.87: 4.56: 4.36: 4.80. RL/WA (1-11): 2.32: 0.95: 1.15: 3.08: 3.63: 2.90: 3.12: 3.67: 3.92: 3.91: 5.14.

Maxillary palpus. Dark brown with sparse, pale brown setation. Palpomeres 2-4 distinctly narrowest at base and broadest at apex. Ultimate and penultimate palpomeres with microgranulation, slightly shiny. Ultimate palpomere longly triangular, axe-shaped. RLP (2-4): 2.40: 1.00: 3.02. RL/WP (2-4): 3.38: 1.41: 1.86.

Pronotum (Fig. 2). Reddish-brown, transverse, shiny, glabrous with fine microgranulation. PL 0.86 mm; PW 1.56 mm. PI 55.31. Border lines complete, only in middle of anterior margin and base indistinct. Base finely excised, against scutellum straight. Posterior angles rounded, rectangular, anterior angles rounded, indistinct. Surface with relatively sparse small-sized punctures.

Ventral side of body. Dark brown, prothorax reddish-brown, shiny with sparse, short, pale brown setation and punctuation. Abdomen dark brown with pale brown setation and microgranulation, more dull. Ultimate abdominal sternite finely excised in middle.

Elytron. Long, brown, glabrous, shiny, distinctly regularly broadened at two thirds of length. EL 4.76 mm. Broadest near elytral two thirds, EW 2.46 mm. EL/EW 1.94. Elytral striae with distinct rows of small-sized punctures, interspaces between punctures in rows very narrow, narrower than diameter of punctures. Elytral intervals with very small sporadic punctures, with microgranulation, shiny.

Scutellum. Broadly triangular, brown, sides narrowly darker, shiny, glabrous.

Elytral epipleura. Brown as elytron itself, shiny, glabrous, broadest near base, narrowing to metasternum, then slightly narrowing to abdominal sternite 2, and then slightly broadening to rounded apex again.

Legs. Dark brown, with short and dense pale brown setation. Tibia and tarsi narrow, tibia slightly broadened to apex. Penultimate tarsomere of each tarsus slightly broadened and lobed. RLT: protarsus: 1.00: 0.62: 0.57: 0.85: 2.24; mesotarsus: 1.00: 0.43: 0.45: 0.37: 1.20; metatarsus: 1.00: 0.39: 0.28: 0.71.

Both anterior tarsal claws with 7 teeth.

Aedeagus (Figs 4, 5). Pale brown, slightly shiny. Basal third of basal piece rounded laterally, then straight laterally and regularly narrowing dorsally. Apical piece short, narrow, parallel with rounded top laterally. Ratio of length of apical piece to length of basal piece 1: 4.32.

**Female** (Fig. 3). Space between eyes distinctly broader and antennomere 3 distinctly longer than those in male. Antennae distinctly shorter than in male, reaching only 0.60 of body length. Both anterior tarsal claws with 7 teeth. RLA (1-8): 0.94: 0.64: 1.00: 1.73: 1.76: 1.90: 2.00: 2.06. RL/WA (1-8): 1.59: 1.59: 2.27: 3.72: 3.61: 3.78: 3.23: 3.68. RLT: protarsus: 1.00: 0.78: 0.62: 0.99: 2.76; mesotarsus: 1.00: 0.51: 0.50: 0.48: 1.31; metatarsus: 1.00: 0.44: 0.36: 1.04.

**Variation.** Measurements: mean (minimum - maximum). Males (n=2) BL 6.75 mm (6.65-6.84 mm); HL 1.06 mm (1.03-1.09 mm); HW 1.17 mm (1.14-1.19 mm); OI 11.52 (10.31-12.73), PL 0.96 mm (0.86-1.06 mm); PW 1.64 mm (1.56-1.71 mm); PI 58.71 (55.31-62.11); EL 4.73 mm (4.69-4.76 mm); EW 2.48 mm (2.46-2.50 mm). Females (n=2) BL 6.71 mm (6.60-6.82 mm); HL 1.05 mm (1.03-1.08 mm); HW 1.02 mm (0.95-1.08 mm); OI 45.20 (42.21-48.19), PL 1.02 mm (0.99-1.04 mm); PW 1.82 mm (1.78-1.85 mm); PI 55.86 (53.57-58.14); EL 4.65 mm (4.48-4.81 mm); EW 2.65 mm (2.57-2.72 mm).

**Differential diagnoses.** (for details see the key above). *Hymenalia becvari* sp. nov. belongs to *Hymenalia bocaki* group, from similar species of this group *H. kakadu* sp. nov. is clearly different mainly by pronotum broad and OI lower than 60, while *H. kakadu* sp. nov. with pronotum narrow and OI higher than 60; *H. becvari* sp. nov. clearly differs from similar species *H. bocaki* sp. nov., *H. habashanica* sp. nov., *H. puetzi* sp. nov. and *H. yunnanica* sp. nov. by narrow space between eyes, which is as long as antennomere 2, while *H. bocaki* sp. nov., *H. habashanica* sp. nov., *H. puetzi* sp. nov. and *H. yunnanica* sp. nov. has space between eyes distinctly broader than length of antennomere 2; *H. becvari* sp. nov. is clearly different from similar species *H. yunnanica* sp. nov. mainly by antennomere 2 as long as antennomere 3, while *H. yunnanica* sp. nov. has antennomere 3 distinctly longer than of antennomere 2.

**Name derivation.** New species is dedicated to one of the collectors - Stanislav Bečvář (České Budějovice, Czech Republic), well-known specialist in Tenebrionidae.

**Distribution.** China: Yunnan.

***Hymenalia bocaki* sp. nov.**  
(Figs 6-10)

**Type locality.** CHINA S Sichuan, 30 km NW of Muli, 28°07'N 101°05'E, 3500m.

**Type material.** Holotype (♂) labelled: CHINA S Sichuan / 30 km NW Muli (BOWA) / 28°07'N 101°05'E, 3500 m / M. Bocak lgt., 2.vii.1998, (SMNS); Paratypes: (4 ♂♂, 1 ♀): same data as holotype, (SMNS, VNPC). The types are provided with a printed red label: 'Hymenalia bocaki sp. nov. HOLOTYPUS [resp. PARATYPUS] V. Novák det. 2010'.

**Description of holotype.** Habitus as in Fig. 6, body elongate-oval, brown, shiny, glabrous, body length 8.13 mm. Widest near two thirds of elytral length; BL/EW 2.84.

Head (Fig. 7). Relatively narrow, shiny, posterior part glabrous, anterior part and clypeus

with long, pale brown setation. Posterior half dark brown, with dense and large punctures and narrow interspaces between punctures beyond eyes, clypeus and anterior half slightly paler, punctation of anterior half, clypeus and between eyes sparse, punctures small. HW 1.19 mm; HW/PW 0.65. HL (visible part) 1.14 mm. Eyes dark, large, transverse, deeply excised, space between eyes distinctly broader than length of antennomere 2; OI 20.72.

Antennae. Long, AL 6.20 mm, AL/BL 0.76. Antennomeres unicoloured brown, slightly paler than upper part of body. Antennomeres with short and dense brown setation and microgranulation; antennomeres 1-3 shiny, antennomeres 4-11 dull. Antennomeres 3-11 with dense punctation, punctures relatively small and shallow. Antennomere 2 shortest. RLA (1-11): 1.72: 0.75: 1.00: 3.34: 3.63: 4.28: 4.31: 4.88: 4.25: 4.59: 5.09. RL/WA (1-11): 2.11: 1.09: 1.07: 3.06: 3.74: 4.62: 3.73: 4.58: 4.25: 4.45: 6.79.

Maxillary palpus. Pale brown with pale brown setation. Penultimate palpomere and palpomere 2 with a few long light setae. Palpomeres 2-4 distinctly narrowest at base and broadest at apex. Ultimate and penultimate palpomeres with microgranulation, slightly shiny. Ultimate palpomere longly triangular, axe-shaped. RLP (2-4): 1.38: 1.00: 2.24. RL/WP (2-4): 2.84: 1.57: 2.21.

Pronotum (Fig. 7). Brown, transverse, relatively narrow, shiny, glabrous. PL 1.08 mm; PW 1.81 mm. PI 59.35. Border lines complete, base bisinuate, against scutellum straight. Posterior angles rounded, rectangular, anterior angles rounded, indistinct. Surface with microgranulation, shiny with relatively dense medium-sized punctures, interspaces between punctures broad.

Ventral side of body. Dark brown, darker than upper part. Prothorax with sparse punctation, mesothorax and metathorax with dense punctation and short pale brown setation. Abdominal sternites with microgranulation, sparse punctation and sparse, pale brown setation.

Elytron. Long, unicoloured brown, glabrous, shiny, distinctly regularly broadened to two thirds of length. First elytral interval distinctly paler. EL 5.91 mm. Broadest near elytral two thirds, EW 2.86 mm. EL/EW 2.07. Elytral striae with distinct rows of medium-sized punctures, interspaces between punctures in rows very narrow, narrower than diameter of punctures. Elytral intervals impunctate, with microgranulation, shiny.

Scutellum. Pentagonal, pale brown, paler than elytron itself, sides narrowly darker, shiny, sparsely small-sized punctate.

Elytral epipleura. Brown as elytron itself, shiny, broadest near base, narrowing to metasternum, then running parallel.

Legs. Brown, with short and dense brown setation. Tibia narrow, slightly broadened to apex. Penultimate tarsomere of each tarsus slightly broadened and lobed. RLT: protarsus: 1.00: 0.70: 0.55: 0.59: 1.16; mesotarsus: 1.00: 0.66: 0.52: 0.48: 1.56; metatarsus: 1.00: 0.39: 0.25: 0.65.

Both anterior tarsal claws with 7 teeth.

Aedeagus (Figs 9, 10). Pale brown, shiny. Basal half of basal piece rounded laterally, apical half of basal piece straight laterally and regularly narrowing dorsally. Apical piece short, almost parallel dorsally and slightly rounded apically. Ratio of length of apical piece to length of basal piece 1: 4.29.

**Female** (Fig. 8). Space between eyes distinctly broader and antennomere 3 distinctly longer than those in male. Antennae short, reaching only 0.55 of body length Both anterior tarsal claws with 7 teeth. RLA (1-11): 1.04: 0.51: 1.00: 1.98: 1.76: 2.29: 2.04: 2.17: 2.06: 2.06: 2.23. RL/WA (1-11): 1.77: 1.44: 2.22: 4.04: 4.09: 4.50: 4.64: 4.44: 4.20: 4.20: 4.23. RLT: protarsus: 1.00: 0.40: 0.45: 0.64: 1.84; mesotarsus: 1.00: 0.47: 0.35: 0.52: 1.25; metatarsus: 1.00: 0.42: 0.27: 0.77. BL 9.07 mm; HL 1.44 mm; HW 1.37 mm; OI 43.97; PL 1.38 mm; PW 2.34 mm; PI 59.02; EL 6.25 mm; EW 3.41 mm; LA 5.00; LA/L 0.55; L/EW 2.66; HW/PW 0.55 .

**Variation.** Measurements: mean (minimum - maximum). Males (n=5) BL 7.88 mm (7.14-8.17 mm); HL 1.14 mm (1.03-1.20 mm); HW 1.20 mm (1.14-1.28 mm); OI 20.79 (18.75-24.17), PL 1.02 mm (0.91-1.08 mm); PW 1.82 mm (1.71-1.92 mm); PI 56.20 (53.08-59.35); EL 5.72 mm (5.20-5.91 mm); EW 2.84 mm (2.63-2.96 mm).

**Differential diagnoses.** (for details see the key above). *Hymenalia bocaki* sp. nov. belongs to *H. bocaki* group, from similar species of this group *H. kakadu* sp. nov. is clearly different mainly by pronotum broad and OI lower than 60, while *H. kakadu* sp. nov. has pronotum narrow with OI higher than 60; *H. bocaki* sp. nov. clearly differs from similar species *H. becvari* sp. nov. and *H. wuliangica* sp. nov. mainly by space between eyes broad, which is distinctly broader than length of antennomere 2, while *H. becvari* sp. nov. and *H. wuliangica* sp. nov. have space between eyes narrow - as long as length of antennomere 2. *H. bocaki* sp. nov. is clearly different from similar species *H. puetzi* sp. nov. and *H. yunnanica* sp. nov. mainly by punctation of pronotum dense, while *H. puetzi* sp. nov. and *H. yunnanica* sp. nov. with punctation of pronotum sparse; *Hymenalia bocaki* sp. nov. is clearly different from similar species *H. habashanica* sp. nov. mainly by antennomere 3 only slightly longer than antennomere 2, while *H. habashanica* sp. nov. with antennomere 3 twice longer than antennomere 2.

**Name derivation.** New species is dedicated to the collector Ladislav Bocák (Olomouc, Czech Republic), well-known specialist in Lycidae.

**Distribution.** China: Sichuan.

***Hymenalia habashanica* sp. nov.**

(Figs 11-14)

**Type locality.** China, Yunnan, Habashan Mts., 27°19' N, 100°08' E.

**Type material.** Holotype (♂) labelled: white label CHINA - YUNNAN / HABASHAN - Habashan Mts. / 6.-11.vi.2002, alt.3150-3500 / WGS 84: 27°19' N, 100°08' E / lgt. Bečvář S.& Fouquè R.+H., (OKZC). The type is provided with a printed red label: 'Hymenalia habashanica sp. nov. HOLOTYPUS V. Novák det. 2010'.



**Description of holotype.** Habitus as in Fig. 11, body elongate-oval, brown, shiny, glabrous, body length 8.14 mm. Widest near two thirds of elytral length; BL/EW 2.80.

Head (Fig. 12). Relatively narrow, shiny, posterior part dark brown, glabrous, with medium-sized punctures, anterior part and clypeus paler than posterior part, with sparse, longer, pale brown setation and sparse small-sized punctures. Space between eyes impunctate and distinctly broader than length of antennomere 2. HW 1.22 mm; HW/PW 0.64. HL (visible part) 1.18 mm. Eyes dark, large, transverse, deeply excised, space between eyes distinctly broader than length of antennomere 2; OI 22.02.

Antennae. Long, AL 5.77 mm, AL/BL 0.71. Antennomeres unicoloured dark brown with microgranulation, antennomeres 1-3 shiny, with sparse setation, antennomeres 4-11 dull, with dense pale brown setation and punctation, distinctly serrate. Antennomere 2 shortest, antennomere 3 approximately twice as long as antennomere 2. RLA (1-11): 1.04: 0.57: 1.00: 2.32: 2.26: 2.40: 2.50: 2.58: 2.42: 2.26: 2.57. RL/WA (1-11): 1.90: 1.31: 2.00: 3.81: 3.72: 3.88: 4.30: 4.37: 3.81: 4.29: 5.24.

Maxillary palpus. Dark brown with sparse pale brown setation and microgranulation, shiny. Palpomeres 2-4 distinctly narrowest at base and broadest at apex. Ultimate palpomere longly triangular, axe-shaped. RLP (2-4): 1.41: 1.00: 1.92. RL/WP (2-4): 2.31: 1.52: 1.71.

Pronotum (Fig. 12). Dark brown, transverse, shiny, glabrous. PL 1.19 mm; PW 1.99 mm. PI 59.80. Border lines complete, only in the middle of base and anterior margin indistinct. Base very slightly excised. Posterior angles roundly obtuse angled, anterior angles rounded, indistinct. Surface shiny, middle part with microgranulation, rather dull, with relatively sparse, small-sized punctures.

Ventral side of body. Dark reddish-brown, slightly shiny with punctation. Ultimate abdominal sternite with oval impression at middle of anterior half. Abdomen brown, rugose with microgranulation and long, pale brown setation, penultimate and ultimate abdominal sternites reddish-brown.

Elytron. Dark brown, glabrous, shiny, distinctly regularly broadening to two thirds of length from base. EL 5.77 mm. Broadest near elytral two thirds, EW 2.91 mm. EL/EW 1.99. Elytral striae with distinct rows of medium-sized punctures, interspaces between punctures in rows very narrow, narrower than puncture diameter. Elytral intervals with microgranulation and very small and sporadic punctures, shiny.

Scutellum. Broadly triangular, paler than elytron itself, sides narrowly darker, shiny, glabrous.

Elytral epipleura. Brown as elytron itself, shiny, broadest near base, narrowing to metasternum, then running parallel.

Legs. Dark brown, with short and dense pale brown setation. Tarsi and tibia narrow, tibia slightly dilated anteriorly. Penultimate tarsomere of each tarsus slightly broadened and lobed. RLT: protarsus: 1.00: 0.53: 0.49: 0.67: 1.52; mesotarsus: 1.00: 0.53: 0.41: 0.51: 1.10; metatarsus: 1.00: 0.38: 0.35: 0.74.

Both anterior tarsal claws with 7 teeth.

Aedeagus (Figs 13, 14). Relatively large, pale brown, shiny. Base of basal piece rounded laterally, then straight, regularly narrowing dorsally and laterally. Apical piece short, finely longitudinally triangular dorsally, laterally narrow, parallel with rounded top. Ratio of length of apical piece to length of basal piece 1: 6.14.

**Female.** Unknown.

**Differential diagnoses.** (for details see the key above). *Hymenalia habashanica* sp. n. belongs to *Hymenalia bocaki* - group, *H. kakadu* sp. nov. is clearly different from similar species mainly by pronotum relatively broad and OI lower than 60, while *H. kakadu* sp. nov. has pronotum relatively narrow with OI higher than 60; *H. habashanica* sp. nov. clearly differs from similar species *H. becvari* sp. nov. and *H. wuliangica* sp. nov. mainly by space between eyes distinctly broader than length of antennomere 2, while *H. becvari* sp. nov. and *H. wuliangica* sp. nov. with space between eyes as long as length of antennomere 2; *H. habashanica* sp. nov. is clearly different from similar species *H. bocaki* sp. nov., *H. puetzi* sp. nov. and *H. yunnanica* sp. nov. mainly by antennomere 3 twice as long as antennomere 2, while *H. bocaki* sp. nov., *H. puetzi* sp. nov. and *H. yunnanica* sp. nov. have antennomere 3 only slightly longer than antennomere 2.

**Name derivation.** Toponymic, named after the type locality Habashan mts.

**Distribution.** China: Yunnan.

*Hymenalia holzschuhi* sp. nov.

(Figs 15-19)

**Type locality.** C-CHINA, Shaanxi, Qinling Shan.

**Type material.** Holotype (♂) labelled: C-CHINA, Shaanxi, Qinling / Shan, 6 km E of Xunyangba, / 1000-1300 m, 23.v.-13.vi. / leg. C. Holzschuh 2000, (VNPC); Paratypes: (14 ♂♂, 8 ♀♀): same data as holotype, (DHBC, VNPC); (3 ♂♂, 2 ♀♀): CHINA - Shaanxi, / 26.VI.1998 / Qing Ling Shan mts., 1500 m / Hou Zen Zi vill. env. / 30 km SE of Taibai Shan Mt. / O. Šafránek et M. Trýzna lgt., (DHBC, VNPC). The types are provided with a printed red label: 'Hymenalia holzschuhi sp. nov. HOLOTYPUS [resp. PARATYPUS] V. Novák det. 2010'.

**Description of holotype.** Habitus as in Fig. 15, body oval, from pale brown to dark brown, shiny. BL 6.34 mm. Widest at elytral base; BL/EW 2.73.

Head (Fig. 16). Dark brown, anterior part slightly paler, shiny, posterior half glabrous, only behind eyes with few dark brown setae, punctation dense, punctures medium-sized, intervals between punctures narrow. Anterior half and clypeus with long pale brown setation and sparse punctation, punctures small-sized, interspaces between punctures broad. HW 1.17 mm; HW/PW 0.70. HL (visible part) 1.12 mm. Eyes dark, very large, transverse, deeply excised, space between eyes very narrow, approximately as long as length of antennomere 2. OI 14.34.

Antennae. Long, AL 4.70 mm, AL/BL 0.74. Antennomeres 1-3 dark brown, slightly shiny with short and sparse, pale brown setation. Antennomeres 4-11 brown, slightly paler than antennomere 1-3, dull, with short and dense brown setation, microgranulation and dense punctation, punctures small. Antennomeres 4-10 broadest at apex, distinctly serrate. Antennomere 2 shortest, finely shorter than antennomere 3. RLA (1-11): 1.81: 0.90: 1.00:

2.85: 3.00: 3.21: 3.23: 3.39: 3.31: 3.16: 3.52. RL/WA (1-11): 1.51: 1.25: 1.39: 2.85: 2.54: 2.84: 2.86: 2.93: 3.49: 3.43: 4.42.

Maxillary palpus. Brown with pale brown setation and microgranulation, slightly shiny. Palpomere 2-4 distinctly narrowest at base and broadest at apex. Penultimate palpomere shorter than palpomere 2 and ultimate palpomere. Ultimate palpomere longly triangular, axe-shaped. RLP (2-4): 1.52: 1.00: 1.24. RL/WP (2-4): 2.37: 1.22: 1.78.

Pronotum (Fig. 16). Broad, transverse, dark brown, posterior half near posterior angles pale brown, shiny, glabrous, with microgranulation and sparse punctation, punctures small-sized. PL 0.93 mm; PW 1.67 mm. PI 55.67. Border lines complete through their entire length, only in the middle of apex not clearly conspicuous, base distinctly excised, against scutellum straight. Posterior angles slightly roundly obtuse angled, anterior angles indistinct, rounded.

Ventral side of body. Dark reddish-brown, slightly shiny, prothorax with fine punctation, punctures of mesothorax and metathorax distinctly larger. Abdomen reddish-brown with microgranulation and pale brown setation. Ultimate abdominal sternite finely excised at middle.

Elytron. Unicoloured pale brown, glabrous, slightly shiny. EL 4.29 mm. Broadest near half, EW 2.38 mm. EL/EW 1.80. Elytral striae with distinct rows of middle-sized punctures, interspaces between punctures in rows very narrow, narrower than diameter of punctures. Elytral interspaces with microgranulation and with very small sporadic punctures.

Scutellum. Broad, longly triangular, pale brown with dark brown margins, glabrous, without conspicuous punctation and microgranulation.

Elytral epipleura. Pale brown as elytron itself, shiny, glabrous, broadest near base, narrowing to first abdominal sternite, then running parallel.

Legs. Dark brown with short and dense, pale brown setation, tarsi paler than tibia and femora. Penultimate tarsomere of each tarsus distinctly lobed. RLT: protarsus: 1.00: 0.60: 0.38: 0.62: 1.52; mesotarsus: 1.00: 0.41: 0.30: 0.83: 0.22; metatarsus: 1.00: 0.40: 0.19: 0.59.

Both anterior tarsal claws with 6 distinct teeth.

Aedeagus (Figs 18, 19). Relatively large, pale brown, slightly shiny. Basal half of basal piece rounded laterally, then straight laterally and regularly narrowing dorsally. Apical piece relatively long, parallel with triangular top dorsally, laterally very slightly narrowing with rounded top. Ratio of length of apical piece to length of basal piece 1: 3.36.

**Female** (Fig. 17). Space between eyes distinctly broader and antennomere 3 distinctly longer than those in male. Antennae distinctly shorter than in male, reaching only 0.59 of body length. Both anterior tarsal claws with 5 teeth. RLA (1-11): 0.51: 0.25: 1.00: 1.40: 1.43: 1.49: 1.66: 1.70: 1.72: 1.59: 1.68. RL/WA (1-11): 1.42: 1.18: 3.79: 5.69: 6.33: 6.07: 5.50: 7.50: 9.10: 7.63: 9.88. RLT: protarsus: 1.00: 0.48: 0.38: 0.52: 1.24; mesotarsus: 1.00: 0.43: 0.29: 0.39: 0.94; metatarsus: 1.00: 0.29: 0.30: 0.62.

**Variation.** Measurements: mean (minimum - maximum). Males (n=18) BL 5.98 mm (5.67-6.45 mm); HL 0.85 mm (0.74-1.12 mm); HW 1.13 mm (1.06-1.19 mm); OI 13.71 (10.23-16.49), PL 0.90 mm (0.83-0.99 mm); PW 1.67 mm (1.58-1.79 mm); PI 53.68 (49.84-57.88); EL 4.23 mm (4.03-4.48 mm); EW 2.43 mm (2.25-2.60 mm). Females (n=10) BL 6.33 mm (5.86-6.71 mm); HL 0.81 mm (0.78-0.84 mm); HW 1.08 mm (0.98-1.21 mm); OI 42.23

(38.79-45.29), PL 1.01 mm (0.96-1.08 mm); PW 1.85 mm (1.73-2.05 mm); PI 54.60 (51.69-57.44); EL 4.52 mm (4.12-4.82 mm); EW 2.44 mm (2.53-2.83 mm).

**Differential diagnoses.** (for details see the key above). *Hymenalia holzschuhi* sp. n. belongs to *Hymenalia rufipennis* - group, *H. holzschuhi* sp. nov. is clearly different from similar species *H. horaki* sp. nov. mainly by broader space between eyes than *H. horaki* sp. nov., which has eyes almost touching; *H. holzschuhi* sp. nov. clearly differs from the species *H. rufipennis* Marseul and *H. merkli* sp. nov. mainly by antennomere 2 as long as antennomere 3, while *H. rufipennis* Marseul and *H. merkli* sp. nov. has antennomere 3 distinctly longer than antennomere 2; *H. holzschuhi* sp. nov. is clearly different from species *H. jaroslavi* sp. nov., *H. klapperichi tschungseni* Pic and *H. pallidipennis* Pic mainly by elytra broadest near two third of their length, while *H. jaroslavi* sp. nov., *H. klapperichi tschungseni* Pic and *H. pallidipennis* Pic have elytra broadest near half of elytral length; *H. holzschuhi* sp. nov. clearly differs from the species *H. klapperichi klapperichi* Pic mainly by pronotum and elytra brilliant, while *H. klapperichi klapperichi* Pic has elytra and pronotum rather dull.

**Name derivation.** New species is dedicated to the collector Carolus Holzschuh (Villach, Austria), well-known specialist in Cerambycidae.

**Distribution.** China: Shaanxi.

*Hymenalia horaki* sp. nov.

(Figs 20-23)

**Type locality.** North Vietnam (Tonkin), Tam Dao.

**Type material.** Holotype (♂) labelled: N VIET NAM (Tonkin) / pr. Vinh Phu 1990 / TAM DAO 6.-9.v. / Vit. Kubáň leg., (VNPC); Paratypes: (1 ♂): Vietnam, Tam Dao / 27.v.-2.vi.1986 / Vinh Phu prov. / Jan Horák lgt., (VNPC); (1 ♂): CHINA, SE - YUNNAN, / XICHOU - E env., / 1400-1700 m, 13.-18.v.95 / 23°22-26' / 104°41-49' / L.+R. BUSINSKÝ lgt., (VNPC). The types are provided with a printed red label: 'Hymenalia horaki sp. nov. HOLOTYPUS [resp. PARATYPUS] V. Novák det. 2010'.

**Description of holotype.** Habitus as in Fig. 20, body small, oval, from pale brown to blackish-brown, shiny, BL 5.38 mm. Widest in elytral half; BL/EW 2.57.

Head (Fig. 21). Relatively broad, anterior half shiny, with sparse light setation. Posterior half dark brown, clypeus and anterior half paler. Borders of mandibles in posterior half dark brown. Eyes broad, very large, transverse, strongly excised, space between eyes very narrow, distinctly narrower than length of antennomere 2. OI 5.62; HW 1.09 mm; HW/PW 0.80. HL (visible part) 0.98 mm. Surface with small-sized punctures in posterior half, anterior half inpunctate.

Antennae. Longer, AL 4.15 mm, AL/BL 0.77. Antennomeres unicoloured pale brown, antennomeres 1-3 slightly shiny with sparse brown setation; antennomeres 4-11 dull, with

dense punctation, microgranulation and short, brown setation; antennomeres 4-10 distinctly serrate; antennomeres 2, 3 shortest. RLA (1-11): 2.15: 0.95: 1.00: 3.95: 4.30: 4.75: 4.55: 4.85: 4.55: 4.40: 5.10. RL/WA (1-11): 1.95: 1.35: 1.05: 2.63: 2.87: 3.07: 3.50: 3.34: 3.37: 3.26: 4.44.

Maxillary palpus. Brown with longer, pale brown setation and microgranulation; palpomere 2 and 3 broadest in apex, ultimate palpomere longly triangular, axe-shaped. RLP (2-4): 1.33: 1.00: 2.27. RL/WP (2-4): 2.76: 1.27: 1.59.

Pronotum (Fig. 21). Reddish-brown, with dark reddish-brown large spots, sparse punctation and sparse microgranulation, glabrous, shiny, broad, transverse. PL 0.69 mm; PW 1.27 mm. PI 50.30. Border lines complete, only in the middle of anterior margin not clearly conspicuous, base slightly excised, against scutellum straight. Posterior angles rectangular, lateral margins parallel, anterior angles rounded, not clearly conspicuous, anterior margin slightly rounded.

Ventral side of body. Brown, with punctation and sparse and very short pale brown setation. Abdominal sternites brown, with microgranulation, shiny.

Elytron glabrous, shiny, bicolour, blackish-brown with pale brown suture, base and lateral margins. EL 3.71 mm. Broadest near elytral half, EW 2.09 mm. EL/EW 1.78. Elytral striae with rows of large punctures, interspaces between punctures in rows very narrow, narrower than diameter of punctures. Elytral interspaces with microgranulation and with very small sporadic punctures.

Scutellum glabrous, pale brown, broadly triangular, shiny.

Elytral epipleura. Brown, distinctly paler than middle part of elytron, shiny, broadest near base, narrowing to first abdominal sternite, then running parallel.

Legs. Unicoloured brown with dense and short, pale brown setation. Tibia narrow, penultimate tarsomere of each tarsus distinctly lobed. RLT: protarsus: 1.00: 0.41: 0.43: 0.71: 1.77; mesotarsus: 1.00: 0.34: 0.30: 0.39: 0.89; metatarsus: 1.00: 0.34: 0.20: 0.53.

Both anterior tarsal claws with 7 teeth.

Aedeagus (Figs 22, 23). Small, pale brown, apical piece relatively large. Basal piece slightly rounded laterally, slightly narrowing dorsally in apical half. Apical piece longitudinally triangular dorsally, laterally slightly narrowing with small rounded drop at apex. Ratio of length of apical piece to length of basal piece 1: 2.50.

**Female.** Unknown.

**Variation.** Measurements: mean (minimum - maximum). Males (n=3) BL 5.48 mm (5.23-5.84 mm); HL 1.02 mm (0.96-1.12 mm); HW 1.05 mm (0.95-1.10 mm); PL 0.71 mm (0.69-0.73 mm); PW 1.39 mm (1.32-1.48 mm); PI 51.31 (49.28-54.35); EL 3.75 mm (3.55-3.99 mm); EW 2.11 mm (1.98-2.26 mm).

**Differential diagnoses.** (for details see the key above). *Hymenalia horaki* sp. n. belongs to *Hymenalia rufipennis* – group, *H. horaki* sp. nov. is clearly different from other similar species of this group mainly by eyes almost touching, space between eyes distinctly narrower than length of antennomere 2, while other similar species of this group have distance between eyes at least as long as antennomere 2.

**Name derivation.** New species is dedicated to one of the collectors – Jan Horák (Prague, Czech Republic), well-known specialist in Mordellidae.

**Distribution.** China: Yunnan, Vietnam.

*Hymenalia jaroslavi* sp. nov.

(Figs 24-28)

**Type locality.** China, N Jiangxi, Lushan mts.

**Type material.** Holotype (♂) labelled: China, N Jiangxi, 29.v. / Lushan mts. GULING / 29.6N 116.0E / Jaroslav Turna leg., 2004, (VNPC); Paratypes: (1 ♂): same data as holotype, (VNPC); (1 ♂, 2 ♀♀): China, N Hunan, 4.-7.vii. / Wuling Shan, 29.4N 110.4E / ZHANGJIAJIE, 700 m / Jaroslav Turna leg., 2003, (VNPC); (1 ♂): China, W Hubei, 9.-10.V. / DALAOSHAN forest park / 31.05N 110.95E / Jaroslav Turna leg., 2004, (VNPC). The types are provided with a printed red label: 'Hymenalia jaroslavi sp. nov. HOLOTYPUS [resp. PARATYPUS] V. Novák det. 2010'.

**Description of holotype.** Habitus as in Fig. 24, body oval, from pale brown to dark brown, shiny, BL 5.94 mm. Widest near two third of elytral length; BL/EW 2.63.

Head (Fig. 25). Broad, shiny, dark brown, with distinct punctation, clypeus paler than posterior half, anterior half with pale brown setation. HW 1.12 mm; HW/PW 0.71. HL (visible part) 0.99 mm. Eyes very large, broad, transverse, space between eyes narrow, approximately as long as length of antennomere 2 and with two brilliant spaces without punctures, OI 19.86.

Antennae. Relatively long, unicoloured dark brown, with short and dense brown setation and microgranulation, AL 4.59 mm, AL/BL 0.77. Antennomeres 4-11 with dense punctation, punctures relatively large, antennomeres 4-10 distinctly serrate, antennomere 2 shortest. RLA (1-11): 1.07: 0.88: 1.00: 2.59: 2.83: 2.88: 2.98: 2.95: 3.02: 2.93: 3.17. RL/WA (1-11): 1.61: 1.47: 1.40: 2.87: 3.03: 2.95: 3.05: 3.26: 3.63: 3.42: 3.93.

Maxillary palpus brown with pale brown setation and microgranulation; palpomeres 2-4 broadest in apex, ultimate palpomere axe-shaped. RLP (2-4): 1.55: 1.00: 2.87. RL/WP (2-4): 1.97: 1.00: 1.67.

Pronotum (Fig. 25). Dark brown, shiny, glabrous, broad, transverse. PL 0.87 mm; PW 1.58 mm. PI 55.32. Border lines complete, only in the middle of apex not clearly conspicuous, base slightly excised, against scutellum straight. Posterior angles rounded, obtuse angled, anterior angles indistinct, lateral margins regularly rounded in anterior half. Surface with sparse punctation, punctures small.

Ventral side of body. Brown, shiny with punctation. Abdomen with microgranulation and sparse pale brown setation.

Elytron. Unicoloured pale brown, shiny, glabrous. EL 4.08 mm. Broadest near elytral two third, EW 2.26 mm. EL/EW 1.81. Elytral striae with rows of middle-sized punctures, interspaces between punctures in rows very narrow, narrower than diameter of punctures.

Elytral interspaces with microgranulation and sparse punctation, punctures small.

Scutellum broadly triangular, pale brown, slightly darker than elytron, shiny, glabrous.

Elytral epipleura. Pale brown as elytron itself, shiny, broadest near base, glabrous, narrowing to metasternum, then running parallel.

Legs. Dark brown, with dense brown setation, femora and tibia slightly shiny with microgranulation and punctures. Tibia narrow, dilated anteriorly. Penultimate tarsomeres of each tarsus distinctly lobed. RLT: protarsus: 1.00: 0.46: 0.38: 0.51: 1.04; mesotarsus: 1.00: 0.38: 0.27: 0.33: 0.88; metatarsus: 1.00: 0.22: 0.24: 0.54.

Both anterior tarsal claws with 5 distinct teeth.

Aedeagus (Figs 27, 28). Pale brown, long and narrow, slightly shiny. Basal half of basal piece rounded laterally, apical half straight and regularly narrowing laterally. Apical piece relatively short, narrow and parallel dorsally and laterally, apex rounded. Ratio of length of apical piece to length of basal piece 1: 4.0.

**Female** (Fig. 26). Both anterior tarsal claws with 5 teeth. Space between eyes broader than in male, antennomere 2 distinctly shorter than antennomere 3. Antennae shorter than in male, reaching 0.61 of body length. RLA (1-11): 0.92: 0.52: 1.00: 1.46: 1.51: 1.54: 1.51: 1.57: 1.56: 1.46: 1.53. RL/WA (1-11): 1.75: 1.82: 2.65: 3.42: 2.79: 2.76: 3.06: 3.20: 3.07: 3.18: 3.57. RLT: protarsus: 1.00: 0.39: 0.39: 0.65: 1.72; mesotarsus: 1.00: 0.38: 0.33: 0.37: 0.98; metatarsus: 1.00: 0.36: 0.24: 0.54.

**Variation.** Measurements: mean (minimum - maximum). Males (n=4) BL 6.05 mm (5.49-6.46 mm); HL 1.01 mm (0.93-1.05 mm); HW 1.11 mm (0.97-1.18 mm); OI 17.85 (16.95-19.86), PL 0.93 mm (0.87-1.00 mm); PW 1.63 mm (1.42-1.76 mm); PI 57.36 (55.07-62.02); EL 4.11 mm (3.68-4.45 mm); EW 2.29 mm (2.07-2.47 mm). Females (n=2) BL 4.21 mm (4.15-4.37 mm); HL 1.00 mm (0.97-1.02 mm); HW 1.03 mm; OI 39.23 (35.77-42.68), PL 0.97 mm (0.95-0.99 mm); PW 1.71 mm (1.67-1.75 mm); PI 56.44 (56.35-56.53); EL 4.21 mm (4.15-4.37 mm); EW 2.49 mm (2.43-2.54 mm).

**Differential diagnoses.** (for details see the key above). *Hymenalia jaroslavi* sp. nov. belongs to *Hymenalia rufipennis* - group, *H. jaroslavi* sp. nov. is clearly different from similar species *H. horaki* sp. nov. mainly by space between eyes approximately as long as length of antennomere 2, while *H. horaki* has space between eyes very narrow (eyes almost touching); *H. jaroslavi* sp. nov. clearly differs from the species *H. merkli* sp. nov. and *H. rufipennis* Marseul mainly by antennomere 3 as long as length of antennomere 2, while *H. merkli* sp. nov. and *H. rufipennis* Marseul have antennomere 3 distinctly longer than length of antennomere 2; *H. jaroslavi* sp. nov. is clearly different from similar species *H. holzschuhi* sp. nov., *H. klapperichi klapperichi* Pic and *H. klapperichi tschungseni* Pic mainly by elytra broadest near middle, while *H. holzschuhi* sp. nov., *H. klapperichi klapperichi* Pic and *H. klapperichi tschungseni* Pic have elytra broadest near elytral two thirds; *H. jaroslavi* sp. nov. clearly differs from the species *H. pallidipennis* Pic mainly by pronotum and antenna black, while *H. pallidipennis* Pic has pronotum and antenna pale brown.

**Name derivation.** New species is dedicated to the collector - Jaroslav Turna (Brno, Czech Republic), well-known specialist in Tenebrionidae, after his first name.

**Distribution.** China: Hubei, Hunan and Jiangxi.

***Hymenalia kakadu* sp. nov.**

(Figs 29-33)

**Type locality.** China, W - Hubei, Yanzi pass.

**Type material.** Holotype (♂) labelled: CHINA, W - HUBEI, / SHENNONGJIA Co., YANZI / PASS, 31°43' / 110°28', / 2200 m, 23.-26.6.95 / L.+ R. BUSINSKÝ lgt., (VNPC); Paratypes: (1 ♂ 2 ♀ ♀): same data as holotype, (VNPC); (1 ♀): CHINA, W - HUBEI, 1300- / 2000m, DASHENNONGJIA / massif - E slope, / PASS, 31°24-30' / 110°21-24' / 28.6.-5.7.95 / L.+ R. BUSINSKÝ lgt., (VNPC); (1 ♂): CHINA-Shaanxi, 22.vi.1998 / Qing Ling Shan mts., / road Baoji - Taibai vill., / pass 35 km S of Baoji, / M. Trýzna leg., (VNPC); (1 ♂ 1 ♀): CHINA - Shaanxi prov. 26.vi.1998 / Qing Ling Shan Mts. 30 km SE / Taibai Shan Mt. Hon Zen Zi vill. env. / cca 1500 m, Zd. Jindra lgt., (VNPC). The types are provided with a printed red label: 'Hymenalia kakadu sp. nov. HOLOTYPUS [resp. PARATYPUS] V. Novák det. 2010'.

**Description of holotype.** Habitus as in Fig. 29, body elongate-oval, dark brown, shiny, glabrous, BL 6.44 mm. Widest near elytral two thirds; BL/EW 2.70.

Head (Fig. 30). Brown, relatively narrow, shiny, with sparse pale brown setation, setation behind eyes dark brown. HW 1.09 mm; HW/PW 0.74. HL (visible part) 0.98 mm. Eyes large, broad, transverse, strongly excised, space between eyes distinctly broader than length of antennomere 2 or length of antennomere 3. OI 29.18. Surface with small-sized punctures and microgranulation.

Antennae. Long, unicoloured dark brown, with microgranulation, AL 4.89 mm, AL/BL 0.76. Antennomeres 1-3 slightly shiny with sparse, pale brown setation; antennomeres 4-11 dull with dense punctation, antennomeres 4-10 distinctly serrate, antennomere 2 shortest. RLA (1-11): 1.63: 0.77: 1.00: 2.93: 3.03: 3.40: 3.63: 3.73: 3.80: 3.80: 4.10. RL/WA (1-11): 1.96: 1.15: 1.58: 2.52: 2.76: 3.09: 3.20: 3.20: 3.26: 3.80: 4.92.

Maxillary palpus. Dark brown with sparse, pale brown setation and microgranulation, slightly shiny; palpomeres broadest at apex, ultimate palpomere axe-shaped. RLP (2-4): 1.53: 1.00: 2.10. RL/WP (2-4): 2.22: 1.34: 1.27.

Pronotum (Fig. 30). Dark brown, finely transverse, shiny, glabrous, with distinct shallow impression near the middle of both lateral margins. PL 0.98 mm; PW 1.47 mm. PI 66.38. Border lines complete, only in the middle of apex not clearly conspicuous, base almost straight. Posterior angles rectangular, anterior angles rounded, not clearly conspicuous. Lateral margins in posterior half straight, parallel, then regularly rounded in anterior half. Anterior border straight. Surface with fine microgranulation and large punctures.

Ventral side of body. Brown, prothorax with sparse small punctures, mesothorax and metathorax with dense punctation, punctures larger. Abdomen with microgranulation, punctation indistinct, ultimate abdominal sternite slightly excised in middle.

Elytron. Dark brown, with microgranulation, slightly shiny, glabrous, with sporadic pale brown setae. EL 4.48 mm. Broadest near two thirds of elytral length, EW 2.39 mm.



EL/EW 1.88. Elytral striae with rows of middle-sized punctures, interspaces between punctures in rows very narrow, narrower than diameter of punctures. Elytral interspaces with microgranulation.

Scutellum. Brown, distinctly paler than elytra with dark brown margins, broadly triangular, glabrous, with microgranulation, shiny.

Elytral epipleura. Brown, glabrous, slightly shiny, broadest near base, narrowing to first abdominal sternite, then running parallel.

Legs. Brown, distinctly paler than upper part of body with short and dense pale brown setation. Penultimate tarsomere of each tarsus distinctly lobed. RLT: protarsus: 1.00: 0.62: 0.79: 0.62: 1.23; mesotarsus: 1.00: 0.54: 0.41: 0.53: 1.20; metatarsus: 1.00: 0.33: 0.30: 0.63.

Both anterior tarsal claws with 5 teeth

Aedeagus (Figs 32, 33). Pale brown, slightly shiny. Basal piece rounded laterally, regularly narrowing dorsally. Apical piece relatively short, finally triangular with rounded top dorsally, laterally parallel. Ratio of length of apical piece to length of basal piece 1: 4.30.

**Female** (Fig. 31). Both anterior tarsal claws with 5 teeth. RLA (1-7): 1.00: 1.49: 1.00: 1.65: 1.69: 1.76: 1.78. RL/WA (1-7): 2.33: 1.83: 3.04: 3.86: 3.95: 4.09: 3.39. RLT: protarsus: 1.00: 0.59: 0.37: 0.90: 1.61; mesotarsus: 1.00: 0.45: 0.37: 0.45: 1.02; metatarsus: 1.00: 0.33: 0.30: 0.61. BL 7.30 mm; HL 0.97 mm; HW 1.16 mm; OI 48.72, PL 1.27 mm; PW 1.74 mm; PI 73.00; EL 5.06 mm; EW 2.79 mm.

**Variation.** Measurements: mean (minimum - maximum). Males (n=4) BL 6.28 mm (6.06-6.44 mm); HL 0.89 mm (0.79-0.98 mm); HW 1.08 mm (1.06-1.10 mm); OI 27.78 (24.74-29.41), PL 0.98 mm (0.96-1.00 mm); PW 1.50 mm (1.47-1.52 mm); PI 65.20 (63.31-66.38); EL 4.41 mm (4.16-4.59 mm); EW 2.36 mm (2.30-2.40 mm). Females (n=4) BL 6.80 mm (6.33-7.30 mm); HL 0.92 mm (0.73-1.08 mm); HW 1.13 mm (1.10-1.16); OI 51.29 (48.72-53.36), PL 1.15 mm (1.06-1.27 mm); PW 1.75 mm (1.74-1.76 mm); PI 65.60 (60.20-73.00); EL 4.74 mm (4.54-5.06 mm); EW 2.76 mm (2.72-2.81 mm).

**Differential diagnoses.** (for details see the key above). *Hymenalia kakadu* sp. nov. belongs to *Hymenalia bocaki* group, *H. kakadu* sp. nov. is clearly different from other similar species of the *bocaki* - group mainly by relatively narrow pronotum with PI higher than 60, while other species of *bocaki* - group have PI lower than 60 and pronotum relatively broad.

**Name derivation.** Named after the Czech name of the bird *Cacatua moluccensis* - kakadu.

**Distribution.** China: Huben.

*Hymenalia klapperichi klapperichi* Pic, 1955

(Figs 34-38)

*Hymenalia klapperichi* Pic, 1955: 30.

**Type locality.** China: Fujian, Kuatun.

**Type material.** 2 syntypes: syntype 1: (♂): white label 'KUATUN, FUKIEN / China,' [printed in black] '5.5' [handwritten black] '. 46 / (TSCHUNG SEN.)' [printed in black] // white label with red frame 'Paratypus' [printed in red] / 'Hymenalia / klapperichi / Pic' [handwritten black] // red label 'Paratype' [printed in black] / 'Hymenalia / klapperichi / det. Pic' [handwritten black], (HNHM); syntype 2: (♂): white label 'KUATUN, FUKIEN / China,' [printed in black] '27.5' [handwritten black] '. 46 / (TSCHUNG SEN.)' [printed in black] // white label with red frame 'Paratypus' [printed in red] '1955' [handwritten black] / 'Hymenalia / klapperichi / Pic' [handwritten black] // white label 'Hymenalia / klapperichi Pic' [handwritten black], (HNHM).

**Type condition.** Syntype 1 is glued on white label, right antenna with only antennomere 1, left antenna with antennomeres 1-8. Legs visible, missing anterior and middle tarsomere 5, posterior tarsomere 4 on left side and posterior tarsomere 4 on right side. Syntype 2 is glued on white label, left antenna complete, right antenna with antennomeres 1-7. Legs visible, posterior tarsomere 4 on left side and middle tarsomere 5 on right side missing.

**Other material examined.** (2 ♂♂, 2 ♀♀): Kuatun, Fukien / China, 18.v.1946 / leg. Tschung-Sen, (HNHM, VNPC); (1 ♂): Kuatun, Fukien / China, 10.vi.1946 / leg. Tschung-Sen, (HNHM).

**Redescription.** Habitus as in Fig. 34, body bicolour reddish-brown, glabrous, shiny; BL 6.66 mm. Broadest near elytral two thirds, BL/EW 2.49. Posterior part of head reddish-brown, slightly darker than anterior part. Head (Fig. 35) relatively large, transverse, with sparse punctation, HL 0.99 mm, HW 1.21 mm. Anterior half with long, pale brown setation, HW/PW 0.69. Eyes dark, large, transverse, deeply excised, space between eyes very narrow, slightly narrower than length of antennomere 2, OI 11.71. Antennae unicoloured brown, antennomeres 1-3 slightly shiny with sparse pale brown setation and microgranulation, antennomere 4-11 dull with dense setation, microgranulation and distinct punctation. LA 5.23 mm; LA/BL 0.89. Antennomeres 4-10 distinctly serrate. RLA (1-11): 1.37: 1.03: 1.00: 3.32: 3.51: 3.48: 3.56: 3.51: 3.49: 3.41: 3.36; RL/WA (1-11): 1.69: 1.57: 1.45: 2.58: 2.80: 2.70: 3.33: 3.32: 4.04: 3.72: 5.82. Maxillary palpus unicoloured brown with pale brown setation, slightly paler than anterior part of head. Palpomere 2 and 3 distinctly broadest on apex, ultimate palpomere axe-shaped. Palpomere 2 shorter than palpomere 3. Pronotum (Fig. 35) reddish-brown, transverse, shiny, glabrous with distinct punctation. Base distinctly bisinuated, posterior angles rectangular, lateral margins distinct, border lines complete, only at middle of anterior border not clearly conspicuous. Anterior angles not conspicuous. PL 0.88; PW 1.76; PI 49.84. Ventral side of body reddish-brown with sparse, pale brown setation. Prothorax, mesothorax

and metathorax with large, deep and coarse punctures. Elytra oval reddish-brown, glabrous, shiny with distinct rows of punctures in elytral striae; intervals between punctures in elytral striae very narrow. Elytral intervals relatively flat with very fine microgranulation. EL 4.79 mm, EW 2.67 mm. Elytral epipleura well-developed, reddish-brown as elytron itself, glabrous. Legs unicoloured reddish-brown with dense, pale brown setation. Penultimate tarsomeres distinctly lobed and slightly broadened. Anterior tarsal claws with 6 teeth. Aedeagus as in Figs 37 and 38.

**Distribution.** China: Fujian.

***Hymenalia klapperichi tschungseni* Pic, 1955**  
(Figs 39-42)

*Hymenalia klapperichi* v. *tschungseni* Pic, 1955: 30.

**Type locality.** China: Fujian.

**Type material.** 1 syntype: (♂): white label 'KUATUN, FUKIEN / China,' [printed in black] '27.5' [handwritten black] '46 / (TSCHUNG SEN.)' [printed in black] // white label with red frame 'Paratypus' [printed in red] '1955' [handwritten black] / 'Hymenalia / klapperichi / var. tschungseni / Pic' [handwritten black] // white label 'Hymenalia / klapperichi Pic / var. tschungseni Pic' [handwritten black], (HNHM).

**Type condition.** Type specimen is glued on white label, antenna and tarsi are complete and visible.

**Other material examined.** (1 ♂) labelled: CHINA: Sichuan / Mt. Emei, 600-1050 m / 5.-19.v.1989 / Lad. Bocák, lgt., (VNPC); (1 ♂) labelled: Kuantun, Fukien / China, 12.v.1946 / leg. Tschung-Sen, (VNPC); (1 ♀) labelled: Kuantun, Fukien / China, 18.v.1946 / leg. Tschung-Sen, (HNHM).

**Redescription.** Habitus as in Fig. 39, body bicolour, reddish-brown and blueish-black, glabrous, shiny; BL 6.55 mm. Broadest near elytral two third, BL/EW 2.72. Posterior part of head black, glabrous with punctures larger than in anterior part, anterior part partly black, partly brown with small punctures and long, pale brown station, clypeus brown. HL 1.14 mm, HW 1.13 mm. Head (Fig. 40) relatively large, HW/PW 0.71. Eyes large, transverse, deeply excised, space between eyes narrow, as long as length of antennomere 2, OI 12.57. Antennae unicoloured blackish-brown, antennomeres 1-3 slightly shiny with sparse pale brown setation and microgranulation, antennomere 4-11 dull with dense setation, microgranulation and distinct punctation. LA 4.87 mm; LA/BL 0.74. Antennomeres 4-10 distinctly serrate. RLA (1-11): 1.61: 0.93: 1.00: 3.80: 4.14: 4.84: 4.11: 4.68: 4.41: 4.52: 4.70; RL/WA (1-11): 1.54: 1.37: 1.19: 2.88: 2.89: 3.23: 3.07: 3.68: 3.73: 3.98: 4.31. Maxillary palpus dark brown with pale brown setation. Palpomere 2 and 3 distinctly broadest at apex, ultimate palpomere axe-shaped. Palpomere 2 shorter than palpomere 3. Pronotum (Fig. 40) reddish-brown,

transverse, shiny, glabrous with distinct punctation. Base distinctly bisinuated, posterior angles slightly roundly obtuse, lateral margins distinct, border lines complete, only in middle of anterior border not clearly conspicuous. Anterior angles not conspicuous. PL 0.96; PW 1.60; PI 60.57. Scutellum redish-brown, glabrous with distinct, sparse punctation. Ventral side of body reddish-brown with sparse, pale brown setation. Prothorax reddish-brown with sparse short setae and small punctures, mesothorax and metathorax blackish-brown with large punctures and long, pale brown setation, abdomen brown with pale brown setation, setation of ultimate abdominal sternite distinctly denser. Elytra oval blueish-black, glabrous, shiny with distinct rows of punctures in elytral stries; intervals between punctures in elytral stries narrow. Elytral intervals slightly vaulted with very fine microgranulation. EL 4.45 mm, EW 2.41 mm. Elytral epipleura well-developed, brown, glabrous, posterior part with row of large punctures. Legs unicoloured dark, femora and ultimate tarsi with claws reddish-brown with dense, brown setation. Penultimate tarsomeres distinctly lobed and slightly broadened. Anterior tarsal claws with 7 teeth. Aedeagus as in Figs 41 and 42.

**Distribution.** China: Fujian. New for territory of Sichuan.

***Hymenalia merkli* sp. nov.**  
(Figs 43-47)

**Type locality.** Taiwan, Ilan county, Mingchih Forest.

**Type material.** Holotype (♂) labelled: TAIWAN, Ilan county, / Mingchih Forest / Recreation Area, 1200 m, // swept from vegetation, / 5.iv.2002, / leg. Gy. Fábíán & O. Merkl, (HNHM); Paratypes: labelled: (6 ♂♂, 9 ♀♀): same data as holotype, (HNHM, VNPC); (1 ♂, 5 ♀♀): TAIWAN, Ilan county, / Fushan Botanical Garden, / swept from vegetation, / 8.-11.iv.2002, leg. O. Merkl, (HNHM, VNPC); (2 ♂♂): TAIWAN / Fenchihu, 10.v.1977 / leg. J. & S. Klapperich, (HNHM, VNPC); (4 ♂♂, 2 ♀♀): Taiwan, leg. J.& S. Klapperich // Fenchihu, 1400 m / 3.vi.1977., (HNHM, VNPC); (1 ♂): TAIWAN, Taipei Hsien, / Fu-Shan L TER site, / lake shore, meadow, // swept, / 25.iii.2003, leg. / L. Papp & M. Földvári, (HNHM); (1 ♂): TAIWAN, Nantou county, / Mong Gwu, / 14 km E of Puli / 24°1.367'N, 121°5.063' E, // 850 m, swept from // vegetation, 20.iv.2002, / leg. D. A. Anstine, / Gy. Fábíán & O. Merkl, (HNHM); (1 ♀): [ Sung Kang ] / Nantou TAIWAN / 23.v. (handwritten black) 19 (printed in black) 72 (handwritten black) / leg. Luo jin ji, (HNHM). The types are provided with a printed red label: 'Hymenalia merkli sp. nov. HOLOTYPUS [resp. PARATYPUS] V. Novák det. 2010'.

**Description of holotype.** Habitus as in Fig. 43, body narrowly oval, slightly vaulted, from brown to dark blackish-brown, shiny, glabrous, BL 5.20 mm. Widest near elytral half; BL/EW 2.41.

Head (Fig. 44). Posterior part dark blackish-brown, anterior part slightly paler than posterior part with pale brown setation. HW 0.96 mm; HW/PW 0.68. HL (visible part) 0.72 mm. Eyes large, broad, transverse, strongly excised, space between eyes very narrow, as

broad as antennomere 2 long. OI 13.52. Surface with sparse, shallow, small-sized punctures and fine microgranulation.

Antennae. Long, unicoloured dark brown, with microgranulation, AL 3.94 mm, AL/BL 0.76. Antennomeres 1-3 slightly shiny with sparse, pale brown setation; antennomeres 4-11 dull with dense and short, pale brown setation and punctation, antennomeres 3-10 distinctly serrate, antennomere 2 shortest. RLA (1-11): 1.09: 0.72: 1.00: 2.36: 2.43: 2.48: 2.74: 2.84: 2.64: 2.79: 2.69. RL/WA (1-11): 1.62: 1.56: 1.76: 3.26: 3.71: 3.00: 3.24: 3.24: 2.94: 3.68: 3.80.

Maxillary palpus. Brown with pale brown setation and microgranulation, slightly shiny; palpomeres broadest at apex, ultimate palpomere axe-shaped. RLP (2-4): 1.68: 1.00: 2.40. RL/WP (2-4): 2.30: 1.22: 1.58.

Pronotum (Fig. 44). Dark blackish-brown, transverse, glabrous, with microgranulation, near margins shiny, in middle dull. PL 0.75 mm; PW 1.42 mm. PI 52.91. Borders complete through their entire length, only in the middle of anterior margin indistinct, base finely excised. Posterior angles roundly rectangular, anterior angles inconspicuous, rounded. Lateral margins in posterior half straight, parallel, then regularly rounded in anterior half. Anterior border straight. Surface with sparse, very small punctures.

Ventral side of body. Prothorax dark reddish-brown with sparse small punctures, mesothorax and metathorax blackish-brown with denser punctation, punctures distinctly larger than those of prothorax. Abdomen brown with sparse pale brown setation and fine microgranulation.

Elytron. Dark blackish-brown, with fine microgranulation, slightly shiny, glabrous. EL 3.73 mm. Broadest near half of elytral length, EW 2.16 mm. EL/EW 1.73. Elytral striae with rows of medium-sized punctures, interspaces between punctures in rows very narrow, narrower than puncture diameter. Elytral interspaces with microgranulation and very small sporadic punctures.

Scutellum. Dark blackish-brown, glabrous, broadly triangular, with microgranulation, slightly shiny.

Elytral epipleura. Dark blackish-brown as elytron itself, shiny, glabrous, broadest near base, regularly narrowing to abdominal sternite 1, then running parallel in anterior half.

Legs. Brown, distinctly paler than upper part of body with short and dense pale brown setation. Tarsi and tibia narrow, tibia dilated anteriorly, penultimate tarsomeres distinctly lobed and finely broadened. RLT: protarsus: 1.00: 0.46: 0.46: 0.67: 1.51; mesotarsus: 1.00: 0.42: 0.39: 0.43: 1.00; metatarsus: 1.00: 0.27: 0.23: 0.47.

Both anterior tarsal claws with 5 teeth.

Aedeagus (Figs 46, 47). Relatively short, pale brown, slightly shiny. Basal piece slightly rounded laterally, apical part of basal piece regularly narrowing dorsally. Apical piece relatively long, longitudinally triangular dorsally, slightly narrowing laterally with finely rounded apex. Ratio of length of apical piece to length of basal piece 1: 2.04.

**Female** (Fig. 45). Space between eyes distinctly broader and antennomere 3 distinctly longer than in male. Antennae distinctly shorter than in male, reaching only 0.59 of body length. Both anterior tarsal claws with 5 teeth. RLA (1-11): 0.79: 0.52: 1.00: 1.49: 1.37: 1.53: 1.46: 1.43: 1.46: 1.44: 1.61. RL/WA (1-11): 1.68: 1.47: 2.63: 3.19: 3.01: 3.56: 3.23: 3.14: 3.19:

2.85: 3.43. RLT: protarsus: 1.00: 0.56: 0.56: 0.87: 2.04; mesotarsus: 1.00: 0.47: 0.24: 0.52: 0.81; metatarsus: 1.00: 0.26: 0.27: 0.45.

**Variation.** Measurements: mean (minimum - maximum). Males (n=16) BL 5.45 mm (5.08-5.96 mm); HL 0.78 mm (0.72-0.89 mm); HW 0.98 mm (0.92-1.04 mm); OI 12.99 (11.06-15.59), PL 0.80 mm (0.74-0.90 mm); PW 1.42 mm (1.30-1.53 mm); PI 55.87 (51.87-61.20); EL 3.87 mm (3.51-4.26 mm); EW 2.18 mm (1.94-2.35 mm). Females (n=17) BL 5.74 mm (5.32-6.21 mm); HL 0.80 mm (0.69-0.96 mm); HW 0.94 mm (0.83-1.03); OI 37.99 (32.73-42.49), PL 0.85 mm (0.69-0.97 mm); PW 1.60 mm (1.46-1.74 mm); PI 54.99 (49.01-61.04); EL 4.10 mm (3.86-4.75 mm); EW 2.43 mm (2.22-2.79 mm).

**Differential diagnoses.** (for details see the key above). *Hymenalia merkli* sp. nov. belongs to *Hymenalia rufipennis* - group, *H. merkli* sp. nov. is clearly different from similar species *H. rufipennis* Marseul mainly by narrower space between eyes, which is as long as length of antennomere 2, while *H. rufipennis* Marseul has space between eyes broader as long as length of antennomere 3; *H. merkli* sp. nov. clearly differs from other species of the *rufipennis* - group mainly by antennomere 3 as long as length of antennomere 2.

**Name derivation.** The new species is dedicated to one of the collectors Ottó Merkl (Budapest, Hungary), well-known specialist in Tenebrionidae.

**Distribution.** Taiwan.

***Hymenalia minuta* Pic, 1910**  
(Figs 48-51)

*Hymenalia minuta* Pic, 1910: 14.

**Type locality.** China: Yunnan.

**Type material.** 2 syntypes on one label: white label 'Yunnan / (Chine)' handwritten black // yellow label 'type' handwritten black // red label 'TYPE' printed black // white label 'Hymenalia / minuta Pic' handwritten black, (MNHN).

**Type condition.** Both syntypes glued on one white label together, right syntype male with visible aedeagus.

**Other material examined.** (2 ♂♂, 1 ♀): China Yunnan, 8-9.vii. / LUGU LAKE-Luo Chui / 27.45N 100.45E / lgt. S. Becvar 1992, (VNPC).

**Redescription.** Habitus as in Fig. 48, body black, glabrous, shiny; BL 4.91 mm. Broadest near elytral half, BL/EW 2.74. Head (Fig. 49) black, glabrous, posterior part with dense and relatively large punctures, punctuation of anterior part sparse, clypeus with brown edge, sparse, small punctures and a few pale brown setae. HL 0.88 mm, HW 0.95 mm. Head relatively

large, HW/PW 0.68. Eyes relatively small, transverse, deeply excised, space between eyes broad, OI 60.68. Antennae black, antennomere 1 and 2 with narrow brown ring in apex, antennomeres 1-3 slightly shiny with sparse brown setation and microgranulation, antennomere 4-11 dull and serrate with dense brown setation, microgranulation and distinct punctation. LA 3.19 mm; LA/BL 0.65. RLA (1-11): 1.41: 0.65: 1.00: 2.47: 2.44: 2.66: 2.82: 3.09: 2.86: 3.03: 3.09; RL/WA (1-11): 2.66: 1.00: 1.43: 3.65: 2.76: 2.45: 2.40: 2.44: 2.70: 2.94: 3.39. Maxillary palpus dark brown with pale brown setation. Palpomere 2 and 3 brown, distinctly broadest at apex, ultimate palpomere blackish-brown with pale brown setation, axe-shaped. Palpomere 2 shorter than palpomere 3. Pronotum (Fig. 49) black, transverse, shiny, glabrous with relatively dense punctation. Base rounded, posterior angles obtuse, lateral margins distinct, border lines complete, only in middle of anterior border not clearly conspicuous. Anterior angles indistinct. PL 0.88; PW 1.40; PI 62.60. Scutellum shortly triangular, black, glabrous. Ventral side of body blackish-brown. Prothorax and abdomen slightly rugose, mesothorax with sparse punctation, metathorax with dense punctation, punctures large. Elytra finely oval, black, glabrous, shiny with distinct rows of punctures in elytral striae; punctures small, intervals between punctures in elytral striae narrow. Elytral intervals relatively flat, microgranulation indistinct. EL 3.15 mm, EW 1.79 mm. Elytral epipleura well-developed, black, glabrous, shiny, posterior part with row of large punctures. Legs blackish-brown, base of tibia and claws reddish-brown, femora and tibia with pale brown setation, tarsi with brown setation. Penultimate tarsomeres distinctly lobed and slightly broadened. Anterior tarsal claws with 4 teeth. Aedeagus as in Figs 50 and 51.

**Distribution.** China: Yunnan.

***Hymenalia murzini* Novák, 2008**

*Hymenalia murzini* Novák, 2008: 208.

**Type locality.** China (Yunnan), Tengchong.

**Remarks.** Habitus, head and pronotum, aedeagus dorsal and lateral view as in Novák 2008: 209 (Figs 1-6). OI of male holotype 7.79; PI of male holotype 53.98. Holotype (VNPC).

**Distribution.** China: Yunnan.

***Hymenalia pallidipennis* Pic, 1926**  
(Figs 52-53)

*Hymenalia pallidipennis* Pic, 1926: 31.

**Type locality.** China: Yunnan.

**Type material.** HT designated: white label 'Yunnan / fou' printed in black // pink label 'type' handwritten black // red label 'TYPE' printed in black // white label 'Hymenalia / pallidipennis / n sp' handwritten black, (MNHN).

**Type condition.** Type specimen is glued on white label, antennae incomplete (left - only antennomere 1 present, right antennomeres 1-5 present). Left tarsi relatively complete and visible, only anterior tarsomere 5 missing, right middle tarsi complete and visible, anterior and posterior tarsi glued under the body.

**Redescription.** Habitus as in Fig. 52, body from pale brown to reddish-brown, head partly black, glabrous, shiny; BL 5.88 mm. Broadest near elytral half, BL/EW 2.55. Posterior part of head blackish-brown, glabrous, slightly shiny with punctation, anterior part of head (as in Fig. 53) brown, clypeus reddish-brown with pale brown setation and distinct punctation. HL 1.00 mm, HW 1.06 mm. HW/PW 0.64. Eyes dark, large, transverse, deeply excised, space between eyes narrow, slightly broader than length of antennomere 2, OI 15.08. Antennae (antennomere 1-5) unicoloured brown, antennomeres 1-3 slightly shiny with sparse pale brown setation and microgranulation, antennomere 4, 5 dull with dense, short setation, microgranulation and distinct punctation, distinctly serrate. RLA (1-5) 1.28: 0.98: 1.00: 3.79: 4.03; RL/WA (1-5); 1.38: 1.36: 1.16: 2.76: 3.09. Maxillary palpus reddish-brown with pale brown setation, ultimate palpomere axe-shaped. Pronotum (Fig. 53) reddish-brown, transverse, shiny, glabrous with sparse punctation. Base distinctly bisinuated, posterior angles slightly roundly obtuse, lateral margins distinct, straight in basal part, border lines complete, only at middle of anterior border not clearly conspicuous. Anterior angles roundly obtuse. PL 0.90; PW 1.66; PI 53.90. Ventral side of body reddish-brown, prothorax with sparse punctation, mesothorax and metathorax with large, deep and coarse punctures. Elytra oval, pale brown, glabrous, shiny with distinct rows of small punctures in elytral striae; intervals between punctures in elytral striae narrow. Elytral intervals relatively slightly vaulted with fine microgranulation. Elytra widest near half, EL 3.98 mm, EW 2.31 mm. Elytral epipleura well-developed, pale brown as elytron itself, glabrous. Legs unicoloured reddish-brown with dense, reddish-brown setation. Penultimate tarsomeres distinctly lobed and slightly broadened.

**Distribution.** China: Yunnan.

*Hymenalia puetzi* sp. nov.

(Figs 54-57)

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

**Type material.** Holotype (♂) labelled: 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. Pütz, (APEG); Paratype (♂): same data as holotype, (VNPC). The types are provided with a printed red label: 'Hymenalia puetzi sp. nov. HOLOTYPUS [resp. PARATYPUS] V. Novák det. 2010'.

**Description of holotype.** Habitus as in Fig. 54, body elongate-oval, from brown to blackish-brown, shiny, glabrous, BL 7.60 mm. Widest near elytral two third; BL/EW 2.83.

Head (Fig. 55). Relatively narrow, posterior half blackish-brown, glabrous and dull, anterior half and clypeus brown, distinctly paler than posterior half, shiny with sparse pale



brown setation. HW 1.11 mm; HW/PW 0.64. HL (visible part) 1.15 mm. OI 23.59. Eyes large, broad, transverse, deeply excised, space between eyes narrow, distinctly broader than length of antennomere 2 or length of antennomere 3. OI 29.18. Surface with small-sized punctures and microgranulation.

Antennae. Long, unicoloured dark brown, with microgranulation, AL 4.89 mm, AL/BL 0.64. Antennomeres 1-3 slightly shiny with sparse, pale brown setation; antennomeres 4-11 dull, with dense punctation and brown setation, antennomeres 4-10 distinctly serrate, antennomere 2 shortest. RLA (1-11): 1.34: 0.68: 1.00: 2.96: 3.34: 3.84: 3.93: 3.96: 3.96: 4.18: 4.34. RL/WA (1-11): 1.69: 1.15: 1.57: 3.17: 3.68: 3.84: 4.33: 4.46: 4.46: 5.26: 5.79

Maxillary palpus. Brown with sparse, pale brown setation and microgranulation, slightly shiny; palpomeres broadest in apex, ultimate palpomere axe-shaped. RLP (2-4): 1.50: 1.00: 2.17. RL/WP (2-4): 2.64: 1.45: 2.03.

Pronotum (Fig. 55). Unicoloured dark brown, transverse, shiny, glabrous, with distinct shallow impression near the middle of both lateral margins. PL 0.98 mm; PW 1.73 mm. PI 56.77. Borders complete through their entire length, only in the middle of apex not clearly conspicuous, base finely bisinuate. Posterior angles roundly rectangular, anterior angles rounded, not clearly conspicuous. Lateral margins in posterior half very finely narrowing, then regularly rounded in anterior half. Anterior border almost straight. Surface with microgranulation and sparse, very small punctures.

Ventral side of body. Dark brown, prothorax inpunctate, mesothorax and methorax with punctation and sparse short pale brown setation. Abdomen with microgranulation and sparse pale brown setation, slightly shiny.

Elytron. Brown, distinctly paler than pronotum and head, shiny, glabrous, with sporadic, short pale brown setae. EL 5.47 mm. Broadest near two thirds of elytral length, EW 2.69 mm. EL/EW 2.03. Elytral striae with rows of small-sized punctures, interspaces between punctures in rows very narrow, narrower than diameter of punctures. Elytral interspaces with fine microgranulation and sparse very small punctures.

Scutellum. Brown concolorous with elytra, with dark brown margins, broadly triangular, glabrous, with microgranulation, dull.

Elytral epipleura. Brown as elytron itself, shiny, glabrous, broadest near base, narrowing to first abdominal sternite, then running parallel.

Legs. Dark brown, with short and dense pale brown setation, slightly shiny. Tibia and tarsi narrow, penultimate tarsomere of each tarsi distinctly lobed. RLT: protarsus: 1.00: 0.55: 0.40: 0.49: 1.45; mesotarsus: 1.00: 0.50: 0.39: 0.45: 1.13; metatarsus: 1.00: 0.36: 0.26: 0.69.

Both anterior tarsal claws with 5 visible teeth.

Aedeagus (Figs 56, 57). Pale brown, apical piece slightly darker, shiny. Basal piece rounded laterally, running parallel, then regularly narrowing at anterior third of basal piece dorsally. Apical piece short, narrow with rounded top dorsally, laterally slightly excised in inner side. Ratio of length of apical piece to length of basal piece 1: 3.94.

**Female.** Unknown.

**Variation.** Measurements: mean (minimum - maximum). Males (n=2) BL 7.70 mm (7.60-7.80 mm); HL 1.18 mm (1.15-1.21 mm); HW 1.12 mm (1.11-1.13 mm); OI 22.81 (22.02-23.59), PL 0.98 mm; PW 1.77 mm (1.73-1.80 mm); PI 55.41 (54.35-56.47); EL 5.54 mm (5.47-5.61 mm); EW 2.71 mm (2.69-2.72 mm).

**Differential diagnoses.** (for details see the key above). *Hymenalia puetzi* sp. nov. belongs to *Hymenalia bocaki* - group, *H. puetzi* sp. nov. is clearly different from similar species *H. kakadu* sp. nov. mainly by pronotum relatively broad, PI lower than 60, while *H. kakadu* sp. nov. has pronotum relatively narrow and PI higher than 60; *H. puetzi* sp. nov. clearly differs from the species *H. becvari* sp. nov. and *H. wuliangica* sp. nov. mainly by space between eyes broader than length of antennomere 2, while *H. becvari* sp. nov. and *H. wuliangica* sp. nov. have space between eyes narrow – as long as length of antennomere 2; *H. puetzi* sp. nov. is clearly different from similar species *H. bocaki* sp. nov. mainly by sparse punctation of pronotum, while *H. bocaki* sp. nov. has punctation of pronotum dense; *H. puetzi* sp. nov. clearly differs from the species *H. yunnanica* sp. nov. mainly by space between eyes broader than length of antennomere 3, while *H. yunnanica* sp. nov. has space between eyes as long as length of antennomere 3.

**Name derivation.** The new species is dedicated to the collector - Andreas Pütz (Eisenhüttenstadt, Germany), well-known specialist in Byrrhidae.

**Distribution.** China: Sichuan.

***Hymenalia rufipennis* Marseul, 1876**  
(Figs 58-62)

*Hymenalia rufipennis* Marseul, 1876: 328

**Material examined.** (1 ♂, 1 ♀): white label: 'Sib. or.- m., Primorje / Ussuri res. 20.7.90 / Kadlec + Voříšek lg.' [printed in black].

**Remarks.** Commonly known species. Habitus of examined male as in Fig. 58. Head and pronotum of male as in Fig. 59; head and pronotum of female as in Fig. 60. Aedegus as in Figs 61 and 62. BL 6.37; BL/EW 2.61; HL 0.98; HW 1.19; OI 21.89; PL 1.03; PW 1.74; PI 59.00; EL 4.36; EW 2.44; HW/PW 0.68; LA 4.76; LA/BL 0.75; RLA (1-11): 1.14: 0.68: 1.00: 3.00: 3.09: 3.12: 3.19: 3.39: 3.42: 3.17: 3.02; RL/WA (1-11): 1.31: 1.08: 1.55: 4.12: 3.25: 3.01: 2.85: 3.39: 3.01: 3.28: 3.18.

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

***Hymenalia (Nikomenalia) schawalleri* sp. nov.**  
(Figs 63-67)

**Type locality.** China, Yunnan, Dali.

**Type material.** Holotype (♂) labelled: CHINA: Yunnan / above Dali, 2000-2200 m / 4.-17. iv.1999 / leg. W. SCHAWALLER, (SMNS); Paratypes: (6 ♂♂, 2 ♀♀): same data as holotype, (SMNS, VNPC). The types are provided with a printed red label: 'Hymenalia (Nikomenalia) schawalleri sp. nov. HOLOTYPUS [resp. PARATYPUS] V. Novák det. 2010'.

**Description of holotype.** Habitus as in Fig. 63, body narrowly oval, from dark brown to black, shiny, BL 4.35 mm. Widest near elytral half; BL/EW 2.59.

Head (Fig. 64). Relatively narrow, black, shiny, anterior part with short light setation, posterior part with sparse, dark setation behind eyes. Clypeus slightly paler than posterior part of head. HW 0.81 mm; HW/PW 0.66. HL (visible part) 0.74 mm. Eyes large, excised, space between eyes relatively broad, OI 36.67. Surface with medium-sized punctures, punctuation of anterior part sparser than punctuation of posterior part.

Antennae. Longer with short setation, AL 2.52 mm, AL/BL 0.58. Antennomeres 1-3 blackish-brown and shiny, antennomeres 4-11 dark brown and dull. Antennomeres with microgranulation and shallow, antennomeres 3-10 distinctly serrate, apex of antennomere 11 rounded, antennomere 2 shortest. RLA (1-11): 1.46: 0.65: 1.00: 1.65: 1.69: 1.77: 2.08: 2.14: 2.03: 2.11: 2.27. RL/WA (1-11): 1.65: 1.00: 1.86: 1.79: 1.69: 1.64: 1.86: 2.14: 2.03: 1.96: 2.81.

Maxillary palpus dark blackish-brown with pale brown setation and microgranulation, shiny; penultimate palpomere and palpomere 2 distinctly broadest on apex. Ultimate palpomere broadly knife-shaped. RLP (2-4): 1.69: 1.00: 2.71. RL/WP (2-4): 2.61: 1.30: 2.06.

Pronotum (Fig. 64). Black, darker than elytron, transverse, shiny, glabrous. PL 0.74 mm; PW 1.22 mm. PI 60.21. Border lines complete, base slightly excised, against scutellum straight. Posterior angles slightly obtuse angled, anterior angles rounded. Lateral margins parallel in posterior half, then regularly narrowed in anterior half. Surface flat, shiny with small-sized punctures, interspaces between punctures broad.

Ventral side of body. Dark blackish-brown with fine punctuation. Abdomen dark blackish-brown with fine punctuation and sparse pale brown setation, shiny.

Elytron. Narrowly oval, dark brown, glabrous, shiny. EL 2.87 mm. Broadest near elytral half, EW 1.68 mm. EL/EW 1.70. Elytral striae with rows of small-sized punctures, interspaces between punctures in rows narrow. Elytral interspaces glabrous, with fine microgranulation and small-sized punctures, shiny.

Scutellum. Broadly triangular, glabrous, concolorous with elytron, shiny.

Elytral epipleura. Dark brown as elytron itself, shiny, broadest near base, regularly narrowing to abdominal sternite 1, then running parallel to rounded apex.

Legs. Unicoloured brown, slightly shiny with dense and short pale brown setation. Tarsi narrow, penultimate tarsomeres slightly broadened. Tibia narrow and slightly dilated anteriorly. RLT: protarsus: 1.00: 0.59: 0.55: 0.55: 1.79; mesotarsus: 1.00: 0.47: 0.43: 0.51: 1.08; metatarsus: 1.00: 0.49: 0.31: 0.77.

Both anterior tarsal claws with 5 teeth.

Aedeagus (Figs 66, 67). Relatively large, pale brown, slightly shiny. Base shortly rounded, then basal piece straight laterally, regularly narrowing dorsally. Apical piece short, distinctly triangular with rounded top dorsally, regularly narrowing laterally. Ratio of length of apical piece to length of basal piece 1: 5.54.

**Female** (Fig. 65). Space between eyes finely broader than in male. Antennae shorter than in male, reaching 0.49 of body length. Both anterior tarsal claws with 5 teeth. RLA (1-11): 1.23: 0.85: 1.00: 1.31: 1.38: 1.61: 1.61: 1.44: 1.54: 1.54: 1.80. RL/WA (1-11): 2.34: 1.53: 1.22: 1.54: 1.68: 1.96: 1.63: 1.69: 2.04: 1.74: 2.20. RLT: protarsus: 1.00: 0.59: 0.56: 0.70: 1.74; mesotarsus: 1.00: 0.43: 0.43: 0.49: 0.92; metatarsus: 1.00: 0.39: 0.35: 0.71.

**Variation.** Measurements: mean (minimum - maximum). Males (n=7) BL 4.56 mm (4.23-4.93 mm); HL 0.77 mm (0.60-0.92 mm); HW 0.83 mm (0.77-0.88 mm); OI 39.16 (35.64-45.39), PL 0.78 mm (0.72-0.83 mm); PW 1.29 mm (1.21-1.46 mm); PI 60.04 (56.61-62.51); EL 3.00 mm (2.84-3.18 mm); EW 1.74 mm (1.66-1.85 mm). Females (n=2) BL 4.98 mm (4.84-5.11 mm); HL 0.80 mm (0.79-0.80 mm); HW 0.85 mm (0.81-0.88 mm); OI 56.56 (55.50-57.61), PL 0.84 mm (0.78-0.89 mm); PW 1.41 mm (1.35-1.46 mm); PI 59.53 (58.00-61.06); EL 3.35 mm (3.26-3.43 mm); EW 1.97 mm (1.95-1.98 mm).

**Differential diagnoses.** (for details see the keys above). *Hymenalia* (*Nikomenalia*) *schawalleri* sp. nov. belongs to the subgenus *Nikomenalia* Dubrovina, *H. (N.) schawalleri* sp. nov. is clearly different from other similar chinese species *H. (N.) impunctaticollis* Dubrovina, *H. (N.) kaszabi* Mucho, and *H. (N.) medvedevi* Dubrovina mainly by distinct angles in lateral margins of pronotum, while *H. (N.) impunctaticollis* Dubrovina, *H. (N.) kaszabi* Mucho, and *H. (N.) medvedevi* Dubrovina have lateral margins of pronotum rounded.

**Name derivation.** The new species is dedicated to the collector - Wolfgang Schawaller (Stuttgart, Germany), well-known specialist in Tenebrionidae.

### *Hymenalia wrasei* Novák, 2008

*Hymenalia wrasei* Novák, 2008: 211.

**Type locality.** China (Yunnan), Dali Bai.

**Remarks.** Habitus, head and pronotum, aedeagus dorsal and lateral view as in Novák 2008: 212 (Figs 7-12). OI of male holotype 19.75; PI of male holotype 51.22. Holotype (NMEG).

**Distribution.** China: Yunnan.

### *Hymenalia wuliangica* sp. nov.

(Figs 68-71)

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

**Type material.** Holotype (♂) labelled: 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], (NMEG); Paratypes: (2 ♂♂): same data as holotype, (NMEG, VNPC). The types are provided with a printed red label: 'Hymenalia wuliangica sp. nov. HOLOTYPUS [resp. PARATYPUS] V. Novák det. 2010'.

**Description of holotype.** Habitus as in Fig. 68, body narrow, elongate, from pale brown to reddish-brown, shiny, BL 6.20 mm. Widest near elytral two thirds from base; BL/EW 2.94.

Head (Fig. 69). Reddish-brown, shiny, posterior part behind eyes with short, sparse setation. Anterior part with long and dense, pale brown setation. HW 1.07 mm; HW/PW 0.68. HL (visible part) 0.93 mm. Eyes dark, large, transverse, deeply excised, interspace between eyes very narrow, approximately as broad as antennomere 2 long. OI 10.98. Posterior part with distinct punctation, punctures small-sized, punctation of anterior part indistinct with microgranulation.

Antennae. Longer, unicoloured pale brown with dense pale brown setation and microgranulation, AL 5.07 mm, AL/BL 0.82. Antennomeres 1-2 slightly shiny, antennomeres 3-11 more dull with distinct punctation, antennomeres 3-10 distinctly serrate. Antennomere 2 distinctly shortest. RLA (1-11): 1.69: 0.59: 1.00: 3.00: 3.39: 3.46: 3.41: 3.46: 3.85: 3.59: 3.87. RL/WA (1-11): 2.45: 1.09: 1.50: 3.08: 3.47: 3.65: 4.16: 4.22: 5.00: 4.66: 8.87.

Maxillary palpus. Pale brown, shiny, with microgranulation and short, pale brown setation. Penultimate palpomere and palpomere 2 broadest and with a few long pale brown setae on apex. Ultimate palpomere broadly knife-shaped. RLP (2-4): 1.40: 1.00: 2.30. RL/WP (2-4): 2.19: 1.31: 2.17.

Pronotum (Fig. 69). Reddish-brown, darker than elytron, transverse, glabrous, strongly shiny. PL 0.95 mm; PW 1.60 mm. PI 59.68. Border lines complete, only in the middle of base and apex not clearly conspicuous, base slightly excised and against scutellum straight. Posterior angles rectangular, anterior angles rounded, inconspicuous. Surface brilliant, with very sparse and small-sized punctures, near posterior margin with one row of medium-sized punctures.

Ventral side of body. Reddish-brown as pronotum itself with distinct punctation and very sparse and short pale brown setation. Abdominal sternites with microgranulation and sparse, pale brown setation.

Elytron. Longer, narrow, unicoloured pale brown, with slightly reddish-brown suture, shiny. EL 4.38 mm. Broadest near two thirds from base, EW 2.11 mm. EL/EW 2.08. Elytral striae with rows of medium-sized punctures, interspaces between punctures in rows very narrow, narrower than diameter of punctures. Elytral interspaces with fine microgranulation, and very small sporadic punctures.

Scutellum. Reddish-brown, broadly triangular, shiny, glabrous.

Elytral epipleura. Pale brown, shiny, glabrous, regularly narrowing to abdominal sternite 1 and with one row of punctures in posterior half, then running parallel in anterior part, without distinct punctation.

Legs. Pale brown, with pale brown setation, tarsi narrow, slightly darker, penultimate tarsomeres dark brown, slightly broadened and lobed. Tibia very narrow, slightly dilated anteriorly. RLT: protarsus: 1.00: 0.45: 0.35: 0.42: 0.97; mesotarsus: 1.00: 0.59: 0.46: 0.47: 1.08; metatarsus: 1.00: 0.47: 0.30: 0.74.

Both anterior tarsal claws with 5 teeth.

Aedeagus (Figs 70, 71). Pale brown, slightly shiny. Basal half of basal piece rounded laterally, apical half straight laterally, regularly narrowing dorsally. Apical piece parallel with rounded apex dorsally, laterally narrowing to rounded apex. Ratio of length of apical piece to length of basal piece 1: 3.51.

**Female.** Unknown.

**Variation.** Measurements: mean (minimum - maximum). Males (n=3). BL 6.37 mm (6.20-6.64); HL 1.00 mm (0.93-1.08); HW 1.14 mm (1.07-1.21); OI 10.38 (8.99-11.16); PL 0.90 mm (0.87-0.93); PW 1.66 mm (1.57-1.76); PI 54.03 (52.87-56.54); EL 4.47 mm (4.38-4.63); EW 2.21 mm (2.11-2.32).

**Differential diagnoses.** (for details see the key above). *Hymenalia wuliangica* sp. nov. belongs to *Hymenalia bocaki* - group, *H. wuliangica* sp. nov. is clearly different from the species *H. kakadu* sp. nov. mainly by pronotum relatively broad with PI lower than 60, while *H. kakadu* sp. nov. has pronotum relatively narrow with PI higher than 60; *H. wuliangica* sp. nov. clearly differs from the species *H. bocaki* sp. nov., *H. habashanica* sp. nov., *H. puetzi* sp. nov. and *H. yunnanica* sp. nov. mainly by space between eyes narrow – as long as length of antennomere 2; while *H. bocaki* sp. nov., *H. habashanica* sp. nov., *H. puetzi* sp. nov. and *H. yunnanica* sp. nov. have space between eyes distinctly broader than length of antennomere 2; *H. wuliangica* sp. nov. is clearly different from the similar species *H. becvari* sp. nov. mainly by antennomere 3 distinctly longer than antennomere 2, while *H. becvari* sp. nov. has antennomere 3 approximately as long as antennomere 2.

**Name derivation.** Toponymic, named after the type locality Wuliang Shan.

**Distribution.** China: Yunnan.

***Hymenalia yunnanica* sp. nov.**  
(Figs 72-76)

**Type locality.** China, Yunnan, Dali zhou.

**Type material.** Holotype (♂) labelled: CHINA, Yunnan prov. / Dali zhou, 31.vii. / 1993, 2500-3200 m / Binchuan c., JIZUSHAN / leg. C. Holzschuh, (VNPC); Paratype: (1 ♀): CHINA, YUNNAN / Zhongdian 3200m / 18.vi.1995 / lgt. Siška, Pekarovič, (VNPC). The types are provided with a printed red label: 'Hymenalia yunnanica sp. nov. HOLOTYPUS [resp. PARATYPUS] V. Novák det. 2010'.

**Description of holotype.** Habitus as in Fig. 72, body elongate-oval, from brown to blackish-brown, shiny, glabrous, BL 7.68 mm. Widest near elytral two third; BL/EW 2.71.

Head (Fig. 73). Relatively broad, shiny, posterior half blackish-brown, glabrous, anterior half and clypeus brown, distinctly paler than posterior half, with sparse pale brown setation. HW 1.18 mm; HW/PW 0.74. HL (visible part) 1.16 mm. OI 13.27. Eyes large, broad, transverse, deeply excised, space between eyes narrow, distinctly broader than length of antennomere 2, as long as length of antennomere 3. Surface with small-sized punctures and microgranulation.

Antennae. Long, unicoloured reddish-brown, with microgranulation, AL 5.76 mm, AL/BL 0.75. Antennomeres 1-3 slightly shiny with sparse, reddish-brown setation; antennomeres

4-11 dull, with dense punctation and reddish-brown setation, antennomeres 4-10 distinctly serrate, antennomere 2 shortest. RLA (1-11): 1.48: 0.69: 1.00: 3.09: 3.64: 3.59: 3.78: 3.81: 3.76: 3.71: 4.05. RL/WA (1-11): 1.77: 1.26: 1.40: 3.17: 3.93: 4.57: 4.54: 4.85: 4.16: 4.46: 5.49.

Maxillary palpus. Brown with sparse, pale brown setation and microgranulation, slightly shiny; palpomeres broadest in apex, ultimate palpomere axe-shaped. RLP (2-4): 1.76: 1.00: 2.19. RL/WP (2-4): 2.81: 1.37: 1.61.

Pronotum (Fig. 73). Unicoloured brown, transverse, broad, brilliant, glabrous, without distinct impressions. PL 0.95 mm; PW 1.60 mm. PI 59.68. Border lines complete, only in the middle of apex not clearly conspicuous, base finely bisinuate. Posterior angles slightly obtuse angled, anterior angles rounded, indistinct. Lateral margins in posterior half very finely rounded, then distinctly regularly rounded in anterior half. Anterior border almost straight. Surface with very sparse and very small punctures, microgranulation indistinct.

Ventral side of body. Brown with distinct punctation. Ultimate abdominal sternite with oval impression at middle of anterior half. Abdominal sternites with microgranulation and distinct punctation, slightly shiny. Ultimate abdominal sternite slightly excised in middle.

Elytron. Reddish-brown, distinctly paler than posterior half of head, shiny, glabrous, with sporadic, short pale brown setae. EL 5.57 mm. Broadest near two third of elytral length, EW 2.83 mm. EL/EW 1.97. Elytral striae with rows of small-sized punctures, interspaces between punctures in rows very narrow, narrower than diameter of punctures. Elytral interspaces with fine microgranulation and sparse very small punctures.

Scutellum. Brown, slightly paler than elytra, with brown margins, broadly triangular, glabrous, with microgranulation, dull.

Elytral epipleura. Brown as elytron itself, shiny, glabrous, broadest near base, narrowing to first abdominal sternite, then running parallel.

Legs. Reddish-brown, with short and dense pale reddish-brown setation, slightly shiny, with distinct microgranulation and punctation. Tibia distinctly dilated apically. Tarsi narrow, penultimate tarsomere of each tarsi distinctly lobed. RLT: protarsus: 1.00: 0.58: 0.46: 0.58: 1.46; mesotarsus: 1.00: 0.58: 0.40: 0.45: 1.31; metatarsus: 1.00: 0.37: 0.28: 0.66.

Both anterior tarsal claws with 7 visible teeth.

Aedeagus (Figs 75, 76). Pale brown, shiny, basal piece very finely rounded laterally, running parallel in posterior half, then regularly narrowing at anterior half of basal piece dorsally. Apical piece very short, narrow with rounded top dorsally, laterally slightly excised in inner side. Ratio of length of apical piece to length of basal piece 1:5.42.

**Female** (Fig. 74). Both anterior tarsal claws with 7 teeth. RLA (1-8): 1.09: 0.52: 1.00: 2.16: 2.40: 2.27: 2.56: 2.60. RL/WA (1-8): 2.00: 1.25: 1.94: 4.08: 4.53: 4.16: 3.87: 3.61. RLT: protarsus: 1.00: 0.70: 0.62: 0.77: 2.03; mesotarsus: 1.00: 0.60: 0.38: 0.49: 1.19; metatarsus: 1.00: 0.42: 0.32: 0.86. BL 8.32 mm; HL 1.32 mm; HW 1.25 mm; OI 26.68; PL 1.13 mm; PW 1.91 mm; PI 59.43; EL 5.87 mm; EW 3.15 mm.

**Differential diagnoses.** (for details see the key above). *Hymenalia yunnanica* sp. nov. belongs to *Hymenalia bocaki* - group, *H. yunnanica* sp. nov. is clearly different from similar species *H. kakadu* sp. nov. mainly by pronotum relatively broad with PI lower than 60, while *H. kakadu* sp. nov. has pronotum relatively narrow with PI higher than 60; *H. yunnanica* sp. nov.

clearly differs from the species *H. becvari* sp. nov. and *H. wuliangica* sp. nov. mainly by space between eyes distinctly broader than length of antennomere 2, while *H. becvari* sp. nov. and *H. wuliangica* sp. nov. have the space between eyes as broad as length of antennomere 2; *H. yunnanica* sp. nov. is clearly different from similar species *H. habashanica* sp. nov. mainly by antennomere 3 only slightly longer than length of antennomere 2, while *H. habashanica* sp. nov. has antennomere 3 twice longer than antennomere 2; *H. yunnanica* sp. nov. clearly differs from the species *H. bocaki* sp. nov. mainly by sparse punctation of pronotum; while *H. bocaki* sp. nov. has punctation of pronotum dense; *H. yunnanica* sp. nov. is clearly different from the species *H. puetzi* sp. nov. mainly by space between eyes almost as long as length of antennomere 3, while *H. puetzi* sp. nov. has space between eyes distinctly broader than length of antennomere 3.

**Name derivation.** Toponymic, named after the type locality Yunnan province.

**Distribution.** China: Yunnan.

#### CATALOGUE OF CHINESE SPECIES

Genus *Hymenalia* Mulsant, 1856: 48 type species *Cistela fusca* Illiger, 1794 (= *Cistela rufipes* Fabricius, 1792)

subgenus *Hymenalia* Mulsant, 1856: 48 type species *Cistela fusca* Illiger, 1794 (= *Cistela rufipes* Fabricius, 1792)

<i>Hymenalia becvari</i> sp. nov.	China: Yunnan
<i>Hymenalia bocaki</i> sp. nov.	China: Sichuan
<i>Hymenalia habashanica</i> sp. nov.	China: Yunnan
<i>Hymenalia holzschuhi</i> sp. nov.	China: Shaanxi
<i>Hymenalia horaki</i> sp. nov.	China: Yunnan, North Vietnam
<i>Hymenalia jaroslavi</i> sp. nov.	China: Hubei, Hunan, Jiangxi
<i>Hymenalia kakadu</i> sp. nov.	China: Hubei
<i>Hymenalia klapperichi klapperichi</i> Pic, 1955: 30	China: Fujian, Sichuan
<i>Hymenalia klapperichi tschungseni</i> Pic, 1955: 30	China: Fujian, Sichuan
<i>Hymenalia merkli</i> sp. nov.	China: Taiwan
<i>Hymenalia minuta</i> Pic, 1910: 14	China: Yunnan
<i>Hymenalia murzini</i> Novák, 2008: 208	China: Yunnan
<i>Hymenalia pallidipennis</i> Pic, 1926: 31	China: Yunnan
<i>Hymenalia puetzi</i> sp. nov.	China: Sichuan
<i>Hymenalia rufipennis</i> Marseul, 1876: 328	China, Russia - East Siberia, Far East, Japan, South Korea, Taiwan
<i>Hymenalia wrasei</i> Novák, 2008: 211	China: Yunnan
<i>Hymenalia wuliangica</i> sp. nov.	China: Yunnan
<i>Hymenalia yunnanica</i> sp. nov.	China: Yunnan



subgenus *Nikomenalia* Dubrovina, 1975: 166 type species *Hymenalia kaszabi* Mucbe, 1972  
*impunctaticollis* Dubrovina, 1975: 171 China: Gansu, Nei Mongol  
*medvedevi* Dubrovina, 1975: 170 China: Nei Mongol, Mongolia  
*schawalleri* sp. nov. China: Yunnan

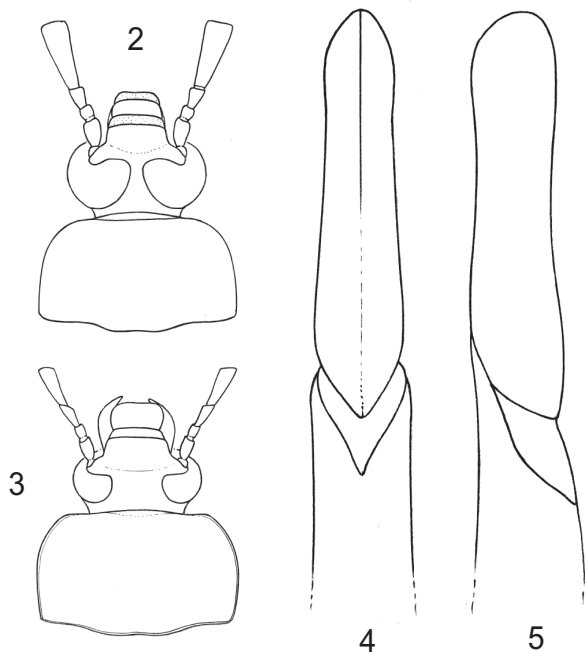
ACKNOWLEDGEMENTS. Sincere thanks are due to Antoine Mantilleri (MNHN) and to Ottó Merkl (HNHM) for the loan of type material under their care. Special thanks are due to Luboš Dembický (Brno, Czech Republic) for making digital photographs and Zuzana Čadová (Liberec, Czech Republic) for excellent drawings.

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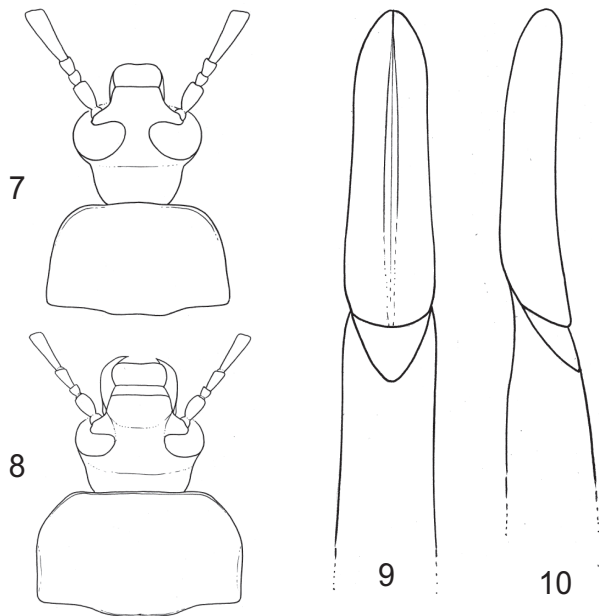
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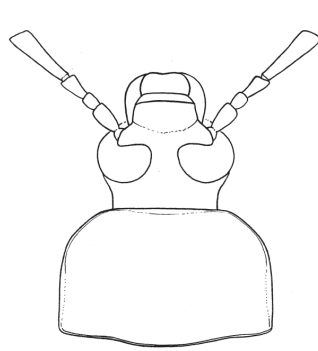
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Figs 1-5: *Hymenalia becvari* sp. nov.: 1- Habitus of male holotype; 2- Head and pronotum of male holotype; 3- Head and pronotum of female; 4- Aedeagus, dorsal view; 5- Aedeagus, lateral view.



Figs 6-10: *Hymenalia bocaki* sp. nov.: 6- Habitus of male holotype; 7- Head and pronotum of male holotype; 8- Head and pronotum of female; 9- Aedeagus, dorsal view; 10- Aedeagus, lateral view.



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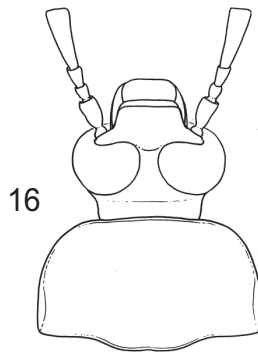


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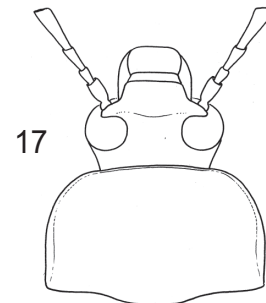
Figs 11-14: *Hymenalia habashanica* sp. nov.: 11- Habitus of male holotype; 12- Head and pronotum of male holotype; 13- Aedeagus, dorsal view; 14- Aedeagus, lateral view.



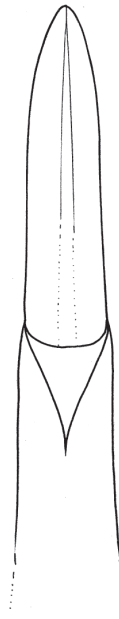
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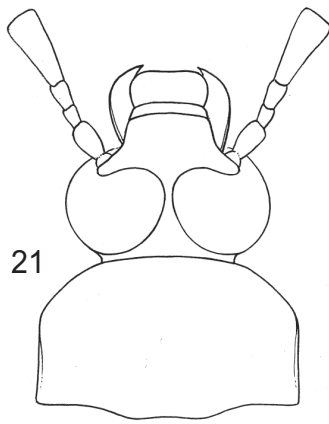


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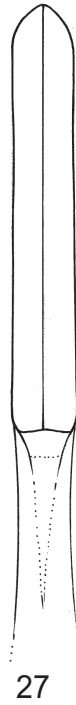
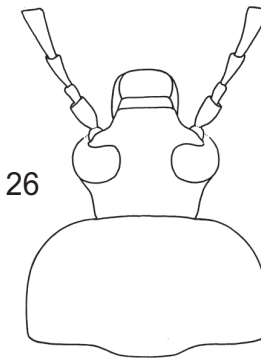
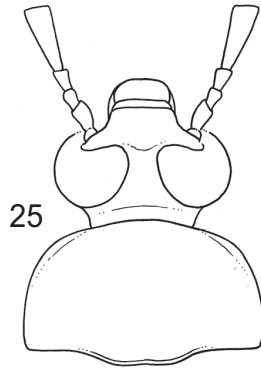


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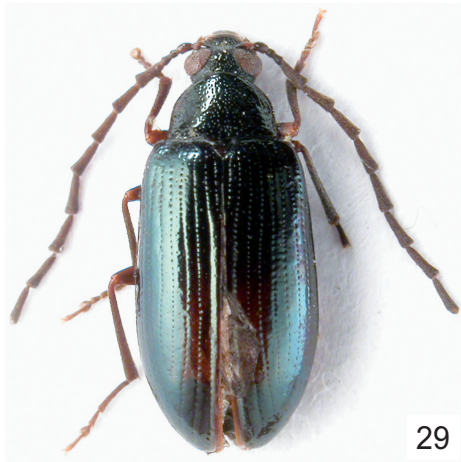
Figs 15-19: *Hymenalia holzschuhi* sp. nov.: 15- Habitus of male holotype; 16- Head and pronotum of male holotype; 17- Head and pronotum of female; 18- Aedeagus, dorsal view; 19- Aedeagus, lateral view.



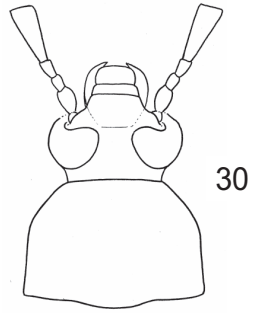
Figs 20-23: *Hymenalia horaki* sp. nov.: 20- Habitus of male holotype; 21- Head and pronotum of male holotype; 22- Aedeagus, dorsal view; 23- Aedeagus, lateral view.



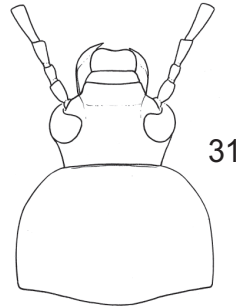
Figs 24-28: *Hymenalia jaroslavi* sp. nov.: 24- Habitus of male holotype; 25- Head and pronotum of male holotype; 26- Head and pronotum of female; 27- Aedeagus, dorsal view; 28- Aedeagus, lateral view.



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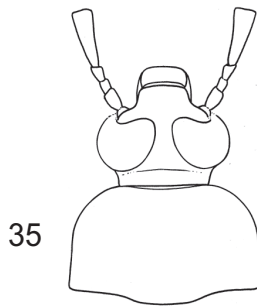


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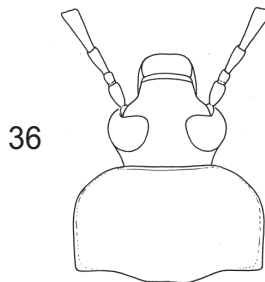
Figs 29-33: *Hymenalia kakadu* sp. nov.: 29- Habitus of male holotype; 30- Head and pronotum of male holotype; 31- Head and pronotum of female; 32- Aedeagus, dorsal view; 33- Aedeagus, lateral view.



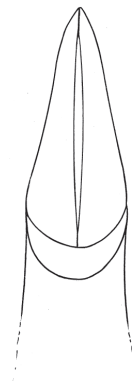
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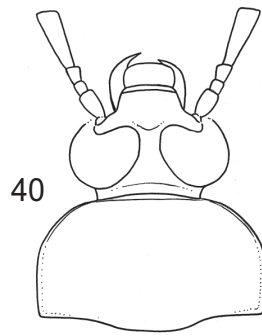


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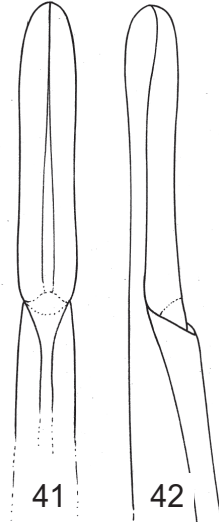
Figs 34-38: *Hymenalia klapperichi klapperichi* Pic, 1955.: 34- Habitus of male syntype; 35- Head and pronotum of male syntype; 36- Head and pronotum of female; 37- Aedeagus, dorsal view; 38- Aedeagus, lateral view.



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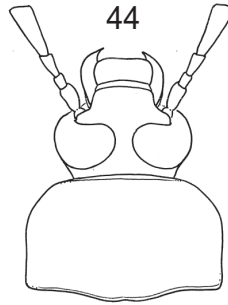
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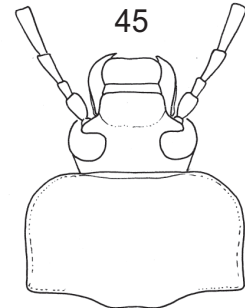
Figs 39-42: *Hymenalia klapperichi tschungseni* Pic, 1955: 39- Habitus of male; 40- Head and pronotum of male; 41- Aedeagus, dorsal view; 42- Aedeagus, lateral view.



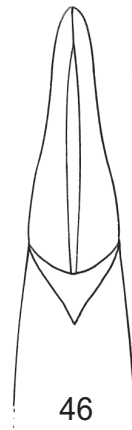
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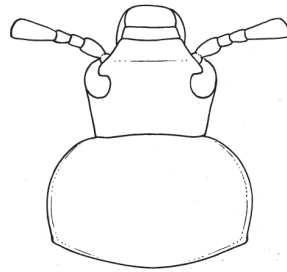


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Figs 43-47: *Hymenalia merkli* sp. nov.: 43- Habitus of male holotype; 44- Head and pronotum of male holotype; 45- Head and pronotum of female; 46- Aedeagus, dorsal view; 47- Aedeagus, lateral view.



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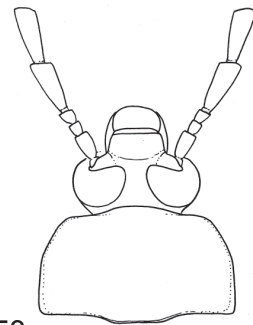
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Figs 48-51: *Hymenalia minuta* Pic, 1910: 48- Habitus of male; 49- Head and pronotum of male; 50- Aedeagus, dorsal view; 51- Aedeagus, lateral view.

Figs 52-53: *Hymenalia pallidipennis* Pic, 1926: 52- Habitus of male holotype; 53- Head and pronotum of male holotype.



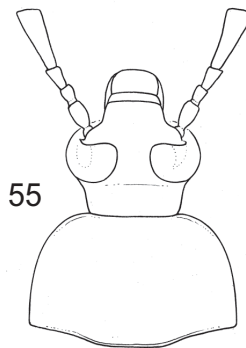
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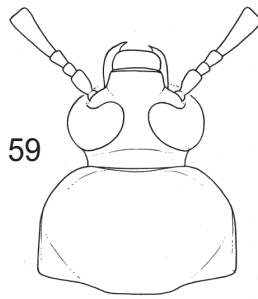


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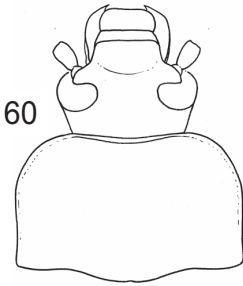
Figs 54-57: *Hymenalia puetzi* sp. nov.: 54- Habitus of male holotype; 55- Head and pronotum of male; 56- Aedeagus, dorsal view; 57- Aedeagus, lateral view.



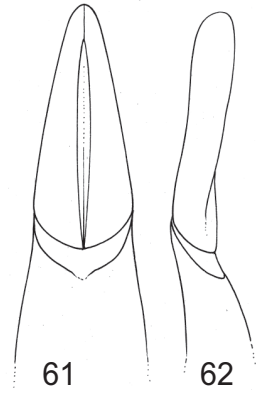
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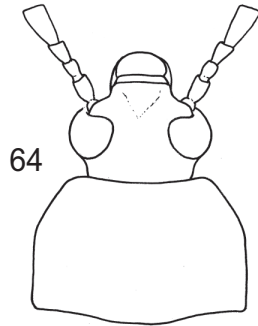
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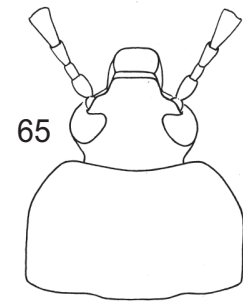
Figs 58-62: *Hymenalia rufipennis* Marseul, 1876: 58- Habitus of male; 59- Head and pronotum of male; 60- Head and pronotum of female, 61- Aedeagus, dorsal view; 62- Aedeagus, lateral view.



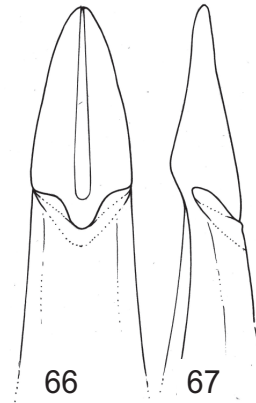
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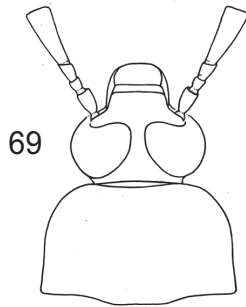
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Figs 63-67: *Hymenalia schawalleri* sp. nov.: 63- Habitus of male holotype; 64- Head and pronotum of male holotype; 65- Head and pronotum of female, 66- Aedeagus, dorsal view; 67- Aedeagus, lateral view.

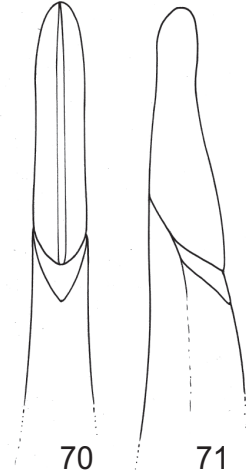




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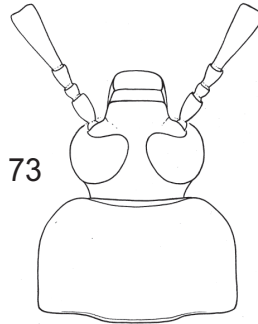
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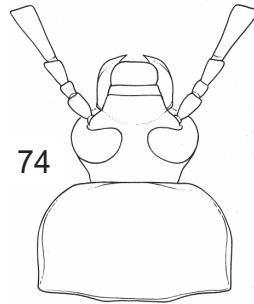
Figs 68-71: *Hymenalia wuliangica* sp. nov.: 68- Habitus of male holotype; 69- Head and pronotum of male holotype; 70- Aedeagus, dorsal view; 71- Aedeagus, lateral view.



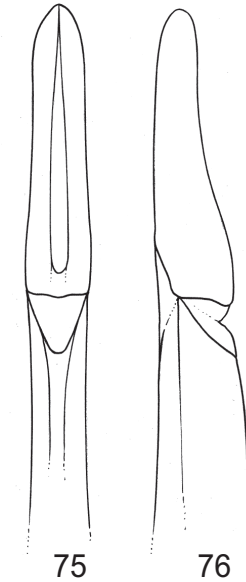
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Figs 72-76: *Hymenalia yumanica* sp. nov.: 72- Habitus of male holotype; 73- Head and pronotum of male holotype; 74- Head and pronotum of female; 75- Aedeagus, dorsal view; 76- Aedeagus, lateral view.

