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Distributional notes on some Oriental Nosodendridae (Coleoptera), with descriptions of five new species

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HÁVA J. 2000: Distributional notes on some Oriental Nosodendridae (Coleoptera), with descriptions of five new species. *Acta Musei Moraviae, Scientiae biologicae* (Brno) **85**: 57–65. – *Nosodendron horaki* sp.nov., *N. bilyi* sp.nov., *N. nomurai* sp.nov. and *N. prudeki* sp.nov. from Thailand and *N. helferi* sp.nov. from Burma are described, compared and illustrated. *Nosodendron hispidum* CHAMPION, 1923 is recorded as new to the fauna of Nepal.

Key words: Coleoptera, Nosodendridae, *Nosodendron* ,taxonomy, new species, distribution, Oriental region

Introduction

The literature on the Nosodendridae is not extensive. SHARP (1902) was the first author who tentatively grouped his Central American species; CHAMPION (1923) reviewed the "eastern" species (all species, excluding the New World fauna) in a relatively short and mainly taxonomic paper; REICHARDT´s (1976) monograph on the New World Nosodendridae contains notes on the Old Word forms; ENDRÖDY-YOUNGA (1991) revised Nosodendridae from the Madagascan fauna. A total of 60 species is known in the world. From the Oriental region (including the Malay Archipelago) 21 species are known. In this paper, four new species of the genus *Nosodendron* from Thailand and one new species from Burma are described. The following abbreviations are used in the text: MMBC – Moravian Museum Brno, Czech Republic (J. Kolibáč); NMPC – National Museum Prague, Czech Republic (J. Jelínek); NSMT – National Science Museum Tokyo, Japan (S. Nomura); JHAC – coll. Jiří Háva, Prague, Czech Republic; JHOP – coll. Jan Horák, Prague, Czech Republic; JSCH – coll. Jan Schneider, Prague, Czech Republic; RSIC – coll. Radim Šigut, Paskov, Czech Republic.

Methods

Because the size of the beetles or of their body parts can be useful in species recognition, the following measurements were taken:

a) total length (TL) – linear distance from anterior margin of head to apex of elytra.

b) pronotal length (PL) – maximal length measured from front angles to basal border.

c) basal pronotal width (BPW) – linear transverse distance measured between hind angles.

d) anterior pronotal width (APW) – linear transverse distance measured between front angles.
e) elytral length (EL) – linear distance from shoulder to apex of elytron, measured perpendicularly to elytral sutura.
f) elytral width (EW) – maximal linear transverse distance, measured at right angles to suture.

For differential diagnoses of the all newly described species see the section "A key to the species".

Systematics

Nosodendron hispidum CHAMPION, 1923 (Figs 1, 8)

Nosodendron hispidum CHAMPION, 1923: 590.

Material examined. Thailand S, Chumphon pr., Pha To env., 1–12.iii.1996, P. Průdek lgt., 1 male, 3 females JHAC; Thailand S, Chumphon pr., Pha To env., 1–11.v.1998, P. Průdek & R. Šigut lgt., 1 male, 5 females, JHAC, RSIC; Thailand S, Nakhon Si Thammarat prov., Khao Luang NP, Krung Ching waterfall, 13–22.v.1998, P. Průdek & R. Šigut lgt., 3 males, 4 females, JHAC, RSIC; Thailand NW, Chiang Mai pr., Ban San Pakia, 1700 m, 25.iv.–7.v.1996, Sv. Bílý lgt., 1 female, JHAC; Thailand NW, Mae Hong Son, Ban Huai Po, 1600–2000 m, 8–18.v.1992, J. Horák lgt., 1 male, 2 females, JHOP; Thailand NW, Mae Hong Son, Ban Si Lang, 1200 m, 23–31.v.1991, J. Horák lgt. 3 males, 7 females, JHAC, JHOP; Thailand S, Betong, Gunung Cang dun vill., Yala distr., 25.iii.–22.iv.1993, J. Horák lgt., 1 female, JHAC; Nepal, Saura, Chitwan N. P., 22–26.v.1990, S. Bílý lgt., 3 males, 3 females, JHAC.

Remarks. Species known from India, Myanmar, Malacca, Thailand, Vietnam (CHAMPION 1923, REICHARDT 1976). New species for the fauna of Nepal.

Nosodendron nomurai sp.nov. (Figs 2, 9)

Type material. Holotype (male): Thailand N, Doi Pui, 26.iv.–21.v.1983, A. Nishikawa lgt. Paratypes: the same data (1 male, 4 females); Thailand NW, Mae Hong Son, Ban Huai Po, 2000 m, 9–16.v.1991, J. Horák lgt. 1 male); Thailand NW, Mae Hong Son, 1000 m, 16–23.vi.1993, J. Schneider lgt., (1 female). Holotype deposited in NSMT, paratypes in JHAC, JHOP, JSCH.

Description. Measurements (in mm): TL 4.1–4.8; PL 0.7–0.9; EL 3.2–3.8; BPW 2.0–2.3; APW 1.2–1.5; EW 2.5–2.9. Cuticle black. Head very finely, but clearly punctate, pubescent. Eye small, partially visible from above. Antennae brown, with eleven segments, antennal club from three last segments. Mentum punctate, pubescent, with deep, horseshoe-shaped impression, schematic dorsal view as shown in Fig. 9. Pronotum more punctate than head; on the disk finely puncate, lateral part with large punctures, pubescent. Anterior angle without groove. Scutellum triangular, finely punctate. Elytra shortly pubescent; along sutura, in anterior part and around apex finely and irregularly punctate, other part of elytra with large irregular punctures and with intermixed small seta-bearing punctuation. Mesosternum finely and regularly punctate. Metasternum with longitudinal carina, with large punctures. Legs black, tibiae and femur finely punctate,

shortly brown pubescent. Longitudinal striation of base of abdominal sternites very long. Male genitalia schematic dorsal view as shown in Fig. 2.

Female similar to the male.

Distribution. NW Thailand.

Name derivation. Dedicated to Dr. Shűhei Nomura, a specialist in the family Staphylinidae, Pselaphinae.

Nosodendron horaki sp.nov. (Figs 4, 11)

Type material. Holotype (female): Thailand NW, Mae Hong Son, Ban Si Lang, 1200 m, 23–31.v.1991, J. Horák lgt. Paratype: the same data as holotype (1 male). Holotype and paratype deposited in JHAC.

Description. Measurements (in mm): TL 6.1–6.2; PL 1.1–1.2; EL 4.7–4.8; BPW 2.8–2.9; APW 1.7–1.8; EW 3.5–3.6. Cuticle black, shortly pubescent. Head finely punctured. Eye large, visible from above. Antennae brown, with eleven segments, antennal club from three last segments. Mentum without deep, longitudinal groove, roughly punctate, pubescent, schematic dorsal view as shown in Fig. 11. Pronotum as finely punctate as head. Anterior angles without groove. Scutellum triangular, finely punctate. Elytra along sutura, in anterior part and near apex finely and irregularly punctate, the other parts of surface largely, irregularly punctate and with intermixed small seta-bearing punctuation. Mesosternum finely and not regularly punctate. Metasternum with longitudinal carina. Posterior part near carina finely punctate, anterior and lateral parts with very large punctures. Legs black, tibiae with large punctures, not pubescent; femur with large punctation and short yellow pubescence. Longitudinal striation of base of abdominal sternites short, but visible. Male genitalia schematic dorsal view as shown in Fig. 4.

Female similar to the male.

Distribution. NW Thailand.

Name derivation. Dedicated to its collector, Jan Horák, a specialist in the family Mordelidae.

Nosodendron bilyi sp.nov. (Figs 5, 12)

Type material. Holotype (male): Thailand NW, Mae Hong Son, Ban Si Lang, 1200 m, 23–31.v.1991, J. Horák lgt. Paratype: the same data as holotype (1 male). Holotype and paratype deposited in JHAC.

Description. Measurements (in mm): TL 3.6–3.8; PL 0.6–0.7; EL 2.7–2.8; BPW 1.8–1.9; APW 1.0–1.1; EW 2.4–2.5. Cuticle brown-black, covered by very dense yellow pubescence. Head rough double-punctured and pubescent. Small punctures – short setae; large punctures – long setae. Eye small, visible from above. Antennae red-brown, with eleven segments, antennal club from three last segments. Mentum without deep or longitudinal groove, roughly punctate, pubescent, schematic dorsal view as shown in Fig. 12. Pronotum punctate and pubescent as head. Anterior angle without groove. Scutellum triangular, finely punctate, with short pubescence. Elytra pubescent as head and

pronotum. Punctuation as on pronotum, with short row of large punctures along suture near apex. Mesosternum roughly and irregularly punctate. Metasternum with large punctures on lateral part, near longitudinal carina punctured finely. Legs brown-black, tibiae and femur finely punctate and with long yellow pubescence. Longitudinal striation of base of abdominal sternites short, but visible. Male genitalia schematic dorsal view as shown in Fig. 5.

Female unknown.

Distribution. NW Thailand.

Name derivation. Dedicated to Dr. Svatopluk Bílý, well known specialist in the family Buprestidae.

Nosodendron prudeki sp.nov. (Figs 7, 14)

Type material. Holotype (male): Thailand S, Nakhon Si Thammarat prov., Khao Luang NP, Krung Ching waterfall, 13–22.v.1998, P. Průdek & R. Šigut lgt. Holotype deposited in JHAC.

Description. Measurements (in mm): TL 4.8; PL 0.7; EL 3.5; BPW 2.2; APW 1.3; EW 2.6. Cuticle black. Head finely punctate, very shortly pubescent. Eye small, partially visible from above. Antennae yellow-brown, with eleven segments, antennal club from three last segments. Mentum punctate, pubescent, with deep, horseshoe-shaped impression, schematic dorsal view as shown in Fig. 14. Pronotum more punctate than head; on the disk finely punctate, lateral part with small punctures, shortly pubescent. Anterior angle without groove. Scutellum triangular, finely punctate. Elytra shortly pubescent; along sutura, in anterior part and around apex finely and irregularly punctate, other part of elytra largely irregularly punctate, with small punctures bearing setae. Mesosternum finely and regularly punctate. Metasternum with longitudinal carina, with large and small punctures. Legs black, tibiae and femur finely punctate, shortly brown pubescent. Longitudinal striation of base of abdominal sternites long. Male genitalia schematic dorsal view as shown in Fig. 7.

Female unknown.

Distribution. S Thailand.

Name derivation. Dedicated to its collector Pavel Průdek (Brno).

Nosodendron helferi sp.nov. (Figs 6, 13)

Type material. Holotype (male): "Coll. Pragense, Tenasserim, coll. Helfer" [= South Myanmar]. Paratypes: the same data as holotype (3 males, 3 females). Holotype and 3 paratypes deposited in NMPC, 1 paratype in MMBC, 2 paratypes in JHAC.

Description. Measurements (in mm): TL 5.2–5.7; PL 1.1–1.3; EL 3.9–4.4; BPW 2.6–2.9; APW 1.5–1.8; EW 3.0–3.5. Cuticle black. Head very finely, but clearly punctate, pubescent. Eyes very large, visible from above. Antennae brown, with eleven segments, antennal club from three last segments. Mentum punctate, pubescent, with one wide longitudinal groove, schematic dorsal view as shown in Fig. 13. Pronotum more densely

punctate; on the disc finely punctate; lateral margins shortly pubescent. Anterior angles without groove. Scutellum triangular, finely punctate. Elytra along sutura, in anterior part and near apex finely irregularly punctate. Other parts of elytra largely irregularly punctate, with small punctures bearing setae. Mesosternum finely and not regularly punctate. Metasternum with longitudinal carina. Posterior part near carina with fine punctuation, anterior and lateral parts with very large punctures. Legs black, tibiae with large punctures, not pubescent; femur with large punctures and short yellow pubescence. Longitudinal striation of base of abdominal sternites short, but visible. Male genitalia schematic dorsal view as Fig. 6.

Female similar to the male.

Distribution. Myanmar.

Name derivation. Dedicated to the Czech entomologist Jan Vilém Helfer.

A key to the species

1(2) Mentum without sulcus or transverse impression.

3(4) Head bi-impressed anteriorly, subtriangular; intermediate and posterior tibiae straighter; elytra without accessory row of punctures; length 7–8 mm. (India, Madras) ..... *nitidum* MOTSCHULSKY

4(3) Head not bi-impressed anteriorly, broader, transverse; intermediate and posterior tibiae curved, length 6 mm (Figs 4, 11). (NW Thailand)..... ..... *horaki* sp.n.

5(6) Elytra with a distinct accessory row of punctures; head subtriangular; species small (length 4.5–5.0 mm). (India, Sikkim) ... *sikkimense* CHAMPION

6(5) Elytra without accessory row of punctures; head broader, transverse (Figs 5, 12). (NW Thailand) ..... *bilyi* sp.n.

2(1) Mentum sharply sulcate or transversely impressed

7(8) The groove on mentum transverse, U-shaped, semicircular, without surrounding smooth and sheeny area; matasternum without large puncture (Figs 3, 10). (India, Sikkim, Thailand Perak, Batchian, Singapore, Indonesia) ..... *marginatum* REITTER

9(10) The groove on mentum transverse, U-shaped as in *marginatum*, but with smooth, sheeny area around; metasternum with large puncture; longitudinal striation of base of abdominal sternites very long (Figs 2, 9). (NW Thailand) ..... *nomurai* sp.n.

10(9) The groove on mentum similar to that in *nomurai* sp.nov.; metasternum with large and small punctures; longitudinal striation of base of abdominal sternites long (Figs 7, 14) (S Thailand) ..... *prudeki* sp.nov.

8(7) The groove on mentum longitudinal

11(12) The groove on mentum longitudinal, narrow along its length, aedeagus (Figs 1, 8). (S India, Myanmar, Malacca, Vietnam, Nepal, Thailand) ....*hispidum* CHAMPION

12(11) The grove on mentum longitudinal, not broad along its length, aedeagus (Figs 6, 13). (Myanmar) ..... *helferi* sp.nov.

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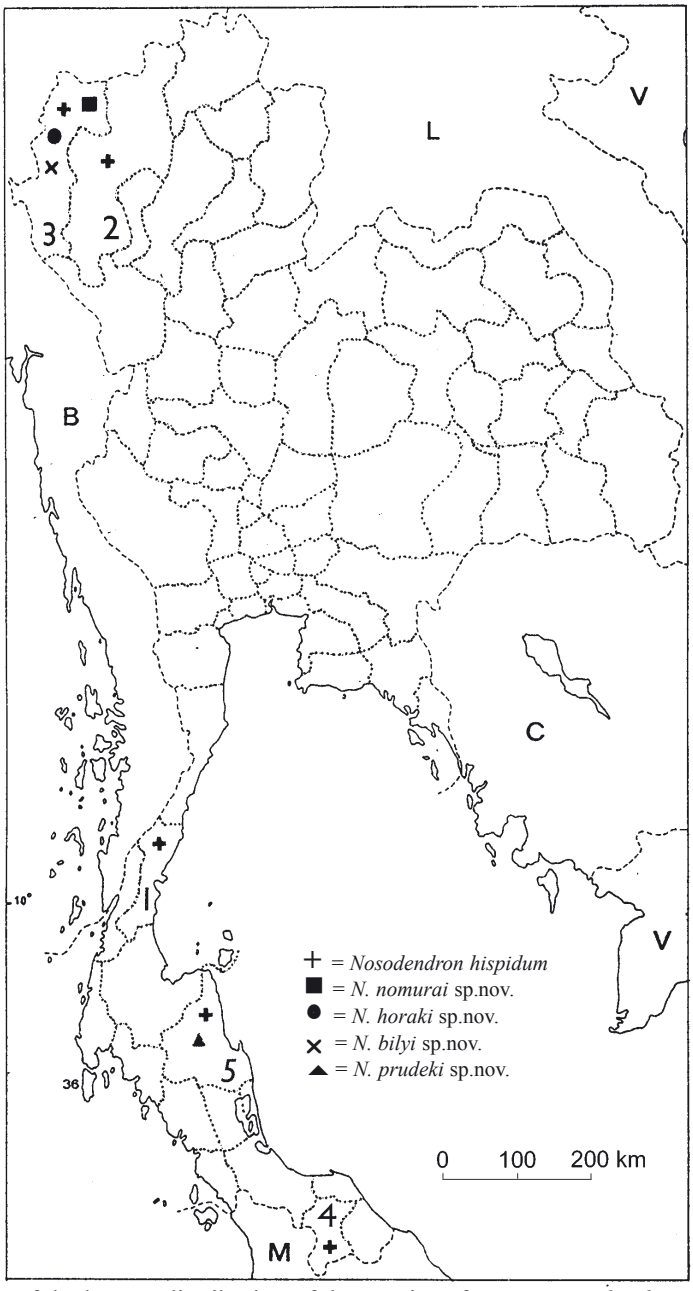
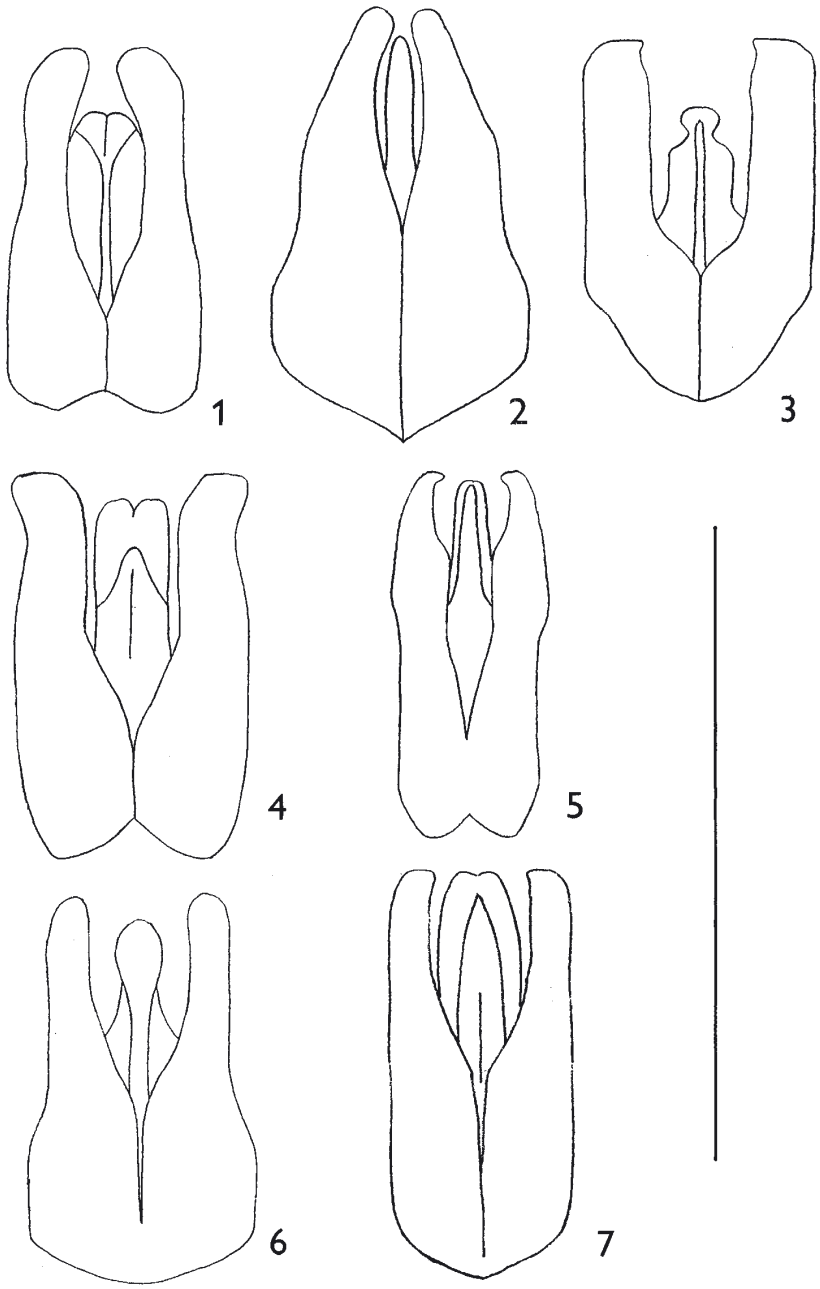
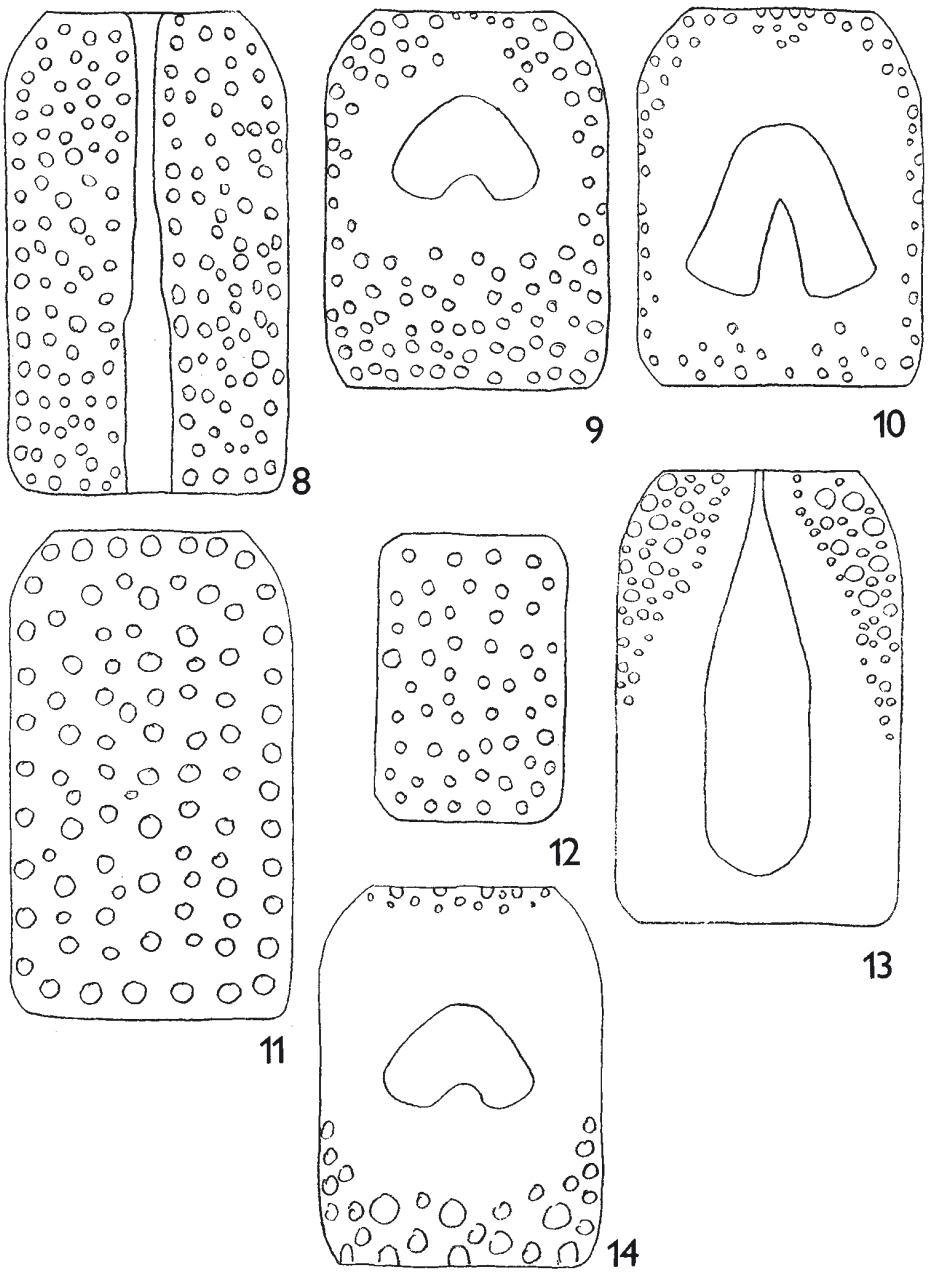


Map 1. Map of the known distribution of the species of genus *Nosodendron* in Thailand. B – Burma; C – Cambodia; L – Laos; M – Malaysia; V – Vietnam; numbers = provinces in Thailand. 1 – Chumphon; 2 – Chiang Mai; 3 – Mae Hong Son; 4 – Yala; 5 – Nakhon Si Thammarat.



Figs 1–7. Male genitalia schematic dorsal view. 1 – *Nosodendron hispidum* CHAMPION; 2 – *N. nomurai* sp.nov.; 3 – *N. marginatum* REITTER; 4 – *N. horaki* sp.nov.; 5 – *N. bilyi* sp.nov.; 6 – *N. helferi* sp.nov.; 7 – *N. prudeki* sp.nov. [line = 1 mm].



Figs 8–14. Impressions on mentum (schematically). 8 – *Nosodendron hispidum* CHAMPION; 9 – *N. nomurai* sp.nov.; 10 – *N. marginatum* REITTER; 11 – *N. horaki* sp.nov.; 12 – *N. bilyi* sp.nov.; 13 – *N. helferi* sp.nov.; 14 – *N. prudeki* sp.nov.