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New and poorly known Chrysomelidae (Coleoptera) from northern India

by Lev N. Medvedev

Abstract. The new genus *Pubibrotica* gen.nov. and 9 new species: *Temnaspis purpureotinctus*, *Smaragdina sprecheriae*, *Pyrrhalta meghalayana*, *Haplosomoides himalayana*, *H. assama*, *Pubibrotica bicolor*, *Pseudodera fulvicornis*, *Sphaeroderma fulvoornata*, *S. laterimarginata* spp.nov. (all from India: Meghalaya) are described. *Parascela castanea* TAN, 1983 is a new synonym of *P. hirsutum* (JACOBY, 1908). *Paraplotes indica* TAKIZAWA & BASU, 1987 is transferred to the genus *Japonitata* STRAND, 1935. *Monolepta dividua* WEISE, 1922 is recorded for India for the first time. A key to the genus *Pseudodera* BALY, 1861 is given.

Key words. Coleoptera – Chrysomelidae – India – taxonomy – new genus – new species

Introduction

I had the opportunity to study a large new body of material, collected in Meghalaya (northern India). in the Museum of Natural History, Basel. It includes a few taxa new for science and some rare and interesting species.

The following abbreviations are used for the places in which the type specimens are deposited:

NHMB Naturhistorisches Museum, Basel, Switzerland
 LM author's collection (L. N. Medvedev, Moscow, Russia)
 JV Jiří Voříšek collection, Jirkov, Czech Republic

Taxonomy

Temnaspis purpureotinctus sp.nov.

Material examined. Holotype: NE India, Meghalaya, 3 km E Tura, 1150 m (25.30N, 90.14E), 18.IV.1999, leg. Dembický & Pacholátko (NHMB). Paratype: same label, 1 specimen (LM).

Description. Dark fulvous with anterior part of head, antennae and abdomen light fulvous, upperside very glossy, with feeble metallic purple tint. Pubescence fulvous, elytra also with longer dark hairs.

Body parallel-sided, slightly narrowed apically. Head wider than prothorax, impunctate except for a group of punctures near inner margin of eye. Clypeus quadrangular, with straight anterior margin, divided from frons by a deep furrow. Vertex with deep central groove. Eyes deeply emarginate. Antennae reach base of elytra, 5–11 segments widened, proportions of segments 12–4–8–4–9–7–7–7–8–8–11, preapical segments as long as wide (Fig. 1). Prothorax 1.5 times as wide as long, widest near centre; slightly narrowed towards the base and anteriorly far more glossily surfaced, very sparsely punctate, with sparse short and long erect hairs. Scutellum as wide as long, triangular with truncate apex and a few punctures along margins. Elytra 2.0–2.1 times as long as wide, glossy, deeply but not densely punctate, each puncture bearing short or

long erect hair. Hind femora thick, with acute tooth beneath in apical third, hind tibiae moderately curved (Fig. 2).

Length: 8.7–9.5 mm.

Differential diagnosis. The species in question differs immediately from all Indian species in unspotted upperside with metallic sheen. In *T. bengalensis* WESTWOOD, 1864 the upperside is sometimes (very rarely) unspotted, but in this species both transverse furrows of prothorax are absent.

***Smaragdina sprecheriae* sp.nov.**

Material examined. Holotype (male): NE India, Meghalaya, 3 km E Tura, 1150 m (25.30N, 90.14E), 18. IV. 1999, leg. Dembický & Pacholátko (NHMB). Paratypes: same locality, 1 male, 4 females (NHMB, 2 ex. – LM): same locality, leg. Z. Košťál, 1 male (JV): same locality, leg. J. Rolčík, 1 male (FK): same locality, 500–1500 m, 15–22.IV.1999 leg. J. Rolčík, 1 male, 1 female (JV): Meghalaya, Nokrek N.P., 3 km Daribokgi, 26.IV.1999, leg. Z. Košťál, 1 male (JV).

Description. Fulvous; mandibles, genae, antennal segments 5–11, extreme apices of femora, tibiae and tarsi black. In male labrum and anterior margin of clypeus distinctly darkened.

Male. Body robust, parallel-sided. Head broad, about 0.95 times prothorax width near anterior margin, impunctate except for a group of punctures near inner margin of eye. Mandibles large, with elevated and sharp upper margin. Anterior margin of clypeus slightly concave, almost straight. Frons with deep central groove, 1.3 times more narrow than width of head. Antennae hardly reach base of prothorax, segments 5–11 feebly serrate, proportions of segments 14–6–5–9–9–9–9–9–8–9, preapical segments about as long as wide, with non-acute external angles (Fig. 3). Prothorax 2 times as wide as long, broadest a little beyond centre, side margins feebly rounded, distinctly explanate. Surface glossy, impunctate. Scutellum as wide as long, triangular with rounded apex. Elytra 1.25 times as long as wide, dull, very finely and sparsely punctate, interspaces large, with dense microsculpture. Anterior legs slightly elongate, anterior tibiae 1.4 times as long as middle ones, tarsal segment 1 slightly elongate (Fig. 4). Aedeagus (Fig. 5) with longitudinal central ridge and preapical transverse impression on underside.

Length 6.3–6.4 mm.

Female. Body less parallel-sided. Head about 0.9 times prothorax width, frons 1.7 times more narrow than width of head. Prothorax 2.15 times as wide as long. Forelegs non-elongate.

Length: 6.0–6.3 mm.

Differential diagnosis. Differs clearly from all fulvous species known from India in enlarged head and anterior legs of male. This species has the general appearance of the genus *Coptocephala* LACORDAIRE, 1848, but the aedeagus is quite not typical for *Coptocephala* (Renato Regalin, *personal information*).

Parascela hirsutum* (JACOBY, 1908)Parascela castanea* TAN, 1983 **syn.nov.**

Material examined. NE India, Meghalaya, 3 km E Tura, 1150 m (25.30N, 90.14E), 18.IV.1999, leg. Dembický & Pacholátko, 15 ex.; (NHMB). – Laos, Louangnamtha prov., Namtha-Muang Sing (21.09N, 101.19E), 5–31.V.1997, 900–1200 m, V. Kubáň leg., 2 females (NHMB, LM).

Remarks. This rare species, described from Assam, seems to be widely distributed from India to southern China. *P. castanea* TAN, 1983, described from Yunnan, is a new synonym of *P. hirsutum* because all the differential characters given in the original description (proportions of basal antennal segments, colour) correspond well to the population from Meghalaya.

***Pyrrhalta meghalayana* sp.nov.**

Material examined. Holotype (male): NE India, Meghalaya, 3 km E Tura, 1150 m (25.30N, 90.14E), 18.IV.1999, leg. Dembický & Pacholátko (NHMB). Paratypes: same locality, 9 specimens (NHMB, 2 ex. – LM).

Description. Head fulvous with black labrum and large transverse spot on occiput, antennae entirely black, prothorax fulvous with black middle part, more narrow towards base. Elytra and underside black, legs fulvous with black tarsi, apex of pygidium and last abdominal sternite fulvous. Pubescence white.

Body narrow, elongate, practically parallel-sided. Anterior margin of clypeus almost straight. Frontal tubercles triangular, convex, sharply delimited, mostly with strong punctures, vertex and occiput roughly punctate. Antennae reach anterior third of elytra, proportions of segments 10–4–6–8–6–6–7–6–6–6–8, all segments elongate, preapical segments about 2 times as long as wide. Prothorax two times as wide as long, broadest before centre and narrowed towards base, side margin feebly arcuate, uneven; anterior angles with pore and seta, almost unproduced. Surface strongly and densely punctate, with large shallow impression on each side, sparsely pubescent. Scutellum as wide as long, broadly rounded at apex, distinctly punctate. Elytra 1.75 times as long as wide, broadly rounded at apex, surface with very feeble ridge starting from humerus and delimited on both sides with shallow longitudinal impressions, punctures very dense and comparatively strong, interspaces much narrower than punctures. Pubescence much more dense and long than on prothorax. Male with tarsal segments unwidened and last abdominal sternite without impressions. Aedeagus see Fig. 6.

Length: 5.1–5.6 mm.

Differential diagnosis. Differs immediately from all Indian species with a combination of black elytra and bicoloured prothorax.

Japonitata indica* (TAKIZAWA & BASU, 1987) comb.nov.Paraplotes indica* TAKIZAWA & BASU, 1987

Material examined. NE India, Meghalaya, 3 km E Tura, 1150 m (25.30N, 90.14E), 18.IV.1999, leg. Dembický & Pacholátko, 2 ex. – Nepal, Godavari, 1500 m, 22–25. VI.1983, leg. M. Brancucci, 1 ex. (NHMB).

Remarks. Specimens studied correspond exactly to original description, but they are typical representatives of the genus *Japonitata* STRAND, 1935, having anterior coxal cavities open and hind border of prothorax unmarginated, with incisure near rear angles. Genus *Paraplotes* LABOISSIERE, 1933 has closed anterior coxal cavities and rear border of prothorax distinctly margined.

***Haplosomoides himalayana* sp.nov.**

Material examined. Holotype (male): NE India, Meghalaya, 3 km E Tura, 1150 m (25.30N, 90.14E), 18.IV.1999, leg. Dembický & Pacholátka (NHMB). Paratypes: same label, 42 males, 31 females (NHMB, 6 ex. – LM).

Description. Entirely fulvous, only preapical antennal segments slightly darkened in male.

Head impunctate, glossy. Eyes large, frons narrowed anteriorly, about 0.35 of maximum width of head. Antennae thin, reaching apical third of elytra, proportions of segments 14–5–11–14–10–10–10–9–7–6–9 (male). Prothorax 1.9 times as wide as long, quadrangular, but slightly narrowed to base, surface glossy, finely and very sparsely punctate, transverse depression more deep at sides. Scutellum elongate triangular with truncate apex. Elytra twice as long as wide, slightly widened towards the rear, surface dull, densely punctate, with well developed basal convexity, each elytron with feeble lateral ridge, disappearing beyond centre and more distinct in female.

Male: 4 apical antennal segments shortened and widened (Fig. 7). Segment 1 of anterior and mid-tarsi very large and distinctly widened (Fig. 9). Abdominal sternite 5 with acute tooth at base, hind margin with long acute tooth on each side (Fig. 11). Aedeagus (Fig. 12) comparatively short and broad. Apex of pygidium with triangular notch.

Length: 6.1–7.3 mm.

Differential diagnosis. This species, having dull elytra, must be placed near *H. krishila* MAULIK, 1936 and *H. rasha* MAULIK, 1936 (see key to the genus in MEDVEDEV 2000), but differs immediately from both in sharp sexual dimorphism, feeble elytral ridge and presence of abdominal process in male. However it differs distinctly from all species of the genus, having abdominal process mentioned above on the fifth segment, not on the first, as was previously known for genus.

***Haplosomoides assama* sp.nov.**

Material examined. Holotype (male) and 4 paratypes (1 male, 3 females): NE India, Meghalaya, 3 km E Tura, 1150 m (25.30N, 90.14E), 18.IV.1999, leg. Dembický & Pacholátka (NHMB, 2 ex. – LM).

Description. Body fulvous, metasternum and abdomen black, extreme apex of pygidium and impressed median part of abdominal sternite 5 fulvous.

Very similar to preceding species, females differ only in colour of underside. In male, eyes moderately large, frons not narrowed anteriorly, about 0.55 of maximum width of head. Antennae with proportions of segments 13–5–10–13–14–14–13–12–11–10–11, apical segments not thickened (Fig. 8). Prothorax shining, 1.6 times as wide as

long. Elytra 1.85 times as long as wide, dull, finely and densely punctate, with lateral ridge obtuse, but much more distinct as in *H. himalayana*. Segment 1 of anterior and mid tarsi feebly widened (Fig. 10). Abdomen without any processes, sternite 5 with impression in middle and almost straight hind margin. Apex of pygidium rounded truncate. Aedeagus (Fig. 13) with strongly bifurcate apex.

Length: 7.5–7.8 mm.

Differential diagnosis. Resembles species with dull elytra, but body larger, elytral ridge not sharp and aedeagus quite different from all other species of the genus.

***Pubibrotica* gen.nov.**

Type species: *Pubibrotica bicolor* sp.nov.

Description. Body narrow, elongate.

Head, including vertex impunctate. Frontal tubercles distinct, triangular. Antennae simple, antennal insertions separated, situated behind level of anterior margins of eyes. Prothorax transverse, margined on sides, unmargined on anterior and posterior borders, all angles distinct, each with pore and seta; surface bare, impunctate, with deep transverse groove on each side. Elytra pubescent, randomly sculptured. Epipleura extremely narrow and more or less distinct only near base. All tibiae without spurs. Claws appendiculate. Anterior coxal cavities open, prosternum very narrow and practically invisible between coxae. Mesosternal process very narrow. Metasternum well developed. Abdomen of male simple.

Differential diagnosis. Very near to *Phyllobrotica* REDTENBACHER, 1845, differs in pubescent elytra and unmargined hind border of prothorax. From *Euliroetis* OGLOBLIN, 1936 and *Japonitata* STRAND, 1935 differs in indistinct epipleura and non-incised hind border of prothorax near rear angles.

***Pubibrotica bicolor* sp.nov.**

Material examined. Holotype (male) and 6 paratypes: NE India, Meghalaya, 3 km E Tura, 1150 m (25.30N, 90.14E), 18.IV.1999, leg. Dembický & Pacholátka (NHMB, 2 paratypes – LM).

Description. Body black. Head, first antennal segment, prothorax, scutellum, pro- and mesosternum, femora (mostly with black apices) and tibiae (often darkened) fulvous. Pubescence of elytra white.

Vertex with fine microsculpture. Antennae reach behind middle of elytra, proportions of segments 10–3–7–6–6–6–6–6–5–7, preapical segments about three times as long as wide. Prothorax twice as wide as long, broadest at anterior margin and narrowed towards the base, slightly incised before rear angles, surface glossy, impunctate. Elytra 1.8 times as long as wide, parallel-sided (male) or slightly widened posteriorly (female), finely and very densely sculptured, but without distinct punctures; pubescence short and dense. Pygidium elongate triangular with rounded apex. Last abdominal sternite of male with small and transverse median lobe. Aedeagus in Fig. 14.

Length: 4–4.8 mm.

***Monolepta dividua* WEISE, 1922**

Material examined. NE India, Meghalaya, 3 km E Tura, 1150 m (25.30N, 90.14E), 18.IV.1999, leg. Dembický & Pacholátko, 62 specimens (NHMB).

Remark. This species was known only from the type locality (Burma, Shwegu) and is a first record for India.

***Pseudodera fulvicornis* sp.nov.**

Material examined. Holotype (male) and 12 paratypes: NE India, Meghalaya, 3 km E Tura, 1150 m (25.30N, 90.14E), 18.IV.1999, leg. Dembický & Pacholátko (NHMB, 3 ex. – LM).

Description. Fulvous, elytra black with fulvous epipleurae.

Body narrow, parallel-sided. Head impunctate except for a few punctures near eyes, transversely grooved behind convex and sharply delimited frontal tubercles. Antennae (Fig. 16) reach middle of elytra, proportions of segments 10–4–7–7–7–7–7–7–8. Prothorax 1.6 times as wide as long, widest in anterior quarter and slightly narrowed towards the base, anterior and hind angles with seta, surface with sharp transverse basal groove and comparatively large punctures, mostly near anterior margin and at hind angles. Scutellum small, semicircular. Elytra 1.7–1.8 times as long as wide, with almost regular rows of distinct punctures, interspaces narrow; interspaces starting from humerus distinctly costate. Tarsal segment 1 almost unwidened in male. Last abdominal sternite with dark median line in male. Aedeagus in Fig. 15.

Length: 5.2–6.0 mm.

Differential diagnosis. Very similar to *P. himalayensis* SCHERER, 1969 but differs in having black elytra and fulvous legs.

Species of the genus *Pseudodera* BALY, 1861 might be divided as follows:

- 1(8) Elytra bicoloured.
- 2(3) Upperside red fulvous, elytra with pale flavous spot in lateroapical area, often surrounded by dark coloration. Antennae, tibiae and tarsi black. Length 6.4–9.5 mm. S. China, Japan. *P. xanthospila* BALY, 1862
- 3(2) Apex of elytra black.
- 4(5) Prothorax dark brown, elytra fulvous with black apex. Antennae, tibiae and tarsi black. Length 4.5 mm. North Vietnam. ... *P. apicalis* CHEN, 1939
- 5(4) Elytra black with fulvous median band. Body large.
- 6(7) Head with fine and sparse punctures. Antennae black, legs obscure piceous. Length 9.5 mm. India: Bengal, Nepal, Vietnam.
..... *P. orientalis* BALY, 1877
- 7(6) Head impunctate. Antennae dark brown. Legs fulvous. Length 10–11.5 mm. Burma: Tenasserim. *P. bifasciata* JACOBY, 1889
- 8(1) Elytra unicolored.
- 9(14) Antennae entirely black (in *P. nigripennis* apices of segments 1 and 2 reddish). Legs entirely black.

- 10(11) Elytra and underside black. Body large, 10.5 mm. Thailand.
 *P. nigripennis* MEDVEDEV, 1997
- 11(10) Elytra not black. Underside fulvous or dark brown. Body much smaller.
- 12(13) Upperside and underside red fulvous. Length 6–7 mm. China: Yunnan. ...
 *P. inornata* CHEN, 1933
- 13(12) Prothorax red brown, elytra reddish pitch brown. Length 4–5.4 mm. North
 India, Nepal. *P. himalayensis* SCHERER, 1969
- 14(9) At least basal segments of antennae red or fulvous.
- 15(18) Antennae black with red or fulvous basal segments. Legs fulvous with
 black tarsi and more or less darkened tibiae.
- 16(17) Antennal segments cylindrical. Upperside fulvous. Length 4.5–4.8 mm.
 Thailand. *P. rufa* MEDVEDEV, 1995
- 17(16) Antennal segments 3–6 clavate. Prothorax red, elytra pale flavous. Length
 9.0 mm. Nepal. *P. laeta* MEDVEDEV, 1997
- 18(15) Antennae and legs entirely fulvous.
- 19(20) Upperside fulvous. Prothorax impunctate. Length 4.3 mm. Nepal.
 *P. fulva* MEDVEDEV, 1997
- 20(19) Prothorax fulvous, elytra black. Prothorax with distinct punctures. Length
 5.2–6.0 mm. North India: Meghalaya. *P. fulvicornis* sp.nov.

***Sphaeroderma fulvoornata* sp.nov.**

Material examined. Holotype (female, NHMB) and 1 paratype (female, LM): NE India, Meghalaya, 3 km E Tura, 1150 m (25.30N, 90.14E), 18.IV.1999, leg. Dembický & Pacholátko.

Description. Black, 2 basal antennal segments red, head dark anteriorly, anterior angles of prothorax more or less reddish, each elytron with large pale flavous spot in the centre not touching either suture or side margin (Fig. 17).

Body ovate, 1.5 times as long as wide. Head impunctate, frontal tubercles transverse, quadrangular, placed slightly oblique to each other. Antennae reach behind humerus, proportions of segments 15–6–5–6–10–10–10–10–10–15, preapical segments about two times as long as wide. Prothorax with lateral margins feebly rounded, anterior margin almost straight, anterior angles not produced, hind margin with feeble basal lobe. Surface with moderately dense and strong punctures, interspaces larger than punctures. Scutellum small, triangular, impunctate. Elytra with comparatively regular rows of punctures except for sutural area, where punctures are irregular; fulvous spot includes 8 quite countable rows of punctures. Segment 1 of anterior and mid tarsi triangular, much wider than segment 2, almost as wide as segment 3.

Length: 3.6–3.8 mm.

Differential diagnosis. Near *S. ornatipennis* JACOBY, 1900 from Burma, but the latter species has head, prothorax and legs red fulvous, elytra with confused punctures, only partly arranged in irregular rows, almost uncountable on fulvous spot (type was studied).

***Sphaeroderma laterimaculata* sp.nov.**

Material examined. Holotype (female): NE India, Meghalaya, 3 km E Tura, 1150 m (25.30N, 90.14E), 18. IV. 1999, leg. Dembický & Pacholátko (NHMB). Paratype: NE India, Meghalaya, Nokrek n.p., 3 km S Danbokgin (25.27N, 90.19E), 1400 m, 26.IV.1999, leg. Dembický & Pacholátko, 1 female (LM).

Description. Black, each elytron with large pale flavous spot at side margin a little before centre (Fig. 18). Basal antennal segments sometimes slightly reddish on extreme apex.

Body short ovate, 1.3 times as long as wide. Head impunctate, frontal tubercles quadrangular, finely strigose, not touching each other, placed slightly oblique. Antennae long, reaching apical slope of elytra, proportions of segments 13–8–6–9–11–11–11–11–11–10–15, preapical segments about twice as long as wide. Prothorax with straight side margins from base to anterior pore, anterior angles not produced, hind margin arcuate with feeble basal lobe. Surface finely and not densely punctate. Scutellum triangular, impunctate. Elytra finely punctate, punctures arranged in irregular rows on outer half. Segment 1 of all tarsi elongate triangular, much more narrow than segment 3.

Length: 3–3.3 mm.

Differential diagnosis. Near *S. ornatipennis* JACOBY, 1900 and *S. fulvoornata* sp.nov. It differs from both species in the lateral position of elytral fulvous spot; from *S. ornatipennis* with entirely black antennae and also with black head, prothorax and legs.

Acknowledgements

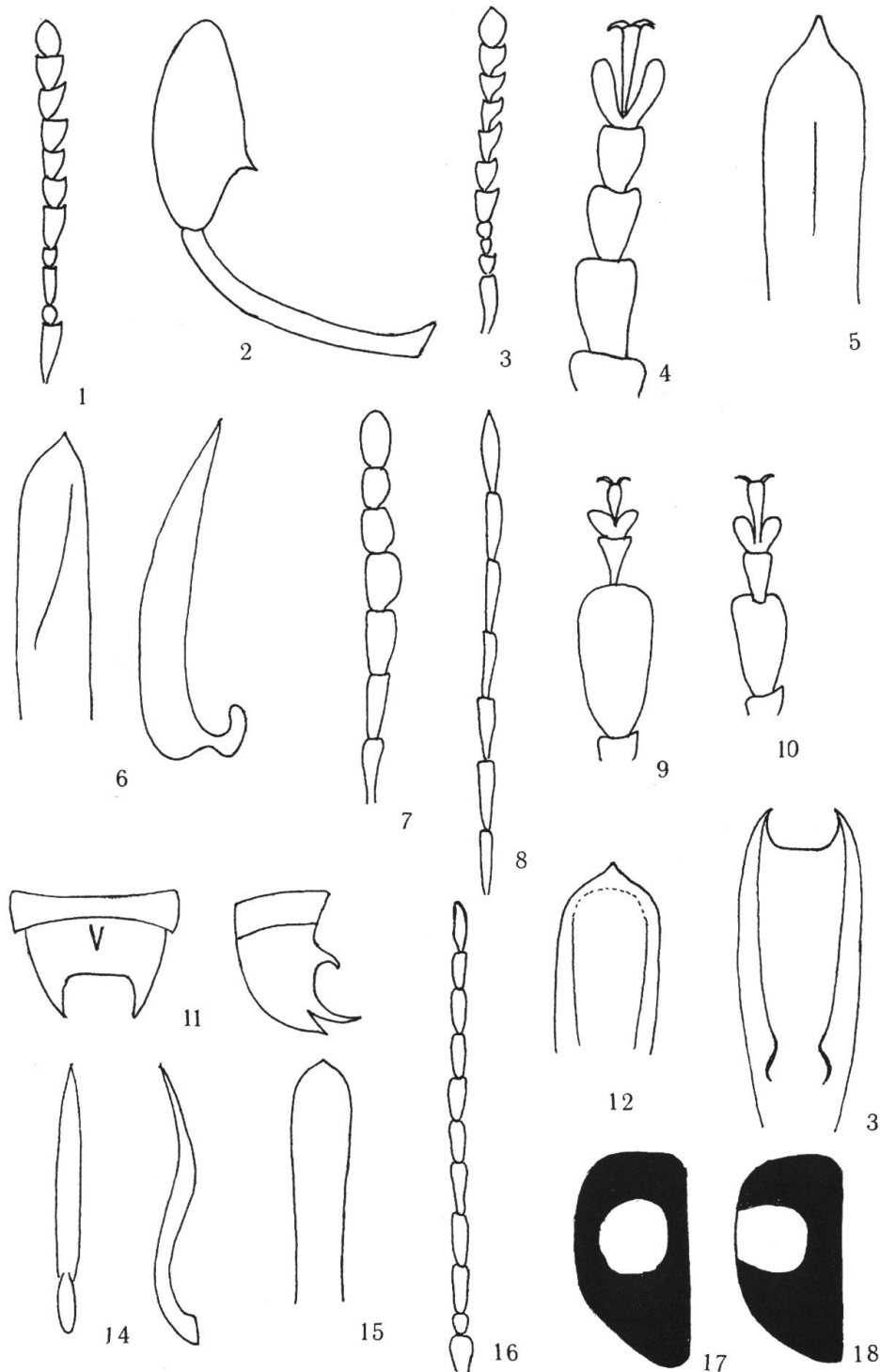
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Figs 1–18. 1–2, *Temnaspis purpureotinctus* sp.nov.: 1, antenna; 2, hind femur and tibia. 3–5, *Smaragdina sprecheriae* sp.nov.: 3, antennae; 4, anterior tarsus of male; 5, aedeagus ventral. 6, *Pyrrhalta meghalayana* sp.nov.: aedeagus dorsal and lateral. 7, 9, 11, 12, *Haplosomoides himalayana* sp.nov., male: 7, antennal segments 5–11; 9, anterior tarsus; 11, apex of abdomen – ventral and lateral; 12, aedeagus ventral. 8, 10, 13, *Haplosomoides assama* sp.nov., male: 8, antennal segments 5–11; 10, anterior tarsus; 13, aedeagus ventral. 14, *Pubibrotica bicolor* sp.nov.: aedeagus ventral and lateral. 15–16, *Pseudodera fulvicornis* sp.nov.: 15, aedeagus ventral; 16, antenna. 17, *Sphaeroderma fulvoornata* sp.nov.: elytral pattern. 18, *Sphaeroderma laterimaculata* sp.nov.: ditto.

