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Autor(en): **Konstantinov, Alexander S. / Sprecher-Uebersax, Eva**

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Genus *Aphthona* Chevrolat in Nepal (Coleoptera, Chrysomelidae)

ALEXANDER S. KONSTANTINOV[1] & EVA SPRECHER-UEBERSAX[2]

[1] (ASK) Systematic Entomology Laboratory, PSI, Agricultural Research Service, U.S. Department of Agriculture, c/o National Museum of Natural History, MRC 168, Washington, DC 20560, U.S.A. (email: akonstan@sel.barc.usda.gov)
[2] (ESU) Naturhistorisches Museum Basel, Augustinergasse 2, CH-4001 Basel, SWITZERLAND (email: eva.sprecher@bs.ch)

Twenty six species of *Aphthona* from Nepal are treated and illustrated. Six species are described as new: *A. dhrubi* (Lantang National Park), *A. dhunche* (Lantang National Park), *A. lantangi* (Lantang National Park), *A. mariki* (Terrai, env. of Narayangadh), *A. mude* (env. of. Jiri, Mude Pass), and *A. phalchoki* (env. of Kathmandu, Phalchoki mountains). Male genitalia of *A. archeri* Bryant, 1941 and *A. mimica* Medvedev, 1971 and female genitalia of *A. nepalensis* Medvedev, 1984 are illustrated for the first time, based on a recently discovered material. A key for adults, geographical distribution, and host plant data are provided. *Aphthonaria* Medvedev, 1990 is synonymized with *Aphthona* Chevrolat, 1836. *Aphthona almorensis* Konstantinov and Lingafelter, 2002 is synonymized with *A. dobangensis* Kimoto, 2001. Based on the study of a recently available holotype, the status of *Aphthona mimica* Medvedev, 1997 as a valid species is restored. Distributional maps and biogeographic considerations are presented.

Key Words: Chrysomelidae, *Aphthona, Aphthonaria,* Nepal, new species, new synonyms

INTRODUCTION

Oriental species of the genus *Aphthona* Chevrolat have been recently revised (Konstantinov & Lingafelter 2002), however new species are still being discovered throughout the region (Prathapan & Konstantinov 2003). This paper incorporates recent findings of *Aphthona* species in Nepal, which revealed six previously unknown species. In addition, the holotypes of *A. mimica* Medvedev and *A. brancuccii* Medvedev, previously unavailable for Konstantinov & Lingafelter (2002) were studied. That allowed us to restore the status of *A. mimica*. *Aphthona brancuccii* is described based on a single, broken female, lacking the spermatheca. We leave it in the earlier proposed synonymy (Konstantinov & Lingafelter 2002).

Aphthonaria Medvedev has been proposed based on a single species *A. martensi* Medvedev from Nepal (Medvedev 1990). Examination of the 2 paratypes of *A. martensi* revealed that they are congeneric with *Aphthona* species of the *laeta* group, easily separated from other species of *Aphthona* based on their reddish pronotum and bluish elytra. In the original description, Medvedev (1990) compared *Aphthonaria* with *Aphthona* stating that it «differs immediately in having third tarsal segment entire and characteristic grooves on prothorax» (Medvedev 1990: 38). As was shown previously (Konstantinov 1998b), *Aphthona* has the third metatarsomere entire, and the pronotal impression (shallow, ill defined, not limited laterally, not reaching the base or margin of pronotum) is not a generic level character. This kind of impression is common among *Aphthona* species, particularly in

A. hammarstroemi and *laeta* groups. For example *A. himalayana* Chen (another bicolorous species) has the same impression and some species are polymorphic. The illustration of this impression in Medvedev's paper is not accurate. The impression as illustrated consists of two «oblique grooves» (Medvedev 1990: 38, fig. 32), however it is entire with a narrow raised stripe in the middle and has a slight «V» shape. Remarkably, the bicolorous *Aphthona laeta* was already described as a separate genus (*Ectonia*) by Weise (1922) and synonymized by Chen (1934). Here we synonymize *Aphthonaria* Medvedev, 1990 with *Aphthona* Chevrolat, 1836.

MATERIAL AND METHODS

The descriptive terminology and general format follows Konstantinov (1998b) and Konstantinov & Lingafelter (2002). Here we provide full descriptions for species that are new or were not included in the revision of the Oriental *Aphthona* (Konstantinov & Lingafelter 2002). Label data for the non type material includes only the distribution in Nepal.

The holotypes are deposited in the collection of the National Museum of Natural History, Smithsonian Institution, Washington DC (USNM). The other depositories for studied material are abbreviated as follows:

BMNH	The Natural History Museum, London, U.K.
MDGC	Döberl collection, Abensberg, Germany
FCMB	Frey collection, Natural History Museum, Basel, Switzerland
GCPB	Gruev collection, Plovdiv, Bulgaria
HNHM	Hungarian Museum of Natural History, Budapest, Hungary
IEMR	Institut of Evolutionary Ecology and Morphology of Animals, Moscow, Russia
ISNB	Institut Royal des Sciences Naturelles de Belgique, Brussels, Belgium
KUFJ	Biosystematics Laboratory, Graduate School of Social and Cultural Studies, Kyushu University, Fukuoka, Japan
MCMR	Medvedev collection, Moscow, Russia
MCZC	Museum of Comparative Zoology, Cambridge, Massachusetts, USA
NHMB	Natural History Museum, Basel, Switzerland
NHRS	Naturhistoriska Riksmuseet, Stockholm, Sweden
SCWG	Scherer collection, Wolfratshausen, Germany
SMFD	Senckenberg Museum, Frankfurt, Germany
SMNS	Staatliches Museum für Naturkunde, Stuttgart, Germany
TCOJ	Takizawa collection, Oyama Tochigi, Japan
ZMUM	Zoological Museum of Moscow University, Moscow, Russia
ZSMC	Zoologische Staatssammlung, Munich, Germany

SYSTEMATICS

Key to *Aphthona* species of Nepal

1(2) Pronotum and elytra yellow or brown. Some species with head, metafemur and/or stripe along elytral suture darker. Pronotum always without antebasal transverse impression 2

— Pronotum and elytra black or metallic (in specimens which are not fully sclerotized the color can be brown or dark brown, then pronotum with antebasal transverse impression. Sometimes head lighter than pronotum. Metafemur and/or stripe along elytral suture usually concolorous with pronotum and elytra. Pronotum often with antebasal transverse impression 4

— Pronotum reddish or yellowish, elytra metallic blue 24

2(1) Antennal calli flat, not delineated from each other and from vertex. Supracallinal and midfrontal sulcus not developed. Elytron with punctures forming irregular striation. Median lobe of aedeagus straight in lateral view, ventrally with long, longitudinal impression and with acute apex lacking denticle (Fig. 3) ..... ***A. bombayensis*** **Scherer**

— Antennal calli convex, delineated from each other and from vertex. Supracallinal and midfrontal sulcus usually well developed. Elytron with punctures confused, without traces of striation. Median lobe of aedeagus not as illustrated for *A. bombayensis* 3

3(2) Body large, more than 3 mm in length. Frontal ridge wide. Metafemur dark brown or black, much darker than metatibia. Apex of median lobe of aedeagus with wide depression ventrally (Fig. 19) ..... ***A. nigrilabris*** **Duvivier**

— Body small, less than 2.7 mm in length. Frontal ridge narrow. Metafemur yellow, usually as dark as metatibia. Apex of median lobe of aedeagus forms narrow appendage with round callosity on top (Fig. 13) ..... ***A. kanaraensis*** **Jacoby**

4(1) Elytra convex, without humeral calli, base appears narrower or as wide as pronotum. Wings poorly developed or absent 5

— Elytra more or less flat, with humeral calli, appear much wider at base than pronotum. Wings well-developed 7

5(4) Body brown, pro- and mesofemora, tibiae and antennae yellow ..... ***A. nepalensis*** **Medvedev**

— Body black, pro- and mesofemora brownish with metallic luster or black, tibiae and antennae dark brown 6

6(5) Base of pronotum with well-developed transverse impression. Basal antennomeres much lighter in color than apical antennomeres. Sides of pronotum straight at basal two thirds. Pronotal punctures much smaller than those of elytra ..... ***A. medvedevi*** **Konstantinov and Lingafelter**

— Base of pronotum with poorly developed transverse impression situated further anteriorly. Basal antennomeres only slightly lighter than apical antennomeres. Sides of pronotum convex at basal two thirds. Pronotal punctures nearly as large as those of elytra ..... ***A. furthi*** **Medvedev**

7(4) Pronotum with antebasal transverse impression 8

— Pronotum without antebasal transverse impression 17

8(7) Dorsal side of body metallic green or bluish green. Pro- and mesotibiae bright yellow, much lighter than metafemur. First antennomere entirely yellow, not darker than second antennomere 9

— Dorsal side of body metallic blue, copper or dark green. Pro- and mesotibiae infuscate, only slightly lighter than metafemur. Base of first antennomere darker than apex and second antennomere (except for *A. dobangensis*) . 11

9(8) Antebasal impression on pronotum well developed in middle. Median lobe of aedeagus with well-developed apical denticle 10

— Antebasal impression on pronotum poorly developed (almost invisible) in middle, well developed laterally. Median lobe of aedeagus without well-developed apical denticle. Ventral side of median lobe with two apical longitudinal impressions and low ridge in between (Fig. 7) .... ***A. dhunche*** **n. sp.**

10(9) Ventral side of median lobe of aedeagus with longitudinal groove and low ridge in middle of this groove, lacking longitudinal wrinkles apically (Fig. 12) ..... ***A. indochinensis*** **Chen**

— Ventral side of median lobe of aedeagus without longitudinal grooves and ridge, with longitudinal wrinkles apically (Fig. 17) .... ***A. mimica*** **Medvedev**

11(8) Lateral side of apical part of metatibia slightly angulate. Median lobe of aedeagus slender, nearly parallel sided, slightly curved in lateral view (Figs. 10, 10A, 11) 12

— Lateral side of apical part of metatibia straight (in *A. lantangi* metatibia slightly curved). Median lobe of aedeagus with different combination of characters 13

12(11) Dorsum bluish, pro- and mesofemora, metatibia, and apical antennomeres dark. Ventral side of median lobe with long ridge (Fig. 10, 10A) .... ***A. gardneri*** **Bryant**

— Dorsum greenish, pro- and mesofemora, metatibia, and apical antennomeres light. Ventral side of median lobe with short ridge (Fig. 11) .... ***A. indica*** **Jacoby**

13(11) Metatibia slightly curved. Vertex above antennal calli with strong sculpture, covered with irregular punctures and wrinkles. Orbit covered with coarse longitudinal wrinkles 14

— Metatibia straight. Vertex above antennal calli smooth without irregular punctures and wrinkles. Orbit smooth or with poorly developed longitudinal wrinkles 15

14(13) Second antennomere lighter than first. Basal 2/3 of median lobe with impression narrowing towards apex ..... ***A. lantangi* n. sp.**

— Second antennomere as dark as first. Basal 2/3 of median lobe with obtuse ridge getting lower towards apex ..... ***A. dobangensis* Kimoto**

15(13) First metatarsomere of male narrow, almost cylindrical. Median lobe of aedeagus slender, widening apically ..... ***A. dhrubi* n. sp.** (in part)

— First metatarsomere of male wide, flat. Median lobe of aedeagus robust, parallel sided 16

16(15) Spermatheca with concave outer side, basal part of duct wide (Fig. 95). Tignum branches wide apically (Fig. 46). Median lobe with nearly round apical impressions on ventral side and basal impression covered with wrinkles (Fig. 21). Apical abdominal tergite with short setae; longitudinal setal patches short and wide ..... ***A. pseudocrypta* Konstantinov**

— Spermatheca with slightly convex outer side, basal part of duct narrow (Fig. 78). Tignum branches narrow apically (Fig. 29). Median lobe with transverse apical impressions on ventral side and basal impression not covered with wrinkles (Fig. 4). Apical abdominal tergite with long setae; longitudinal setal patches long and narrow ..... ***A. crypta* Scherer**

17(7) Pronotal and elytral surface rugose, dull. Disc of pronotum with or without transverse impression in front of middle ..... ***A. strigosa* Baly**

— Pronotal and elytral surface not rugose, usually shiny. Disc of pronotum without distinct transverse impression 18

18(17) Pro- and mesofemora and tibiae bright yellow. Median lobe of aedeagus slender, in middle narrower than apically and basally, and with long and shallow longitudinal impression ..... ***A. mariki* n. sp.**

— Pro- and mesofemora and tibiae infuscate. Median lobe of aedeagus more robust, in middle almost as wide apically as basally, and without long and shallow longitudinal impression 19

19(18) Anterolateral callosity of pronotum long, longer than $\frac{1}{3}$ length of lateral margin (not counting length of callosity) (Fig. 105) ..... ***A. archeri* Bryant**

— Anterolateral callosity of pronotum short, shorter than $\frac{1}{3}$ length of lateral margin (not counting length of callosity) (Fig. 108) 20

20(19) Antennal callus with deep impression in middle. Anterofrontal ridge with extremely well developed denticle. Second antennomere as dark as first and fourth ..... ***A. singalilaensis*** **Konstantinov and Lingafelter**

— Antennal callus without impression in middle. Anterofrontal ridge without extremely well developed denticle. Second antennomere lighter than first and fourth 21

21(20) Median lobe of aedeagus robust. Apex with acute, well-defined denticle. Ventral side of aedeagus with longitudinal impression deeper basally than apically (Fig. 22) ..... ***A. schereri*** **Konstantinov**

— Median lobe of aedeagus slender. Apex without acute, well-defined denticle. (Fig. 20) 22

22(21) External side of dorsal surface of metatibia with well-developed, acute denticles (Fig. 110). Apex of median lobe of aedeagus with high ridge (lateral view) (Fig. 20) ..... ***A. phalchoki*** **n. sp.**

— External side of dorsal surface of metatibia with poorly developed, obtuse denticles (Fig. 109). Apex of median lobe of aedeagus without high ridge (lateral view) (Fig. 6) 23

23(22) Apical $1/3$ of median lobe abruptly widening, rounded apically (Fig. 23) .... ***A. simlaensis*** **Konstantinov and Lingafelter**

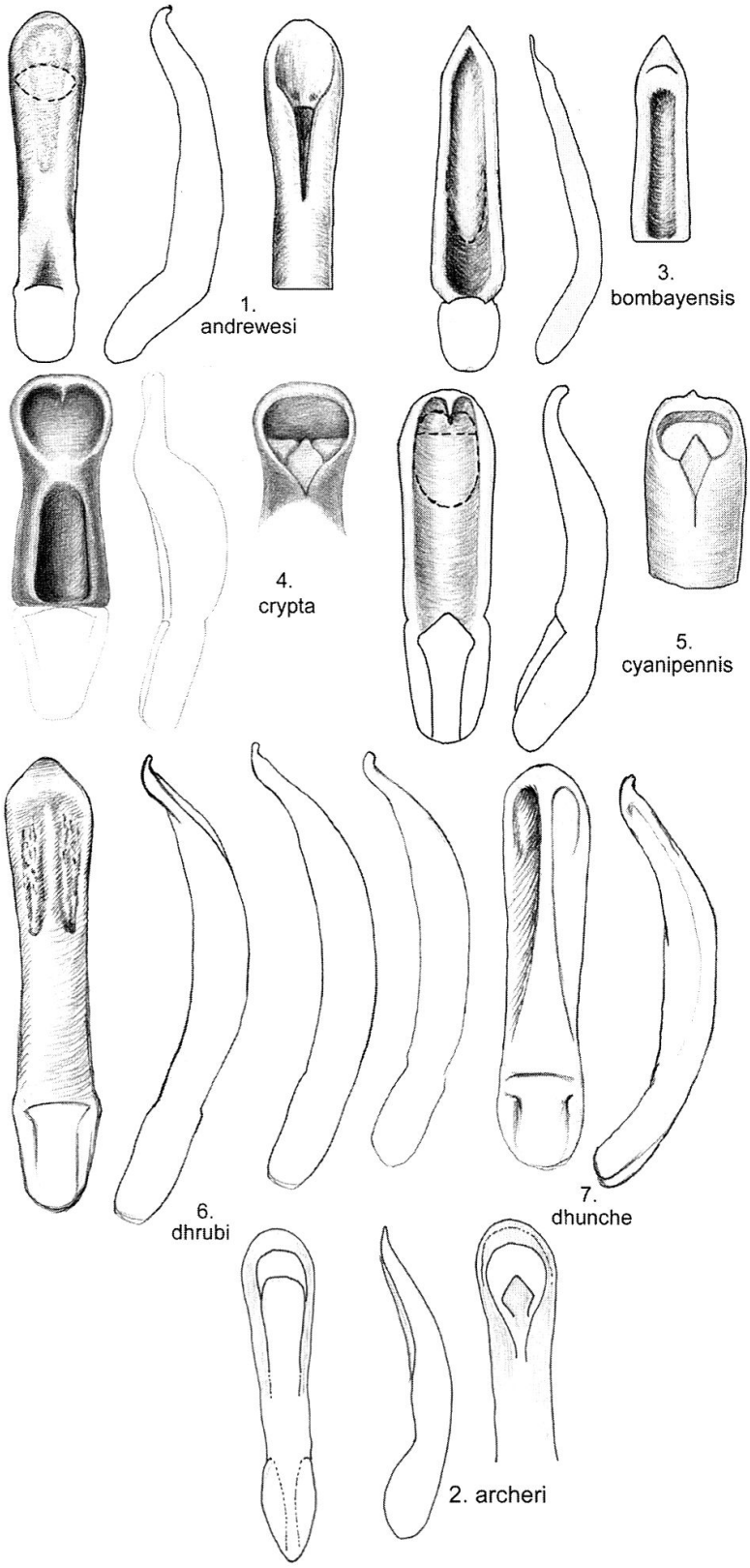
— Apical $1/3$ of median lobe gradually widening slightly, triangular apically (Fig. 6) ..... ***A. dhrubi*** **n. sp.** (in part)

24(1) Elytral calli well-developed, margin of elytron below antennal calli and further basally yellow. Base of metafemur dark yellow, apex brown. Median lobe of aedeagus without ridge ventrally (Fig. 5) .... ***A. cyanipennis*** **Motschulsky**

— Elytral calli poorly developed, elytron unicolorously metallic. Base and apex of metafemur yellow. Median lobe of aedeagus with narrow long ridge ventrally (Figs. 16, 18) 25

25(24) Antebasal transverse impression of pronotum "V"-shaped and with narrow transverse stripe in middle. Elytron with brassy luster. Median lobe of aedeagus with indentation at apex (Fig. 16) ..... ***A. martensi*** **(Medvedev)**

— Antebasal transverse impression of pronotum oval, without narrow transverse stripe in middle. Elytron with metallic blue luster. Median lobe of aedeagus without indentation at apex (Fig. 18) ..... ***A. mude*** **n. sp.**



Figs 1–7. Aedeagus: ventral, lateral and dorsal view. 1. *Aphthona andrewesi*; 2. *A. archeri*; 3. *A. bombayensis*; 4. *A. crypta*; 5. *A. cyanipennis*; 6. *A. dhrubi*; 7. *A. dhunche*.

Aphthona andrewesi Jacoby
(Figs 1, 25, 50, 75, 113)

Aphthona andrewesi Jacoby, 1896a: 256 (type locality: Chamba, India. Lectotype (BMNH) designated by Konstantinov & Lingafelter 2002). Maulik 1926: 367, 374 (key, redescription, taxonomic notes, distribution, deposition of type specimens). Heikertinger & Csiki 1939: 96 (world catalog). Heikertinger 1944: 115/201, 116/202 (key catalog, taxonomic notes). Scherer 1969: 70, 73 (together with *Aphthona archeri* Bryant, key, distribution, synonymical bibliography).

Aphthona andrewesi [misidentification, probably *A. archeri*]: Kimoto & Takizawa 1973: 179 (distribution in Nepal). Medvedev 1990: 29 (distribution, Nepal). Döberl 1991: 615 (faunistics). Medvedev & Sprecher-Uebersax 1999: 322 (catalog, Nepal).

Aphthona punctata Shukla, 1960: 76 (type locality: Himachal Pradesh, India. Deposition of type specimens is unknown). Scherer 1969: 73 (synonymy).

Distribution. India (Jacoby 1896a; Scherer 1969), Nepal (Medvedev 1990), Laos.

Host plants. Unknown.

Type material examined. Lectotype ♂. Labels: 1) Chamba; 2) Jacoby coll. 1909–28a.; 3) Lectotype *Aphthona andrewesi* Jacoby des. A. Konstantinov, 1995 (BMNH). Paralectotype ♀, with same labels as lectotype (BMNH). Paralectotype ♀. Labels: 1) Chamba; 2) Cotype; 3) *Aphthona andrewesi* Jac.; 4) H. E. Andrews Bequest B. M.1922-221; 5) Paralectotype *Aphthona andrewesi* Jacoby des. A. Konstantinov, 1995. Paralectotype ♂. Labels: 1) Chamba; 2) Type; 3) *Aphthona andrewesi* Jac. Type; 5) Paralectotype *Aphthona andrewesi* Jacoby des. A. Konstantinov, 1995. Paralectotype ♂. Labels: 1) Type H.T.; 2) Chamba; 3) Jacoby coll. 1909-28a.; 4) *Aphthona andrewesi* Jac.; 5) Paralectotype *Aphthona andrewesi* Jacoby des. A. Konstantinov, 1995 (BMNH).

Aphthona archeri Bryant
(Figs 2, 26, 51, 76, 105)

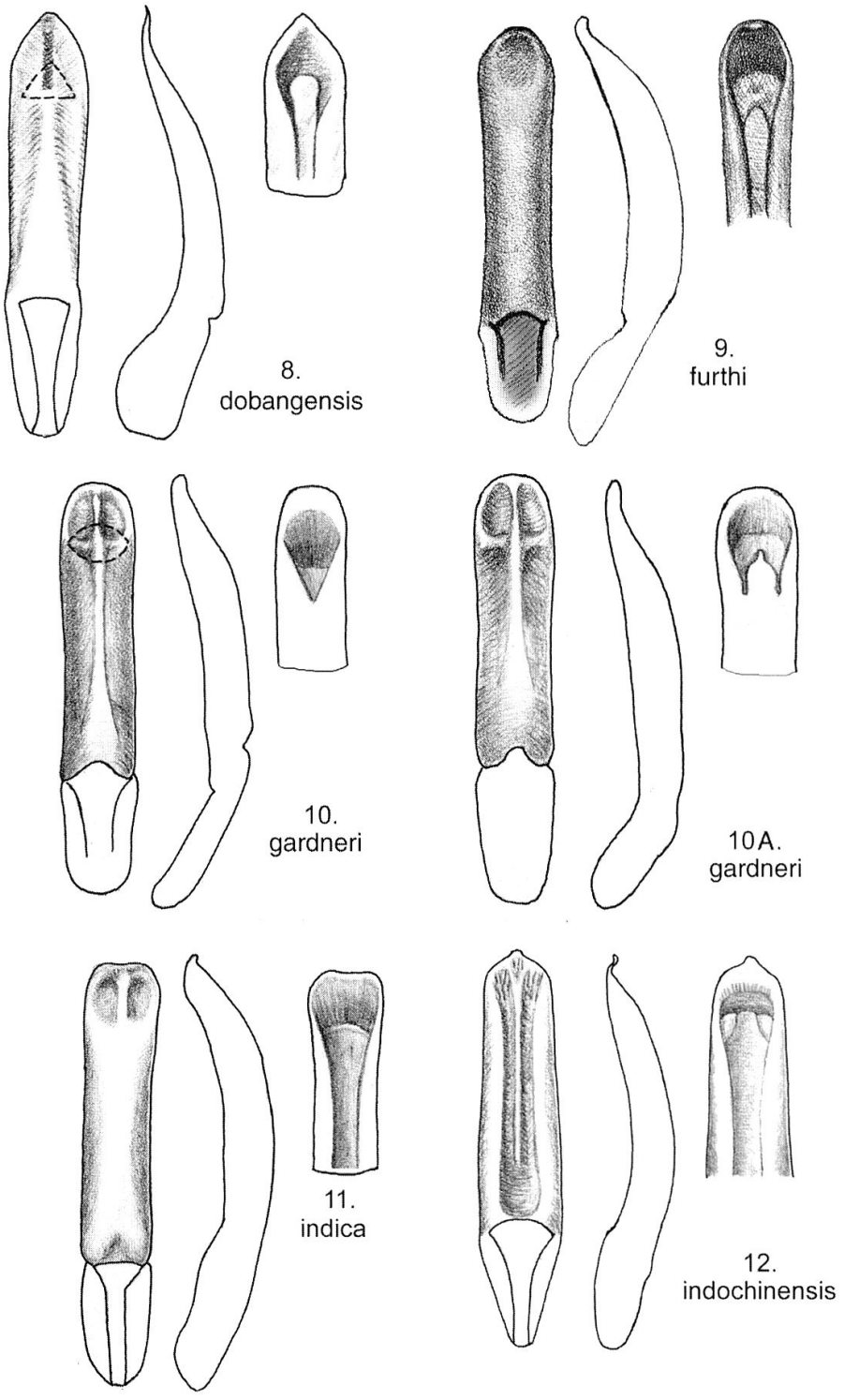
Aphthona archeri Bryant, 1941: 411 (type locality: Darjeeling, India. Lectotype (BMNH) designated by Konstantinov & Lingafelter, 2002). Heikertinger 1950: 146/132 (taxonomic notes). Scherer 1969: 73 (as synonym of *A. andrewesi*). Konstantinov & Lingafelter 2002: 49 (status restored).

Distribution. India (Bryant 1941; Scherer 1969), possibly Nepal.

Host plants. Unknown.

Comments. Here we illustrate male genitalia of this species for the first time, based on the specimens that were identified as *A. andrewesi* by Scherer. Type material of *A. archeri* did not include a male, but as was discussed previously (Konstantinov & Lingafelter 2002), Scherer misinterpreted *A. andrewesi*, illustrating under this name the male genitalia of *A. archeri*, which was subsequently followed.

Type material examined. Lectotype ♀. Labels: 1) Type; 2) 254; 3) Debrepani, 6000/ Darjeeling Bengal J. C. M. Gardner. 18.IX.1929; 4) *Aphthona archeri* type Bryant Det. G. E. Bryant; 5) Lectotype *Aphthona archeri* Bryant des. A. Konstantinov, 1996 (BMNH). Paralectotype ♀. Labels: 1) Himalaya: Chaubattia, Almora District. 6–7000 ft. S. R. Archer. 1920-175; 2) *Aphthona archeri* Bryant Det. G. E. Bryant; 3) Paralectotype *Aphthona archeri* Bryant, des. A. Konstantinov, 1996 (BMNH).



Figs 8-12. Aedeagus: ventral, laterial and dorsal view. 8. *A. dobangensis*; 9. *A. furthi*; 10. *A. gardneri*; 10A. *A. gardneri*; 11. *A. indica*; 12. *A. indochinensis*.

Aphthona bombayensis Scherer
(Figs 3, 27, 52, 77, 113)

Aphthona bombayensis Scherer, 1969: 70, 78 (type locality: India, Bombay. Holotype (HNHM) examined, paratype (FCMB) examined). Medvedev 1992: 24 (distribution, Nepal). Medvedev & Sprecher-Uebersax 1999: 322 (catalogue, Nepal).

Aphthonotarsa brunnea Medvedev, 1984: 56 (type locality: Nepal, Kathmandu. Holotype (SMFD) examined). Konstantinov & Lingafelter 2002: 56 (synonymized).

Distribution. India (Scherer 1969), Nepal (Medvedev 1984, 1992), Sri Lanka.

Host plants. Unknown.

Type material examined:

Aphthona bombayensis: Holotype ♂. Labels: 1) Bombay Biro 1902; 2) Budapest; 3) Holotypus *Aphthona bombayensis* ♂ n. sp. Dr. G. Scherer, 1967 (HNHM). Paratype ♀ with same labels as holotype (FCMB).

Aphthonotarsa brunnea: Holotype ♂. Labels: 1) 104 KTM Balaju Park 1400 m, 14 Marsz 1980 Mischwald, Martens & Ausobsky leg.; 2) Holotypus; 3) Holotypus; 4) *Aphthonotarsa brunnea* m. L. N. Medvedev det. 1983; 5) Senckenberg Museum Frankfurt / Main; 6) *Aphthona bombayensis* det. A. Konstantinov, 2001 (SMFD).

Material examined. Ilan distr., Sanishare, 5 km N. Siwalik mts., 270–300 m, 3–5.IV.1988, leg. Martens & Schawaller (4 SMNS); Terrai, env. Chitawan Nat. Park, river beds 25.IV.2000 27E28.79N 84E52.54E, leg. Konstantinov, Lingafelter, Volkovitsh (1 USNM); Pokhara reg. Lumle Ag. Res.St. 28°17.82N 83°49.11E, old field, 20.IV.2000, leg. Konstantinov, Lingafelter, Volkovitsh (1 USNM); Jiri reg., 12.V.2000, Shivalaya-Jiri, 1770–1900 m, 27°36.61N 86°17.55E, pass 2200 m, wet slope in the forest, leg. Konstantinov, Lingafelter, Volkovitsh (1 USNM); Pokhara env. Phewa Tal (lake), creek valley 28°17.82N 83°49.11E, 23.IV. 2000, leg. Konstantinov, Lingafelter, Volkovitsh (13 USNM); Kathmandu-Dhunche road, Kalikastan-Namche, 28.IV.2000, 27°59.60N 85°12.15E, leg. Konstantinov, Lingafelter, Volkovitsh (1 USNM).

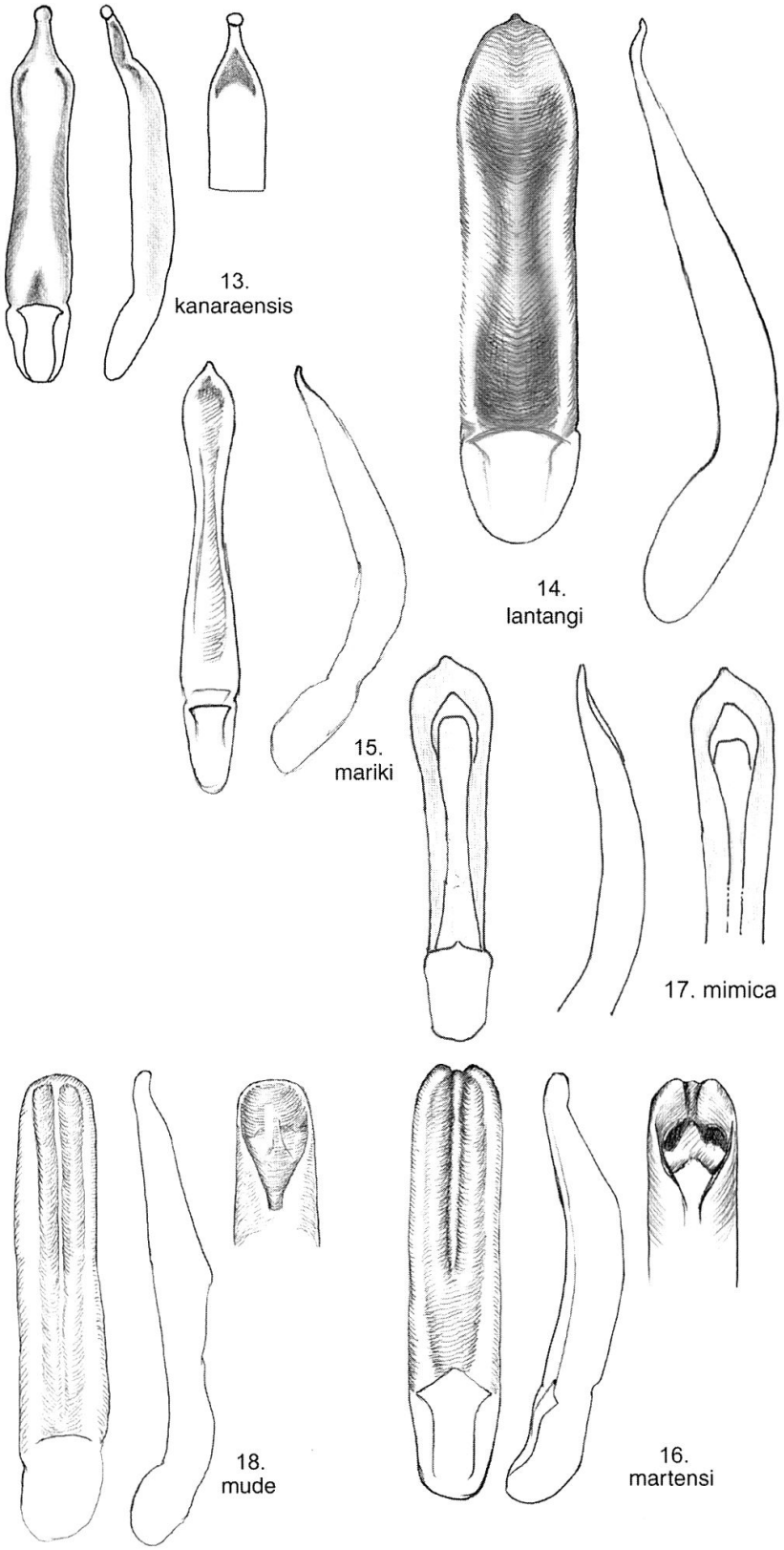
Aphthona crypta Scherer
(Figs 4, 29, 54, 78, 101, 113)

Aphthona crypta Scherer, 1969: 70, 73 (type locality: West Bengal, Darjeeling, Tiger Hill, India. Holotype (FCMB) examined. Takizawa 1988: 9 (list, Nepal). Konstantinov 1998a: 137 (key, redescription, figures of head, ♂ and ♀ genitalia). Medvedev & Sprecher-Uebersax 1999: 322 (list, Nepal).

Distribution. India (Scherer 1969), Nepal (Takizawa 1988).

Host plants. Unknown.

Type material examined. Holotype ♂. Labels: 1) Darjeeling W. B. Tiger-Hill 2595 m. VI. 1961. leg. G. Scherer; 2) ♂; 3) Holotypus *Aphthona crypta* n. sp. det. Dr. G. Scherer 1967 (FCMB). Paratypes 2 ♂♂, 13 ♀♀, with same labels as holotype (FCMB).



Figs 13-18. Aedeagus: ventral, lateral and dorsal view. 13. *A. kanaraensis*; 14. *A. lantangi*; 15. *A. mariki*; 16. *A. martensi*; 17. *A. mimica*; 18. *A. mude*.

Aphthona cyanipennis Motschulsky
(Figs 5, 30, 55, 79, 114)

Aphthona cyanipennis Motschulsky, 1866: 419 (type locality: "India". Type is missing from the ZMUM, not examined). Maulik 1926: 376 (redescription, taxonomic notes, distribution). Konstantinov & Lingafelter 2002: 75 (figures of ♂ and ♀ genitalia, redescription, key).

Aphthona himalayana Chen, 1934b: 371 (type locality: Chaubutia, Almora District, India. Holotype (BMNH) examined). Heikertinger & Csiki 1939: 97 (world catalogue). Heikertinger 1944: 111/197, 117/203 (key, catalogue, taxonomic notes). Scherer 1969: 69, 75 (key, distribution, synonymical bibliography). Konstantinov & Lingafelter 2002: 75 (synonymy).

Aphthona flavicollis Wang, 1992:712, 746 (type locality: China, Yunnan. Type (depository of type specimens unknown; not examined). Konstantinov & Lingafelter 2002: 75 (synonymy).

Distribution. India (Motschulsky 1866), China (Wang 1992), Nepal (Konstantinov & Lingafelter 2002).

Host plants. Unknown.

Type material examined:

Aphthona himalayana: Holotype ♂. Labels: 1) Himalaya Chaubattia, Almora District. 6–7000 ft. S.R.Archer. 1920-175; 2) *Aphthona himalayensis* S. H. Chen n. sp. 3) Holotype *Aphthona himalayana* des. A. Konstantinov, 1996 (BMNH).

Material examined. NEPAL: West Nepal, Pina (3100 m), on the way from Jumla to Rara Lake, 24.IX.1981, leg. Sakai (1 TCOJ); Central Nepal, Godawari, Kathmandu Valley, 16.IX.1981, leg. Sakai (1 TCOJ); West Nepal, Jaljale Khola Valley, 3430 m, nr. Jumla, 30.IX.1981, leg. M. Sakai (1 TCOJ).

***Aphthona dhrubi* n. sp.**
(Figs 6, 31, 56, 80, 106, 109, 114)

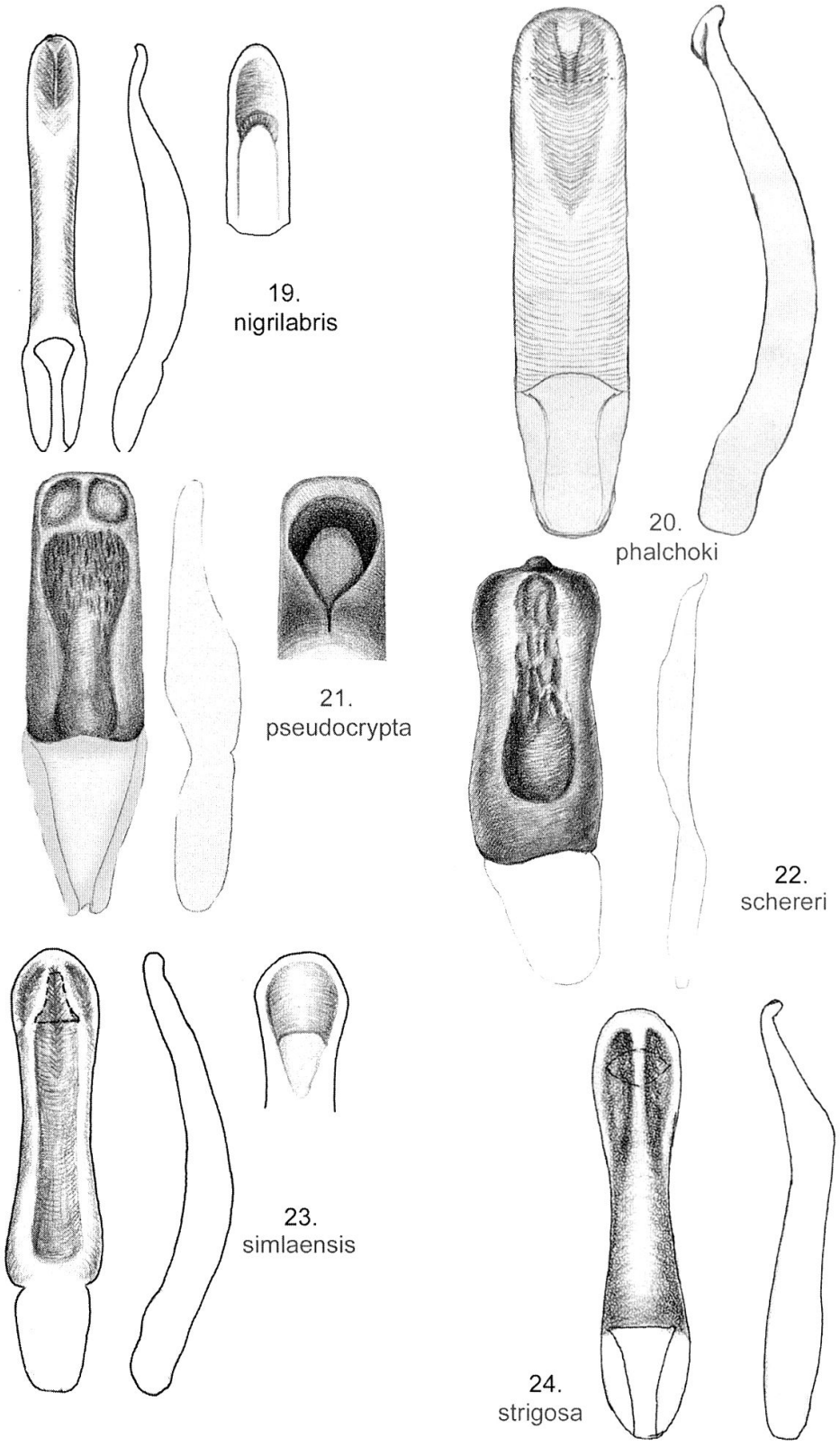
Description. Length 1.84–2.52 mm. Width 0.95–1.13 mm.

Dorsal side of body dark metallic blue, sometimes with violet luster. In some specimens pronotum greenish. Appendages dark. Pro- and mesotibiae infuscate, only slightly lighter than metafemur. Second antennomere lighter than first and fourth.

Head moderately convex in lateral view. Vertex above antennal calli smooth without irregular punctures and wrinkles. Frontal ridge moderately narrow, relatively short, convex, sides nearly parallel. Antennal calli transverse, strongly convex, nearly trapezoidal, narrowly connected, forming acute angle to each other. Antennal callus without impression in middle. All sulci well developed. Supracallinal sulcus curved. Anterofrontal ridge low laterally, relatively high medially. Head in front of antennal socket depressed, not swollen laterally of frontal ridge. Orbit smooth or only with poorly developed longitudinal wrinkles. Anterofrontal ridge without extremely well developed denticle. Facial part moderately long. Antennomere 2 bead-shaped, shorter than antennomeres 3 and 4 separately.

Pronotum shiny, flat in lateral view. Base nearly as wide as apex. Lateral margin narrowly explanate. Base with or without antebasal transverse impression. Anterolateral callosity of pronotum short, shorter than $\frac{1}{3}$ of length of lateral margin (not counting length of callosity). Posterolateral setiferous pore well developed. Surface sparsely covered with well defined punctures much smaller than those of elytra.

Scutellum nearly triangular, as long as wide, obtusely angulate on top. Elytra more or less flat, humeral calli present causing base to appear much wider at



Figs 19–24. Aedeagus: ventral, lateral and dorsal view. 19. *A. nigrilabris*; 20. *A. phalchoki*; 21. *A. pseudocrypta*; 22. *A. schereri*; 23. *A. simlaensis*; 24. *A. strigosa*.

base than pronotum. Lateral side of elytron nearly straight at basal two thirds. Maximum width at apical third. Apical margin straight and narrowly rounded at apex. Punctures much larger than ones on pronotum. Wings well developed.

Metatibia including lateral side of apical part straight. Flat dorsally at apical fourth. External side of dorsal surface of metatibia with poorly developed, obtuse denticles. First metatarsomere of male narrow, almost cylindrical. Apex of first metatarsomere of male narrower than third metatarsomere.

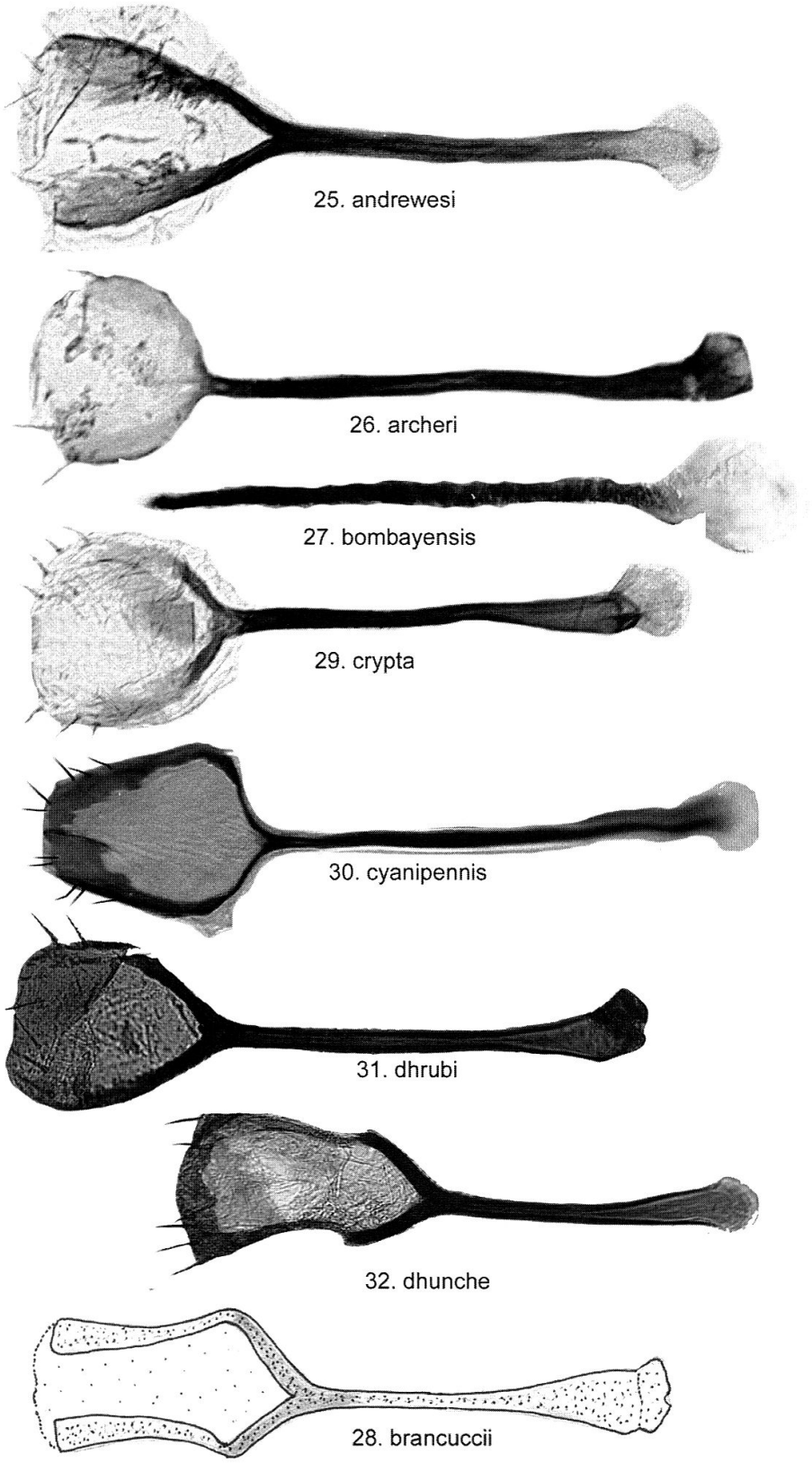
Spermatheca with receptacle slightly longer than pump. Internal side of receptacle convex, external side concave. Receptacle much longer than wide, with maximum width nearly at middle, at pump as wide as near duct. Pump with vertical and horizontal parts not well delineated, moderately wide at vertical part and slightly wider at base of horizontal part. Horizontal part long, much longer than vertical, nearly straight, with denticle at apex. Duct moderately short, making almost no loop away from receptacle, at base pointed away from direction of receptacle (Fig. 80). Tignum slightly curved, gradually widening anteriorly. Posterior sclerotization forming two relatively narrow and long, widely separated arms; posterior sclerotization of arms well developed (Fig. 31). Vaginal palpus with membranous part in middle shorter than sclerotized part posteriorly and anteriorly. Posterior sclerotization nearly as wide and as long as anterior. Apical sclerotization shorter laterally than medially, straight. Apical membrane oblique. Lateral margin not parallel to medial, not forming angle near apex. Medial margin slightly curved (Fig. 56).

Median lobe of aedeagus slender, widening apically, without long and shallow longitudinal impression. Ventral side with two elongate, wrinkled impressions (Fig. 6)

Comments. Among Nepali species *A. dhrubi* is similar to *A. simlaensis*. It can be easily differentiated by the triangular apex of the median lobe of aedeagus (in *A. simlaensis* the apex is rounded).

Etymology. This species is named after Dhruba Manandhar who provided valuable assistance during a collecting trip in Nepal.

Type material. Holotype ♂. Labels: 1) Nepal: Lantang Nat. Park, env. of Dhunche 28°07'00"N 85°17'00"E 30.IV.2000, 1900–2100 m Konstantinov, Lingafelter, Volkovitsh; 2) Holotype Aphthona dhrubi des. Konstantinov & Sprecher-Uebersax, 2004 (USNM). Paratypes with the same labels as holotype (24 USNM, 4 NHMB). Paratypes. Geographic labels: Nepal. Pokhara Lumle St.-Thulakharka 1640–2100 m 22.IV. 28°17.82N 83°49.11E, 2000 Konstantinov, Lingafelter, Volkovitsh (3 USNM); Nepal. Syabru-Somdang road, Gothen, 28°09.40N 85°14.31E, conif. forest, 29.IV.2000, 2750 m Konstantinov, Lingafelter, Volkovitsh (1 USNM); Nepal: Lantang Nat. Park Dhunche-Chandanbari 28°07'00"N 85°17'00"E 01.V.2000, 1900–3250 m Konstantinov, Lingafelter, Volkovitsh (8 USNM, 2 NHMB); Nepal: Lantang Nat. Park Chandanbari-Dhunche 28°04'74"N 85°20'77"E 05.V.2000, 3250–1900 m Konstantinov, Lingafelter, Volkovitsh (10 USNM, 3 NHMB); Nepal: Jiri reg., 9.V.2000 Jiri-Shivalaya, 1900–1770 m, 27°36.61N 86°17.55E, pass 2200 m, wet slope in the forest, Konstantinov, Lingafelter, Volkovitsh (7 USNM); Nepal: Jiri reg,10.V.2000 Shivalaya-Deorali, 1770–2710 m, 27°35.51N 86°19.59E, forest, small valley with stream, Konstantinov, Lingafelter, Volkovitsh (6 USNM); Nepal: Jiri reg,11.V.2000, Deorali-Shivalaya, 2710–1770 m, 27°35.51N 86°19.59E, trail, small valley with stream, Konstantinov, Lingafelter, Volkovitsh; (3 USNM); Nepal: Jiri reg,11.V.2000, Deorali, 2710 m, 27°35.51N



Figs 24–32. Tignum: 25. *Aphthona andrewesi*; 26. *A. archeri*; 27. *A. bombayensis*; 28. *A. brancuccii* (= *strigosa*); 29. *A. crypta*; 30. *A. cyanipennis*; 31. *A. dhrubi*; 32. *A. dhunche*.

86°19.59E, forest and pastures on the pass, Konstantinov, Lingafelter, Volkovitsh (1 USNM); Nepal: Jiri reg., 12.V.2000, Shivalaya-Jiri, 1770–1900 m, 27°36.61N 86°17.55E, pass 2200 m, wet slope in the forest, Konstantinov, Lingafelter, Volkovitsh (8 USNM, 4 NHMB).

Aphthona dhunche n. sp.

(Figs 7, 32, 57, 81, 114)

Description. Length 2.08–2.30 mm. Width 1.06–1.13 mm.

Dorsal side of body bright metallic green. Pro- and mesofemora yellow, darker at base. Pro- and mesotibiae bright yellow, much lighter than metafemur. First three antennomeres entirely yellow, fourth darker.

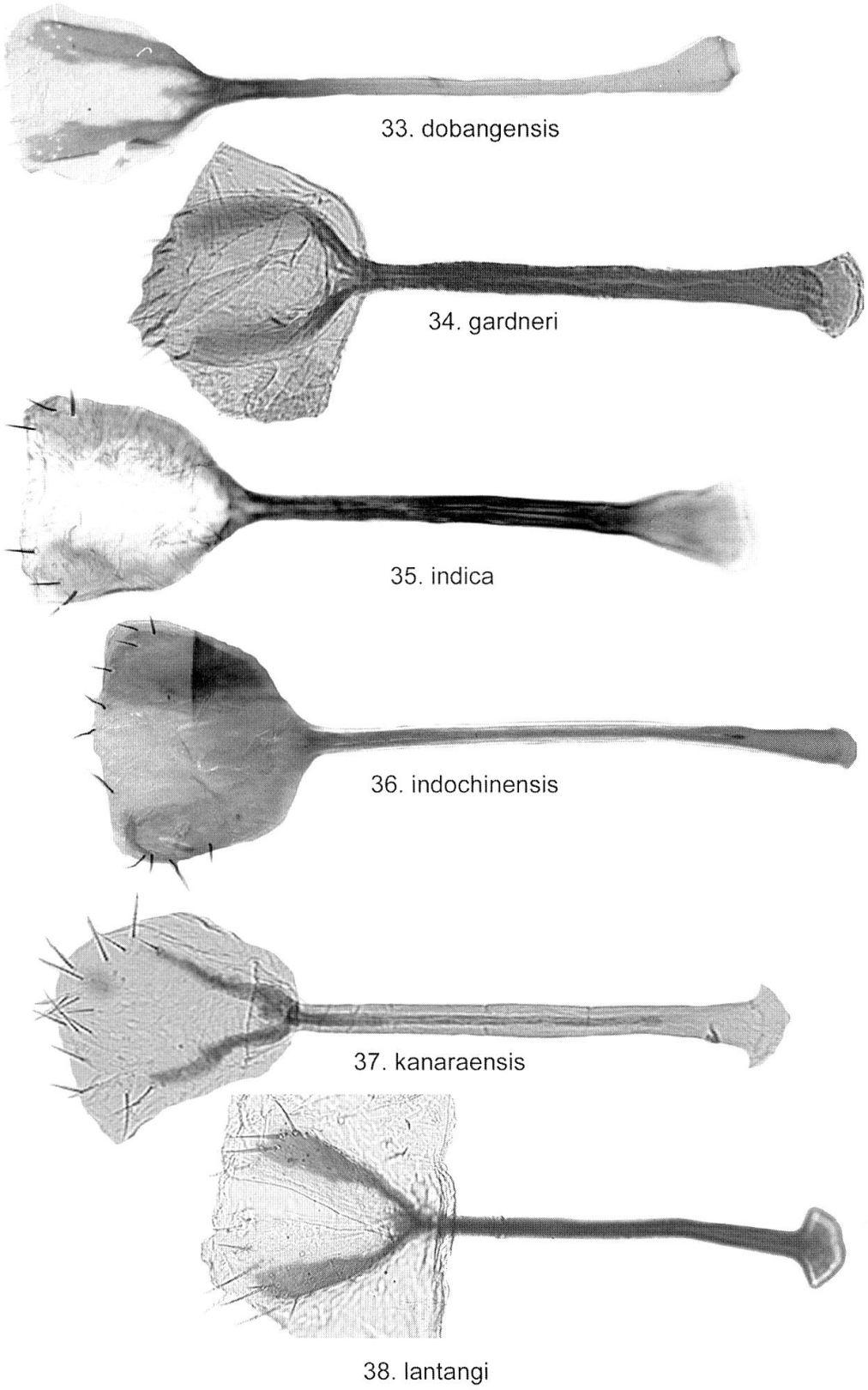
Head moderately convex in lateral view. Vertex above antennal calli shiny, with sparse well developed punctures. Frontal ridge narrow, relatively long, convex, sides parallel. Antennal calli transverse, strongly convex, nearly trapezoidal, narrowly connected, forming obtuse angle to each other. Antennal callus without impression in middle. All sulci well developed. Supracallinal sulcus nearly straight. Anterofrontal ridge low laterally, relatively high medially. Head in front of antennal socket depressed, not swollen laterally of frontal ridge. Orbit smooth or only with poorly developed longitudinal wrinkles. Anterofrontal ridge without extremely well developed denticle. Facial part moderately long. Antennomere 2 bead-shaped, shorter than antennomeres 3 and 4 separately.

Pronotum shiny, flat in lateral view. Base nearly as wide as apex. Lateral margin narrowly explanate. Base with antebasal transverse impression poorly developed (almost invisible) in middle. Anterolateral callosity of pronotum short, shorter than $\frac{1}{3}$ of length of lateral margin (not counting length of callosity). Posterolateral setiferous pore well developed. Surface sparsely covered with well defined punctures, much smaller than those of elytra.

Scutellum nearly triangular, as long as wide, obtusely angulate on top. Elytra more or less flat, with humeral calli, much wider at base than pronotum. Lateral side of elytron nearly straight at basal two thirds. Maximum width at apical third. Apical margin straight and narrowly rounded at apex. Punctures much larger than ones on pronotum. Wings well developed

Metatibia, including lateral side of apical part straight. Flat dorsally at apical third. External side of dorsal surface of metatibia with well-developed, sharp denticles. First metatarsomere of male narrow, almost cylindrical. Apex of first metatarsomere of male narrower than third metatarsomere.

Spermatheca with receptacle as long as pump. Internal and external sides of receptacle convex. Receptacle much longer than wide, with maximum width nearly at middle, at pump slightly narrower than near duct. Pump with vertical and horizontal parts not well delineated, moderately wide at vertical part and slightly wider at base of horizontal part. Horizontal part long, much longer than vertical, nearly straight, with denticle at apex. Duct moderately short, making no loop away from receptacle, at base pointed away from direction of receptacle (Fig. 81). Tignum slightly curved, gradually widening anteriorly. Posterior sclerotization forming two relatively narrow and extremely long, widely separated arms; posterior sclerotization of arms well developed (Fig. 32). Vaginal palpus with membranous part in middle longer than sclerotized part posteriorly and anteriorly. Posterior sclerotiza-



Figs 33-38. Tignum: 33. *A. dobangensis*; 34. *A. gardneri*; 35. *A. indica*; 36. *A. indochinensis*; 37. *A. kanaraensis*; 38. *A. lantangi*.

tion nearly as wide and as long as anterior. Apical sclerotization shorter laterally than medially, straight. Apical membrane oblique. Lateral margin nearly parallel to medial, not forming angle near apex. Medial margin slightly curved (Fig. 57).

Median lobe of aedeagus without well-developed apical denticle. Ventral side of median lobe with two apical longitudinal impressions and a low ridge in between (Fig. 7)

Comments. Among Nepali species *A. dhunche* is similar to *A. malaisei*. It can be easily differentiated by the apex of the median lobe of aedeagus lacking a well-developed denticle (in *A. malaisei* the apex is with well-developed denticle).

Etymology. This species is named after the type locality. The species name is a noun in apposition.

Type material. Holotype ♂. Labels: 1) Nepal: Lantang Nat. Park, env. of Dhunche 28°07'00"N 85°17'00"E, 30.IV.2000, 1900–2100 m, Konstantinov, Lingafelter, Volkovitsh; 2) Holotype *Aphthona dhunche* des. A. Konstantinov and E. Sprecher-Uebersax (USNM). Paratypes with same label as holotype (4 USNM, 1 NHMB).

Aphthona dobangensis Kimoto
(Figs 8, 33, 58, 82, 102, 114)

Aphthona dobangensis Kimoto, 2001: 52 (Type locality: Nepal, Dobang Kharka. Holotype (KUFJ) examined).

Aphthona almorensis Konstantinov and Lingafelter, 2002: 42 (Type locality: India, W. Almora. Holotype (BMNH) examined). New synonym.

Distribution. India, Nepal.

Host plants. unknown.

Type material examined:

Aphthona dobangensis: Holotype ♂. Labels: 1) Nepal Dobang Kharka, 2400 m, 83°24'E 26°36'N, Oct. 14.1971, A. Nakanishi; 2) Holotype; 3) *Aphthona dobangensis* Kimoto, n. sp. det. S. Kimoto, 19 (KUFJ).

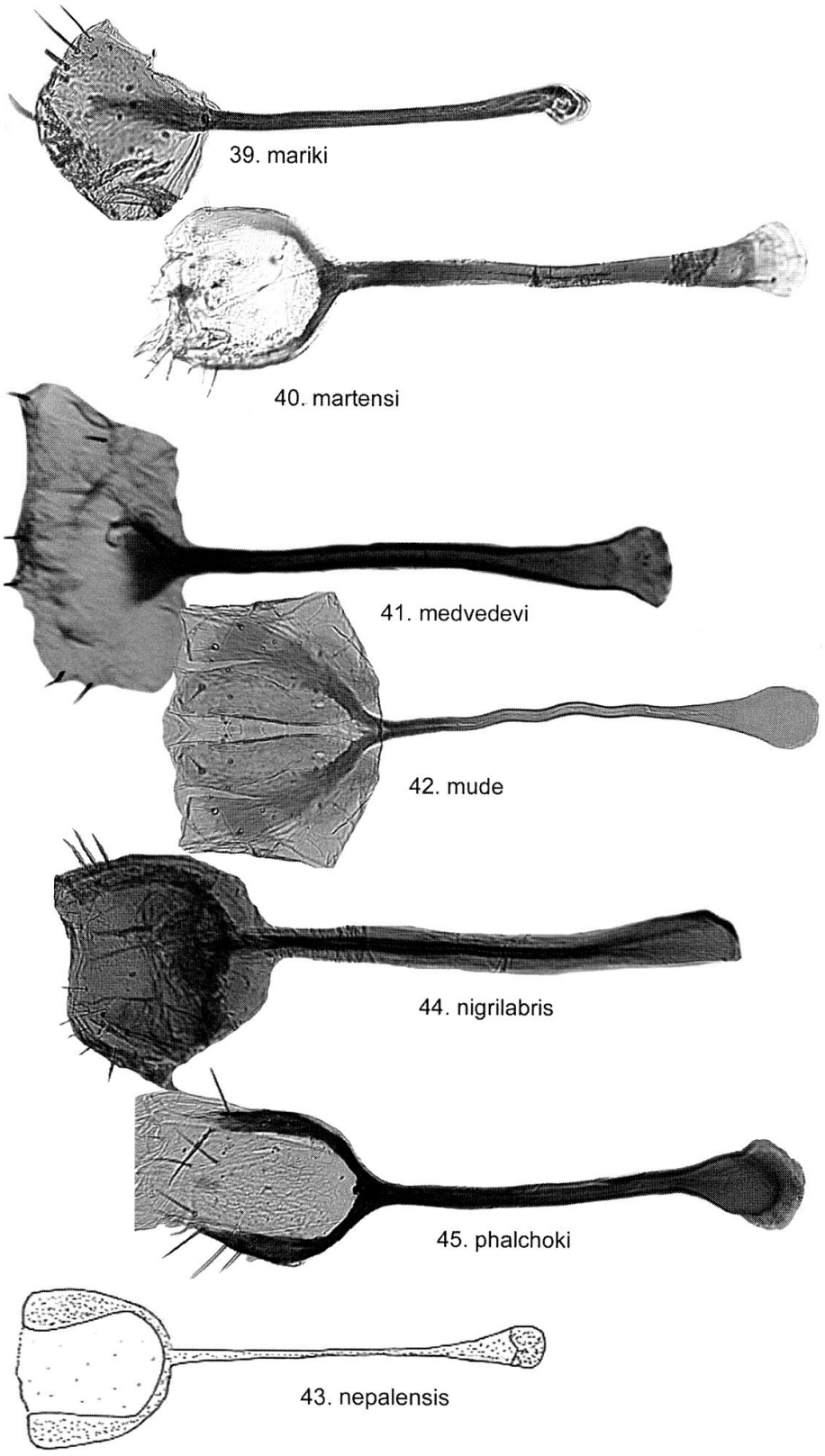
Aphthona almorensis: Holotype ♂. Labels: 1) Sunderdhunga V. 8–12,000 ft. W. Almora H.G.C.; 2) H. G. Champion Coll. B. M. 1953-156 (29°37'00"N 79°40'00"E); 3) Holotype *Aphthona almorensis* des. Konstantinov & Lingafelter, 2000 (BMNH). Paratypes 13 specimens, with same labels as holotype (3 USNM, 10 BMNH). Paratypes 3 specimens. Labels: Sunderdhunga V. W. Almora Div. 8–12,000 feet. June '19, H. G. «?». Paratypes 2 specimens (♂, ♀). Labels: Pindar Valley, 8–11,000 ft. Kumaon. H. G. C. (29°50'00"N 79°30'00"E) (USNM, BMNH). Paratype ♀. Central Nepal, Phedi (3200 m) - Duvan 3400 m, nr. base camp of Mt. Machhapuchhale, 19.10.1981, leg. M. Sakai (TCOJ).

Aphthona furthi Medvedev
(Figs 9, 115)

Aphthona furthi Medvedev, 1997a: 14 (type locality: Nepal, Bagmati. Holotype (NHMB) examined). Medvedev & Sprecher-Uebersax 1999: 322 (list, Nepal). Konstantinov & Lingafelter 2002: 89 (figures of male genitalia, redescription, key)

Distribution. Nepal (Medvedev 1997a).

Host plants. Unknown.



Figs 39-45. Tignum: 39. *A. mariki*; 40. *A. martensi*; 41. *A. medvedevi*; 42. *A. mude*; 43. *A. nepalensis*; 44. *A. nigrilabris*; 45. *A. phalchok*i.

Type material examined. Holotype ♂. Labels: 1) Sindhupalchok, Gangjwal, 2500 m, 6–7.VI.1989; 2) Nepal, Bagmati M. Brancucci; 3) Holotypus *Aphthona furthi* m. L. Medvedev det. 1996 (NHMB).

Aphthona gardneri Bryant
(Figs 10, 10A, 34, 59, 83, 115)

Aphthona gardneri Bryant, 1941: 412 (type locality: Darjeeling, Lopchu, India. Lectotype (BMNH) designated by Konstantinov & Lingafelter 2002). Heikertinger 1950: 146/132 (taxonomic notes). Scherer 1969: 70, 73 (key, distribution, synonymical bibliography). Gruev 1985: 39, 1990:61 (faunistics). Medvedev 1992: 24 (distribution, Nepal). Medvedev & Sprecher-Uebersax 1999: 322 (list, Nepal). Konstantinov & Lingafelter 2002: 89 (figures of male and female genitalia, redescription, key).

Distribution. India (Bryant 1941), Nepal (Gruev, 1985 and 1990).

Host plants. Unknown.

Type material examined. Lectotype ♀. Labels: 1) Type; 2) 253; 3) Lopchu, 5000' Darjeeling, Bengal J. C. M. Gardner. 22.IX.1929; 4) *Aphthona gardneri* Bryant type Det. G. E. Bryant; 5) Lectotype *Aphthona gardneri* Bryant, des. A. Konstantinov, 1996 (BMNH).

Material examined. Central Nepal, Rani-Ban, Royal Forest, est. Kathmandu, 5.X.1981, leg. M. Sakai (1 TCOJ); Central Nepal, Kimrung (1800 m), nr. Ghandrung, 17.X.1981, leg. M. Sakai (1 TCOJ); West Sikkim, Yuksam (1780 m), 11.IX.1983, leg. M. Sakai (1 TCOJ); West Nepal, Jhari (2900 m), nr. Rara Lake, 24.IX.1981, leg. M. Sakai (1 TCOJ). Central Nepal, Godawari (1650m), nr. Kathmandu, 16.9.1981, leg M. Sakai. (2 TCOJ). 254 Ilam Distr. Mai Pokhari 2150–2250 m, 23–25.VIII.1983 J. Martens & Daams leg. det L. Medvedev (1 MDGC); 403 Sankhua Sabha distr., Pahacola, 30–31.V.88, Martens (2 MCMR.); env. of Kathmandu, Phalchoki Mount. 2700–2300 m, 27°34'65"N 85°24'04"E, sweeping in forest 14.V.2000, leg. Konstantinov, Lingafelter, Volkovitsh (18 USNM).

Aphthona indica Jacoby
(Figs 11, 35, 60, 84, 99, 115)

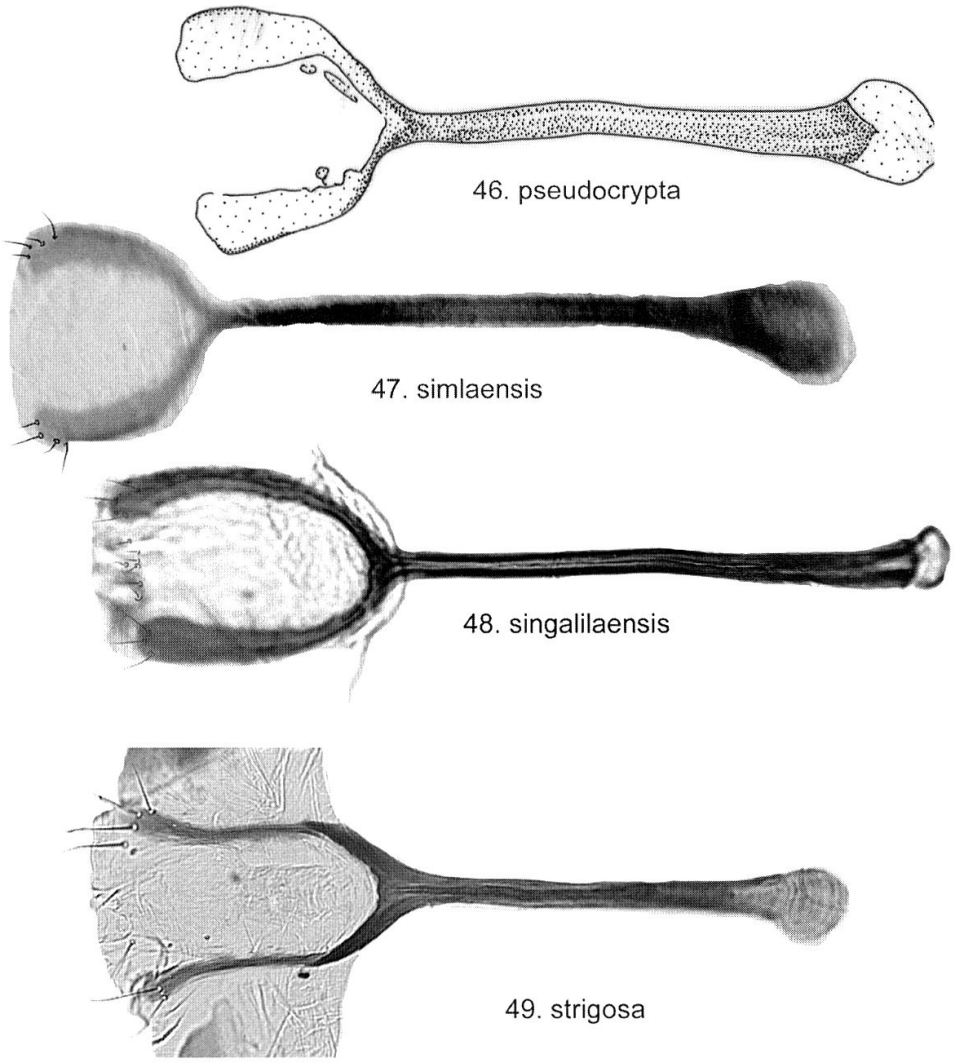
Aphthona indica Jacoby, 1900: 120 (type locality: India, Calcutta. Lectotype (BMNH) designated by Scherer (1969), examined). Heikertinger 1944: 114/200, 116/202 (key catalog, taxonomic notes). Maulik 1926: 367, 373 (key, redescription, taxonomic notes, distribution, deposition of type specimens). Heikertinger & Csiki 1939: 97 (world catalogue). Scherer 1969: 123 (as type species of *Asialtica* Scherer). Konstantinov & Lingafelter 2002: 102 (original combination restored).

Distribution. India (Jacoby 1900), Nepal (Konstantinov & Lingafelter 2002).

Host plants. Unknown.

Type material examined. Lectotype ♂. Labels: 1) Lectotype; 2) Calcutta; 3) Jacoby Coll. 1909-28a; 4) stands label indica Jac. in catt. C. M. F. von Hayek, 1967; 5) Lecto-holotypus *Aphthona indica* Jacoby 1900, det Dr. G. Scherer, 1962; 6) *Asialtica indica* (Jacoby), G. Scherer, det. 1968 (BMNH). Paralectotypes ♂, ♀. Labels: 1) Type H.T.; 2) as in LT; 3) *Aphthona indica* Jac. (BMNH).

Material examined. Panchthar dist., Puspati u. Shedoti, 28.VIII.1983, 2800–2500 m, leg. Martens (3 SMNS).



Figs 46-49. Tignum: 46. *A. pseudocrypta*; 47. *A. simlaensis*; 48. *A. singalilaensis*; 49. *A. strigosa*.

Aphthona indochinensis Chen
(Figs 12, 36, 61, 85, 115)

Aphthona indochinensis Chen, 1934b: 366 (type locality: Hoa-Binh, Vietnam. Depository of type specimen is unknown). Heikertinger & Csiki 1939: 97 (world catalog). Heikertinger 1944: 109/195, 117/203 (key catalogue, taxonomic notes), 1950: 143/129 (key). Gressitt & Kimoto 1963: 866 (key). Scherer 1969: 70, 74 (key, distribution, synonymical bibliography). Konstantinov & Lingafelter 2002: 104 (figures of male and female genitalia, redescription, key).

Aphthona violaceomicans Chen, 1936: 83 (type locality: Kandy, Sri Lanka. Depository of type specimen is unknown). Konstantinov & Lingafelter 2002: 104 (synonymized).

Aphthona malaisei Bryant, 1939: 13 (type locality: northeastern Myanmar [= Burma]. Lectotype (NHRS) designated by Konstantinov & Lingafelter 2002). Heikertinger 1950: 145/131 (taxonomic notes). Scherer 1969: 69, 73 (key, distribution, synonymical bibliography). Takizaw, 1983: 76 (list, India). Gruev, 1985: 39 (faunistics). Medvedev 1992: 25 (distribution, Nepal). Medvedev & Sprecher-Uebersax 1999: 322 (list, Nepal). Konstantinov & Lingafelter 2002: 104 (synonymized).

Distribution. Vietnam (Chen 1934b), Sri Lanka (Chen 1936), Myanmar

(Burma) (Bryant 1939), India (Scherer 1969), Nepal (Gruev 1985).

Host plants. Unknown.

Type material examined. Lectotype ♂. Labels: 1) Type; 2) Burma Kambati [= Kambaiti = Kauliang Hkyet], 2000 m, 13/5.1934 Malaise; 3) *Aphthona malaisei* ♂ Bryant, det. G. E. Bryant; 4) Lectotype *Aphthona malaisei* Bryant, des. A. Konstantinov, 1998. (NHRS). Paralectotypes 2 ♀♀. Same label as lectotype except with dates 12/4.1934 and 18/5.1934 (NHRS). Paralectotypes 1 ♂, 3 ♀♀, with same labels as lectotype except with date 16/5.1934 (BMNH).

Aphthona kanaraensis Jacoby

(Figs 13, 37, 62, 86, 86A, 116)

Aphthona kanaraensis Jacoby, 1896a: 255 (type locality: Kanara, India. Lectotype (BMNH) designated by Konstantinov & Lingafelter 2002). Maulik 1926: 367, 368 (key, redescription, taxonomic notes, distribution, deposition of type specimens). Heikertinger & Csiki 1939: 97 (world catalog). Heikertinger 1944: 112/198, 117/203 (key catalogue, taxonomic notes). Kimoto 1972: 47 (distribution in India). Scherer 1969: 71, 77 (key, distribution, synonymic bibliography). Takizawa 1983: 76 (list, India). Gruev 1985: 39 (faunistics). Medvedev & Sprecher-Uebersax 1999: 322 (list, Nepal). Konstantinov & Lingafelter 2002: 109 (figures of male and female genitalia, redescription, key).

Aphthona atriventris Maulik, 1926: 367, 368 (type locality: Sunderdhunga Valley, western Almora, India. Lectotype (BMNH) designated by Konstantinov & Lingafelter 2002). Heikertinger & Csiki 1939: 96 (world catalogue). Heikertinger 1944: 111/197, 116/202 (key catalogue, taxonomic notes). Scherer 1969: 77 (synonymy).

Aphthona imitatrix Lopatin 1963: 362 (type locality: Jalalabad, Afghanistan. Holotype and paratype (HNHM), paratype examined). Gruev 1988: 154 (faunistics). Konstantinov & Lingafelter 2002: 109 (synonymized).

Distribution. India, Nepal (Gruev 1985), Afghanistan (Lopatin 1963), Sri Lanka (Konstantinov & Lingafelter 2002).

Host plants. Unknown.

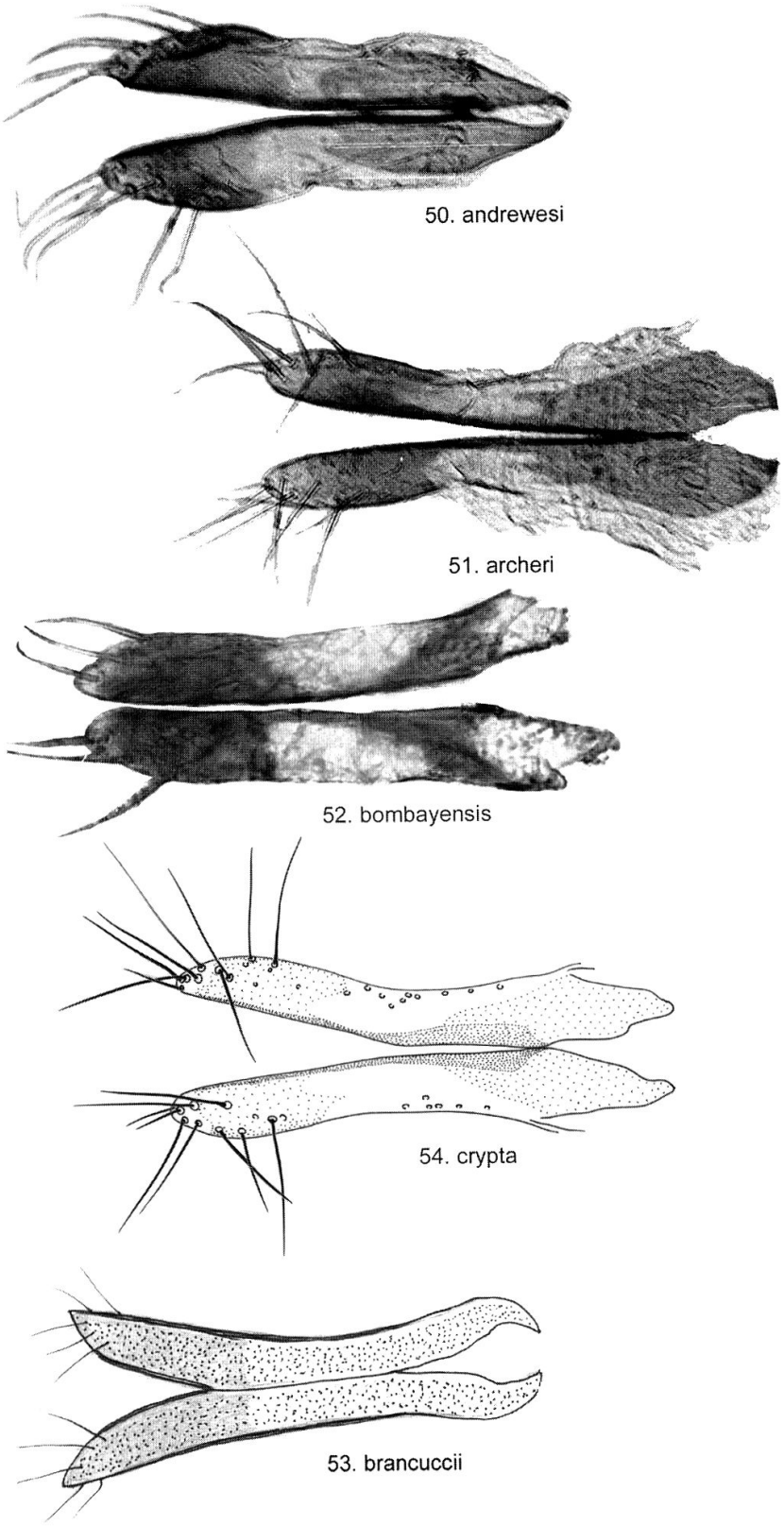
Type material examined:

Aphthona kanaraensis: Lectotype ♂. Labels: 1) Kanara; 2) Andrewes Bequest. B.M. 1922-21. 3) Lectotype *Aphthona kanaraensis* Jacoby des A. Konstantinov, 1995 (BMNH). Paralectotypes 6 ♂♂ with same labels as lectotype (BMNH). Paralectotype 1 specimen. Labels: 1) Kanara; 2) Type; 3) Andrewes Bequest. B.M. 1922-21. 4) *Aphthona kanaraensis* Jac. type; 5) Paralectotype *Aphthona kanaraensis* Jacoby des A. Konstantinov, 1995 (BMNH). Paralectotypes 3 specimens. Labels: 1) Kanara; 2) 1st Jacoby Coll.; 3) Paralectotype *Aphthona kanaraensis* Jacoby des A. Konstantinov, 1995 (MCZC).

Aphthona atriventris: Lectotype ♂. Labels: 1) Type; 2) Sunderdhunga V. 8–12,000 ft. W. Almora H.G.C.; 3) *Aphthona atriventris* M. Maulik det. type 1925; 4) Lectotype *Aphthona atriventris* Maulik des. A. Konstantinov, 1995 (BMNH). Paralectotypes 5 specimens, with same labels as lectotype (BMNH).

Aphthona imitatrix: Paratypes, 1 ♂, 2 ♀♀. Labels: 1) O. Afghan. 1963; 2) Kunartal, 500 m, Jalalabad, 30.III; 3) *Aphthona imitatrix* sp. n. I. Lopatin det., 1962 (3 HNHM).

Material examined. 900 m, Pokhara, 31.7.1981, leg. P. Beron (1 GCPB); Bihar, Pusa 15.V.1931, leg. T.B. Fletcher (3 BMNH).



Figs 50–54. Vaginal palpi: 50. *Aphthona andrewesi*; 51. *A. archeri*; 52. *A. bombayensis*; 53. *A. brancuccii* (= *strigosa*); 54. *A. crypta*.

Aphthona lantangi n sp.

(Figs 14, 38, 63, 87, 116)

Description. Length 2.30–2.61 mm. Width 1.22–1.29 mm.

Dorsal side of body metallic blue, in most specimens pronotum with greenish lustre. Pro- and mesotibiae infuscate, only slightly lighter than metafemur. Base of first antennomere darker than apex and second antennomere.

Head moderately convex in lateral view. Vertex above antennal calli with strong sculpture, covered with irregular punctures and wrinkles. Frontal ridge narrow, relatively long, convex, sides nearly parallel. Antennal calli transverse, strongly convex, nearly trapezoidal, narrowly connected, forming obtuse angle to each other. Antennal callus without impression in middle. All sulci well developed. Supracallinal sulcus nearly straight. Anterofrontal ridge extremely low laterally and medially. Head in front of antennal socket depressed, not swollen laterally of frontal ridge. Orbit covered with coarse longitudinal wrinkles. Anterofrontal ridge without extremely well-developed denticle. Facial part moderately long. Antennomere 2 bead-shaped, shorter than antennomeres 3 and 4 separately.

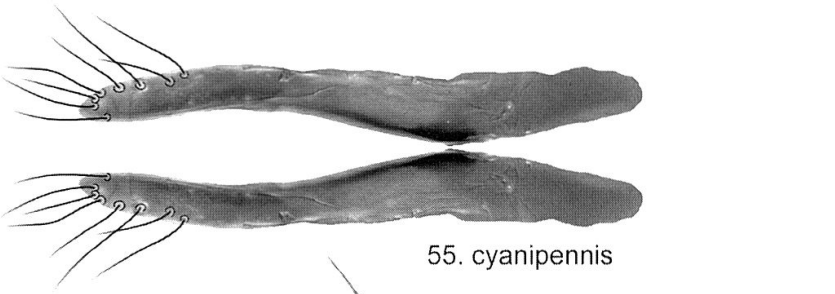
Pronotum shiny, flat in lateral view. Base nearly as wide as apex. Lateral margin narrowly explanate. Base with antebasal transverse impression. Anterolateral callosity of pronotum short, shorter than $1/3$ length of lateral margin (not counting length of callosity). Posterolateral setiferous pore well developed. Surface sparsely covered with well-defined punctures, much smaller than those of elytra.

Scutellum nearly triangular, as long as wide, obtusely angulate on top. Elytra more or less flat, with humeral calli, much wider at base than pronotum. Lateral side of elytron nearly straight at basal two thirds. Maximum width at apical third. Apical margin straight and narrowly rounded at apex. Punctures much larger than ones on pronotum. Wings well developed.

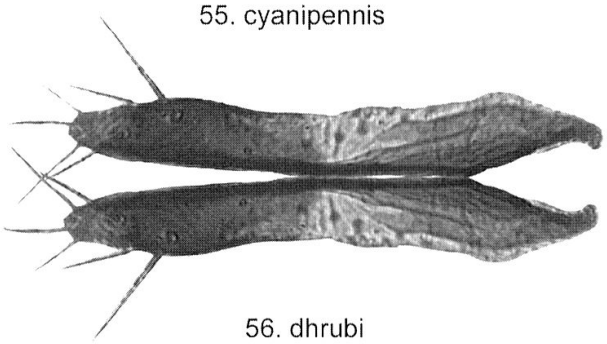
Metatibia including lateral side of apical part straight. Flat dorsally at apical third. External side of dorsal surface of metatibia with well-developed, sharp denticles. First metatarsomere of male narrow at base, wide at apex. Apex of first metatarsomere of male wider than third metatarsomere.

Spermatheca with receptacle longer than pump. Internal and external sides of receptacle convex. Receptacle slightly longer than wide, with maximum width at middle, at pump as narrow as near duct. Pump with vertical and horizontal parts well delineated, moderately wide at vertical part and wider at base of horizontal part. Horizontal part long, longer than vertical, nearly straight, with denticle at apex. Duct moderately short, making no loop away from receptacle, at base pointed in direction of receptacle (Fig. 87). Tignum slightly curved, abruptly widening anteriorly. Posterior sclerotization forming two posteriorly widening, widely separated arms; posterior sclerotization of arms well developed (Fig. 38). Vaginal palpus with membranous part in middle longer than sclerotized part posteriorly and anteriorly. Posterior sclerotization nearly as wide and as long as anterior. Apical sclerotization laterally shorter than medially, straight. Apical membrane oblique. Lateral margin nearly parallel to medial, forming oblique angle near apex. Medial margin slightly curved (Fig. 63).

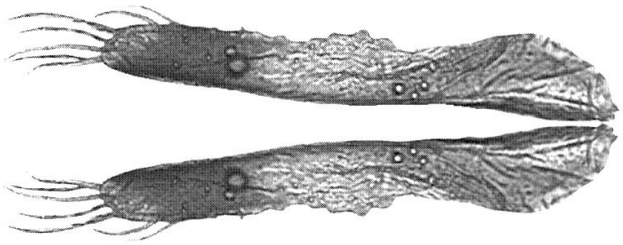
Median lobe of aedeagus with well-developed apical denticle. Basal $2/3$ of median lobe with impression narrowing towards apex (Fig. 14).



55. cyanipennis



56. dhrubi



57. dhunche

58. dobangensis

Figs 55-58. Vaginal palpi: 55. *A. cyanipennis*; 56. *A. dhrubi*; 57. *A. dhunche*; 58. *A. dobangensis*.

Comments.— Among Nepali species *A. lantangi* is similar to *A. dobangensis*. It can be easily differentiated by the second antennomere being lighter than the first and the basal $^2/_3$ of median lobe with impression which is narrowing towards the apex.

Etymology. This species is named after the type locality.

Type material. *Aphthona lantangi*: Holotype ♂. Labels: 1) Nepal: Lantang Nat. Park Chandanbari-Dhunche 28°04'74"N 8520'77"E 05.V.2000, 3250–1900 m Konstantinov, Lingafelter, Volkovitsh; 2) Holotype *Aphthona lantangi* des. A. Kon-

stantinov and E. Sprecher-Uebersax (USNM). Paratypes with same label as holotype (5 USNM, 2 NHMB).

Aphthona mariki n. sp.

(Figs. 15, 39, 64, 88, 116)

Description. Length 1.67–1.71 mm. Width 0.89–0.93 mm.

Dorsal side of body metallic green. Pro-, meso-, and metatibiae, pro- and mesofemora, first four antennomeres and base of metafemur bright yellow.

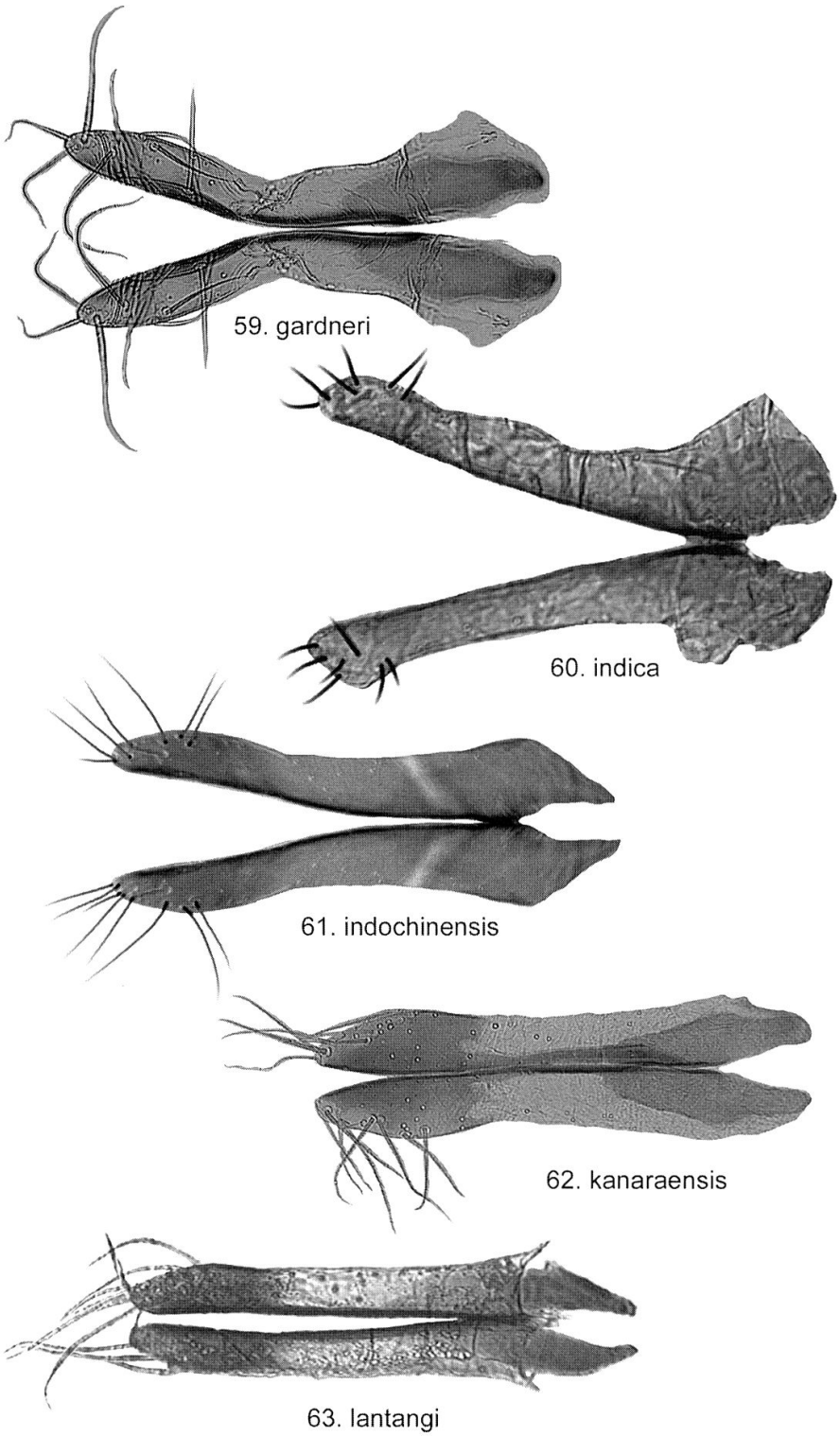
Head moderately convex in lateral view. Vertex above antennal calli covered with transverse wrinkles. Frontal ridge relatively wide, short, convex, sides nearly parallel. Antennal calli transverse, convex, nearly trapezoidal, broadly connected, forming nearly 180° angle to each other. Antennal callus without impression in middle. All sulci, except midfrontal, well developed. Supracallinal sulcus nearly straight. Anterofrontal ridge extremely low laterally and high medially. Head in front of antennal socket depressed, not swollen laterally of frontal ridge. Orbit covered with wrinkles. Anterofrontal ridge without well-developed denticle. Facial part moderately long. Antennomere 2 elongate, as long as antennomere 3 and shorter than antennomere 4.

Pronotum shiny, flat in lateral view. Base nearly as wide as apex. Lateral margin narrowly explanate. Base without antebasal transverse impression. Disc without transverse impression in front of middle. Anterolateral callosity of pronotum short, shorter than $\frac{1}{3}$ of length of lateral margin (not counting length of callosity). Posterolateral setiferous pore well developed. Surface not rugose, sparsely covered with well-defined punctures much smaller than those of elytra.

Scutellum nearly triangular, as long as wide, broadly rounded on top. Elytra more or less flat, with humeral calli, much wider at base than pronotum. Lateral side of elytron nearly straight at basal two thirds. Maximum width at apical third. Apical margin straight and narrowly rounded at apex. Punctures forming irregular rows, much larger than ones on pronotum. Wings well developed.

Metatibia, including lateral side of apical part, straight. Flat dorsally at apical third. External side of dorsal surface of metatibia with well-developed, sharp denticles. First metatarsomere of male long, nearly cylindrical. Apex of first metatarsomere of male narrower than third metatarsomere.

Spermatheca with receptacle shorter than pump. Internal and external sides of receptacle convex. Receptacle longer than wide, with maximum width nearly at middle, at pump as narrow as near duct. Pump with vertical and horizontal parts poorly delineated, moderately wide at vertical part and wider at base of horizontal part. Horizontal part long, longer than vertical, curved, without denticle at apex. Duct moderately short, making no loop away from receptacle, at base pointed away from direction of receptacle (Fig. 88). Tignum slightly curved, gradually widening anteriorly. Posterior sclerotization forming single plate, most sclerotized in middle, lacking arms; posterior sclerotization of arms well developed (Fig. 39). Vaginal palpus with membranous part in middle shorter than sclerotized part posteriorly. Posterior sclerotization nearly as wide and as long as anterior. Apical sclerotization laterally slightly shorter than medially, straight. Apical membrane oblique. Lateral margin nearly parallel to medial, without oblique angle near apex. Medial margin straight (Fig. 64).



Figs 59-63. Vaginal palpi: 59. *A. gardneri*; 60. *A. indica*; 61. *A. indochinensis*; 62. *A. kanaraensis*; 63. *A. lantangi*.

Median lobe of aedeagus slender, narrow in middle with long and shallow longitudinal impression (Fig. 15).

Comments. Among Nepali species *A. mariki* is quite unique. It can be easily differentiated by the bright yellow pro- and mesofemora and tibiae in combination with the median lobe of aedeagus being slender, narrow in middle with long and shallow longitudinal impression and the posterior sclerotization of the tignum forming a single plate that is mostly sclerotized in middle, lacking arms.

Etymology. This species is named after Mark (Marik for family and friends) Volkovitsh of Zoological Institute, St. Petersburg.

Type material. Holotype ♂. Labels: 1) Nepal. Terrai, W. Narayangadh, small valley Rapti river 26.IV. 27°42.31N 84°21.11E, 2000 Konstantinov, Lingafelter, Volkovitsh; 2) Holotype *Aphthona mariki* des. A. Konstantinov and E. Sprecher-Uebersax (USNM). Paratypes with same label as holotype (1 USNM, 1 NHMB).

Aphthona martensi (Medvedev) new combination
(Figs 16, 40, 65, 89, 116)

Aphthonaria martensi Medvedev, 1990: 38 (Type locality: Nepal, Sankhua Distr., Arun Valley. Holotype and paratypes (SMNS) paratypes examined).

Distribution. Nepal (Medvedev 1990).

Host plants. unknown.

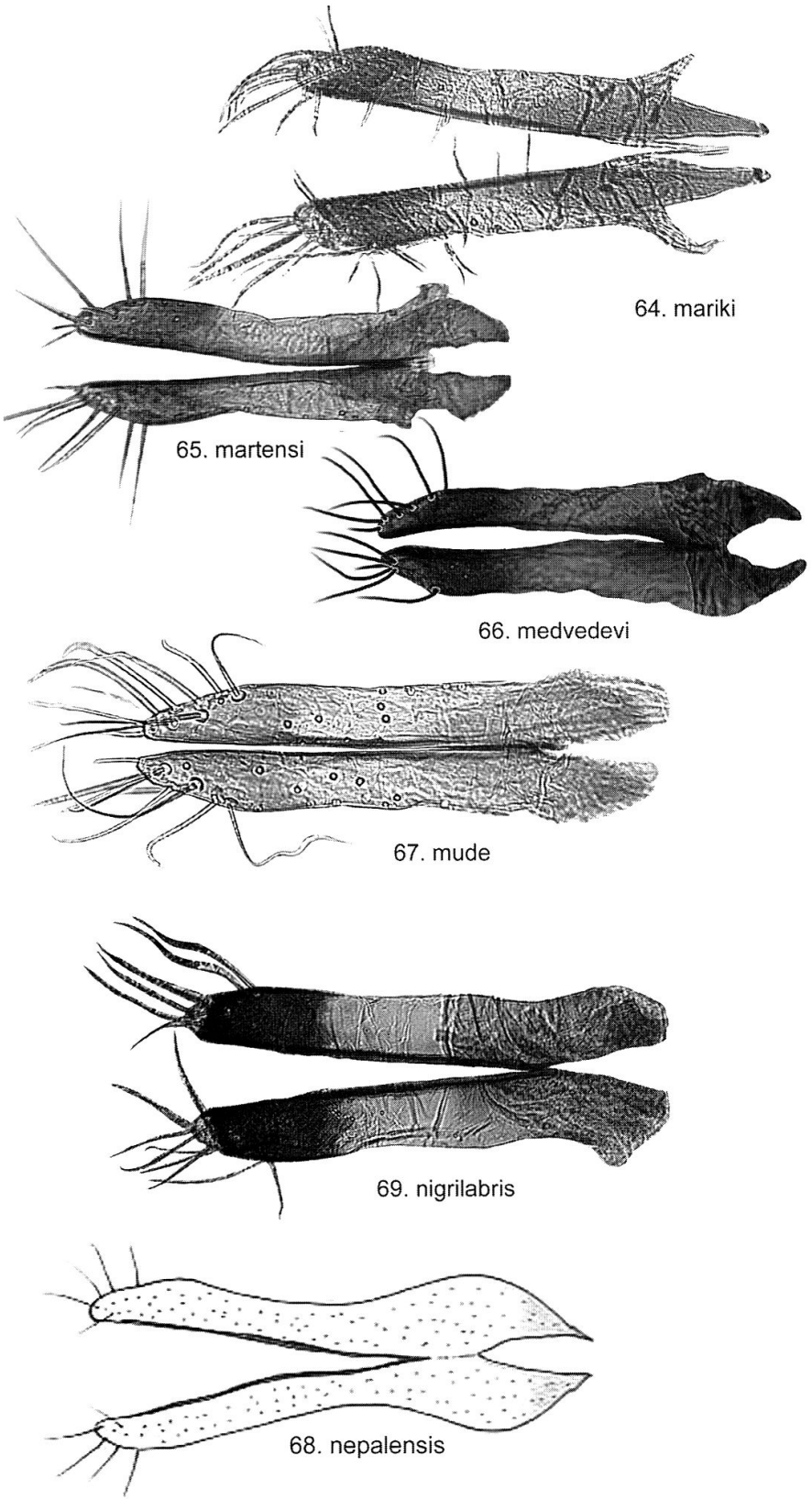
Description. Length 2.1–2.2 mm. Width 0.95–0.97 mm.

Prothorax, mesosternum, legs, including metafemur, and antennae yellow. Head slightly darker, vertex sometimes dark brown. Elytron with brassy lustre. Metasternum and abdominal sternites piceous.

Head moderately convex in lateral view. Vertex shiny, covered with extremely shallow transverse wrinkles, base of vertex dull, with coarse, short longitudinal wrinkles. Frontal ridge moderately narrow, sharp, short, convex, sides parallel. Antennal calli transverse, slightly convex, nearly trapezoidal, narrowly connected, forming acute or obtuse angle to each other. All sulci well developed. Anterofrontal ridge low laterally, relatively high medially. Head in front of antennal socket depressed, not swollen laterally of frontal ridge. Supracallinal sulcus curved. Clypeus normally long, orbit moderately narrow. Eyes large. Facial part moderately long. Antennomere 2 nearly cylindrical, shorter than antennomeres 3 and 4 separately. Three apical antennomeres of males longer than wide, cylindrical, without grooves.

Pronotum shiny, flat in lateral view. Base slightly wider than apex. Lateral margin moderately widely explanate. Anterolateral callosity moderately long, with obtuse denticle, straight. Posterolateral setiferous pore well developed. Surface sparsely covered with ill-defined punctures and wrinkles. Basal part of pronotum with moderately narrow, V-shaped, shallow transverse impression with raised stripe in middle.

Scutellum nearly triangular, as long as wide, obtusely angulate on top. Elytron with poorly developed humeral callus. Lateral side of elytron slightly convex at basal two thirds. Maximum width nearly at middle. Apical margin straight and narrowly rounded at apex. Punctures forming irregular striae on disc, mostly 1.5 times as large as interspaces. Metasternum convex in lateral view, moderately long. Prosternum short. Prosternal intercoxal process narrow between coxal cavities, slightly wider apically with flat apex.



Figs 64-69. Vaginal palpi: 64. *A. mariki*; 65. *A. martensi*; 66. *A. medvedevi*; 67. *A. mude*; 68. *A. nepalensis*; 69. *A. nigrilabris*.

Metatibia short and slightly curved, gradually widening apically. Flat dorsally at apical fourth. Apex of first metatarsomere of male much wider than its base in dorsal view, and wider than third metatarsomere.

Spermatheca with receptacle longer than pump. Internal and external sides of receptacle slightly convex to straight. Receptacle nearly cylindrical, much longer than wide, with maximum width nearly in middle, at pump as wide as near duct. Pump moderately wide at vertical part and slightly wider at base of horizontal part, long, curved, with denticle at apex. Horizontal part of pump much longer than vertical. Duct moderately short, making almost no loop away from receptacle, at base pointed away from direction of receptacle (Fig. 89). Tignum slightly curved, gradually widening anteriorly. Posterior sclerotization forming two narrow and long, widely separated arms; posterior sclerotization of arms well developed (Fig. 40). Vaginal palpus with membranous part in middle nearly as long as sclerotized part posteriorly and anteriorly. Posterior sclerotization as wide and as long as anterior. Apical sclerotization shorter laterally than medially, straight. Apical membrane oblique. Lateral margin not parallel to medial, not forming angle near apex. Medial margin slightly curved (Fig. 65).

Median lobe robust with abrupt indentation at apex and longitudinal, wide and shallow furrow ventrally and low ridge in middle of furrow. Apical two thirds of furrow without membranous window (Fig. 16).

Comments.— *Aphthona martensi* belongs to *laeta* group of species. It can be easily separated from *A. himalayensis* and *A. mude*, two other Nepali species in this group, by the following characters: antebasal transverse impression of pronotum «V»-shaped with narrow transverse stripe in middle; elytral calli poorly developed, elytron unicolorous with brassy luster; median lobe of aedeagus with indentation at apex.

Type material. Paratypes ♀, ♂. Labels: 1) Paratypus; 2) Nepal-Expeditionen Jochen Martens; 3) 412 Sankhua Sabha Distr., Arun Valley betw. Mure and Hurure, mixed broad-leaved forest, 2050–2150 m, 9–17 June 88, Martens & Schawaller; 4) *Aphthonaria martensi* Medv. det. Medvedev; 5) *Aphthona martensi* (Medvedev) det. A. Konstantinov 2000 (SMNS).

Aphthona medvedevi Konstantinov and Lingafelter
(Figs 41, 66, 90, 116)

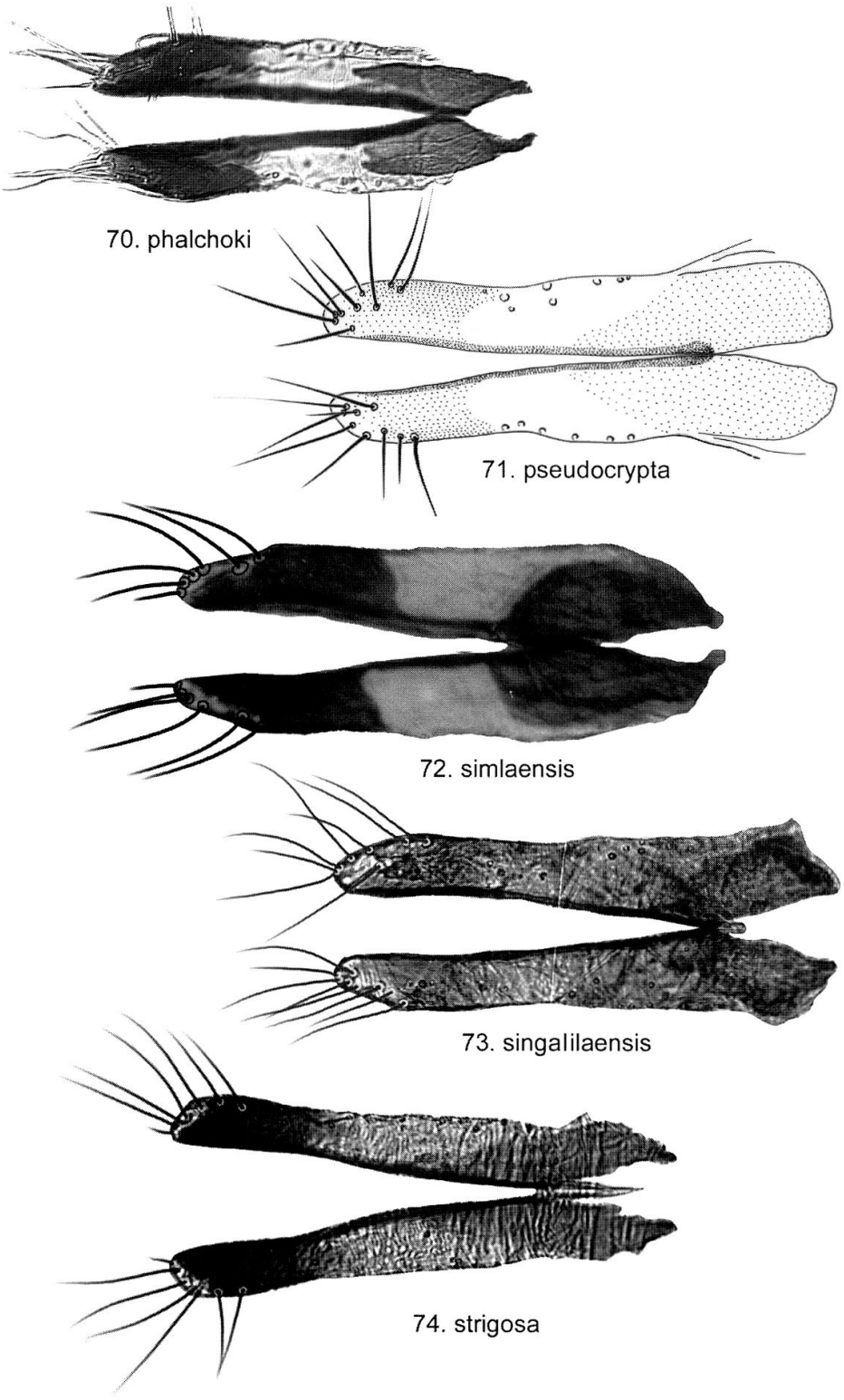
Aphthona medvedevi Konstantinov and Lingafelter, 2002: 121 (new name for *Aphthtona ovatipennis* Medvedev).

Aphthona ovatipennis Medvedev (*nec* Jacoby 1900), 1992: 24 (type locality: Gunsa, Taplejung district, Nepal. Holotype (SMNS) examined). Medvedev & Sprecher-Uebersax 1999: 322 (catalog, Nepal).

Distribution. Nepal (Medvedev 1992).

Host plants. Unknown.

Type material examined. Aphthona ovatipennis: Holotype ♀. Labels: 1) Nepal Ex. Jochen Martens; 283 Taplejung Distr. Gunsa, 3100–3400 m, Abies /Larax/ Rhod, 11.Sept. 1983, Martens & Daams; 2) Nepal-Expedition Jochen Martens; 3) Holotypus *Aphthona ovatipennis* m. L. Medvedev det. 1990 (SMNS); Paratypes 2 ♀♀. Nepal, 285 Taplejung Distr. Gunsa, 2600–2400 m, Mischwald/ nass, 12. IX.1983 Martens & Daams (1 SMNS), (1 IEMR).



Figs 70-74. Vaginal palpi: 70. *A. phalchoki*; 71. *A. pseudocrypta*; 72. *A. simlaensis*; 73. *A. singalilaensis*; 74. *A. strigosa*.

Aphthona mimica Medvedev status restored
(Figs 17, 117)

Aphthona mimica Medvedev, 1997b: 260 (type locality: Nepal, Koshi. Holotype (IEMR) examined). Medvedev & Sprecher-Uebersax 1999: 322 (catalog, Nepal). Konstantinov & Lingafelter 2002: 45 (synonymized).

Distribution. Nepal (Medvedev 1997b).

Host plants. Unknown.

Description. Length 1.80 mm. Width 0.94 mm.

Dorsal side of body and metafemur bright metallic green. Metatibia brown. Pro- and meso-tibia and apical antennomeres dark yellow. Basal antennomeres, pro- and mesofemora yellow.

Head moderately convex in lateral view. Vertex shiny, without wrinkles and punctures. Frontal ridge narrow, sharp, moderately long, convex, sides nearly parallel. Antennal calli longitudinal, convex, nearly trapezoidal, widely connected, forming nearly straight angle to each other. All sulci well developed. Eyes of usual size. Antennomere 2 nearly cylindrical, wider and as short as antennomeres 3 and 4 separately.

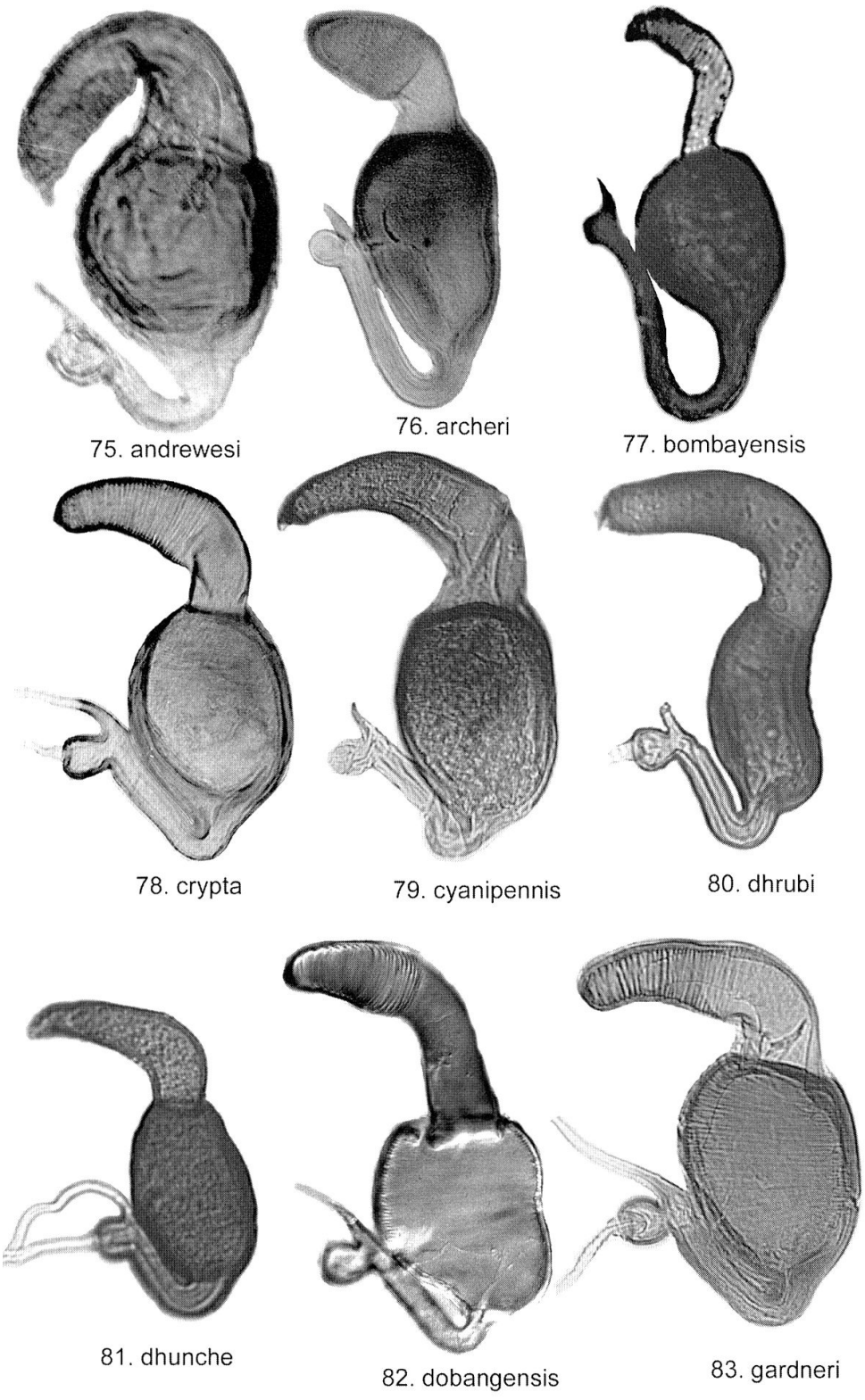
Pronotum shiny, flat in lateral view. Base slightly wider than apex. Lateral margin moderately widely explanate. Anterolateral callosity moderately short, with obtuse denticle, concave. Posterolateral setiferous pore well developed. Surface sparsely covered with well-defined punctures. Basal part of pronotum with moderately narrow, V-shaped, shallow transverse impression.

Scutellum nearly triangular, as long as wide, broadely rounded on top. Elytron with well-developed humeral callus. Lateral side of elytron slightly convex at basal two thirds. Maximum width at apical two thirds. Apical margin straight and narrowly rounded at apex. Punctures mostly 1.5 times as large as interspaces.

Metatibia normally long and straight, gradually widening apically. Flat dorsally at apical fourth. Apex of first metatarsomere of male wider than its base in dorsal view, narrower than third metatarsomere.

Median lobe nearly parralel sided, slightly widening apically, nearly straight in lateral view. Ventrally evenly convex, withous impressions and ridges, covered with longitudinal wrinkles apically (Fig. 17).

Comments. In absence of the holotype Konstantinov & Lingafelter (2002) synonymized *Aphthona mimica* with *A. andrewesi* based on a grossly inadequate original description and illustrations (Medvedev 1997b). The examination of the holotype revealed that *A. mimica* can be separated from *A. andrewesi* based on the bright bluish green colour of pronotum and elytra and having the aedeagus with poorly developed denticle at apex and numerous longitudinal wrinkles on the ventral side. *Aphthona mimica* is similar to *A. indochinensis* in coloration, but can be easily separated from it based on the ventrally flat aedeagus, without median ridge in middle, and nearly straight apex in lateral view with longitudinal wrinkles (Figs 12, 17). Among other bright green Oriental *Aphthona*, *A. mimica* is very similar to *A. bengalica* Konstantinov and Lingafelter, 2002, particularly based on the similar shape of the median lobe, the apex of which is also covered with longitudinal wrinkles lacking any other sculpture, common in many Oriental *Aphthona*. *A. mimica* can be separated from *A. bengalica* based on deeper and larger punctation on pronotum, deeper and better-developed basal impression on pronotum, and



Figs 75–83. Spermatheca: 75. *Aphthona andrewesi*; 76. *A. archeri*; 77. *A. bombayensis*; 78. *A. crypta*; 79. *A. cyanipennis*; 80. *A. dhrubi*; 81. *A. dhunche*; 82. *A. dobangensis*; 83. *A. gardneri*.

aedeagus straighter in lateral view than that of *A. bengalica*.

Type material examined. Aphthona mimica: Holotype ♂. Labels: 1) Nepal, Koshi, 3 km E Dharan, 24. VII 1995, O. Gorbunov leg. 2) Holotype, *Aphthona mimica* m L. Medvedev det. 1996 (IEMR).

Aphthona mude n. sp.

(Figs 18, 42, 67, 91, 117)

Description. Length 1.73–1.89 mm. Width 0.82–0.86 mm.

Elytron dark with metallic blue luster, rest of body yellow.

Head moderately convex in lateral view. Vertex shiny, covered with very sparse punctures. Frontal ridge moderately wide, obtuse, short, convex, sides parallel. Antennal calli transverse, convex, nearly trapezoidal, narrowly connected, forming obtuse angle to each other. All sulci well developed. Anterofrontal ridge low laterally, relatively high medially. Head in front of antennal socket depressed, not swollen laterally of frontal ridge. Supracallinal sulcus slightly curved. Facial part moderately long. Antennomere 2 shorter than antennomeres 3 and 4 separately.

Pronotum shiny, flat in lateral view. Base slightly wider than apex. Lateral margin moderately widely explanate. Anterolateral callosity moderately long, with obtuse denticle, straight. Posterolateral setiferous pore well-developed. Surface sparsely covered with ill-defined punctures and wrinkles. Basal part of pronotum with oval transverse impression, without narrow transverse stripe in middle.

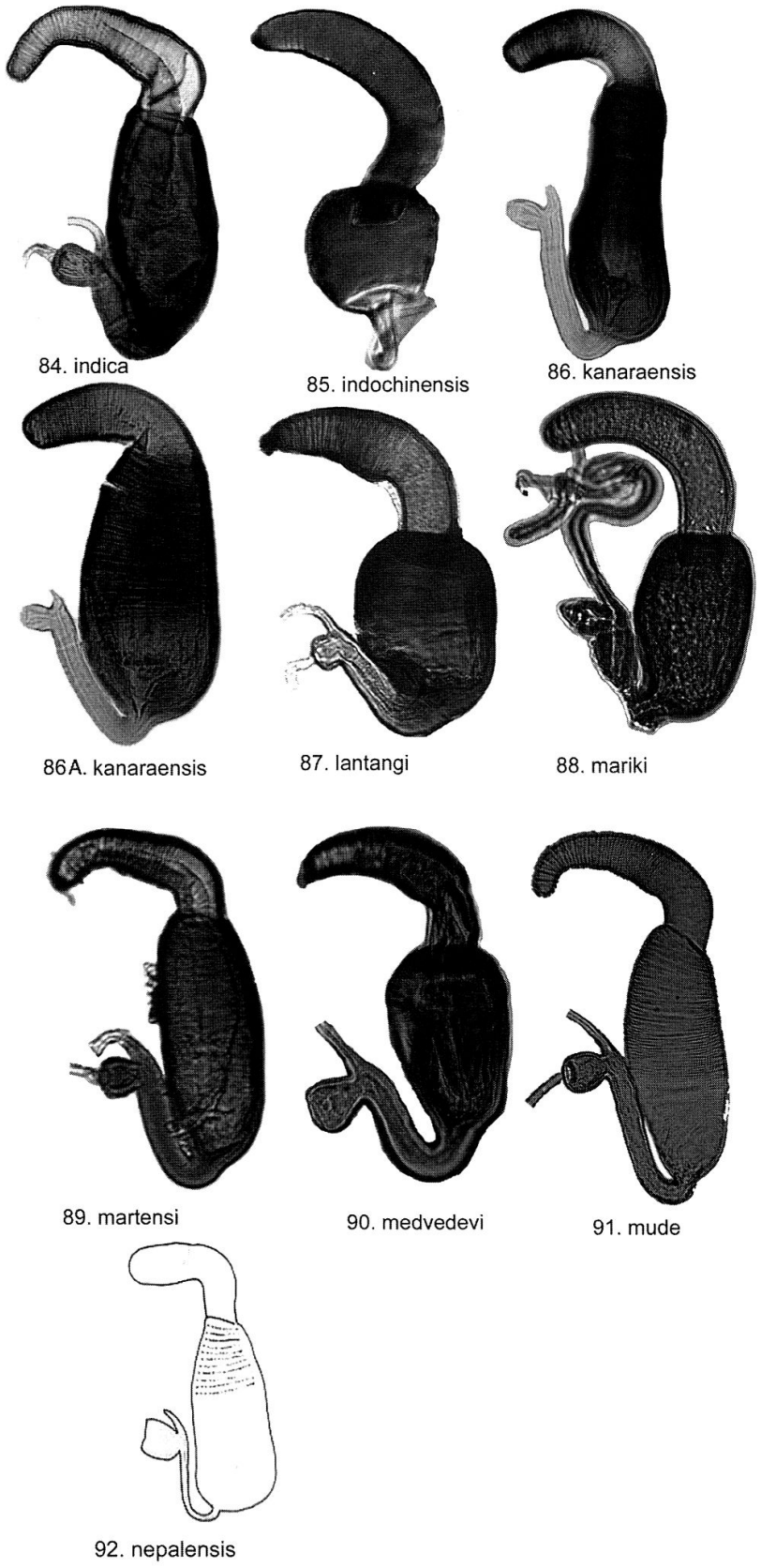
Scutellum nearly triangular, as long as wide, obtusely angulate on top. Elytron with poorly developed humeral callus. Lateral side of elytron slightly convex at basal two thirds. Maximum width nearly at middle. Apical margin straight and narrowly rounded at apex. Punctures forming irregular striae on disc, mostly 1.5 times as large as interspaces.

Metatibia short and slightly curved, gradually widening apically. Flat dorsally at apical third. Apex of first metatarsomere of male much wider than its base in dorsal view, and wider than third metatarsomere.

Spermatheca with receptacle longer than pump. Internal and external sides of receptacle slightly convex. Receptacle much longer than wide, with maximum width nearly at middle, at pump as wide as near duct. Pump moderately wide at vertical part and slightly wider at base of horizontal part, long, curved, without denticle at apex. Horizontal part of pump much longer than vertical. Duct moderately long, making small loop away from receptacle, at base pointed in direction of receptacle (Fig. 91). Tignum curved sinusoidally, abruptly widening anteriorly. Posterior sclerotization forming two wide and long arms (Fig. 42). Vaginal palpus with membranous part at middle nearly as long as sclerotized part posteriorly and anteriorly. Posterior sclerotization as wide and as long as anterior. Apical sclerotization shorter laterally than medially, straight. Apical membrane oblique. Lateral margin not parallel to medial, not forming angle near apex. Medial margin slightly curved (Fig. 67).

Median lobe robust, with narrow long ridge ventrally, without indentation at apex (Fig. 18).

Comments. *Aphthona mude* belongs to *laeta* group of species. It can be easily separated from *A. himalayensis* and *A. martensi*, two other Nepali species in this group, by the following characters: antebasal impression of pronotum transverse



Figs 84-92. Spermatheca: 84. *A. indica*; 85. *A. indochinensis*; 86. *A. kanaraensis*; 86A. *A. kanaraensis*; 87. *A. lantangi*; 88. *A. mariki*; 89. *A. martensi*; 90. *A. medvedevi*; 91. *A. mude*; 92. *A. nepalensis*.

without narrow stripe in middle; elytral calli poorly developed, elytron unicolorous with metallic blue luster; median lobe of aedeagus without indentation at apex.

Etymology. This species is named after the type locality. The species name is a noun in apposition.

Type material. Holotype ♂. Labels: 1) Nepal: Jiri-Kathmandu Rd. pass Mude 2600 m 13.V.2000 27°42.07N 85°56.24E, sweeping on the top, low trees, Konstantinov, Lingafelter, Volkovitsh; 2) Holotype *Aphthona mude* des. A. Konstantinov and E. Sprecher-Uebersax (USNM). Paratypes with the same label as holotype (1 NHMB).

Aphthona nepalensis Medvedev
(Figs 43, 68, 92, 117)

Aphthona nepalensis Medvedev, 1984: 52 (type locality: Dhumpus, Kaski District, Nepal. Holotype (SMFD) examined. Paratype (IEMR) examined. Medvedev & Sprecher-Uebersax 1999: 323 (list, Nepal), Konstantinov & Lingafelter 2002: 128 (key, redescription).

Distribution. Nepal (Medvedev 1984).

Host plants. Unknown.

Comments. A single paratype which was available for study by Konstantinov & Lingafelter (2002) was lacking the end of the abdomen and the female genitalia. Examination of the holotype allowed illustration of the female genitalia of this species for the first time.

Type material examined. Holotype ♀. Labels: 1) 179 Kaski Dist., oberhalb Dhumpus, Laubwald, 2100 m, Martens & Ausobsky, 8/10 Mai 80; 2) Holotype; 3) *Aphthona nepalensis* m L. N. Medvedev det. 1983; 4) Senckenberg-Museum Frankfurt/Main; 5) SMF C 15355 (SMFD). Paratype ♀. Labels: 1) 179a Kaski Dist., oberhalb Dhumpus, Berlese, 2100 m, Martens & Ausobsky; 2) Paratype; 3) *Aphthona nepalensis* m L. N. Medvedev det. 1983 (IEMR).

Aphthona nigrilabris Duvivier
(Figs 19, 44, 69, 93, 117)

Aphthona nigrilabris Duvivier, 1892: 426 (type locality: Konbir, Bengal, India. Lectotype (ISNB) designated by Konstantinov & Lingafelte, 2002). Chen 1934b: 370 (key, faunistics). Maulik 1926: 367, 370 (key, redescription, taxonomic notes, destribution, deposition of type specimens). Heikertinger & Csiki 1939: 97 (world catalog). Heikertinger 1944: 111/197, 113/199, 117/203, (key catalogue, taxonomic notes), 1950:144/130 (key). Gressitt & Kimoto 1963: 866 (key). Scherer 1969: 71, 76 (key, distribution, synonymic bibliography). Takizawa 1983: 75 (list, India), 1988: 9 (list, Nepal). Medvedev & Sprecher-Uebersax 1999: 323 (list, Nepal). Konstantinov & Lingafelter 2002: 128 (figures of male and female genitalia, redescription, key)

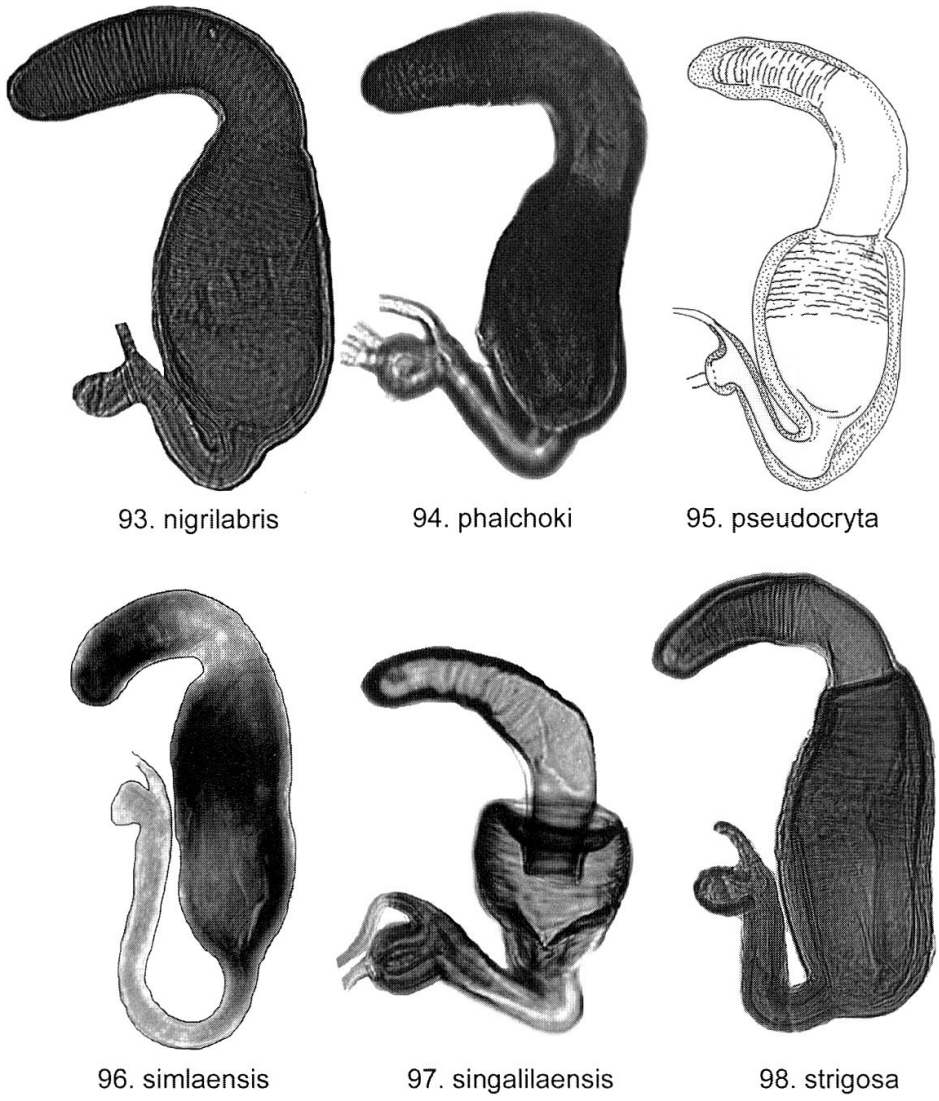
Longitarsus recticollis Jacoby, 1898: 188 (type locality: Calcutta, India. Depository of type specimens is unknown). Heikertinger & Csiki 1939: 97 (synonymy).

Aphthona rubida Chen, 1936: 83 (type locality: Bandarawella, Sri Lanka. Deposition of the type specimen is unknown). Konstantinov & Lingafelter 2002: 128 (synonymy)

Distribution. India, Bangladesh (Duvivier 1892; Jacoby 1898), Nepal (Medvedev & Sprecher-Uebersax 1999), Sri Lanka, Thailand (Konstantinov & Lingafelter 2002).

Host plants. Unknown.

Type material examined. Lectotype ♂. Labels: 1) Coll. R.I.Sc.N.B. Inde Konbir P. Cardon; 2) Collect Duvivier; 3) Type; 4) det Duvivier *Aphthona nigrilabris*



Figs 93-98. Spermatheca: 93. *A. nigrilabris*: 94. *A. phalchoki*; 95. *A. pseudocrypta*; 96. *A. simlaensis*; 97. *A. singalilaensis*; 98. *A. strigosa*.

n.sp.; 5) Lectotype *Aphthona nigrilabris* Duvivier des. A. Konstantinov (ISNB). Paralectotypes 2 ♀♀, with same labels as lectotype (ISNB).

Material examined. Rapti Tai, Monahari Khola, 350 m, 11.V.1967, leg. Dierl, Forster, Schacht (ZSMC); 2 km E. Mugling, 27°48.36N 84°53.68E, 20.IV.2000, leg. Konstantinov, Lingafelter, Volkovitsh (5 USNM); Terrai, W. Narayangadh, small valley Rapti river 26.IV. 2000, 27°42.31N 84°21.11E, leg. Konstantinov, Lingafelter, Volkovitsh (2 USNM); Terrai, env. Chitawan Nat. Park, river beds 25.IV.2000 27°28.79N 84°52.54E, leg. Konstantinov, Lingafelter, Volkovitsh

(USNM); Narayani env. of Narayandagh, pasture 24.IV.2000, leg. Konstantinov, Lingafelter, Volkovitsh (2 USNM); Kathmandu, 1326 m, VI.1961, leg. G. Scherer, 2 ex. (FCMB).

Aphthona phalchoki n. sp.

(Figs 20, 45, 70, 94, 107, 110, 117)

Description. Length 2.10–2.23 mm. Width 1.15–1.24 mm.

Dorsal side of body metallic blue, in most specimens pronotum with greenish luster. Pro- and mesofemora and tibiae infuscate. Second and third antennomeres lighter than first and fourth.

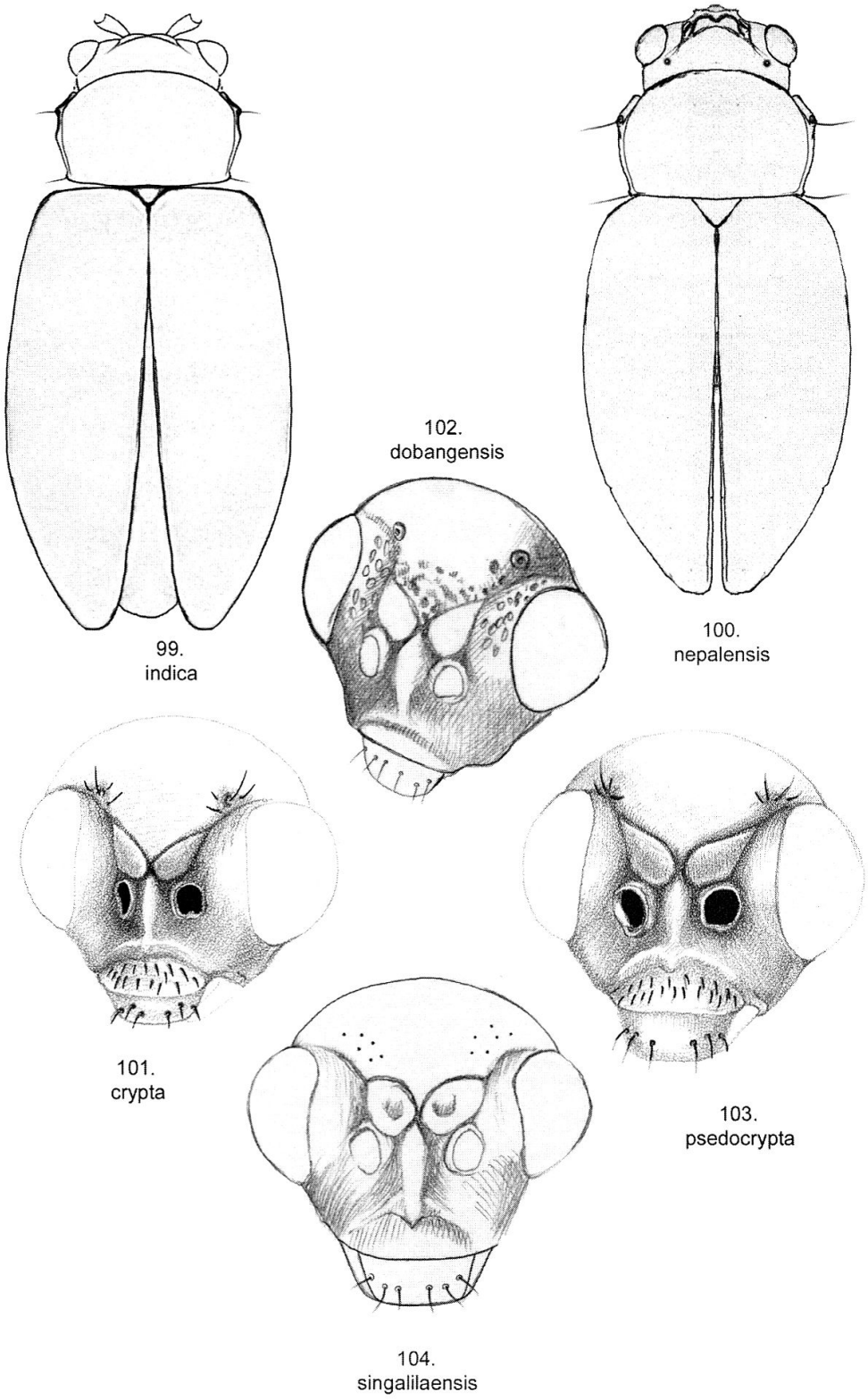
Head moderately convex in lateral view. Vertex above antennal calli with strong sculpture, covered with irregular punctures and wrinkles. Frontal ridge narrow, relatively long, convex, sides converging anteriorly. Antennal calli transverse, strongly convex, nearly trapezoidal, narrowly connected, forming obtuse angle to each other. Antennal callus without impression in middle. All sulci well developed. Supracallinal sulcus curved. Anterofrontal ridge low laterally and high medially. Head in front of antennal socket depressed, not swollen laterally of frontal ridge. Orbit covered with coarse wrinkles. Anterofrontal ridge with poorly developed denticle. Facial part normally long. Antennomere 2 bead shaped, shorter than antennomeres 3 and 4 separately.

Pronotum shiny, flat in lateral view. Base nearly as wide as apex. Lateral margin narrowly explanate. Base without antebasal transverse impression. Disc of pronotum without transverse impression in front of middle. Anterolateral callosity of pronotum short, shorter than $\frac{1}{3}$ of length of lateral margin (not counting length of callosity). Posterolateral setiferous pore poorly developed. Surface sparsely covered with tiny well-defined punctures much smaller than elytral in size (Fig. 107).

Scutellum nearly triangular, as long as wide, broadly rounded on top. Elytra more or less flat, with humeral calli, much wider at base than pronotum. Lateral side of elytron nearly straight at basal two thirds. Maximum width at apical one third. Apical margin straight and narrowly rounded at apex. Punctures much larger than ones on pronotum. Wings well developed.

Metatibia including lateral side of apical part straight. Flat dorsally at apical third. External side of dorsal surface of metatibia with well-developed, acute denticles (Fig. 110). First metatarsomere of male at base nearly as narrow as at apex. Apex of first metatarsomere of male narrower than third metatarsomere.

Spermatheca with receptacle longer than pump. Internal side of receptacle convex, external concave. Receptacle slightly longer than wide, with maximum width in middle, at pump as narrow as near duct. Pump with vertical and horizontal parts poorly delineated, moderately wide at vertical part and not wider at base of horizontal part. Horizontal part long, longer than vertical, nearly straight, without denticle at apex. Duct moderately short, making no loop away from receptacle, at base pointed in direction of receptacle (Fig. 94). Tignum slightly curved, abruptly widening anteriorly. Posterior sclerotization forming two relatively narrow, widely separated arms; posterior sclerotization of arms well developed (Fig. 45). Vaginal palpus with membranous part in middle nearly as long as sclerotized part posteriorly and anteriorly. Posterior sclerotization nearly as wide as anterior. Apical sclerotization shorter laterally than medially. Apical membrane oblique. Lateral margin



Figs 99–104. Dorsal habitus: 99. *Aphthona indica*; 100. *A. nepalensis*. Head: 101. *Aphthona crypta*; 102. *A. dobangensis*; 103. *A. pseudocrypta*; 104. *A. singalilaensis*.

nearly parallel to medial, forming oblique angle near apex (Fig. 70).

Median lobe of aedeagus in middle almost as wide as apically and basally, without long and shallow longitudinal impression. Apex of median lobe of aedeagus with high ridge (lateral view), lacking denticle (Fig. 20)

Comments. Among Nepali species *A. phalchoki* is similar to *A. schereri* and *A. simlaensis*. It can be easily differentiated by the apex of the median lobe of aedeagus lacking a denticle, with a high ridge (better visible in lateral view) and the external side of the dorsal surface of the metatibia with high and acute denticles.

Etymology. This species is named after the type locality. The species name is a noun in apposition.

Type material. Holotype ♂. Labels: 1) Nepal: env. of Kathmandu, Phalchoki mount 2730–2300 m 27°34'65"N 85°24'04"E sweeping in forest 14.V.2000 Konstantinov, Lingafelter, Volkovitsh; 2) Holotype *Aphthona phalchoki* n. sp. des. Konstantinov and Sprecher-Uebersax (USNM). Paratypes are with the same labels as holotype (4 USNM, 1 NHMB).

Aphthona pseudocrypta Konstantinov

(Figs 21, 46, 71, 95, 103, 118)

Aphthona pseudocrypta Konstantinov, 1998a: 144 (type locality: Central Nepal: Chumrung. Holotype and paratypes (TCOJ), paratypes (USNM) examined).

Distribution. Nepal (Konstantinov 1998a).

Host plants. Unknown.

Type material examined. Holotype ♂. Labels: 1) Central Nepal, Chumrung (2000 m), Kuldi (2800 m), nr. Ghandrung 18.10.1981. M. Sakai; 2) Holotype *Aphthona pseudocrypta* des. A. Konstantinov, 1997 (TCOJ). Paratype ♀, with same labels as holotype (TCOJ). Paratype ♂. Labels: 1) Central Nepal, Kuldi (3000 m), Chumrung (2000 m), Ghanderung 21.10.1981. M. Sakai (USNM).

Aphthona schereri Konstantinov

(Figs 22, 108, 118)

Aphthona schereri Konstantinov, 1998a: 145 (type locality: West Nepal: Bhulbhule. Holotype (TCOJ) examined).

Distribution. Western Nepal (Konstantinov 1998a).

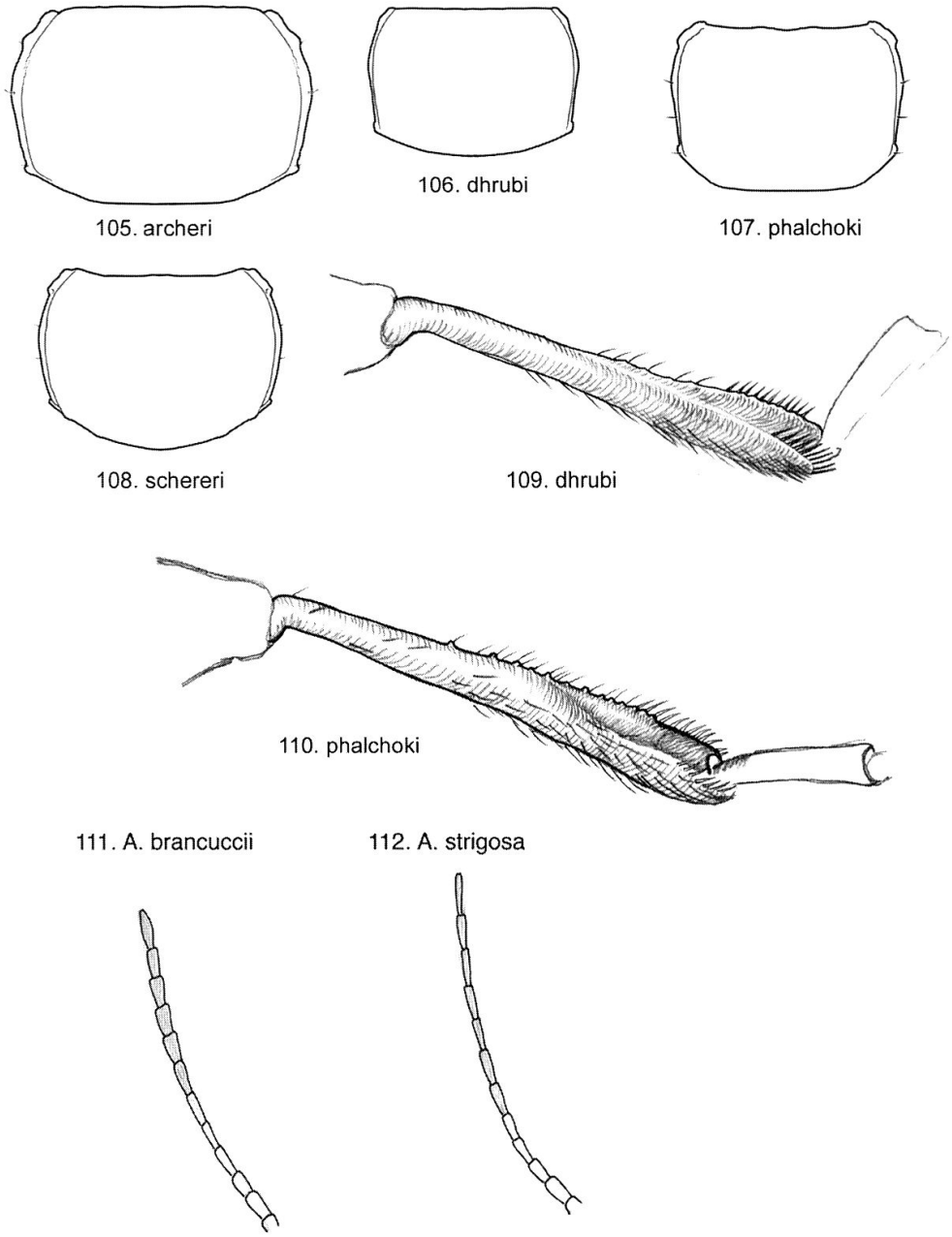
Host plants. Unknown.

Type material examined. Holotype, ♂. Labels: 1) West Nepal, Bhulbhule (3270 m), on the way from Jumla to Rara Lake, 23.09.1981, leg. M. Sakai. (TCOJ); 2) Holotype *Aphthona schereri* des. A. Konstantinov, 1997. Paratype, ♂. Labels: 1) West Nepal, Pina (3100 m), on the way from Jumla to Rara Lake, 24.09.1981, leg. M. Sakai. (TCOJ). Second label as in holotype.

Aphthona simlaensis Konstantinov and Lingafelter

(Figs 23, 47, 72, 96, 118)

Aphthona simlaensis Konstantinov and Lingafelter, 2002: 170 (type locality: India, Simla. Holotype (USNM) examined).

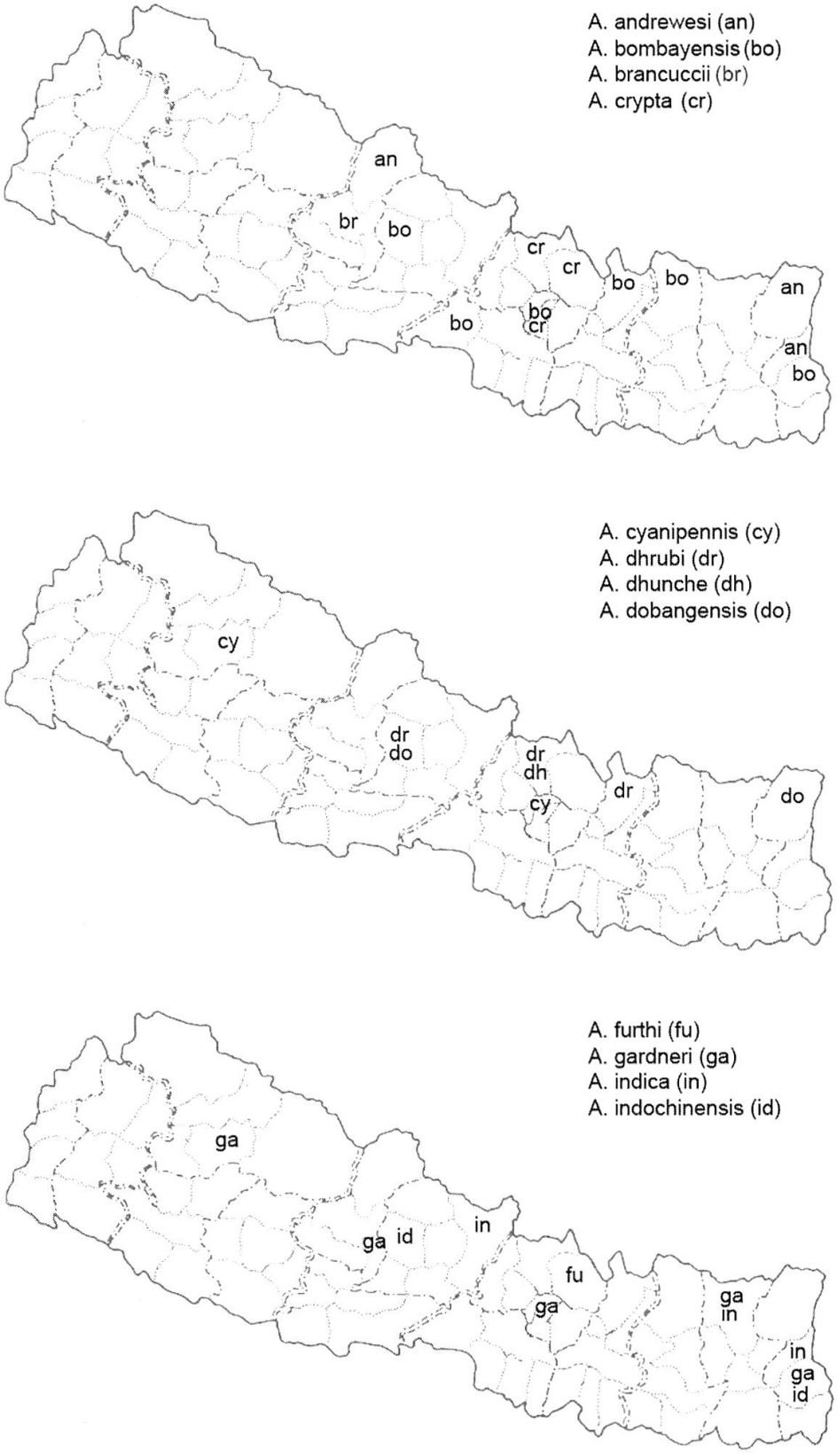


Figs 105–112. Pronotum: 105. *Aphthona archeri*; 106. *A. dhrubi*; 107. *A. phalchoki*; 108. *A. schereri*. Metatibia: 109. *Aphthona dhrubi*; 110. *A. phalchoki*. Antenna: 111. *A. brancuccii*; 112. *A. strigosa*.

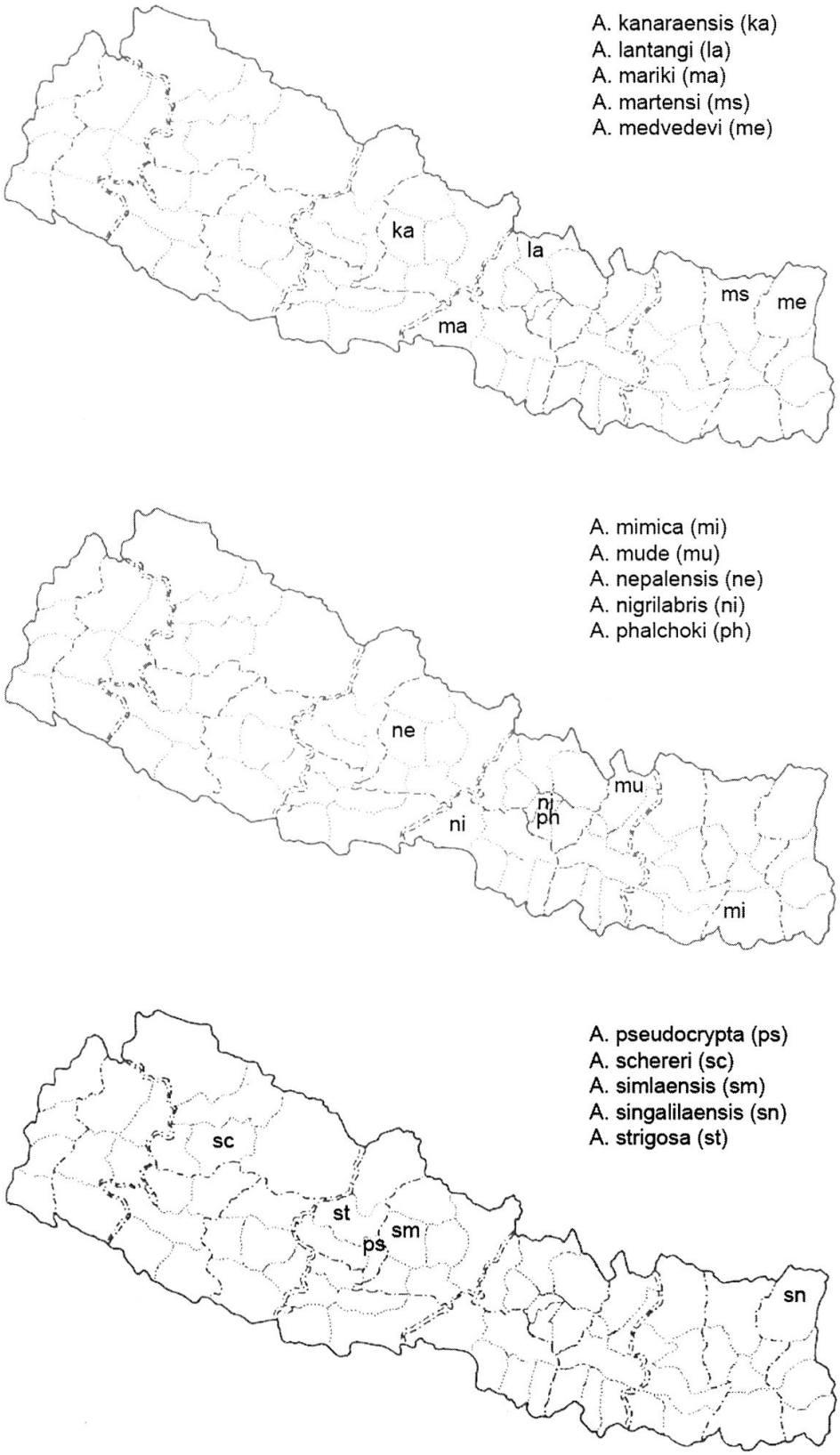
Distribution. India, Nepal.

Host plants. Unknown.

Type material examined. *Aphthona simlaensis*: Holotype ♂. Labels: 1) N. India, Simla, 7000', Apr. 1958, leg. J. Maldonado; 2) Holotype *Aphthona simlaensis* des. A. Konstantinov & S. Lingafelter, 2000 (USNM). Paratypes 1 ♂, 5 ♀♀: India: H. P., Masobra nr. Simla, 2100 m, 26–28.Oct.1978 JAP-IND CO TR (TCOJ). Paratypes 2 ♂♂, 2 ♀♀. Central Nepal, Ulleri (2000 m), nr. Ghorapani [= Ghorahi?], 14.X.1981, M. Sakai (TCOJ).



Figs 113–115. Maps of distribution in Nepal: 113. *Aphthona andrewesi*, *A. bombayensis*, *A. brancuccii*, *A. crypta*; 114. *A. cyanipennis, A. dhrubi, A. dhunche*, *A. dobangensis*; 115. *A. furthi*, *A. gardneri*, *A. indica*, *A. indochinensis*.



Figs 116–118. Maps of distribution in Nepal: 116. *A. kanaraensis*, *A. lantangi*, *A. mariki*, *A. martensi*, *A. medvedevi*; 117. *A. mimica*, *A. mude*, *A. nepalensis*, *A. nigrilabris*, *A. phalchoki*; 118. *A. pseudocrypta*, *A. schereri*, *A. simlaensis*, *A. singalilaensis*, *A. strigosa*.

Aphthona singalilaensis Konstantinov and Lingafelter
(Figs 48, 73, 97, 104, 118)

Aphthona singalilaensis Konstantinov and Lingafelter, 2002: 171 (type locality: Nepal/India. Holotype (TCOJ) examined).

Distribution. Nepal/India.

Host plants. Unknown.

Type material examined. Holotype ♀. Labels: 1) Singarila [= Singalila] Ridge, Jaubari (2800 m), Gairibas (2550 m), frontier of E. Nepal and W. Bengal, India, 1.10.1983, leg. M. Sakai; 2) Holotype *Aphthona singalilaensis* des. A. Konstantinov & S. Lingafelter, 2000 (TCOJ).

Aphthona strigosa Baly
(Figs 24, 28, 49, 53, 74, 98, 111, 112, 113, 118)

Aphthona strigosa Baly, 1874: 197 (type locality: Nagasaki, Japan. Lectotype (BMNH) designated by Konstantinov (1998b), examined). Chûjô 1937: 121 (key, distribution). Heikertinger & Csiki 1939: 90, 98 (world catalog). Heikertinger 1944: 75/161, 106/192, 108/194 (key, taxonomy, catalog). Ohno 1960: 67 (list, Japan), 1962: 62, 74 (key, redescription, figures of ♂ genitalia, list of references in Japan). Gressitt & Kimoto 1963: 865, 870 (key, synonymy, host plants, distribution, China). Kimoto 1964: 374 (list of type specimens), 1970: 310 (synonymy, distribution in Taiwan). (distribution in Japan). Kimoto & Gressitt 1966: 559 (distribution). Kimoto & Hiura 1971: 23. Kimoto & Takizawa 1994: 255, 336 (key, distribution, Japan). Scherer 1969: 69, 72 (key, distribution, synonymical bibliography). Konstantinov 1998b (key, figures of ♂ and ♀ genitalia, redescription).

Aphthona wallacei Baly, 1877: 178 (type locality: Flores, Indonesia. Lectotype (BMNH) designated by Konstantinov (1998b), examined). Chen 1933: 253 (synonymy); 1934a: 184 (key, distribution). Chûjô 1937: 121 (key, distribution). Heikertinger 1944: 106/192 (catalog); 1950: 142/128, note (key, synonymized with *strigosa* Baly).

Allomorpha glabrata Jacoby (*nec* Jacoby 1894), 1896b: 457 (type locality: Sumatra. Lectotype (BMNH) examined). Chen 1933: 253 (synonymy). Heikertinger & Csiki 1939: 98 (synonymy).

Aphthona brancuccii Medvedev, 1997a: 15 (type locality Nepal, Dhawalagiri. Holotype (MCMR) examined. Medvedev & Sprecher-Uebersax 1999: 322 (catalog, Nepal). Konstantinov & Lingafelter 2002: 179 (synonymy)

Distribution. Japan: Honshu, Shikoku, Kyushu; China, Taiwan, Flores (Kimoto & Takizawa 1994); Nepal (Medvedev 1997a). Malaysia, Philippines, Thailand, Vietnam, India.

Host plants. *Mallotus japonicus* (Gressitt & Kimoto 1963).

Comments. The type material of *Aphthona brancuccii* was not available for Konstantinov & Lingafelter (2002) so they synonymized it with *A. strigosa* based on the original description. For this study we were able to obtain the holotype (the only known specimen), which is a female in poor condition, lacking spermatheca. The holotype has a dark blue pronotum and elytra, more punctured microsculpture of the surface and more robust antennomeres 5 to 11. Also its vaginal palpi are slightly shorter with more oblique apices. *Aphthona strigosa* and *A. brancuccii* share a unique character: heavily rugose surface of the pronotum and elytra. Also their tigni are identical. Taking into consideration the substantial intraspecific variability of *A. strigosa* in body color and punctation, we confirm an earlier proposed synonymy.

Type material examined.

Aphthona strigosa: Lectotype, ♂. Labels: 1) Japan 77. 32; 2) *Aphthona stri-*

gosa Baly Japan; 3) Lectotype *Aphthona strigosa* Baly des. A. Konstantinov, 1995 (BMNH). Paralectotype 6 specimens. Labels: 1) Type H.T.; 2) Japan, G. Lewis. 1910-320; 3) *Aphthona strigosa* Baly; 4) Paralectotype *Aphthona strigosa* Baly des. A. Konstantinov, 1995 (BMNH). Paralectotype ♀. Labels: 1) Baly coll.; 2) Paralectotype *Aphthona strigosa* Baly des. A. Konstantinov, 1995 (BMNH).

Aphthona wallacei: Lectotype ♂. Labels: 1) Type H.T.; 2) Flores; 3) Baly Coll.; 4) *Aphthona wallacei* Baly, Flores; 5) Lectotype *Aphthona wallacei* Baly des. A. Konstantinov, 1995. (BMNH). Paralectotype ♀. Labels: 1) Siam; 2) Baly coll. 3) Paralectotype *Aphthona wallacei* Baly des. A. Konstantinov, 1995. (BMNH).

Aphthona brancuccii: Holotype ♀. Labels: 1) Kali-G. Khola Tatopani, 1100–1400 m, 14–17. VI. 1986; 2) W Nepal, Dhawalagiri Myagdi D.; 3) Holotypus *Aphthona brancuccii* m. L. Medevedev, 1996 (MCMR).

DISCUSSION

Aphthona is one of the largest genera of flea beetles with more than 300 species distributed almost evenly between Palearctic, Oriental and African Regions. *Aphthona* is lacking from the New World and many New World species originally described in *Aphthona* are being tranferred to the appropriate genera. Among them is *Glyptina* LeConte, the closest genus also occuring on Euphorbiaceae as many Old World species do. African *Aphthona* remain mostly unknown. However, Palearctic and Oriental faunas were revised by Konstantinov (1998b) and Konstantinov & Lingafelter (2002). Despite these studies, new species are still being discovered in Nepal. One reason for that is that Nepal has an extremely rich geographic diversity from tropical, low elevation forests to high altitude alpine zones. The country is also divided into isolated sections by rivers passing and cutting trough the high mountain ridges. This favours endemism and the development of new species.

In Nepal we find, therefore, many endemic and local species, some of them only at very high altitudes, e.g. *A. schereri* or *A. medvedevi*. Specialists of high altitudes are also *A. cyanipennis* and *A. dobangensis*, both known also from neighbouring parts of India and found even above 3000 m. Species known only from low regions and found below 1000 m are mainly *A. bombayensis* and *A. nigrilabris*. Interestingly, low altitude species have the largest ranges covering most of southern Asia. While several species occur only in one region or were found in a single locality, others are common in the whole country. *A. strigosa* is a wide-spread species known also from Japan, China, Malaysia, Philippines, Thailand, Vietnam and India. *Aphthona indochinensis* and *A. kanaraensis* occur in many regions of Asia. Some species are found in western, central and eastern parts of Nepal: *A. gardneri* (known also from India), *A. dhrubi* (known only from Nepal) and *A. bombayensis* (known also from India and Sri Lanka). *Aphthona schereri* and *A. pseudocrypta* (both known only from Nepal) were found only in West Nepal and *A. medvedevi*, *A. martensi* and *A. furthi* (all known only from Nepal) and *A. singalilaensis* (known also from India) were found only in East Nepal.

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