

# Three new species of the genus *Borboresthes* Fairmaire, 1897 (Coleoptera: Tenebrionidae: Alleculinae)

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**Taxonomy, new species, Coleoptera, Tenebrionidae, Alleculinae, Borboresthes, Laos, Himalaya, India, Meghalaya**

Abstract. *Borboresthes haucki* sp. n. from Laos, *B. jaegeri* sp. n. from Himalaya and *B. turaensis* sp. n. from India, Meghalaya are described and illustrated. Three new species are compared and keyed with type material of the species *Borboresthes brunneopictus* Borchmann, 1942; *Borboresthes neptis* Borchmann, 1942 and *Borboresthes picta* Borchmann, 1929.

## INTRODUCTION

First, S. A. de Marseul (1876) has described new species of the genus *Allecula* Fabricius, 1801 (*Allecula cruralis*) from Japan. Fairmaire (1897) has separated new genus *Borboresthes* from near and widely distributed genus *Allecula*. Species of the genus *Borboresthes* Fairmaire more oval, pronotum larger and more transverse, base of pronotum not distinctly narrower than base of elytra. Antennae narrow and longer, eyes distinctly cut out, scutellum larger, triangular. Penultimate tarsomere and tarsomere before penultimate with membranous lobes. Borchmann (1910) has known only two species of this genus. In present, we know more than sixty species of the genus *Borboresthes*, widely distributed in south-eastern Asia (Borchmann 1915, 1940 and 1941, Dubrovin 1992, Maeda & Nakane 1988; Mařan 1943-1944, Pic 1922a, b, 1925, 1928, 1930a,b, 1934a,b, 1936, 1937). Upper parts of body (head, pronotum, elytra) of almost species dark – from brown to black, but some of the species have upper parts light from yellow to light brown or light with darker suture. Bicolorous elytra species (light with darker parts) have been described by Borchmann (1929 and 1942) from Sumatra and Burma. In this paper are presented three new bicolorous species of the genus *Borboresthes*. *Borboresthes haucki* sp. n. recently collected in Laos, *B. jaegeri* sp. n. recently collected in Himalaya and *B. turaensis* sp. n. recently collected in Meghalaya (India) are described, illustrated and keyed.

## MATERIAL AND METHODS

Specimens from Laos, Himalaya and Meghalaya were examined and compared with type material from Borchmann collection (deposited in Zoologisches Institut und Zoologisches Museum der Universität Hamburg); loaning material were species: *Borboresthes brunneopictus* Borchmann, 1942, *Borboresthes neptis* Borchmann, 1942 and *Borboresthes picta* Borchmann, 1929.

Two important quotients are used for description of species of subfamily Alleculinae. „Ocular index“ dorsally (Campbell & Marshall, 1964) is calculated by measuring the minimum distance between the eyes and dividing this value by the maximum dorsal width across the eyes. The quo-

tion resulting from this division is then converted into an index by multiplying by 100. „Pronotal index“ (Campbell, 1965) expresses the ratio of the length of the pronotum along the midline to the width at the basal angles. This ratio is multiplied by 100 for convenience in handling.

Specimens of the presently described species are provided with one red label printed: „*Borboresthes haucki* sp. n. or *Borboresthes jaegeri* sp. n. or *Borboresthes turaensis* sp. n. HOLOTYPUS or PARATYPUS V. Novák det. 2005“. Holotypes and paratypes are deposited in author’s collection, Prague, Czech Republic. Paratypes are also deposited in the collection of National Museum, Prague, Czech Republic, in the collection of Staatliches Museum für Tierkunde, Dresden, Germany and in the private collection of David Hauck, Brno, Czech Republic.

The following abbreviations are used in the paper:

DHBC collection David Hauck, Brno, Czech Republic  
 MTDG Staatliches Museum für Tierkunde, Dresden, Germany  
 NMPC National Museum, Prague, Czech Republic  
 VNPC collection Vladimír Novák, Prague, Czech Republic

#### KEY TO THE SPECIES

- A Body coloration dark, maximally in apical part of elytron lighter spot  
 B Body coloration light – yellow, yellowish brown or light brown, maximally with dark elytral intervals or spots ..... 1
- 1 Elytra universally unicolorous or only elytral suture dark  
 - Elytral intervals dark or elytra with dark spots – elytra bicolorous ..... 2  
 2 Species broadly oval, most width near elytral half ..... 3  
 - Species longely oval, most width near elytral two third, measured from base ..... 5  
 3 Smaller species, each elytron with one dark, transverse basal spot; one dark „s“ spot at elytral middle and one dark „moon“ spot at three fourth of elytron length, measured from base ..... *B. picta* Borchmann, 1929  
 - Larger species, more broadly oval, suture and elytral intervals from first to fourth usually dark, elytral rand dark, near elytral half dark spot from rand of elytron usually reaching up to three ultimate elytral intervals ..... 4  
 4 Elytral striae with small punctures, interspaces between punctures in rows larger than puncture diameter .....  
 ..... *B. turaensis* sp. n.  
 - Elytral striae with large, deep and coarse punctures, punctures close together, interspaces between punctures in rows distinctly smaller than puncture diameter ..... *B. jaegeri* sp. n.  
 5 Elytron with transverse, interrupted strip near two thirds of elytron length, measured from base and with one spot before apex from third to seventh elytron intervals ..... *B. neptis* Borchmann, 1942  
 - Elytron without transverse strips and elytron spots near apex; only elytron rand and intervals from first to fifth dark ...6  
 6 Elytral striae with smaller punctures, interspaces between punctures in striae larger than puncturediameter, dark spot in middle of elytron from suture to fourth interval. Elytron distinctly oval. Antennae reaching up to half of body length ...  
 ..... *B. brunneopictus* Borchmann, 1942  
 - Elytron almost linear, elytral striae with larger punctures, interspaces between punctures in striae smaller than diameter of punctures, dark spot in middle of elytron from suture to third interval. Antennae reaching up to two third of body length ..... *B. haucki* sp. n.

## DESCRIPTIONS

### *Borboresthes haucki* sp. n.

(Figs 1-2, 6, 9, 12-13)

**Type material.** Holotype (♂) labelled: „, LAOS – NE; HUA PHAN prov.; BAN SALUEI; Phu Phan Mt.; 20° 15'N 104° 02' E; 1500-2000 m; 26.iv.-11.v.2001; D. Hauck leg.“ (VNPC); Paratypes (32 ♂♂ 44 ♀♀): „same data as holotype“ (DHBC, NMPC, VNPC).

**Description of holotype.** Two-coloured: light yellowish brown and dark brown. Body elongate, slightly oval; length 6.04 mm. 2.77 times longer its width; widest at two thirds of elytral length.

Head (Fig. 6). Relatively small, brown; width across eyes approximately 0.64 of pronotal base length. Broadest across eyes, width 0.97 mm. Head length (visible part) 1.03 mm; ratio L/W (length/most width) 1.07. Eyes relatively large, dark, transverse and cut out. Ocular index 39.50. Head with relatively sparse but longer light setae, relatively sparsely and very shallowly punctated, clypeus devoid of conspicuous punctation. Head's surface clearly granulated, only very slightly shining.

Antennae. Longer and narrow, reaching up 0.66 of body length (length of antennae 3.97 mm); antennomeres from first to fourth light yellowish brown, from fifth to eleventh very slightly darker. Entire antennae covered with light and relatively dense setation. Antennomeres with fine microsculpture, more matt, antennomeres from first to fourth very slightly shining. Antennomere first broadest, antennomere second shortest, antennomere fourth longest, antennomeres from fourth to eleventh longer than antennomere third. Ratio of relative length of antennomeres from base to apex as follows: 0.64: 0.39: 1.00: 1.48: 1.11: 1.09: 1.04: 1.13: 1.10: 1.07: 1.27. Ratio L/W (length/most width) of antennomeres from base to apex as follows: 1.70: 1.80: 4.50: 6.41: 4.48: 4.23: 4.69: 4.71: 4.30: 5.00: 5.52.

Maxillary palpus. Light yellowish brown as colour as antennomeres from first to fourth. Second palpomere on apex, penultimate and ultimate palpomeres with longer, light and relatively sparse setation. Palpomeres with fine microsculpture, slightly shining. Penultimate palpomere slightly triangular, ultimate palpomere broadly transverse and triangular; on inner side slightly rounded. Ratio of relative lengths of palpomeres from second to fourth from base to apex as follows: 2.17: 1.00: 2.53. Ratio L/W (length/most width) of palpomeres from second to fourth from base to apex as follows: 2.73: 1.28: 0.77.

Pronotum (Fig. 6). Brown, slightly shining, slightly transverse, with longer setation, setae on disk light and very sparse, near posterior angles and near margins setation more denser and darker; conspicuously narrower than elytra. Length (in middle) 0.95 mm; broadest at base 1.51 mm. Pronotal index 62.96. Base conspicuously cut out in outer third and against scutellum. Base margin complete and clearly conspicuous; lateral margins conspicuous, only in middle of apex margin absent. Posterior angles conspicuously sharp angled with a rounded tip; in basal half sides first very slightly cut out, then slightly narrowed to its half; in apical half rounded towards apex; anterior angles not clearly conspicuous. Pore-punctures dense, relatively large; interspaces very narrow, slightly granulated, slightly shining. Pore-punctures inside with conspicuous microsculpture, matt. Underside of thorax light brown, slightly shining, with fine microsculpture. Episternum of prothorax with sparse light setae.

Elytron (Fig. 9). Bicolourous: lateral margins and two elytral intervals from basal half to its three fourths brown; at apical fourth only one elytral interval brown. Rest of elytron light yellowish brown. With relatively long and dense setation, setae bicolorous: dark and light gold. Conspicuously broader at base than pronotum, linear to its three fourths. Elytral length 4.21 mm. Widest at about three fourths of its length, measured from base; at this place elytral width 2.19 mm. Elytra 1.93 times longer than wide. Elytral striae with punctures conspicuous, punctures medium size. Elytral intervals with very sparse, small and shallow pore-punctures, with very fine microsculpture, shining. Elytral eppipleura well developed, universally brown, as coloured as ventral side of body. Epipleura in basal half regularly narrowed; from first abdominal sternite in apical half runs parallel and narrowed to rounded apex. At basal half of elytral epipleura larger punctures (diameter of punctures near punctures diameter of elytral striae) without setae present. Scutellum not conspicuously punctated, roundly triangular, lighter than colour of first and second elytral intervals.

Legs. Longer, narrower, universally light yellowish brown, femora covered with darker, tibia and tarsi with lighter setation. Setation longer and relatively dense. Tibia narrow, narrowest at base, broadest on apex. Penultimate tarsomeres of each tarsus broadest and with membranous lobes. Ratio of relative lengths of tarsomeres from base to apex as follows: protarsus: 1.00: 0.58: 0.72: 0.89: 1.86; mesotarsus: 1.00: 0.37: 0.34: 0.40: 0.90; metatarsus: 1.00: 0.21: 0.21: 0.37.

Anterior tarsal claws both with 12 teeth.

Ventral side of body. Light brown, with sparse light setation and fine microsculpture, shining, abdomen five-segmented, middle of abdominal segments from first to third with black spots. Metathorax, episternum of metathorax with relatively large and coarse punctures, interspaces between punctures larger than diameter of punctures. Apical sides of mesothorax and apical parts of episternum of mesothorax with punctures of same size.

Genitalia (Figs 12, 13). Light yellowish brown, shining. Apical piece of genitalia triangular, on apex regularly rounded, basal part broadest at basal third, measured from base, then regularly narrowed. Ratio of length of apical piece to basal piece 1: 3.09.

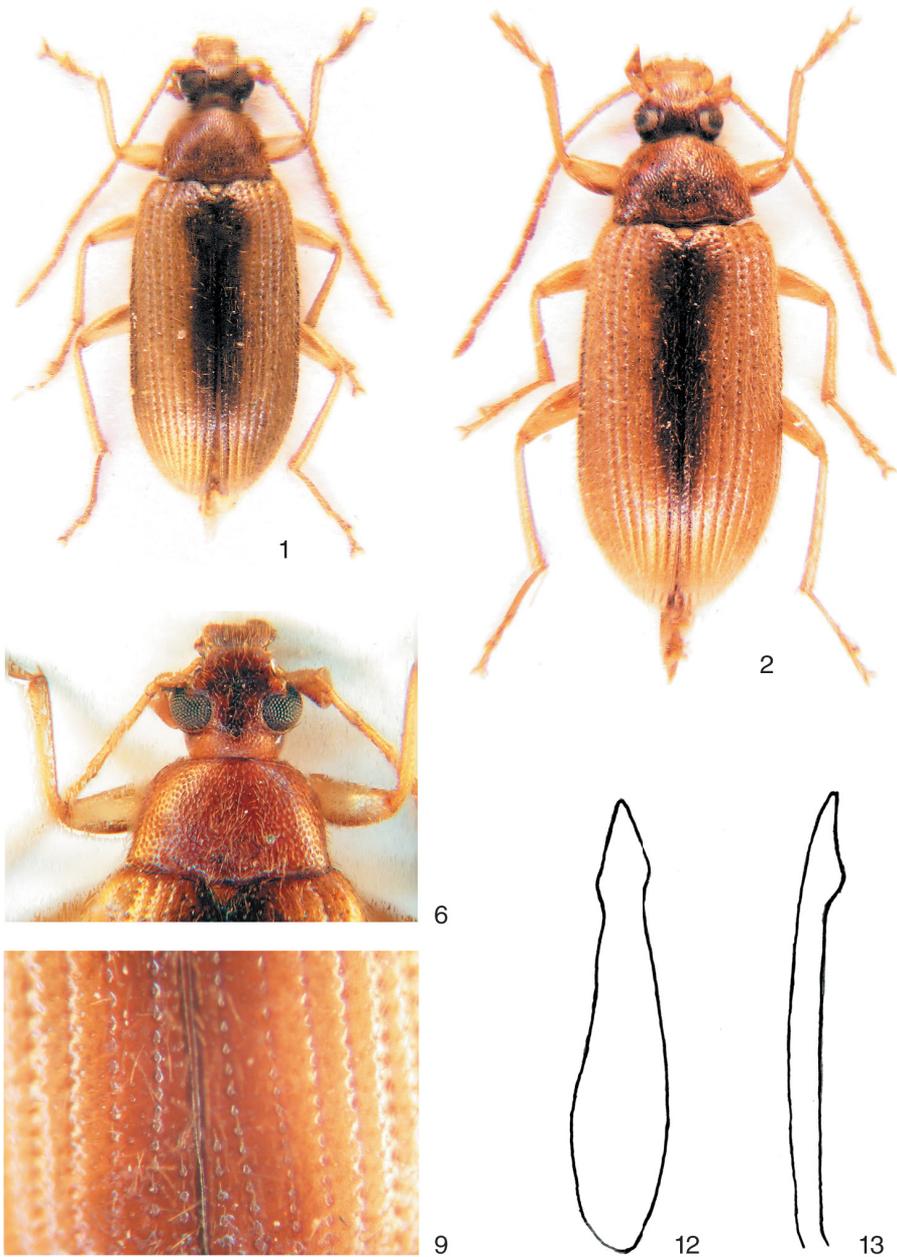
Male. Anterior tarsal claws with 12 teeth.

33 males: length 5.71 mm approximately (ranging from 4.74 to 6.36 mm); head length 0.80 mm approximately (ranging from 0.62 to 1.03 mm); head width 0.96 mm approximately (ranging from 0.85 to 1.07 mm). Ocular index 38.66 approximately (ranging from 35.35 to 44.02). Pronotal length (in middle) 0.92 mm approximately (ranging from 0.81 to 1.04 mm); pronotal width at base 1.44 mm approximately (ranging from 1.29 to 1.64 mm). Pronotal index 64.04 approximately (ranging from 59.42 to 68.63). Elytral length 4.03 mm approximately (ranging from 3.37 to 4.54 mm); elytral width 2.04 mm approximately (ranging from 1.80 to 2.35 mm).

Female (Fig. 2). Anterior tarsal claws with 9 teeth.

Ratio of relative lengths of antennomeres from base to apex as follows: 0.66: 0.38: 1.00: 1.25: 1.00: 1.02: 1.01: 1.00: 0.98: 0.92: 1.16. Ratio L/W (length/ most width) of antennomeres from base to apex as follows: 1.69: 1.41: 4.65: 5.59: 3.82: 4.19: 3.27: 3.06: 3.18: 2.97: 3.88. Ratio of relative length of tarsomeres from base to apex as follows: protarsus: 1.00: 0.70: 0.69: 1.03: 2.01; mesotarsus: 1.00: 0.42: 0.35: 0.52: 1.16; metatarsus: 1.00: 0.31: 0.31: 0.62.

44 females: length 6.23 mm approximately (ranging from 5.36 to 6.79 mm); head's length 0.89 mm approximately (ranging from 0.73 to 1.10 mm); head's width 1.00 mm approximately (rang-



Figs: *Borboresthes haucki* sp. n.: 1- Habitus of male (Holotype); 2- Habitus of female; 6- Head and pronotum (Holotype); 9- Punctuation of elytron; 12- Male genitalia from dorsal view; 13- Male genitalia from lateral view.

ing from 0.81 to 1.08 mm). Ocular index 42.24 approximately (ranging from 36.56 to 46.49). Pronotal length (in middle) 1.02 mm approximately (ranging from 0.89 to 1.09 mm); pronotal width at base 1.54 mm approximately (ranging from 1.38 to 1.72 mm). Pronotal index 64.40 approximately (ranging from 60.10 to 67.76). Elytral length 4.38 mm approximately (ranging from 3.80 to 4.84 mm); elytral width 2.31 mm approximately (ranging from 2.15 to 2.50 mm).

**Name derivation.** Dedicated to the collector of the type material, David Hauck (Brno, Czech Republic) to whom I am obliged for the described specimen.

*Borboresthes jaegeri* sp. n.

(Figs 3, 7, 10)

**Type material.** Holotype (♀) labelled: „Nepal, Annapurna Mts., Siklis, Klopffang, 2000 m, 4.viii.1995, O. Jäger leg.“ (VNPC); Paratypes (1 ♀): „same data as holotype“ (MTDG); (2 ♀♀): „Nepal, Himalaya, Annapurna Mts., Marsyandi-tal, Tal. 1600-1700 m, Käscherf., 23.viii.1995, leg. O. Jäger“ (MTDG, VNPC); (1 ♀): „Nepal, Halambu, Mulkharka – Chisapani, 85° 27' E 27° 50' N, 1800-2500-2200 m, 26.viii.1997, lg. Fabrizi & Ahrens“ (MTDG).

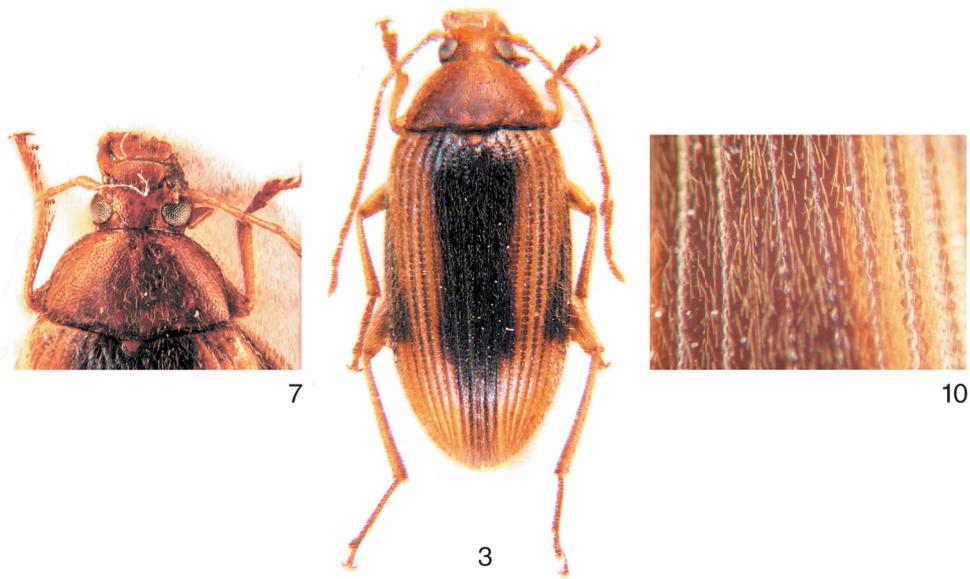
**Description of holotype.** Body broadly oval; length 6.72 mm, 2.44 times longer its width; widest near half of elytra.

Head (Fig. 7). Relatively small, light brown; width across eyes approximately 0.54 of pronotal base width. Head's length (visible part) 0.95 mm; broadest across eyes, width 1.14; slightly transverse, ratio L/W (length/most width) 0.83. Eyes dark, transverse, slightly cut out. Ocular index 46.99. Head with very sparse light setation, punctuation only slightly conspicuous, sparse and very shallow. Surface with fine microsculpture, slightly shining.

Antennae. Longer and narrow, reaching up 0.68 of body length (length of antennae 4.57 mm); universally light yellowish brown. Entire antennae covered with light setation, setation of first and second antennomere relatively sparse, antennomeres from third to eleventh with denser setation. Second antennomere shortest, antennomeres from fourth to eleventh longer than antennomere third. Antennomere fourth narrowest. Ratio of relative lengths of antennomeres from base to apex as follows: 0.69: 0.36: 1.00: 1.35: 1.39: 1.42: 1.25: 1.33: 1.26: 1.22: 1.30. Ratio L/W (length/most width) of antennomeres from base to apex as follows: 2.13: 1.56: 4.18: 6.32: 5.40: 4.61: 4.06: 4.56: 3.58: 3.67: 3.80.

Maxillary palpus. Ratio of relative lengths of palpomeres from second to fourth from base to apex as follows: 1.59: 1.00: 1.89. Ratio L/W (length/most width) of palpomeres from second to fourth from base to apex as follows: 2.66: 1.77: 0.76.

Pronotum (Fig. 7). Light brown, matt, transverse, with light and not dense undirected setation. Length (in middle) 1.23 mm; broadest at base 2.12 mm. Pronotal index 57.86. Base strongly cut out in outer third and against scutellum. Posterior angles slightly obtuse angled with rounded tip. Margins complete, only in middle of apical part not clearly conspicuous. Pronotal sides regularly narrowed towards rounded apex. Anterior angles not conspicuous. Surface with smaller, not clear and very shallow pore-punctures. Interspaces with granulation, matt. Underside of thorax light brown with small and sparse punctures and sparse light brown setae. Surface finely rugulose.



Figs: *Borboresthes jaegeri* sp. n.: 3- Habitus of female (Holotype); 7- Head and pronotum (Holotype); 10- Punctation of elytron.

Elytron (Fig. 10). Bicolourous; light yellowish brown and dark brown. Scutellum light brown. Setation light and relatively dense. Elytral length 4.85 mm. Widest near elytral half 2.75 mm. Elytra 1.76 times longer its width. From base to two thirds of elytra – elytron dark brown from first to fourth elytral intervals, thence in apical third only first and second elytral intervals dark brown. Margins of elytron complete narrow dark brown; from one to two thirds of elytral length dark brown spot broadened from rand to seventh elytral interval. Punctures in rows large, deep and coarse, dark brown, interspaces between punctures in rows very narrow. Interspaces between striae finely granulated with very small punctures, slightly shiny. Elytral epipleura well developed from base to rounded apex. Epipleura regularly narrowed to base of metasternum, from metasternum to apex runs parallel. With sparse longer light setae, at basal half setation denser and with one row of large punctures at basal half. Scutellum devoid of conspicuous punctation and setation; with fine microsculpture.

Legs. Longer, universally light yellowish brown, only narrow ring on apex of femora darker. With shorter but denser light setation. Penultimate tarsomeres of each tarsi with membranous lobes. Anterior tarsomeres from second to fourth broader, anterior tarsomeres third and fourth transverse. Ratio of relative lengths of tarsomeres from base to apex as follows: protarsus: 1.00: 0.73: 0.76: 0.94: 1.35; mesotarsus: 1.00: 0.40: 0.39: 0.43: 0.82; metatarsus: 1.00: 0.24: 0.27: 0.44.

Anterior tarsal claws both with 7 teeth.

Ventral side of body. Brown, without conspicuous setation, abdomen five segmented, abdominal segments from third to fifth darker – blackish brown. Abdominal segments with very small and shallow punctures, surface with microsculpture, slightly shining. Sides of metathorax and episternum of metathorax with larger punctures, middle of metathorax with small and shallow punctures, surface with microsculpture, more matt.

Male. Unknown.

Female. Anterior tarsal claws with 7 teeth.

5 females: length 6.88 mm approximately (ranging from 6.21 to 7.39 mm); head length 0.91 mm approximately (ranging from 0.76 to 1.01 mm); head width 1.15 mm approximately (ranging from 1.08 to 1.21 mm). Ocular index 48.26 approximately (ranging from 45.12 to 52.96). Pronotal length (in middle) 1.19 mm approximately (ranging from 1.06 to 1.26 mm); pronotal width at base 2.18 mm approximately (ranging from 1.93 to 2.32 mm). Pronotal index 54.64 approximately (ranging from 51.08 to 57.86). Elytral length 4.95 mm approximately (ranging from 4.36 to 5.42 mm); elytral width 2.84 mm approximately (ranging from 2.51 to 3.10 mm).

**Name derivation.** Dedicated to the collector of the type material, Olaf Jäger (Dresden, Germany), to whom I am obliged for the described specimen.

***Borboresthes turaensis* sp. n.**

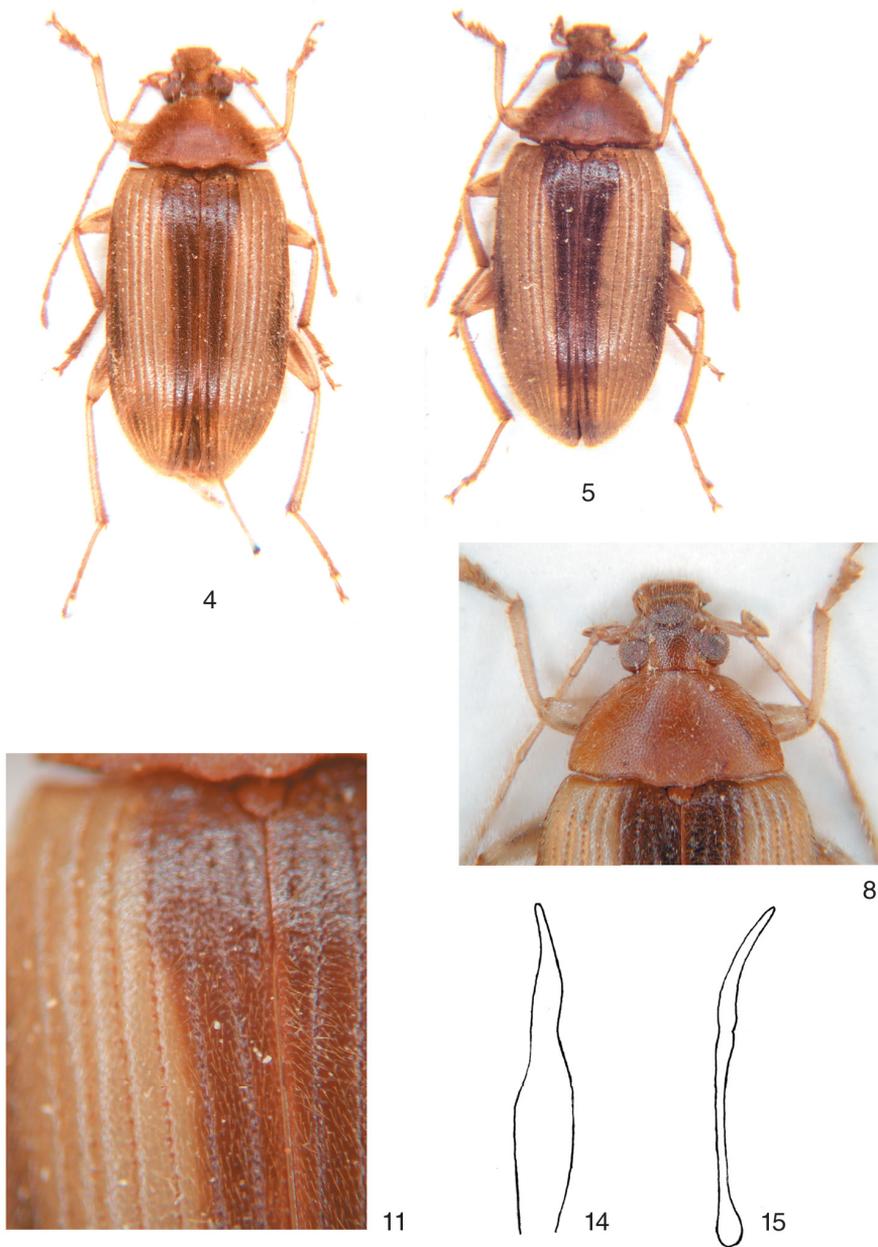
(Figs 4-5, 8, 11, 14-15)

**Type material.** Holotype (♂) labelled: „NE INDIA; Meghalaya; 3 km E Tura; 1150 m; 25° 30' N 90° 14' E; 4.v.1999; Dembický & Pacholátko leg.“ (VNPC); Paratypes (3 ♂♂, 2 ♀♀): „same data as holotype“ (DHBC, VNPC); (3 ♀♀): „NE INDIA, Meghalaya, Nokrek n. p. 3 km S Daribokgiri, 25° 27' N 90° 19' E, 1400 m, 26.iv.1999, Dembický & Pacholátko leg.“ (DHBC, VNPC); (38 ♂♂, 28 ♀♀): „NE INDIA, Meghalaya, 3 km E TURA, 25° 30' N 90° 14' E, 1150 m, 6.-12.v.2002, M. Trýzna & P. Benda lgt.“ (DHBC, NMPC, VNPC); (16 ♂♂, 4 ♀♀): „NE INDIA; Meghalaya; 3 km E TURA, 25° 30' N 90° 14' E, 1150 m, 13.-18.v.2002, N. Trýzna & P. Benda lgt.“ (DHBC, NMPC, VNPC).

**Description of holotype.** Bicolourous: light yellowish brown and brown. Body broadly oval; length 7.08 mm; 2.35 times longer its width; widest near elytral half.

Head. Brown, relatively small, with longer but not dense setation; width across eyes approximately 0.51 of pronotal base length. Broadest across eyes, width 1.16 mm; head length (visible part) 0.98 mm; ratio L/W (length/most width) 0.85. Eyes relatively large, transverse, darker, cut out. Ocular index 48.66. Shallowly punctated, punctures smaller, interspaces with conspicuous granulation, head matt.

Antennae. Longer and narrow, reaching up 0.68 of body length (length of antennae 4.80 mm); universally light yellowish brown, antennomere eleventh very slightly darker. Entire antennae covered with light, shorter setation. Antennae with fine microsculpture, antennomeres from fifth to eleventh matt, from first to fourth very slightly shining. Antennomere first broadest, antennomere second shortest, antennomere fourth longest. Ratio of relative lengths of antennomeres from base to apex as follows: 0.82: 0.31: 1.00: 1.44: 1.17: 1.16: 1.05: 1.07: 1.12: 0.98: 1.03. Ratio L/W



Figs: *Borboresthes turaensis* sp. n.: 4- Habitus of male (Holotype); 5- Habitus of female; 8- Head and pronotum (Holotype); 11- Punctuation of elytron; 14- Male genitalia from dorsal view; 15- Male genitalia from lateral view.

(length/most width) of antennomeres from base to apex as follows: 2.97: 1.17: 5.19: 8.45: 6.10: 6.63: 6.71: 7.80: 6.42: 4.12: 4.31.

Maxillary palpus. Light yellowish brown, as coloured as first and second antennomeres; with light setation, setation of ultimate palpomere denser. Palpomeres with fine microsculpture, slightly shining. Second and penultimate palpomeres broadest at apex, penultimate palpomere slightly triangular, ultimate palpomere broadly triangular, transverse. Ratio of relative lengths of palpomeres from second to fourth from base to apex as follows: 1.91: 1.00: 2.95. Ratio L/W (length/most width) of palpomeres from second to fourth from base to apex as follows: 1.76: 0.82: 0.89.

Pronotum. Universally light brown, matt, transverse, with light longer setation; setae with various orientations. Length (in middle) 1.25 mm, broadest at base 2.30 mm. Pronotal index 54.49. Base conspicuously cut out in outer third and against scutellum. Base margin line complete and clearly conspicuous. Lateral margins conspicuous, only in middle of apex margin absent. Posterior angles roundly perpendicular, sides regularly roundly narrowed to rounded apex. Anterior angles not conspicuous. Pronotum with very fine and very shallow punctures; interspaces with approximately same diameter as punctures itself. Interspaces and interior of punctures with clear granulation, pronotum matt.

Elytron. Two-coloured: light yellowish brown and brown. Elytral intervals from first to fifth brown. At base spot reaching up to fifth elytral interval, thence to second or third elytral interval. Sides of elytron narrowly darker, near middle dark spot reaching up from sides to eighth elytral interval. Setation light, relatively short, at apical part denser. Punctuation of elytral striae clearly conspicuous, punctures small, interspaces between punctures in striae larger than diameter of punctures. Elytral length 4.96 mm. Widest near elytral half 3.01 mm. Elytra 1.65 longer its width. Elytral epipleura well developed, light yellowish brown, at basal half regularly narrowed to first abdominal sternite, at apical half runs parallel. With short sparse light setation and fine microsculpture; basal half one row of large punctures present. Scutellum lighter as colour as pronotum, with sparse light setae.

Legs. Longer, light yellowish brown as coloured as lighter part of elytron present. Apex of tibia narrowly and tarsi slightly darker. Entire legs covered with light and relatively dense light setation. Penultimate tarsomeres of each tarsus with membraneous lobes. Protarsal tarsomeres from second to fourth and mesotarsal tarsomeres third and fourth broader, protarsal tarsomeres third and fourth slightly transverse. Ratio of relative lengths of tarsomeres from base to apex as follows: protarsus: 1.00: 0.59: 0.66: 0.88: 1.84; mesotarsus: 1.00: 0.24: 0.41: 0.37: 0.94; metatarsus: 1.00: 0.28: 0.34: 0.62.

Anterior tarsal claws both with 10 teeth.

Ventral side of body. Light yellowish brown, without conspicuous setation, abdomen five-segmented. Abdominal segments with very small, sparse and shallow punctures, with fine microsculpture, shining. Metathorax in middle with larger punctures, sides of metathorax, episternum of metathorax and episternum of mesothorax more larger punctures than one of metathorax present.

Genitalia. Light yellowish brown, with very fine microsculpture, slightly shining. Apical piece from apical third to apex very narrow, no broadest at base. Basal piece broadest at half. Ratio of lengths of apical piece to basal piece 1: 1.60.

Male. Anterior tarsal claws with 10 teeth.

58 males: length 6.60 mm approximately (ranging from 6.22 to 7.38 mm); head length 0.91 mm approximately (ranging from 0.85 to 1.03 mm); head width 1.11 mm approximately (ranging from 1.08 to 1.21 mm). Ocular index 46.83 approximately (ranging from 43.21 to 50.58). Pronotal length (in middle) 1.17 mm approximately (ranging from 1.09 to 1.29 mm); pronotal width at base 2.21 mm approximately (ranging from 2.07 to 2.37 mm). Pronotal index 54.04 approximately (ranging from 51.46 to 59.03). Elytral length 4.71 mm approximately (ranging from 4.42 to 5.35 mm); elytral width 2.83 mm approximately (ranging from 2.69 to 3.10 mm).

Female. Anterior tarsal claws with 7 teeth.

Ratio of relative lengths of antennomeres from base to apex as follows: 0.79: 0.31: 1.00: 1.36: 1.22: 1.17: 1.13: 1.13: 1.13: 1.02: 0.97. Ratio L/W (length/ most width) of antennomeres from base to apex as follows: 2.18: 1.65: 5.53: 5.96: 5.81: 4.56: 4.96: 4.41: 4.96: 4.46: 4.25. Ratio of relative length of tarsomeres from base to apex as follows: protarsus: 1.00: 0.34: 0.67: 0.95: 1.63; mesotarsus: 1.00: 0.38: 0.37: 0.45: 0.92; metatarsus: 1.00: 0.23: 0.20: 0.47.

37 females: length 7.03 mm approximately (ranging from 6.68 to 7.50 mm); head length 0.95 mm approximately (ranging from 0.84 to 1.11 mm); head width 1.17 mm approximately (ranging from 1.10 to 1.21 mm). Ocular index 49.18 approximately (ranging from 43.21 to 52.89). Pronotal length (in middle) 1.25 mm approximately (ranging from 1.16 to 1.35 mm); pronotal width at base 2.30 mm approximately (ranging from 2.03 to 2.42 mm). Pronotal index 54.51 approximately (ranging from 51.60 to 58.51). Elytral length 5.01 mm approximately (ranging from 4.51 to 5.31 mm); elytral width 3.06 mm approximately (ranging from 2.78 to 3.36 mm).

**Name derivation.** Named after the type locality Tura (Meghalaya).

## REFERENCES

- BORCHMANN F. 1910: *Coleopterorum Catalogus. Pars 3 - Alleculidae*. In: JUNK W. & SCHENKLING S. (eds.): *Coleopterorum Catalogus*. Berlin: W. Junk, 80 pp.
- BORCHMANN F. 1915: X. Lagriidae und Alleculidae des „Indian museum“. *Records of the Indian Museum* 11: 179-188.
- BORCHMANN F. 1929: Ueber die von Herrn J. B. Corporaal in Ost-Sumatra gesammelten Lagriiden, Alleculiden, Meloiden und Othniiden. *Overgedrukt uit het Tijdschrift voor Entomologie* 72: 1-39.
- BORCHMANN F. 1940: Alleculidae aus dem Deutschen Entomologischen Institut. *Arbeiten über Morphologische und Taxonomische Entomologie aus Berlin-Dahlem* 7 (2): 154-158.
- BORCHMANN F. 1941: Über die Herrn J. Klapperich in China gesammelten Heteromeren. *Entomologische Blätter* 37: 22-29.
- BORCHMANN F. 1942: Entomological Results from the Swedish Expedition 1934 to Burma and British India. Lagriidae und Alleculidae. *Arkiv för Zoologi* 33 A (9): 1-32.
- CAMPBELL J. M. 1965: A revision of the genus *Charisius* (Coleoptera: Alleculidae). *The Coleopterist's Bulletin* 19: 43-56.
- CAMPBELL J. M. & MARSHALL J. D. 1964: The ocular index and its applications to the taxonomy of the Alleculidae (Coleoptera). *The Coleopterist's Bulletin* 18: 42.
- DUBROVIN N. N. 1992: *Alleculidae*. Pp. 510-517. In: LER P. A. (ed.): *Opredelitel nasekomykh Dalnego Vostoka SSSR. Tom. III – Zhestkokrylye, ili zhuki. Chast 2. (Keys to the identification of insects of the Soviet Far East. 3 – Coleoptera, or beetles. Part 2. Sankt-Peterburg: Nauka, 704 pp.*
- FAIRMAIRE L. 1897: Description de Coléoptères nouveaux de la Malaisie, de l' Inde et de la Chine. *Notes from the Leyden Museum* 19: 253-254.
- MAEDA M. & NAKANE T. 1988: New or little-known Coleoptera from Japan and its adjacent regions, XL. Family Alleculidae. *Review of Miyazaki Sangyo-Keiei University* 1: 1-10.
- MARSEUL S. A. de 1876: Coléoptères du Japon. *Annales de la Société Entomologique de France* 16: 315-340.
- MARAN J. 1943-1944: 255. Dva nové druhy čínských Alleculidů. [De novis Alleculidarum speciebibus Chinensibus.]. *Sborník Entomologického Oddělení Zemského Musea v Praze* 21-22: 76-77.

- PIC M. 1922a: Coléoptères exotiques en partie nouveaux. *L'Échange, Revue Linnéenne* 38 (408): 16-24.
- PIC M. 1922b: Nouveautés diverses. *Mélanges Exotico-entomologiques* 37: 1-32.
- PIC M. 1925: Nové druhy Coleopter ze sběrů Helferových v Birmě a v Indii. (Coléoptères nouveaux des chasses de Helfer aux Indes et Birmanie.) *Sborník Entomologického Oddělení Národního Musea v Praze* 22: 161-163.
- PIC M. 1928: Nouveautés diverses. *Mélanges Exotico-entomologiques* 52: 1-32.
- PIC M. 1930a: Nouveautés diverses. *Mélanges Exotico-entomologiques* 55: 1-36.
- PIC M. 1930b: Nouveautés diverses. *Mélanges Exotico-entomologiques* 56: 1-36.
- PIC M. 1934a: Cinq nouveaux Coléoptères exotiques. *Bulletin de la Société Entomologique de France*. 39: 82-84.
- PIC M. 1934 b: Nouveautés diverses. *Mélanges Exotico-entomologiques* 64: 1-36.
- PIC M. 1936: Nouveautés diverses. *Mélanges Exotico-entomologiques* 68: 1-36.
- PIC M. 1937: Coléoptères nouveaux de Chine. *Notes d'Entomologie Chinoise*. 4 (7): 169-176.