# A revision of the genus Archeohomaloplia Nikolajev, 1982 (Coleoptera: Scarabaeidae: Sericini) 

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#### Abstract

The present paper gives a review of the species so far assigned to the genus Archeohomaloplia Nikolajev, 1982. The neotypes of Archeohomaloplia potanini Nikolajev, 1982 and A. medvedevi Nikolajev, 1982 are designated. Ten new species are described from China and Myanmar / Thailand: Archeohomaloplia acuta sp. n., A. frolovi sp. n., A. ganhaiziensis sp. n., A. hebashana sp. n., A. kalabi sp. n., A. mingi sp. n., A. nikolajevi sp. n., A. safraneki sp. n., A. taunggyiensis sp. n., A. yaregongensis sp. n. The genitalia of the new and the already known species are figured and the distribution of the species is illustrated. A key to the species is given.


Key words. Taxonomy, chafer beetles, China, Indochina.

## INTRODUCTION

The genus Archeohomaloplia Nikolajev, 1982 was erected by Nikolajev (1982) mainly based on its differences to the genus Omaloplia Schoenherr, 1817, such as the antenna composed by ten antennomeres (instead of nine). Originally it included only two species (A. potanini Nikolajev, 1982 and $A$. medvedevi Nikolajev, 1982), while subsequently a third species of a recently erected genus Melanomaladera Miyake \& Yamaya, 2001, M. yunnana Miyake \& Yamaya, 2001, was assigned as well to Archeohomaloplia (Ahrens 2007). In the same work A. potani$n i$ Nikolajev, 1982 was synonymized with the senior name, Homaloplia abbreviata Fairmaire, 1897.
Although both genera being not the only ones with a margined pronotal base among the Sericini, their similarity in external appearance is quite notable compared to all other Palearctic Sericini. However, genital morphology of males reveals striking differences between both making it unlikely that both would be sister taxa. Shared characters between the two genera all have been identified by Ahrens (2006) as plesiomorphic character states within basal Sericini (e.g. hypomeron simple, pronotal basis with marginal line) - thus the systematic position and the taxonomic status of Archeohomaloplia is still to explore in more detail.
In the present work I examine all known representatives of Archeohomaloplia that fit to the group diagnostics sent to me for determination from the vast material of numerous European and North American museums as well as private collections. All specimens originate from the Eastern Tibetan Plateau region or the mountains of Indochina, areas which have not been studied so far more comprehensively. Ten new species have been discovered in that material and are described herein, previously described species are shortly reviewed and additional faunistic records are given.

## MATERIAL AND METHODS

The principal terminologies and methods used for measurements, specimen dissection and genital preparation are described in detail in Ahrens (2004). The examined material is cited with the original label contents given in quotations, multiple labels are separated by a "". Male genitalia were glued on a small pointed card and photographed in both lateral and dorsal view with a stereomicroscope Zeiss Discovery .V20 combined with a Zeiss AxioCam HRC digital camera. Using Automontage software a number of single focussed images were combined in order to obtain an image that was in focus throughout. The resulting images were subsequently digitally edited.

## COLLECTION MATERIAL DEPOSITORIES

CA D. Ahrens collection, ZFMK Bonn (Germany);
CK D. Král collection, Prague, now NMPC (Czech Republic);
CP P. Pacholátko collection, Brno (Czech Republic); MNHN Museum national d'Histoire naturelle, Paris (France);
NHMB Naturhistorisches Museum, Basel (Switzerland);
NMMC Municipal Museum, Nagaoka (Japan);
NMPC National Museum Prague (Natural History) (Czech Republic);
USNM National Museum of Natural History, Washington D.C. (U.S.A.);
ZFMK Zoologisches Forschungsmuseum Alexander Koenig, Bonn (Germany);
ZIN Zoological Institute, Russian Academy of Sciences, St. Petersburg (Russia).

## Archeohomaloplia Nikolajev, 1982

Archeohomaloplia Nikolajev, 1982: 286 (type species Archeohomaloplia potanini Nikolajev, 1982 by original designation)

Melanomaladera Miyake \& Yamaya, 2001: 38 (type species Melanomaladera yunnana Miyake \&Yamaya, 2001 by original designation), syn by Ahrens 2007: 6 .

Remarks. The genus Archeohomaloplia was erected by Nikolajev (1982) mainly based on its differences to the genus Omaloplia Schoenherr, 1817, such as the antenna composed by ten antennomeres (instead of nine). Although both genera being not the only ones with a margined pronotal base among the Sericini, their similarity in external appearance is quite notable compared to all other Palearctic Sericini. However, genital morphology of males reveals striking differences between both making it unlikely that both would be sister taxa: While in Omaloplia parameres are composed by almost (2-3) independent hairy lobes (Roessner \& Ahrens 2004) in Archeohomaloplia parameres never bear setae. Furthermore, the hind wing in Archeohomaloplia has, in contrast to Omaloplia, an anal vein which is sharply bent at middle, which was previously recognised as an unambiguous synapomorphy of 'Modern Sericini' (Ahrens 2006b). Most important shared characters between the two genera all have been identified by Ahrens (2006b) as plesiomorphic character states within basal Sericini (e.g. hypomeron simple, pronotal basis with marginal line) - thus the systematic position and the taxonomic status of Archeohomaloplia is still to explore in more detail.

So far, the black and shiny body, the margined base of the pronotum, and a dorsal or lateral apophysis of the phallobase can bee seen as the preliminary diagnostic characteristics of the genus Archeohomaloplia.

Distribution. So far Archeohomaloplia is known only from the areas east of the Tibetan plateau, with two species occurring also in the mountains of Indochina (Myanmar, Thailand).

## Key to species (ô)

1 Hypomeron not carinate. Metatarsomere 1 shorter than the following tarsomere. Elytra and legs black......................................................... 2
1' Hypomeron finely carinate. Metatarsomere 1 longer than the following tarsomere. Elytra dark brown, legs brownish. 12
2 Disc of pronotum with numerous long, erect setae. .3
2' Disc of pronotum without long setae

3 Setae on pronotum and elytra long, twice as long as ocular diameter A. frolovi sp. n.

3' Setae on pronotum and elytra moderately long, as long as ocular diameter. . .4

4 Dorsal apophysis of aedeagus moderately long and straight (dorsal view). Setae on elytra shorter than intervals wide. Posterior angles of pronotum blunt.

4, Dorsal apophysis of aedeagus strongly bent backwards at middle forming a sharp hook. Setae on elytra almost as long as intervals wide. Posterior angles of pronotum obsolete. ...A. hebashana sp. n.
5 Right paramere strongly bent twice, behind basal third and shortly before apex.
A. yunnana (Miyake \& Yamaya, 2001)

5, Right paramere strongly bent once only, behind basal third $\qquad$ A. ganhaiziensis sp. n.

6 Basal marginal line almost complete medially. ... 7
6' Basal marginal line widely interrupted medially.

7 Sides of clypeus strongly convex, basally slightly convergent, showing a distinct angle with the ocular canthus. Body size larger 7 mm . Aedeagus with large lateral apophysis.
A. abbreviata (Fairmaire, 1897)

7' Clypeus widest at base, angle between sides of clypeus and ocular canthus blunt and indistinct. Body size smaller 6 mm8
8 Tegument of pronotum smooth and very shiny. ...9

8, Tegument of pronotum micro-reticulate (80x) and slightly dull. A. kalabi sp. n.

9 Dorsal apophysis of phallobasis short, much shorter than the apex of phallobasis wide.
A. nikolajevi sp. n.

9' Dorsal apophysis of phallobasis long, almost as wide as the apex of phallobasis.
10 Posterior angles of pronotum and anterior angles of labroclypeus blunt. ..A. medvedevi Nikolajev, 1982
10 ' Posterior angles of pronotum obsolete. Anterior angles of labroclypeus convex.
A. yaregongensis $\mathrm{sp} . \mathrm{n}$.

11 Setae on elytra distinctly shorter than elytral intervals wide. Dorsal apophysis of phallobasis wide at base. A. mingi sp. n.

11' Setae on elytra as long as elytral intervals wide. Dorsal apophysis of phallobasis all over narrow and tube-shaped $\qquad$ A. safraneki sp. n.

12 Antennal club slightly reflexed, almost twice as long as the remaining antennomeres combined. Tibiae and tarsi yellowish brown. ...A. taunggyiensis $\mathrm{sp} . \mathrm{n}$.
12' Antennal club straight, almost 1.5 times as long as the remaining antennomeres combined. Tibiae and tarsi brown.
A. acuta sp. n.

## Archeohomaloplia abbreviata (Fairmaire, 1897)

Homaloplia abbreviata Fairmaire, 1897: 244 (type locality: China, Sichuan: 'Tchoug-king').
Omaloplia abbreviata [species incertae sedis] - Ahrens 2006a: 242.
Archeohomaloplia abbreviata: Ahrens 2007: 6. Archeohomaloplia potanini Nikolajev, 1982: 186 (type locality: China, Sichuan: Wa-cy-koj \& Za-li), Ahrens 2006a: 230; syn by Ahrens 2007: 6.

Type material examined. Syntype (Homaloplia abbreviata): 1 o "Tchoug-king Sze-Tchouan / Museum Paris P. Guerry 1924 / Homaloplia abbreviata Fairm. n. sp. / Type" (MNHN), 1 q "Museum Paris 1906 Coll. Leon Fairmaire / Tchoug-king Sze-Tchouan / Homaloplia abbreviata Fairm. n. sp. China" (MNHN), 1 万"Tchoug-king Sze-Tchouan / Museum Paris P. Guerry 1924" (MNHN). Neotype (A. potanini, here designated): ठ "mshd [between] Wa-cy-koj i [and] Za-li 15-VII-93 Potanin/ Paratypus Arch. potanini Nikolajev 1982" (ZIN). Paratypes (A. potanini): 4 人, 14 qQ "mshd [between] Wa-cy-koj i [and] Za-li 15-VII-93 Potanin/ Paratypus Arch. potanini Nikolajev 1982" (ZIN). Former holotype (A. potanini): ठ "mshd [between] Wa-cy-koj i [and] Za-li 15-VII-93 Potanin/ Holotypus Arch. potanini Nikolaev 1982" (ZIN, holotype destroyed: apical half and abdomen missing, genital lost from cartoon).

Additional material examined. see Ahrens (2007). 1 ex. "China- Sichuan pr. Kangding distr. 21.-24.7.1992 Hailougou Glacier Park R. Dunda lgt." (CP), 8 ex. "W Sichuan 1.-7.VII. 1994 29.37N 102.07E 1200-1900 m Moxi Hailougou lgt. D. Král \& J. Farkač" (CK, NHMB), 23 ex. "Siao-Lou Lou Chan Chasseurs Thibétains 1896/ Muséum Paris R. Oberthür 1952" (MNHN), 12 ex. "Su-Tchuen Siao Lou 1897" (MNHN), 6 ex. "Su-Tchuen Mo Sy-Mien 1897" (MNHN), 2 ex. "TaTong Kiao Chasseurs infigènes 1894" (MNHN), 17 ex. "Ta-tsien-Lou Chasseurs de P. Dejean 1904" (MNHN), 32 ex. "Ta-tsien-Lou Chasseurs Thibetains 1896 " (MNHN), 2 ex. "Ta-tsien-Lou Chasseurs indigenes 1893 " (MNHN), 1 ¢ "Tsékou 1902 R.P.J. Dubernard" (MNHN), 1 q "Vallée du Tong-Ho Chasseurs indigenes 15 Avril-15 Mai 1893" (MNHN), 1 ex. "Mou-Pin R.P. Dejean 1898/ Museum Paris 1952 Coll. R. Oberthür" (MNHN), 35 ex. "Chasseurs indigenes de Ta-Tsien-Lou R.P. Dejean 1901" (MNHN), 16 ex. "Chasseurs Thibetains de Ta-Tsien-Lou Eté 1892 recu du R.P. Dejean " (MNHN), 40 ex. "Museum Paris Se-Tchouen Env. de Ta-Tsien-Lou Mo-Sy-Mien Père Aubert 1902" (MNHN), 4 ex. "China-Sichuan Jintang, Tcho-nin 10.6.-15.6.2004 leg. E. Kučera" (CA), 5 ex. "China, SW Sichuan Moximian, 1300 m Krajcik M. lgt. 1.6.97" (CA), 2 ex. "China Sichuan Gongga Shan, Moxi, $1300 \mathrm{~m}, 10$.-11.VII. $9629^{\circ} 13 \mathrm{~N}$ $102^{\circ} 10^{\prime}$ E/ collected by J. Farkač, P. Kabátek and A. Sme-
tana" (NHMB), 1 ex. "near Fu Liu 3000-8000ft. Aug 1021 '28/ Szechuen China DC Graham" (USNM), 2 ex. " 35 mi W of Tatsienlu 5000ft. alt/ Szechuen D.C. Graham June 20 1923" (USNM), 4 ex. "Jul. 9-11.'30 3000-9000ft W of Yachow/ Szechuen China DC Graham" (USNM), 2 ex. "Szechuen China DC Graham/ near Yachow 45-6000 ft Jul. 9-11,'30" (USNM), 1 ex. "bet Yachow \& Tatsienlu/ Szechuen China DC Graham 3-8000ft. Jul. 10-13,'30" (USNM), 1 ex. "Tatsienlu 5-6000ft. VII, 10-15.'30/ Chi-na-Tibet Border DC Graham" (USNM), 1 ex. "bet. Nigyuenfu \& Den Shiang Uiu/ 6000-8000ft. Aug. 6-8'28/ Szechuen China DC Graham" (USNM), 1 ex. "Szechuen China DC Graham" (USNM), 6 ex. "Tsao Keo Miau (Near FuLin)/ 3000-8000ft. Aug. 18-21'28/ Szechuen China DC Graham" (USNM).

Neotype redescription. Length: 7.3 mm , length of elytra: 5.1 mm , width: 4.6 mm . Body oblong, black, antenna black, dorsal surface shiny, on elytra very sparsely setose.

Labroclypeus subrectangular, widest shortly before middle and slightly convergent towards the base, lateral margins strongly convex; anterior angles strongly rounded; lateral border and ocular canthus producing a distinct angle; lateral margins moderately reflexed, anterior margin strongly reflexed and distinctly sinuate medially; surface weakly convex medially and shiny, finely and densely punctate, distance between punctures less than their diameter, with a few coarser punctures behind anterior margin bearing each a long, erect seta; frontoclypeal suture feebly incised, medially moderately curved; smooth area in front of eye approximately 1.5 times as wide as long; ocular canthus moderately long and wide, subparallel, abruptly rounded at apex, finely and densely punctate, without terminal seta. Frons shiny, with fine, dense punctures, in the middle and posterior part of frons punctures less dense; glabrous, only behind the frontoclypeal suture with a few longer setae in more robust punctures. Eyes small, ratio of diameter/ interocular width: 0.38 . Antenna black, with ten antennomeres; club with three antennomeres, slightly shorter than the remaining antennomeres combined. Mentum weakly elevated and flattened anteriorly.
Pronotum moderately wide, widest at base, lateral margins straight and subparallel in basal half, convergent anteriorly; anterior angles strongly produced and sharp, posterior angles blunt but rounded at the tip; anterior margin convexly produced medially, with a broad marginal line, basal margin with fine complete marginal line; surface with moderately dense and fine punctures, glabrous; anterior and lateral borders setose; hypomeron simple, not carinate at base and not ventrally produced. Scutellum triangular, almost as wide as long, with fine and very dense punctures, glabrous.


Fig. 1. Archeohomaloplia abbreviata: A, E, F: left mandible; B, D, G: right mandible; C, H: left maxilla; I: labium (ventrolateral view); J: labium (ventroapical view); K: labrum and epipharynx; A, B: medial view; C, D, E, K; ventral view; F, G, H: dorsal view; $\mathbf{L}$ : ala (bent anal vein indicated by the arrow; not to scale).

Elytra moderately long, widest in apical third, striae distinctly impressed and finely and densely punctate, intervals weakly convex, with fine, sparsely scattered punctures often concentrated along the striae, a few punctures with a fine, white seta; interior apical angle of elytra with a strong seta; epipleural edge fine ending at the strongly curved external apical angle of elytra, epipleura densely setose; apical border of elytra without short microtrichomes.
Ventral surface shiny, with fine and moderately dense punctures, finely setose; metacoxa glabrous with a few strong adjacent setae laterally only; abdominal sternites micro-reticulate, with an indistinct, transverse row of coarse punctures bearing a moderately long seta between fine, dense punctation, a few fine punctures bear a short seta; penultimate sternite apically with a smooth, sclerotized border which is one fifth as long as the sternite, last sternite medially half as long as penultimate one. Mesosternum between mesocoxae as wide as mesofemur, with fine, long setae. Ratio of length of metepisternum/ metacoxa: $1 / 1.25$. Pygidium moderately evenly convex, finely and irregularly densely punctate, without smooth midline, surface shiny, with a few long setae at apex.
Legs slender and moderately long; femora shiny, with two longitudinal rows of setae, coarsely but sparsely punctate; metafemur sharply carinate anteriorly and without a submarginal serrate line, posterior margin weakly convex and with a few short setae basally, its ventral part only weakly widened in apical half and not serrate, internally not serrate, with dense, long setae. Metatibia slender and moderately long, evenly widened towards apex, ratio width/ length: $1 / 2.7$; dorsally longitudinally convex, with two groups of spines, basal group at first quarter, apical group at second third of metatibial length, basally with a few single, fine setae; external face longitudinally convex, with sparse, fine punctures, glabrous; ventrally with an indistinctly defined sharp margin and not serrate, with five more robust setae and a few fine ones basally; internal face finely sparsely punctate and smooth, apex interiorly deeply excavate at middle and not truncate near tarsal articulation. Meso- and metatarsomeres dorsally glabrous and finely densely punctate, ventrally with sparse, short setae; metatarsomeres ventrally with a finely serrate ridge, beside it with a robust longitudinal carina, first metatarsomere distinctly shorter than the following tarsomere and also slightly shorter than the upper tibial spur. Protibia moderately long, bidentate, protarsal claws symmetric.
Aedeagus: Fig. 2A-C. Mouth parts: Fig. 1A-K. Hind wing: Fig. 1L. Habitus: 2D.

Remarks. The designation of a neotype was necessary since the holotype was completely destroyed on transport from St. Petersburg.

## Archeohomaloplia medvedevi Nikolajev, 1982

Archeohomaloplia potanini Nikolajev, 1982: 188; Ahrens 2006a: 230 (type locality: China: ‘Dol. Ciao-tschin-ho’).

Type material examined. Neotype (A. medvedevi, here designated): of "Dol. Ciao-tschin-ho 27-VII-93 Potanin/ Paratypus Arch. medvedevi Nikolajev 1982" (ZIN). Paratypes: 8 ठ̃ ${ }^{\text {on }}, 3$ qq "Dol. Ciao-tschin-ho 27-VII-93 Potanin/ Paratypus Arch. medvedevi Nikolajev 1982" (ZIN). Former holotype (A. medvedevi): ${ }^{\lambda}$ "Dol. Ciao-tschin-ho 27-VII-93 Potanin/ Holotypus Arch. medvedevi Nikolajev 1982" (ZIN, holotype completely destroyed, body entirely missing, male genitalia glued on label with right paramere lacking).

Neotype redescription. Length: 5.3 mm , length of elytra: 3.5 mm , width: 2.9 mm . Body oblong, black, antenna black, dorsal surface shiny, on elytra sparsely setose. Labroclypeus trapezoidal, widest at base and strongly convergent apically, lateral margins weakly convex; anterior angles blunt, weakly rounded; lateral border and ocular canthus producing an indistinct angle; margins moderately reflexed, anterior margin distinctly sinuate medially; surface weakly convex medially and shiny, finely and densely punctate, distance between punctures less than their diameter, with a few coarser punctures behind anterior margin bearing each a long, erect seta; frontoclypeal suture feebly incised, medially moderately curved; smooth area in front of eye approximately 1.5 times as wide as long; ocular canthus short and wide, subtriangular, rounded at apex, finely and densely punctate, without terminal seta. Frons shiny, with fine, dense punctures being posteriorly less dense; glabrous. Eyes small, ratio of diameter/ interocular width: 0.35 . Antenna brown, with ten antennomeres; club black, with three antennomeres, as long as the remaining antennomeres combined. Mentum weakly elevated and flattened anteriorly.
Pronotum moderately wide, widest at basal third, lateral margins weakly curved and convergent towards base, straight and strongly convergent anteriorly; anterior angles strongly produced and sharp, posterior angles blunt and weakly rounded at the tip; anterior margin convexly produced medially, with a broad marginal line, basal margin with fine marginal line; surface with moderately dense and fine punctures, glabrous, rarely a single longer seta on disc; anterior and lateral borders setose; hypomeron simple, not carinate at base and not ventrally produced. Scutellum triangular, slightly wider than long, with fine and very dense punctures, glabrous.
Elytra oblong and strongly convex, widest in apical third, striae moderately impressed and finely and densely punctate, intervals almost flat, with fine, moderately dense punctures often concentrated along the striae, odd intervals with a longitudinal row of widely spaced, long,


Fig. 2A-D. A. abbreviata (Fairmaire, 1897) (neotype Archeohomaloplia potanini Nikolajev, 1982); E-H: A. medvedevi Nikolajev, 1982 (neotype); I-K: A. hebashana sp. n. (holotype); A, E, I: Aedeagus, left side lateral view; C, G, K: Aedeagus, right side lateral view; B, F, J: parameres, dorsal view; D, H, K: Habitus. Scale: 0.5 mm .

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fine, erect, setae; interior apical angle of elytra with a strong seta; epipleural edge fine ending at the strongly curved external apical angle of elytra, epipleura densely setose; apical border of elytra without short microtrichomes. Ventral surface shiny, with fine and moderately dense punctures, finely setose; metacoxa glabrous with a few strong adjacent setae laterally only; abdominal sternites micro-reticulate, with an indistinct, transverse row of coarse punctures bearing a moderately long seta between fine, dense punctation, a few fine punctures bear a short seta; penultimate sternite apically with a smooth, sclerotized border which is one fifth as long as the sternite, last sternite medially half as long as penultimate one. Mesosternum between mesocoxae as wide as mesofemur, with fine, long setae. Ratio of length of metepisternum/ metacoxa: $1 / 1.5$. Pygidium moderately evenly convex, finely and irregularly densely punctate, without smooth midline, surface shiny, sparsely covered with a few long setae. Legs slender and moderately long; femora shiny, with two longitudinal rows of setae, coarsely but sparsely punctate; metafemur sharply carinate anteriorly and without a submarginal serrate line, posterior margin weakly convex and with a few short setae basally, its ventral part only weakly widened in apical half and not serrate, internally not serrate, with dense, long setae. Metatibia slender and moderately long, evenly widened towards apex, ratio width/ length: $1 / 2.9$; dorsally longitudinally convex, with two groups of spines, basal group at first quarter, apical group at second third of metatibial length, basally with a few single, fine setae; external face longitudinally convex, with coarse, partly dense punctures, glabrous; ventrally with a sharp, serrate margin bearing four robust, equidistant setae; internal face finely sparsely punctate and smooth, apex interiorly deeply excavate at middle and not truncate near tarsal articulation. Meso- and metatarsomeres dorsally glabrous and finely densely punctate, ventrally with sparse, short setae; metatarsomeres ventrally with a finely serrate ridge, beside it with a robust longitudinal carina, first metatarsomere distinctly shorter than the following tarsomere and as long as the upper tibial spur. Protibia moderately long, bidentate, protarsal claws symmetric.
Aedeagus: Fig. 2E-G. Habitus: 2H.
Remarks. The designation of a neotype was necessary since the holotype was completely destroyed on transport from St. Petersburg.

## Archeohomaloplia hebashana sp. n.

Type material examined. Holotype: 才 "China: N.W. Yunnan, San Ba, Heba mts. 2500 m, 30.VI. 1998 leg. S. Murzin/ Coll. Dirk Ahrens/ 587 Sericini: Asia spec." (ZFMK). Paratypes: $1 \delta^{\lambda}, 1+$ same data as holotype (CA).

Description. Length: 5.1 mm , length of elytra: 3.6 mm , width: 3.0 mm . Body oblong, black, antenna black, dorsal surface shiny, almost glabrous.
Labroclypeus moderately trapezoidal, widest at base and convergent apically, lateral margins weakly convex; anterior angles almost blunt, only little rounded; lateral border and ocular canthus producing a blunt angle; margins moderately reflexed, anterior margin moderately sinuate medially; surface medially convex and shiny, finely and densely punctate, distance between punctures less than their diameter, with a few robust punctures behind anterior margin bearing each a long, erect seta; frontoclypeal suture feebly incised, medially moderately curved; smooth area in front of eye approximately 1.5 times as wide as long; ocular canthus short and wide, subtriangular, rounded at apex, finely and densely punctate, with one terminal seta. Frons shiny, with fine, dense punctures; with a few erect setae on sides behind the frontoclypeal suture. Eyes small, ratio of diameter/ interocular width: 0.41. Antenna brown, with ten antennomeres; club dark brown, with three antennomeres, as long as the remaining antennomeres combined. Mentum weakly elevated and flattened anteriorly.
Pronotum moderately wide, widest at middle, lateral margins strongly curved and slightly convergent basally, but stronger convergent anteriorly; anterior angles strongly produced and sharp, posterior angles strongly rounded and almost obsolete; anterior margin convexly produced medially, with a broad marginal line, basal margin with fine marginal line at sides; surface with partly dense and fine punctures, glabrous; anterior and lateral borders sparsely setose; hypomeron simple, not carinate at base and not ventrally produced. Scutellum triangular, slightly longer than wide, with fine and very dense punctures, glabrous.
Elytra oblong, widest in apical third, striae weakly impressed, finely and densely punctate, intervals weakly convex, with fine, moderately dense punctures often concentrated along the striae, odd intervals with fine, quite long setae (setae slightly longer that the interval wide); interior apical angle of elytra with a strong seta; epipleural edge fine ending at the strongly curved external apical angle of elytra, epipleura densely setose; apical border of elytra without short microtrichomes.
Ventral surface shiny, with fine and moderately dense punctures, finely densely setose; metacoxa glabrous with a few fine, long, adjacent setae laterally only; abdominal sternites micro-reticulate, with an indistinct, transverse row of coarse punctures bearing a moderately long seta between fine, dense punctation, a few fine punctures bear a short seta; penultimate sternite apically with a smooth, sclerotized border which is one fifth as long as the sternite, last sternite medially 0.75 times as long as penultimate one. Mesosternum between mesocoxae as wide as mesofemur, with fine, long setae. Ratio of length of me-
tepisternum/ metacoxa: 1/1.25. Pygidium strongly evenly convex, finely and evenly not very densely punctate, without smooth midline; surface shiny, sparsely covered with short setae.

Legs slender and moderately long; femora shiny, with two longitudinal rows of setae, coarsely but sparsely punctate; metafemur sharply carinate anteriorly and without a submarginal serrate line, posterior margin weakly convex and with a few short setae basally, its ventral part only weakly widened in apical half and not serrate, internally not serrate, with dense, long setae. Metatibia slender and moderately long, evenly widened towards apex, ratio width/ length: $1 / 3.2$; dorsally longitudinally convex, apically also sharply carinate, with two groups of spines, basal group at first quarter, apical group at second third of metatibial length, basally with a few single, fine setae; external face longitudinally convex, with fine punctures laterally, almost glabrous; ventrally with a sharp, finely serrate margin, with four robust setae; internal face laterally with a few punctures bearing each a fine seta, apex interiorly deeply excavate at middle and not truncate near tarsal articulation. Meso- and metatarsomeres dorsally glabrous and finely densely punctate, ventrally with sparse, short setae; metatarsomeres ventrally with a finely serrate ridge, beside it with a robust longitudinal carina, first metatarsomere distinctly shorter than the following tarsomere and slightly longer than the upper tibial spur. Protibia moderately long, bidentate, protarsal claws symmetric.

Aedeagus: Fig. 2I-K. Habitus: 2L.
Diagnosis. A. hebashana sp. n. is in external shape very similar to A. yunnana; it may be distinguished from it by dorsal apophysis of phallobasis being strongly bent backwards at middle forming a sharp hook. It differs from $A$. abbreviata by its smaller size and the sparse setae on pronotum as well as by the phallobasal apophysis being dorsal instead of lateral.

Variation. Length: 5.1-5.3 mm, length of elytra: 3.6-3.7 mm , width: 3.0 mm . Female specimens are very similar to males but have slightly shorter antennal clubs, i.e. the club is slightly shorter than the remaining antennomeres combined. Setae on disc of elytra may be more or less abundant depending on the state of preservation.

Etymology. The species is named according to its provenience from Heba Shan Mountains.

## Archeohomaloplia frolovi sp. n .

Type material examined. Holotype: $\widehat{\jmath}^{\wedge}$ "Dol. r. Tunk-goho 22-VII-93 Potanin/ Paratypus Arch. medvedevi Nikolajev 1982" (ZIN). Paratypes: 1 ô, 7 \& $\uparrow$ "Dol. r. Tunk-
go-ho 22-VII-93 Potanin/ Paratypus Arch. medvedevi Nikolajev 1982" (CA, ZIN).

Description. Length: 5.4 mm , length of elytra: 3.5 mm , width: 3.1 mm . Body oblong, black, antenna black, dorsal surface shiny, on elytra densely setose.

Labroclypeus trapezoidal, widest at base and strongly convergent apically, lateral margins weakly convex; anterior angles strongly convex; lateral border and ocular canthus producing an indistinct blunt angle; margins moderately reflexed, anterior margin distinctly sinuate medially; surface weakly convex medially and shiny, finely and densely punctate, distance between punctures less than their diameter, with a few robust punctures behind anterior margin bearing each a long, erect seta; frontoclypeal suture feebly incised, medially moderately curved; smooth area in front of eye approximately 1.5 times as wide as long; ocular canthus short and wide, subtriangular, rounded at apex, finely and densely punctate, without terminal seta. Frons shiny, with fine, dense punctures being posteriorly less dense; with a few erect setae on sides behind the frontoclypeal suture. Eyes small, ratio of diameter/ interocular width: 0.33 . Antenna black, with ten antennomeres; club with three antennomeres, slightly longer than the remaining antennomeres combined. Mentum weakly elevated and flattened anteriorly.
Pronotum moderately wide, widest at basal third, lateral margins weakly curved and subparallel in basal half, straight and moderately convergent anteriorly; anterior angles strongly produced and sharp, posterior angles blunt and weakly rounded at the tip; anterior margin convexly produced medially, with a broad marginal line, basal margin with fine marginal line; surface with moderately dense and fine punctures, with numerous long, erect setae on disc; anterior and lateral borders densely setose; hypomeron simple, not carinate at base and not ventrally produced. Scutellum triangular, as wide as long, with fine and dense punctures, glabrous.

Elytra oblong, widest in apical third, striae moderately impressed and finely and densely punctate, intervals weakly convex, with fine, moderately dense punctures often concentrated along the striae, intervals with fine, erect setae being as long as three combined intervals wide; interior apical angle of elytra with a strong seta; epipleural edge fine ending at the strongly curved external apical angle of elytra, epipleura densely setose; apical border of elytra without short microtrichomes.
Ventral surface shiny, with fine and moderately dense punctures, finely densely setose; metacoxa glabrous with a few fine, long, adjacent setae laterally only; abdominal sternites micro-reticulate, with an indistinct, transverse row of coarse punctures bearing a moderately long seta between fine, dense punctation, a few fine punctures bear a short seta; penultimate sternite apically with a smooth, sclerotized border which is one fifth as long as the ster-
nite, last sternite medially almost as long as penultimate one. Mesosternum between mesocoxae as wide as mesofemur, with fine, long setae. Ratio of length of metepisternum/ metacoxa: 1/ 1.6. Pygidium moderately convex, finely and irregularly densely punctate, in some parts punctures confluent, without smooth midline, surface shiny, sparsely covered with a setae along the margins.
Legs slender and moderately long; femora shiny, with two longitudinal rows of setae, coarsely but sparsely punctate; metafemur sharply carinate anteriorly and without a submarginal serrate line, posterior margin weakly convex and with a few short setae basally, its ventral part only weakly widened in apical half and not serrate, internally not serrate, with dense, long setae. Metatibia slender and moderately long; subparallel most of its length, basally narrowed, widened ventrally at apex, ratio width/ length: 1/ 2.7; dorsally longitudinally convex, with two groups of spines, basal group at first quarter, apical group at second third of metatibial length, basally with a few single, fine setae; external face longitudinally convex, with fine, laterally partly dense punctures, glabrous; ventrally with a sharp, finely serrate margin, with four robust setae in apical half; internal face finely sparsely punctate and with a few long setae laterally, apex interiorly deeply excavate at middle and not truncate near tarsal articulation. Meso- and metatarsomeres dorsally glabrous and finely densely punctate, ventrally with sparse, short setae; metatarsomeres ventrally with a finely serrate ridge, beside it with a robust longitudinal carina, first metatarsomere distinctly shorter than the following tarsomere and as long as the upper tibial spur. Protibia moderately long, bidentate, protarsal claws symmetric.
Aedeagus: Fig. 3A-C. Habitus: 3D.
Diagnosis. A. frolovi $\mathrm{sp} . \mathrm{n}$. is in external shape very similar to $A$. medvedevi sp . n.; it may be distinguished from that and all other species by the very long and dense setae on the elytra as well as by the shape of parameres.

Variation. Length: 5.1-5.4 mm, length of elytra: 3.5-3.9 mm , width: 2.9-3.2 mm. Female specimens are very similar to males but have slightly shorter antennal clubs, i.e. the club is slightly shorter than the remaining antennomeres combined. Sometimes the pilosity may be erased.

Etymology. The species is named in honour of Andrey Frolov, St. Petersburg, to thank him for his support with this work.

## Archeohomaloplia nikolajevi sp. n.

Type material examined. Holotype: "Dol. Ciao-tschinho 27-VII-93 Potanin/ Paratypus Arch. medvedevi Nikolajev 1982" (ZIN).

Description. Length: 5.2 mm , length of elytra: 3.2 mm , width: 2.9 mm . Body oblong, black, antenna black, dorsal surface shiny, on elytra sparsely setose.
Labroclypeus trapezoidal, widest at base and strongly convergent apically, lateral margins weakly convex; anterior angles strongly convex; lateral border and ocular canthus producing an indistinct blunt angle; margins moderately reflexed, anterior margin distinctly sinuate medially; surface weakly convex medially and shiny, coarsely and densely punctate, distance between punctures less than their diameter, with a few robust punctures behind anterior margin bearing each a long, erect seta; frontoclypeal suture feebly incised, medially moderately curved; smooth area in front of eye approximately 1.5 times as wide as long; ocular canthus short and wide, subtriangular, rounded at apex, finely and densely punctate, without terminal seta. Frons shiny, with coarse, dense punctures being posteriorly less dense; with a few erect setae on sides behind the frontoclypeal suture. Eyes small, ratio of diameter/ interocular width: 0.32 . Antenna black, with ten antennomeres; club with three antennomeres, as long as the remaining antennomeres combined. Mentum weakly elevated and flattened anteriorly.
Pronotum moderately wide, widest at basal third, lateral margins weakly curved and subparallel in basal half, straight and moderately convergent anteriorly; anterior angles strongly produced and sharp, posterior angles blunt and weakly rounded at the tip; anterior margin convexly produced medially, with a broad marginal line, basal margin with fine marginal line; surface with moderately dense and fine punctures, glabrous, with a few single longer setae on disc; anterior and lateral borders densely setose; hypomeron simple, not carinate at base and not ventrally produced. Scutellum triangular, as wide as long, with fine and dense punctures, narrowly smooth along the middle, glabrous.
Elytra oblong and strongly convex, widest in apical third, striae moderately impressed and finely and densely punctate, intervals weakly convex, with fine, moderately dense punctures often concentrated along the striae, odd intervals with a longitudinal row of widely spaced, long, fine, erect, setae; interior apical angle of elytra with a strong seta; epipleural edge fine ending at the strongly curved external apical angle of elytra, epipleura densely setose; apical border of elytra without short microtrichomes.
Ventral surface shiny, with fine and moderately dense punctures, finely setose; metacoxa glabrous with a few strong adjacent setae laterally only; abdominal sternites micro-reticulate, with an indistinct, transverse row of coarse punctures bearing a moderately long seta between fine, dense punctation, a few fine punctures bear a short seta; penultimate sternite apically with a smooth, sclerotized border which is one fifth as long as the sternite, last sternite medially half as long as penultimate one. Mes-


Fig. 3A-D. A. frolovi sp. n. (holotype); E-H: A. nikolajevi (holotype); I-K: A. yaregongensis $\mathrm{sp} . \mathrm{n}$. (holotype); A, E, I: Aedeagus, left side lateral view; C, G, K: Aedeagus, right side lateral view; B, F, J: parameres, dorsal view; D, H, K: Habitus. Scale: 0.5 mm .
osternum between mesocoxae as wide as mesofemur, with fine, long setae. Ratio of length of metepisternum/ metacoxa: 1/ 1.4. Pygidium moderately convex, finely and moderately densely punctate, without smooth midline, surface shiny, sparsely covered with a few short setae.
Legs slender and moderately long; femora shiny, with two longitudinal rows of setae, coarsely but sparsely punctate; metafemur sharply carinate anteriorly and without a submarginal serrate line, posterior margin weakly convex and with a few short setae basally, its ventral part only weakly widened in apical half and not serrate, internally not serrate, with dense, long setae. Metatibia slender and moderately long; subparallel most of its length, basally narrowed, widened ventrally at apex, ratio width/ length: $1 / 2.67$; dorsally longitudinally convex, with two groups of spines, basal group at first quarter, apical group at second third of metatibial length, basally with a few single, fine setae; external face longitudinally convex, with fine, laterally partly dense punctures, glabrous; ventrally with a sharp, finely serrate margin, with four robust setae; internal face finely sparsely punctate and with a few long setae, apex interiorly deeply excavate at middle and not truncate near tarsal articulation. Meso- and metatarsomeres dorsally glabrous and finely densely punctate, ventrally with sparse, short setae; metatarsomeres ventrally with a finely serrate ridge, beside it with a robust longitudinal carina, first metatarsomere distinctly shorter than the following tarsomere and as long as the upper tibial spur. Protibia moderately long, bidentate, protarsal claws symmetric.

Aedeagus: Fig. 3E-G. Habitus: 3 H .
Diagnosis. A. nikolajevi sp. n . is in external shape very similar to $A$. medvedevi sp. n.; it differs, however, by the phallobasal apophysis being much shorter than the apex of phallobasis wide.

Etymology. The species is named in honour of Georgi Nikolajev, Alma-Ata, who revised the genus for first time.

## Archeohomaloplia yaregongensis sp. n.

Type material examined. Holotype: "Thibet Yarégong P. Soulié 1900" (MNHN). Paratypes: 2 , 1 \& same data as holotype (MNHN, CA).

Description. Length: 5.3 mm , length of elytra: 3.5 mm , width: 3.4 mm . Body oblong, black, dorsal surface shiny, almost glabrous.

Labroclypeus weakly trapezoidal, widest at base and convergent apically, lateral margins almost straight; anterior angles strongly convex; lateral border and ocular canthus producing a distinct angle; margins moderately reflexed, anterior margin deeply sinuate medially; surface
convex medially and shiny, finely and densely punctate, distance between punctures less than their diameter, with a few robust punctures behind anterior margin bearing each a long, erect seta; frontoclypeal suture feebly incised, medially moderately curved; smooth area in front of eye approximately 1.5 times as wide as long; ocular canthus short and wide, subtriangular, rounded at apex, finely and densely punctate, with one terminal seta. Frons shiny, with fine, moderately dense punctures; with a few erect setae on sides behind the frontoclypeal suture. Eyes small, ratio of diameter/ interocular width: 0.33 . Antenna black, with ten antennomeres; club with three antennomeres, as long as the remaining antennomeres combined. Mentum weakly elevated and flattened anteriorly.
Pronotum moderately wide, widest shortly before base, lateral margins strongly convex and convergent anteriorly; anterior angles strongly produced and sharp, posterior angles strongly rounded and obsolete; anterior margin convexly produced medially, with a broad marginal line, basal margin with complete fine marginal line; surface with dense and fine punctures, with a few long setae on disc; anterior and lateral borders densely setose; hypomeron simple, not carinate at base and not ventrally produced. Scutellum triangular, slightly longer than wide, with fine and very dense punctures, glabrous.
Elytra oblong, widest in apical third, striae weakly impressed, finely and densely punctate, intervals weakly convex, with fine, moderately dense punctures often concentrated along the striae, odd intervals with fine, short setae; interior apical angle of elytra with a strong seta; epipleural edge fine ending at the strongly curved external apical angle of elytra, epipleura densely setose; apical border of elytra without short microtrichomes.
Ventral surface shiny, with fine and moderately dense punctures, finely densely setose; metacoxa glabrous with a few fine, long, adjacent setae laterally only; abdominal sternites micro-reticulate, with an indistinct, transverse row of coarse punctures bearing a moderately long seta between fine, dense punctation, a few fine punctures bear a short seta; penultimate sternite apically with a smooth, sclerotized border which is one fifth as long as the sternite, last sternite medially 0.75 times as long as penultimate one, with longer and denser setae. Mesosternum between mesocoxae as wide as mesofemur, with fine, long setae. Ratio of length of metepisternum/ metacoxa: 1/ 1.48. Pygidium strongly convex apically, finely and evenly, not densely punctate, without smooth midline; surface shiny, sparsely covered with short setae on apex.

Legs slender and moderately long; femora shiny, with two longitudinal rows of setae, coarsely but sparsely punctate; metafemur sharply carinate anteriorly and without a submarginal serrate line, posterior margin weakly convex and with a few short setae basally, its ventral part only weakly widened in apical half and not serrate, internally not serrate, with dense, long setae. Metatibia mode-
rately slender and not long; evenly widened towards apex, ratio width/ length: $1 / 3.1$; dorsally weakly longitudinally convex, apically sharply carinate, with two groups of spines, basal group at first quarter, apical group at second third of metatibial length, basally with a few single, fine setae; external face longitudinally convex, laterally with sparse, fine punctures, almost glabrous; ventrally with a sharp, finely serrate margin, with four robust setae; internal face laterally with a few punctures bearing each a fine seta, apex interiorly deeply excavate at middle and not truncate near tarsal articulation. Meso- and metatarsomeres dorsally glabrous and finely densely punctate, ventrally with sparse, short setae; metatarsomeres ventrally with a finely serrate ridge, beside it with a robust longitudinal carina, first metatarsomere distinctly shorter than the following tarsomere and as long as the upper tibial spur. Protibia moderately long, bidentate, protarsal claws symmetric.
Aedeagus: Fig. 3I-K. Habitus: 3L.
Diagnosis. A. yaregongensis sp. n . is in external shape very similar to $A$. hebashana sp . n.; it may be differentiated from it by the glabrous disc of pronotum and the shape of aedeagus; the dorsal apophysis of phallobasis is long and moderately narrowed towards the rounded apex. From the also similar $A$. medvedevi sp . n . it can be distinguished by the obsolete posterior angles of pronotum and the convex anterior angles of labroclypeus.

Variation. Length: $5.0-5.6 \mathrm{~mm}$, length of elytra: 3.3-3.7 mm , width: 3.4 mm . Female specimens are very similar to males but have slightly shorter antennal clubs, i.e. the club is distinctly slightly shorter than the remaining antennomeres combined; the punctures on pygidium are less dense and the surface of pygidium shows a fine microreticulation.

Etymology. The species is named according to its provenience from 'Yarégong' (at the Tibetan-Sichuan border, geographical coordinates not localised).

## Archeohomaloplia kalabi sp. n.

Type material examined. Holotype: o "China: NW Sichuan, Garze env., 2500m, J. Kaláb leg., 10.7.1995/ Coll. Dirk Ahrens/ 587 Sericini: Asia spec." (ZFMK). Paratypes: $1 \delta^{\lambda}, 3$ $q$ - same data as holotype (CA), 1 § "ChNW: Sichuan 1/7.1995 31.37N 100.00E Garze 3300m W outskirts Jaroslav Turna leg./ Coll. P. Pacholátko" (CP).

Description. Length: 5.5 mm , length of elytra: 3.7 mm , width: 3.2 mm . Body oblong, black, antenna black, dorsal surface with distinct micro-reticulation, moderately shiny, almost glabrous.

Labroclypeus moderately trapezoidal, widest at base and strongly convergent apically, lateral margins weakly convex; anterior angles moderately rounded; lateral border and ocular canthus producing an indistinct blunt angle; margins weakly reflexed, anterior margin distinctly sinuate medially; surface convex medially and shiny, finely and densely punctate, distance between punctures less than their diameter, with a few robust punctures behind anterior margin bearing each a long, erect seta; frontoclypeal suture feebly incised, medially moderately curved; smooth area in front of eye approximately 1.5 times as wide as long; ocular canthus short and wide, subtriangular, rounded at apex, finely and densely punctate, with the trace of a terminal seta. Frons shiny, with fine, dense punctures; with a numerous short and erect setae behind the frontoclypeal suture. Eyes small, ratio of diameter/ interocular width: 0.35. Antenna black, with ten antennomeres; club with three antennomeres, distinctly shorter than the remaining antennomeres combined. Mentum weakly elevated and flattened anteriorly.

Pronotum moderately wide, widest at middle, lateral margins weakly curved and slightly convergent basally, but stronger convergent anteriorly; anterior angles strongly produced and sharp, posterior angles blunt and weakly rounded at the tip; anterior margin convexly produced medially, with a broad marginal line, basal margin with fine marginal line; surface with dense and fine punctures, glabrous; anterior and lateral borders sparsely setose; hypomeron simple, not carinate at base and not ventrally produced. Scutellum triangular, as wide as long, with fine and very dense punctures, glabrous.

Elytra oblong, widest in apical third, striae weakly impressed, finely and densely punctate, intervals moderately convex, with coarse, moderately dense punctures often concentrated along the striae; central intervals apparently glabrous, lateral odd intervals with a few fine, short setae; interior apical angle of elytra with a strong seta; epipleural edge fine ending at the strongly curved external apical angle of elytra, epipleura densely setose; apical border of elytra without short microtrichomes.

Ventral surface moderately shiny, with fine and moderately dense punctures, finely densely setose; metacoxa glabrous with a few fine, long, adjacent setae laterally only; abdominal sternites micro-reticulate, with an indistinct, transverse row of coarse punctures bearing a moderately long seta between fine, dense punctation, a few fine punctures bear a short seta; penultimate sternite apically with a smooth, sclerotized border one fifth as long as the sternite, last sternite medially 0.75 times as long as penultimate one. Mesosternum between mesocoxae as wide as mesofemur, with fine, long setae. Ratio of length of metepisternum/metacoxa: $1 / 1.29$. Pygidium moderately evenly convex, finely, densely partly punctate, punctures partly confluent, without smooth midline; surface almost dull, sparsely covered with short setae on apical half.

Legs slender and moderately long; femora shiny, with two longitudinal rows of setae, coarsely but sparsely punctate; metafemur sharply carinate anteriorly and without a submarginal serrate line, posterior margin weakly convex and with a few short setae basally, its ventral part only weakly widened in apical half and not serrate, internally not serrate, with dense, long setae. Metatibia slender and moderately long, evenly widened towards apex, ratio width/ length: $1 / 2.9$; dorsally longitudinally sharply carinate, with two groups of spines, basal group at first quarter, apical group at second third of metatibial length, basally with a few single, fine setae; external face longitudinally convex, with fine punctures laterally, glabrous; ventrally with a sharp, finely serrate margin, with four robust setae in apical half; internal face laterally with a few punctures bearing each a fine seta, apex interiorly deeply excavate at middle and not truncate near tarsal articulation. Meso- and metatarsomeres dorsally glabrous and finely densely punctate, ventrally with sparse, short setae; metatarsomeres ventrally with a finely serrate ridge, beside it with a robust longitudinal carina, first metatarsomere distinctly shorter than the following tarsomere and as long as the upper tibial spur. Protibia moderately long, bidentate, protarsal claws symmetric.

Aedeagus: Fig. 4A-C. Habitus: 4D.
Diagnosis. A. kalabi sp. n. differs from all other known species of the genus by the less shiny body surface.

Variation. Length: 5.4-5.6 mm, length of elytra: 3.5-3.7 mm , width: $2.9-3.0 \mathrm{~mm}$. Female specimens are very similar to males having the pygidium, however, less convex.

Etymology. The species is dedicated to its collector, Jaroslav Kaláb, Jinačovice.

## Archeohomaloplia mingi sp. n .

Type material examined. Holotype: $\widehat{0}$ "China Sichuan Xiangcheng $2700 \mathrm{~m} 29 . \mathrm{VI} .199629^{\circ} 00 \mathrm{~N} 99^{\circ} 46 \mathrm{E} /$ collected by J. Farkac, P. Kabatek and A. Smetana/ NHM Basel/ 765 Sericini: Asia spec." (NHMB). Paratypes: $1 \delta^{\lambda}, 3 q+$ same data as holotype (CA, NHMB).

Description. Length: 5.9 mm , length of elytra: 3.8 mm , width: 3.3 mm . Body oblong, black, antenna black, dorsal surface shiny, almost glabrous.

Labroclypeus moderately trapezoidal, widest at base and convergent apically, lateral margins weakly convex; anterior angles strongly convex; lateral border and ocular canthus producing a blunt angle; margins moderately reflexed, anterior margin distinctly sinuate medially; surface convex medially and shiny, finely and densely puncta-
te, distance between punctures less than their diameter, with a few robust punctures behind anterior margin bearing each a long, erect seta; frontoclypeal suture feebly incised, medially moderately curved; smooth area in front of eye approximately 1.5 times as wide as long; ocular canthus short and wide, subtriangular, rounded at apex, finely and densely punctate, with one terminal seta. Frons shiny, with fine, dense punctures; with a few erect setae on sides behind the frontoclypeal suture. Eyes small, ratio of diameter/ interocular width: 0.37. Antenna black, with ten antennomeres; club with three antennomeres, as long as the remaining antennomeres combined. Mentum weakly elevated and flattened anteriorly.

Pronotum moderately wide, widest at middle, lateral margins weakly curved and slightly convergent basally, but stronger convergent anteriorly; anterior angles strongly produced and sharp, posterior angles blunt and weakly rounded at the tip; anterior margin convexly produced medially, with a broad marginal line, basal margin with fine marginal line that is widely interrupted medially; surface with moderately dense and fine punctures, with one long seta on each side of disc; anterior and lateral borders densely setose; hypomeron simple, not carinate at base and not ventrally produced. Scutellum triangular, as wide as long, with fine and very dense punctures, glabrous.

Elytra oblong, widest in apical third, striae weakly impressed, finely and densely punctate, intervals flat, with fine, moderately dense punctures often concentrated along the striae, odd intervals with fine, short setae; interior apical angle of elytra with a strong seta; epipleural edge fine ending at the strongly curved external apical angle of elytra, epipleura densely setose; apical border of elytra without short microtrichomes.

Ventral surface shiny, with fine and moderately dense punctures, finely densely setose; metacoxa glabrous with a few fine, long, adjacent setae laterally only; abdominal sternites micro-reticulate, with an indistinct, transverse row of coarse punctures bearing a moderately long seta between fine, dense punctation, a few fine punctures bear a short seta; penultimate sternite apically with a smooth, sclerotized border which is one fifth as long as the sternite, last sternite medially 0.75 times as long as penultimate one. Mesosternum between mesocoxae as wide as mesofemur, with fine, long setae. Ratio of length of metepisternum/ metacoxa: $1 / 1.37$. Pygidium strongly evenly convex, finely and sparsely punctate, without smooth midline; surface shiny, sparsely covered with short setae along the apical margin.

Legs slender and moderately long; femora shiny, with two longitudinal rows of setae, coarsely but sparsely punctate; metafemur sharply carinate anteriorly and without a submarginal serrate line, posterior margin weakly convex and with a few short setae basally, its ventral part only weakly widened in apical half and not serrate, internally not serrate, with dense, long setae. Metatibia slen-


Fig. 4A-D. A. kalabi sp. n. (holotype); E-H: A. mingi (holotype); A, E: Aedeagus, left side lateral view; C, G: Aedeagus, right side lateral view; B, F: parameres, dorsal view; D, H: Habitus. Scale: 0.5 mm .
der and moderately long; subparallel most of its length, basally narrowed, widened ventrally at apex, ratio width/ length: 1/ 2.7; dorsally longitudinally sharply carinate, with two groups of spines, basal group at first quarter, apical group at second third of metatibial length, basally with a few single, fine setae; external face longitudinally convex, with fine punctures laterally, glabrous; ventrally with a sharp, finely serrate margin, with four robust setae in apical half; internal face laterally with a few punctures bearing each a fine seta, apex interiorly deeply excavate at middle and not truncate near tarsal articulation. Meso- and metatarsomeres dorsally glabrous and finely densely
punctate, ventrally with sparse, short setae; metatarsomeres ventrally with a finely serrate ridge, beside it with a robust longitudinal carina, first metatarsomere distinctly shorter than the following tarsomere and slightly shorter than the upper tibial spur. Protibia moderately long, bidentate, protarsal claws symmetric.

Aedeagus: Fig. 4E-G. Habitus: 4H.
Diagnosis. A. mingi sp. n. can be distinguished by all other Archeohomaloplia species by the basal marginal line of pronotum being medially interrupted.

Variation. Length: 5.4-6.3 mm, length of elytra: 3.6-3.9 mm , width: $3.0-3.3 \mathrm{~mm}$. Female specimens are very similar to males but have slightly shorter antennal clubs, i.e. the club is slightly shorter than the remaining antennomeres combined. Setae on disc of pronotum may lack.

Etymology. The species is dedicated to my dear colleague, the Chinese scarab specialist Ming Bai, Beijing.

## Archeohomaloplia ganhaiziensis sp. $\mathbf{n}$.

Type material examined. Holotype: $\begin{gathered}\text { © } \\ \text { Yunnan } 3000 \mathrm{~m}\end{gathered}$ 27.05N 100.15E Yulongshan mts. Ganhaizi pass 4.7.92 David Kral leg./ Coll. David Kral, Praha/ 555 Sericini: Asia spec." (NMPC). Paratypes: $2 \hat{\widehat{ } \widehat{o}, 3}$ q $q$ same data as holotype (NMPC), 1 \& "Yunnan 3000 m 27.05 N 100.15E Yulongshan mts. Ganhaizi pass 7.-12.VII. 90 David Kral leg." (NMPC), 2 §ô, 1 ¢ "China, N-Yunnan $27^{\circ} 06^{\prime} \mathrm{N} 100^{\circ} 15^{\prime}$ E Yulongshan mts. 3000-3500 m Gan-
 "China, N-Yunnan $27^{\circ} 06^{\prime} \mathrm{N} 100^{\circ} 15^{\prime} \mathrm{E}$ Yulongshan mts. 3000-3500 m Ganhaizi pass lgt. D. Král 18-23/7'90" (CA), 3 우 "China, Yunnan prov. $27^{\circ} 06 \mathrm{~N} 100^{\circ} 15$ E Yulongshan mts. 3000-3500 m Ganhaizi pass lgt. Vit Kubán leg. 18.-23.VII.1990" (CA), 2 \& $\uparrow$ "China, Yunnan prov. $27^{\circ} 06 \mathrm{~N} 100^{\circ} 15$ E Yulongshan mts. 3000-3500 m Ganhaizi pass lgt. Vit Kubáň leg. 24.-26.VII.1990" (CA), 1 ठ "Yunnan, 23.-24. Jun 1993 Yulong Mts. 27.00N 100.12E Bolm lgt. $3200 \mathrm{~m} /$ Coll. P. Pacholátko" (CP), 1 § "Yunnan 1950-2050m 27.18N 100.14E Daju, Jinsha r. 7-10/7.92 Vit Kubáň leg./ Coll. P. Pacholátko" (CP), 1 § "China Yunnan Lijiang 2100 m 13.-27.VI. 1995 leg. Pekarovič"/ Coll. P. Pacholátko" (CP), 1 ठ "X-DA1623/ China: Yunnan province, 26km N Lijiang, 15.VI. 2007 Ganhaizi pass $27^{\circ} 97.1^{\prime} \mathrm{N} 100^{\circ} 14.9^{\prime} \mathrm{E}, 3000 \mathrm{~m}$, J. Hájek \& J. Růžička [Ch26]/ individually collected under stones, on soil surface and on plants and dense shrubs, sparse coniferous forest (with dominant Pinus)" (CA), $4 \widehat{\delta} \widehat{\delta}, 2$ q $q$ " China: Yunnan province, 26km N Lijiang, 15.VI. 2007 Ganhaizi pass $27^{\circ} 97.1^{\prime} \mathrm{N} 100^{\circ} 14.9^{\prime} \mathrm{E}, 3000 \mathrm{~m}$, J. Hájek \& J. Rủžička [Ch26]/ individually collected under stones, on soil surface and on plants and dense shrubs, sparse coniferous forest (with dominant Pinus)" (NMPC).

Description. Length: 6.6 mm , length of elytra: 4.3 mm , width: 3.6 mm . Body oblong, black, dorsal surface shiny, almost glabrous.
Labroclypeus trapezoidal, widest at base and convergent apically, lateral margins weakly convex; anterior angles strongly convex; lateral border and ocular canthus producing a distinct angle; margins moderately reflexed, anterior margin deeply sinuate medially; surface convex medially and shiny, finely and densely punctate, distance between punctures less than their diameter, with a few ro-
bust punctures behind anterior margin bearing each a long, erect seta; frontoclypeal suture feebly incised, medially moderately curved; smooth area in front of eye approximately 1.5 times as wide as long; ocular canthus short and wide, subtriangular, rounded at apex, finely and densely punctate, with one terminal seta. Frons shiny, with fine, dense punctures that are posteriorly less dense; with a few erect setae on sides behind the frontoclypeal suture. Eyes small, ratio of diameter/ interocular width: 0.38 . Antenna black, with ten antennomeres; club with three antennomeres, slightly shorter than the remaining antennomeres combined. Mentum weakly elevated and flattened anteriorly.
Pronotum moderately wide, widest at base, lateral margins weakly convex and evenly convergent anteriorly; anterior angles strongly produced and sharp, posterior angles blunt and moderately rounded; anterior margin convexly produced medially, with a broad marginal line, basal margin with fine marginal line at sides; surface with dense and fine punctures, with a few long setae on disc; anterior and lateral borders densely setose; hypomeron simple, not carinate at base and not ventrally produced. Scutellum triangular, slightly longer than wide, with fine and very dense punctures, glabrous.
Elytra oblong, widest in apical third, striae weakly impressed, finely and densely punctate, intervals weakly convex, with fine, moderately dense punctures often concentrated along the striae, odd intervals with fine, moderately long setae (setae shorter (on disc) or as long (sides) as intervals wide); interior apical angle of elytra with a strong seta; epipleural edge fine ending at the strongly curved external apical angle of elytra, epipleura densely setose; apical border of elytra without short microtrichomes.
Ventral surface shiny, with fine and moderately dense punctures, finely densely setose; metacoxa glabrous with a few fine, long, adjacent setae laterally only; abdominal sternites micro-reticulate, with an indistinct, transverse row of coarse punctures bearing a moderately long seta between fine, dense punctation, a few fine punctures bear a short seta; penultimate sternite apically with a smooth, sclerotized border which is one fifth as long as the sternite, last sternite medially 0.75 times as long as penultimate one, with longer and denser setae. Mesosternum between mesocoxae as wide as mesofemur, with fine, long setae. Ratio of length of metepisternum/ metacoxa: 1/ 1.29 . Pygidium moderately evenly convex, finely and evenly, not densely punctate, without smooth midline; surface shiny, sparsely covered with short setae.
Legs slender and moderately long; femora shiny, with two longitudinal rows of setae, coarsely but sparsely punctate; metafemur sharply carinate anteriorly and without a submarginal serrate line, posterior margin weakly convex and with a few short setae basally, its ventral part only weakly widened in apical half and not serrate, internally not serrate, with dense, long setae. Metatibia slen-


Fig. 5A-D. A. ganhaiziensis sp. n. (holotype); E-H: A. yunnana (Miyake \& Yamaya, 2001) (China: Degen env.); I-K: A. safraneki sp. n. (holotype); A, E, I: Aedeagus, left side lateral view; C, G, K: Aedeagus, right side lateral view; B, F, J: parameres, dorsal view; D, H, K: Habitus. Scale: 0.5 mm .
der and moderately long, evenly widened towards apex, ratio width/ length: $1 / 3.4$; dorsally longitudinally convex, apically also sharply carinate, with two groups of spines, basal group at first quarter, apical group at second third of metatibial length, basally with a few single, fine setae; external face longitudinally convex, with fine punctures laterally, almost glabrous; ventrally with a sharp, finely serrate margin, with four robust setae; internal face laterally with a few punctures bearing each a fine seta, apex interiorly deeply excavate at middle and not truncate near tarsal articulation. Meso- and metatarsomeres dorsally glabrous and finely densely punctate, ventrally with sparse, short setae; metatarsomeres ventrally with a finely serrate ridge, beside it with a robust longitudinal carina, first metatarsomere distinctly shorter than the following tarsomere and slightly shorter than the upper tibial spur. Protibia moderately long, bidentate, protarsal claws symmetric.

Aedeagus: Fig. 5A-C. Habitus: 5D.
Diagnosis. A. ganhaiziensis sp. n. is in external shape very similar to A. yunnana; it may be differentiated from it by the shape of right paramere which is once bent at basal third and the smaller dorsal apophysis of phallobasis.

Variation. Length: 5.8-6.6 mm, length of elytra: 4.0-4.3 mm , width: $3.3-3.6 \mathrm{~mm}$. Female specimens are very similar to males but have slightly shorter antennal clubs, i.e. the club is distinctly slightly shorter than the remaining antennomeres combined; the punctures on pygidium are less dense and the surface of pygidium shows a fine mi-cro-reticulation.

Etymology. The species is named according to its provenience from Ganhaizi pass (Yulang Shan).

Archeohomaloplia yunnana (Miyake \& Yamaya, 2001)
Melanomaladera yunnana Miyake \& Yamaya, 2001: 38 (type locality: China: Degen).
Archeohomaloplia yunnana: Ahrens 2007: 7.
Type material examined. Holotype (Melanomaladera yunnana): đ̄ "China NW Yunnan Degen city env. 3300 m alt. 29. Jun. 1998 A. Gorodinski / Holotypus Melanomaladera yunnana sp. n. Y. Miyake 199" (NMMC).

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## Archeohomaloplia safraneki sp. n.

Type material examined. Holotype: $\uparrow$ "SE Tibet, 3000 3500 m , ca 20 km N of Yangjing 23.VII.-8.VIII. 1998 Šafránek \& Trýzna lgt/ Coll. P. Pacholátko Invt. No./ 766 Sericini: Asia spec." (CP). Paratypes: $2 \widehat{\jmath}, 1 \not q$ same data as holotype (CP, CA).

Description. Length: 6.0 mm , length of elytra: 3.8 mm , width: 3.2 mm . Body oblong, black, antenna brown, tarsi yellowish brown, dorsal surface shiny, almost glabrous. Labroclypeus trapezoidal, widest at base and convergent apically, lateral margins weakly convex; anterior angles strongly convex; lateral border and ocular canthus producing a distinct angle; margins moderately reflexed, anterior margin deeply sinuate medially; surface convex medially and shiny, finely and densely punctate, distance between punctures less than their diameter, with a few robust punctures behind anterior margin bearing each a long, erect seta; frontoclypeal suture feebly incised, medially moderately curved; smooth area in front of eye approximately 1.5 times as wide as long; ocular canthus short and wide, subtriangular, rounded at apex, finely and densely punctate, with one terminal seta. Frons shiny, with fine, dense punctures that are posteriorly less dense; with a few erect setae on sides behind the frontoclypeal suture. Eyes small, ratio of diameter/ interocular width: 0.41 . Antenna yellowish brown, with ten antennomeres; club dark brown, with three antennomeres, slightly shorter than the remaining antennomeres combined. Mentum weakly elevated and flattened anteriorly.

Pronotum moderately wide, widest at base, lateral margins straight and subparallel in basal half, convergent and weakly convex anteriorly; anterior angles strongly produced and sharp, posterior angles blunt and moderately rounded; anterior margin convexly produced medially, with a broad marginal line, basal margin with fine marginal line at sides; surface with dense and fine punctures, glabrous; anterior and lateral borders sparsely setose; hypomeron simple, not carinate at base and not ventrally produced. Scutellum triangular, slightly longer than wide, with fine and very dense punctures, glabrous.

Elytra oblong, widest in apical third, striae weakly impressed, finely and densely punctate, intervals weakly convex, with fine, moderately dense punctures often concentrated along the striae, odd intervals with fine, moderately long setae (setae as long as intervals wide); interior apical angle of elytra with a strong seta; epipleural edge fine ending at the strongly curved external apical angle of elytra, epipleura densely setose; apical border of elytra without short microtrichomes.

Ventral surface shiny, with fine and moderately dense punctures, finely densely setose; metacoxa glabrous with a few fine, long, adjacent setae laterally only; abdominal sternites micro-reticulate, with an indistinct, transverse
row of coarse punctures bearing a moderately long seta between fine, dense punctation, a few fine punctures bear a short seta; penultimate sternite apically with a smooth, sclerotized border which is one fifth as long as the sternite, last sternite medially 0.75 times as long as penultimate one, with longer and denser setae. Mesosternum between mesocoxae as wide as mesofemur, with fine, long setae. Ratio of length of metepisternum/ metacoxa: 1/ 1.43. Pygidium moderately evenly convex, finely and evenly, not densely punctate, without smooth midline; surface shiny, sparsely covered with short setae.

Legs slender and moderately long; femora shiny, with two longitudinal rows of setae, coarsely but sparsely punctate; metafemur sharply carinate anteriorly and without a submarginal serrate line, posterior margin weakly convex and with a few short setae basally, its ventral part only weakly widened in apical half and not serrate, internally not serrate, with dense, long setae. Metatibia slender and moderately long, evenly widened towards apex, ratio width/ length: $1 / 3.2$; dorsally longitudinally convex, apically also sharply carinate, with two groups of spines, basal group at first quarter, apical group at second third of metatibial length, basally with a few single, fine setae; external face longitudinally convex, with fine punctures laterally, almost glabrous; ventrally with a sharp, finely serrate margin, with four robust setae; internal face laterally with a few punctures bearing each a fine seta, apex interiorly deeply excavate at middle and not truncate near tarsal articulation. Meso- and metatarsomeres dorsally glabrous and finely densely punctate, ventrally with sparse, short setae; metatarsomeres ventrally with a finely serrate ridge, beside it with a robust longitudinal carina, first metatarsomere distinctly shorter than the following and slightly longer than the upper tibial spur. Protibia moderately long, bidentate, protarsal claws symmetric.

Aedeagus: Fig. 5I-K. Habitus: 5L.
Diagnosis. A. safraneki sp. n . is in external shape very similar to A. yunnana; it may be differentiated from it by the much shorter right paramere and the smaller dorsal apophysis of phallobasis.

Variation. Length: 6.1-6.3 mm, length of elytra: 3.7-4.1 mm , width: $3.0-3.6 \mathrm{~mm}$. Female specimens are very similar to males but have slightly shorter antennal clubs, i.e. the club is distinctly slightly shorter than the remaining antennomeres combined; the punctures on pygidium are less dense and the surface of pygidium shows a fine mi-cro-reticulation.

Etymology. The species is dedicated to one of its collectors, Ondřej Šafránek, Jiřetín pod Jedlovou.

## Archeohomaloplia taunggyiensis sp. n .

Type material examined. Holotype: $\delta^{\wedge}$ "Burma (Myanmar) SW Shan state Taunggyi J. Rejsek 1.-18.6.1997/ Coll. Dirk Ahrens/ 412 Sericini: Asia spec." (ZFMK). Paratypes: 5 § ${ }^{\lambda}, 4$ \&q same data as holotype (ZFMK, CA), 1 ठ "NW Thailand, 25.iv.-7.v. 1996 Chiang Mai prov. Ban San Pakia Sv. Bilý leg., $1700 \mathrm{~m} /$ Coll. P. Pacholátko Brno/ TS144" (CP).

Description. Length: 4.8 mm , length of elytra: 2.9 mm , width: 2.5 mm . Body oblong, black, elytra dark brown, legs and antenna yellowish-brown; surface shiny, almost glabrous.

Labroclypeus short trapezoidal, widest at base and convergent apically, lateral margins weakly convex; anterior angles strongly rounded; lateral border and ocular canthus producing a distinct angle; margins moderately reflexed, anterior margin very weakly sinuate medially; surface weakly convex and shiny, finely and densely punctate, distance between punctures subequal their diameter, with a few robust punctures beside anterior and lateral margins bearing each a robust, erect seta; frontoclypeal suture distinctly incised, medially weakly curved; smooth area in front of eye approximately 1.5 times as wide as long; ocular canthus short and wide, finely and densely punctate, without terminal seta. Frons shiny, with coarse, dense punctures on anterior half, on posterior half almost smooth; with a few setae behind the frontoclypeal suture. Eyes small, ratio of diameter/ interocular width: 0.41 . Antenna yellow, with ten antennomeres; club with three antennomeres, almost twice as long as the remaining antennomeres combined. Mentum weakly elevated and flattened anteriorly.

Pronotum moderately wide, widest at base, lateral margins convex and strongly convergent anteriorly; anterior angles strongly produced and sharp, posterior angles strongly rounded; anterior margin weakly convexly produced medially, with a fine marginal line, basal margin with fine marginal line which sometimes is substituted by a row of fine, single punctures; surface with sparse and fine punctures, glabrous; anterior and lateral borders glabrous; hypomeron finely carinate at base and not ventrally produced. Scutellum triangular, slightly longer than wide, with fine and dense punctures, glabrous.

Elytra oblong, widest shortly behind middle, striae distinctly impressed, finely and densely punctate, intervals weakly convex, with fine, moderately dense punctures, concentrated along the striae, glabrous; interior apical angle of elytra without strong seta; epipleural edge fine ending at the strongly curved external apical angle of elytra, epipleura almost glabrous, only with a few fine setae; apical border with short white microtrichomes.


Ahrens, Dirk. 2011. "A revision of the genus Archeohomaloplia Nikolajev, 1982 (Coleoptera: Scarabaeidae: Sericini)." Bonn zoological bulletin 60, 117-138.

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[^0]:    Additional material examined. 2 ex. "China pr. Yunnan b. occ. Degen 3900 m 7.6.1993 R. Cervenka lgt." (CP), 2 ex. (1 §, 1 q) "Yunnan/ Apogonia nigroolivacea Heyd." (MNHN), 11 ex. "Yunnan" (MNHN). (see also Ahrens 2007).

    Aedeagus: Fig. 5E-G. Habitus: 5H.

