Koleopterologische Rundschau

135-218

Wien, Juli 2006

Revision of the genus *Algon* **SHARP** (Coleoptera: Staphylinidae: Staphylininae)

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Abstract

The genus Algon SHARP, 1874 (Coleoptera: Staphylinidae) is revised. Currently, the genus comprises 58 Asian species and two doubtful African species. Thirty-nine new species are described: Algon atrocaeruleus (India), A. atronitidus (Vietnam), A. aureoviridis (India), A. biru (E-Malaysia), A. bramlettorum (Laos, Thailand, India), A. ceylonensis (Sri Lanka), A. chinensis (China), A. crockerensis (E-Malaysia), A. dentiger (Nepal), A. emeishanus (China), A. forceps (Nepal), A. fredricki (E-Malaysia), A. fukienensis (China), A. gemmatus (India, Nepal), A. himalayicus (Nepal), A. hollowayae (W-Malaysia), A. hubeiensis (China), A. impexus (E-Malaysia), A. jaechi (Indonesia), A. jizushanus (China), A. lanceolatus (E-Malaysia), A. macrops (Thailand), A. mulu (E-Malaysia), A. nadjae (Nepal), A. nomurai (Vietnam), A. pseudoculatus (Thailand), A. pseudonepalicus (Nepal), A. robillardae (Taiwan), A. rugulipennis (China), A. semiviolaceus (Indonesia), A. similis (Nepal), A. sinoculatus (China), A. smetanai (E-Malaysia), A. sphaericollis (Russia, Korea, China), A. theresae (Thailand), A. tibetanus (China), A. tigrimontis (India), A. tristis (China), A. tronqueti (China). Lectotypes are designated for A. psittacus FAUVEL, 1895 and A. semiaureus FAUVEL, 1895. One new synonymy is proposed: A. oculatus CAMERON, 1932 (= A. deuvi (COIFFAIT, 1984) syn.n.). The habitus of most species and the aedeagi of all species where males are known, as well as body details of selected species are illustrated. A key to species groups and to species is provided.

Key words: Coleoptera, Staphylinidae, Staphylininae, Staphylinini, Xanthopygina, *Algon*, new species, new synonym, taxonomy, systematics, zoogeography.

Introduction

The genus *Algon* was described by SHARP (1874) based on a single new species (*A. grandicollis*) from Japan and was placed by him in the tribe Quediini. This arrangement was accepted by all subsequent authors until SMETANA (1977b: 180) removed *Algon* (and *Rientis* SHARP) from Quediina and placed it in the subtribe Xanthopygi (Xanthopygina in the present sense) of the tribe Staphylinini, also stating that "*The higher classification of the subfamily Staphylininae certainly needs modern revisional work on a world wide basis, which undoubtedly will bring many changes in the assignment of genera to the respective tribes and/or subtribes*". It is even doubtful if the Xanthopygina are represented in the Old World and since the subtribe Anisolinina was introduced by HAYASHI (1993), most Old World genera of the "Xanthopygi" have been moved to either Anisolinina or Staphylinina. Still, the genera *Algon* and *Rientis* pose some problems as to which subtribe they should be assigned (see below "Systematic position").

Acknowledgement and abbreviations

CBCB Coll. J. Boháč, České Budějovice

- CDP Coll. M. Dvořak, Prague
- CHaK Coll. Y. Hayashi, Kawanishi City
- CHK Coll. G. Hirthe, Kluess
- CKP Coll. O. Kabakov, St. Petersburg
- CKS Coll. E. Kučera, Sobeslav

CKT	Coll. T. Kishimoto, Tokyo
CNC	Canadian National Collection, Ottawa
CRL	Coll. G. DeRougemont, London
CSB	Coll. M. Schülke, Berlin
CSH	Coll. Y. Shibata, Tokyo
CSO	Coll. A. Smetana, Ottawa
CTL	Coll. M. Tronquet, Llimberga (France)
DIE	Deutsches Entomologisches Institut, Müncheberg (L. Zerche)
FMC	Field Museum of Natural History, Chicago (P. Parillo, A. Newton)
HUB	Museum der Alexander Humboldt Universität, Berlin (M. Uhlig)
ISNB	Institut Royal des Sciences Naturelle, Bruxelles (D. Drugmand)
MHNG	Muséum d'Histoire Naturelle, Genève (I. Löbl)
MHNP	Muséum national d'Histoire naturelle, Paris (N. Berti)
MNG	Museo Civico di Storia Naturale, Genova (R. Poggi)
NHMHU	Natural History Museum, Hannam University, Taejon, South Korea (Y.B. Cho)
NHML	The Natural History Museum, London (M. Brendell, R. Booth)
NMB	Naturhistorisches Museum Basel (M. Brancucci)
NME	Naturkundemuseum Erfurt (M. Hartmann)
NMW	Naturhistorisches Museum Wien
SEC	Snow Entomological Collections, Lawrence, Kansas (R. Brooks, J.S. Ashe)
SMNS	Staatliches Museum für Naturkunde, Stuttgart (W. Schawaller)
SMTD	Staatliches Museum für Tierkunde, Dresden (O. Jäger)
TUA	Tokyo University of Agriculture, Entomological Laboratory (Y. Shibata)

My thanks are due to all persons mentioned above for providing the material used in this revision. In addition, I am grateful to Lee Herman for his comments on the manuscript, and to Aleš Smetana and Alexey Solodovnikov for inspiring discussions on several issues at the subtribe level.

Illustrations

Habitus images (Figs. 1, 2) were made with a Nikon D1X as described in SCHILLHAMMER (2004: 252). The remaining habitus photographs and images of body details have been captured with a Leica DFC 490 attached to a Leica MZ16 stereoscopic microscope using Automontage. Final post-processing was done in Adobe Photoshop CS.

Line drawings of the aedeagi were done with an Olympus BH10 compound microscope with a drawing tube. All plates were assembled with Corel Draw 12.

Characters

When dealing with a genus like *Algon*, the members of which (although being comparatively large and conspicuous) show a general poverty in external distinguishing characters, the use of "classical" characters and terms soon meets limits. The search for useful characters revealed several new, cryptic features that are not easily understood and evaluated. In order to avoid multiple extensive explanations within the descriptions, I decided to explain some of the characters in detail in a separate chapter and to provide names for body parts which have not been used in descriptions before. However, for the most part I follow the terminology proposed by SMETANA & DAVIES (2000).

Microsculpture: Many species of *Algon* have conspicuous microsculpture on the fore body. Originally, I named it "isodiametrical" until at closer study I found out that this microsculpture in many cases only superficially looks isodiametrical. In fact, I ended up with several "types" of this microsculpture which are sometimes difficult to interpret. A prerequisite to do so is very good, scattered lighting (the light is filtered through two layers of diffusion foil) and a high

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magnification of at least 50 times. In the following, I will describe the different "types" to facilitate a correct interpretation. In the descriptions of the species I will refer to these types.

<u>Type I</u>: Very well demarcated polygons, usually of hexagonal shape; lines delimiting polygons finely engraved, not interrupted by small stitch-like micropores, surface of individual polygons rather flat. This type may be found on head, pronotum and elytra.

<u>Type II</u>: Similar to "type I", but lines delimiting polygons interrupted by fine stitch-like micropores in corners of polygons; surface of individual polygons often distinctly convex; micropores often becoming quite large and lines sometimes obsolete so that at certain viewing angles only pores remain visible, looking like dense but exceedingly fine micropunctulation. This type is found only on head and pronotum.

<u>Type IIIa</u>: Lines delimiting polygons elevated in shape of exceedingly fine ridges, surface of individual polygons usually flat and not always isodiametrical – the polygons may become long and transverse and if becoming very fine can hardly be distinguished from the microstriae on the tergites. This type is found on scutellum, elytra and abdomen.

<u>Type IIIb</u>: On elytra, polygons of "type IIIa" are gradually impressed so that on disc of elytra taking on look of exceedingly dense, contiguous micropunctulation. – It might be a problem to differentiate between the extreme form of "type II" and this type but the pores of "type II" are always much finer than the usual micropunctulation on head and pronotum, while "type IIIb" is much coarser, more or less of the same strength as the usual micropunctulation of head and pronotum. Contrary to the usual micropunctulation which is not bordered, each cell of type IIIb is separated from the adjacent one by a sharp ridge.

Postmandibular sulcus: A very obvious character of *Algon* (and *Rientis* SHARP) is a deep and well demarcated sulcus along the ventro-medial margin of the eye bordered by the postmandibular ridge. The length and punctation of this postmandibular sulcus seems to be specific to a certain extent. However, it has not been used as a diagnostic character in this revision.

Prothoracic epimeroid (Fig. 80): In many Staphylinini, the pronotal hypomeron bears a conspicuous, variably sclerotized extension, usually overlying the prothoracic stigmata. This structure has constantly been referred to as "prothoracic epimeron". However, the presence of a pronotal epimeron would imply the presence of a notopleural suture which is a strictly adephagean character. Since the homology of this structure is not clarified yet, it seems more appropriate to call it "epimeroid".

Aedeagus: Contrary to many other Staphylinini, the ventral view of the aedeagus provides little help in identification, therefore, the study of the lateral view (particularly the apical portion) is strongly recommended. Also the paramere in most cases provides better distinguishing characters in lateral view, the ventral view being somewhat variable.

Ostial operculum (Fig. 84): The aedeagus of *Algon* has a remarkable feature – a shell-like structure situated subapically on the side opposite the paramere, resembling a shield obtecting the opening for the internal sac. I name this structure "ostial operculum". It is sometimes rather small but more often (like in the *A. elegans* group) huge and prominent, and in most cases it bears sensorial setae of variable length – the arrangement and length of the setae is specific.

Lateral extensions of the paramere: Several species of *Algon* have a very characteristic shape of the paramere (especially the species related to *A. grandicollis* SHARP). These parameres are rather broad dorso-ventrally with the portion close to the median lobe markedly extended laterad. In addition, the ventral side (side distant from the median lobe) of the paramere shows a flattened, usually laterally well delimited, median ridge.

Systematics

Algon SHARP

Algon SHARP 1874: 22. Creophilopsis CAMERON 1921: 272; CAMERON 1932: 269. Brachycamonthus BERNHAUER 1933: 37; SCHILLHAMMER 1999: 94. Allopygus CAMERON 1950, 21; SCHILLHAMMER 1999: 94.

Typus generis: Algon grandicollis SHARP, 1874.

DESCRIPTION (mostly characters with genus or subtribe level relevance are mentioned): Medium to large sized; with transversely elliptic or subquadrangular head, rarely head as wide as long; eyes large, usually fairly longer than tempora, rarely about as long as or inconspicuously shorter than tempora; medial margin of eyes bordered and with furrow along entire medial margin (exceptions: kaiserianus and brevipennis groups); mandibles moderately long to long, medial margin of each mandible with a broad moderately sharply to blunt-edged tooth (exception: A. nomurai sp.n.), laterally with distinct mandibular furrow; mandibular prostheca well developed; last segment of maxillary palpi with truncate apex, weakly to more conspicuously securiform; labial palpi with basal two segments very short, last segment weakly to very strongly securiform; ligula entire; submentum with two setae antero-laterally; gular sutures almost contiguous at midlength; pronotum variably shaped, strongly convex without descernible hind angles to more flat and with distinctly demarcated hind angles; superior and inferior lateral lines widely separated at anterior pronotal angles (Fig. 72), with inferior lateral line continuing as a thin line and either joining superior lateral line approximately at level where neck of head meets pronotum or becoming very indistinct before meeting superior lateral line; anterior margin of pronotum always formed by continuing superior lateral line; pronotal hypomeron with well developed epimeroid; prosternum with sternacostal ridge forming acute angle medially, variably strongly protruding ventrad, with median keel on furcasternum partly extending anteriad beyond sternacostal ridge (exception: dysanelloides group); mesoventrite (Fig. 73) with broad, variably elevated triangular ridge, and with rather long and narrow, acutely pointed mesoventral process (exception: dysanelloides group); all abdominal tergites with only one basal line, posterior margin of abdominal tergite VIII not flattened, more or less strongly, usually bisinuately emarginate (Fig. 74); male sternite VIII rather simple, usually with variably deep triangular excision and moderately developed semi-membranous extension (exception: some members of the *elegans* group; Fig. 75); male sternite IX with asymmetrical basal portion, distal portion symmetrical, with apex variably deeply excised (Figs. 81-83); second gonocoxite of female genital segment with minute stylus; legs with tibiae densely spinose; first four segments of front tarsi distinctly dilated in both sexes, bearing modified setae; tarsal segment 5 of all legs with empodial setae; aedeagus with ostial operculum.

VARIABILITY: The species vary to a certain extent in body size, strength of microsculpture, and also the shape of the aedeagus, particularly the paramere (ventral view). There seems, however, to be very little intraspecific variability in coloration. An exception are the species of the *A. nepalicus* complex (see there), where the elytral coloration varies substantially.

DIAGNOSIS: The genus shares almost all characters with *Rientis*, but may be distinguished by the shape of the posterior margin of tergite VIII, which is flattened and not emarginate in *Rientis*.

SYSTEMATIC POSITION: As mentioned in the introduction, the systematic position of *Algon* (and *Rientis*) at the subtribe level is still pending a satisfactory solution. There have been arguments for placing *Algon* and *Rientis* in Quediina again, but except for the superficial similarity of some species with Quediina there is no character state that would support this

hypothesis. On the other hand, the argument that the character state of the pronotal lateral lines points towards a relationship with Xanthopygina is also weakly supported, especially since the subtribe Xanthopygina itself is most likely not monophyletic. Although I am doubtful, it may be possible that *Algon* and *Rientis* are the only Old World representatives of the Xanthopygina. Therefore, as this paper is primarily a revision at the specific level, I will leave these two genera within Xanthopygina until a modern revisional work has come to a different result.

ZOOGEOGRAPHY: Taking into account that the two African species most likely do not belong to *Algon*, the genus is of strictly East Palearctic and Oriental distribution. There are a few hot spots where the number of species is remarkably high: the eastern portion of the Himalaya including the eastern descendants, and the Sunda region. The island of Borneo is particularly rich in species (*A. elegans* group), especially Sabah where many species occur in a relatively small area. Since the species are rarely collected (except for a few which are caught in larger numbers by pit fall traps), the sampling is still comparatively poor. Therefore, we may expect many additional new species to be revealed in the future.

BIONOMICS: Hardly anything is known about the habitat requirements of *Algon* species. As mentioned above, most species are rarely collected and with methods which hardly allow any conclusions on their habitat. The specimens of the *uniformis* group with reduced wings were mostly collected from under stones or with pitfall traps, while the majority of specimens of the *elegans* group were collected with flight interception traps. However, several species have been observed to leave the ground and climb the vegetation, some have been occasionally collected from flower stands of trees (e.g. *A. bramlettorum* sp.n.).

Alphabetical world check list of species of Algon

A. africanus BERNHAUER, p. 176 A. atrocaeruleus sp.n., p. 150 A. atronitidus sp.n., p. 138 A. aureoviridis sp.n., p. 144 A. biru sp.n., p. 166 A. bramlettorum sp.n., p. 140 A. brevipennis CAMERON, p. 161 A. ceylonensis sp.n., p. 162 A. chinensis sp.n., p. 173 A. crockerensis sp.n., p. 167 A. dentiger sp.n., p. 158 A. dysanelloides SCHILLHAMMER, p. 162 A. elegans BERNHAUER, p. 164 A. emeishanus sp.n., p. 139 A. excellens CAMERON, p. 141 A. forceps sp.n., p. 156 A. fredricki sp.n., p. 169 A. fukienensis sp.n., p. 139 A. gemmatus sp.n., p. 145 A. grandicollis SHARP, p. 135 A. himalayicus sp.n., p. 157 A. hollowayae sp.n., p. 170 A. hubeiensis sp.n., p. 160 A. immsi BERNHAUER, p. 147 A. impexus sp.n., p. 170 A. jaechi sp.n., p. 167 A. jizushanus sp.n., p. 142 A. kaiserianus (BERNHAUER), p. 159 A. lanceolatus sp.n., p. 166 A. macrops sp.n., p. 152

A. matsukii SHIBATA, p. 137 A. mulu sp.n., p. 165 A. nadjae sp.n., p. 148 A. nepalicus COIFFAIT, p. 156 A. nomurai sp.n., p. 174 A. oculatus CAMERON, p. 151 A. pergrandis SCHEERPELTZ, p. 138 A. pseudoculatus sp.n., p. 152 A. pseudonepalicus sp.n., p. 156 A. psittacus FAUVEL, p. 146 A. robillardae sp.n., p. 171 A. robustus WENDELER, p. 177 A. rugulipennis sp.n., p. 172 A. semiaeneus (CAMERON), p. 145 A. semiaureus FAUVEL, p. 149 A. semicaerulaeus CAMERON, p. 165 A. semiviolaceus sp.n., p. 168 A. similis sp.n., p. 158 A. sinoculatus sp.n., p. 152 A. smetanai sp.n., p. 163 A. sphaericollis sp.n., p. 136 A. theresae sp.n., p. 143 A. tibetanus sp.n., p. 174 A. tigrimontis sp.n., p. 154 A. tricolor FAUVEL, p. 147 A. tristis sp.n., p. 137 A. tronqueti sp.n, p. 160 A. uniformis CAMERON, p. 153 A. viridis BOHÁČ, p. 143

A. malayanus (CAMERON), p. 142

Species groups

The species group classification used herein is tentative. While certain species groups (e.g. *kaiserianus* group, *brevipennis* group, *elegans* group) are well defined by unmistakable characters, the largest group (*grandicollis* group) is most likely a complex of more than one species groups and mostly based on superficial similarity. Retaining this species group as presented here has practical reasons, a more refined classification depends on the availability of more material and a better sampling coverage of the respective biogeographical area. The same is true for five species which have not been assigned to any of the species groups. Being too heterogeneous to be judged satisfactorily, they will be treated as "species incertae sedis" for the time being. Females which could not be assigned to described or new species, have been listed separately at the end of the systematic part or in a separate paragraph within the species they are supposedly most closely related to. Females of the *A. nepalicus* complex have not been listed at all (except *A. dentiger*).

Key to species groups of Algon from Asia

1	Medial margin of eye distinctly bordered, in addition, with distinct punctate furrow along medial margin of eye
-	Medial margin of eye not bordered, without furrow along medial margin of eye (Fig. 63)7
2	Surface of fore body polished, without microreticulation, labial palpi strongly securiform (Fig. 76)
-	Parts of fore body (elytra, or head and pronotum) or entire fore body with distinct microreticulation, thus more or less opaque
3	Male sternite IX with variably extended depigmented portion subapically (Fig. 83), labial palpi strongly securiform, about as wide as long <i>elegans</i> species group
-	Male sternite IX uniformly pigmented (Figs. 81–82), labial palpi less distinctly securiform, or even subtruncately fusiform, always longer than wide (Figs. 77–79)
4	Eyes occupying almost entire lateral length of head, at least four times as long as tempora, postocular region mostly formed by base of head (Figs. 28, 29) <i>oculatus</i> species group
-	Eyes always less than three times as long as well developed tempora
5	Pronotum with well developed dorsal rows of coarse punctures, fore body with isodiametrical microreticulation of "Type I"; slender species from Borneo <i>dysanelloides</i> species group
-	Pronotum without dorsal rows of punctures, fore body or parts of it with microreticulation of "Type II"; species from mainland Asia
6	Elytra almost impunctate, densely microreticulate, with rows of larger punctures
-	Elytra densely punctate, without microreticulation, or irregularly fossulate, with dense microreticulation, without rows of larger punctures
7	Base of head without nuchal ridge, and without or inconspicuous nuchal constriction (Figs. 51, 52); species from Sri Lanka
-	Base of head with nuchal ridge and well developed nuchal constriction; species from China

Check list of Asian species of Algon sorted by specis groups

grandicollis species group

grandicollis SHARP sphaericollis sp.n. matsukii SHIBATA tristis sp.n. atronitidus sp.n. pergrandis SCHEERPELTZ emeishanus sp.n. fukienensis sp.n. bramlettorum sp.n. viridis BOHÁČ theresae sp.n. aureoviridis sp.n. jizushanus sp.n. gemmatus sp.n. excellens CAMERON malayanus CAMERON psittacus FAUVEL *immsi* BERNHAUER semiaureus FAUVEL *nadjae* sp.n. tricolor FAUVEL atrocaeruleus sp.n. semiaeneus CAMERON

oculatus species group

oculatus CAMERON sinoculatus sp.n. pseudoculatus sp.n. macrops sp.n.

uniformis species group

uniformis CAMERON tigrimontis sp.n. nepalicus COIFFAIT pseudonepalicus sp.n. forceps sp.n. *himalayicus* sp.n. *similis* sp.n. *dentiger* sp.n.

kaiserianus species group *kaiserianus* BERNHAUER *tronqueti* sp.n.

hubeiensis sp.n.

brevipennis species group *brevipennis* CAMERON

ceylonensis sp.n.

dysanelloides species group *dysanelloides* SCHILLHAMMER *smetanai* sp.n.

elegans species group

elegans BERNHAUER semicaeruleus CAMERON mulu sp.n. lanceolatus sp.n. biru sp.n. crockerensis sp.n. jaechi sp.n. semiviolaceus sp.n. fredricki sp.n. hollowayae sp.n. impexus sp.n.

species incertae sedis

robillardae sp.n. rugulipennis sp.n. chinensis sp.n. tibetanus sp.n. nomurai sp.n.

Key to Asian species of Algon

1	Medial margin of eye distinctly bordered, in addition, with distinct punctate furrow along medial margin of eye
-	Medial margin of eye not bordered, without furrow along medial margin of eye (Fig. 63) 50
2	Eyes moderately large, less than three times as long as tempora
-	Eyes very large, occupying almost entire side of head, at least four times as long as tempora 48
3	Fore body without microsculpture except for fine and sparse micropunctulation, rarely with exceedingly fine traces of isodiametrical microsculpture (Type II) on head and pronotum
-	Head and pronotum, or elytra, or entire fore body with dense microsculpture, rarely microsculpture indistinct, then with at least traces on head, pronotum and elytra (has to be studied at 50 times magnification)
4	Entirely black species
-	Not entirely black species, at least elytra distinctly metallic colored, usually also head and pronotum with at least some metallic greenish or bluish hue

5	Eyes 1.45–1.70 times as long as tempora; habitus: Fig. 3 grandicollis
-	Eyes 1.80–2.45 times as long as tempora
6	Narrow portion between infraorbital and postmandibular ridge virtually impunctate (Fig. 61) 7
-	Narrow portion between infraorbital and postmandibular ridge coarsely punctate (Fig. 62)
7	Pronotum narrower, 1.09–1.12 times as wide as long; apex of median lobe of aedeagus with tiny hook bent toward paramere; habitus: Fig. 4
-	Pronotum broader, 1.14–1.19 times as wide as long; apex of median lobe of paramere without hook
8	Segment 10 of antennae as long as wide or weakly oblong; habitus: Fig. 5 tristis
-	Segment 10 of antennae twice as long as wide atronitidus
9	Eyes less than twice as long as tempora (doubtful cases are mentioned in both couplets) 10
-	Eyes more than twice as long as tempora
10	Antennal segment 10 markedly oblong 11
-	Antennal segment 10 about as long as wide
11	Color of fore body brilliant golden greenish, unicolorous; habitus: Fig. 10 viridis
-	Color of fore body dark blue, greenish blue or green, if head and pronotum bright metallic green then elytra dark blue
12	Micropunctulation on head and pronotum clearly visible at 10 times magnification; habitus: Fig. 9 bramlettorum
-	Micropunctulation on head and pronotum exceedingly fine, particularly on pronotum visible only at a minimum magnification of 25 times
13	Head and pronotum brilliant metallic golden green, clearly contrasting with purplish blue elytra; habitus: Fig. 6
-	Head and pronotum greenish blue, less distinctly contrasting with bluish to greenish elytra; habitus: Figs. 7, 8
14	Posterior margin of tergite VII without whitish seam
-	Posterior margin of tergite VII with whitish seam
15	Fore body bright metallic bluish green; eyes smaller, 1.3 times as long as tempora; habitus: Fig. 13
-	Fore body dark violaceous blue; eyes larger, 1.85 times as long as tempora; habitus: Fig: 23 atrocaeruleus
16	Fore body violaceous blue, elytra uniformly punctate; habitus: Fig. 15 excellens
-	Fore body brilliant metallic green, golden greenish to brassy green, elytra with distinct irregular rows of larger punctures among ground punctation
17	Pronotum about as long as wide; habitus: Fig. 11 theresae
-	Pronotum wider than long (ratio about 1.15)
18	Fore body metallic green, with only a very slight coppery hue on pronotum, or head and pronotum dark greenish blue with bright green elytra
-	Fore body metallic brassy to golden green or olivaceous green, with strong coppery hue even on elytra; habitus: Fig. 14
19	Entire fore body bright metallic green to golden green, head less than 1.3 times as wide as long (1.27), more rounded, eyes about 1.5 times as long as tempora; habitus: Fig. 12 aureoviridis

-	Head and pronotum dark metallic greenish blue, head more than 1.3 times as wide as long (1.33), more distinctly quadrangular, eyes about 1.7 times as long as tempora; habitus: Fig. 22.
20	Elytra metallic blue to violaceous blue
-	Elvtra metallic green to copperv
21	Eves 2.5–2.8 times as long as tempora; habitus: Fig. 16 malayanus
-	Eves about 2.0 times as long as tempora: habitus: Fig. 15excellens
22	Elvtra uniformly, densely and rather coarsely punctate (Fig. 64)
-	Elytra with double punctation, with very fine punctures among variably sparse, coarse punctation (Figs. 65–67)
23	Eyes larger, 2.3–2.5 times as long as tempora; body smaller (6.1–6.4 mm long, abdomen excluded); habitus: Fig. 17 psittacus
-	Eyes smaller, 2.1 times as long as tempora; body larger, (7.2–7.9 mm long, abdomen excluded); habitus: Fig. 21 tricolor
24	Head and pronotum metallic blue or violaceous blue, rarely with greenish hue, strongly contrasting with brilliant metallic green color of elytra
-	Head and pronotum metallic greenish, hardly contrasting with metallic green color of elytra; habitus: Fig. 20
25	Larger (7.7–8 mm, abdomen excluded); macropunctures of elytra dense, more or less uniformly distributed (Fig. 66); habitus: Fig. 19 nadjae
-	Smaller (6.8–7.1 mm, abdomen excluded); macropunctures of elytra arranged in irregular longitudinal rows along suture and on disc (Fig. 65); habitus: Fig. 18 immsi
26	Elytra black or dark brown, not metallic, head and pronotum sometimes with weak metallic bluish or violaceous hue; if entire fore body dark metallic bluish, then head slightly dilated posteriorly and elytra with microsculpture only in punctural grooves
-	Elytra bright metallic green, blue or purplish; often entire fore body metallic
27	Elytra shining, without any microsculpture; habitus: Fig. 24 robillardae
-	Elytra with distinct isodiametrical microsculpture, at least in punctural grooves
28	Elytra with dense, almost fossulate punctural grooves
-	Elytra either with usual punctation or punctation markedly reduced
29	Smaller species (6.5 mm long, abdomen excluded); eyes about 1.7 times as long as tempora; head and pronotum with slight metallic violaceous hue; habitus: Fig. 25
-	Larger species (7.5–8.0 mm long, abdomen excluded); eyes 1.1–1.3 times as long as tempora; head and pronotum without metallic hue; habitus: Fig. 1 <i>chinensis</i>
30	Pronotum with dorsal rows of at least five punctures; species from Borneo
-	Pronotum without dorsal rows of punctures, at most with a pair of punctures behind anterior margin; species from mainland Asia
31	Surface of all abdominal tergites with fine transverse microstriae; habitus: Fig. 41 dysanelloides
-	Surface of first four visible tergites with isodiametrical microsculpture smetanai
32	Elytra with isodiametrical microsculpture only in punctural grooves; habitus: Fig. 26 tibetanus
-	Elytra entirely microsculptured
33	Antennal segments 5-7 markedly oblong; habitus: Fig. 30 uniformis
-	Antennal segments 5-7 about as long as wide; habitus: Fig. 31 tigrimontis

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34	Head and pronotum black, rarely with bluish or violaceous hue, always strongly contrasting with bright metallic blue or green elytra (Figs. 32–35); species from the Himalaya
-	Entire forebody metallic purple or blue, head and pronotum hardly contrasting with elytra (Figs. 27, 42–50); species from the Sunda Region and Vietnam
35	Eyes smaller, 0.93–1.20 times as long as tempora nepalicus, pseudonepalicus, forceps
-	Eyes larger, 1.3–1.5 times as long as tempora
36	Micropunctulation of elytra exceedingly dense, punctules almost contiguous (Fig. 68); median lobe (lateral view) without apical tooth (Figs. 117, 118)
-	Micropunctulation of elytra less dense, punctules finer, separated by about a puncture diameter (Fig. 69); median lobe (lateral view) with large apical tooth (Fig. 114) dentiger
37	Eyes less than two times as long as tempora
-	Eyes at least two times as long as tempora
38	Elytra along sides markedly shorter than pronotum along midline; posterior margin of tergite VII without whitish seam; Vietnam; habitus: Fig. 27
-	Elytra along sides at least as long as pronotum along midline; posterior margin of tergite VII with whitish seam; Sunda Region
39	Antennal segments 4–7 more than twice as long as wide; discal row of elytra with about 20 punctures; head and pronotum with very conspicuous micropunctulation, clearly visible at 10 times magnification; habitus: Fig. 48
-	Antennal segments less than twice as long as wide; discal row of elytra with no more than 10 punctures; micropunctulation of head and pronotum inconspicuous, hardly or not visible at 10 times magnification
40	Elytra along sides about as long as pronotum along midline; habitus: Fig. 47 semiviolaceus
-	Elytra along sides markedly longer than pronotum along midline
41	Smaller (8.0–8.3 mm, abdomen excluded); head and pronotum with isodiametrical microsculpture (type II), polygons very clear, usual micropunctulation clearly visible at 25 times magnification; habitus: Fig. 2
-	Larger (9.0 mm, abdomen excluded); head and pronotum with microsculpture of exceedingly dense punctulation, surface between punctules (polygons?) very convex, partly forming small rugae, usual micropunctulation not visible; habitus: Fig. 50 impexus
42	Eyes more than three times as long as tempora
-	Eyes less than three times as long as tempora
43	Head and pronotum without discernible micropunctulation even at very high magnifications(Fig. 56); habitus: Fig. 44 <i>lanceolatus</i>
-	Head and pronotum with fine micropunctulation, clearly visible at 50 times magnification (Fig. 55) mulu
44	Head and pronotum with dense and coarse, especially on head almost pit-like, evenly distributed punctulation, clearly visible at less than 10 times magnification (Fig. 53); habitus: Fig. 42
-	Head and pronotum with fine or exceedingly fine micropunctulation, usually hardly visible at 10 times magnification; if more clearly visible then stitch-like, pit-like punctulation confined to postocular region and basal portion of head (Fig. 54)
45	Larger (7.7-8.0 mm long, abdomen excluded); W-Malaysia; habitus: Fig. 49 hollowayae
-	Smaller (6.8–7.3 mm long, abdomen excluded); Borneo 46
46	Micropunctulation of head more clearly visible, rather dense and coarse at base of head, almost pit-like, occupying entire basal fifth of head from an imaginary transverse line slightly in front of hind margin of eyes down to base of head; habitus: Fig. 43 semicaerulaeus

-	Micropunctulation of head finer, coarse punctulation not medio-basally, confined to postocular region, fine micropunctulation on disc of head extending almost toward base 47
47	Paramere straight, median lobe very slightly curved toward paramere; habitus: Fig. 45 biru
-	Paramere and median lobe strongly sinuate; habitus: Fig. 46 crockerensis
48	Smaller (4.3–5.1 mm long, abdomen excluded); antennae short, segments 9 and 10 about as long as wide; habitus: Fig. 28oculatus, sinoculatus
-	Larger (5.5–5.9 mm long, abdomen excluded); antennae longer, segments 9 and 10 slightly oblong
49	Eyes about four times as long as tempora; habitus: Fig. 29 pseudoculatus
-	Eyes almost seven times as long as tempora macrops
50	Base of head with distinct nuchal constriction and nuchal ridge 51
-	Nuchal constriction very inconspicuous, nuchal ridge lacking (Figs. 51, 52) 53
51	Elytra with shoulders sharply angulate; habitus: Fig. 37 tronqueti
-	Elytra with rounded shoulders
52	Disc of elytra glabrous, except for a few macropunctures of discal row; habitus: Fig. 36 <i>kaiserianus</i>
-	Entire elytra finely and uniformly punctate and pubescent; habitus: Fig. 38 hubeiensis
53	Larger (6.6 mm long, abdomen excluded); tempora longer, 1.52 times as long as eyes, head with dense and distinct micropunctulation (Fig. 51), especially on posterior half of head; habitus: Fig. 39
-	Smaller (4.7 mm long, abdomen excluded); tempora shorter, 1.25 times as long as eyes; head with exceedingly fine micropunctulation, barely visible at 50 times magnification (Fig. 52); habitus: Fig. 40

Algon grandicollis species group

DIAGNOSIS: In this species group are combined all species with convex ("*Quedius*-like") pronotum, a polished fore body without microsculpture (exceedingly faint traces might occur), and a dorso-ventrally distinctly extended paramere of the aedeagus (Figs. 85b–104b). Although this assemblage, as presented here, is most likely monophyletic, it may well turn out that this species group has to be split into more species groups as more material and more species will be added.

Algon grandicollis SHARP

Algon grandicollis SHARP 1874: 23.

TYPE MATERIAL: 2 syntypes ($_{\varphi \varphi}$): "Type (round label) \ Japan. G. Lewis. \ Sharp Coll. 1905-313. \ Algon grandicollis Type D.S." (NHML).

DESCRIPTION (Habitus: Fig. 3): 13–19 mm long (6.8–8.3 mm, abdomen excluded). – Black, shining; anterior margin of clypeus very narrowly reddish; antennae reddish brown, two or three outer segments paler yellowish to yellowish brown, middle portion of segments 3–7 variably infuscate; labrum and palpi reddish brown to yellowish brown, legs dark reddish brown to black brown.

Head rounded quadrangular, 1.22–1.29 times as wide as long, eyes moderately large, 1.45–1.70 times as long as tempora, tempora regularly rounded to inconspicuously angulate, rather densely and coarsely punctate and pubescent; surface of head with rather dense micropunctulation,

slightly denser and stronger in posterior half, becoming finer and sparser anteriorly; portion between postmandibular sulcus and infraorbital ridge more or less impunctate (see Fig. 61), antennal segments 4–8 markedly oblong, segment 9 slightly oblong, segment 10 about as long as wide; pronotum slightly wider than long (ratio 1.07–1.13), sides and base regularly convex, with very weakly demarcated hind angles; surface uniformly covered with very fine micropunctulation; elytra about as wide as long, along sides slightly longer than pronotum along midline; punctation coarse and dense, slightly asperate, on disc even slightly rugose, punctures clearly separated or almost contiguous in transverse direction; setae robust, dark; scutellum rather densely and coarsely punctate; winged; abdominal tergites uniformly and densely punctate, punctures separated by 1–2 puncture diameters in transverse direction; posterior margin of tergite VII with whitish apical seam; male sternite IX: Fig. 81.

Aedeagus (Fig. 85) with median lobe subparallel-sided, apex pointed; in lateral view distinctly bent toward paramere apically, apex simple, pointed; paramere (Fig. 85c) slender, lateral extensions rather well developed, cluster of 15–20 peg setae distinctly removed from apex.

NOTE: Since the distribution of *A. grandicollis* is well assessed I refrained from listing the additional material I have studied.

DISTRIBUTION: *Algon grandicollis* is known only from Japan, where it occurs on all major islands. The species seems to be fairly common.

Algon sphaericollis sp.n.

Algon sphaericollis SCHUBERT (manuscript name).

Holotype &: "Seishin, Korea \ 270 \ Algon grandicollis \ ex coll. Scheerpeltz" (NMW).

Paratypes (22 exs.): KOREA: 1 σ: "Mt. Tim Ma Shan Dao Prov. Korea" (NMW); 1 σ: N-Korea, Pyungannamdo Prov. Sunchon, 4. Aug. 1996, leg. C.G. Kim [translated from Korean label] (NHMHU); 1 σ: "Korea: Chungnam Prov., Daejeon City, Chungnam Univ., 8.VI.1999, leg. H.-J. Kim" (NMW); 1 ç: "Seishin Korea" (HUB); 1 ç: "Is. Chin-do, Ssanggyesa Temple, Chindo-gun [S-Korea], Date: 11-VI-1992, Leg.: Y. Imura" (CST); 1 σ: "Korea, Gyeonggi Do Secret Garden, 28 Aug. 1971 \ Coll. K. Mizusawa" (CST);

CHINA: 1 \circ : "Kweichou, China, Plason" (NMW); 2 $\circ \circ \circ$: "Shanghai, 1. June 1934, leg. E. Suenson" (NMW); "Chung-yung, China \ Rientis Shp. spec. \ coll. Eppelsh. Steind. d." (NMW); 1 σ : "Kiukiang" (DEI); 1 σ : "Pingshiang, Süd-China, Dr. Kreyenberg \ TYPE \ Algon sphaericollis Sh. \ French coll. Kraatz" (DEI); 1 $\circ \circ$ with similar label data (DEI); 1 $\circ \circ$: "Kouy-Tchéou, R.P.J.R. Chaffanjon, 1903" (MHNP); 1 σ : "CHINA Zhejiang, Hangzhou, 28.IV.1993, G. de Rougemont" (CRL); 1 $\circ \circ$: "CHINA: Zhejiang, Lin'an, Forestry College Campus, 19.V.1996, leg. J. Cooter (CRL); 1 σ : "Chang Kiang China" (ISNB); 2 $\sigma \sigma$, 1 $\circ \circ$: "CHINA: N-Fujian, Fenshui Guan, 27.9N 117.85E, 1700 m, 7.5.2005, leg. J. Turna" (NMW);

RUSSIA FAR EAST: 1 ç: "UdSSR, Ussuri Halbinsel, Station "Rjasanovka" (Meeresbiol. Station d. Fernöstl. Universität), 19.-22.7.1991, leg. Schröder/Kriska" (CSB); 1 ç: "Ross or., Prim. kr., Slavyanka, 17.-23.7., Rjazanovka env., leg. Snizek 1992" (NMW); 1 ç "RUSSIA: Primorskiy Kr.Nazhinsky Dist., riv. Bolshaya Elduza, 2.10.1998, leg. B. Kataev" (NMW).

DESCRIPTION (Habitus: Fig. 4): $11.5-19.0 \text{ mm} \log (6.6-9.2 \text{ mm}, \text{abdomen excluded})$. – As described for *A. grandicollis* except for larger eyes (eyes : tempora = 1.80-2.05 : 1), darker antennae (also basal two segments partly infuscate, middle segments almost entirely black, two outer segments paler reddish brown), most specimens with slightly less dense and slightly less rugose elytral punctation; head 1.25-1.33 times as wide as long, pronotum 1.09-1.12 times as wide as long; punctation of elytra not asperate, punctures separated by rather flat interstices half as wide to as wide as a puncture diameter in transverse direction. Portion between postmandibular sulcus and infraorbital ridge more or less impunctate (Fig. 61).

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Aedeagus (Fig. 86) similar to that of *A. grandicollis* in ventral view but slightly shorter; in lateral view median lobe with slightly hooked apex; paramere (Fig. 86c) slenderer and with less developed lateral extensions than in *A. grandicollis*, peg setae more numerous (> 50) and densely arranged.

DISTRIBUTION: The species has a rather wide distribution, from Russia Far East (Ussuri Region) and Korea in the north to China (Zhejiang, Shandong, Fujian) in the south.

ETYMOLOGY: The specific name is the manuscript name which Schubert proposed and refers to the markedly convex shape of the pronotum.

Algon matsukii SHIBATA

Algon matsukii SHIBATA 1979: 23.

TYPE MATERIAL: **Holotype** σ : "(Kenting - Park) Pingtung Hsien, TAIWAN Aug. 13th, 1973 Coll. Y. Shibata" (TUA). – **Allotype** φ with same data as holotype (TUA); **paratypes** (6 exs.): 1 σ , 1 φ : same data as holotype (CST, SEC); 1 σ : same locality as holotype, but from 11.VIII.1974 (CST); 1 σ , 2 $\varphi \varphi$: same locality as holotype, but 14.VIII.1973 (CST, NMW).

DIAGNOSIS: 14–20 mm long (8.1–8.7 mm, abdomen excluded). – Externally, the species is virtually indistinguishable from *A. sphaericollis*, and differs only by the slightly wider pronotum (W : L = 1.14-1.19 : 1); the head is statistically broader (W : L = 1.30-1.34 : 1); the eyes are generally larger, 1.95-2.14 times as long as tempora, but there is one male specimen with an exceptional ratio of 1.61, so the variability range might be remarkably wider than what the available material implies; punctation of elytra as in *A. sphaericollis*.

Aedeagus (Fig. 88) short and very broad, in lateral view median lobe with apex simple; paramere (Fig. 88c) also very broad, with about 30 moderately densely arranged peg setae.

ADDITIONAL MATERIAL EXAMINED:

T A I W A N: KAOHSIUNG: Tona For. Sta., 1050 m, 1.v.1998, leg. A. Smetana [T194] (CSO).

DISTRIBUTION: The species is known only from the island of Taiwan (Pingtung Hsien, Kaohsiung Hsien). It is most likely endemic.

Algon tristis sp.n.

Holotype ♂: "China, N Fujian, 2.-5.VI., WUYISHAN city, W env., 28.75N 118.0E, -1300m, Jaroslav Turna leg., 2004" (NMW).

Paratypes (15 exs.): $2 \ \sigma \sigma$, $1 \ _{\odot}$: same data as holotype (NMW); $8 \ \sigma \sigma$, $1 \ _{\odot}$: "China, N Fujian, 6.-25.V. WUYISHAN city, SW env., pitfall traps, 27.7N 117.95E, Jaroslav Turna leg., 2005" (NMW); $1 \ \sigma$, $1 \ _{\odot}$: "China, W Fujian, 9.-28.V. TAINING E env., pitfall traps, 26.9N 117.15E Jaroslav Turna leg., 2005" (NMW); $1 \ \sigma$: "CHINA Guangdong, Wu Hua Co., Gi Mo Zhang, 440 m, 6.IV.92, J. Fellowes \ under boulder by stream" (CRL).

DIAGNOSIS (Habitus: Fig. 5): 17.0–19.5 mm long (7.9–8.7 mm, abdomen excluded). – This species is also similar to the preceding three species, but differs mainly by the coarsely punctate portion between the infraorbital ridge and postmandibular sulcus (Fig. 62) on the ventral side of the head (for separation from the following species which also shows this character, see there). In addition, it slightly differs by the almost parallel elytra; punctation simple (not asperate) with punctures being clearly separated by slightly elevated interstices about half as wide as a puncture diameter in transverse direction; eyes very large, 2.00–2.45 times as long as tempora – there is only a slight overlap with *A. sphaericollis* and *A. matsukii*. From the latter it differs by the markedly slenderer pronotum (W : L = 1.07-1.10 : 1). Head 1.27-1.33 times as wide as long; ventral aspect of head: Fig. 70.

Aedeagus (Fig. 87) with median lobe short, apex sharply pointed, in lateral view with rather simple, bluntly pointed apex; paramere (Fig. 87c) with very well developed lateral extensions, number of peg setae similarly as in *A. matsukii* but more densely arranged.

DISTRIBUTION: The species is at present known only from southeastern China (Fujian, Guangdong).

ETYMOLOGY: The name (from Latin *tristis*, -*e*: dark, sad) refers to the black color of the species.

Algon atronitidus sp.n.

Holotype &: "Tonkin, Montes Mauson, 2-3000', Fruhstorfer \ grandicollis Sharp" (ISNB).

Paratypes (2 exs.): 1 φ: "Mt. Tam Dao (900-950m) Vinh Phu Prov., [N-VIETNAM] 14-18.V.1999, S. Nomura lg." (NSMT); 1 φ: "Mt. Piao Oac (1.250m) Cao Bang Prov. [N-VIETNAM] 14.V.1998, S. Nomura leg." (NMW).

DIAGNOSIS: 17–19 mm long (9.0–9.5 mm, abdomen excluded). – This species shares with *A*. *tristis* the coarsely punctate portion between the infraorbital ridge and postmandibular sulcus on the ventral side of the head but differs by the much larger body size and slightly smaller eyes (eyes : tempora = 1.82-1.92 : 1). In addition, it differs from all preceding species by the very long and slender antennae, with segment 10 about twice as long as wide. Head 1.25-1.30 times as wide as long, pronotum 1.10-1.12 times as wide as long.

Aedeagus (Fig. 89) very long and slender, median lobe in lateral view with simple apex; paramere (Fig. 89c) also very long and slender, with well developed lateral extensions, more than 30 peg setae rather densely arranged about half distance between apex and widest part of lateral extension.

DISTRIBUTION: The species is at present known only from North Vietnam.

ETYMOLOGY: The specific epithet is a combination of the Latin words *ater*, *-a*, *-um* (dark, black) and *nitidus*, *-a*, *-um* (shiny), which pretty well describes the appearance of that species.

Algon pergrandis SCHEERPELTZ

Algon pergrandis SCHEERPELTZ 1974: 144. Algon perroti BERNHAUER (manuscript name).

TYPE MATERIAL: Holotype σ : "Tam Dao Tonkin \ Algon pergrandis n.spec. \ ex coll. Scheerpeltz \ Holotypus \ Typus Algon pergrandis . Scheerpeltz" (NMW). – Paratype: 1 σ with almost identical label data as holotype (NMW).

DESCRIPTION (Habitus: Fig. 6): 16–25 mm long (10.5–11.1 mm, abdomen excluded). – Very shiny; head and pronotum brilliant metallic green with golden hue, elytra deep metallic purplish blue, sometimes with a slight greenish hue; scutellum black; labrum dark brown, with semimembranous portion pale reddish; antennae black-brown to dark brown, gradually becoming paler distally, outer two or three segments usually pale yellowish brown; palpi dark brown to reddish brown, always darker basally than distally; legs black, front tarsi dark brown to reddish brown, paler than tibia, gradually becoming paler distally, middle and hind tarsi black, segment 5 usually pale reddish brown.

Head rounded quadrangular, 1.28–1.33 times as wide as long, eyes 1.50–1.73 times as long as tempora, tempora inconspicuously angulate, densely and coarsely punctate and pubescent, anterior margin of clypeus slightly concave, surface of head with fine and sparse, uniformly distributed micropunctulation; antennae very long and slender, all segments markedly oblong, segment 10 almost twice as long as wide; pronotum 1.13–1.15 time as wide as long, widest at

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midlength, with almost orbicular outline, with inconspicuously indicated hind angles shortly in front of large posterior lateral puncture, surface with exceedingly fine micropunctation, distinctly finer than that on head; elytra with dense, slightly asperate punctation, somewhat denser on disc, punctures almost contiguous on disc, separated by about a puncture diameter in transverse direction laterally and toward base, pubescence dark, setae rather long and robust; scutellum rather densely and coarsely punctate; wings fully developed; abdominal tergites finely, densely and uniformly punctate, punctures separated by 1–2 puncture diameters in transverse direction; posterior margin of tergite VII with whitish seam.

Aedeagus (Fig. 90) moderately large, median lobe (ventral view) subparallel-sided with rather sharply pointed apex, in lateral view with inconspicuously hooked apex; paramere (Fig. 90c) rather broad with very well developed lateral extensions, with a subapical cluster of about 45 rather densely arranged peg setae.

ADDITIONAL MATERIAL EXAMINED:

V I E T N A M: 1 ♂ "Tonkin" (ISNB); 1 ♂ (head missing): "Tam Dao, Tonkin, H. Perrot \ Algon perroti Brnh. Typus" (FMC); 1 ♂: "Tam Dao, Tonkin, H. Perrot" (MHNG); 1 ♂, 1 ç: "Tonkin ach. Baudet \ P. de Borre." (MHNG); 1 ♂: "N Viet Nam (Tonkin) pr. Vinh Phu, 1990, Tam Dao, 17.-21.V., Vit Kubáň leg." (NMB); 1 ♂: "N. Vietnam, Vinh Phu Prov., Tam Dao, 1230 m, 22-23.IV.1995, Mamoru Owada leg." (NSMT); 1 ♂: same data, but22.IV.1995, A. Shinohara (NSMT); 1 ♂: "Mt. Tam Dao, Vinh Phu Prov., [N-VIETNAM] IV.2000, Native leg." (NMW); 1 ♂: "Cuc Phuong (450 m), Ninh Binh Prov., N-VIETNAM, 4.X.1995, S. Nomura leg." (NSMT); 1 ç: "N Vietnam, Cao Bang Prov., Nguen Binh Distr. Quang Thanh village, 4-13.V.1998, N.L. Orlov" (CKP).

DISTRIBUTION: The species is known only from North Vietnam.

Algon emeishanus sp.n.

Holotype ♂: "15 China Sichuan (EMEI) EMEI SHAN, 1300 - 1700 m, near Chudian monastery, 29:32N/103:23E, mixed for., 12.VII.1994, K. & B. Březina" (CSO).

DESCRIPTION (Habitus: Fig. 7): 19.5 mm long (11 mm, abdomen exluded). – Measurements: head 1.26 times as wide as long, eyes 1.5 times as long as tempora, pronotum 1.15 times as wide as long.

Aedeagus (Fig. 93) similar to that of *A. pergrandis* but median lobe slightly widened apically, more abruptly narrowed toward apex, hardly differing in lateral view; paramere (Fig. 93c) very broad, with very well developed lateral extensions, in lateral view with distinctly larger dorso-ventral extension than in *A. pergrandis*, peg setae more numerous (about 70) and slightly less densely arranged.

DIAGNOSIS: Externally, the species is almost identical with *A. pergrandis* and differs mainly by the greenish blue color of head and pronotum.

DISTRIBUTION: The species is at present known only from the type locality.

ETYMOLOGY: The species is named after the type locality.

Algon fukienensis sp.n.

Holotype &: "KUATUN, FUKIEN China, 2.7.46 (TCHUNG SEN.)" (NMW).

Paratypes (3 exs.): 1 *o*, 2 *o* : same data as holotype but 6.7.46, 29.7.46 and 14.9.46 (NMW).

DESCRIPTION (Habitus: Fig. 8): Measurements: 16.5–21.5 mm long (9.6–10.4 mm, abdomen excluded); head 1.20–1.33 times as wide as long; eyes 1.4–1.7 times as long as tempora; pronotum 1.14–1.16 times as wide as long.

Aedeagus (Fig. 94) with median lobe similar to that of *A. pergrandis*, in lateral view with apical portion more slender; paramere (Fig. 94c) with very well developed lateral extensions as in *A. pergrandis* but with slenderer, flattened median ridge, dorso-ventral extension wide almost as in *A. emeishanus*; about 40 peg setae rather sparingly arranged in subapical cluster.

DIAGNOSIS: The species differs from *A. pergrandis* by the dark greenish blue color of head and pronotum and is thus very similar to *A. emeishanus*. It differs from both species by the somewhat shorter elytra and the coarser, less dense elytral punctation. This character, however, becomes obvious only in a side-by-side comparison.

DISTRIBUTION: The species is at present known only from the type locality in southeastern China (northwestern Fujian).

ETYMOLOGY: Fukien is the "old" name of the Chinese province of Fujian.

Algon bramlettorum sp.n.

Holotype &: "Thailand, Chiang Mai, 16.-21.5.2000, Moravec Petr" (NMW).

Paratypes (10 exs.): 1 σ "N-LAOS: 20 km NW Louang Namtha, 21°09.2'N 101°18.7'E, 900 - 1100 m, 6.-30.V.1997, leg. C. Holzschuh [97-704]" (NMW); 1 φ : "LAOS: Louang Prabang prov., 20°33.4'N 102°14'E, 5km W Ban Song Cha, ca. 1200 m, 24.4.-16.5.1999, leg. C. Holzschuh" (NMW); 1 σ : "L. Prabang, Laos, H. Perrot" (MHNG); 1 φ : "Phong Saly, Laos, H. Perrot" (MHNG); 1 σ : "THAILAND – Chiang Mai, Doi Suthep, 950 m, Barber F. VIII.96, P. Schwendinger" (MHNG); 1 φ : "Mt. Doi Pui, 1400 – 1500 m, Chiang Mai, N. Thailand, 29-IV-1982, T. Shimomura leg." (CST); 1 φ : "THAI, Chiang Mai prov., 18°49'N 98°54'E, 1600 m, Doi Pui Mt., 2.-6.V., Vit Kubáň leg. 1996" (NMW); 1 φ : "Doi Suthep, Chiang Mai, Thailand, 16-V-1996, K. Masumoto leg." (CHaK); 1 σ : "THAI, Mae Hong Son prov., 19°27'N 98°20'E, 1500 m, Soppong, 7.-12.V., Vít Kubáň leg. 1996" (CHaK); 1 σ : "Darjeeling, Juni, Fruhstorfer leg." (MHNP).

DESCRIPTION (Habitus: Fig. 9): 16.5–23.0 mm long (9–10 mm, abdomen excluded). – Coloration of fore body rather variable, head and pronotum from greenish with golden-brassy hue to dark greenish blue, elytra from greenish to purplish blue, majority of specimens with bluish green head and pronotum and blue elytra with greenish hue; antennae dark brown to black brown with 2–4 outer segments markedly paler; palpi dark reddish brown, legs black, front tarsi dark reddish brown, middle and hind tarsi dark brown, gradually becoming paler distally, segment 5 usually reddish brown.

Head rounded quadrangular, 1.29–1.43 times as wide as long; eyes moderately large, 1.54–1.82 times as long as tempora; surface of head with very distinct, uniform micropunctulation; all antennal segments markedly oblong; pronotum 1.09–1.13 times as wide as long, sides and base forming almost perfect arc, a few specimens with inconspicuously indicated hind angles; surface with uniform micropunctulation, slightly denser than that of head, finer but still clearly visible at 10 times magnification; elytra along sides about as long as pronotum along midline, coarsely and densely punctate, punctures separated by about a puncture diameter in transverse direction, slightly denser in medio-posterior third.

Aedeagus (Fig. 92) in ventral view similar to *A. pergrandis* and related species but subapically with more regularly convex lateral outline; in lateral view with slenderer, somewhat sinuate apical portion; ostial operculum and semi-membranous dorsal portion with numerous dense and long setae; paramere (Figs. 92c, d) with rather broad flattened median ridge, lateral extensions well developed (exception: the Darjeeling specimen has clearly narrower lateral extensions), 70–100 peg setae densely arranged in arrow-shaped subapical cluster.

DIAGNOSIS: Externally, the species is very similar to *A. emeishanus* and *A. fukienensis* but differs at once by the very conspicuous micropunctulation of head and pronotum which is clearly

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discernible at 10 times magnification, whereas in the other two species a magnification of about 40 times is required to see the micropunctulation of the pronotum.

REMARK: The specimen from Darjeeling does not differ externally from the remaining specimens, also the median lobe is identical (including the characteristic setation of the ostial operculum). However, the paramere has distinctly narrower lateral extensions and the peg setae are less numerous. The differences might be subspecific.

DISTRIBUTION: The species is at present known from northern Laos, northern Thailand and from northern India (Darjeeling).

ETYMOLOGY: The species is named in honor of Leigh and Patrick Bramlett (Huntsville, Alabama, USA). By dedicating this beautiful species to these fine people, I value the generous behaviour and friendship they have shown since I joined the "Nikon Café".

Algon excellens CAMERON

Algon excellens CAMERON 1944: 13.

TYPE MATERIAL: Holotype σ (by monotypy): "Type \land Shillong 6000' Assam G.D. Bhasin 20.V.1925. \land A. excellens Cam. Type \land M.Cameron. Bequest. B.M. 1955-147" (NHML).

DESCRIPTION (Habitus: Fig. 15): 15.0–18.5 mm long (8.1–8.2 mm, abdomen excluded). – Fore body metallic violaceous to violaceous blue with purplish-magenta hue; antennae dark brown basally, becoming gradually paler reddish brown distally; palpi reddish; legs black brown to dark brown, tarsi reddish brown, basal two segments of middle and hind tarsi dark brown to black brown.

Head rounded quadrangular, 1.26 times as wide as long, eyes rather large, almost 2.0 times as long as slightly angulate tempora; surface of head with distinct micropunctulation, clearly visible at 10 times magnification, almost reaching toward front margin; antennae moderately long, segment 9 slightly oblong, segment 10 about as long as wide; pronotum 1.08 times as wide as long, sides and base forming almost perfect arc, hind angles not indicated; surface with rather dense and distinct micropunctulation as on head; elytra along sides slightly longer than pronotum along midline, rather coarsely and densely punctate, punctures separated by about a puncture diameter in transverse direction, punctation on deflexed sides slightly denser; posterior margin of abdominal tergite VII with whitish seam.

Aedeagus (Fig. 96) very similar to that of *A. bramlettorum* but with narrower flattened median ridge and with setation of ostial operculum comparatively inconspicuous; paramere (Fig. 96c) also very similar to that of *A. bramlettorum*.

DIAGNOSIS: The shape of the aedeagus implies a close relationship with both *A. bramlettorum* and *A. fukienensis*, but externally the species differs clearly by the much smaller body size, darker violacous color and larger eyes.

ADDITIONAL MATERIAL EXAMINED: I N D I A: 1 3: "Khasia Hills" (IRSNB).

DISTRIBUTION: The species is at present known only from northeastern India (Meghalaya).

REMARK: There is one φ specimen from Satpura Hills in Central India (FMC), which is very similar to *A. excellens* but differs by the more greenish color of the fore body and by smaller eyes (1.7 times as long as tempora) and which might represent a different species.

Algon malayanus (CAMERON)

Allopygus malayanus CAMERON 1950: 22; SCHILLHAMMER 1999: 94.

TYPE MATERIAL: **Holotype** ♀ (by monotypy): "Type \ MALAY PENINS: PAHANG F.M.S. Fraser's Hill 4000 ft: 16.4.1938. \ Allopygus malayanus Cam. Type \ M.Cameron. Bequest. B.M. 1955-147" (NHML).

DESCRIPTION (Habitus: Fig. 16): 13–17 mm long (7.0–7.5 mm, abdomen excluded). – Head and pronotum usually violaceous blue, rarely greenish blue, with head slightly darker than pronotum, elytra brilliant violaceous blue; antennae black, two outer segments paler reddish brown; palpi black brown, last segment of maxillary palpi somewhat paler reddish brown; legs black, front tarsi somewhat paler reddish brown.

Head rounded quadrangular to slightly trapezoid, 1.27–1.32 times as wide as long, eyes large, 2.53–2.81 times as slightly angulate tempora; surface of head with variably distinct micropunctulation, usually visible at 10 times magnification; antennae moderately long, slightly variable, segment 10 about as long as wide or even inconspicuously oblong; pronotum 1.1 times as wide as long, sides and base forming almost perfect arc, hind angles not indicated; surface with micropunctulation as on head; elytra along sides markedly longer than pronotum along midline, rather coarsely and densely punctate, punctures separated by about a puncture diameter in transverse direction; posterior margin of abdominal tergite VII with whitish seam.

Male unknown.

DIAGNOSIS: The species is very similar to *A. excellens* but differs by the smaller body size and by the much larger eyes.

ADDITIONAL MATERIAL EXAMINED:

M A L A Y S I A: PAHANG: 1 ç: Cameron Highlands, Tanah Rata, 1400 m, leg. L. Černý (CDP); 1 ç: Tanah Rata, 1.IV.1999, leg. W. Suppantschitsch (NMW); 1 ç: Cameron Highlands, Robinson Falls, 18.–30.V.1981, leg. T. Senoh (CST).

DISTRIBUTION: The species is at present known only from Peninsular Malaysia (Pahang).

Algon jizushanus sp.n.

Holotype &: "CHINA – Yunnan, Jizu – Shan, 6.-10.7.94, lgt. V. Kubáň" (CKS).

DESCRIPTION (Habitus: Fig. 13): 18.8 mm long (8.1 mm, abdomen excluded). – Head and pronotum dark bluish green, pronotum with a somewhat more distinct bluish hue; elytra metallic bluish green, toward base dark metallic blue, very base narrowly violaceous; antennae black, two outer segments pale brownish yellow; palpi reddish brown; legs black, front tarsi and segments 4 and 5 of middle and hind tarsi reddish brown;

Head rounded quadrangular, 1.34 times as wide as long; eyes rather small, 1.31 times as long as regularly rounded tempora; surface of head with very fine micropunctulation, scarcely visible at 10 times magnification; antennae rather short, segments 9 and 10 about as long as wide; pronotum 1.11 times as wide as long, sides and base moderately convex, hind angles weakly indicated; without sublateral punctures; surface with micropunctulation equally fine as on head; elytra along sides markedly shorter than pronotum along midline; very coarsely and densely punctate, punctures mostly separated by less than a puncture diameter in transverse direction; abdominal tergites exceedingly densely, asperately punctate, posterior margin of tergite VII without whitish seam.

Aedeagus (Fig. 97) rather small, median lobe parallel-sided with acutely pointed apex, in lateral view with simple, rather narrow, hardly bent apical portion; paramere (Fig. 97c) with very broad

flattened median ridge, lateral extensions weakly developed, apex broadly rounded, with numerous (57) peg setae densely arranged in arrow-shaped subapical cluster.

DIAGNOSIS: In coloration the species is very similar to *A. bramlettorum*, but differs from it as well as from all other species with smaller eyes (less than two times as long as tempora) by the short elytra and by the dense abdominal punctation.

DISTRIBUTION: The species is at present known only from the type locality in central Yunnan (China).

ETYMOLOGY: The species is named after the type locality, Jizu Shan, situated at the northern end of lake Erhai.

Algon viridis BOHÁČ

Algon viridis BOHÁČ 1992: 445.

TYPE MATERIAL: Holotype ♂: "Vietnam, Taj Nguen, Bud Lioj, 65km N Ankche, A. Pozarževskij lgt., 20.30.12.80, trop. les" (CBCB). – Paratype: 1 ç: "Vietnam, 65 km n. Ankche, Tam Nguen, XII.79, A. Pozarževskij lgt." (CBCB).

DESCRIPTION (Habitus: Fig. 10): 17.0–17.5 mm long (9.7–10.0 mm, abdomen excluded). – Fore body bright metallic golden greenish with slight coppery hue; antennae black, three outer segments paler, reddish brown; scutellum black, palpi dark reddish brown, legs dark brown to black brown, front tarsi somewhat paler reddish brown.

Head rounded quadrangular, 1.30–1.37 times as wide as long; eyes 1.6–1.7 times as long as inconspicuously angulate tempora; all antennal segments markedly oblong; surface of head with micropunctulation rather distinct, finer and sparser on vertex; pronotum 1.14 times as wide as long sides and base forming almost perfect arc; anterior (except medially) and lateral margin densely punctate and setose, setae unusually long; surface of pronotum with very fine micropunctulation, hardly visible at 10 times magnification; subhumeral row with larger number of punctures (about 10) than most other *Algon* species; elytra rather coarsely, uniformly, moderately densely punctate, punctures separated by 1–2 puncture diameters in transverse direction; scutellum with dense, almost pit-like punctation.

Aedeagus (Fig. 91) very large, median lobe parallel-sided (apex broken off); paramere (Fig. 91c) with broad flattened median ridge, lateral extension rather narrow, with a dense subapical cluster of almost 80 peg setae.

DISTRIBUTION: The species is at present known only from the type locality.

Algon theresae sp.n.

Holotype **3**: "NW Thailand, 19.19N 97.59E, Mae Hong Son, 1991, Ban Huai Po, 1600-2000 m, 9.-16.5., L. Dembicky leg." (NMW).

Paratype 2: "NE [sic!] THAILAND, 1-15-1991, Mae Hong Son, Ban Huai Po, 800-1600 m, S. Bily leg." (NMB).

DESCRIPTION (Habitus: Fig. 11): 16.0–17.8 mm long (8.0–8.5 mm, abdomen excluded). – Head and pronotum dark metallic green with very slight brassy hue; elytra brilliant metallic golden green with strong coppery hue; antennae dark brown with two outer segments reddish brown; palpi reddish testaceous; legs black to dark brown, front tarsi dark reddish brown, middle and hind tarsi almost as dark as tibiae, segments 5 slightly paler brown.

Head rounded quadrangular, 1.32–1.34 times as wide as long, almost as wide as pronotum, eyes 1.8 times as long as tempora, tempora almost regularly rounded; surface of head with

conspicuous micropunctulation, slightly finer on vertex; antennae rather short, with segments 4– 8 oblong, segments 9 and 10 about as long as wide; pronotum about as long as wide or slightly wider than long (ratio 1.07), sides weakly convex, base strongly convex, hind angles not indicated; surface of pronotum with distinct and dense, uniform micropunctulation, punctures about as fine as on vertex of head; elytra along sides longer than pronotum along midline, with rather fine and sparing asetose ground punctation and with irregular longitudinal rows of larger setiferous punctures along elevated sutural interval and on disc, deflexed sides of elytra densely furnished only with large setiferous punctures; punctures of ground punctation separated by three to four puncture diameters in transverse direction.

Aedeagus (Fig. 95) rather small, median lobe (ventral view) parallel-sided, with moderately sharply pointed apex, apical portion in lateral view simple; paramere (Fig. 95c) moderately broad, broadest almost at base, gradually narrowed toward apex in almost straight line, sides of paramere with numerous fine setae, with 26 peg setae in irregular subapical cluster.

DIAGNOSIS: The species differs from *A. viridis* by the shorter antennal segments and by the double elytral punctation. It is similar to *A. semiaureus* but differs by the much larger body size, longer pronotum and much longer temora. In addition, the double punctation of the elytra looks different (see "diagnosis" of *A. semiaureus*).

DISTRIBUTION: The species is at present known only from the type locality in northwestern Thailand.

ETYMOLOGY: I gladly dedicate this species to Theresa Kössler who has been one of my best friends since her early childhood days.

Algon aureoviridis sp.n.

Holotype &: "Pedong, A. Desgondins \ Museum Paris, ex. Coll. R. Oberthur" (NHMP).

DESCRIPTION (Habitus: Fig. 12): 17.8 mm long (8.0 mm, abdomen excluded). – Head and pronotum bright metallic green with golden reflex and very slight coppery hue, elytra bright metallic green but without golden or coppery hue; antennae reddish brown with middle segments slightly darkened (the specimen is lacking the entire right antenna and segments 10 and 11 of the left antenna, therefore the coloration cannot be precisely interpreted); palpi reddish, legs dark brown to black brown, front tarsi dark reddish brown with segment 5 reddish, segments 3 and 4 of middle and hind tarsi dark reddish brown segments 5 paler reddish brown.

Head 1.27 times as wide as long, markedly less wide than pronotum, less pronounced quadrangular; eyes 1.5 times as long as tempora; pronotum 1.16 times as wide as long, sides regularly convex with inconspicuously indicated hind angles, base less convex than in preceding species; surface with very fine micropunctulation, scarcely visible at 10 times magnification, almost obsolete on frons; head and pronotum with exceedingly fine traces of isodiametrical microsculpture (type II), visible only at 50 times magnification and proper lighting; elytra moderately densely and moderately strongly punctate but with irregular longitudinal rows of a few much larger punctures within asetose ground punctation situated approximately in midwidth; deflexed sides of elytra densely, coarsely, slightly asperately punctate and pubescent; punctures almost contiguous.

Aedeagus (Fig. 98) rather small, median lobe distinctly convexly widened subapically, apex sharply pointed; in lateral view with simple, almost straight apical portion; paramere (Fig. 98c) similarly shaped as in *A. theresae* but markedly broader, in lateral view with very large dorso-ventral extension near base; with only 16 peg setae.

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Female unknown.

DIAGNOSIS: Externally, the species is quite similar to *A. theresae*, but differs by the smaller eyes, wider pronotum and shorter elytra.

DISTRIBUTION: The species is at present known only from the type locality in northern India (Darjeeling).

ETYMOLOGY: The name of the species refers to the conspicuous golden green color of the fore body.

Algon semiaeneus (CAMERON)

Creophilopsis semiaeneus CAMERON 1921: 273; 1932: 271; SCHILLHAMMER 1999: 94.

TYPE MATERIAL: Holotype σ (by monotypy): "Type \land Burma 1920.258 \land Haka chin Hills BURMA F.F.F. Venning 12.XI.09. \land Creophilopsis semiaeneus Cam. Type" (NHML).

DESCRIPTION (Habitus: Fig. 22): 17.5 mm long (8.0 mm, abdomen excluded). – Head and pronotum dark metallic greenish blue, elytra bright metallic green, more bluish toward base, basal depression black, disc of elytra with slight coppery hue; antennae reddish (colors may have faded due to age of specimen); palpi reddish; legs dark reddish brown (might be dark brown to black in fresh specimens) with slightly paler tarsi.

Head rounded quadrangular, 1.33 times as wide as long; micropunctulation on surface very distinct, also on frons clearly visible at 10 times magnification; eyes about 1.7 times as long as tempora; antennal segments 4–7 markedly oblong, segment 8 slightly oblong, segments 9 and 10 about as long as wide; pronotum 1.13 times as wide as long, widest at midlength, sides weakly convex; micropunctulation slightly finer than on head; head and pronotum with exceedingly fine microsculpture (Type II), visible only at very high magnification (at least 50 times); elytra along sides slightly longer than pronotum along midline, rather sparingly punctate, punctures of ground punctation separated by 2–4 puncture diameters in transverse direction; in addition, with longitudinal rows of large setiferous punctures along elevated sutural interval, at about midwidth and along sides, deflexed portion of elytra densely and coarsely punctate; posterior margin of abdominal tergite VII with whitish seam.

Aedeagus (Fig. 104) very similar to that of *A. theresae* but with median lobe more straightly narrowed toward more sharply pointed apex, in lateral view with broader, indistinctly truncate apical portion; paramere (Fig. 104c) also very similar to that of *A. theresae* but slightly broader, also in lateral view.

Female unknown.

DIAGNOSIS: The species is quite similar to *A. aureoviridis*, but differs by the blue colored head and pronotum, the more pronounced quadrangular and broader head, the shorter tempora, and the less dense elytral punctation.

DISTRIBUTION: The species is at present known only from the type locality in Myanmar (Chin State).

Algon gemmatus sp.n.

Holotype φ : "Shiri-Khola-Rimbick, 1950-2350 m, 21.5.1975 \ Distr. Darjeeling, India, W. Wittmer \ Algon semiaureus Fauv. H. Coiffait det. 1982" (NMB).

Paratypes (3 exs.): 1 $_{\circ}$: "414 Sankhua Sabha Distr., Arun Valley, Chichila, 1900-2000 m, Quercus forest, bushes near village, 18-20 June 88, J. Martens & W. Schawaller \ Nepal-Expeditionen Jochen Martens" (SMNS); 1 $_{\circ}$:

"NEPAL Lalitpur Distr., 2 km S Godavari, 1700 m, 20.X.83, Smetana & Löbl" (MHNG); 1 ç: "NEPAL, Phulchoki, 13:III:1981, de Rougemont" (CRL).

DESCRIPTION (Habitus: Fig. 14): 14–20 mm long (8.0–8.8 mm, abdomen excluded). – Fore body bright metallic golden olivaceous green to brassy green, head and pronotum usually with distinct coppery hue, elytra with less distinct coppery hue; antennae pale reddish brown to yellowish red, basal one to four segments usually darker reddish brown; palpi reddish, legs including tarsi dark brown to reddish brown, segments 5 of tarsi paler reddish brown to reddish.

Head rounded quadrangular, 1.32–1.36 times as wide as long, eyes moderately large, 1.41–1.53 times as long as slightly angulate tempora; surface of head with distinct but fine micropunctulation, becoming almost obsolete on vertex; antennae moderately long, segment 10 about as long as wide; pronotum broad, about 1.15 times as wide as long, sides slightly convex, more distinctly narrowed anteriad than basad, posterior angles inconspicuously indicated; surface with exceedingly fine micropunctulation, hardly visible at 10 times magnification; head and pronotum with exceedingly fine traces of isodiametrical microsculpture (as in *A. aureoviridis*, visible only at high magnification and proper lighting); elytra rather short, along sides about as long as pronotum along midline, along suture markedly shorter than pronotum; asetose ground punctation fine, uniform, variably dense, punctures separated by two to three puncture diameters in transverse direction, along elevated sutural interval and on disc interspersed with irregular longitudinal rows of coarser punctures; deflexed sides of elytra densely, uniformly punctate; posterior margin of abdominal tergite VII with whitish seam.

Male unknown.

DIAGNOSIS: Externally, the species is quite similar to *A. aureoviridis*, but differs by the more transverse head, the generally finer elytral ground punctation, slightly finer punctation of tergites and the much stronger coppery hue of the fore body.

DISTRIBUTION: The species is at present known from northern India (Darjeeling) and Nepal (Central and Eastern).

ETYMOLOGY: The species is named in reference of its matchless beauty, *gemmatus*, *-a*, *-um* (Latin) means adorned with gems.

Algon psittacus FAUVEL

Algon psittacus FAUVEL 1895: 273.

TYPE MATERIAL: Lectotype σ (present designation): "Inde \ psittacus Fvl. \ R.I.Sc.N.B. 17.479 Coll. et det. A. Fauvel \ Syntype" (ISNB) – the specimen is lacking the aedeagus. Fauvel did not explicitely mention the number of type specimens and since specimens studied by Fauvel are deposited in various collections, it is necessary to designate a lectotype to ensure taxonomic stability.

DESCRIPTION (Habitus: Fig. 17): 13.5–14.5 mm long (6.1–6.5 mm, abdomen excluded). – Head and pronotum dark metallic blue with violaceous or greenish hue, elytra brilliant metallic green with golden or slight coppery hue, base dark blue; antennae dark brown with three outer segments reddish; palpi reddish brown to yellowish red; legs dark brown, segments 5 of tarsi reddish brown. – Remark: older (faded) or teneral specimens have entirely reddish legs and antennae.

Head rounded quadrangular, 1.30–1.37 times as wide as long, eyes large, 2.3–2.5 times as long as tempora; tempora comparatively distinctly angulate; surface of head with fine but (at 10 times magnification) well visible micropunctulation, very fine and almost obsolete on vertex and clypeus; antennae with segments 9 and 10 about as long as wide; pronotum 1.07–1.15 times as

wide as long, sides and base forming almost perfect arc, hind angles not indicated; surface with micropunctulation as on head but slightly denser; elytra along sides slightly longer than pronotum along midline, with dense and coarse, almost pit-like, uniform punctation (Fig. 64), punctures separated by about a puncture diameter (less in medio-posterior portion) in transverse direction; elevated sutural interval with a row of larger punctures in posterior two thirds, posterior margin of abdominal tergite VII with whitish seam.

Aedeagus (Fig. 99) with median lobe gradually widened apicad, in lateral view with rather slender apical portion, apex simple; paramere (Fig. 99c) very slender but with rather broad flattened median ridge, lateral extensions very narrow, with an irregular cluster of close to 60 peg setae arranged in rather dense, longitudinally extended, subapical cluster.

DIAGNOSIS: Among the species with blue head and pronotum and green elytra, *A. psittacus* is easily detectable by the coarse, uniform elytral punctation. From the very similar *A. tricolor* (for which it has repeatedly been mistaken) it differs by the smaller size, more transverse head, shorter tempora and coarser elytral punctation with sutural row of larger punctures.

ADDITIONAL MATERIAL EXAMINED:

- I N D I A: UTTARANCHAL PRADESH: 1 φ: "Lansdowne Div., U.P. India, F.W. Champion \ Algon tricolor Fauv. \ Algon sp. not tricolor, P.M. Hammond det. 1981" (NHML); HIMACHAL PRADESH: 1 σ: "Timli, Siwalik, 15.7.1958 \ D. Indien Exp. Nr. 1284 \ Algon tricolor Fauvel \ ex coll. Scheerpeltz" (NMW).
- N E P A L: GORKHA: 1 or: "W-Nepal, Gorkha Distr. Kali Sundhara Bazar Hansi Bazar, 1300 700 m, leg. Probst, 11.6.1993" (NMW).

DISTRIBUTION: The species is at present known from north-western India and from Nepal.

Algon tricolor FAUVEL

Algon tricolor FAUVEL 1895: 272.

TYPE MATERIAL: **Holotype** $_{\mathbb{P}}$ (by monotypy): MYANMAR, Kachin State: "Teinzo Birmania Fea.Maggio 1886 \ Algon tricolor Fvl. \ Typus \ tricolor Fauv. \ Holotypus $_{\mathbb{P}}$ Algon tricolor Fauvel, 1895 \ Museo Civico di Genova" (MNG).

DIAGNOSIS (Habitus: Fig. 21): 16.5–17.5 mm long (7.2–7.9 mm, abdomen excluded). – The species is very similar to *A. psittacus* in coloration and build but differs by the larger size, less transverse head (W : L = 1.26 : 1), much longer tempora (eyes : tempora = 2.1 : 1), and finer elytral punctation with micropunctulation only on elevated interval along suture.

Male unknown.

ADDITIONAL MATERIAL EXAMINED:

T H A I L A N D: 1 9: Mae Hong Son, Ban Huai Po, 1600 m, 16.V.1991, leg. P. Pacholatko (NMW).

DISTRIBUTION: The species is at present known only from the type locality in northern Myanmar (type locality) and northwestern Thailand.

Algon immsi BERNHAUER

Algon immsi BERNHAUER 1915: 54.

TYPE MATERIAL: **Holotype** σ (by monotypy): "Binsar Kumaon 7700 ft. \25-5-1912 A. D. Imms \ For. Zool. Coll. \ 55 \ Algon Immsi Bernh. Typus un. \ Chicago NHMus M.Bernhauer Collection" (FMNH).

DESCRIPTION (Habitus: Fig. 18): 15.3–16.3 mm long (6.8–7.1 mm, abdomen excluded). – Head and pronotum almost black but with distinct blueish, greenish or violaceous hue; elytra brilliant metallic green with golden or coppery hue on disc and darker greenish or blue tint basally, along deflexed lateral margin broadly purplish violaceous in basal two thirds; antennae

almost unicolored reddish brown, rarely basal segments somewhat darker; palpi reddish brown; legs dark brown or black brown to reddish brown, if dark then tarsi (except first segment of middle and hind tarsi) markedly paler reddish.

Head rounded quadrangular, 1.29–1.35 times as wide as long, eyes large, 2.53–2.66 times as wide as tempora, tempora comparatively distinctly angulate; surface of head with fine but (at 10 times magnification) well visible micropunctulation, also on vertex and to some extent on clypeus; antennae with segments 9 and 10 about as long as wide; pronotum 1.10–1.12 times as wide as long, sides weakly, base distinctly convex, hind angles inconspicuously indicated; surface with micropunctulation as on head but slightly denser and slightly more distinct; head and pronotum without even the finest traces of microsculpture; elytra along sides about as long as pronotum along midline, with rather fine and sparse ground punctation, punctures separated by five puncture diameters or more in transverse direction, along elevated sutural interval and sublaterally with irregular longitudinal rows of larger setiferous punctures; deflexed sides of elytra densely furnished with large setiferous punctures, punctures separated by less than a puncture diameter (Fig. 65); posterior margin of tergite VII with whitish seam.

Aedeagus (Fig. 100) with parallel-sided median lobe and sharply pointed apex, in lateral view with indistinctly sinuate apical portion; paramere (Fig. 100c) slightly broader than in *A. psittacus*, with more parallel flattened median ridge and more clearly developed lateral extensions, broader than in *A. psittacus* in lateral view; peg setae larger, less numerous (43–45), arranged in less longitudinal subapical cluster.

DIAGNOSIS: In coloration and build the species is very similar to *A. psittacus*. It differs by the slightly larger eyes but most clearly by the double punctation of the elytra.

ADDITIONAL MATERIAL EXAMINED:

I N D I A: UTTARANCHAL PRADESH: 1 a, 1 q: "INDE Kumaon (UP), Rangarh env., 2000 m, I. Löbl, 9.X.79" (MHNG, NMW).

N E P A L: 1 ç: "NEPAL, Ktmd., Sunderijal, 8000', Oakforest, 3-VII, Can. Nepal Exp. '67 \ Algon semiaureus Fv., Smetana det. 1975" (CNC); 1 ♂: "NEPAL: Annapurna South Himal, SE of Narchenq, left riverside of Bele Khola, 2300 m, N28°30'40", E83°41'33", 25./26.5.2001, leg. G. Hirthe" (CHK).

DISTRIBUTION: The species is at present known from north-western India and from Nepal.

Algon nadjae sp.n.

Holotype &: "NEPAL: Phulchoki, III:1982, de Rougemont" (CRL).

Paratypes (2 exs.): 1 σ: "C. NEPAL 1992, Godavari, 16-18.V., 1500-1900 m, Leg. Jiři Moravec" (NMW); 1 σ: "Godavari, 1,580 – 2,000 m alt., Kathmandu Valley, C. NEPAL, 1-6.vi.1981, W. Suzuki leg." (CST).

DESCRIPTION (Habitus: Fig. 19): 13.0-17.5 mm long (7.7-8.0 mm, abdomen excluded). – Measurements: head 1.35-1.40 times as wide as long, eyes 2.35-2.65 times as long as tempora, pronotum 1.11-1.17 times as wide as long.

Aedeagus (Fig. 101) very similar to that of *A. immsi* but conspicuously larger; paramere (Fig. 101c) with less clearly delimited median ridge, lateral extensions weakly developed, peg setae more numerous (about 60).

Female unknown.

DIAGNOSIS: In coloration the species is more or less identical to *A. immsi*, but differs by the larger body size and the predominantly larger setiferous punctation on the disc of the elytra with very fine interspersed punctures which more resemble a micropunctulation (Fig. 66).

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DISTRIBUTION: The species is at present known only from the vicinity of Kathmandu in Central Nepal.

ETYMOLOGY: The species is dedicated to my daughter Nadja Marina. She brought a lot of sunshine into an already happy family.

Algon semiaureus FAUVEL

Algon semiaureus FAUVEL 1895: 273.

Algon bhutanicus COIFFAIT 1982: 270; SCHILLHAMMER 1999: 94. *Algon cameroni* WENDELER (manuscript name).

TYPE MATERIAL: Algon semiaureus: Lectotype σ (present designation): "Darjeeling Sikkim \ semiaureus Fvl. \ R.I.Sc.N.B. 17.479 Coll. et det. A. Fauvel \ Syntype" (ISNB). - Paralectotype σ : "Kunbir Bengale \ Kurseong Bengale occ. \ Coll. et det. A. Fauvel Algon semiaureus Fauv. R.I.Sc.N.B. 17.479 \ Syntype" (ISNB). - Fauvel did not explicitely mention the number of type specimens and since specimens studied by Fauvel are deposited in various collections, it is necessary to designate a lectotype to ensure taxonomic stability.

Algon bhutanicus: Holotype ♂ (by monotypy): "Ungar - Lhuntsi 2500-1800 6.6. \ Bhutan L. Caminada 76 \ Type \ Algon bhutanicus H. COIFFAIT 1982" (NMB).

DESCRIPTION (Habitus: Fig. 20): 14.0–15.5 mm long (6.3–7.1 mm, abdomen excluded). – Rather variably colored; head and pronotum darker or brighter metallic olivaceous green, sometimes with very slight golden or coppery hue; elytra brilliant metallic golden green, with slight or very distinct coppery to magenta hue; antennae with basal three segments reddish brown, remaining segments gradually becoming paler reddish; palpi pale reddish brown; legs black to black brown, front tarsi and segments 5 of mid and hind tarsi reddish; if legs paler brown (older specimens) then medial faces of hind tibiae infuscate.

Head rounded quadrangular, 1.32–1.39 times as wide as long; eyes very large, 2.71–3.07 times as long as tempora; with very coarse postocular punctation, punctural grooves partly confluent, forming irregular ridge extending from very long post-mandibular sulcus, tempora thus appearing carinate immediately behind eyes; postmandibular sulcus very long, almost reaching hind margin of eye; surface of head with distinct micropunctulation, becoming sparser and finer toward clypeus (fine and less distinct in specimens from S-India); antennae rather short, segments 4-8 oblong, segments 9 and 10 about as long as wide, segment 10 rarely slightly transverse; pronotum 1.06–1.12 times as wide as long, sides moderately convex, base strongly and regulary convex, hind angles hardly indicated; surface usually with micropunctulation (visible at 10 times magnification) as distinct as on head, rarely becoming very fine and visible only at higher magnifications (particularly in specimens from S-India); elytra along sides about as long as pronotum along midline; with characteristic double punctation, with large setiferous punctures forming irregular longitudinal rows, but appearing more or less evenly distributed, separated by about four to six puncture diameters in transverse direction, interspersed with fine punctures, equally sparsely distributed as large punctures (Fig. 67); deflexed portion of elytra very densely and coarsely punctate with setiferous punctures.

Aedeagus (Fig. 102) almost identical with that of *A. immsi*, both in ventral and lateral view, but paramere (Figs. 102c, d) with more numerous and differently arranged peg setae.

DIAGNOSIS: Among the species with double elytral punctation, easily recognizable by the very large eyes with slightly carinate tempora; in addition, it differs from *A. immsi* by the denser large punctation of the elytra, from *A. nadjae* by the smaller body size and less dense elytral punctation, from both by the predominantly green color of head and pronotum, which is less contrasting with the elytral color.

REMARK: The specimens from South India differ slightly by the finer micropunctulation and slightly smaller peg setae of the paramere. The differences may be subspecific.

ADDITIONAL MATERIAL EXAMINED:

B H U T A N: 1 ç: "Sampa – Kotoka, 1400 – 2600 m \ Nat.-Hist. Museum Basel – Bhutan Expedition 1972 \ Algon semiaureus Fv., Smetana det. 1975" (NMB).

I N D I A: SIKKIM: 1 σ : "Sikkim" (HUB); 3 exs.: "Kurseong, coll. Jarrige" (MHNP); MADURA: 1 σ , 2 $_{\varphi \circ \varphi}$: "Madura, Ind. or." (NMW, FMC).

DISTRIBUTION: The species is at present known only from Sikkim and Bhutan, and from Madura in South India.

Algon atrocaeruleus sp.n.

Holotype &: "Madras State, India V 1963 P.S. Nathan" (CNC).

DESCRIPTION (Habitus: Fig. 23): 15.2 mm long (6.7 mm, abdomen excluded). – Fore body almost unicolorous dark violaceous blue, in places with a slight, dark greenish blue hue; antennae with segment 1 black brown, segments 2 and 3 reddish brown, segments 4–9 dark brown with reddish base and apex, two outer segments paler reddish; palpi dark reddish brown, last segment of maxillary palpi reddish brown; legs dark brown to black brown, tarsi reddish brown.

Head rounded quadrangular, 1.27 times as wide as long, hind angles more distinctly marked than in any other species of that group, mostly due to tempora being parallel for large distance behind eyes; eyes 1.85 times as long as tempora; surface of head with very distinct and dense micropunctulation (clearly visible at 10 times magnification), but also with exceedingly fine stitch-like punctulation ("Type II" microreticulation ?) in between (visible only at about 50 times magnification); antennae rather short, segments 9 and 10 about as long as wide; pronotum about as long as wide, subparallel-sided, surface with very fine micropunctulation, hardly visible at 10 times magnification; elytra very short, along sides markedly shorter than pronotum along midline; medial two thirds of disc coarsely and densely punctate, punctural grooves partly confluent forming, lateral third finely punctate, punctures separated by more than two puncture diameters in transverse direction, deflexed portion as coarsely and densely punctate as medial two thirds of disc; posterior margin of abdominal tergite VII without whitish seam.

Aedeagus (Fig. 103) with median lobe slender, apex sharply pointed, in lateral view almost perfectly straight; paramere (Fig. 103c) very slender (ventral view) without lateral extensions, with a cluster of 10 peg setae, clearly removed from apex.

Female unknown.

DISTRIBUTION: The species is at present known only from the type locality in southern India.

ETYMOLOGY: The specific name is a combination of the Latin words *ater*, *-a*, *-um* (dark) and *caeruleus*, *-a*, *-um* (blue) and refers to the dark blue color of the fore body.

Algon oculatus species group

DIAGNOSIS: The species group is mainly defined by the exceedingly large eyes. The postocular region is more or less confined to the base of the head. In addition, the species of this group have a dorsal row of punctures on the pronotum. These, however, are frequently reduced on one or both sides. The species are remarkably similar to each other, a reliable identification is in many cases possible only by studying the aedeagus.

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Algon oculatus CAMERON

Algon oculatus CAMERON 1932: 273.

Psammegus [sic!] deuvei COIFFAIT 1984: 380 (misspelling of Pammegus) syn.n.; SCHILLHAMMER 1999: 95.

TYPE MATERIAL: Holotype $_{\circ}$ (by monotypy): "Type \ Mungpo -/5/31 \ Algon oculatus Cam. Type \ M.Cameron. Bequest. B.M. 1955-147" (NHML).

A. deuvei (COIFFAIT): **Holotype** ♂ (by monotypy): "Nepal 8.83 Katmandu Gokana \ Type \ Psammegus deuvei H. COIFFAIT \ Museum Paris 1985 Coll. J. Coiffait" (MHNP).

DESCRIPTION (Habitus: Fig. 28): 9.0–11.3 mm long (4.3–5.1 mm, abdomen excluded). – Black to black brown, rather opaque, abdominal segment VIII dark brown to reddish testaceous; mandibles dark reddish testaceous, palpi and antennae reddish to reddish yellow, legs reddish to dark reddish brown, medial face of hind tibia variably infuscate.

Head transversely elliptic, 1.33–1.38 times as wide as long, eyes very large, occupying almost entire side of head but quite variable in size, 5.3-8.5 times as long as tempora; tempora appearing slightly carinate due to irregular ridge leading from infraorbital seta posteriad around posterior margin of eye, appearing as if confluent with post-mandibular ridge ventrally and with furrow along medial margin of eye dorsally; surface densely covered with isodiametrical microsculpture (indistinct Type II), in addition, with very fine micropunctulation, visible at about 20 times magnification; vertex with a pair of inconspicuous gibbosities slightly behind midlength of head, or with a pair of indistinct depressions in the same place; antennae moderately long, segments 4–7 markedly oblong, segment 8 slightly oblong, segments 9 and 10 about as long as wide; pronotum 1.04-1.10 times as wide as long, sides and base weakly convex, hind angles broadly rounded, weakly indicated; surface densely covered with isodiametrical microsculpture (clearly Type II); with a dorsal row of punctures varying from one to four punctures, in addition, with an oblique sublateral row of usually three punctures; also, with exceedingly fine micropunctulation similar to that of head; scutellum variably punctate, either finely, sparingly, slightly asperately punctate, or punctures denser with larger punctural grooves; elytra variably long, along sides about as long as or longer than pronotum along midline; surface with very dense and profound microsculpture, "Type IIIa" at base, "Type IIIb" on disc; with exceedingly fine micropunctulation, hardly visible among microsculpture and some fine scattered punctures in basal depression, bearing inconspicuous setae; in addition, each elytron with three almost regular rows along elevated sutural interval, on disc at about half width and laterally, each consisting of 5-6 setiferous punctures; deflexed portion of elytra finely, moderately densely punctate and pubescent, setae moderately long, greyish golden; posterior margin of abdominal tergite VII with (winged specimens) or without (specimens with reduced wings) whitish seam.

Aedeagus (Fig. 105) very tiny, median lobe with acutely pointed apex, subapically with semimembranous transition toward ostial operculum, apical portion sinuate in lateral view; dorsal portion (below ostial operculum) weakly sclerotized, bearing a dense patch of numerous short setae; paramere (Fig. 105c) very slender (ventral view) with weakly developed lateral extensions; with about 40 peg setae arranged in dense subapical cluster, occupying somewhat less than half of length of apical portion.

REMARK: This species appears to have winged and unwinged specimens. Unlike *A. chinensis*, the presence or lack of wings seems to have no influence on the eye size but only on the length and shape of the elytra – winged specimens have longer and more vaulted elytra.

ADDITIONAL MATERIAL EXAMINED:

N E P A L: 1 ♂: "NEPAL, 1700 m, Sundarijal, VI.1989, P. Morvan" (CRL); 1 ç: "412 Sankhua Sabha Distr., Arun Valley betw. Mure and Hurure, mixed broad-leaved forest, 2050-2150m, 9-17 June 88, Martens & Schawaller leg. \ Nepal Expeditionen Jochen Martens" (NMW); 1 ç: "306 Kathmandu Distr., Sheopuri Mt., Quercus semecarpifolia forest, 2100-2300 m, 25 June 1988, Martens & Schawaller leg. \ Nepal Expeditionen Jochen

Martens" (SMNS); 1 ç: "NEPAL Khandbari Distr., Induwa Khola Valley, 2050 m, 16.IV.84, Smetana & Löbl" (CSO).

DISTRIBUTION: The species is at present known from Nepal and northern India (Darjeeling).

Algon sinoculatus sp.n.

Holotype &: "CHINA: W-Yunnan, env. Baoshan, 5.-8.VI.1993, E. Jendek & O. Sausa leg." (NMW).

DESCRIPTION: 13.5 mm long (5.9 mm, abdomen excluded). – Externally, the species is virtually indistinguishable from *A. oculatus*.

Aedeagus (Fig. 106) similar to that of *A. oculatus* but median lobe slightly slenderer, setae on semi-membranous dorsal portion more numerous; paramere (Fig. 106c) slenderer than in *A. oculatus*, without discernible lateral extensions, with peg setae more numerous (close to 50) occupying more than half of length of apical portion.

Female unknown.

DISTRIBUTION: The species is at present known only from the type locality.

ETYMOLOGY: The specific epithet is a combination of *sinensis* (originating from China) and the specific name of the similar *A. oculatus*.

Algon pseudoculatus sp.n.

Holotype &: "THAILAND: Chiang Mai, Doi Inthanon, 1650 m, 7.IX.1985, Burckhardt-Löbl" (MHNG).

DESCRIPTION (Habitus: Fig. 29): 13.5 mm long (5.9 mm, abdomen excluded). – Measurements: head 1.39 times as wide as long, eyes about four times as long as tempora, pronotum 1.05 times as wide as long; dorsal rows of pronotum reduced to one puncture each, fine setiferous punctures in basal depression of elytra a bit more conspicuous than in *A. oculatus*. wings reduced, posterior margin of abdominal tergite VII without whitish seam.

Aedeagus (Fig. 108) larger than in two preceding species; median lobe almost perfectly straight in lateral view, ostial operculum and semi-membranous dorsal portion of median lobe with less numerous but rather long setae; paramere (Fig. 108c) very slender, with more numerous peg setae (about 80), occupying almost entire length of apical portion.

Female unknown.

DIAGNOSIS: The species is almost identical with *A. oculatus* but differs by the larger size (and thus more robust build), longer tempora and longer antennae with distinctly longer segments 4–10, and the finer micropunctulation of head and pronotum.

REMARK: There is a female from "Vietnam, mts. SW Kui Chau, 200m 5.2.1964, Kabakov [in Cyrillic]" (CKP), which hardly differs externally, but I am pretty sure that this specimen belongs to another species.

DISTRIBUTION: The species is at present known only from the type locality.

ETYMOLOGY: The specific name refers to the close similarity with A. oculatus.

Algon macrops sp.n.

Holotype &: "THAILAND Doi Pui, 14:III:1982 G. de Rougemont" (CRL).

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DIAGNOSIS: 10.5 mm long (5.5 mm, abdomen excluded). – The species resembles *A. pseudoculatus* very closely, but differs by the somewhat smaller body size, much larger eyes (6.8 times as long as tempora), and by the lack of fine setiferous punctation in basal depression of elytra. Pronotum with dorsal rows each consisting of four punctures (however, this character has proven very variable).

Aedeagus (Fig. 106) almost identical to that of *A. sinoculatus* but distinctly larger and paramere (Fig. 106c) with more peg setae (about 60).

REMARK: There are two specimens from Myanmar that do not differ externally from the holotype, except for a slightly less wide head (1.33 and 1.37 times as wide as long) and that one specimen has even larger eyes (9 times as long as tempora). Since the specimens are females and male specimens from the same locality might reveal conspicuous aedeagal differences, they have not been included in the type series. Material studied: MYANMAR: 1 φ : "Shan State, ca. 5 km SW Kalaw, Ye Ayegan, 20°35.96'N 96°31.80'E, 9.VI. 2002, 1380 m, leg. Schillhammer [MBS 83]" (NMW); 1 φ : "Shan State, ca. 35 km N Aungban, Mintaingbin Forest Camp, 20°55.20'N 96°33.60'E, 11.–23.VI.2004, ca. 1320 m, leg. Schillhammer [MBS 146b]" (NMW).

DISTRIBUTION: The species is with certainty known only from the type locality in northern Thailand (Chiang Mai).

ETYMOLOGY: The specific epithet is a combination of the Greek $\mu\alpha\chi\rho\delta\varsigma$ (large) and $\omega\pi\delta\varsigma$ (eye) and refers to the very large eyes of the species.

Algon uniformis species group

DIAGNOSIS: This species group is characterised by the short, densely reticulate, almost impunctate elytra. All species have reduced wings. Pronotum broad, flat, rounded subquadrate to almost hexagonal. Last segment of labial palpi rather slender, especially in the species with metallic elytra quite slender, almost subtruncately fusiform. Aedeagus with very flat paramere. The Nepal species related to *A. nepalicus* deserve special attention – see below.

Algon uniformis CAMERON

Algon uniformis CAMERON 1932: 273.

DESCRIPTION (Habitus: Fig. 30): 11.0–13.0 mm long (5.5–6.3 mm, abdomen excluded). – Black, moderately shiny; antennae darker or paler reddish brown (depending on age of specimen); palpi reddish brown; legs dark brown to dark reddish brown, tarsi somewhat paler, tarsal segment 5 reddish.

Head transversely elliptic or slightly rounded trapezoid, 1.25–1.30 times as wide as long; eyes 1.31–1.55 times as long as regularly convex tempora, tempora frequently dilated behind eyes; surface densely covered with microsculpture of microscopically fine, stitch-like micropunctures, in addition, with isodiametrical microsculpture (indistinct Type II); antennae moderately long, segment 4 distinctly oblong, segments 5–8 weakly oblong, gradually decreasing in length distally, segments 9 and 10 about as long as wide; last segment of labial palpi weakly securiform; pronotum 1.09–1.18 times as wide as long, widest approximately at midlength, narrowed toward anterior and posterior margin in almost straight line, or sides subparallel, giving pronotum a somewhat hexagonal or subquadrate shape, hind angles well indicated, moderately rounded, base almost straight; microsculpture as on head; scutellum moderately densely, finely

punctate, but punctural grooves rather large, surface with isodiametrical microreticulation (clearly Type II); elytra along sides markedly shorter than pronotum along midline; very finely and sparingly punctate, density and distribution of punctures very variable, punctural grooves rather large and shallow, sometimes with inconspicuous, irregular longitudinal rows of larger grooves; entire elytra with very dense and profound isodiametrical, slightly scaly microsculpture (Type III); in addition with exceedingly fine micropunctulation as on head and pronotum but less visible due to more profound microsculpture; deflexed portion of elytra with similar punctation as on disc but much denser and slightly coarser; abdominal tergites rather densely punctate; punctural grooves large but rather shallow; posterior margin of abdominal tergite VII without whitish seam.

Aedeagus (Fig. 109) rather small, median lobe with slightly convex sides and sharply pointed apex (ventral view), in lateral view almost perfectly straight; paramere (Fig. 109c) subparallel-sided with rounded apex, very flat, with a few (less than five) very small peg setae.

ADDITIONAL MATERIAL EXAMINED:

I N D I A: 1 ♂: "Darjeeling \ brachypterus Fvl." (ISNB); 2 ♂, 1 ç: "Chim Khona (Ghum) 2200 m, 28.5.1975 \ Distr. Darjeeling, India, W. Wittmer" [slighlty differently written] (NMB, MHNP, NMW); 1 ç: "Kurseong, Bengal." (MHNP); 1 ♂: "Inde (West Bengal), (Prov. Darjeeling) Batasi, Forêt, 2400 m, 29-IV-1969, R.E. et R.M. Blackith rec." (MHNP); 1 ♂: "INDIA-N, W-BENGAL, Rimbik – Shirikhola, 10.6.-14.6.2003, lgt. E. Kučera" (CKS).

DISTRIBUTION: The species is at present known only from West Bengal (Darjeeling) in northern India.

Algon tigrimontis sp.n.

Holotype &: "Tiger Hill, 1975, 2500 m, 27.V. \ Distr. Darjeeling, India W. Wittmer" (NMB).

Paratypes (50 exs.): 17 $\sigma \sigma$, 20 $\varphi \varphi$: same data as holotype (24 NMB, 5 CSO, 8 NMW); 1 σ : "Mane Bhanjang, Sukhia Pokri, 9.VI.1975 \ Distr. Darjeeling, India W. Wittmer" (NMB); 1 σ : "Chim Khona, 28.5. (Ghoom), 2-2200 m \ Darjeeling Distr., Wittmer 1975" (NMB); 2 $\sigma \sigma$, 1 φ : "India, W. Bengal, Darjeeling dist., Tonglu, 3100 m, 16.X.78, Besuchet, Löbl" (MHNG); 1 φ : "254a Ilam Dist., Mai Pokhari, 2150-2250 m, 23-25 Aug 1983, Berlese, Martens & Daams leg. \ Nepal-Expeditionen Jochen Martens" (SMNS); 1 σ : "258 Panchthar Dist., zw. Deorali, Puspati u. Sheldoti, 28 Aug 83, 2800-2500 m, Tsuga Lithocarp., Martens & Daams leg. \ Nepal-Expeditionen Jochen Martens" (SMNS); 1 σ : "359 Panchthar Dist., Grat zw. Sheldoti u. Paniporua, Laubwald, 2450-2200 m, 29 Aug 83, J. Martens & B. Daams leg. \ Nepal-Expeditionen Jochen Martens" (SMNS); 1 σ : "324 Panchthar Dist., Dhorpar Kharka, mature Rhododendron-Lithocarpus forest, 2700 m, 13.-16 Apr 88, Martens & Schawaller \ Nepal-Expeditionen Jochen Martens" (2 SMNS, 1 NMW); 1 σ : "INDIA N., W. Bengal, Rimbik-Shirikhola, 10.6.-14.6.2003, lgt. E. Kučera" (CKS).

DESCRIPTION (Habitus: Fig. 31): 10.0-14.5 mm long (5.6–6.2 mm, abdomen excluded). – Measurements: Head 1.25-1.35 times as wide as long, eyes 1.08-1.30 times as long as tempora, pronotum 1.16-1.18 times as wide as long.

Aedeagus (Fig. 110) distinctly larger than in *A. uniformis*, median lobe subparallel-sided, apex even more acutely pointed than in *A. uniformis*, in lateral view slightly bent toward paramere; paramere (Fig. 110c) slenderer but less flat, with slightly more peg setae (more than five).

DIAGNOSIS: Externally, the species is very similar to *A. uniformis* with which is occurs sympathric, but differs by the longer tempora and by the distinctly shorter antennae: segment 4 weakly oblong, segments 5–8 about as long as wide, segments 9 and 10 slightly transverse.

REMARK: Both *A. uniformis* and *A. tigrimontis* seem to have reduced wings. So far, no winged specimen has been found despite the rich material available.

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DISTRIBUTION: The species is at present known from northern India (West Bengal) and the bordering part of eastern Nepal.

ETYMOLOGY: The specific name is a Latin rendition of the type locality (Tiger Hill).

Algon nepalicus complex

What has been considered as *A. nepalicus* till now has turned out as a complex of very similar species which are very difficult or impossible to distinguish externally. In fact, all species except one may be identified only by studying the aedeagus. It is possible to differentiate three assemblages by external characters: 1) species with smaller eyes (eyes : tempora = 0.96-1.20:1) – *A. nepalicus*, *A. pseudonepalicus*, *A. forceps*; 2) species with larger eyes (eyes : tempora = 1.3-1.5:1) and very dense microsculpture on elytra (Fig. 68) – *A. himalayicus*, *A. similis*; 3) species with larger eyes, and finer and sparser microsculpture on elytra (Fig. 69) – *A. dentiger*. It is quite possible that some of the species described herein represent only subspecies, but at the moment an assessment at this level is impossible. Since the species of this complex are collected quite frequently it may be possible in the future to reassess this problematic case.

The species of the A. nepalicus complex may be recognized as follows:

DESCRIPTION: 11.0–16.5 mm long (5.7–7.1 mm, abdomen excluded). – Head and pronotum black, moderately shiny to quite opaque, sometimes with distinct dark blue or dark violaceous hue; elytra brilliant metallic blue, greenish blue, green with or without magenta hue, or golden green, base including shoulders and deflexed lateral portion narrowly blackish; antennae paler or darker reddish brown, palpi reddish brown to yellowish red; legs dark brown to black brown, tarsi generally somewhat paler, segment 5 of tarsi usually reddish.

Head rounded quadrangular to slightly trapezoid, 1.22-1.42 times as wide as long; eyes rather small, slightly shorter to markedly longer than slightly angulate tempora (ratio 0.96–1.50); surface usually densely covered with microsculpture of microscopically fine, stitch-like micropunctures (microsculpture of Type II); in addition, with less fine micropunctulation, visible at about 20 times magnification; antennae very short, segments 4 and 5 inconspicuously oblong, segments 6-8 about as long as wide, segments 9 and 10 slightly transverse (the proportions of the segments may vary slightly); pronotum variably shaped, either subquadrate or slightly hexagonal or narrowed toward base more distinctly than toward anterior margin, 1.11–1.20 times as wide as long, widest approximately at midlength; microsculpture of surface as on head; scutellum rather finely and sparingly punctate; elytra along sides distinctly shorter than pronotum along midline; always with somewhat irregular longitudinal rows of a few larger setiferous punctures along elevated sutural interval, at about midwidth and laterally; ground punctation very variable, formed by rather small setiferous punctures, originating from variably large, shallow grooves, either uniform, punctures separated by about three puncture diameters in transverse direction, or almost impunctate but with indistinct asetose micropunctulation (all transitions between these two extremes occur); punctures quite distinct in specimens with weak or lacking elytral microsculpture, hardly visible in specimens with profound microsculpture; pubescence often lacking (riven off) but usually well preserved at base; surface often with shallow, oblique or longitudinal rugae; surface usually covered with microsculpture of exceedingly dense, stitch-like micropunctulation (Type IIIb), micropunctules more or less contiguous (all species except A. dentiger), or finer and less dense (A. dentiger); deflexed portion of elytra usually always densely and rather coarsely punctate; rarely elytra without microsculpture and thus very shiny; blackish base of elytra with isodiametrical microsculpture (Type IIIa); abdomen rather broad, at midlength broader than elytra, about as broad as pronotum; posterior margin of tergite VII without whitish seam (all specimens studied are wingless).

Variability: The color of the elytra is highly variable. All the above mentioned colors may occur within one species – in those with only a few specimens available the variability could not be assessed, but a similar variability may be expected.

Algon nepalicus COIFFAIT

Algon nepalicus COIFFAIT 1982: 274.

TYPE MATERIAL: Holotype σ : "Manigow 10.VI. 1200-1900m \ Nepal 1978 Bhakta B.Ch. \ Type \ Algon nepalicus H. COIFFAIT 1982" (NMB). – Paratypes: 1 σ : "Mure 6.6. \ Nepal, W.Wittmer C.Baroni U.1976 \ Paratype" (NMB); 1 φ : "Phulchoki 12.6. 2600m \ Nepal, W.Wittmer C.Baroni U.1976 \ Paratype" (NMB); 1 φ : "Syabnu, 12.-19.VI., 2200 - 3350 m \ Nepal 1978 Bhakta B.Ch. \ Paratype \ Museum Paris 1985 Coll. H. Coiffait" (MHNP); 1 φ : "Phulchoki 2600m 11.-14.6. \ Nepal W.Wittmer C.Baroni U.1976 \ Paratype \ Museum Paris 1985 Coll. H. Coiffait" (MHNP); 1 φ : "Phulchoki 2600m 11.-14.6. \ Nepal W.Wittmer C.Baroni U.1976 \ Paratype \ Museum Paris 1985 Coll. H. Coiffait" (MHNP). Since female specimens cannot be reliably identified, it is not certain if the female paratypes really belong to *A. nepalicus*.

DESCRIPTION (Habitus: Fig. 32): Aedeagus (Figs. 111, 112) with very broad median lobe and rather acutely pointed apex, in lateral view slightly or more distinctly sinuately bent toward paramere, apex bluntly hooked; paramere (Figs. 119, 120) quite variable, usually with slightly or more distinctly sinuate sides and more or less distinctly notched apex (ventral view), in lateral view either straight or slightly bent toward median lobe, with two apical clusters each with about 10 peg setae.

ADDITIONAL MATERIAL EXAMINED (males only):

N E P A L: SINDHUPALCHOK: 1 σ : Dobate Ridge NE Barahbise, 2700 m, 2.V.1981, leg. Löbl & Smetana (CSO); SOLUKHUMBU: 1 σ : Thodung, 3100 m, 1.–3.VI.1962, leg. G. Ebert (NMW); DOLAKHA: 1 σ : Hanumante Danda, 2850 m, 23. – 24.V.2000, leg. W. Schawaller [603] (SMNS).

DISTRIBUTION: The species is known only from a few places in Central and Eastern Nepal.

Algon pseudonepalicus sp.n.

Holotype &: [Patan Distr.] "Phulcoki, 1500 - 2700 m, 4.VI.1986 \ C-Nepal, Kathmandu v., C. Holzschuh" (NMW).

Paratypes (9 exs.): PATAN: 1 σ : "Nepal, Phulcoki, V.80, Morvan" (CRL); 1 σ : "Nepal, Kathmandu District \ Phulcoki, 2600 m, 21.IV.1982, leg. A. & Z. Smetana"; (CSO); 1 σ : same data as before but 22.IV.1982 (CSO); 2 $\sigma \sigma$: "Nepal, Lalitpur Distr., Phulcoki, 2550 m, 28.IV.1984, leg. Smetana & Löbl" (CSO, NMW); 1 σ : "Nepal: distr. Kathmandu: Phulcoki, 2400 – 2600 m, 28. – 30.IV.1984, Löbl-Smetana" (MHNG); NUWAKOT: 4 $\sigma \sigma$: "Chandan Bari, 3350 m, 22.VI.1978, Nepal 1978 leg. Bhakta B." (3 NMB, 1 NMW).

DESCRIPTION (Habitus: Fig. 33): Ventral aspect of head: Fig. 71. Aedeagus (Fig. 113) with median lobe even broader than in *A. nepalicus*, but tapering apical portion shorter, in lateral view, outline of side facing paramere perfectly straight up to level of tip of paramere, hardly leaving a gap between median lobe and paramere, apical hook more distinct and slenderer than in *A. nepalicus*, sometimes becoming inconspicuously tooth-like; paramere (Fig. 121) subparallel-sided, in lateral view broader than in *A. nepalicus*, apex rounded, clusters of peg setae clearly removed from apex, each cluster composed of 7–10 peg setae.

DISTRIBUTION: The species is so far known only from Central Nepal.

ETYMOLOGY: The name of the species refers to the extreme similarity with A. nepalicus.

Algon forceps sp.n.

Holotype ♂: [SANKHUA SABHA] "E-NEPAL, KOSHI, Basantpur, 2300 m, 30.V.-2.VI.1985, leg. C. Holzschuh" (NMW).

Paratypes (25 exs.): MANANG/LAMJUNG: 3 σσ: "Nepal, Manaslu Mts., 22.IV.2003, 2000 m, Dudh Pokhari Lekh nr./below Helam Pokhari, leg. J. Schmidt" (2 NME, 1 NMW); 6 σσ: same as before, but 2000-2100 m (4 NME, 2 NMW); 6 σσ: "Nepal, Manaslu Mts., Dudh Pohari Lekh, 2100 – 2500 m NN, upp. Pulinggiri Madi, 19.– 21.IV.2003, leg. J. Schmidt" (5 NME, 1 NMW); 1 σ: "Nepal: Manaslu Himal, upp. Sirindanda vill. W Darondi Khola, 2500 – 3000 m, 2.V.2001, leg. S. Tamang" (NME); SOLUKHUMBU: 1 σ: "Umg. Lughla, Khumbu, Nepal, lg. H. Franz [Pa 266]" (NMW); 1 σ: "526, Nepal: Solukhumbu Distr., Nashing Dingma W Surkie La, 2700 m, 20.V.1997, leg. W. Schawaller" (SMNS); SANKHUA SABHA: 1 σ "Gufa – Gorza, 2800 – 2100 m, 4.VI.1985 \ E-Nepal, Koshi, M. Brancucci" (NMB); 1 σ: "Nepal, Khandbari District \ above Tashigaon, 3100 m, 8.IV.1982, A. & Z. Smetana" (CSO); 1 σ: "Nepal, Khandbari District \ For. NE Kuwapani, 2500 m, 12.IV.1982, A. & Z. Smetana" (CSO); 1 σ: "E-Nepal, 25.6.2000, Gupha Pokhari vill. env., 27°17'N 87°30'E, 2930 m, leg. J. Farkač \ Nepal Expedition, Jan Farkač, David Král & Jan Schneider" (CSO); 1 σ: "E. Nepal, Kosi, Crête N-E Mangmaya, 2800 m, 7.IV.1984, Löbl – Smetana" (MHNG); 1 σ: "412 Arun Valley betw. Mure – Hurure, 2050 – 2150 m, mixed broad-leaved forest, 17.VI.1988, leg. Martens & Schawaller" (SMNS); BHOJPUR: 1 σ: "Nepal, 2350 m, Kimalung, 4.VI.1989, P. Morvan" (CRL).

DESCRIPTION (Habitus: Fig. 34): Aedeagus (Figs. 115, 116) very variable; much smaller and usually slenderer than that of *A. nepalicus* and *A. pseudonepalicus*, median lobe in lateral view with outline of side facing paramere distinctly curved, leaving a conspicuous gap between median lobe and paramere, very apical portion quite variable in breadth, either broader with distinct hook and subapical tooth or exceedingly slender, only inconspicuously hooked and without tooth, or transitional between both forms; paramere (Fig. 122, 123) usually very slender to somewhat broader with sides slightly sinuate, apex rounded or slightly notched or even with short and acute medioapical extension, in lateral view straight or slightly bent toward median lobe, with a highly variable number of usually tiny peg setae. The figures show the extreme shapes, but there are plenty of transitional shapes between them.

DISTRIBUTION: The species is at present known from Western, Central and Eastern Nepal.

ETYMOLOGY: The name of the species refers to the shape of the aedeagus which closely resembles a forceps.

Algon himalayicus sp.n.

Holotype &: "NEPAL: Mustang Distr., Ghasa - Kalopani, 2000 - 2500 m, 20.VI.1986, leg. Probst" (NMW).

Paratypes (51 exs.): N E P A L: KASKI: 1 3: "Nepal, 27.IX.77, Lete, 2350 m, L. Deharveng" (MHNG); 2 33: "Banthanti - Ghorepani, 2500 - 2800 m, 10.V.1984 \ W - Nepal, C.J. Rai" (NMB); 1 d: "NEPAL, Annapurna Mts., Annapurna, Mt. Panchhase, 2000 - 2300 m, W Phokara, 18.5.97, lg. Schmidt" (3 CHK, 2 SMTD, 1 NMW); 1 d: "NEPAL HIMALAYA, 20km W Pokhara, Mt. Panchhase \ NW-slope, 2400 m, leg. O. Jäger, 21.V.1997" (SMTD); 1 ♂: same as before but "2300 m, forest, by sifting" (NMW); 2 ♂ ♂: "NEPAL HIMALAYA, 20km W Pokhara, Mt. Panchhase \ 2300 m NN, sec. forest, by traps, 22.V.1997, Jäger" (SMTD, NMW); 1 of: "NEPAL, Annapurna Region, Mardi Himal (westl. Mardi Khola), 21-2200 m, N 28°18'57", E 83°49'59", 10.5.2001, leg. G. Hirthe" (CHK); MANANG/LAMJUNG: 3 dd: "NEPAL, Prov. Gandaki, Manaslu Mts., Bara Pokhari Lekh, Chhandi Khola Valley, 11./12.IV.2003, 2000 - 2200 m NN, leg. Schmidt" (2 NME, 1 NMW); 2 उठ: "Nepal, Manaslu Himal, Bara Phokari Lekh, upp. Taksar vill., 2-2100 m, 11.4.1999, leg. Krüger, Hirthe" (CHK, NMW); 15 & d: "NEPAL, Annapurna, '97, 13.6., Telbrung Danda, 26 – 2800 m, J. Schmidt \ Ankauf A. Dobbertin, Rostok 2001, Museum Dresden" (11 SMTD, 4 NMW); 6 & d: "NEPAL HIMALAYA, SE Annapurna mts., lg. Jäger, 1997 \ Telbrung Danda near Gangpokhara, 2700 m, 12./13.6." (4 SMTD, 2 NMW); 1 d: "NEPAL, Annapurna '97, 27.5., Krapa Danda, 18 - 2000 m, l. Schmidt \ Ankauf A. Dobbertin, Rostok 2001, Museum Dresden" (SMTD); 1 d: "NEPAL HIMALAYA, SE Annapurna mts., bel. Krapa Danda \ s - slope, 2000 m NN, by sifting, 28.V.1997, lg. Jäger" (SMTD); 1 &: "NEPAL, Annapurna, Krapa Danda, 2500 m, 29.5.1997 l. Schmidt \ Ankauf A. Dobbertin, Rostok 2001, Museum Dresden" (SMTD); 2 3 3: "NEPAL, Annapurna, Lamjun Himal, 25-2800 m, Krapa Danda, 30.5.97, I. Schmidt \ Ankauf A. Dobbertin, Rostok 2001, Museum Dresden" (1 SMTD, 1 NMW); MYAGDI: 1 3: "NEPAL, Kali Gandaki Tal, 2 m SO Narcheng, oberh. Bele Khola, NO - Hang, 2300 m, N 28°30'40", E 83°41'33", 25.V.2001, leg. O. Jäger" (SMTD); 1 ♂: "NEPAL, Annapurna South Himal, Chiule - Tadapani, 2400 - 2500 m, 17.5.2001, leg. G. Hirthe" (CHK); PARBAT: 1 &: "172 Parbat Dist., zwischen Chitre und Ghandrung, Chitre-Seite

des Passes, Tsuga-Rhodod., 2800 – 2900 m, Martens & Ausobsky leg., 4/7 Mai 80" (SMNS); SANKHUA SABHA: 2 ♂ ♂: "Mure – Num, 2000 – 1550 m, 4. – 7.VI.1983 \ E – Nepal, Arun V., M. Brancucci" (NMB).

DESCRIPTION (Habitus: Fig. 35): 11.0–16.5 mm long (6.2–6.8 mm, abdomen excluded). – Measurements: Head 1.27–1.30 (very rarely 1.37) times as wide as long, eyes 1.3–1.5 times as long as tempora, pronotum 1.12–1.14 times as wide as long. Left elytron: Fig. 68.

Aedeagus (Fig. 117) similar to that of *A. forceps* in ventral view but even smaller; in lateral view median lobe almost straight, only indistinctly bent toward paramere, without any indication of a hook or tooth, but dorsally widened subapically; paramere (Fig. 124) slender, almost perfectly straight in lateral view, peg setae rudimentary or entirely lacking.

DIAGNOSIS: Externally, the species is more or less identical with *A. nepalicus* but differs by the shorter tempora. From *A. dentiger* it differs by the very dense micropunctulation of the elytra.

DISTRIBUTION: The species is wide spread in Western, Central and Eastern Nepal.

ETYMOLOGY: The species is named after the place of its origin. It refers to its wide distribution in the Nepal Himalaya.

Algon similis sp.n.

Holotype ♂: "NEPAL, Annapurna Region, Khare – Pothana, Rhododendron, 1950 – 2000 m, 10.5.2001, leg. G. Hirthe" (CHK).

Paratype: 1 σ : "NEPAL Himalaya, Dhawalagiri, 2004, Baglung Lekh \ west Baglung, 2400 m, N 28°18'50.1", E 083°31'18.6", 12.05.2004, leg. A. Kleeberg" (CKB).

DESCRIPTION: Externally, the species is virtually indistinguishable from A. himalayicus.

Aedeagus (Fig. 118) much larger than in *A. himalayicus*, median lobe similarly shaped in ventral view, in lateral view almost perfectly straight but side facing paramere with distinct bulbous extension; paramere (Fig. 125) distinctly broader, peg setae well developed and rather large, forming two longitudinal clusters each with 8–10 peg setae situated laterally and clearly removed from apex, occasionally with a few additional peg setae close to apex.

DISTRIBUTION: The species is so far known only from two places in Western Nepal.

ETYMOLOGY: The name refers to the strong external similarity with A. himalayicus.

Algon dentiger sp.n.

Holotype J: "NEPAL Kathmandu Dis. [Patan District], Siwapuri Dara, 2300 m, 3.V.85, A. Smetana" (CSO).

Paratypes (22 exs.): N E P A L: PATAN: 1 σ : same locality as holotype but "2450 m, 2.V.85" (NMW); 1 φ : same locality as holotype but "2300 – 2550 m, 29.IV. – 2.V.1985" (CSO); 4 $\sigma\sigma$, 6 $\varphi\varphi$: "NEPAL, 27+28.4.2003, Shivapuri N Kathmandu, upper Bhudanilkantha, 2-2500 m, leg. J. Schmidt" (7 NME, 3 NMW); SANKHUA SABHA: 1 φ : "NEPAL, Khandbari Distr., Forest NE Kuwapani, 2450 m, 24.IV.84, Smetana & Löbl" (CSO); 1 φ : "NEPAL, Khandbari Distr., above Num, 1900 – 2200 m, 23.IV.84, Smetana & Löbl" (CSO); SINDHUPALCHOK: 2 $\sigma\sigma$: "Nepal, Bagmati, Sindhupalchok \Sarmatagng – Gangjwal, 2500 m, 5.VI.89, M. Brancucci" (NMB, NMW); 2 $\sigma\sigma$: "Nepal, Bagmati, Sindhupalchok, Manegero \ 2500 m, 13.VI.89, M. Brancucci" (NMB, NMW); DOLAKHA: 2 $\sigma\sigma$: "Nepal, Bagmati, Nuwakot, Manegero \ 2500 m, 13.VI.89, Tama Koshi, 850 – 1100 m" (NMB); NUWAKOT: 1 φ : "Nepal, Bagmati, Nuwakot, Manegero \ - Gul Banjyang, 2500 – 2300 m, 14.VI.89, M. Brancucci" (NMB); 1 φ : "Nepal, Bagmati, Sindhupalchok, Manegero \ - Gul Banjyang, 2500 – 2300 m, 14.VI.89, M. Brancucci" (NMB); 1 φ : "Nepal, Bagmati, Nuwakot, Manegero \ - Gul Banjyang, 2500 – 2300 m, 14.VI.89, M. Brancucci" (NMB); 1 φ : "Nepal, Bagmati, Sindhupalchok, Manegero - \ - Gul Banjyang, 2500 – 2300 m, 14.VI.89, M. Brancucci" (NMB); 1 φ : "Chandam Bari, 3350 m, 22.VI.1978 \Nepal, Bhakta B." (NMB).

DIAGNOSIS: 13.0–14.2 mm long (5.7–6.3 mm, abdomen excluded). – Externally, similar to *A. himalayicus* and *A. similis* but on average smaller and less broad and with proportionately wider

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head (1.33–1.38 times as wide as long); proportions of eyes to tempora similar to preceding species (eyes 1.3–1.5 times as long as tempora).

Since there is a slight overlap in characters with the preceding species, the only character (besides the aedeagus) to reliably distinguish both species is the microsculpture of the elytra (Fig. 69): in *A. dentiger*, the micropunctulation is less strong and less dense, punctures never contiguous, usually separated by more than a puncture diameter in transverse direction (best studied at very high magnifications of at least 50 times). Even in cases where the micropunctulation in *A. himalayicus* and *A. similis* is almost obsolete, the traces are usually sufficient to interpret the character. This, however, requires a certain level of experience.

Aedeagus (Fig. 114) very different from all preceding species; median lobe in lateral view with a very huge tooth at apex; paramere (Fig. 126) similar to that of *A. pseudonepalicus* but clusters of peg setae situated very close to apex.

DISTRIBUTION: The species is quite wide spread in Central and Eastern Nepal.

ETYMOLOGY: The specific name is derived from the Latin noun *dens*, *-ntis* (tooth) and the verb *gero* (carry) and refers to the large subapical tooth of the median lobe.

Algon kaiserianus species group

DIAGNOSIS: The species group is characterised by the lack of a margin and furrow along the medial margin of the eyes (Fig. 63). Labial palpi slender, hardly securiform (79); entire fore body with dense isodiametrical microreticulation (Type I on head and pronotum, Type IIIa on elytra); pronotum broad, flat, subquadrate to subhexagonal; elytra short, wings reduced; aedeagus with huge phallobasis.

Algon kaiserianus (BERNHAUER)

Brachycamonthus kaiserianus BERNHAUER 1933: 38; SCHILLHAMMER 1999: 94.

TYPE MATERIAL: **Holotype** $_{\varphi}$ (by monotypy): "Kinfushan Prov. Szechuan est-China IV/V 29 Coll. H. Becker \ Brachycamonthus Kaiserianus Brnh. Typ. un. Gen. nov. \ Kaiserianus Brachycamonthus Brnh. Typus unic. \ Chicago NHMus M.Bernhauer Collection" (FMC).

DESCRIPTION (Habitus: Fig. 36): 13.8–15.5 mm long (6.6–7.1 mm, abdomen excluded). – Black brown to black, rather opaque; palpi and apical antennal segment reddish brown, tarsi dark brown proximally gradually becoming paler reddish distally, front tarsi entirely reddish.

Head rounded quadrangular, 1.20–1.27 times as wide as long, eyes very small, tempora 1.25–1.36 times as long as eyes, tempora regularly convex; sparingly punctate; surface covered with dense and profound isodiametrical microsculpture (type I), in addition with very fine but sparse micropunctulation, hardly visible at 10 times magnification; with three larger setiferous punctures arranged in an oblique row from medio-apical margin of eye to medio-basal portion of head; antennae rather long, all segments oblong, segment 10 only slightly; pronotum 1.12–1.14 times as wide as long, widest at midlength or slightly in front of it, sides weakly convex or slightly sinuately narrowed toward base, more strongly narrowed toward anterior margin; with a pair of large punctures shortly behind anterior margin; microsculpture as on head, micropunctulation even finer but slightly denser; with vague indication of glabrous midline in basal half; scutellum finely and very sparingly punctate; elytra along sides much shorter than pronotum along midline, with a distinct but rather flat depression occupying more than basal third; although wings reduced, shoulders well developed but shortly rounded; major portion of disc impunctate except for a few larger setiferous punctures along elevated sutural interval and

slightly lateral of midwidth; basal depression and deflexed sides moderately densely, finely punctate and pubescent, setae golden grey; entire elytra covered with very dense and profound, scaly, isodiametrical microsculpture (type IIIa); wings not developed; abdomen very broad, widest at second visible tergite, distinctly wider than elytra; posterior margin of tergite VII without whitish seam.

Aedeagus (Fig. 133) very large with huge phallobasis; median lobe with rather sharply pointed apex, in lateral view with a large, distinct subapical tooth on side facing paramere, up to that tooth with almost straight outline; paramere (Fig. 133c) moderately broad, slightly narrowed toward weakly notched apex, with a few peg setae fairly removed from apex (this character might be variable as in *A. hubeiensis*)

ADDITIONAL MATERIAL EXAMINED:

C H I N A: SICHUAN: 1 σ: SE Sichuan, Jinfo Shan, 29°01'N 107°14'E, 1800 m, 27.VI.1998, leg. A. Smetana [C70] (CSO).

There is one female in the Bernhauer collection (FMC) from Kangding ("Nitou Tatsienlu Szechuan China Em. Reitter") assigned to "*Brachycamonthus*" *kaiserianus* by Bernhauer; the specimen does not differ externally from the specimens originating from the type locality, but due to the extreme similarity of the species of this group, and due to the fact that all members have reduced wings, it might be possible that this specimen belongs to another as yet undescribed species.

DISTRIBUTION: The species is with certainty known only from the type locality in southeastern Sichuan (China).

Algon tronqueti sp.n.

Holotype &: "CHINE province du Guangxi, Massif du Yuanpao Shan, 2000 m, M. Tronquet 20à22/07/94" (CTL).

Paratype: 1 ♂ with same data as holotype (NMW).

DIAGNOSIS (Habitus: Fig. 37; head detail: Fig. 63): 16.5 mm long (7.7 mm, abdomen excluded). – The species is very similar to *A. kaiserianus*, but distinctly more robust, especially abdomen much more dilated at second visible tergite; proportions of head more or less as in *A. kaiserianus* (1.20–1.23 times as wide as long), tempora slightly longer, 1.36–1.38 times as long as eyes, slightly more densely punctate; micropunctulation of head denser, slightly stronger, pronotum slightly longer (1.10 times as wide as long), shoulders of elytra less rounded, forming a rather sharp angle.

Aedeagus (Fig. 134) similar to that of *A. kaiserianus* but broader, median lobe in lateral view with even larger tooth than in *A. kaiserianus*, outline up to that tooth distinctly sinuate; paramere (not separately figured) very broad with slight lateral extensions, without peg setae.

DISTRIBUTION: The species is at present known only from the type locality in northwestern Guangxi (China).

ETYMOLOGY: The species is named in honor of its collector, Marc Tronquet, an expert in Staphylinidae and talented photomacrographer.

Algon hubeiensis sp.n.

Holotype ♂: "CHINA: W-Hubei, 20.6.-12.7.2003, Muyuping S env., pitfall traps, 31.45N 110.4E, ca. 1300 m, leg. J. Turna" (NMW).

Paratypes (85 exs.): 12 $\sigma\sigma$, 7 $\varsigma\varphi$: with same label data as holotype (NMW); 1 φ : "CHINA: W-Hubei, 21.5. – 6.6.2005, Muyuping NW env., pitfall traps, 31.5N 110.35E, leg. J. Turna" (NMW); 4 $\sigma\sigma$, 4 $\varsigma\varphi\varphi$: same locality as holotype but 29.VIII. – 6.IX.2004 (NMW); 17 $\sigma\sigma$, 7 $\varsigma\varphi\varphi$: "CHINA: W-Hubei, 21.6. – 13.7.2003, Guanmenshan,
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pitfall traps, 31.45N 110.4E, ca. 1500 m, leg. J. Turna" (NMW); 5 $\sigma \sigma$, 5 $\varphi \varphi$: same locality but 16.V. – 14.VI.2004 (NMW); 2 $\sigma \sigma$: "CHINA: W-Hubei, 27.8.-11.7.2003, rd. Badon – Yesanguan, Tiechanghuhang, pitfall traps, 30.75N 110.3E, ca. 1300 m, leg. J. Turna" (NMW); 6 $\sigma \sigma$, 9 $\varphi \varphi$: "CHINA: W-Hubei, 9. – 15.VI., Dalaoshan forest park, pitfall traps, 31.05N 110.95E, Jaroslav Turna leg., 2004" (NMW); 4 $\sigma \sigma$, 2 $\varphi \varphi$: "CHINA. W-Hubei, Xingshan - W env., 31°16'/110°36', 1300 – 1600 m, 6.-8.7.95, L.+R. Businský lgt." (CDP).

DIAGNOSIS (Habitus: Fig. 38): 14.2–17.8 mm long (6.9–8.2 mm, abdomen excluded). – The species is very similar to *A. kaiserianus* but differs by the even smaller eyes (tempora 1.55-1.68 times as long as eyes), the much more densely punctate postocular region, and by the entirely punctate elytra; shoulders as in *A. kaiserianus*.

Aedeagus (Fig. 135) smaller than in preceding two species, median lobe in lateral view without large tooth but slender apical piece distinctly hook-like bent toward paramere; paramere (Figs. 135c, d) long and slender, subparallel-sided, apex rounded or subtruncate, without or with a very few minute peg setae.

REMARK: Two female specimens from Guizhou have a different elytral punctation with a broad area along the suture being glabrous; this area occupies almost half of the elytral width. The specimens might belong to another undescribed species, but cannot with certainty be interpreted until males become available. Material studied: "CHINA: Guizhou, Leishan Co., SE Kaili, NE Leishan, Leiggong Shan, E-slope, 26°22.70'N 108°12.01'E \ ca. 2 km W of pass, 17.-24.6.2001, ca. 1700 m, pitfall traps, leg. Schillhammer (12A)" (NMW).

DISTRIBUTION: The species is at present known only from western Hubei (China).

ETYMOLOGY: The species is named after Hubei Province in China.

Algon brevipennis species group

DIAGNOSIS: This species group shares with the *A. kaiserianus* species group the medially unbordered eyes and the lack of a furrow along the medial margin of eyes. It differs, however, by the lack of the nuchal constriction and nuchal ridge. Both known species have reduced wings and have very small eyes. So far, they are known only from the island of Sri Lanka.

Algon brevipennis CAMERON

Algon brevipennis CAMERON 1932: 274.

TYPE MATERIAL: **Holotype** σ (by monotypy): "Type \ Ceylon G.Lewis 1910-320. \ Bogawantalawa. 4,900-5,200 ft. 21.III.-4.IV.82. \ Algon brevipennis Cam. Type" (NHML).

DESCRIPTION (Habitus: Fig. 39): 15.8 mm long (6.6 mm, abdomen excluded). – Head and abdomen black to black brown; pronotum darker and elytra paler reddish brown, both markedly paler than head; antennae and legs reddish brown, medial faces of hind tibiae slightly infuscate, tarsi paler reddish testaceous.

Head (Fig. 51) subquadrate, 1.15 times as wide as long; eyes small, tempora subparallel, about 1.5 times as long as eyes; surface of head with dense and conspicuous micro-punctulation in posterior half (easily visible at 10 times magnification), anterior half with much sparser and finer micropunctulation; setiferous macropunctures along medial margin of eye and on postocular region, moderately dense, punctural grooves well isolated, not confluent; surface of head with dense and distinct isodiametrical microsculpture (Type I); antennae very short, segments 4–7 about as long as wide, segments 8–10 slightly transverse; pronotum about as long as wide, subparallel-sided, very slightly narrowed toward weakly indicated hind angles, base broadly rounded; with a pair of large punctures close to anterior margin, sublateral group represented by

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a single puncture; surface with dense but very fine micropunctulation (barely visible at 10 times magnification) and with inconspicuous microsculpture (Type II); scutellum with a few fine punctures medially, margins broadly glabrous; elytra very short, along sides markedly shorter than pronotum along midline; with rather dense and coarse ground punctation, punctures separated by 1–2 puncture diameters in transverse direction, punctation on deflexed lateral portion hardly differing from that of disc; surface between punctures shining, without microsculpture; abdominal tergites densely and coarsely punctate, pubescence rather long and stout; posterior margin of tergite VII without whitish seam.

Aedeagus (Fig. 132) long and slender, median lobe with median carina subapically on side facing paramere, outline in lateral view distinctly sinuate; paramere (Fig. 132c) long and slender, with short lateral extensions near base, with numerous fine setae along entire length and with two rows of spike-like peg setae distinctly removed from apex. **Remark**: The specimen seems to be slightly teneral as the aedeagus is weakly sclerotized. The shape of the aedeagus may be slightly different in mature specimens.

Female unknown.

DISTRIBUTION: The species is at present known only from the type locality.

Algon ceylonensis sp.n.

Holotype &: "CEYLAN Central, Horton Plains, 15.II.70, Mussard, Besuchet, Löbl" (MHNG).

DIAGNOSIS (Habitus: Fig. 40): 10.9 mm long (4.7 mm, abdomen excluded). – The species closely resembles *A. brevipennis* externally, but differs by the much smaller size, the inconspicuous micropunctulation even on posterior portion of head (head: Fig. 52), less dense and finer macropunctation and larger eyes (tempora 1.25 times as long as eyes); pronotum slightly oblong (1.06 times as long as wide), widest approximately at level of large lateral seta, sides distinctly narrowed toward base in weak concave arc; elytra also very short, but with inconspicuous ground punctation, surface with very fine micropunctulation.

Aedeagus (Fig. 131) very small, with exceedingly broad paramere, in ventral view covering almost entire median lobe; paramere without peg setae.

Female unknown.

DISTRIBUTION: The species is at present known only from the type locality.

ETYMOLOGY: The species is named after Sri Lanka, known also under the name Ceylon.

Algon dysanelloides species group

DIAGNOSIS: This species group is characterised by the presence of very distinct dorsal rows of punctures on the pronotum, by the inconspicuous prosternal carina, the short mesoventrite without elevated ridge, a short mesoventral process and by the "Type I" microreticulation on head and pronotum. The species of this group are so far known only from Mt. Kinabalu in Sabah (E-Malaysia). No male specimens have become available so far.

Algon dysanelloides SCHILLHAMMER

Algon dysanelloides SCHILLHAMMER 1999: 94. Dysanellus brevipennis CAMERON 1933: 347 (nec CAMERON 1932).

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TYPE MATERIAL: **Holotype** $_{\mathbb{Q}}$ (by monotypy): "Type \ B.N. BORNEO Mt. Kinabalu Pakka \ 10-000 ft. 23.Mar. 1929. \ Dysanellus brevipennis Cam. Type" (NHML).

DESCRIPTION (Habitus: Fig. 41): 10.3–11.3 mm long (6.1–6.8 mm, abdomen excluded). – Dark brown to black brown, palpi and tarsi paler reddish brown; head and pronotum usually a bit darker than rest of body; moderately shiny.

Head quadrangular, somewhat rounded, 1.16-1.18 times as wide as long; eyes and tempora quite variably long (eyes : tempora = 0.87-1.00 : 1); tempora subparallel, inconspicuously convergent for about half distance behind eyes; surface covered with dense and distinct isodiametrical microsculpture (type I), in addition, with exceedingly fine micropunctulation, visible only at magnifications of at least 50 times; postocular region coarsely but rather sparingly punctate; antennae rather short, segments 4 and 5 inconspicuously oblong, segments 6-8 about as long as wide, segments 9 and 10 slightly transverse; pronotum about as long as or slightly longer than wide (ratio 1.0-1.05), widest in anterior third, narrowed toward base in wide concave arc; with distinct, somewhat irregular dorsal rows of 6-7 large, almost pit-like punctures; microsculpture as on head; scutellum very finely and sparingly punctate; elytra very short, along sides markedly shorter than pronotum along midline; finely, uniformly punctate and pubescent, punctures separated by 3-5 puncture diameters in transverse direction; pubescence greyish yellow; surface of elytra with isodiametrical microsculpture as on head and pronotum but slightly scaly; abdominal tergites moderately densely, uniformly punctate, surface with microsculpture of very fine transverse microstriae; posterior margin of tergite VII without whitish seam.

Male unknown.

ADDITIONAL MATERIAL EXAMINED:

M A L A Y S I A: SABAH: 1 ç: Mt. Kinabalu N.P., St. John's Pk., 3900 m, 8.VIII.1988, leg. A. Smetana [B90] (CSO); 1 ç: Kinabalu N.P., above Gunting Lagadan, 3400 m, 6.VIII.1988, leg. A. Smetana [B 85] (CSO); 1 ç: Kinabalu N.P., above Gunting Lagadan, 3400 m, 6.V.1987, leg. A. Smetana (NMW).

DISTRIBUTION: The species is at present known only from Mt. Kinabalu in Sabah (E-Malaysia). All known specimens were collected at elevations above 3300 m up to 3900 m.

Algon smetanai sp.n.

Holotype $_{\rm Q}$: "BORNEO SABAH Mt. Kinabalu N.P., Summit Trail, Pondok Ubah, 2050 m, 26.IV.87, A. Smetana" (CSO).

DESCRIPTION: 12 mm long (6.8 mm, abdomen excluded). – The species is very similar to *A. dysanelloides*, but differs by the slightly less transverse head (1.14 times as wide as long), larger eyes (1.11 times as long as tempora), longer antennae (segments 4–8 markedly oblong, segment 9 inconspicuously oblong, segment 10 as long as wide) and a different microsculpture on the abdominal tergites: first five visible tergites with fine isodiametrical microsculpture in basal two thirds, posterior third with microstriae as in preceding species; on remaining tergites with isodiametrical microsculpture less distinct, occupying smaller portion.

Male unknown.

DISTRIBUTION: The species is at present known only from the type locality, Mt. Kinabalu in Sabah (E-Malaysia), where it was collected at a much lower elevation (2050 m) than the preceding species.

ETYMOLOGY: The species is named after my friend Aleš Smetana who collected this and the previous species.

Algon elegans species group

DIAGNOSIS: The species of this group are easily recognizable by the conspicuous blue to purplish blue coloration and the dense microsculpture. The only autapomorphy, however, that separates this species group from the others, is the variably broad, unpigmented, subapical portion of the male sternite IX (Fig. 83). The genital characters, which are rather uniform in the other groups, display a tremendous diversity of shapes, but common to all species is the lack of peg setae on the paramere. The species are known only from the Sunda Region, the island of Borneo, in particular, is very rich in species of that group.

Algon elegans (BERNHAUER)

Disanellus [sic!] elegans BERNHAUER 1915: 145. Dysanellus elegans: SCHEERPELTZ 1933. Palaestrinus elegans: LAST 1964. Algon elegans: HAMMOND 1984: 194.

TYPE MATERIAL: Holotype σ (by monotypy): "K. Limbang April 4.1910 \ 29 \ Disanellus elegans Brnh. Typus unic. \ Chicago NH Mus M.Bernhauer Collection" (FMNH).

DESCRIPTION (Habitus: Fig. 42): 12.0–13.0 mm long (7.15–7.35 mm, abdomen excluded). – Head, neck, pronotum and elytra deeply metallic violaceous or blue with purplish hue; mandibles, scutellum and base of elytra black; abdominal tergites and legs dark brown to black-brown (the color might be black in fresh material), tarsi somewhat paler; palpi dark reddish testaceous, antennal segments gradually changing from dark brown (probably black in fresh material) proximally to reddish testaceous distally.

Head (Fig. 53) trapezoid, about 1.3 times as wide as long, base slightly concave; eyes distinctly protruding, 2.1–2.5 times as long as convergent and rounded tempora; surface of head with dense and distinct isodiametrical microsculpture (type II), in addition, with rather dense, almost uniform, rather coarse punctulation; setiferous punctures of postocular region originating from deep and wide, crater-like, sharp-edged (especially posteriorly) grooves, leaving hardly any interspace, forming distinct and sharp rugae and carinae; antennae with segments 4–8 slightly oblong, segments 9 and 10 about as long as wide; pronotum about as long as wide, widest in anterior third, distinctly narrowed toward convex base in almost straight line; with a pair of large, asymmetrically situated, setiferous punctures shortly behind anterior margin, sublateral group of punctures composed of usually six punctures; microsculpture as on head, but punctulation slightly finer; elytra along sides distinctly longer than pronotum along midline; disc of elytra entirely covered with exceedingly dense isodiametrical microsculpture (type IIIb), and punctulation as on head and pronotum but hardly visible within microreticulation; in addition, with longitudinal rows of setiferous punctures, arranged in sutural row (9-10 punctures) along elevated sutural interval, discal row (6-7 punctures) slightly shifted laterad and becoming slightly irregular toward posterior margin; abdominal tergites coarsely but moderately densely punctate, entirely covered with distinct scaly, isodiametrical microsculpture except for transverse, medially widened area along posterior margins, where isodiametrical microsculpture becoming gradually finer posteriad and eventually changing into exceedingly fine microstriae or even vanishing very near to posterior margins; posterior margin of tergite VII with whitish seam; unpigmented portion of male sternite IX less extensive, apical lobes short and broad.

Aedeagus (Fig. 136) with median lobe long and slender, rod-like, apex acutely pointed; paramere exceedingly slender for almost entire length, in lateral view distinctly curved, slightly bent toward median lobe.

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ADDITIONAL MATERIAL EXAMINED:

1 ç: "Long Mujan, Baram river, Sarawak \ 4.10.1920, J. C. Moulton \ M.Cameron. Bequest. B.M. 1955-147." (NHML).

REMARK: I was not able to study the specimen which LAST (1964) identified as *Palaestrinus elegans* (E-Malaysia, Sarawak, Kaleti), therefore the identity of that specimen remains enigmatic.

DISTRIBUTION: The species is known only from two very close localities in Sarawak (E-Malaysia).

Algon semicaeruleus CAMERON

Algon semicaeruleus CAMERON 1942: 137; HAMMOND 1984: 194; SCHILLHAMMER 1999: 94.

TYPE MATERIAL: Holotype $_{\bigcirc}$ (by monotypy): "Type \ Kina Balu Waterstraat \ M.Cameron. Bequest. B.M. 1955-147. \ A. semicaeruleus Cam. TYPE" (NHML).

DESCRIPTION (Habitus: Fig. 43): 14.5–16.5 mm long (7.0–7.3 mm, abdomen excluded). – Very similar to A. *elegans* in coloration and build, but differing mainly by the conspicuously finer punctulation on head and pronotum.

Head (Fig. 54) 1.28–1.33 times as wide as long; eyes about 2.5 (exceptionally 2.0) times as long as tempora; pronotum about as long as wide or slightly wider than long (ratio 1.00–1.05); elytra with sutural row of 4–6 punctures and discal row with 8–11 punctures; punctulation very vaguely discernible at very high magnification.

Male unknown.

ADDITIONAL MATERIAL EXAMINED:

M A L A Y S I A: SABAH: 1 ç: Mt. Kinabalu Park, Poring Hot Springs, 500–800 m, 15.–30.XII.1995, leg. C. Häuser (SMNS); 1 ç: Kinabalu N.P., Sayap, 1000 m, 27.XI.1996, leg. D. Grimm (NMW).

REMARK: The specimen from "Sayap" slightly differs by slightly larger size and longer, more parallel tempora (eyes 2 times as long as tempora). Nevertheless, I do not doubt that it belongs to *A. semicaeruleus*, however, absolute certainty may be gotten only by the availability of males and more specimens to reliably assess the variability.

DISTRIBUTION: Known only from the type locality.

Algon mulu sp.n.

Holotype σ : "SARAWAK 4th Division Gn. Mulu NP. \ Camp 5 limestone plot \ Pitfall trap \ N.M.Collins B.M. 1978-11 \? = semiviolaceus Cam. P.M. Hammond det. 1981" (NHML).

Paratype ♂: "SARAWAK 4th Division Gn. Mulu NP. \ Alluvial forest \ P.M. Hammond & J.E. Marshall V.-Viii. 1978 B.M. 1978-49 \ Dysanellus elegans Bernh. P.M. Hammond det. 1981" (NMW).

DESCRIPTION: 11.0–12.0 mm long (6.6–6.8 mm, abdomen excluded). – Coloration somewhat darker than in preceding species, but with lighter antennae, all segments reddish-brown, slightly darkened in middle, becoming paler distally; additionally, abdomen more brownish.

Head (Fig. 55) somewhat flatter than in *A. elegans*, about 1.4 times as wide as long; eyes larger, strongly protruding, about 3.3 times as long as distinctly convergent tempora; posterior margin more distinctly concave; surface with exceedingly fine micropunctulation, hardly visible at 10 times magnification, becoming somewhat more distinct posteriorly; antennae with middle segments more oblong; pronotum about as long as wide, widest at midlength, toward base inconspicuously more strongly narrowed than toward anterior margin; punctulation on disc as

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fine as on disc of head; sublateral group consisting of 4 punctures, 3 arranged in oblique row, and 1 puncture situated very close to large lateral setiferous puncture; elytra along sides markedly longer than pronotum along midline; sutural row with 4–6 punctures, discal row 4–5 punctures; micropunctulation as in *A. semicaeruleus*; abdomen with isodiametrical microsculpture less extensive, medially confined to narrow portion along anterior margin; unpigmented portion of male sternite IX less extensive, apical lobes short and broad.

Aedeagus (Fig. 138) quite bizarre, dorsal face of median lobe with subapical extension bearing ostial operculum, side facing paramere with huge median carina at about midlength appearing like distinct convexity in lateral view

Female unknown.

DISTRIBUTION: The species is at present known only from the type locality.

ETYMOLOGY: Named after the type locality, Gunung Mulu National Park, situated in the East of Sarawak on the border to Brunei.

Algon lanceolatus sp.n.

Holotype &: "Borneo, 15.-27.4.1993, Sabah, Crocker Mt., Gunong Emas env., Jenis & Strba leg." (NMW).

DESCRIPTION (Habitus: Fig. 44): 13 mm long (6.4 mm, abdomen excluded). –Head (Fig. 56) about 1.4 times as wide as long, eyes 3.25 times as long as distinctly convergent tempora; posterior margin of head slightly concave; isodiametrical microsculpture (Type II) very profound, without any discernible micropunctulation; three outer antennal segments lacking but visible segments slightly less oblong than those of *A. mulu*; pronotum as wide as long, widest approximately at midlength, posteriorly distinctly, anteriorly slightly narrowed; microsculpture as on head, sublateral group of punctures as in *A. mulu*; elytra along sides markedly longer than pronotum along midline; with sutural row of 3–4 punctures, discal row with 3 punctures, punctures distinctly finer than in preceding species; micropunctulation virtually invisible; isodiametrical microsculpture on abdominal tergites more extensive than in *A. mulu*, but transverse microsculpture fairly extended toward anterior margin although less broadly than in *A. mulu*; unpigmented portion of male sternite IX extensive, apical lobes rather long and slender, also weakly pigmented.

Aedeagus (Fig. 139) exceedingly long and slender, median lobe slightly convexly widened in basal half, apical half exceedingly narrow, apex very sharply pointed, in lateral view distincly S-shaped; paramere only half as long as median lobe.

Female unknown.

DISTRIBUTION: Known only from the type locality.

ETYMOLOGY: The species is named in reference of the shape of the aedeagus.

Algon biru sp.n.

Holotype σ : "E-Malaysia: Sabah, Batu Punggul Resort env., 24.6. - 1.7.1996 (11c) \ sifted from vegetation debris and forest floor litter accumulated around large trees near river" (NMW).

Paratype: 1 ♂: "Malaysia, Sabah, ca. 25 km S Sapulut, Batu Punggul env., primary forest, intercept trap, 23.5.2001, J.F. Kočiam lgt." (NMW).

ADDITIONAL MATERIAL EXAMINED: I have studied one female from the type locality: "MALAYSIA, Borneo is., Sabah prov., Sapulut env., 5.-15.vi.1997" (CHaK). This specimen, however, has much larger eyes (about 3 times as long as tempora) and also a broader head (1.37 times as wide as long) than the type specimens.

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DESCRIPTION (Habitus: Fig. 45): 13.0–15.5 mm long (6.8–7.1 mm, abdomen excluded). – Head 1.27–1.30 times as wide as long; eyes exceedingly variable, 2.33–2.66 times as long as tempora; pronotum as long as wide, widest in anterior third, more strongly narrowed toward base than toward anterior margin; elytra with sutural row of 4–5 punctures, discal row with 6–7 punctures; unpigmented portion of male sternite IX extensive, apical lobes long and slender.

Aedeagus (Fig. 137) with median lobe subparallel-sided, apex acutely pointed, ostial operculum very large, in lateral view apical portion slightly bent toward paramere, paramere almost as long as median lobe, more or less straight.

DIAGNOSIS: In shape and punctation of head and pronotum very similar to *A. mulu*, but with flatter surface of head, less convergent tempora and more numerous punctures in the discal row of elytra; posterior margin of head almost straight (distinctly concave in *A. mulu*); abdominal tergites with isodiametrical microsculpture more extensive than in *A. mulu*.

DISTRIBUTION: Known only from the type locality.

ETYMOLOGY: The name refers to the blue metallic color which the species shares with the other species of the group; *biru* (Malaysian) means blue.

Algon crockerensis sp.n.

Holotype ♂: "Malaysia: Sabah, Mahua B.C., Crocker Range Park, Borneo Is. 23-X-1999 (at light) K. Mizota leg." (NSMT).

DESCRIPTION (Habitus: Fig. 46): 15.5 mm long (7.2 mm, abdomen excluded). – Head 1.31 times as wide as long, eyes 2.5 times as long as tempora; elytra with sutural row of 4–5 punctures, discal row 6–7 punctures; aedeagus (Fig. 140) with median lobe subparallel-sided, apical piece slightly separated, in lateral view distinctly, almost truncately bent toward paramere; paramere as long as median lobe, slightly S-shaped, apically bent away from median lobe.

DIAGNOSIS: Externally, the species is virtually indistinguishable from *A. biru* and differs only by the somewhat flatter surface of the head; unpigmented portion of male sternite IX extensive, apical lobes long and slender. From *A. mulu*, which has a similarly flat surface of head, it differs by the longer tempora, by the number of punctures in the discal row of the elytra, and a more extensive isodiametrical microsculpture on the abdominal tergites.

DISTRIBUTION: The species is at present known only from the type locality.

ETYMOLOGY: The species is named after the place of its origin, Crocker Range in Sabah (E-Malaysia).

Algon jaechi sp.n.

Holotype &: "N-Sumatra 20.2., Brastagi, Gg. Sibayak \ Indonesia 1990 leg. Jäch" (NMW).

Paratypes (3 exs.): 1 σ : "SUMATRA UTARA, Brastagi, 18.-27.X. \ INDONESIA 1991 leg. Barries" (NMW); 1 σ : "North Sumatra Brastagi-Sibayak 22-25.V.1991 leg. Jiri Moravec" (NMB); 1 ex. (abdomen lacking): "Indonesia, N.Sumatra, Berastagi (Tanah Karo) 9./10.11.84 1550 m \ Sumatra-Reise 1984. leg. H.Urban, K.Urban, I.Worm, J.Wiesner" (NMB).

ADDITIONAL MATERIAL EXAMINED: 1 φ : "Corporaal, Lau Kakik, 19.1.1919 \ Sumatra Corporaal 1920 \ elegans Brh. det. Bernhauer \ Chicago NHMus M.Bernhauer Collection" (FMNH). According to Corporaal's collecting activities this place is most likely situated in N-Sumatra. The specimen is very similar to the types of *A*. *jaechi* but with a slightly transverse pronotum and a distinctly stronger punctulation of head and pronotum. The specimen most likely belongs to another undescribed species.

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DESCRIPTION (Habitus: Fig. 2): 16–17 mm long (8.0–8.3 mm, abdomen excluded). – Head (Fig. 58) subrectangular, 1.27–1.30 times as wide as long; eyes only weakly prominent, 1.7–1.8 times as long as weakly convergent tempora; head and pronotum with fine micropunctulation, scarcely visible at 10 times magnification; large punctural grooves on tempora flatter than in preceding five species, appearance of tempora less rugose; posterior margin of head almost straight; pronotum as long as wide, widest slightly in front of midlength, narrowed toward base in almost straight line; sublateral group composed of three punctures in oblique row, in addition, with three narrowly grouped punctures very close to lateral margin, approximately at level of large lateral setiferous puncture; elytra with sutural row of 4–5 punctures, discal row with 5–7 punctures; isodiametrical microsculpture on abdominal tergites rather extensive, but medially confined to narrow portion at anterior margin; unpigmented portion of male sternite IX less extensive, apical lobes short and broad.

Aedeagus (Fig. 141) similar to that of *A. biru* in ventral view but median lobe with longer apical piece, in lateral view with more distinctly rounded apex, slightly bent toward paramere, ostial operculum also very large; paramere in lateral view bent toward median lobe, apex with tiny outward pointing hook.

Female unknown.

DIAGNOSIS: Among the species of this group with eyes less than twice as long as tempora, the species may be recognized by the smaller size, the distinct isodiametrical microsculpture on head and pronotum and the distinctly shorter pubescence. From *A. fredricki* it differs by the more rectangular head and the much less numerous sublateral punctures of the pronotum, from *A. impexus*, which also has a subrectangular head, it differs by the shorter tempora and also by the less numerous sublateral punctures of the pronotum.

DISTRIBUTION: The species is known only from the type locality.

ETYMOLOGY: Named in honor of my friend and colleague Manfred Jäch who collected the first specimen of this species during our expedition to North Sumatra.

Algon semiviolaceus sp.n.

Algon semiviolaceus CAMERON (manuscript name).

 $\label{eq:holotype} \begin{array}{l} \mbox{Holotype} \ \mbox{\wp}: ``Type \ Java orient., Montes Tengger, 4000', 1890, H. Fruhstorfer. \ \ M.Cameron. Bequest. B.M. 1955-147. \ \ A. semiviolaceus Cam. TYPE \ ? = semicaeruleus P.M. Hammond det. 1981" (NHML). \end{array}$

DESCRIPTION (Habitus: Fig. 47): 15.0 mm long (7.1 mm, abdomen excluded). – Head (Fig. 57) 1.24 times as wide as long, eyes 1.6 times as long as tempora; pronotum about as long as wide, widest in anterior third, distinctly narrowed toward base in almost straight line; micropunctulation on head and pronotum very fine, barely visible at 10 times magnification; elytra along sides about as long as pronotum along midline; sutural row with 3 punctures situated in anterior half, discal row with 4–6 punctures; microsculpture on abdominal tergites as in A. *jaechi*.

Male unknown.

DIAGNOSIS: Within the *A. elegans* species group, *A. semiviolaceus* may be immediately recognized by the short elytra, which in the remaining species of the group, are always markedly longer along sides than the pronotum along midline.

DISTRIBUTION: The species is at present known only from the type locality.

ETYMOLOGY: The specific name is the unpublished manuscript name originally proposed by Cameron and refers to the strong violaceous hue of the fore body.

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Algon fredricki sp.n.

Holotype σ : "Malaysia, Sabah, Sandankan, Sepilok, PF, March 97, AYC Chung \ Sta 10 [pink label] \ FIT 11/2/2 [blue label] \? Philonthus / Philonthopsis sp." (NHML).

DESCRIPTION (Habitus: Fig. 48): 19 mm long (9 mm, abdomen excluded). - Head (Fig. 59) trapezoid, 1.28 times as wide as long; eyes markedly prominent, 1.75 times as long as distinctly convergent tempora; postocular region and medio-posterior portion with dense, large, pit-like setiferous punctures, surface appearing very rugose but grooves of punctures confluent only on tempora; with a pair of interocular punctures; surface of head with rather dense and strong punctulation, becomer stronger toward base, almost reaching size of smaller pit-like setiferous punctures; in addition, with dense microsculpture of type II but lines of polygones obsolete and micropores very dense, almost resembling type III; antennae with segments 4-8 markedly oblong (segments 9–11 on right and 6–11 on left antenna are missing), distinctly longer than in any other species of the group; mandibles unusually long and slender, mandibular furrow almost completely shifted toward dorsal face of mandible; last segment of labial palpus extremely broad; pronotum about as long as wide, widest at midlength; middle third of sides almost parallel, equally narrowed anteriorly and posteriorly; with dorsal rows of two (left) and three (right) punctures; between dorsal row and lateral margin with numerous large setiferous punctures of same size as those of dorsal rows; setae unusually long; microsculpture as on head; scutellum rather coarsely and densely punctate; elytra with about 9 punctures in sutural row, discal row irregular, actually composed of double row of about 15 punctures, basal depression distinctly and comparatively densely punctate; deflexed portion of elytra also densely punctate, with two large lateral macro-setae (only one in the remaining species of the group); all setae unusually long; isodiametrical microsculpture on abdominal tergites less extensive, medially confined to a narrow portion at anterior margin and to punctural grooves; setae of tergites also unusually long; unpigmented portion of male sternite IX less extensive, apical lobes short and broad.

Aedeagus (Fig. 142) with median lobe flame shaped in ventral view, in lateral view with side facing paramere very slightly bent toward paramere, apical piece rather broad, ostial operculum rather large; paramere with sinuate sides in ventral view, apically hardly bent toward median lobe in lateral view.

Female unknown.

DIAGNOSIS: The species is easily recognized by the large number of sublateral punctures of the pronotum; from *A. elegans*, which has a similar punctation of the head it differs by the much larger size and the distinctly smaller eyes.

DISTRIBUTION: The species is at present known only from the type locality.

ETYMOLOGY: The species is named in honor of Bob "The Spiderman" Fredrick, a lover of and endless source of knowledge on everything that has to do with natural history, particularly spiders and butterflies. Bob is among the very few I call "friend" although I have never met him personally, a man with a great heart and a twisted sense of humor. May our mutually fruitful and enlightening communication continue for years to come!

Algon hollowayae sp.n.

Holotype ♂: "W - MALAYSIA: Pahang, 25 km NE Raub, Kampung Ulu Dong, 26. – 31.3.2001, leg. A. Kudrna Jr." (NMW).

Paratypes (8 exs.): 1 σ with identical label data as holotype (NMW); 1 $_{\circ}$: "W-Malaysia: Pahang, 30 km NE Raub, Lata Lembik, 03°56'N 101°38'E, 200 – 400 m, 22.IV.-1.V., 8.-15.V.2002, leg. E. Jendek & O. Šauša" (CST);

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1 $_{\text{Q}}$: "W-Malaysia: Perak, Chenderiang, ca. 8 km N Ipoh, 330–400 m, 15.–17./22.I.1995, leg. P. Schwendinger, evergreen rain forest" (MHNG); 2 $_{\text{Q}}$ $_{\text{Q}}$ $_{\text{Q}}$: "W-Malaysia: Selangor, Ulu Gombak, FIT, 21.V.–3.VI.2003, leg. M. Maruyama" (NMW, CST, CHaK); 1 $_{\text{Q}}$: "W-Malaysia: Selangor, Ulu Gombak, FIT, 2.–18.III.2003, leg. M. Maruyama" (CST).

DESCRIPTION (Habitus: Fig. 49): 15.0–16.7 mm long (7.7–8.0 mm, abdomen excluded). – Head trapezoid, 1.32–1.36 times as wide as long, base distinctly concave; eyes prominent, 2.1–2.4 times as long as distinctly convergent tempora; surface of head with very fine isodiametrical microsculpture (type II); in addition, with fine micropunctulation, scarcely visible at 10 times magnification; postocular region with moderately dense, pit-like punctation, only shortly extending mediad, punctural grooves confluent only on tempora; antennae rather short, segments 4–7 weakly oblong, of almost equal length, segments 9 and 10 about as long as wide; pronotum slightly wider than long (ratio 1.04–1.08), widest in anterior third, narrowed toward base in almost straight line, more strongly narrowed toward base than toward anterior margin; sublateral group with oblique row of five punctures, in addition, with two punctures close to lateral margin, near large lateral puncture; microsculpture as on head, head and pronotum thus fairly shiny; scutellum rather densely and coarsely punctate; elytra with scutellar row of 3–4 punctures (in one aberrant specimen all punctures lacking), discal row with 7–8 punctures; microsculpture of abdominal tergites as in preceding species; unpigmented portion of male sternite IX less extensive, apical lobes short and broad.

Aedeagus (Fig. 143) somehow similar to that of *A. biru* but median lobe in ventral view with sides slightly convex, ostial operculum much smaller, in lateral view outline of side facing paramere more straight, hardly bent toward paramere; paramere in lateral view much slenderer basally, rather straight, almost parallel to median lobe.

DIAGNOSIS: Among the species of this group with eyes more than twice as long as tempora, the species is easily recognized by its large size and the slightly transverse pronotum.

DISTRIBUTION: The species is at present known only from two places in West Malaysia.

ETYMOLOGY: The species is named in honor of Pam Holloway, Bob Fredrick's loving partner. Besides being a jewel of a lady, she also has a good sense of humor.

Algon impexus sp.n.

Holotype &: "E.MALAYSIA, near Kenningau, Sabah, N. Borneo, IV.2001, Native Collector leg." (TUA).

DESCRIPTION (Habitus: Fig. 50): 18.5 mm long (9.0 mm, abdomen excluded). – Head (Fig. 60) subrectangular, 1.26 times as wide as long; eyes moderately prominent, 1.5 times as long as subparallel tempora; postocular region densely and coarsely punctate, punctural grooves very large, contiguous or confluent, but hardly extending mediad; antennae moderately long, segments 4–7 slightly oblong, segment 8 inconspicuously oblong, segments 9 and 10 about as long as wide; pronotum inconspicuously wider than long (ratio 1.02), widest approximately at midlength, almost equally narrowed anteriorly and posteriorly; sublateral group composed of oblique row of 5–6 punctures, posterior four punctures very narrowly grouped; in addition, with two punctures close to lateral margin near large lateral setiferous puncture; microsculpture of head and pronotum very peculiar, apparently of "Type II" with obsolete polygonal lines, but micropores exceedingly dense (almost resembling "Type III"), partly contiguous or confluent, in places forming small transverse and oblique rugae; setae along anterior and lateral margins very long; scutellum rather sparingly punctate; elytra with scutellar row of 3–4 punctures, discal row with 7 punctures, elevated sutural interval strongly crenulated; setae on deflexed lateral portion very long; abdominal tergites with microsculpture as in preceding two species; unpigmented

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portion of male sternite IX less extensive, apical lobes short and broad; male sternite VIII: Fig. 75; male sternite IX: Fig. 83.

Aedeagus (Fig. 144) very slender, median lobe in ventral view subparallel-sided in basal half, gradually slightly convexly narrowed toward pointed apex, in lateral view with outline of side facing paramere slightly sinuate, ostial operculum moderately large; paramere very strange, somewhat longer than median lobe, almost straight, apical half of side facing median lobe densely furnished with exceedingly long and fine, curled setae (setae omitted in Fig. 144a).

DIAGNOSIS: The species is easily recognized by the long tempora and the peculiar microsculpture of head and pronotum.

DISTRIBUTION: The species is at present known only from the type locality.

ETYMOLOGY: The species' name refers to the long and dishevelled setation of the paramere; *impexus*, *-a*, *-um* (Latin) means "unkempt".

Species incertae sedis

The following five species may not with certainty be assigned to any of the above species groups. In addition, their heterogeneity does not allow to establish separate species groups for them at the current state of knowledge. The first four species show some external similarity with the *grandicollis* group but I did not include them because of the presence of microsculpture on parts of the fore body and the rather flat paramere. *Algon nomurai* probably represents a separate species group but with the characters given, it would be problematic to define satisfactorily.

Algon robillardae sp.n.

Holotype &: "TAIWAN, Taoyuan Hsien, Takuanshan For., 17.IV.90, 1650 m, A. Smetana [T5]" (CSO).

Paratypes (6 exs.): $3 \circ \varphi$: "TAIWAN, Nantou Hsien, Meifeng, 2130 m, 2.V.1998, A. Smetana [T196]" (2 CSO, 1 NMW); $1 \circ$: "Meifeng, Nantou, Taiwan, 4 V 1977, Y. Momiya lgt." (CST); $1 \circ$: "Tsai Tie Ku, near Liu Kui, S-Taiwan, 6.X.1986, Col. K. Baba" (CST); $1 \circ$: "C.Taiwan: Chiai Hsien near Fenchihu, 1380 m, 17-VII-2004, Yasutoshi Shibata leg." (CST).

DESCRIPTION (Habitus: Fig. 24): 9.0–14.9 mm long (6.0–6.7 mm, abdomen excluded). – Black to black brown, moderately shining; antennae and palpi dark reddish brown, legs black, tarsi with segment 1 dark brown, remaining segments gradually becoming paler reddish brown distally.

Head rounded quadrangular, 1.28–1.34 times as wide as long; eyes moderately large, 1.45–1.72 times as long as weakly angulate tempora; surface densely covered with isodiametrical microsculpture (Type I), in addition, with very fine micropunctulation, hardly visible at 10 times magnification; antennae rather short, segments 8 and 9 about as long as wide, segment 10 slightly transverse; pronotum slightly wider than long (ratio 1.04–1.07), sides and base moderately strongly convex, hind angles comparatively well indicated, strongly obtuse; surface with microsculpture and micropunctulation as on head; elytra along sides markedly longer than pronotum along midline, very densely and coarsely, slightly asperately punctate, punctures separated by about a puncture diameter in transverse direction but punctural grooves frequently confluent, forming small irregular rugae; elevated interval along suture impunctate but finely, obliquely rugose; surface between punctures without isodiametrical microsculpture; posterior margin of abdominal tergite VII with whitish seam.

Aedeagus (Fig. 127) very simple; median lobe subparallel-sided with acutely pointed apex, in lateral view slender, apically slightly bent toward paramere; paramere (Fig. 127c) slender,

subparallel-sided, slightly bulb-like widened near rounded apex, a few peg setae (about 15) arranged in irregular median row.

DIAGNOSIS: Among the predominantly black species with microsculptured head and pronotum easily recognizable by the lack of microsculpture on the elytra.

DISTRIBUTION: The species is at present known only from the island of Taiwan where it is most likely endemic.

ETYMOLOGY: The species is named in honor of Aleš Smetana's wife, Lise Robillard, who is a faithful companion, not only in everyday life but also during the expeditions she joined. On these occasions she frequently collected species in habitats not touched by A. Smetana's collecting methods and thus revealed the one or the other interesting specimen.

Algon rugulipennis sp.n.

Holotype σ : "CHINA, Yunnan prov., Gaoligongshan mts., 90 km W of Baoshan, 26.-28.5.1995, lgt. S. Becvar" (NMW).

DESCRIPTION (Habitus: Fig. 25): 15 mm long (6.5 mm, abdomen excluded). – Rather opaque; head and pronotum black with dark violaceous hue, elytra black, palpi reddish brown, legs black to black brown (antennae and tarsi cannot be described because they lack almost entirely).

Head rounded quadrangular, 1.31 times as wide as long, eyes 1.73 times as long as slightly angulate tempora; surface densely covered with isodiametrical microsculpture (Type II), in addition, with very fine micropunctulation, hardly visible at 10 times magnification; pronotum 1.13 times as wide as long, widest at midlength, sides narrowed toward weakly convex base in almost straight line, hind angles broadly rounded but well demarcated; surface with microsculpture and micropunctulation as on head; elytra very short, along sides distinctly shorter than pronotum along midline; surface densely covered with pronounced, slightly scaly, isodiametrical microsculpture (Type IIIa), very sparingly and finely punctate, punctural grooves forming moderately deep foveae, surface of elytra thus very uneven, punctures at base of foveae hardly visible, bearing rather short and inconspicuous yellowish setae; posterior margin of abdominal tergite VII without whitish seam.

Aedeagus (Fig. 128) with a huge phallobasis, median lobe short and broad, almost parallel-sided, abruptly narrowed toward acute apex, apical piece with a short semi-membranous portion (transition between median lobe and ostial operculum), in lateral view phallobasis appearing even larger, median lobe and paramere bent ventrad in a simultaneous curve, dorsal face of median lobe with a dense patch of numerous short and fine setae; paramere (Fig. 128c) at base almost as broad as median lobe, slightly constricted above base, convexly widened at midlength, narrowed toward slightly notched apex in almost straight line, with more than 50 peg setae arranged in two irregular, partly confluent, longitudinal clusters occupying more than half of length of apical portion of paramere.

Female unknown.

DISTRIBUTION: The species is at present known only from the type locality in western Yunnan (China).

ETYMOLOGY: The specific name refers to the coarsely rugulous surface of the elytra.

Algon chinensis sp.n.

Holotype ♂: "CHINA: W-Hubei, 20.6.-12.7.2003, Muyuping S env., pitfall traps, 31.45N 110.4E, ca. 1300 m, leg. J. Turna" (NMW).

Paratypes (43 exs.): 4 $\sigma\sigma$, 5 $\varphi\varphi$: same data as holotype (NMW); 1 σ : same data as holotype, but 16.V.– 12.VI.2004 (NMW); 1 φ : same data as holotype, but 8./15.–17.6.2002 (NMW); 4 $\sigma\sigma$, 3 $\varphi\varphi$: "CHINA: W-Hubei, 21.5.–6.6.2005, Muyuping NW env., pitfall traps, 31.5N 110.35E, leg. J. Turna" (NMW); 3 $\sigma\sigma$, 4 $\varphi\varphi$: "CHINA: W-Hubei, 21.6.–13.7.2003, Guanmenshan, pitfall traps, 31.45N 110.4E, ca. 1500 m, leg. J. Turna" (NMW); 8 $\sigma\sigma$, 2 $\varphi\varphi$: same locality, but 16.V.–14.VI.2004 (NMW); 1 σ : "CHINA (W-Hubei) Daba Shan, creek valley 8 km NW Muyuping, 31°29'N / 110°22'E, 1540 m, (edge of small creek), 18.VII.2001, Wrase [16]" (CSB); 1 σ : "CHINA, NW-Hubei, Shipusa env., 2300 m, Dashennongjia mts., 26.Jun – 1.Jul 1998" (CST); 1 φ : "CHINA, Hubei Prov., Shennongjia County, 7 km N of Muyi vill., 2000 m, 15.-21.vi.1997" (CHaK); 1 φ : "CHINA: Shaanxi, Daba Shan SE pass 20 km NW Zhenping, 1680 m, 31°59'N 109°22'E, 11.VII.2001, A. Smetana [C100]" (CSO); 1 φ : "CHINA: Border Shaanxi – Sichuan (Daba Shan), pass 20 km SSE Zhenping, 1700 - 1800 m, 31°44'N, 109°35'E, leg. M. Schülke C01-0[7B] \ small creek valley, pitfall traps (vinegar), 9.–12.VII.2001 C01-0[7B] \ Sammlung M. Schülke Berlin" (CSB); 1 σ : "CHINA, 20.V.-10.VI.2000, Shaanxi prov., Qinling mts., ~ 1200m, Xunjangba env." (CHAK); 1 φ : "CHINA, Guizhou, Leigongshan mts., 30 m E of Leishan, 19.-24.VI.1994" (CHaK); 1 σ : "[CHINA: Sichuan], Chengkou Xian, Gaonan Xiang, Mojiawan (alt. 1250), 26.ix.1927, Toshio Kishimoto leg." (CKT).

DESCRIPTION (Habitus: Fig. 1): 15.0–18.0 mm long (7.5–8.0 mm, abdomen excluded). – Black, not very shiny; antennae and palpi reddish brown; legs black to black brown, tarsi dark reddish brown basally, becoming paler reddish brown distally or entirely bright reddish.

Head rounded quadrangular, 1.23–1.25 times as wide as long, eyes rather small, 1.03–1.30 times (about 1.60 in winged specimens) as long as tempora, tempora regularly convex or inconspicuously angulate; surface densely covered with isodiametrical microsculpture (Type II), in addition, with a group of a few larger micropunctures behind supra-antennal seta, and with exceedingly fine micropunctulation, visible only at higher magnification (minimum 25 times); antennae rather short, segment 9 inconspicuously oblong, segment 10 about as long as wide; pronotum 1.06–1.09 times as wide as long, widest approximately at midlength, more strongly narrowed toward anterior margin than toward base, narrowed toward weakly convex base in almost straight line; hind angles weakly indicated, broadly rounded; surface densely covered with isodiametrical microsculpture (Type II), in addition, with exceedingly fine micropunctulation, clearly visible only at a magnification of about 40 times; scutellum with very profound isodiametrical microsculpture (Type IIIa); elytra along sides a little shorter than pronotum along midline; finely punctate and pubescent, punctures originating from anterior end of rather deep foveae, hardly visible within dense and profound isodiametrical microsculpture; foveae almost contiguous but not confluent, giving the elytral surface a somewhat comb-like structure; posterior margin of abdominal tergite VII without whitish seam (majority of specimens; wings reduced), rarely with whitish seam (winged specimens).

Aedeagus (Fig. 129) with median lobe somewhat flame-shaped, slightly concavely narrowed toward pointed apex, in lateral view quite slender, particularly apical piece, outline of side facing paramere slightly curved toward paramere; paramere (Fig. 129c) slightly asymmetrical, widened in basal third of apical portion, narrowed toward rounded apex in almost straight line, in lateral view appearing quite broad, outline of side facing median lobe following course of median lobe, with numerous peg setae (more than 80) densely arranged in irregular cluster occupying almost entrie length of paramere but not reaching apex.

DIAGNOSIS: This and the previous species are well characterized by the rugose, foveate structure of the elytra. *Algon chinensis* differs from *A. rugulipennis* by the distinctly longer tempora and the lack of metallic hue on head and pronotum.

REMARK: The species appears to have winged and unwinged specimens. Only two winged specimens have been found in the rich material available. Those winged specimens are easily

recognizable by the presence of the whitish seam on the posterior margin of abdominal tergite VII and by the larger eyes.

DISTRIBUTION: The species is widely distributed in central and southern China (Shaanxi, Hubei, Guizhou, Sichuan).

ETYMOLOGY: The specific epithet refers to the fact that among the hitherto discovered species of China this is the one with the widest distribution.

Algon tibetanus sp.n.

Holotype $_{\rm Q}$: "CHINA, E-Tibet, 2050-2400 m, N of Brahamaputra great bend, 30°00-07'N / 95°52'-95°09'E, 16.-20.7.92, L.+R.Businský lgt." (CSO).

DESCRIPTION (Habitus: Fig. 26): 19.5 mm long (9.4 mm, abdomen excluded). – Black, rather shiny; fore body with weak violaceous blue hue, basal depression of elytra black; antennae dark brown, gradually becoming more reddish brown distally, palpi reddish brown; legs black to black brown, tarsi somewhat paler.

Head 1.26 times as wide as long, widest near well indicated but rounded hind angles; eyes small, hardly prominent, inconspicuously longer than tempora (ratio 1.04), tempora slightly widened behind eyes; postocular region moderately densely, rather finely punctate; surface of head with fine scattered micropunctulation (barely visible at 10 times magnification), with exceedingly fine microsculpture (type II), individual cells very small, visible only at higher magnification; antennae rather long, segments 4-9 distinctly, segment 10 weakly oblong (segment 11 of right antennae and segments 6-11 of left antenna missing); pronotum 1.15 times as wide as long, widest slightly in front of midlength, weakly narrowed toward base in almost straight line; surface with microsculpture as on head; scutellum exceedingly finely and sparingly punctate; elytra with large but very flat punctural grooves, moderately densely arranged, separated by about 1–2 groove diameters in transverse direction; punctures in grooves very tiny, hardly visible; basal depression and punctural grooves with isodiametrical microsculpture (type IIIa), surface between grooves glossy; deflexed lateral portion of elytra with same punctation as disc but much denser, grooves almost contiguous; abdominal tergites with type IIIa microsculpture at very base and around fine punctures, medially and on remaining surface of tergites with transverse microstriae; posterior margin of tergite VII with whitish seam.

Male unknown.

DIAGNOSIS: The species is well characterized by its large size, the posteriorly slightly divergent head and the microsculpture of the elytra which on the disc is confined to the punctural grooves. All other species where a slightly divergent head occurs have entirely microreticulate elytra.

DISTRIBUTION: The species is at present known only from the type locality.

ETYMOLOGY: The specific epithet is derived from the commonly used name of Zhizang Autonomous Region in China.

Algon nomurai sp.n.

Holotype ♂: "Mt. Lang Biang (ca. 1900m), nr. Da Lat, Lam Dong Prov. [S-VIETNAM] 30.iv.2003, S. Nomura leg." (NSMT).

DESCRIPTION: 17.4 mm long (7.7 mm, abdomen excluded). – Fore body violaceous with strong purple/magenta hue; deflexed portion of elytra more greenish blue, color slightly spilling over to disc; antennae black brown, segment 2 narrowly reddish brown proximally and distally,

two outer segments reddish brown; palpi dark reddish brown; legs black brown, tarsi dark reddish brown, segment 5 paler reddish brown; head and pronotum rather opaque, elytra shiny.

Head quadrangular, sides parallel, 1.34 times as wide as long; eyes very short, hardly prominent, tempora 1.37 times as long as eyes, parallel for quite distance behind eyes, then regularly rounded toward base of head; surface of head covered with dense and profound isodiametrical microsculpture (indistinctly Type II), in addition, with rather dense and distinct micropunctulation, clearly visible at 10 times magnification; medial margin of left mandible with inconspicuously bicuspid tooth; antennae moderately long, segment 9 inconspicuously oblong, segment 10 about as long as wide; pronotum 1.37 times as wide as long, widest slightly in front of midlength, weakly narrowed anteriorly, distinctly narrowed toward base in slight concave arc; with a pair of widely separated large punctures close to anterior margin; microsculpture as on head; scutellum with a small group of fine punctures, concentrated in medio-apical half; elytra very short, along sides much shorter than pronotum along midline, rather densely and coarsely punctate, punctures separated by about 1–3 puncture diameters in transverse direction, punctural grooves partly confluent, forming slight rugae, particularly in medial half; wings reduced; posterior margin of abdominal tergite VII without whitish seam.

Aedeagus (Figs. 130) with median lobe large and broad, in lateral view with slender apical piece bearing a conspicuous tooth; paramere broad and subparallel-sided in ventral view, slender and almost straight in lateral view, apex with very long normal setae, peg setae lacking.

Female unknown.

DIAGNOSIS: Externally, *A. nomurai* reminds of the species of the *A. elegans* group, but differs by the slenderer labial palpi, by the very small eyes, by the shape of the male sternite IX, and by the lack of distinct isodiametrical microsculpture on the elytra and the abdominal tergites -a very fine isodiametrical microsculpture is present at the base of the tergites, as in most *Algon* species.

DISTRIBUTION: The species is at present known only from the type locality.

ETYMOLOGY: The species is named in honor of its collector, Dr. Shohei Nomura (Tokyo) an excellent specialist on Pselaphinae.

Unnamed female specimens

Several female specimens could not be assigned to any of the named species. Since many of the closely related species are exceedingly similar to each other, those specimens are not named until males become available. The numerous unidentifiable females of the *A. nepalicus* complex are not mentioned here.

Algon sp. prope grandicollis

Material examined: 1 g: China, Yunnan, Yulongshan [in Chinese], 12.VI.2001, leg. M. Yoshida (ChaK).

The specimen does not differ from *A. grandicollis*. It is either a mislabelled specimen or represents an undescribed species which cannot be distinguished from *A. grandicollis* externally.

Algon sp. prope viridis

Material examined: 1 g: "Burma Mt. Victoria Chinhills 1000m VII.38 leg. G. Heinrich" (NHML).

The specimen appears to be similar to *A. viridis* and *A. theresae*. From *A. viridis* it differs by finer micropunctulation on head; pronotum without micropunctulation; from *A. theresae* it differs by the more sparingly punctate elytra.

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Algon sp. prope viridis

Material examined: 1 9: "N-Thailand: Nan, Lom Sak-Dan Sai, 17.-19.5.1993, Pacholatko & Dembicky" (NMW).

This specimen is also quite similar to *A. viridis* and *A. theresae*. It differs from *A. viridis* by the features mentioned above, from *A. theresae* it differs by the larger size and the denser and coarser elytral punctation.

Algon sp. prope jizushanus

Material examined: 1 ₉: "222 Dading/Gorkha Dist. Buri Gandaki, Dobhan-Jagat, 1100-1300m, 30 Jul 83, Laubwald, Martens & Schawaller" (SMNS).

The species is very similar to *A. jizushanus*, but differs by the markedly larger eyes. From *A. semiaeneus*, which has similarly large eyes it differs by the densely and coarsely punctate elytra. In addition, elytra dark greenish blue.

Algon sp. prope tricolor

Material examined: 1 ç: "NE-India: Meghalaya, Khasi Hills, Shillong peak \ 25°32.8'N 91°52.5'E, ca. 1850 m, 4.-5.6.1996, leg. Jendek & Sausa" (NMW).

The species closely resembles *A. tricolor*, but differs by the dark greenish blue elytra, slightly longer antennal segments and denser elytral punctation without any traces of micropunctulation.

Algon sp. prope mulu

Material examined: 1 9: "Trus Madi, 1000-1200 m, N. Borneo, E.Malaysia, 1.-15.IV.2004, M. Sawai leg." (CST).

The specimen shares most characters with *A. mulu*, but is slightly more robust. Pronotum with more pronounced microsculpture, micropunctulation hardly visible. Since almost all specimens of this species group originating from different localities turned out as different species, I am sure that this specimen also represents an undescribed species. However, because of the external similarity of many of the species, I will not name it until males become available.

Species from other faunal regions

The two species of *Algon* described from the Afrotropical Region have not been studied as yet. Judging from the descriptions and nontypical material studied, they most likely do not belong to *Algon*.

Algon africanus BERNHAUER

Algon africanus BERNHAUER 1915: 308.

Type locality: Cameroon.

I have seen a specimen identified by Bernhauer as "*A. africanus* var." from "Congo Francese, Lambarene, X.-XII.1902, L. Fea". The specimen either represents a strange species of *Amelinus* BERNHAUER or a new genus.

Algon robustus WENDELER

Algon robustus WENDELER 1928: 35.

Type locality: S-Africa, Cape.

1 2

Figs. 1–2: Habitus of 1) Algon chinensis, 2) A. jaechi.



Figs. 3–11: Habitus of 3) Algon grandicollis, 4) A. sphaericollis, 5) A. tristis, 6) A. pergrandis, 7) A. emeishanus, 8) A. fukienensis, 9) A. bramlettorum, 10) A. viridis, 11) A. theresae.



Figs. 12–20: Habitus of 12) Algon aureoviridis, 13) A. jizushanus, 14) A. gemmatus, 15) A. excellens, 16) A. malayanus, 17) A. psittacus, 18) A. immsi, 19) A. nadjae, 20) A. semiaureus.



Figs. 21–29: Habitus of 21) Algon tricolor, 22) A. semiaeneus, 23) A. atrocaeruleus, 24) A. robillardae, 25) A. rugulipennis, 26) A. tibetanus, 27) A. nomurai, 28) A. oculatus, 29) A. pseudoculatus.



Figs. 30–38: Habitus of 30) *Algon uniformis*, 31) *A. tigrimontis*, 32) *A. nepalicus*, 33) *A. pseudonepalicus*, 34) *A. forceps*, 35) *A. himalayicus*, 36) *A. kaiserianus*, 37) *A. tronqueti*, 38) *A. hubeiensis*.



Figs. 39–47: Habitus of 39) Algon brevipennis, 40) A. ceylonensis, 41) A. dysanelloides, 42) A. elegans, 43) A. semicaeruleus, 44) A. lanceolatus, 45) A. biru, 46) A. crockerensis, 47) A. semiviolaceus.



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Figs. 48–54: 48–50: Habitus of 48) Algon fredricki, 49) A. hollowayae, 50) A. impexus; 51–54: Head of 51) A. brevipennis, 52) A. ceylonensis, 53) A. elegans, 54) A. semicaeruleus.



Figs. 55–60: Head of 55) Algon mulu, 56) A. lanceolatus, 57) A. semiviolaceus, 58) A. jaechi, 59) A. fredricki, 60) A. impexus.



Figs. 61–69: 61) *Algon sphaericollis*, infraorbital area; 62) *A. tristis*, infraorbital area; 63) *A. tronqueti*, supraorbital area; 64–69: left elytron of 64) *A. psittacus*, 65) *A. immsi*, 66) *A. nadjae*, 67) *A. semiaureus*, 68) *A. himalayicus*, 69) *A. dentiger*.



Figs. 70–75: 70) *Algon tristis*, head (ventral aspect); 71) *A. pseudonepalicus*, head (ventral aspect); 72) *A. chinensis*, pronotum (ventral aspect); 73) *A. chinensis*, mesosternum; 74) *A. tristis*, tergite VIII; 75) *A. impexus*, male sternite VIII.



Figs. 76–84: 76–79) Labial palpus of 76) *Algon grandicollis*, 77) *A. chinensis*, 78) *A. tigrimontis*, 79) *A. hubeiensis*; 80) prothoracic epimeroid of *A. hubeiensis*; 81-83) male sternite IX of 81) *A. grandicollis*, 82) *A. kaiserianus*, 83) *A. impexus*; 84) apex of aedeagus of *A. jaechi* (ostial operculum fully colored).



Figs. 85–87: Aedeagus of 85) *Algon grandicollis*, 86) *A. sphaericollis*, 87) *A. tristis*; a) ventral view, b) lateral view, c) paramere; scale bar: 0.4 mm (a, b), 0.2 mm (c).

88a b 89a b 90a b 88c /89c 90c

Figs. 88–90: Aedeagus of 88) *Algon matsukii*, 89) *A. atronitidus*, 90) *A. pergrandis*; a) ventral view, b) lateral view, c) paramere; scale bar: 0.4 mm (a, b), 0.2 mm (c).



Figs. 91–92: Aedeagus of 91) *Algon viridis*, 92) *A. bramlettorum*, 92d) *A. bramlettorum* (specimen from Darjeeling); a) ventral view, b) lateral view, c, d) paramere; scale bar: 0.4 mm (a, b), 0.2 mm (c, d).



Figs. 93–95: Aedeagus of 93) *Algon emeishanus*, 94) *A. fukienensis*, 95) *A. theresae*; a) ventral view, b) lateral view, c) paramere; scale bar: 0.4 mm (a, b), 0.2 mm (c).

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Figs. 96–98: Aedeagus of 96) *Algon excellens*, 97) *A. jizushanus*, 98) *A. aureoviridis*; a) ventral view, b) lateral view, c) paramere; scale bar: 0.4 mm (a, b), 0.2 mm (c).



Figs. 99–101: Aedeagus of 99) *Algon psittacus*, 100) *A. immsi*, 101) *A. nadjae*; a) ventral view, b) lateral view, c) paramere; scale bar: 0.4 mm (a, b), 0.2 mm (c).



Figs. 102–104: Aedeagus of 102) *Algon semiaureus* (102d: specimen from Madras), 103) *A. atrocaeruleus*, 104) *A. semiaeneus*; a) ventral view, b) lateral view, c, d) paramere; scale bar: 0.4 mm (a, b), 0.2 mm (c, d).



Figs. 105–106: Aedeagus of 105) *Algon oculatus*, 106) *A. sinoculatus*; a) ventral view, b) lateral view, c) paramere; scale bar: 0.4 mm (a, b), 0.2 mm (c).



Figs. 107–108: Aedeagus of 108) *Algon pseudoculatus*, 106) *A. macrops*; a) ventral view, b) lateral view, c) paramere; scale bar: 0.4 mm (a, b), 0.2 mm (c).


Figs. 109–110: Aedeagus of 109) *Algon uniformis*, 110) *A. tigrimontis*; a) ventral view, b) lateral view, c) paramere; scale bar: 0.4 mm (a, b), 0.2 mm (c).



Figs. 111–114: Aedeagus of 111, 112) Algon nepalicus, 113) A. pseudonepalicus, 114) A. dentiger; a) ventral view, b) lateral view; scale bar: 0.4 mm.



Figs. 115–118: Aedeagus of 115, 116) Algon forceps, 117) A. himalayicus, 118) A. similis; a) ventral view, b) lateral view; scale bar: 0.4 mm.



Figs. 119–126: Paramere of 119, 120) Algon nepalicus, 121) A. pseudonepalicus, 122, 123) A. forceps, 124) A. himalayicus, 125) A. similis, 126) A. dentiger; scale bar: 0.4 mm.



Figs. 127–129: Aedeagus of 127) *Algon robillardae*, 128) *A. rugulipennis*, 129) *A. chinensis*; a) ventral view, b) lateral view, c) paramere; scale bar: 0.4 mm (a, b), 0.2 mm (c).

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Figs. 130–132: Aedeagus of 130) *Algon nomurai*, 131) *A. ceylonensis*, 132) *A. brevipennis*; a) ventral view, b) lateral view, c) paramere; scale bar: 0.4 mm (a, b), 0.2 mm (c).



Figs. 133–135: Aedeagus of 133) *Algon kaiserianus*, 134) *A. tronqueti*, 135) *A. hubeiensis*; a) ventral view, b) lateral view, c, d) paramere; scale bar: 0.4 mm (a, b), 0.2 mm (c, d).



Figs. 136–139: Aedeagus of 136) Algon elegans, 137) A. biru, 138) A. mulu, 139) A. lanceolatus; a) ventral view, b) lateral view; scale bar: 0.4 mm.



Figs. 140–143: Aedeagus of 140) Algon crockerensis, 141) A. jaechi, 142) A. fredricki, 143) A. hollowayae; a) ventral view, b) lateral view; scale bar: 0.4 mm.



Fig. 144: Aedeagus of *Algon impexus*; a) ventral view (setae of paramere omitted), b) lateral view; scale bar: 0.4 mm.

Zusammenfassung

Die Gattung Algon SHARP, 1874 wird revidiert. Gegenwärtig enthält die Gattung achtundfünfzig asiatische sowie zwei zweifelhafte afrikanische Arten. Neununddreißig Arten werden neu beschrieben: Algon atrocaeruleus (Indien), A. atronitidus (Vietnam), A. aureoviridis (Indien), A. biru (Ost-Malaysia), A. bramlettorum (Laos, Thailand, Indien), A. ceylonensis (Sri Lanka), A. chinensis (China), A. crockerensis (Ost-Malaysia), A. dentiger (Nepal), A. emeishanus (China), A. forceps (Nepal), A. fredricki (Ost-Malaysia), A. fukienensis (China), A. gemmatus (India, Nepal), A. himalayicus (Nepal), A. hollowayae (West-Malaysia), A. hubeiensis (China), A. impexus (Ost-Malaysia), A. jaechi (Indonesien), A. jizushanus (China), A. lanceolatus (Ost-Malaysia), A. macrops (Thailand), A. mulu (Ost-Malaysia), A. nadjae (Nepal), A. nomurai (Vietnam), A. pseudoculatus (Thailand), A. pseudonepalicus (Nepal), A. robillardae (Taiwan), A. rugulipennis (China), A. semiviolaceus (Indonesien), A. similis (Nepal), A. sinoculatus (China), A. smetanai (Ost-Malaysia), A. sphaericollis (Russland, Korea, China), A. theresae (Thailand), A. tibetanus (China), A. tigrimontis (Indien), A. tristis (China), A. tronqueti (China). Lectotypen werden für A. psittacus FAUVEL, 1895 and A. semiaureus FAUVEL, 1895 designiert. Eine neue Synonymie wird vorgeschlagen: A. oculatus CAMERON, 1932 (= A. deuvi (COIFFAIT, 1984) syn.n.). Der Habitus der meisten Arten, die Genitalien aller durch Männchen vertretenen Arten sowie Details einiger ausgewählter Arten werden abgebildet. Ein Bestimmungsschlüssel soll die Determination der Artgruppen und Arten ermöglichen.

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Zeitschrift/Journal: Koleopterologische Rundschau

Jahr/Year: 2006

Band/Volume: 76_2006

Autor(en)/Author(s): Schillhammer Harald

Artikel/Article: <u>Revision of the genus Algon SHARP (Coleoptera: Staphylinidae:</u> <u>Staphylininae) 135-218</u>