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## Revision of the genus *Amarygmus* DALMAN, 1823 and related genera. Part XLVI.

### The *Amarygmus* of Sri Lanka, and one new species from South India.

(Coleoptera: Tenebrionidae: Amarygmmini)

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#### Abstract

The *Amarygmus* species of Sri Lanka are revised: Annotations and illustrations on the following species are provided: *Amarygmus brendelli* KASZAB, 1980, *Amarygmus ceylonicus* (KASZAB, 1980), *Amarygmus clypealis* (KASZAB, 1980), *Amarygmus commutatus* BREMER, 2001, *Amarygmus hayekae* KASZAB, 1980, *Amarygmus hospes* (KASZAB, 1980), *Amarygmus lewisi* KASZAB, 1980, *Amarygmus lucens* KASZAB, 1980, *Amarygmus masumotoi* BEJŠAK-COLLORADO-MANSFELD, 2000, *Amarygmus silvicola* KASZAB, 1980, *Amarygmus simoni* KASZAB, 1980, *Amarygmus sivae* (KASZAB, 1980), and *Amarygmus srilankanus* (KASZAB, 1980). *Amarygmus tenuicornis* MOTSCHULSKY, 1863 is redescribed and illustrated. The following taxonomic changes have to be noted: *Amarygmus lewisi* KASZAB, 1980 = *Amarygmus politicollis* KASZAB, 1980 [syn. n.]; *Amarygmus masumotoi* BEJŠAK-COLLORADO-MANSFELD, 2000 = *Amarygmus merkli* BREMER, 2001 [syn. n.] (valid names underlined).

New species which are described and illustrated are *Amarygmus indictus* sp. n. (Sri Lanka), *Amarygmus repentinus* sp. n. (Sri Lanka), *Amarygmus serendib* sp. n. (Sri Lanka), *Amarygmus standai* sp. n. (Sri Lanka), *Amarygmus taprobanus* sp. n. (Sri Lanka), and *Amarygmus cardamonensis* sp. n. (South India). A determination key of the *Amarygmus* of Sri Lanka is provided.

#### Introduction

Except two species described by WIEDEMANN (1821) and MOTSCHULSKY (1863), the majority of species of the genus *Amarygmus* DALMAN, 1823, presently known from Sri Lanka, have been described by KASZAB (1980). The species known are

*Amarygmus tenuicornis* MOTSCHULSKY, 1863,

*Amarygmus picitarsis* (FAIRMAIRE, 1882), first described as

*Cnodalon aeneum* WIEDEMANN, 1821 [nom. praeocc.], with several synonyms,

*Amarygmus brendelli* KASZAB, 1980,

*Amarygmus hayekae* KASZAB, 1980,

*Amarygmus lewisi* KASZAB, 1980,

*Amarygmus lucens* KASZAB, 1980,

*Amarygmus politicollis* KASZAB, 1980,

*Amarygmus silvicola* KASZAB, 1980,

*Amarygmus simoni* KASZAB, 1980,

*Amarygmus masumotoi* BEJŠAK-COLLORADO-MANSFELD, 2000, described as *Amarygmus carbo* KASZAB, 1980 [nom. praeocc.],

*Amarygmus ceylonicus* (KASZAB, 1980), described as *Platolenes ceylonicus* KASZAB, 1980,

*Amarygmus clypealis* (KASZAB, 1980), described as *Platolenes clypealis* KASZAB, 1980,

*Amarygmus commutatus* (BREMER, 2001), described as *Platolenes micros* KASZAB, 1980 [nom. praeocc.],

*Amarygmus hospes* (KASZAB, 1980), described as *Platolenes hospes* KASZAB, 1980,

*Amarygmus sivae* (KASZAB, 1980), described as *Platolenes sivae* KASZAB, 1980,

*Amarygmus srilankanus* (KASZAB, 1980), described as *Platolenes srilankanus* KASZAB, 1980.

I have seen 2 specimens of *Amarygmus hydrophiloides* FAIRMAIRE, 1849 which according to their labels have recently been collected in Sri Lanka. This species is very abundant in the Pacific and the Papuan faunal areas, but I am wondering whether *A. hydrophiloides* is a constant inhabitant of Sri Lanka.

Of the *Amarygmus* mentioned above *Amarygmus tenuicornis* MOTSCHULSKY, *A. brendelli* KASZAB, *A. hayekae* KASZAB, *A. lewisi* KASZAB, *A. lucens* KASZAB, *A. politicollis* KASZAB, *A. silvicola* KASZAB, *A. simoni* KASZAB, *A. masumotoi* BEJŠAK-COLLORADO-MANSFELD, *A. ceylonicus* (KASZAB), *A. clypealis* (KASZAB), *A. commutatus* BREMER, and *A. hospes* (KASZAB) are only known from Sri Lanka.

The descriptions of KASZAB's *Amarygmus* are detailed, but figures of the habitus and on some details which alleviate a separation of related species are mostly lacking, e. g. form of the head, of the prosternum, of antennae. Additionally, KASZAB did not include all related species into differential diagnoses, therefore, new differential diagnoses of the species become necessary.

The body shapes of several Sri Lankan species are resembling, and partially the differences only concern legs, antennae, and fronto-clypeal suture. They only can be determined if, at mounting, the legs and antennae are stretched away from the body so they may be inspected easily. Good illustrations certainly support their identification. One of the attitudes of this paper is therefore to provide adequate illustrations.

### Morphometry

Length corresponds to distance between the middle of frontal edge of prothorax and apices of elytra; width to maximum width across the elytra; length of elytra to distance between base of scutellum and apices of elytra; length of prothorax to distance between the middle of their anterior and posterior edges, respectively.

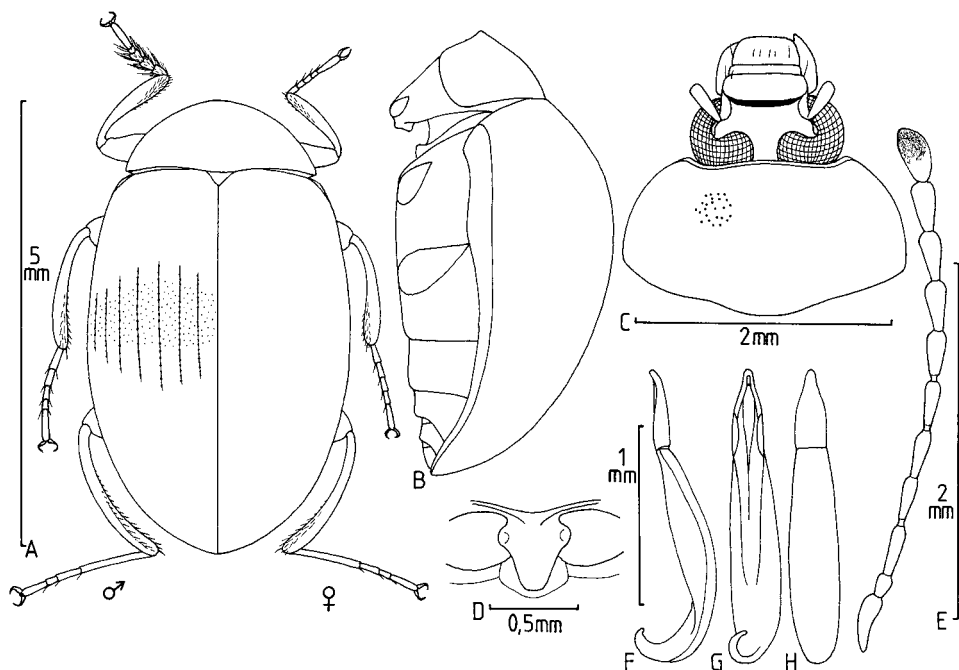
### Abbreviations of collections

CA	=	Collection of Dr. K. ANDO, Osaka.
CM	=	Collection of Prof. Dr. K. MASUMOTO, Tokyo.
LZI	=	University of Lund, Zoological Institute, Lund.
MNHP	=	Muséum National d'Histoire Naturelle, Paris.
MZH	=	Museum Zoologicum Universitatis, Helsingors.
NHM	=	Natural History Museum, London.
NHMB	=	Natural History Museum, Basel.
NHMG	=	Muséum d'histoire naturelle, Genève.
MHMP	=	Via SSB to Natural History Museum, Prague.
SIW	=	Smithsonian Institue, U. S. National Museum, Washington, D.C.
SSB	=	Collection of S. BEČVÁŘ, České Budějovice.
TTM	=	Hungarian Natural History Museum, Budapest.
ZSM	=	Zoologische Staatssammlung, München.
ZSMB	=	Former collection of the author (now in Zoologische Staatssammlung, Munich)

### Remarks on species and groups of related species

#### Species related to *Amarygmus clypealis* (KASZAB)

Within this group species are combined which are small, narrowly ovate; with distinct striae on elytra and nearly flat intervals between them, with relatively narrow frons, with an antennomer 11 which in Sri Lankan species is either entirely yellow or partially yellow, with brownish green or dark green colour on the upper surface of the body; the fronto-clypeal suture in most species is very deeply incised across the head (in *A. commutatus* BREMER, 2001 from Sri Lanka and in *A. cardamonensis* sp. n. from South India only the middle part is incised); in two species the protarsomers 1 to 3 in ♂♂ are somewhat broadened: *A. clypealis* (KASZAB, 1980) and *A. commutatus* BREMER, 2001.



**Fig. 1:** *Amarygmus clypealis* KASZAB, 1980: **A** Habitus, left side legs of ♂, right side legs of ♀; **B** Body lateral; **C** Head and prothorax; **D** Prosternal apophysis; **E** Antenna; **F** Aedeagus lateral; **G** Aedeagus ventral; **H** Aedeagus dorsal.

To this group the following species can be assigned from Sri Lanka:

*Amarygmus clypealis* (KASZAB, 1980), *Amarygmus commutatus* BREMER, 2001, *Amarygmus indictus* sp. n., *Amarygmus serendib* sp. n.

In South India another undescribed species of this group occurs: *Amarygmus cardamonensis* sp. n.

### *Amarygmus clypealis* (KASZAB, 1980)

(Fig. 1A-H)

*Platolenes clypealis* KASZAB, 1980: 347.

*Amarygmus clypealis* (KASZAB, 1980): BREMER 2001a, 57.

**Holotype.** ♂, TTM, labelled: Ceylon C. P., Kandy, L. Horton's Drive, 4.XI.53, Keiser.

**Paratype.** Ceylon, Rat[napura] Dist., Uggalkaltota, 350 ft., Irrigation Bungalow, 31.Jan.-8.Febr., 1970, Davies & Rowe (1 ♂ TTM). – I examined both types.

**Diagnosis.** Narrowly ovate; surface brilliant and iridescent; protarsomers 1 to 3 in ♂♂ broadened; distinct striae on elytra; fronto-clypeal suture across the head incised like a groove; antennae relatively long. Because of size, shape of body and length of antennae *A. clypealis* has to be differentiated mainly from *A. serendib* sp. n. and *A. cardamonensis* sp. n.

*A. serendib* is congruous to *clypealis* in the presence of a groove-like fronto-clypeal suture and the strong lustre of the elytra with iridescence but differs in having a totally yellow 11<sup>th</sup> antennomer, a different shape of the prosternal apophysis, and especially the lack of broadened protarsomers 1 to 3 in ♂♂.

*A. cardamonensis* sp. n. (presently known only from South India) differs from *clypealis* in the lack of the groove-like incisure of the fronto-clypeal suture and the lack of broadened protarsomers 1 to 3 in ♂♂; *cardamonensis* possesses light brown tibiae, *clypealis* brown to black tibiae, and *cardamonensis* is somewhat bigger than *clypealis* (length of *cardamonensis* 5.97-6.21 mm).

*A. commutatus* BREMER, another species with broadened protarsomers, is smaller than *A. clypealis*, possesses, in contrast to *A. clypealis*, mostly an isodiametric microsculpture on prothorax and elytra and displays therefore mostly not the lustre and iridescence of *A. clypealis*; the fronto-clypeal suture is not as strongly incised as in *A. clypealis*.

**Description.** Length: 4.71-5.49 mm. Width: 2.76-3.14 mm.

Ratios. Prothorax: width/length 1.93-1.98; width hind angles/width front angles 1.71-1.87. Elytra: length/width 1.41-1.53; length elytra/length prothorax 3.56-4.10; maximum width elytra /maximum width prothorax 1.30-1.38.

Colour: Prothorax and elytra dark brown, brilliant with ribands of iridescence across the elytra; underside dark brown; colour of legs variable, femora and tibiae brown, dark brown or black; tarsomers yellowish brown; antennomers 1 and 2 brown, 3 to 11 black (the apical  $\frac{3}{4}$  of antennomer 11 yellow); hairs on tarsomers yellow.

Head: On frons the eyes are separated from each other with an interspace of about the length of the 3<sup>rd</sup> antennomer.

Antennae: Lengths and widths of antennomers 1 to 11 in a ♂ are 14:6 / 7:4½ / 14:4 / 11:4 / 11:4½ / 14:5½ / 14:6 / 14:6 / 14:6 / 13:6 / 15:7. Antennae of ♀♀ shorter.

Legs: Pro- and mesotibiae somewhat bent, metatibiae stronger bent than the other tibiae. Length of protarsomers 1 to 5 of a ♂ are 8:8:7:4:19, of the mesotarsomers 1 to 5 are 14:11:9:6:20, of the metatarsomers 1-4 are 40:16:7:20, respectively.

**Material.** Sri Lanka mer.-centr., 28.11.1995, Rakwana, Ratnapura District, lgt. Bečvář & Kostal (1 ♀ SSB) – Sri Lanka mer. centr., 1.-3.12.1995, above Viharahena, Matara Dist. 800-1200 m, lgt. Bečvář & Kostal (7 SSB, 1 ZSMB) – Sri Lanka mer.-centr., 29.-30.11.1995, 2 km S. Hayes, Ratnapura Distr., lgt. Bečvář & Kostal (1 SSB, 1 ZSMB) – Sri Lanka mer. centr., Matara Distr., 3 km NW Kotapola, 4.-9.XII.1995, lgt. S. Bečvář (1 ♀ ZSMB).

### *Amarygmus commutatus* BREMER, 2001

(Fig. 2A-H)

*Platolenes micros* KASZAB, 1980: 349 [nec *Platolenes micros* KASZAB, 1955 from Fiji].

*Amarygmus commutatus* BREMER, 2001; [nom. n.]: BREMER 2001a, 71. – I studied the holotype.

**Holotype.** ♂, TTM, labelled: Kandy, 1882, E. SIMON.

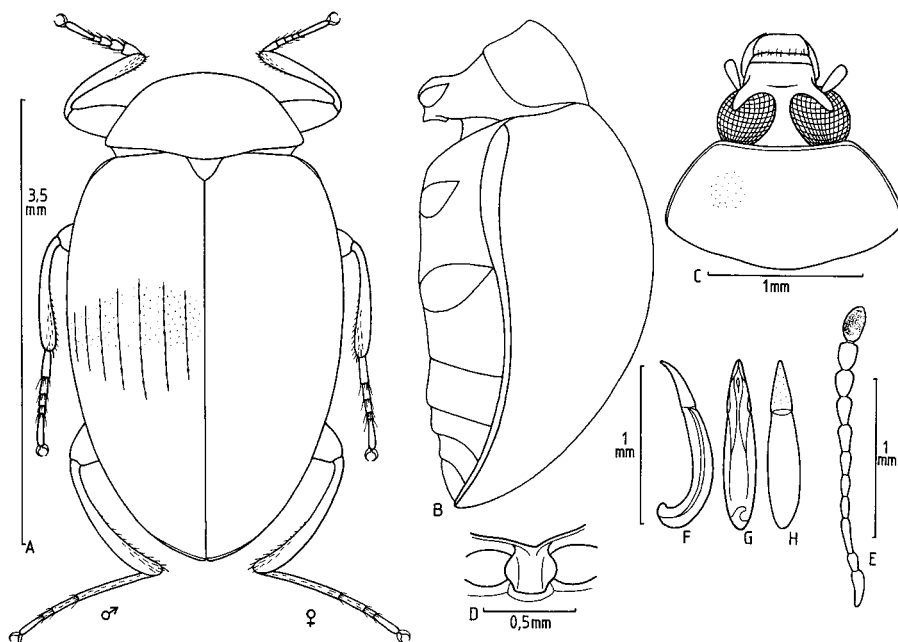
**Diagnosis.** Very small, elongate, ovate, markedly convex across; with continuous striae on elytra; frons relatively narrow (females with a somewhat broader frons); fronto-clypeal suture in the middle (but not laterally) more or less incised; protarsomers 1 to 3 in ♂♂ broadened; in ♂♂ the 5<sup>th</sup> sternite apico-medianly with a round, slight depression.

Similar to *Amarygmus indictus* sp. n., *A. serendib* sp. n., and *A. clypealis* (KASZAB, 1980); these species are longer, possess a deeply incised fronto-clypeal suture which cover transversely nearly the whole head (in *A. commutatus* only the middle part), the apices of the aedoeagi of these species are bent ventrally (straight in *commutatus*); of the related species only *A. clypealis* has broadened protarsomers 1 to 3 as *A. commutatus* has, but *A. clypealis* is markedly longer (length 4.78-5.49 mm) and more shiny than *A. commutatus*.

By length, microreticulation of surface and puncturation of the intervals of elytra *A. commutatus* is relatively variable; of the same collecting site one finds specimens with a lustrous surface and others with an opaque surface.

**Description.** Length: 3.23-3.85 mm. Width: 2.06-2.33 mm.

Ratios. Prothorax: width/length 1.81-1.95; width hind angles/width front angles 1.61-1.67. Elytra: length/width 1.37-1.47; length elytra/length prothorax 3.71-4.00; maximum width elytra/ maximum width prothorax 1.39-1.41.



**Fig. 2:** *Amarygmus commutatus* BREMER, 2001: **A** Habitus, left side legs of ♂, right side legs of ♀; **B** Body lateral; **C** Head and prothorax; **D** Prosternal apophysis; **E** Antenna; **F** Aedeagus lateral; **G** Aedeagus ventral; **H** Aedeagus dorsal.

**Colour:** Upperside with isodiametric microsculpture, more intensively on prothorax than on elytra, but in two specimens the microsculpture is nearly lacking, and these specimens are shiny. Frons and clypeus black; prothorax greenish brown; elytra metallic brown. Underside in mature specimens brownish black.

**Antennae:** Bent backwards the antennae overlap the elytra nearly to their middle. The length and width of antennomers 1 to 11 are 13:6 / 6:4 / 12:3½ / 9:3½ / 9:4 / 11:5 / 10½:5½ / 12:5½ / 11:6 / 11:6 / 15:7.

**Legs:** Pro- and mesotibiae straight, metatibiae bent. Lengths of protarsomers 1 to 5 are 4:3:3:3:13, of mesotarsomers 1 to 5 are 10:7:5:5:14, of metatarsomers 1 to 4 are 31:8:5:13, respectively.

**Material.** Sri Lanka mer. centr., Matara District, above Viharahena, 800-1200 m, 1.-3.XII.1995, leg. Bečvář & Kostal (1 ♂ ZSMB, 2 ♀ SSB).

### *Amarygmus indictus* sp. n.

(Fig. 3A-H)

**Holotype.** ♂, NHMP: Sri Lanka, Matara Distr., above Viharahena, 800-1200 m, 1.-3.XII.1995, leg. Bečvář & Kostal.

**Paratypes.** dito (10 ♂, 17 ♀ SSB, 9 ♂, 9 ♀ ZSMB, 1 ♀ CM) – Sri Lanka mer. centr., Matara Distr., 3 km NW Kotapola, 4.-8.XII.1995, leg. S. Bečvář (1 ♂, 2 ♀ SSB).

**Diagnosis.** Small, slightly elongate, ovate, markedly convex, with slightly incised but well marked striae on elytra, within the striae small punctures which appear as narrow broadenings of the striae; maximum of height and width of elytra appr. at their middle; intervals between striae plain or only slightly convex; puncturation of intervals in some individuals fine and sparse, in others with small punctures which are more closely situated; frons not very broad; frontal-clypeal suture deeply incised; antennae with a yellow

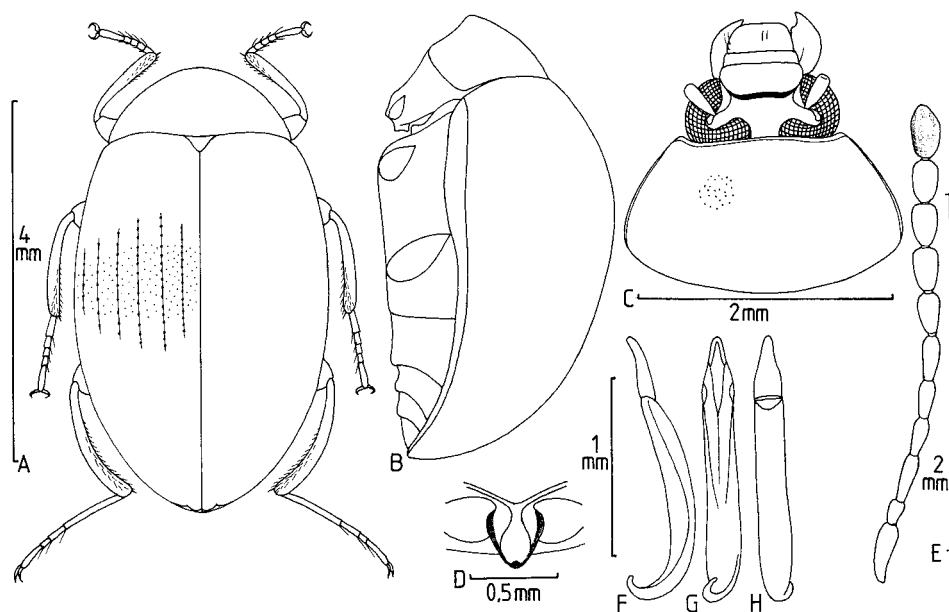


Fig. 3: *Amarygmus indictus* sp. n.: A Habitus; B Body lateral; C Head and prothorax; D Prosternal apophysis; E Antenna; F Aedeogagus lateral; G Aedeogagus ventral; H Aedeogagus dorsal.

apical antennomer; protarsomers in  $\sigma\sigma$  not broadened. This species is rather variable regarding depth of striae, puncturation of intervals, and width of frons, and in  $\text{♀}\text{♀}$  it is sometimes difficult to separate it from *A. clypealis* (KASZAB, 1980).

*A. indictus* is closely related to *A. clypealis* (KASZAB, 1980) and to *A. commutatus* BREMER, 2001, but in  $\sigma\sigma$ , in contrast to *A. indictus*, both species display broader protarsomers 1 to 3. It is especially necessary to differentiate *A. indictus* against *A. clypealis* (KASZAB) which also possesses a deeply incised fronto-clypeal suture. *A. clypealis* is somewhat longer, the sides of its elytra are more straight; the lustre of the upperside is in *A. clypealis* more intense than in most specimens of *A. indictus*, and their elytra show some iridescence (iridescence not present in *A. indictus* in most instances) (there are few specimens with a marked lustre and some iridescence which probably are *A. indictus* because  $\sigma\sigma$  show no broadening of protarsomers; however I am not sure of their identity, and I did not label them as paratypes; they are listed under "Material").

**Description.** Length: 4.20-4.86 mm. Width: 2.41-2.92 mm.

Ratios. Prothorax: width/length 1.96-2.02; width hind angles/width anterior angles 1.68-1.74. Elytra: length/width 1.39-1.46; length elytra/length prothorax 3.71-3.95; maximum width elytra/maximum width prothorax 1.31-1.35.

Colour: Upperside brown to dark brown with a greenish gleam, lustrous; in numerous specimens the prothorax is slightly darker than the elytra. Antennomers 1 to 5 yellow-brown to brown; the base of antennomer 6 is brown, the apex black, antennomers 7 to 10 black, antennomer 11 yellow. Underside brownish black to brown, slightly lustrous, with slight isodiametric microsculpture; femora brownish black to brown; tibiae lighter brown, tarsomers yellowish-brown.

Head: Frons not very broad, compared with the length of the 3 antennomer narrower (alike 10:13); frons somewhat higher situated than eyes, anteriorly bent to the frontal-clypeal suture. Genae very small, slightly raised. Fronto-clypeal suture in its middle part deeply incised; in its lateral parts also incised but not so deeply. Clypeus not very markedly stretched forwards, longitudinally and transversely slightly arched. Clypeus and frons with indistinct and small punctures. Mentum heart-shaped, covered with slight

isodiametric microsculpture; with broad, plain margins, in between transversely slightly convex. Underside of neck with big, transversely aligned punctures. Mandibles apically bifid.

**Prothorax:** Relatively broad, short. Transversely arched, longitudinally slightly arched. Sides roundly convergent apically. Anterior margin nearly straight. Front angles not stretched forwards. Sides and anterior margin continuously bordered. In dorsal view the borders of the sides are only visible in their hind third. At sidelong glance the anterior and posterior angles are rounded and obtuse. Surface with fine and not very dense punctures.

**Scutellum:** Triangular, without punctures.

**Elytra:** Somewhat elongate, ovate, relatively narrow. Transversely strongly arched, longitudinally markedly arched. Shoulders slightly accentuated. In dorsal view the lateral edges invisible. Surface with well visible, narrow, but not very deeply incised striae which are also present within the hind third; the punctures within the striae are small and with some distance between each other; appr. 28 punctures within the 4<sup>th</sup> stria. Intervals either plain or slightly convex; puncturation, see Diagnosis.

**Prosternum:** Continuously reflexed at anterior margin, produced backwards in its middle. In the middle, starting from the anterior margin, a low and short elevation is projecting into the apophysis. Apophysis roughly ovate but apically accentuated; on the sides the margins are thicker and elevated ventradly; the area between the margins is nearly plain, with some short and thin hairs.

**Mesosternum:** Hind part short. Anterior edge of the hind part deeply excavated in the middle.

**Metasternum:** Anterior part of the disc covered with small, evanescent and sparse punctures; behind it with fine, also very sparse punctures. From the punctures short hairs are originating which cling to the surface. Median line slightly incised in its posterior half.

**Sternites:** Anterior edge between metacoxae ogive. Disc of all sternites with very sparse and tiny punctures and with short hairs clinging to the surface. Sternite 5 in ♂♂ with an apico-median depression.

**Antennae:** Not very long and in both sexes of equal length. Bent backwards overlapping the first fifth of elytra. 11<sup>th</sup> antennomer apically roundly. Ratios of length/width of antennomers 1 to 11 are 12:5 / 7:4 / 13:3½ / 7½:3½ / 8½:4 / 9:5 / 11:6 / 12:7 / 11:7 / 10:7 / 12:7.

**Legs:** Short. Femora somewhat depress, gradually broadened towards their second third and becoming narrower towards apex. Tibiae thin; Protibiae appr. straight. Mesotibiae slightly bent, apically in ♂♂ at their insides with a small area of clinging, inconspicuous hairs. Metatibiae rather thin, markedly bent; at their insides within their apical halves with short bristles. Tarsomers thin. Protarsomers and mesotarsomers in ♂♂ not enlarged, but on their palms protarsomers with hairs which are thicker in ♂♂ than in ♀♀. Lengths of protarsomers 1-5 are 5:5:5:4:14, of mesotarsomers 1-5 are 11:7:5:4:16, of metatarsomers 1-4 are 31:11:6:11, respectively.

**Material.** Sri Lanka, 2 km S Hayes, Ratnapura Distr., 29.-30.11.1995, lgt. Bečvář & Kostal (1 ♂ ZSMB, 1 ♀ ZSMB, 1 ♀ SSB) – Sri Lanka merl centr., Matara Distr., 3 km NW Kotapola, 4.-9.XII.1995, lgt. S. Bečvář (1 ♂, 1 ♀ SSB, 1 ♂ ZSMB).

**Etymology.** indicto, indictum (*lat.*) to make public.

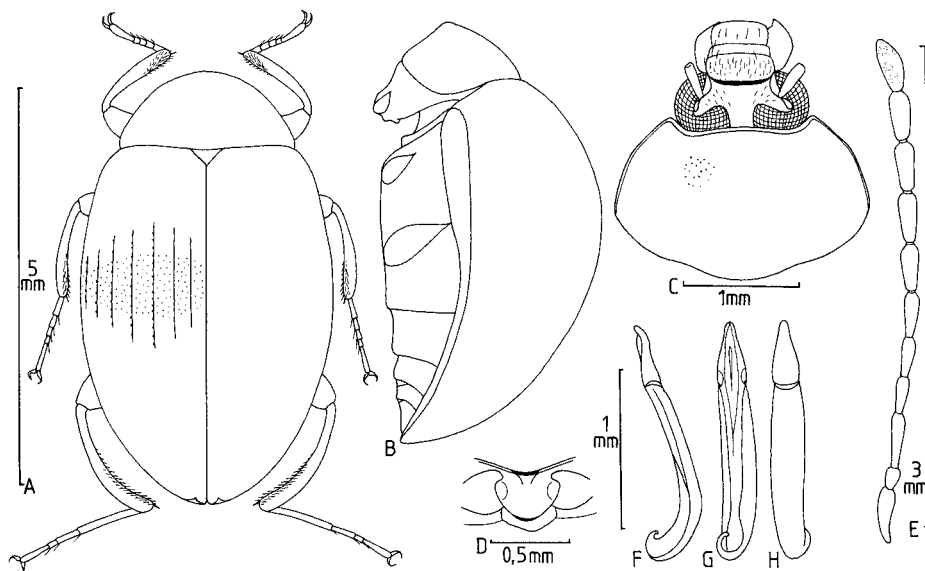
### *Amarygmus serendib* sp. n.

(Fig. 4A-H)

**Holotype.** ♂, NHMP: Sri Lanka mer. centr., Matara District, above Viharahena, 800-1200 m, 1.-3.XII.1995, leg. Bečvář & Kostal.

**Paratypes.** dito (1 ♂ SSB, 2 ♂♂ ZSMB, 1 ♀ SSB) – Sri Lanka mer. centr., Ratnapura Distr., 2 km S Hayes, 29.-30.11.1995, lgt. Bečvář & Kostal (1 ♂ SSB).

**Diagnosis.** *Amarygmus serendib* sp. n. is very similar to *A. indictus* sp. n. and to *A. clypealis* (KASZAB, 1980); all these species occur in the same area. – *A. clypealis* has alike *A. serendib* a groove-like incision of the fronto-clypeal suture, a similar shape, and mutually a strong and iridescent lustre of the upperside; however, the 11<sup>th</sup> antennomer of *A. serendib* is completely yellow, while in *A. clypealis* only the apical ¼ are lighter coloured than the antennomers 6 to 11; in ♂♂ the protarsomers 1 to 3 of *A. clypealis* are broadened while those of *A. serendib* are not broadened; die penultimate antennomers of *A. serendib* are longer than those of *A. clypealis*. – The upperside of *A. indictus* is not as lustrous as of *A. serendib*,



**Fig. 4:** *Amarygmus serendib* sp. n.: **A** Habitus; **B** Body lateral; **C** head and prothorax; **D** Prosternal apophysis; **E** antenna; **F** Aedeagus lateral; **G** Aedeagus ventral; **H** Aedeagus dorsal.

additionally in *A. indictus* there is scarcely an iridescence of the upperside; the fronto-clypeal suture of *A. indictus* is also heavily incised but not groove-like as of *A. serendib*; the prosternal apophysis of *A. serendib* is broader and shorter than of *A. indictus*. *A. serendib* possesses as does *A. clypealis* a completely yellow 11<sup>th</sup> antennomer.

**Description.** Length: 4.55-5.33 mm. Width: 2.70-3.07 mm.

Ratios. Prothorax: width/length 1.81-1.93; width hind angles/width anterior angles 1.73-1.84. Elytra: length/width 1.38-1.46; length elytra/length prothorax 3.58-3.79; maximum width elytra/ maximum width prothorax 1.36-1.39.

Colour: Prothorax and elytra strongly lustrous and iridescent; brown to brownish green (it is possible that the type specimens are immatur). Upperside of head dark brown. Underside brown, not as lustrous as upperside. Legs light brown. Antennomers 1+2 light brown, 3-5 brown, 6-10 black, lustrous, 11 yellow.

Head: Frons rather narrow, width somewhat narrower than the length of the 4<sup>th</sup> antennomer (alike 9:11); frons in front of eyes slightly arched transversely and longitudinally; with fine, shallow, sparse punctures. Genae very short, anteriorly terminating in front of fronto-clypeal suture; slightly raised. Fronto-clypeal suture broadly and in its middle very deeply incised like a groove, laterally the suture is also incised. Clypeus apically somewhat stretched forwards, slightly arched transversely and longitudinally, with fine, sparse punctures and short, thin, non-directional hairs. Mentum dilated forwards, with broad, plain, shiny margins; in between more opaque and slightly arched. Underside of neck lustrous, with slight isodiametric microsculpture; anteriorly with dense punctures. Mandibles on their outer surface grooved, apically bifid.

Prothorax: Not very broad. Transversely markedly convex, longitudinally less convex. Sides convergent anteriorly, bent. Frontal edge slightly excavated. Lateral margins and frontal margin bordered. In dorsal view the borders of the sides are narrowly visible. At sidelong glance the anterior and posterior angles are rounded and obtuse. Punctuation with small, shallow and not very close punctures.

Scutellum: Triangular; with very few, tiny punctures.

Elytra: Elongate, ovate; markedly convex longitudinally and transversely; tallest and broadest shortly in front of middle. Shoulders visible. Ends of elytra commonly round. In dorsal view lateral edges visible only at apex. With not very deeply incised striae and within them small, narrow, half-concealed



punctures, appr. 36 punctures in the 4<sup>th</sup> stria; on disc intervals between striae allusively convex, on lateral parts slightly convex, puncturation on intervals relatively close, distinct, punctures very small.

**Prosternum:** Strikingly short. At lateral parts the anterior margin reflexed, in its middle part the reflexion is interrupted. Apophysis broad; lateral margins next to the coxae wing-like broadened and somewhat elevated ventradly, in between a broad, not very deep groove; posterior of coxae the margins are roundly retracted, and they pass over into a convex margin at the apex.

**Mesosternum:** Hind part very short; frontal margin of the hind part excavated nearly until its posterior edge; with some semi-erected hairs.

**Metasternum:** Disc and lateral parts not punctured and with some semi-erected hairs. Median line not incised.

**Sternites:** Anterior edge between the metacoxae rather broadly and darkly bordered. Sternites impunctate. Sternites in ♂♂ without structural features.

**Antennae:** Long, antennae bent backwards ending shortly in front of the middle of elytra. 11<sup>st</sup> antennomer apically narrowly round. Ratios of length/width of antennomers 1-11 are 13:6 / 6:4½ / 15:4 / 11:4 / 11:4½ / 14:5 / 15:5½ / 16:6 / 15:6 / 15:6 / 16:7.

**Legs:** Short, thin. Femora markedly compress, towards the second third club-like broadened. Protibiae straight. Mesotibiae on their outside slightly bent, on their inside straight. Metatibiae markedly bent. Protarsomers of ♂♂ not broadened, but on their plantar side thicker of hairs than of ♀♀. Lengths of protarsomers 1 to 5 are 5:5:5:5:18, of mesotarsomers 1 to 5 are 12:6:5:5:18, of metatarsomers 1 to 4 are 40:15:5:19, respectively.

**Etymology.** serendib, the name of Sri Lanka which was used by the Arabic traveller Ibn BATTUTA.

#### *Amarygmus cardamonensis* sp. n.

(Fig. 5A-H)

**Holotype.** ♂, NHMB: S. India, Kerala, 1250 m, 15 km SW Munnar, Kalley Valley, 10.02N-76.58E, 1.-9.V.1997, Dembický & Pacholátko lgt.

**Paratypes.** dito (1 ♀ NHMB, 1 ♂ ZSMB, severely damaged) - S-India, Kerala, Cardamon Hills, 15 km SW of Munnar, Kallar Valley, 1000 m, 10.02 N-76.58 E, 6.-18.XII.1993, Boukal & Kejval lgt. (2 ♂ SSB, 2 ♂ ZSMB).

**Diagnosis.** Of medium size, elongate, ovate, transversely and longitudinally markedly convex, with striae on elytra and plain, well punctured intervals in between; elytra very shiny; frons of medium width; fronto-clypeal suture in its middle part slightly incised; antennae long, in ♂♂ longer than in ♀♀; protarsomers in ♂♂ not broadened.

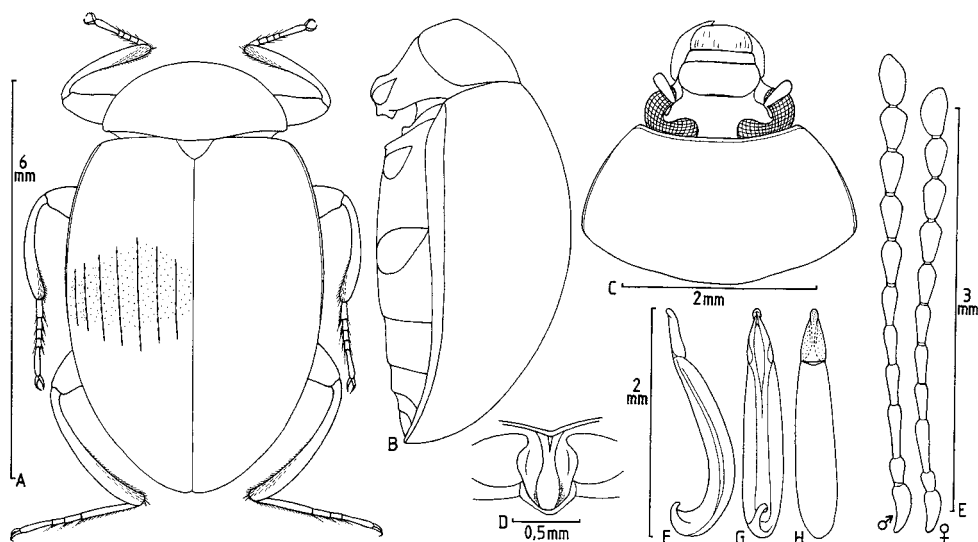
This species belongs to a group of related species from Sri Lanka around *A. clypealis* (KASZAB, 1980). Because of its long antennae it is similar to *A. serendib* sp. n., also from Sri Lanka. In contrast to *cardamonensis* sp. n. *A. serendib* has a yellow 11<sup>th</sup> antennomer, a very deeply incised fronto-clypeal suture which takes up nearly the whole width of the head, additionally the metatibiae in *A. serendib* are markedly more curved than in *cardamonensis*. The other related species possess shorter antennae than *A. cardamonensis*.

There are two species from Peninsular Malaysia and Sumatra which have a similar shape and a marked lustre of the upperside: *A. nitens* BREMER, 2003 and *A. becvarsenioris* BREMER, 2003 (BREMER, 2003c). In contrast to *cardamonensis* both species possess bigger punctures in the striae, a sparse puncturation of intervals of elytra, and shorter antennae.

**Description.** Length: 5.97-6.21 mm. Width: 3.66-3.90 mm.

Ratios. Prothorax: width/length 1.87-2.00; width hind angles/width anterior angles 1.70-1.80. Elytra: length/width 1.33-1.40; length elytra/length prothorax 3.42-3.72; maximum width elytra/ maximum width prothorax 1.31-1.34.

Colour: Upperside dark coppery, elytra very shiny and with broad, transverse ribands of iridescence, prothorax somewhat opaque; underside dark brown, with isodiametric microsculpture and therefore not shiny; femora and tibiae lighter brown than underside; antennomers 1 to 5 brown, 6 to 11 black.



**Fig. 5:** *Amarygmus cardamonensis* sp. n.: **A** Habitus; **B** Body lateral; **C** Head and prothorax; **D** Prosternal apophysis; **E** Antennae, ♂ and ♀; **F** Aedeagus lateral; **G** Aedeagus ventral; **H** Aedeagus dorsal.

**Head:** Frons of medium width, width corresponds appr. to the lengths of the 3<sup>rd</sup> antennomeres. Genae short and small, slightly raised. Fronto-clypeal suture in its middle part narrowly incised. Clypeus stretched forwards, very slightly convex. Clypeus and frons with indistinct and small punctures. Underside of neck with big, dense punctures. Mandibles apically bifid.

**Prothorax:** Not very broad. Transversely markedly arched; longitudinally slightly arched. Sides roundly convergent apically. Anterior margin nearly straight. Anterior angles not stretched forwards. Sides and anterior margin continuously bordered. In dorsal view the borders of the sides are only visible in their posterior halves. At sidelong glance the anterior angles are rectangular, the posterior angles are angular and obtuse. Surface with fine and indistinct punctures.

**Scutellum:** Triangular, brown.

**Elytra:** Somewhat elongate, ovate; transversely strongly arched, longitudinally markedly arched. Maximum of height and width slightly in front of middle. Shoulders indistinctly accentuated. In dorsal view the lateral edges are invisible. Surface with clear, narrow, but not very deeply incised striae which are also present within the hind third, the punctures within the striae small and oblong-linear. Intervals between the striae either plain or feebly convex; with fine, distinct punctures on them.

**Prosternum:** Continuously reflexed at anterior margin, produced backwards at its middle. Apophysis somewhat broader near the procoxae and there the margins are ventradly elevated, with a deep, narrow groove between them in the middle; apex indistinctly accentuated in its middle. Apophysis with some thin hairs.

**Mesosternum:** Anterior margin of the hind part excavated in its middle.

**Metasternum:** Anterior part of the disc covered with some middle-sized punctures; behind it nearly impunctate.

**Sternites:** Anterior margin between metacoxae ogive. Disc of all sternites opaque and impunctate.

**Antennae:** Long; bent backwards antennae in ♂♂ overlap elytra towards the beginning of the last third, in ♀♀ towards the middle. Apices of 11<sup>th</sup> antennomeres roundly. Ratios of length/width of antennomeres 1 to 11 in a ♂ are 29:7 / 9:6 / 22:5 / 15:5 / 16:5 / 15:5½ / 17:6 / 17:7½ / 17:8 / 17:8 / 20:10, in a ♀ 18:7 / 8:6 / 20:5 / 12:5 / 12:5 / 14:6 / 15:7 / 15:8 / 15:8 / 14:9 / 18:10, respectively.

**Legs:** Relatively slender. Femora thicker in their second third. Protibiae slightly bent; meso- and metatibiae somewhat more curved than the protibiae. Lengths of the protarsomers 1 to 5 are 7:7:6:6:21, of mesotarsomers 1 to 5 are 13:9:9:8:22, of metatarsomers 1 to 4 are 27:15:9:24, respectively.

**Etymology.** The specimens of this species had been collected in the Cardamon Hills of Kerala.

### *Amarygmus sivae* - species group

Medium-sized species are included into this group which have long, narrowly ovate elytra, possess markedly incised striae on elytra and convex intervals between them; in ♂♂ protarsomeres 1 to 3 are broadened. To this group the following species from Sri Lanka belong: *Amarygmus sivae* (KASZAB, 1980); *Amarygmus taprobanus* **sp. n.**

Related species are *A. elisabethae* BREMER, 2003 from South India (BREMER 2003a, 3-8) and *A. furvus* (GEBIEN, 1927) from Sumatra, the Peninsular Malaysia and the southern parts of Thailand.

### *Amarygmus sivae* (KASZAB, 1980)

*Platolenes sivae* KASZAB, 1980: 350.

*Amarygmus sivae* (KASZAB, 1980): BREMER 2001a, 57; illustration: BREMER 2003b, 80.

**Holotype.** ♀, SIW: Uva Prov., Monoragala Dist., Inginiyagala, 4.VI.1975, D. H. Messersmith, G. L. Williams & P. B. Karunaratna.

**Paratypes.** Ceylon, N. C. Prov. [North Central Prov.], Anu. Dist. [Anuradhapura Dist.], Padaviya, Irrigation Bungalow, 180 ft., 27.II.-9.III.1970, Davies & Rowe (1 TTM) – South Prov., Galle Dist., Kanneliya, 4.-14.VI.1975, M. W. & K. (1 SIW).

**Diagnosis.** Of medium size; elongate; with markedly incised striae and convex intervals between striae on elytrae; on elytrae coloured stripes; frons of medium width; antennae relatively short; in ♂♂ somewhat broadened protarsomeres 1 to 3.

To be differentiated from *Amarygmus taprobanus* **sp. n.** which has a similar body shape, incised striae, and on elytra convex intervals between striae. *A. taprobanus* possesses uniformly coloured elytra and no coloured stripes on elytra, and the ultimate 2 antennomeres are yellow (the antennomeres 6 to 9 black) whilst the antennomeres 6 to 11 in *sivae* possess the same colour. *A. sivae* does not present tiny thorn-like projections on metatibiae as *A. taprobanus* does.

**Description.** Length: 7.93-8.90 mm. Width: 3.57-4.20 mm.

Ratios. Prothorax: width/length 1.65-1.75; width hind angles/with anterior angles 1.48-1.57. Elytra: length/width 1.83-1.87; length elytra/length prothorax 3.81-3.85; maximum width elytra/maximum length prothorax 1.22-1.25.

Colour: Upper surface opaque; on elytra colourful stripes.

Antennae: Length/width of antennomeres 1 to 11 are 8:4 / 4½:3 / 9:3 / 6:3 / 6:3½ / 6½:5 / 7:5 / 6:6 / 6:6 / 6:6 / 9:7.

Legs: Length of metatarsomeres 1 to 4 are 38:14:6:19.

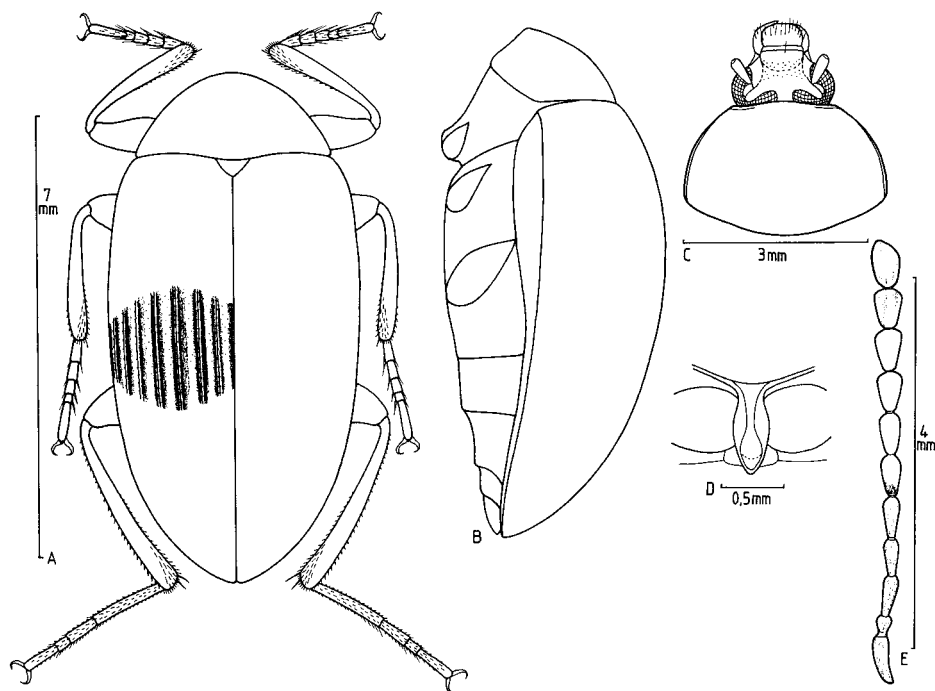
**Material.** Sri Lanka, 2 km S Hayes, Ratnapura Distr., 29.-30.11.1995, leg. Bečvář & Kostal (1 ♂ SSB) – India, Barkuda, Chilka Lake [19°45'N-85°25'E]; Ganjam Distr., 28.6.22 (1 NHM).

### *Amarygmus taprobanus* **sp. n.**

(Fig. 6A-E)

**Holotype.** ♀, NHMP: Sri Lanka: Sabaragamuval/South Prov.; prim. forest; 2 km S. Hayes, 10 km E Deniyaya, 31.12.2000.

**Diagnosis.** Medium size; elongate ovate; transversely convex; with incised striae on elytra and convex intervals in between; frons relatively narrow; antennae long and with yellow antennomeres 10 and 11; with very small thorn-like projections on the outside of metatibiae; upperside brown with sericeous lustre. - Very similar to *A. elisabethae* BREMER, 2003 from South India. In contrast to *A. taprobanus*, *A. elisabethae* possesses a brown colour of prothorax, a black colour of elytra, and the intervals on elytra of *A. elisabethae* are clearly and finely punctuated; the antennae of *elisabethae* are still longer than those of *A. taprobanus* and have only their 11<sup>th</sup> antennomer yellow-coloured; and the outside of metatibiae in *A. elisabethae* do not possess thorn-like projections. - Thorne-like projections on the outside of metatibiae



**Fig. 6:** *Amarygmus taprobanus* sp. n.: **A** Habitus; **B** Body lateral; **C** Head and prothorax; **D** Prosternal apophysis; **E** Antenna.

are also found in *A. alessandrae* BREMER, 2002 from Sulawesi. This species is characterized by macules on its elytra, and shows neither by shape nor by colour similarities with *A. taprobanus*.

**Description.** Length: 7.80 mm. Width: 4.14 mm.

Ratios. Prothorax: width/length 1.73; width hind angles/width anterior angles 1.87. Elytra: length/width 1.58; length elytra/length prothorax 3.42; maximum width elytra/maximum width prothorax 1.25.

Colour: Upperside brown, sericeous; legs brown, tarsomers light brown; antennomeres 1 to 5 light brown, 6 to 9 black, 10 and 11 yellow; underside brown (femora somewhat lighter than underside of body).

Head: Frons relatively narrow, width narrower than the length of the 4<sup>th</sup> antennomer (like 7½:9), with evanescently small punctuation. Genae very short and terminating clearly in front of fronto-clypeal suture, they are slightly raised. Fronto-clypeal suture translucent but neither incised nor impressed. Clypeus apically not very much stretched forwards, transversely slightly convex; with indistinct, small punctures. Sides of mentum round with the maximum of width in the middle, broadly flat. Underside of neck with marked isodiametric microsculpture, nearly impunctate. Mandibles apically bifid.

Prothorax: Across relatively narrow and markedly convex, less convex longitudinally. Sides convergent apically. Anterior angles not prominent. Anterior margin straight. Sides bordered; anterior margin only bordered laterally. In dorsal view borders of the sides visible only in their posterior third. At sidelong glance the angular anterior and posterior angles are obtuse. Surface with some evanescent and tiny punctures.

Scutellum: Triangular, impunctate.

Elytra: Elongate, ovate. Transversely markedly convex; longitudinally convex with its maximum of height at the end of the frontal third. Shoulders slightly accentuated. In dorsal view the lateral edges are visible in the middle part of elytra and on the apex. Continuous and deeply incised striae on their surface with clearly convex intervals between them; the punctures within the striae very small and clearly visible only

at high magnification; a puncturation on the intervals is also only visible at high magnification, the punctures are sparse.

**Prosternum:** Reflexed at anterior margin, but this is interrupted in the middle. Apophysis small, elongate, apically sharply accentuated.

**Mesosternum:** Hind part narrow, in the middle of the anterior margin deeply excavated.

**Metasternum:** Disc across slightly elevated, aside the medium line with some small punctures. Medium line on its whole length narrowly depressed.

**Sternites:** Discs with tiny punctures and with thin hairs which adhere to the surface.

**Antennae:** Long. Ratios of length/width of antennomers 1 to 11 are 12:4½ / 5:4 / 11:4 / 9:4 / 10:4½ / 11:5½ / 11:5½ / 11:6 / 12:7 / 11:7 / 13:7½.

**Legs:** Of medium length. Femora gradually broadened near middle and becoming narrower towards apex. Protibiae straight; mesotibiae nearly straight (near apex at their insides broader); metatibiae in their basal two thirds straight, near apex slightly incurved; on their outsides with many tiny thorne-like projections. Lengths of protarsomers 1 to 5 are 7:6:4:3:13, of mesotarsomers 1 to 5 are 9:6:5½:4:14, of metatarsomers 1 to 4 are 28:11:6:15, respectively.

**Etymology.** Derived from taprobane, the name which STRABON (63 BC to AD 21, a Greek geographer and historian) used for Sri Lanka; *taprobanus* = inhabitant of taprobane.

### *Amarygmus hydrophiloides* FAIRMAIRE, 1849

*Amarygmus hydrophiloides* FAIRMAIRE, 1849: 450.

*Amarygmus zelandicus* BATES, 1874: 112; [syn.]: Watt 1989, 115.

*Amarygmus tarsatus* FAIRMAIRE, 1902: 337; [syn.]: ARDOIN 1967, 1619.

*Amarygmus cyaneus* PIC, 1915: 1915c, 24; [syn.]: BREMER 2001b, 85.

*Platolenes bradleyi* Buck, 1958: 117; [syn.]: KASZAB 1980b, 47.

Annotations on this species together with an illustration have been given recently (BREMER 2004). In this latter paper one can also find the full citations of the taxa mentioned above. – I examined all the types of the taxa mentioned above.

*Amarygmus hydrophiloides* FAIRMAIRE, 1849 is a very frequently occurring species all over the Pacific and Papuan faunal areas. The discovery of this species in Sri Lanka is surprising, and it remains doubtful whether this species is a constant inhabitant of Sri Lanka.

**Diagnosis.** Blue, elongate ovate, small, with incised striae on elytra, with a relatively narrow frons, a deeply incised fronto-clypeal suture; in ♂♂ with broadened protarsomers 1 to 3, with hairs covering the metasternum, and with broadening of the insides of meso- and of metatibiae.

In Sri Lanka there is no related species which can be confounded with *A. hydrophiloides*. However, in the Papuan faunal area there are several closely related species which partially differ from *A. hydrophiloides* only by their sexual dimorphisms or the shape of aedeagus.

**Description.** Length: 5,60-7,27 mm. Width: 3,35-3,470 mm.

Ratios. Prothorax: width/length 1.72-1.78; width hind angles/width front angles 1.63-1.74. Elytra: length/width 1.51-1.57; length elytra/length prothorax 3.22-3.50; maximum width elytra/maximum width prothorax 1.21-1.27.

**Material.** Sri Lanka, Dambulla env., 300 m, 19.IV.-9.V.1991, leg. Jiří Kolibač (1 ♂, 1 ♀ NHMB).

### *Amarygmus ceylonicus* - species group

*A. ceylonicus* (KASZAB, 1980), *A. srilankanus* (KASZAB, 1980), *A. grossepunctatus* KASZAB, 1980, and *A. masumotoi* BEJŠAK-COLLORADO-MANSFELD, 2000 are species characterized by medium size, elongate and ovate shape, with rows of punctures on their elytra. Especially *A. ceylonicus* and *A. srilankanus* are near to each other. I cannot exclude that examination of more material of both taxa will show that they belong to one species with a great variability of characters. I repeatedly was facing difficulties to attach specimens to one of these taxa.

*Amarygmus ceylonicus* (KASZAB, 1980)

(Fig. 7A-H)

*Platolenes ceylonicus* KASZAB, 1980: 344-345

*Amarygmus ceylonicus* (KASZAB, 1980): BREMER 2001a, 57.

**Holotype.** ♂, SIW: N. C. Prov. [North-Central], Anu. Dist. [Anuradhapura], Hunuwilagama, near Wilpattu, 200 ft., 28.X.-3.XI.1976, G. F. Heval, R. E. Dietz, S. Karunaratne & D. W. Balasooriya.

**Paratypes.** Ceylon, X.-XI.1975, leg. R. Hüttler (1 TTM) – Ceylon, W. Prov. [Western Prov.], Yakkala, 18 mls NE Colombo, 1.-28.II.62, At light, Loc. 10, B. A. & C. (1 TTM) – Sri Lanka: Anu. Dist., Anuradhapura, Black Light Trap, 9-16-1979, collected by D. M. Davies, S. Karunaratne (1 ♂ TTM) – Ceylon, Anu. Dist., Irrigation Bungalow, Padaviya, 180 ft., 27.Feb.-9.Mar.1970, Davies & Rowe (1 TTM) – Ceylon, Anu. Dist., Wildlife Soc. Bungalow, Hunuwilagama, Wilpattu, 10-19-March 1970, Davies & Rowe (1 TTM).

I examined the paratypes which are deposited in the TTM.

**Diagnosis.** Of medium size; elongately ovate; upperside opaque, sometimes entirely bluish black or with bluish-green prothorax and green sides of prothorax, with shoulders and sides of elytra coppery, interval 1 violett and bluish-green the rest of elytra, sometimes with lustreless stripes on elytra (yellow, purple, blue). Underside dark brown to black. Legs black. Antennae 1 + 2 brown, the other antennomers dark brown to black. On elytra rows of medium-sized punctures which are relatively narrow to each other, approximately 34-36 punctures in the 4<sup>th</sup> row. Intervals between them plain, finely but relatively densely punctured: prothorax densely punctured. Antennae short.

Closely related to *ceylonicus* is *A. srilankanus* (KASZAB, 1980). The elytra in *srilankanus* are more shiny; the intervals of elytra are mostly slightly convex, and the intervals are narrower than in *ceylonicus*; the punctures in rows are mostly (but not in all specimens!) connected with lines, and the number of punctures in the 4<sup>th</sup> row is less than in *ceylonicus*, about 24 punctures.

**Description.** Length: 7.56-8.04 mm. Width: 4.02-4.21 mm.

Ratios. Prothorax: width/length 1.77-1.88; width hind angles/width anterior angles 1.62-1.77. Elytra: length/width 1.58-1.77; length elytra/length prothorax 3.91-4.10; maximum width elytra/maximum width prothorax 1.29-1.33.

Head: Frontal space between eyes corresponding approximately to the length of the sum of the 3<sup>rd</sup> and 4<sup>th</sup> antennomers.

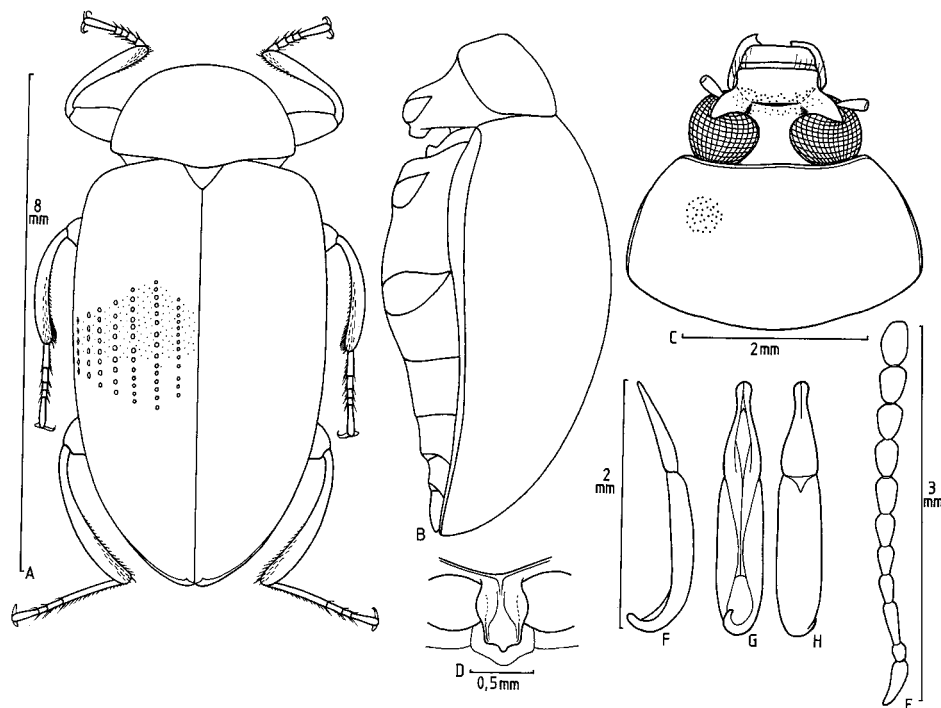
Metasternum: The anterior half of metasternum is covered with medium-sized punctures, the posterior half with very tiny punctures.

Sternites: The first three sternites are covered with small, dense punctures.

Antennae: Short; overlapping with appr. 2 antennomers the basal edge of prothorax. Ratios of length/width of antennomers 1 to 11 are 12:8 / 8:6 / 15:6 / 9:6 / 10:6½ / 12:8 / 13:9 / 14:9 / 15:9 / 14:9 / 19:9.

Legs: In ♂♂ pro- and mesotibiae possess at their insides apically an area thick with hairs; the protarsomers 1-3 are slightly broadened. Protibiae slightly bent, meso- and metatibiae markedly bent. Length of protarsomers 1-5 are 6:6:6:6:26, of mesotarsomers 1-5 are 19:9:8:7:26, of metatarsomers 1-4 are 45:13:8:26, respectively.

**Material.** Sri Lanka mer. centr., 1.-3.12.1995, above Viharahena, Matara District, 800-1200 m, lgt. Bečvář & Kostal (1 ♀ SSB) – Ceylon (1 ♂ ZSM) – Ceylon, 2<sup>nd</sup> trim. 1889, Fruhstorfer (1 ♀ ZSM).



**Fig. 7:** *Amarygmus ceylonicus* (KASZAB, 1980): **A** Habitus; **B** Body lateral; **C** Head and prothorax; **D** Prosternal apophysis; **E** Antenna; **F** Aedeagus lateral; **G** Aedeagus ventral; **H** Aedeagus dorsal.

***Amarygmus srilankanus* (KASZAB, 1980)**  
(Fig. 8A-H)

*Platolenes srilankanus* KASZAB, 1980, 345-347

*Amarygmus srilankanus* (KASZAB, 1980): BREMER 2001a, 57.

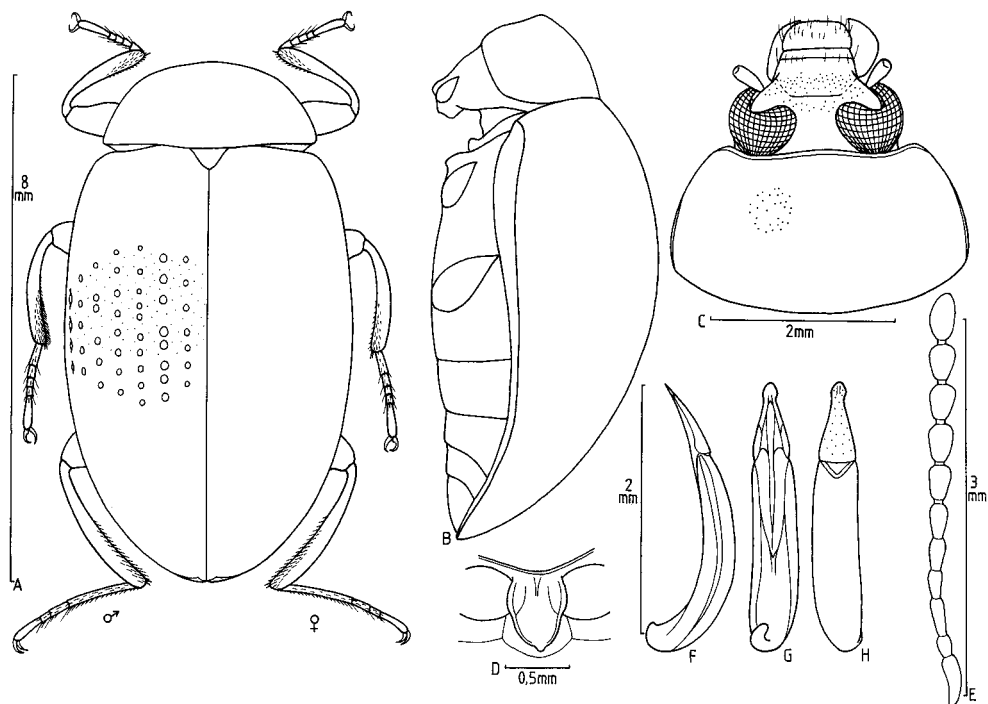
**Holotype.** ♂, SIW: Sri Lanka, Uva Prov., Monaragala Distr., Inginiyagala, 4.VI.1975, D. H. Messersmith, G. I. Williams, & P. B. Karunaratne.

**Paratypes.** North-central Prov., Anaradhapura Distr., Padaviya, 180 ft., 27.II.-9.III.1970 Davies & Rowe (1 SIW) – Southers Prov., Galle Distr., Kanneliya, 4.-14.VI.1975, M. W. & K. (1 TTM).

I examined the paratype of the TTM.

**Diagnosis.** Of medium size, elongate; ovate; slightly brilliant; with rows of relatively big punctures on elytra and stripes of different colours; prothorax densely punctured; clypeo-frontal suture deeply incised; clypeus short.

Very similar to *A. ceylonicus* (KASZAB, 1980). *A. ceylonicus* possesses on elytra somewhat smaller punctures in the rows which are narrower, and the upperside is clearly covered with isodiametric microsculpture, while *A. srilankanus* is more brilliant and the isodiametric microsculpture is less obvious; the other characteristics of both species including prosternal apophyses, metasternum, and aedeagus are not different. However, in the collection of BEČVÁŘ there is a specimen from the Ratnapura District (near Hayes) with a markedly brilliant prothorax with much smaller and less densely positioned punctures on prothorax (a variety?).



**Fig. 8:** *Amarygmus srilankanus* (KASZAB, 1980): **A** Habitus, on the left side legs of  $\sigma$ , on the right side legs of  $\rho$ ; **B** body lateral; **C** Head and prothorax; **D** Prosternal apophysis; **E** Antenna; **F** Aedeagus lateral; **G** Aedeagus ventral; **H** Aedeagus dorsal.

**Description.** Length: 7.48-7.80 mm. Width: 3.90-4.34 mm.

Ratios. Prothorax: width/length 1.86-1.93; width hind angles/width anterior angles 1.58-1.72. Elytra: length/width 1.51-1.59; length elytra/length prothorax 3.90-4.10; maximum width elytra/maximum width prothorax 1.29-1.40.

Colour: Upperside lustrous, green, prothorax with irregular violet reflexes, elytra with violet, yellow and blue stripes; underside black, lustrous; femora and tibiae black; tarsi brown; antennae black.

Head: Frontal width between eyes corresponds to the joint lengths of the 2<sup>nd</sup> and 3<sup>rd</sup> antennomers.

Metasternum: On its anterior half with medium-sized punctures, on its posterior half with tiny, sparse punctures.

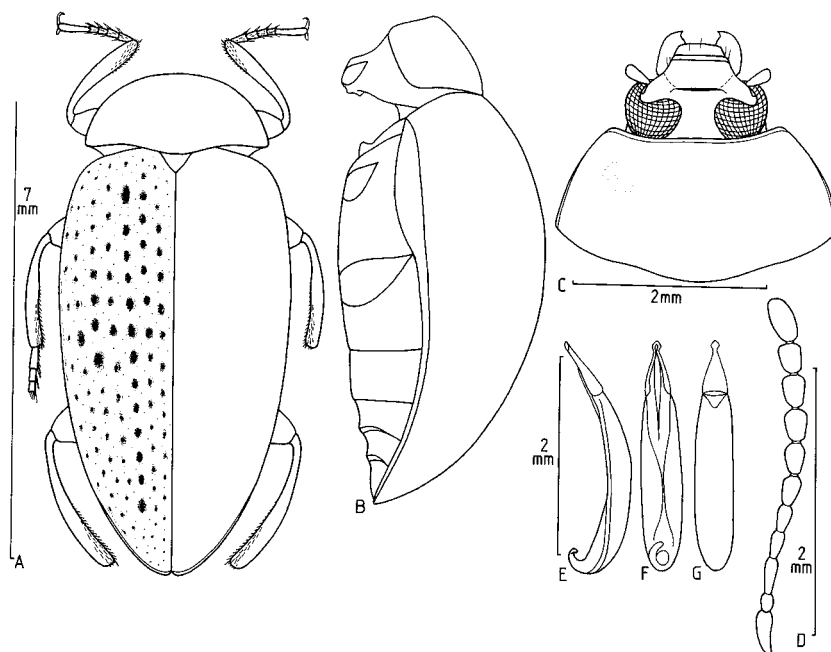
Sternites: The first two sternites covered with small punctures.

Antennae: Short. Length/width of antennomers 1 to 11 are 15:7 / 8:6 / 16:5 / 9:5½ / 10:6 / 13:8 / 12:9 / 13:9½ / 14:9½ / 14:10 / 18:10.

Legs: Protibiae slightly bent; meso- and metatibiae somewhat more bent; in  $\sigma\sigma$  protibiae on their insides on the apical 10 percent with an area thick of hairs, mesotibiae on their apical 25 percent with hairs. Protarsomers 1-3 in  $\sigma\sigma$  slightly broadened.

**Material.** Wadduwa, Ceylon, 2de trim. 89, I. Z. Kannegieter (1 MNHP) – Sri Lanka, Kandy env., 1995-04-12, Pavel Semft lgt. (1  $\sigma$  ZSMB) – Sri Lanka mer. centr., Ratnapura Distr., Panamure env., 11.-12.12.1995, leg. Bečvář & Kostal (1  $\rho$  SSB) – Sri Lanka mer. centr., Ratnapura Distr., 2 km S. Hayes, 29.-30.11.1995, leg. Bečvář & Kostal (1  $\rho$  SSB) – South India, Kerala, 15 km SW Munnar, Kallar Valley, 10°02'N-76°58'E, 1.-9.V.1997, Dembický & Pacholatkó leg. (1  $\sigma$  NHMB).





**Fig. 9:** *Amarygmus grossepunctatus* KASZAB, 1980: **A** Habitus; **B** Body, lateral; **C** Head and prothorax; **D** Antenna; **E** Aedeagus lateral; **F** Aedeagus ventral; **G** Aedeagus dorsal.

***Amarygmus grossepunctatus* KASZAB, 1980**

(Fig. 9A-G)

*Amarygmus grossepunctatus* KASZAB, 1980: 353-355.

**Holotype.** ♂, TTM, labelled "Ceylon".

**Paratype.** North Prov., Mullaittivu, 6.II.1970, Loc. 50b, M. B. L. (1 NMHG). - I examined the holotype.

**Diagnosis.** A very characteristic species of medium size. Elytra very elongate and with outstandingly big punctures in rows (approximately 14 punctures in the 4<sup>th</sup> row); because of the big punctures of the rows the intervals are very narrow. Frons broad (width corresponds to the sum of lengths of the 3<sup>rd</sup> and 4<sup>th</sup> antennomers). Protarsomers in ♂♂ not broadened. Metatarsomer 1 according to KASZAB (1980) very long. Fronto-clypeal suture only medianly shallowly incised. - By size and the long elytra with the outstandingly big punctures on them *A. grossepunctatus* cannot be confounded with any other species of the region.

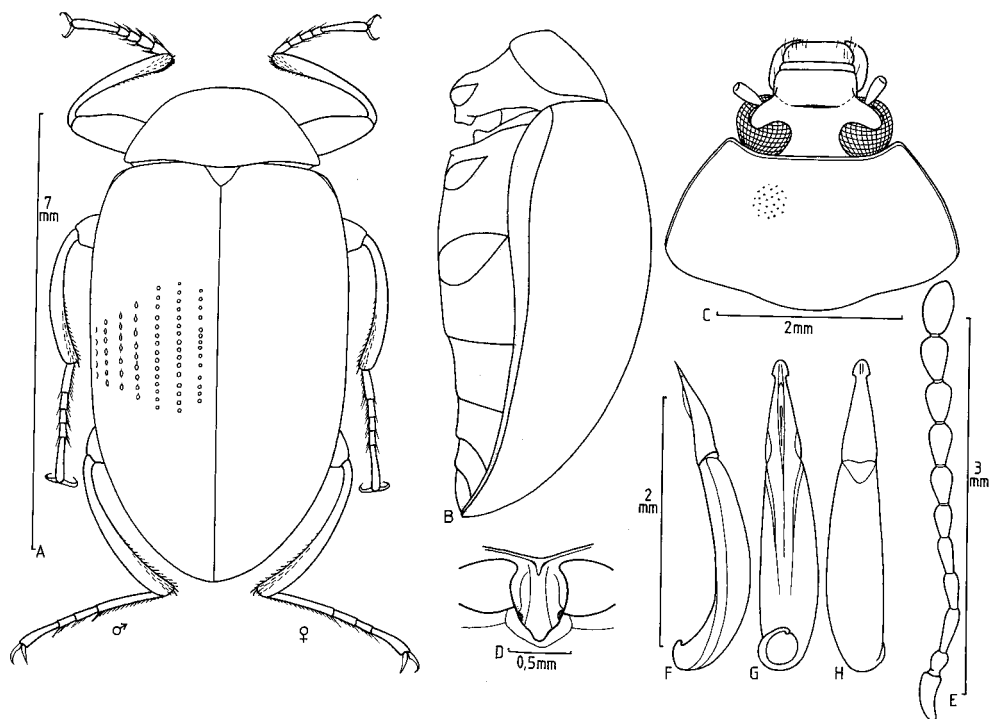
**Description.** Length (of the holotype): 7.93 mm. Width: 3.22 mm.

Ratios. Prothorax: width/length 1.83; width hind angles/width anterior angles 1.53. Elytra: length/width 1.83; length elytra/length prothorax 4.11; maximum width elytra/maximum width prothorax 1.21.

Colour: Upperside dark brown to blackish brown, with some metallic gleam. Underside dark brown. Legs dark brown. Antennomers 1+2 brown, 3 to 11 blackish brown (11<sup>th</sup> antennomer apically lighter).

Antennae: Short, bent backwards only slightly overlapping the hind margin of prothorax. Length and width of antennomers 1 to 11 correspond to 11:6 / 6:5½ / 13:5 / 8:5 / 9:5½ / 10:7 / 11:7 / 12:8 / 11:8 / 11:8 / 17:9½.

Legs: Short. Protibiae straight; meso- and metatibiae somewhat bent. The lengths of protarsomers 1 to 5 are 9:8:6:6:24, of mesotarsomers 1 to 3 are 17:9:7 (residual mesotarsomers and metatarsomers no longer present in holotype).



**Fig. 10:** *Amarygmus masumotoi* BEJŠAK-COLLORADO-MANSFELD, 2000: **A** Habitus, left side legs of ♂, right side legs of ♀; **B** Body lateral; **C** Head and prothorax; **D** Prosternal apophysis; **E** Antenna; **F** Aedoeagus lateral; **G** Aedoeagus ventral; **H** Aedoeagus dorsal.

***Amarygmus masumotoi* BEJŠAK-COLORADO-MANSFELD, 2000**  
(Fig. 10A-H)

*Amarygmus carbo* KASZAB, 1980: 352-353 [nec *Amarygmus carbo* CARTER, 1913].

*Amarygmus masumotoi* BEJŠAK-COLLORADO-MANSFELD, 2000: 35 [nom. n.] [nec *masumotoi* BREMER, 2001 from Laos]

*Amarygmus merkli* BREMER, 2001a: 71 [nom. n.] [syn. n.].

**Holotype.** NHM, labelled: Ceylon, G. Lewis, 1910-320.

**Paratypes.** dito (5 NHM, 1 MNHP, 3 TTM). – I examined the holotype and all paratypes.

**Diagnosis.** Elongate, ovate, of medium size; upperside black and markedly opaque; on elytra rows of small punctures which, beyond the 4<sup>th</sup> row, are inconstantly connected with indistinct striae; protarsomers 1 to 3 slightly broadened in ♂♂. This is the only elongate Sri Lankan species which is black and dull on the upperside. The punctures of *A. grossepunctatus* KASZAB, 1980 are much bigger than in *masumotoi*.

**Description.** Length: 7.09-7.64 mm. Width: 3.90-4.14 mm.

Ratios. Prothorax: width/length 1.92-2.18; width hind angles/width anterior angles 1.72-1.74. Elytra: length/width 1.55-1.59; length elytra/length prothorax 4.15-4.22; maximum width elytra/maximum width prothorax 1.32-1.36.

Colour: Upperside black, dull because of intensive isodiametric microreticulation. Underside, legs and antennomers 4 to 11 black (1 to 3 dark brown); metasternum shiny.

Head: Frons rather broad, width corresponds approximately to the joint lengths of antennomers 3 + 4.

Elytra: The first three rows usually have rows of unconnected punctures; in the rows 3 to 11 the punctures are mostly connected by indistinct lines. In the 4<sup>th</sup> row approximately 36 punctures.

Antennae: Short, bent backwards overlapping approximately  $\frac{1}{3}$  of elytra. The lengths and width of antennomeres 1 to 11 correspond to 13:8 / 9:6½ / 17:6 / 9:6 / 9:6 / 13:7 / 13:9 / 16:9½ / 16:10 / 17:11 / 16:11 / 22:13.

Legs: Protibiae straight to slightly convex; meso- and metatibiae markedly convex. The lengths of protarsomeres 1 to 5 are 13:9:9:10:35, of mesotarsomeres 1 to 5 are 21:13:12:12:36, of metatarsomeres 1 to 4 are 50:19:13:36, respectively.

**Material.** Sri Lanka, Adams Peak, 6°48'N-80°30'E, sec. for., 1300 m, lgt. Schinmeister & Siniaev (1 SSB, 1 ZSMB) – Ceylon, XII.1881-IV.1882, G. Lewis leg.; Presented from Brit. Mus. Nat. Hist. to M. Chûyô 1981 through E. B. Britton (1 ♂, 1 ♀ CA).

### *Amarygmus pictarsis* (FAIRMAIRE, 1882)

*Cnodalon aeneum* WIEDEMANN, 1821: 154

*Amarygmus aeneus* WIEDEMANN, 1921: LAPORTE DE CASTELNAU 1850, 234 [homonym].

*Dietyus pictarsis* FAIRMAIRE, 1882: 250

*Amarygmus pictarsis*: GEBIEN 1944, 504; [syn.]: BREMER 2001b: 88.

*Amarygmus blaisei* PIC, 1923: 21; [syn.]: BREMER 2001b: 88.

*Amarygmus aeneus* var. *rouyeri* PIC, 1951: 18; [syn.]: BREMER 2001b: 88

*Amarygmus inadai* MASUMOTO et AKITA, 2001: 21-22; [syn.]: BREMER 2005, 58-59.

Redescription, illustration, and annotations on the types of the taxa mentioned above: BREMER 2005, 58-61.

*Amarygmus pictarsis* (FAIRMAIRE, 1882) is a species with a large range of distribution covering, besides Sri Lanka, the Okinawa Islands of Japan, Taiwan, the southern part of Thailand and Vietnam, Peninsular Malaysia, Sumatra and neighbouring islands, Java, Bali, Borneo, and the Small Sunda Islands. Especially on Peninsular Malaysia, Borneo, and Sumatra this species is abundant and found at night on trunks of trees and under dead wood which lies on ground and is covered between soil and wood with a fungiform cover.

**Diagnosis.** Relatively big, compact and convex species; on elytra striae with slightly convex intervals between striae; the basal half of sides of prothorax subparallel; width of frons not very narrow nor wide; in ♂♂ the disc of metasternum is closely punctured and with thin, long, erect hairs; in ♀♀ with few tiny punctures and with extremely short hairs. Cannot be found together with any other species of this genus in Sri Lanka.

**Description.** Length: 7.89-9.31 mm. Width: 4.53-5.08 mm.

Ratios. Prothorax: width/length 1.72-1.83; width hind angles/width anterior angles 1.66-1.75. Elytra: length/width 1.40-1.49; length elytra/length prothorax 3.37-3.83; maximum width elytra /maximum width prothorax 1.38-1.40.

Colour: Most specimens with a shiny and coppery upperside, rarely black; tarsomeres somewhat lighter; underside shiny, black to blackish brown.

Antennae: Bent backwards overlapping nearly half of the elytra. The lengths and widths of antennomeres 1 to 11 are 33:13 / 11:11 / 32:11 / 21:11 / 26:11 / 28:13 / 28:13 / 26:14 / 26:14 / 26:14 / 31:14.

Legs: Protibiae straight; mesotibiae slightly bent; metatibiae slightly bent in their apical halves. Protarsomeres 1 to 3 not broadened in ♂♂. Lengths of protarsomeres 1 to 5 are 11:10:10:9:39, of mesotarsomeres 1 to 5 are 20:14:11:9:39, of metatarsomeres 1 to 4 are 58:17:9:38, respectively.

**Material.** Sri Lanka, N.C.Prov.: Anuradhapura, 19.-21. XII. 1910, A. Luther (1 MZH) - W Prov.: Alawala, 26 mil. NE Colombo, 25 m, 17. I. 1962, (1 LZI) - S. Prov.: Haycock, 21 miles NNE Galle, 50 m, 28. I. 1962 (2 LZI) - Galle Dist., Kanneliya, 22.-24. V. 1975 (3 SIW) – Sri Lanka, Galle Dist., Kanneliya, 22.-24. May 1975, S. I. Wood & J. L. Petty (1 TTM) – Kalutara Dist., Morapitiya near Agalawatta, 13.-14. October 1976 (1 TTM) – Kalutara Dist., Morapitiya near Agalawatta, 13.-14. X. 1976 (3 SIW) - Ceylon: Peradeniya, 14.-18. XII. 1910, A. Luther (3 TTM) – S. Prov., Maycock, 21 miles NNE Galle, 28. I. 62 (1 TTM) – Sri Lanka mer. centr., above Viharahena, Matara Dist., 800-1200 m, 1.-3. 12. 1995, lgt. Bečvář & Kostal (3 SSB, 1 ZSMB) - Ceylon, XII-1881-IV. 1882, G. Lewis leg., Presented from Brit. Mus. Nat. Hist. to M. Chûyô 1981 through E. B. Britton (11 CA).

### *Amarygmus brendelli* - species group

To this group small and middle-sized, markedly convex, ovate species belong which have on their elytra rows of punctures. These punctures are not connected *inter se* by lines or striae. The following species belong to this group: *Amarygmus brendelli* KASZAB, 1980, *A. lucens* KASZAB, 1980, *A. repentinus* **sp. n.**, and *A. standai* **sp. n.**

*A. standai* is somewhat special within this group as its punctures of the rows display a violet bottom and mostly a small violet halo around the punctures.

### *Amarygmus brendelli* KASZAB, 1980

(Fig. 11A-H)

*Amarygmus brendelli* KASZAB, 1980: 357.

**Holotype.** ♂, NHM, labelled: Ceylon, 20.II.1882, G. Lewis.

**Paratypes.** Ceylon, F. Bates (3 NHM). – I examined the holotype and the paratypes.

**Diagnosis.** Small, ovate, markedly convex; frons relatively narrow, fronto-clypeal suture deeply incised in its middle part; elytra with rows of medium-sized punctures, intervals between rows flat, with very small but clearly visible punctures; antennae of medium length; upperside moderately lustrous; pro- and mesotibiae slightly curved, metatibiae clearly bent.

Very similar to *A. lucens* KASZAB, 1980; the differences are mentioned at *A. lucens*. Similar also to *A. lewisi* KASZAB, 1980. This species possesses a markedly broader frons and a narrower prothorax than *A. brendelli*.

**Description.** Length: 3.85-4.36 mm (according to KASZAB 4.8 to 5.0 mm). Width: 2.51-2.94 mm.

Ratios. Prothorax: width/length 2.04-2.05; width hind angles/width anterior angles 1.76-1.83. Elytra: length/width 1.23-1.28; length elytra/length prothorax 3.52-3.73; maximum width elytra/maximum width prothorax 1.36-1.45.

Colour: Upperside in mature specimens black, somewhat shiny; legs and antennae (except tarsi) black (apical part of 11<sup>th</sup> antennomer lighter); tarsi contrast to tibiae by their lighter colour. Underside brown to dark brown, lustrous.

Head: Width of frons not very broad (width compared to length of 3<sup>rd</sup> antennomer like 12:10), with small punctures and very short hairs (visible at 100fold magnification). Genae short and small, somewhat arched. Fronto-clypeal suture markedly incised in its middle part. Clypeus stretched forwards; longitudinally and transversely slightly arched. Mandibles apically bifid.

Prothorax: Broad, transversely convex, less convex longitudinally. Anterior angles rounded, not prominent and invisible from above. Frontal margin slightly excavated. Sides convergent apically, and in the rear half with straight margins. Surface with small and not very dense punctures.

Elytra: With the maximum of height and width shortly in front of middle. With rows of middle-sized punctures which in the first three rows are narrower than in those beyond; on disc in the 4<sup>th</sup> row the punctures having distances between them about thrice their diameters; intervals between rows flat, with fine, not very dense punctures.

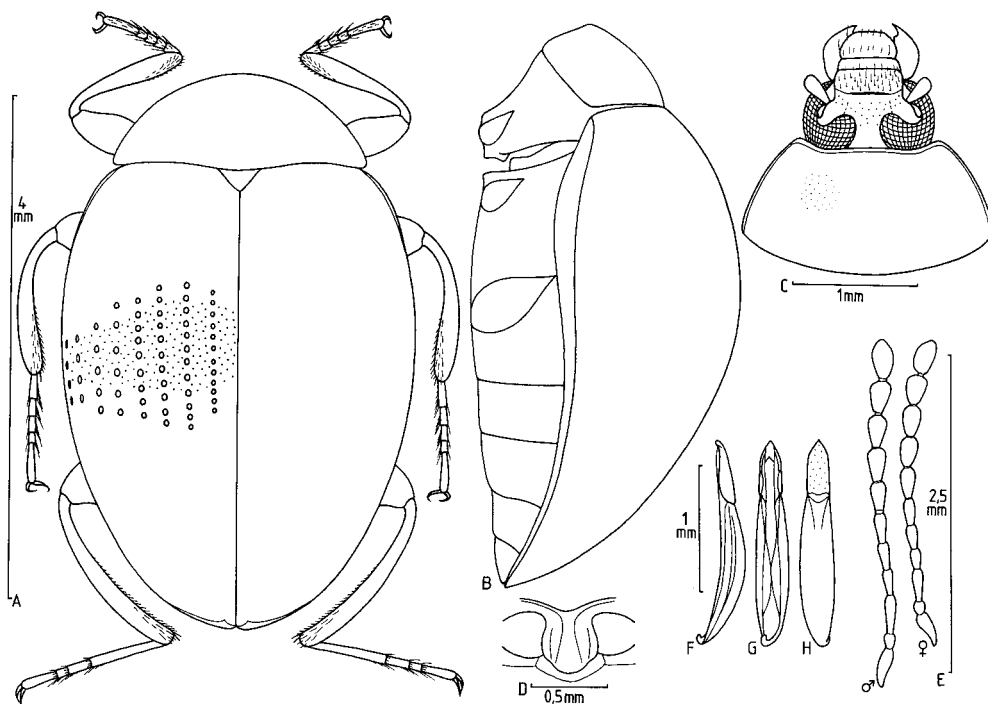
Prosternum: A short keel is projecting into the apophysis. Apophysis relatively flat.

Metasternum: Anterior part of the disc with big, not very deeply dented punctures. Posterior part with very tiny punctures and hairs.

Sternites: The first three sternites nearly impunctate; sternites 4 and 5 with fine punctures.

Antennae: Bent backwards overlapping appr. the first third of elytra. Ratios of length/width of antennomers 1 to 11 are 10:4 / 5:4 / 10:4 / 7:4 / 7:4 / 8:4½ / 10:6 / 10:6½ / 10:6½ / 10:6½ / 13:7.

Legs: Short and relatively slender. Protibiae slightly bent, mesotibiae bent, metatibiae markedly bent. The length of protarsomers 1 to 5 are 3:3:3:3:14, of mesotibiae 1 to 5 are 7:5:4½:4:14, of metatibiae 1 to 4 are 19:9:5½:14, respectively.



**Fig. 11:** *Amarygmus brendelli* KASZAB, 1980: **A** Habitus; **B** Body lateral; **C** Head and prothorax; **D** Prosternal apophysis; **E** Antennae ♂ and ♀; **F** Aedeagus lateral; **G** Aedeagus ventral; **H** Aedeagus dorsal.

**Material.** Sri Lanka, Galle District, Habaraduwa, 20.8.-4.9.1982, H. J. Bremer leg. (1 ♀ ZSMB) – Sri Lanka mer. centr., Matara District, 3 km NW Kotapola, 4.-8.XII.1996, leg. S. Bečvář (7 SSB, 7 ZSMB) – Sri Lanka mer. centr., Ratnapura District, 2 km S. Hayes, 29.-30.11.1995, Bečvář & Kostal (4 SSB, 3 ZSMB).

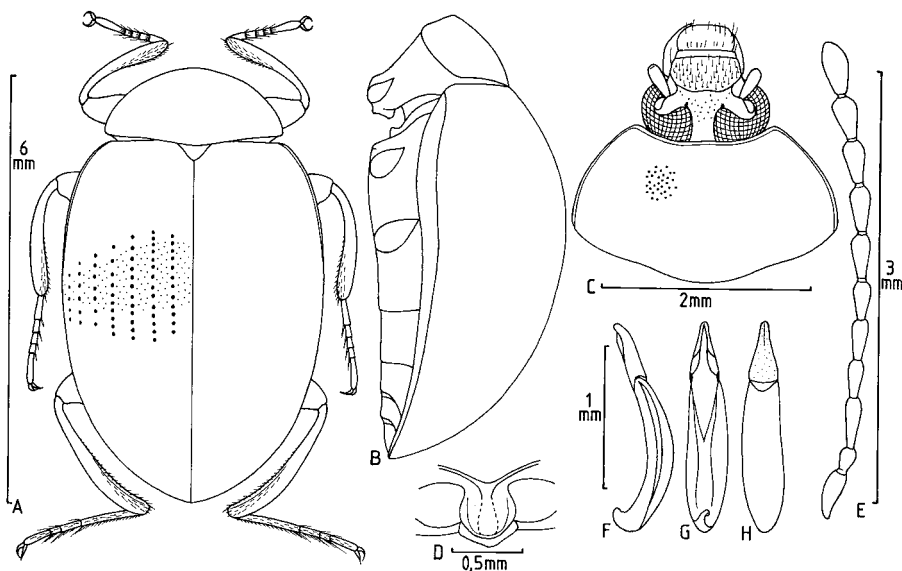
***Amarygmus lucens* KASZAB, 1980**  
(Fig. 12A-H)

*Amarygmus lucens* KASZAB, 1980: 356-357.

**Holotype.** ♂, TTM, labelled: C. Prov.: Nuwara Eliya, 1892, E. Simon. - I examined the holotype.

**Diagnosis.** Small, ovate, markedly convex; frons relatively narrow, fronto-clypeal suture not deeply incised, only weakly impressed; elytra with rows of small to medium-sized punctures, intervals between rows flat, with very small but clearly visible punctures; antennae of medium length; upperside lustrous; pro- and mesotibiae slightly curved, metatibiae clearly bent.

Very similar to *A. lucens* KASZAB with respect to shape, width of frons, length of antennae and punctuation is *A. brendelli* KASZAB, 1980. *A. brendelli* is smaller than *A. lucens* (length 3.85-4.36 mm); the fronto-clypeal suture of *A. brendelli* is in its middle part deeply incised (not incised in *A. lucens*), the femora and tibiae of *A. brendelli* are dark brown or black, and the tarsi contrast to them by its light brown colour (in *A. lucens* more or less light brown, and the tarsi do not differ to them by colour). In contrast to KASZAB's statement in 1980 the size of the punctures in the rows of the elytra and the punctuation of the intervals between the rows is not constantly different from *A. brendelli*.



**Fig. 12:** *Amarygmus lucens* KASZAB, 1980: **A** Habitus; **B** Body lateral; **C** Head and prothorax; **D** Prosternal apophysis; **E** Antenna; **F** Aedeagus lateral; **G** Aedeagus ventral; **H** Aedeagus dorsal.

Similar also to *A. repentinus* **sp. n.** which is somewhat bigger (length 5.89-6.29 mm); head and prothorax possess an isodiametric microsculpture in *A. repentinus* but not so in *A. lucens*; prothorax of *A. repentinus* is shorter than that of *A. lucens*; punctures in the rows of elytra of *A. repentinus* are bigger than that of *A. lucens*, and the legs of *A. repentinus* are black, of *A. lucens* brown.

**Description.** Length: 5.04-5.88 mm. Width: 3.04-3.49 mm.

Ratios. Prothorax: width/length 1.89-2.00; width hind angles/width anterior angles 1.67-1.85. Elytra: length/width 1.28-1.30; length elytra/length prothorax 3.56-3.72; maximum width elytra/ maximum width prothorax 1.39-1.50.

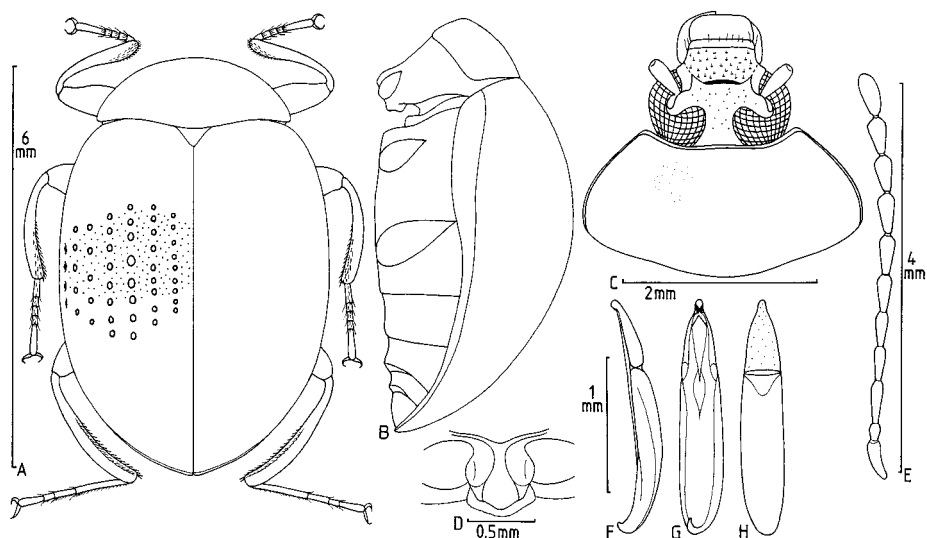
Colour: Upper side dark brown, lustrous; underside brown, slightly shiny; femora lighter brown than underside; other parts of legs and antennae brown.

Head: Frontal space between eyes corresponds appr. to the length of the 4<sup>th</sup> antennomer.

Antennae: Bent backwards the antennae are overlapping the first third of elytra. Antennae have the same length in both sexes. Ratios of length/width of antennomers 1 to 11 are 15:7 / 7:6 / 16:6 / 12:6 / 13:7 / 13:7 / 15:8 / 16:8 / 16:8 / 15:8 / 20:8.

Legs: Short. Protibiae slightly bent, meso- and metatibiae increasingly bent. Protarsomers in ♂♂ not broadened, The lengths of protarsomers 1 to 11 are 9:7:5:5:20, of mesotarsomers 1 to 5 are 16:10:8:6:22, of metatarsomers 1 to 4 are 35:14:7:21, respectively.

**Material.** Sri Lanka mer. cent., 27. 11. 1995, Haputale, Badula District, lgt. Bečvár & Kostal (12 SSB, 7 ZSMB) – Wadduwa, Ceylon, 2de. trim. 89, I. Z. Kannegieter (1 MNHP) – Ceylon, XII.1881-IV-1882, G. Lewis leg., Brit.Mus. Nat. Hist to M. Chûjô 1981 through E. B. Britain (2 CA).



**Fig. 13:** *Amarygmus repentinus* sp. n.: **A** Habitus; **B** Body lateral; **C** Head and prothorax; **D** Prosternal apophysis; **E** Antenna; **F** Aedeagus lateral; **G** Aedeagus ventral; **H** Aedeagus dorsal.

*Amarygmus repentinus* sp. n.

(Fig. 13A-H)

**Holotype.** ♂, NHMP: Sri Lanka mer. centr., Matara District, above Viharahena, 800-1200 m, 1.-3.XII.1995, leg. Bečvář & Kostal.

**Paratypes.** dito (1 ♂, 3 ♀ SSB; 1 ♂, 2 ♀ ZSMB) – Sri Lanka mer. centr., 28.11.1995, Rakwana district, lgt. Bečvář & Kostal (1 ♂, 1 ♀ SSB, 1 ♀ ZSMB).

**Diagnosis.** Short, ovate, highly convex; upper surface dark coppery, elytra lustrous, prothorax opaque; elytra with rows of punctures of medium size, intervals with fine but well visible punctures.

With respect to the differences of *A. repentinus* sp. n. and the similar *A. lucens* KASZAB: see *A. lucens*.

Similar also to *A. tonkineus* PIC, 1922 and *A. maunieri* PIC, 1924 which occur from northern Vietnam to northern Thailand, but these species possess in ♂♂ apically on the inside of mesotibiae an area thick of hairs.

**Description.** Length: 5.89-6.29 mm. Width: 3.62-3.98 mm.

Ratios. Prothorax: width/length 2.03-2.11; width hind angles/width anterior angles 1.76-1.79. Elytra: length/width 1.30-1.37; length elytra/length prothorax 3.71-3.79; maximum width elytra/ maximum width prothorax 1.34-1.36.

Colour: Head and prothorax with isodiametric microsculpture. Elytra lustrous. Upperside darkly copper-coloured. Underside brown. Legs black, tarsi dark brown. Antennae dark brown to black.

Head: Frontal space between eyes moderately broad, width corresponds to length of the 4<sup>th</sup> anten-nomer, with fine, sparse punctures. Genae short, slightly raised. Fronto-clypeal suture in its middle deeply incised. Clypeus apically stretched forwards, broad, longitudinally arched, transversely slightly arched; punctures on clypeus somewhat bigger those on frons. Mentum dilated forwards, with lustrous, plane sides, in between slightly arched. Mandibles apically bifid.

Prothorax: Transversely convex, longitudinally less convex. Sides bent, converging apically; anterior angles rectangular, posterior angles broadly rounded, obtuse. Anterior margin somewhat concave. Sides and anterior margin bordered. In dorsal view the borders of the sides are visible but very narrow. On the whole surface with tiny, evanescent punctures.

Scutellum: Triangular; with few very tiny punctures.

Elytra: Ovate, slightly elongate; transversely markedly convex, longitudinally convex; maximum of width and height shortly in front of middle; shoulders somewhat accentuated; in dorsal view lateral edges invisible; ends of each elytron not stretched backwards. On the surface rows of round, medium-sized punctures which in the 4<sup>th</sup> row have distances between them corresponding twice to thrice of their diameters, approximately 22 to 24 punctures in the 4<sup>th</sup> row; intervals plane, with fine but distinct punctures which are also present between the punctures of the rows.

Prosternum: Reflexed at anterior margin, interrupted in the middle where a short keel is slightly produced into the apophysis. Prosternal apophysis broad, somewhat stretched backwards beyond coxae; sides slightly raised and with a shallow groove in between, apically round; with thin hairs..

Mesosternum: Hind part broad, frontal margin of the hind part medianly roundly excavated.

Metasternum: Anterior third with big and dense punctures, posterior two third with tiny and sparse punctures; punctures with short, thin hairs.

Sternites: With slight isodiametric microsculpture, nearly impunctate.

Antennae: Long, bent backwards surpassing the middle of elytra. Ratios of length/width of antennomers 1 to 11 are 20:8 / 9:6 / 21:6 / 15:6½ / 18:6½ / 17:6½ / 20:7½ / 20:8½ / 19:8½ / 18:8½ / 22:9.

Legs: Of medium size and thin. Femora gradually broadened near middle and narrowed near apex. Protibiae very slightly bent; mesotibiae slightly bent; metatibiae clearly bent. Protarsomers in ♂♂ not broadened. Length of protarsomers 1-5 are 6:6:6:5:22, of mesotarsomers 1-5 are 13:7:6:5:21, of metatarsomers 1-4 are 35:12:6:22, respectively.

**Etymology.** repertinus (lat.) unexpected.

***Amarygmus standai* sp. n.**

(Fig. 14A-E)

**Holotype.** ♀, NHMP: Sri Lanka mer. centr., 29.-30.11.1995, 2 km S Hayes, Ratnapura district, lgt. Bečvář & Kostal.

**Paratypes.** dito (1 ♀ ZSMB) - Sri Lanka mer. centr., Matara Distr., 4.-8.XII.1995, 3 km NW Kotapola, lgt. S. Bečvář (1 ♀ SSB).

**Diagnosis.** Of medium size, ovate, somewhat elongate; upperside opaque, copper-coloured, with rows of relatively big punctures on elytra which have a violet bottom and a small violet halo.

In Sri Lanka there is no other species with violet punctures on elytra. In South India, however, there is another species of nearly the same size with violet punctures, *A. dravidianus* BREMER, 2005, which has in contrast to *standai* coloured stripes on elytra, its frons is narrower, the intervals between the rows of elytra have a fine, but well visible puncturation, and the antennae are more slender.

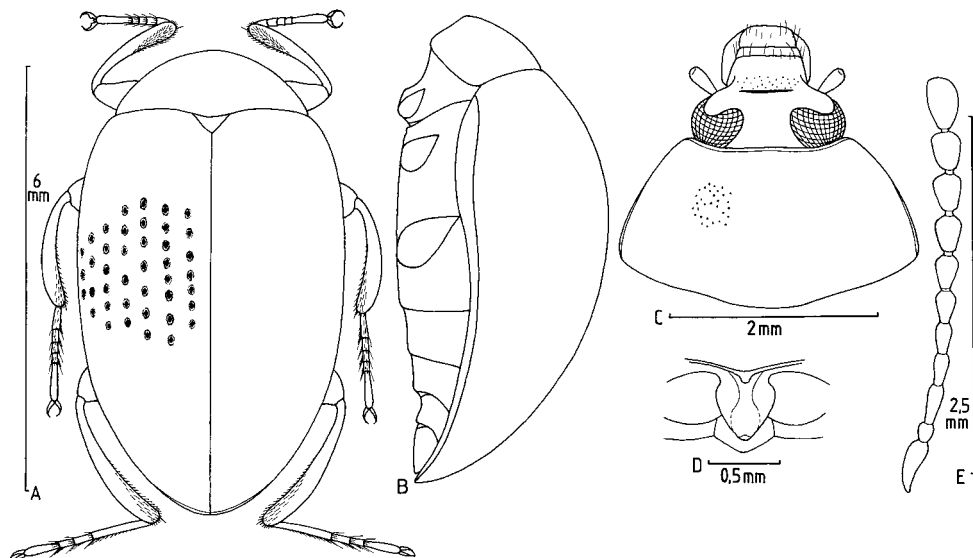
**Description.** Length: 6.13-6.21 mm. Width: 3.58-3.74 mm.

Ratios. Prothorax: width/length 2.03-2.09; width hind angles/width anterior angles 1.81-1.83. Elytra: length/width 1.45-1.51; length elytra/length prothorax 3.89-4.00; maximum width elytra/maximum width prothorax 1.29-1.30.

Colour: Upperside coppery, bottom of the punctures of the rows on elytra faintly violet with a small and faint violet halo around these punctures; the elytra always markedly opaque, the prothorax in 2 specimens equally opaque, in 1 specimen somewhat shiny; underside brown, metasternum lustrous, sternites opaque. Legs dark brown, protarsomers lighter brown. Antennomers 1-6 light to dark brown, 7 to 11 dark brown (apical part of 11<sup>th</sup> antennomer lighter brown).

Head: Frontal space between eyes moderately wide; width corresponds appr. to joint lengths of the 3<sup>rd</sup> and 4<sup>th</sup> antennomers. Genae rounded, ending markedly in front of the middle part of the fronto-clypeal suture; they are slightly raised. Fronto-clypeal suture in its medium part deeply incised; in its lateral parts barely visible. Clypeus transversely and longitudinally slightly arched. Upperside with marked isodiametric microsculpture, clypeus with evanescent medium-sized punctures, frons impunctate. Mentum dilated forwards, sides straight and with flat margins, in between the flat borders somewhat convex. Mandibles apically bifid.





**Fig. 14:** *Amarygmus standai* sp. n.: **A** Habitus; **B** Body lateral; **C** Head and prothorax; **D** Prosternal apophysis; **E** Antenna.

**Prothorax:** Transversely markedly convex, longitudinally slightly convex. Sides convergent apically, slightly bent. Anterior margin somewhat excavated. Anterior angles rounded. Hind angles rectangular. Sides and anterior margin continuously bordered. In dorsal view the borders of the sides are visible only in the hind two third. At sidelong glance the anterior angles are appr. rectangular, the hind angles obtuse. Surface with a small, irregular, relatively dense puncturation.

**Scutellum:** Triangular; with some tiny punctures.

**Elytra:** Elongate, ovate; strongly convex transversely; also longitudinally convex; maximum of height and width at the end of the first third; shoulders slightly accentuated; apices of elytra commonly rounded; in dorsal view lateral edges visible only at the apex. On the elytra rows of medium-sized punctures; on disc in the 4<sup>th</sup> row the distances between punctures correspond about to 2 to 3 times their diameters; intervals between rows flat; puncturation sparse, tiny.

**Prosternum:** Laterally reflexed at anterior margin; in the middle a small keel is emerging from the anterior edge and is projecting into the apophysis. Apophysis relatively narrow; apically accentuated by an acute angle.

**Mesosternum:** Frontal margin of the hint part excavated in the middle; with a shallow groove on each side.

**Metasternum:** The anterior part of metasternum with coarse, dense punctures, the posterior part nearly impunctate. Medium line neither impressed nor incised.

**Sternites:** Opaque, nearly impunctate.

**Antennae:** Relatively short; bent backwards overlapping the first third of elytra. Ratios of length/width of antennomers 1 to 11 are 13:7 / 8:5½ / 13:5½ / 9:6 / 9½:6 / 11:7 / 12:9 / 13:9 / 13:9½ / 13:9½ / 20:10.

**Legs:** Relatively short. Femora club-like broadened with the maximum width within the second third. Protibiae slightly bent; mesotibiae and metatibiae gradually more bent than protibiae. Length of protarsomers 1 to 5 are 7:7:7:7:26, of mesotarsomers 1 to 5 are 15:9:7:7:27, of metatarsomers 1 to 4 are 35:14:10:27, respectively.

**Etymology.** Dedicated to STANISLAV („Standa“) BEČVÁR in honouring the mutual friendly cooperation over years.

*Amarygmus tenuicornis* - species group

This group comprises tiny to small, ovate species, which are relative short and markedly convex. On the elytra there are rows of punctures. The width of the frons is of medium size or is markedly broad. Besides *A. tenuicornis* the following species are grouped here: *A. hayekae* KASZAB, 1980, *A. lewisi* KASZAB, 1980, *A. simoni* KASZAB, 1980, and *A. silvicola* KASZAB, 1980. Of these species *A. tenuicornis* MOTSCHULSKY and *A. hayekae* KASZAB display in the rows of elytra small punctures, and *A. lewisi* KASZAB, *A. simoni* KASZAB and *A. silvicola* KASZAB display medium-sized punctures.

*A. tenuicornis* MOTSCHULSKY cannot be identified by MOTSCHULSKY's description only. A redescription therefore becomes necessary. KASZAB (1979, 114) reports that he had examined the syntypes in Moscow, and he determined a specimen of the collection of the Hungarian National History Museum as *A. tenuicornis* after studying the types. Because I saw KASZAB's specimen, and I was studying further specimens of this taxon, I can issue a redescription and an illustration.

*Amarygmus tenuicornis* MOTSCHULSKY, 1863

(Fig. 15A-E)

*Amarygmus tenuicornis* MOTSCHULSKY, 1863: 473.

**Types.** The syntypes of *A. tenuicornis* MOTSCHULSKY are from the Central Prov., Nuwara-Eliya. - *A. tenuicornis* MOTSCHULSKY possesses small punctures in rows on the elytra as *A. hayekae* KASZAB does; the elytra of *tenuicornis* are more elongate than those of *hayekae*; the underside of *tenuicornis* is similar to that of *hayekae* but in *hayekae* the prosternal apophysis is lacking the narrow keel originating in the middle from the frontal edge which is present in *tenuicornis*.

**Redescription.** Length 4.55-4.63 mm. Width: 2.76-2.89 mm.

Ratios. Prothorax: width/length 1.94-2.22; width hind angles/width anterior angles 1.60-1.70. Elytra: length/width 1.35-1.45; length elytra/length prothorax 4.48; maximum width elytra/maximum width prothorax 1.39-1.45.

Colour: Upperside and underside brown, slightly lustrous. Tibiae brown, tarsi light brown. Antennomers 1-5 brown, 6-10 black.

Head: Frons relatively broad, slightly broader than the sum of the lengths of the 3<sup>rd</sup> and 4<sup>th</sup> antennomeres (like 19:16); very little and finely punctured. Genae small, faintly raised. Clypeus apically stretched forwards; alike the frons very faintly punctured. Mentum apically divergent, with slightly bowed and plain sides; in between transversely convex and dull. Mandibles apically bifid.

Prothorax: Transversely markedly convex, longitudinally weakly convex. Sides convergent apically and bent. Anterior margin slightly concave. Anterior angles narrowly round. Sides and anterior margin continuously bordered. In dorsal view the borders of the sides are visible only in their posterior halves. At sidelong glance the anterior angles are rectangular, the angular posterior angles obtuse. Surface with very tiny, sparse punctures.

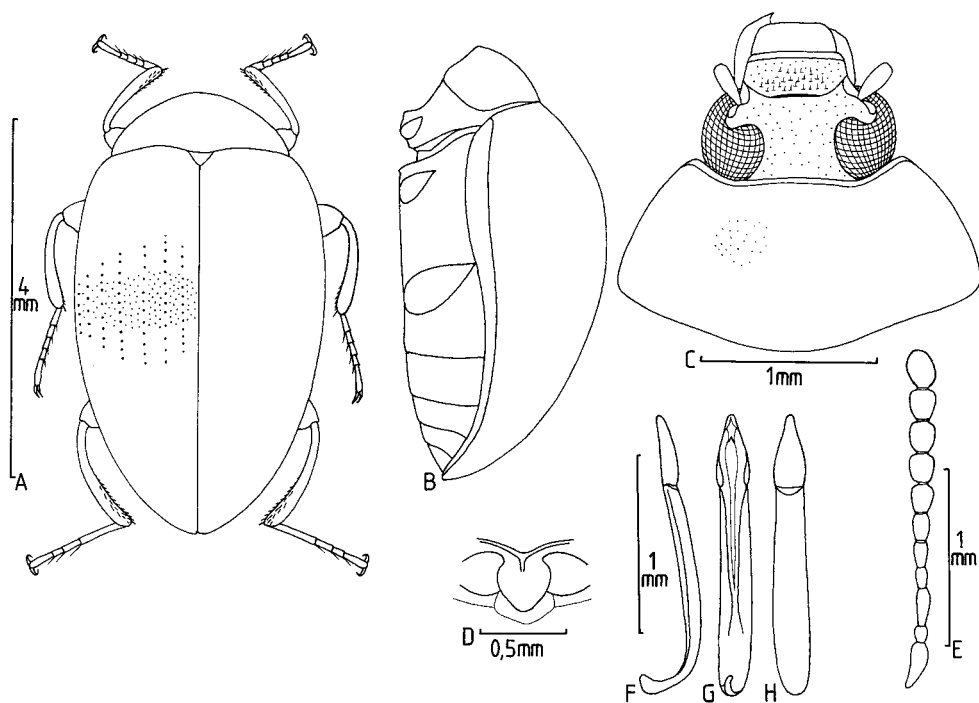
Scutellum: Triangular, with few tiny punctures.

Elytra: Oblong-ovate; markedly convex at the end of the first third, posteriorly the convexity is decreasing. Shoulders slightly accentuated. In dorsal view lateral edges not visible. On their surface rows of small punctures, not very clearly accentuated, having distances between them in their 4<sup>th</sup> rows corresponding 1½ to 2 times their diameters; in the 4<sup>th</sup> row about 28 punctures. Intervals plain; finely and distinctly punctured.

Prosternum: Anterior margin reflexed, from its middle a small keel is stretched to the middle of the apophysis. Apophysis ovate; sides beside the procoxae slightly raised, in between a shallow and broad groove.

Metasternum: On its anterior third with small, sparse punctures; behind it with sparse, fine punctures. The median line neither incised nor depressed.

Sternites: Abdominal segments with tiny, sparse punctures.



**Fig. 15:** *Amarygmus tenuicornis* MOTSCHULSKY, 1863: **A** Habitus; **B** Body lateral; **C** Head and prothorax; **E** Fühlerrest; **D** Prosternal apophysis.

Antenna: Short, overlapping with their 10<sup>th</sup> antennomers the posterior margin of prothorax. Ratios of length/width of antennomers 1 to 11 are 9:4½ / 6:4 / 10:4 / 6:4½ / 7:5 / 8:6½ / 8:6½ / 9½:7 / 9:7 / 9:7, respectively.

Legs: Short. Protibiae slightly bent. Metatibiae markedly bent. Length of protarsomers 1 to 5 are 5:4:4:4:15, of metatarsomers 1 to 4 are 23:10:6:16.

**Material.** Halupahani, Haldummule, Ceylon (1 ♀ TTM) – Ceylon, XII.1881-IV.1882, G. Lewis, Presented from Brit. Mus. Nat. Hist. to M. Chuyo 1981, through E. B. Britton (5 CA, 1 ♂ ZSMB).

*Amarygmus hayekae* KASZAB, 1980  
(Fig. 16A-H)

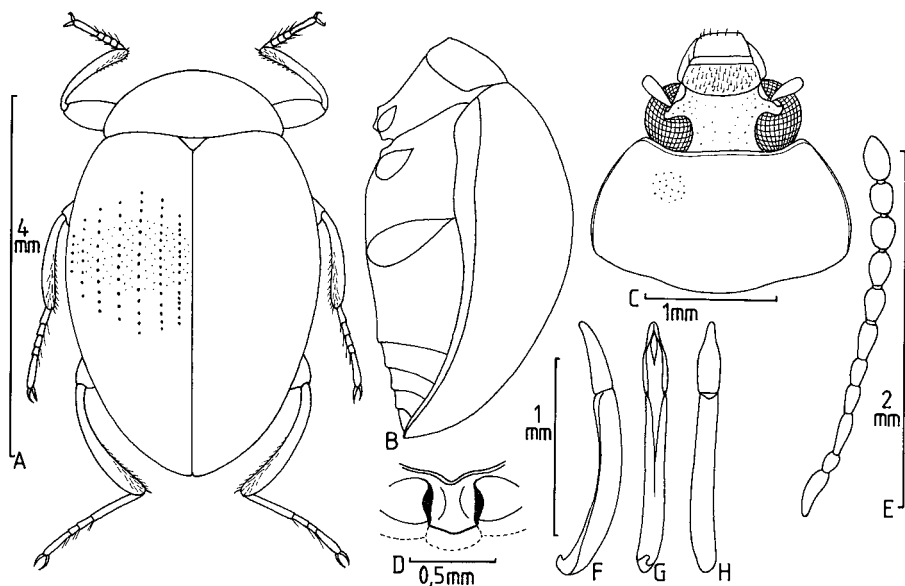
*Amarygmus hayekae* KASZAB, 1980: 358-359.

**Holotype.** ♂, NHM: Ceylon, G. Lewis 1910-320.

**Paratypes.** dito (2 NHM, one of them an immature ♂). – I checked all types.

**Diagnosis.** Small, ovate, elytra markedly convex, with the maximum height and width just in front of the middle, with rows of small punctures (about 28 in the 4<sup>th</sup> row), plain intervals with tiny punctures. Frons very broad corresponding to the sum of the 2<sup>nd</sup> to the 4<sup>th</sup> antennomers. On the anterior half of metasternum only indistinct, shallow and small punctures. Antennae relatively short.

*A. hayekae* is one of the small, ovate species with rows of punctures on elytra and with broad frons. The punctures of the rows are smaller than those in most other species except *A. tenuicornis* MOTSCHULSKY, 1863.



**Fig. 16:** *Amarygmus hayekae* KASZAB, 1980: **A** Habitus; **B** Body lateral; **C** Head and prothorax; **D** Prosternal apophysis; **E** Antenna; **F** Aedeagus lateral; **G** Aedeagus ventral; **H** Aedeagus dorsal.

*A. tenuicornis* differs from *A. hayekae* by longer elytra and by a somewhat narrower frons; additionally by slightly bigger punctures on prothorax.

**Description.** Length: 4.09-4.79 mm. Width: 2.68-3.22 mm.

Ratios. Prothorax: width/length 2.00-2.08; width hind angles/width anterior angles 1.61-1.67. Elytra: length/width 1.24-1.34; length elytra/length prothorax 3.43-3.93; maximum width elytra /maximum width prothorax 1.38-1.42.

Colour: Upperside black, slightly lustrous, with weak isodiametric microsculpture. Legs more or less light brown; antennomers 1 to 7 brown, 8 to 11 black, resp., antennomer 11 with its basic third black, the apical two-third lighter. Tarsomers light brown.

Antennae: Length and width of antennomers 1 to 11 correspond to 12:4 / 7:4 / 12:3½ / 8:3½ / 8:4½ / 8:5 / 8:6 / 9:6½ / 8:6½ / 8:6½ / 12:6½.

Legs: Short. Protibiae slightly bent; mesotibiae more bent, metatibiae markedly bent. Lengths of protarsomers 1 to 5 are 5:4:4:3½:16, of mesotarsomers 1 to 5 are 8:6:5½:5:17, of metatarsomers 1-4 are 24:10:5:17, respectively.

**Material.** Sri Lanka mer. centr., Matara District, above Viharahena, 800-1200 m, 1.-3.XII.1995, leg. Bečvář & Kostal (1 ♀ SSB, 1 ♀ ZSMB).

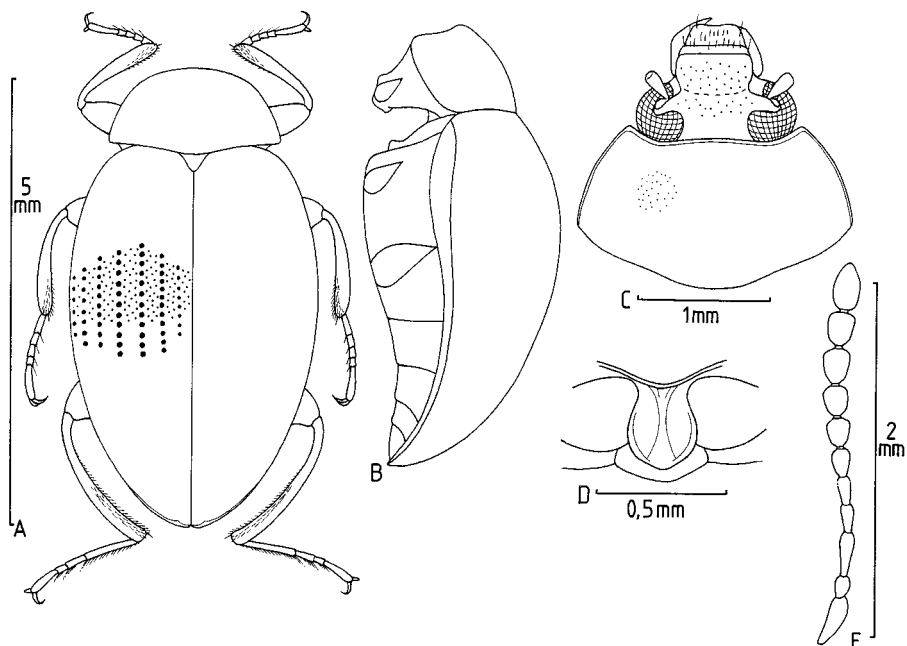
### *Amarygmus silvicola* KASZAB, 1980

(Fig. 17A-E)

*Amarygmus silvicola* KASZAB, 1980: 355-356.

**Holotype.** ♀, TTM, labelled: Nuwara Eliya, 1892, E. Simon.

In TTM there are additionally 2 paratypes of which I could not examine the gender by genitalia preparation; they are labeled: Horton Plains, 11 mi. SSE Nuwara Eliya, 19.-20.III.1962, Loc. 162, B. A. & C. The thickness of hairs on the soles of protarsomers make it probable that they are females – Pidurutagala,



**Fig. 17:** *Amarygmus silvicola* KASZAB, 1980: **A** Habitus ♀; **B** Body lateral; **C** Head and prothorax; **D** Prosternal apophysis; **E** Antenna.

2 mi. NW Nuwara Eliya, 4.III.1962, Loc. 116, B. A. & C. (2 LZI). – I examined the holotype and the two paratypes of the TTM.

**Diagnosis.** Small, ovate; elytra convex; with the maximum of height and width in the middle; on elytra with rows of medium-sized punctures which on disc have distances between each others corresponding to their diameter, plain intervals with small but distinct punctures; frons very broad (width corresponds to the joint lengths of antennomers 2 to 4); head and prothorax black, opaque, elytra brown, slightly shining. The first metatarsomer is relatively long.

The elytra are markedly longer than KASZAB described (according to KASZAB length to width 1.20:1, my measurements: 1.36-1.46:1). They are similarly long as the elytra of *A. lewisi* KASZAB, 1980 and *A. hayekae* KASZAB, 1980. According to KASZAB the punctures of the intervals between the rows on elytra should be scarcely visible; I found them small but distinct. According to KASZAB the upperside is dark to light brown with a weak metallic shine; I found head and prothorax black, elytra brown. - Characteristically *silvicola* possesses a relatively long 1<sup>st</sup> metatarsomer.

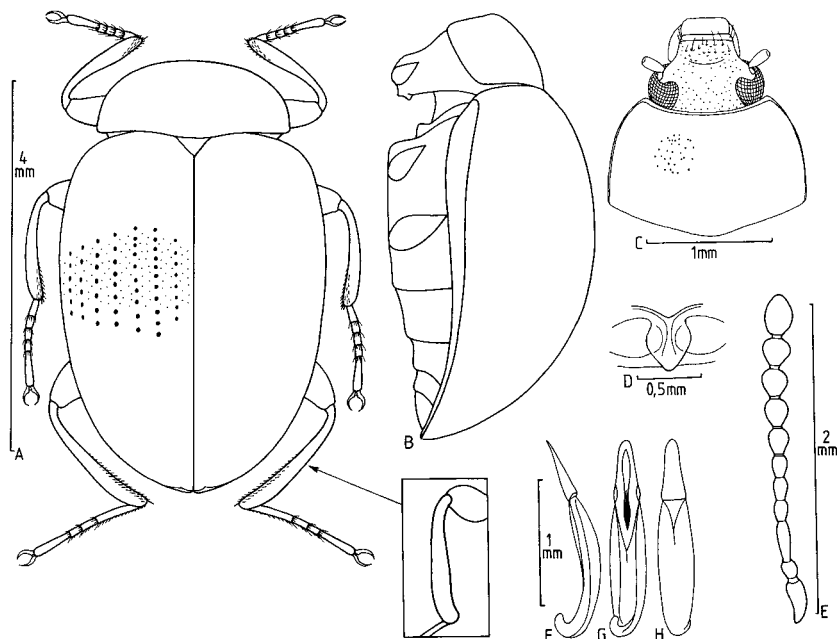
**Description.** Length: 4.55-4.79 mm. Width: 2.68-2.84 mm.

Ratios: Prothorax: width/length 1.77-1.86; width hind angles/width anterior angles 1.51-1.60. Elytra: length/width 1.36-1.46; length elytra/length prothorax 3.50-3.63; maximum width elytra /maximum width prothorax 1.38-1.39.

Colour: Prothorax black, opaque; elytra brown, slightly shiny; legs and antennae brown. Underside brown.

Antennae: Thin; short, bent backwards overlapping the first third of elytra. Length to width of antennomers 1 to 11 corresponds to 10:4 / 7:4 / 12:4 / 7:4 / 7½:4½ / 8½:5 / 8½:5½ / 9:6 / 8½:6½ / 8:6½ / 12:7.

Legs: Short; protibiae on their outside slightly bent, on their inside nearly straight; mesotibiae slightly compress and bent; metatibiae markedly bent. The lengths of protarsomers 1 to 5 are 4:4:4:4:16, those of mesotarsomers 1 to 5 are 9:7:7:5:17, those of metatarsomers 1-4 are 28:9:6:19 (ratio of 1<sup>st</sup> metatarsomer/sum of metatarsomers 2 to 4 = 0.82:1).



**Fig. 18:** *Amarygmus lewisi* KASZAB, 1980: **A** Habitus with a cutting of metatibiae in dorsal view; **B** Body lateral; **C** Head and prothorax; **D** Prosternal apophysis; **E** Antenna; **F** Aedeagus lateral; **G** Aedeagus ventral; **H** Aedeagus dorsal.

***Amarygmus lewisi* KASZAB, 1980**  
(Fig. 18A-H)

*Amarygmus lewisi* KASZAB, 1980: 359-360.

*Amarygmus politicollis* KASZAB, 1980: 360-361 [**syn. n.**].

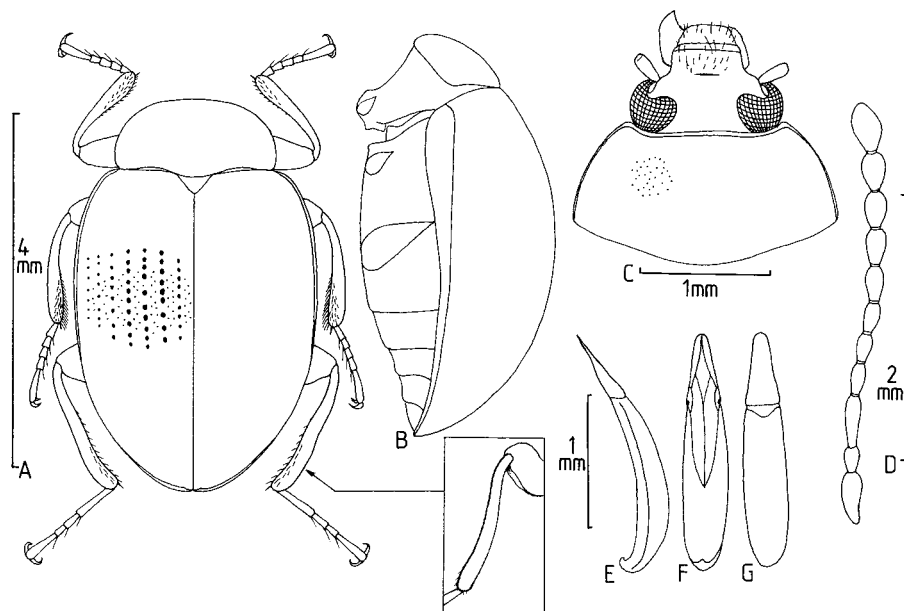
**Holotype.** of *Amarygmus lewisi* KASZAB, ♂, NHM, labelled: Ceylon, G. Lewis, 1910-320;

**Paratype.** dito (4 NHM) - N' Eliya, Ceylon, 29-IV-14, Ex Coll. Colombo Mus., B.M.1924-221 (1 ♂ TTM).

**Holotype.** of *Amarygmus politicollis* KASZAB, gender not examined, NHM, labelled: Ceylon, G. Lewis 1910-320;

**Paratype.** Ceylon, G. Lewis, 1910-320 (1 ♀ TTM). – I examined all type specimens.

**Diagnosis.** Small. Elytra markedly convex; with the maximum of height and width in some specimens at the end of the first third, in other ones near the middle, with rows of punctures of medium size, they have some distances between each others; intervals between rows distinctly but scarcely punctuate. Frons very broad; width corresponds to the length of the sum of the 3<sup>rd</sup> and 4<sup>th</sup> antennomeres. Prothorax slightly arched, in some specimens in its posterior half with subparallel margins, in other ones the whole margins are bent; anterior margin markedly excavated; prothorax in some specimens scarcely and finely punctuated, in other specimens the punctures are bigger and not scarce. Head and prothorax in some specimens darker than elytra, in other specimens of the same colour. 1<sup>st</sup> metatarsomer relative short. - In my view this is a rather variable species with respect of punctuation of prothorax, elytra and the form of the sides of prothorax and of elytra. After examining the types of both species and other specimens I do consider both species as synonyms because the less marked punctuation of prothorax, which according to KASZAB is the main difference between *A. lewisi* and *A. politicollis*, is within the variability which can be found in different specimens from the same location.



**Fig. 19:** *Amarygmus simoni* KASZAB, 1980: **A** Habitus ♂ with a cutting of metatibia in dorsal view; **B** Body lateral; **C** Head and prothorax; **D** Antenna; **E** Aedeagus lateral; **F** Aedeagus ventral; **G** Aedeagus dorsal.

Very similar to *A. simoni* KASZAB, 1980 which has deviate metatibiae (see *A. simoni*).

**Description.** Length: 3.77-4.44 mm. Width: 2.45-2.92 mm.

Ratios. Prothorax: width/length 1.84-2.03; width hind angles/width anterior angles 1.57-1.71. Elytra: length/width 1.27-1.39; length elytra/length prothorax 3.58-4.00; maximum width elytra/maximum width prothorax 1.46-1.54

Antennae: In ♂♂ somewhat longer than in ♀♀. Lengths to width of antennomers 1 to 11 correspond in a ♂ to 8:5 / 7:4 / 12:4 / 8:4 / 6:4 / 6½:5 / 8:5½ / 9:7 / 9:7 / 9:7 / 13:7½, in a ♀ to 8:5 / 6:4 / 11½:4 / 8:4 / 6:4 / 6½:5 / 7:6 / 8:7 / 8:7 / 7½:7 / 13:8.

Legs: Short. Protibiae on their outside approximately straight, on their inside in ♂♂ somewhat broadened and with a small field thick of hairs. Mesotibiae towards apices thicker, bent, in ♂♂ apically alike protibiae with a small area thick of hairs. Metatibiae slightly bent. Lengths of metatarsomers 1 to 4 are 20:8:7:18 (ratio of metatarsomer 1/sum of metatarsomers 2 to 4 = 0.61:1).

**Material.** Ceylon, XII-1881-IV.1882, G. Lewis leg., Presented from Brit. Mus. Nat. Hist. to M. Chûyô 1981 through E. B. Britton (4 CA, 2 ZSMB).

### *Amarygmus simoni* KASZAB, 1980

(Fig. 19A-G)

*Amarygmus simoni* KASZAB, 1980: 361-362.

**Holotype.** ♂, TTM, labelled: Nuwara Eliya, 1892, E. Simon. – Only the holotype known. I examined it.

**Diagnosis.** Small (length 4.4 mm), markedly convex. With a very broad frons which, compared with antennomers, is broader than the joint lengths of the 3<sup>rd</sup> and the 4<sup>th</sup> antennomers. Upperside brown, prothorax a little darker than elytra and with a weak metallic gleam; legs lighter brown than the upperside. Elytra with rows of medium-sized punctures which are not connected to each other, intervals

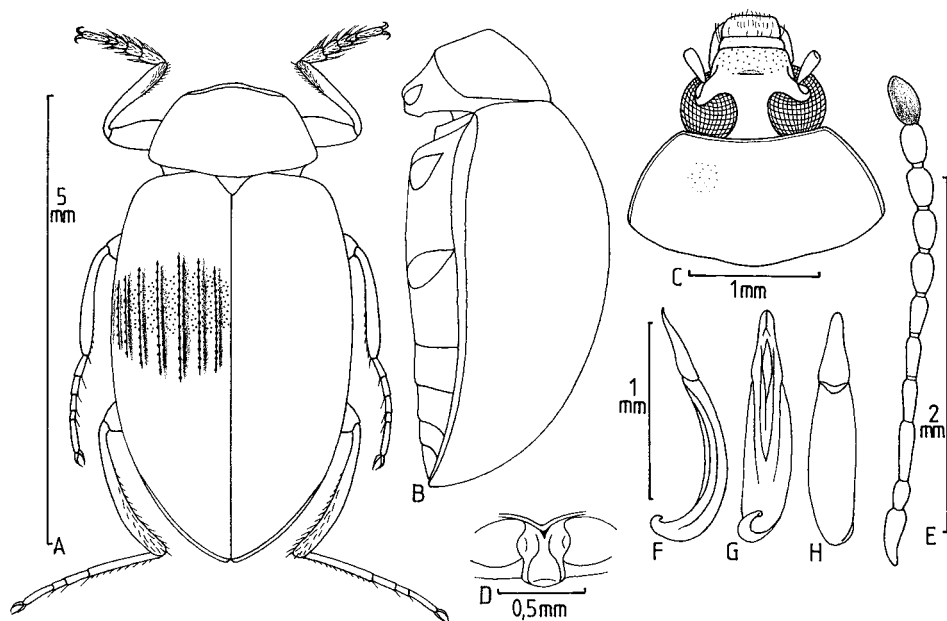


Fig. 20: *Amarygmus hospes* (KASZAB, 1980): A Habitus ♂; B Body lateral; C Head and prothorax; D Prosternal apophysis; E Antenna, 11<sup>th</sup> antennomer yellow; F Aedeagus lateral; G Aedeagus ventral; H Aedeagus dorsal.

between rows plain, with fine, well visible punctures. – This small and inconspicuous species is characterized by the form of the metatibiae. – Similar to *A. lewisi* KASZAB, 1980, which has differently curved metatibiae; see Figs 18A and 19A. – I cannot exclude that the special form of metatibiae is only caused by a malformation. If this is true then *A. simoni* is a synonym of *A. lewisi*.

**Description.** Antennae: Length and width of antennomers 1 to 11 correspond to 10:6 / 6:5 / 15:5 / 9:5 / 9:5 / 9:5 / 10:5 / 10:7 / 10:7 / 10:8 / 15:10.

Legs: Short. Protibiae nearly straight, towards the apex at their inside somewhat broadened (certainly only in ♂♂); mesotibiae bent, on their inside apically with a field thick of long hairs (certainly only in ♂♂); metatibiae at lateral view slightly concave in the middle, at dorsal view somewhat curved. Lengths of metatarsomers 1 to 4 are 20:9:7:18 (ratio metatarsomer 1/sum of metatarsomers 2 to 4 = 0.59:1).

#### *Amarygmus hospes* (KASZAB, 1980)

This elongate species is small but differs from the group dealt before by possessing a yellow 11<sup>th</sup> antennomer and by broadening of protarsomers 1 to 3 in ♂♂. *A. hospes* is related to *A. elisabethae* BREMER, 2003 from southern India which also possesses an elongate shape, striae on elytra and a yellowish 11<sup>th</sup> antennomer. But *A. elisabethae* is much bigger than *A. hospes* (length: 7.60-8.53 mm). Another related but also much bigger species is *A. taprobanus* sp. n.

#### *Amarygmus hospes* (KASZAB, 1980) (Fig. 20A-H)

*Platolenes hospes* KASZAB, 1980: 348.

*Amarygmus hospes* (KASZAB, 1980): BREMER 2001a, 57.

**Holotype.** ♂, NHM, labelled: Ceylon, G. Lewis 1910-230; 3/2/87; *Platolenes hospes* KASZAB.



**Paratypes.** dito (1 ♀ NHM) – dito (1 ♀ TTM). – I examined all type specimens.

**Diagnosis.** Small; elongate ovate; elytra with striae and not very convex. Frons not very broad. Protibiae nearly straight, mesotibiae slightly bent; metatibiae markedly bent. Antennae relatively long. In ♂♂ the protarsomers 1 to 3 broadened. Upperside brown; legs and antennomers 1 to 3 lighter brown; antennomers 4 to 10 dark brown and antennomer 11 yellow – There is no other species of this size which may be confounded with *A. hospes*.

**Description.** Length: 4.44-4.67 mm. Width: 2.57-2.67 mm.

Ratios. Prothorax: width/length 1.88-1.96; width hind angles/width front angles 1.64-1.73. Elytra: length/width 1.44-1.55; length elytra/length prothorax 4.08-4.25; maximum width elytra/ maximum widthprothorax 1.38-1.47.

Colour: Upperside brown, legs and antennomers 1 + 2 lighter brown, antennomers 3 to 10 dark brown, antennomer 11 yellow. Frons and prothorax with marked isodiametric microsculpture and therefore dull; elytra with a slight isodiametric microsculpture and with a fatty lustre.

Antennae: Length and width of antennomers 1 to 11 correspond to 11:7 / 8:5 / 18:5 / 14:5 / 12:5 / 13:5 / 12:6 / 12:6½ / 12:7 / 12:7 / 15:7.

Legs: Short. The lengths of metatarsomers 1 to 4 are 43:12:7:22.

### Discussion

The species of this genus mainly appear at night on bark of trees both in forests and in parks. If disturbed by white light many species jump off. Very rarely they are found in light traps.

In Sri Lanka there had been only limited collecting activities which specifically allow the collection of *Amarygmus*. This is also true for South India. Presumably the number of species will increase substantially when a systematic spotting of these beetles is intended.

Because of relatively rare collecting activity with methods suitable for catching *Amarygmus* it is at present difficult to predicate statements about endemism of *Amarygmus* either for Sri Lanka or for South India.

### Determination key of the *Amarygmus* of Sri Lanka:

Partially the species of some groups are very much alike. It is not easy to separate them. This also means that it is partially not easy to integrate them into a determination key. This is especially true with the species of the groups affine *A. clypealis* (KASZAB) and *A. tenuicornis* MOTSCHULSKY. After using this key it remains frequently necessary to compare the determined specimen with certainly determined material or with the types.

1. Species with distinct striae on elytra, in which very small punctures are nearly concealed. . . . . 2.
- Species with rows of punctures on elytra, which are either not connected by striae or are only inconstantly connected by thin lines . . . . . 10.
2. Upperside uniformly blue, elongate ovate; of medium size; striae of elytra markedly incised and intervals in between convex; fronto-clypeal suture deeply incised. Antennae long, bent backwards clearly overlapping the middle of elytra. In ♂♂ the inside of meso- and of metatibiae are broadened, and the metasternum is covered with hairs which cling to the surface. Length 5.60-7.27 mm. (This is a species of the Pacific and Papuan faunal areas, and it is not sure whether it is permanently introduced into Sri Lanka) . . . . . *A. hydrophiloides* FAIRMAIRE
- Upperside not uniformly blue . . . . . 3.
3. Ovate, strongly convex. Ratio of length/width of elytra 1.40 to 1.49:1. On disc of elytra the intervals between striae are slightly convex and covered with fine punctures. Upperside uniformly copper-coloured or black. Antennomer 11 not yellow. Posterior part of prothorax smaller than the anterior

- part of elytra. Length 7.9-9.3 mm (species frequently occurring on the Great Sunda Island and in Peninsular Malaysia; probably permanently introduced into Sri Lanka) . . . . .
- . . . . . *A. picitarsis* (FAIRMAIRE)
- Anterior part of elytra not substantially broader than posterior part of prothorax . . . . . 4.
4. Body elongate (ratio of length/width of elytra >1.55:1. On disc the intervals of elytra are markedly convex. Longer than 7.0 mm. . . . . 5.
- Body shorter than 5.5 mm. elytra slightly elongate, ovate . . . . . 6.
5. Each interval displays a differently coloured stripe, mostly purple, green or blue. Prothorax with reflections of different colours. Underside black. Antennae short; the 11<sup>th</sup> antennomer mostly black and only apically yellow or yellowish red. Length 7.0-7.6 mm (besides Sri Lanka also India) . . . . .
- . . . . . *A. sivae* (KASZAB)
- Elytra and prothorax uniformly brown; antennomers 10 and 11 yellow (6 to 9 black); on the outer margins of metatibiae tiny, thorn-like projections. Length 7.8 mm . . . . . *A. taprobanus* **sp. n.**
6. Elongate; elytra not very convex across; upperside brown; antennomer 11 yellow; upperside of head and prothorax markedly microreticulated and therefore opaque, elytra less microreticulated and with a fatty glance; frons not very broad (width corresponds about to the length of the 4<sup>th</sup> antennomer); tarsomers of all legs relatively long (nearly as long as tibiae); intervals of elytra with a punctuation which is narrower than on prothorax; length/width of elytra 1.44-1.55:1; in ♂♂ protarsomers 1 to 3 broadened; length/width of penultimate antennomer 12:6½. Length 4.44-4.67 mm . . . . .
- . . . . . *A. hospes* (KASZAB)
- Elytra transversely and longitudinally markedly convex; elytra more or less lustrous; ratio of length/width of penultimate antennomer may differ from that of *A. hospes* . . . . . 7.
7. Antennae and especially the penultimate joint markedly longer than in the species of the following group. Fronto-clypeal suture deeply incised like a groove (nearly in its whole width). Frons somewhat narrower than the length of the 3<sup>rd</sup> antennomer; 11<sup>th</sup> antennomer either only apically or totally yellow or yellowish red and contrasting to the darker coloured antennomers 7 to 10. Prothorax lustrous; margins of prothorax invisible in dorsal view. On the elytra narrowly incised striae; intervals between striae on disc flat, laterally slightly convex; intervals finely and sparsely punctured (but punctuation may somewhat differ between specimens); markedly lustrous and iridescent . . . . . 8.
- Antennae and especially the penultimate joint markedly shorter than in the species of the preceding group. Prothorax mostly not as lustrous as in the species of the former group and mostly with a marked microreticulation. Metasternum anteriorly with fine but distinct punctures. Fronto-clypeal suture clearly incised (but mostly only in the middle) but not alike a groove. Intervals of elytra on disc entirely plain, laterally slightly convex, but elytra mostly less lustrous than in the species of the former group and mostly without ribands of iridescence. Antennomer 11 mostly entirely yellow . . . . . 9.
8. Protarsomers and mesotarsomers 1 to 3 broadened in ♂♂. Apical part of 11<sup>th</sup> antennomer partially yellow (however because the extent of lighter colouration may change between the specimens this is not a strong feature to separate this species from the following one). Antennae slightly shorter than in the following species and with much shorter antennae in ♀♀ than in ♂♂. Maximum width of elytra behind the middle. Metasternum without punctures. Length 4.7-5.5 mm . . . . .
- . . . . . *A. clypealis* (KASZAB)
- Protarsomers and metatarsomers 1 to 3 not broadened in ♂♂. 11<sup>th</sup> antennomer always totally yellow. Antennae slightly longer and slender than in *clypealis*. It is difficult to separate ♀♀ of this species from those of *clypealis* (about the lengths of antennae in ♀♀ no clear statement can be given presently, however, I expect also shorter antennae in ♀♀). Length 4.55-5.33 mm . . . . .
- . . . . . *A. serendib* **sp. n.**
9. Protarsomers 1 to 3 in ♂♂ not broadened. Antennae in ♂♂ and ♀♀ of the same length. Length 4.20-4.86 mm. . . . . *A. indictus* **sp. n.**

- Protarsomers 1 to 3 in ♂♂ broadened. Microreticulation of the upperside individually differently expressed. Smaller than the foregoing species. Length 3.23-3.85 mm . . . . . *A. commutatus* BREMER
  
- 10. Punctures of the rows of the elytra very big and intervals between rows very narrow (in the 4<sup>th</sup> row about 14 punctures), elytra very long (length/width 1.83:1); frons broad; fronto-clypeal suture medianly shallowly incised; antennae short; upperside dark brown with some metallic gleam; 1<sup>st</sup> metatarsomer very long. Protarsomers in ♂♂ not broadened. Length 7.9 mm . . . . .  
 . . . . . *A. grossepunctatus* KASZAB
- Punctures of the rows not as big as in *A. grossepunctatus*; elongate and ovate species; if the elytra are elongate then in the 4<sup>th</sup> row of elytra there are more than 35 punctures . . . . . 11.
  
- 11. Species with elongate elytra and a markedly opaque, black upperside. On elytra rows of punctures with big punctures (in the 4<sup>th</sup> row approximately 38 punctures); intervals between rows plain. Antennae longer than in *grossepunctatus*. In ♂♂ protarsomers 1 to 3 somewhat broadened. Length 7.0-7.7 mm . . . . . *A. masumotoi* BEJŠAK-COLLORADO-MANSFELD
- The upperside is not black and dull; if the upperside is strongly microreticulated then it is not black . . . . . 12.
  
- 12. Species with elongate elytra which possess either colour stripes on elytra or are bluish-black or bluish-green (and frequently with a violet 1<sup>st</sup> interval). Lengths >7.5 mm. . . . . 13.
- Species are more ovate and markedly convex, and lengths are <6.5 mm . . . . . 14.
  
- 13. Upperside microreticulated and without marked lustre; either entirely bluish-black or with bluish-green prothorax with green sides, with bluish green elytra and a violett 1<sup>st</sup> interval, or shoulders and sides copper-coloured and sometimes with faint stripes of yellow, green and blue colour. The punctures of the rows on elytra are relatively small (about 34 to 36 punctures in the 4<sup>th</sup> row). Intervals on elytra plain with fine, dense punctures. Antenna short. Length 7.5-8.1 mm . . . . .  
 . . . . . *A. ceylonicus* (KASZAB)
- Upperside not microreticulated, slightly brilliant; with rows of punctures which are somewhat bigger than in *ceylonicus* (approximately 24 punctures in the 4<sup>th</sup> row), punctures of the rows may be connected by faint lines; intervals between rows frequently slightly convex; prothorax mostly with irregular violet reflexes; elytra with violet, yellow and blue stripes. Antennae short. Protarsomers 1 to 3 in ♂♂ slightly broadened. Length 7.4-7.8 mm, besides Sri Lanka also South India) . . . . .  
 . . . . . *A. srilankanus* (KASZAB)
  
- 14. Upperside opaque, copper-coloured, with rows of big punctures on elytra which possess a violet bottom and a faint, small violet halo. Protarsomers 1 to 3 in ♂♂ not broadened. Ovate, convex, somewhat elongate. Length 6.1-6.21 mm . . . . . *A. standai* **sp. n.**
- Upperside without violet punctures in the rows of elytra . . . . . 15.
  
- 15. A short ovate, highly convex species with a length >5.8 mm. Prothorax opaque, elytra lustrous. Upperside dark copper-coloured, tibiae black and tarsi dark brown. Punctures of the rows of elytra of medium-size, approximately 22 to 24 punctures in the 4<sup>th</sup> row. Frons not very broad, width corresponds approximately to the length of the 4<sup>th</sup> antennomer. Length 5.8-6.3 mm . . . . .  
 . . . . . *A. repentinus* **sp. n.**
- Ovate, but smaller . . . . . 16.
  
- 16. Frons relatively narrow (width corresponds approximately to length of the 4<sup>th</sup> antennomer). Maximum width of elytra shortly in front of middle . . . . . 17.
- Frons markedly broader, broader than the lengths of the 3<sup>rd</sup> plus the 4<sup>th</sup> antennomer (most species shorter than 4.8 mm). Maximum width at different parts of elytra. Intervals of elytra between rows plain . . . . . 18.
  
- 17. Fronto-clypeal suture indistinctly incised (not deeply incised). Prothorax and elytra lustrous. Punctures of rows of elytra somewhat bigger than in the following species, in the 4<sup>th</sup> row

- approximately 25 to 28 punctures. Intervals between rows plain, with distinct but fine punctures (they are as distinct as on the sides of prothorax). Upperside dark brown, femora, tibiae and antennae brown. Length 5.0-5.9 mm ..... *A. lucens* KASZAB
- Fronto-clypeal suture markedly incised in its middle part. Smaller than *lucens* (length 3.8-4.4 mm). Upperside black, somewhat shiny (not as marked as in *lucens*); legs black, tarsi contrast to tibiae by their lighter colour. .... *A. brendelli* KASZAB
18. First metatarsomer long; ratio of lengths of metatarsomer 1/sum of metatarsomers 2 to 4  $\approx$  0.80:1. Punctuation of intervals of elytra fine and distinct. Elytra indistinctly microreticulated. Prothorax dark brown to black, opaque, elytra brown, slightly shiny. Frons broad. Width corresponds to the lengths of antennomers 2 to 4. On elytra rows of medium-sized punctures, distances between them corresponding to the diameter of the punctures. Maximum of width of elytra in the middle. Length 4.5-4.8 mm ..... *A. silvicola* KASZAB
- Ratio of 1<sup>st</sup> metatarsomer/sum of metatarsomers 2-4 below 0.8/0:1 ..... 19.
19. The punctures of the rows on elytra are small (see Fig. 15A and 16A) ..... 20.
- The punctures of elytra are of medium size (see Fig. 18A) ..... 21.
20. Elytra markedly convex; maximum of height and width just in front of middle. Length/width of elytra 1.25-1.37:1. Punctures in the elytral rows somewhat bigger than in the following species. Sides of prothorax are convergent anteriorly with somewhat bent margins. At dorsal view anterior angles of prothorax angular. 11<sup>th</sup> antennomer longer than in the following species. Form of prosternal apophysis different from *A. tenuicornis* (see Fig. 16D). Prothorax and elytra brown, slightly lustrous; legs and antennomers 1 to 7 brown, 8 to 10 black, 11<sup>th</sup> antennomer on a third of its base black and on the apical two third lighter; tarsi light brown. Length 4.09-4.79 mm ..... *A. hayekae* KASZAB
- Very similar to the preceding species. Elytra on an average more elongate than in *hayekae*: length/width 1.35-1.45:1. Punctures in the elytral rows smaller than in *hayekae*. At dorsal view anterior angles of prothorax are broadly rounded. 11<sup>th</sup> antennomer shorter than in *hayekae*. For form of prosternal apophysis, see Fig. 15D. Upperside brown, slightly lustrous; tibiae brown; tarsi light brown; antennomers 1-5 brown, 6-10 black, 11<sup>th</sup> antennomer on its third of base black and on its apical two third lighter. Length 4.55-4.63 mm ..... *A. tenuicornis* MOTSCHULSKY
21. A relatively variable species with respect to shape and punctuation of prothorax and elytra, the maximum of width and height of elytra can be at the end of the first third of elytra or just in front of the middle. Punctuation of prothorax and intervals of elytra can be scarce and tiny or be much bigger and denser. The sides of prothorax can on their posterior part be either subparallel or the sides can be completely bent and apically retracted; anterior angles more or less round; on the prothorax the punctuation can be very scarce and fine or more distinct and narrower. Prothorax in most specimens somewhat darker than elytra (black vs. dark brown), legs and antennae lighter brown. Metatarsomer 1 short (ratio of metatarsomer 1:sum of metatarsomers 2 to 4 = 0.61:1). Metatibiae slightly bent (see Fig. 18A). Length 3.77-4.44 mm ..... *A. lewisi* KASZAB
- Nearly identical with *lewisi*, but its metatibiae are - at lateral view - in their middle slightly concave (Fig. 19A). Length 4.4 mm ..... *A. simoni* KASZAB

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## Zusammenfassung

Bremer, H. J.: Revision des Genus *Amarygmus* DALMAN, 1823 und verwandter Genera. Teil XLVI. Die *Amarygmus*-Arten von Sri Lanka sowie eine neue Art aus Süd-Indien. (Coleoptera: Tenebrionidae: Amarygmini).

Die *Amarygmus*-Arten von Sri Lanka werden revidiert. Anmerkungen und Abbildungen betreffen die folgenden Arten: *Amarygmus brendelli* KASZAB, 1980, *Amarygmus ceylonicus* (KASZAB, 1980), *Amarygmus clypealis* (KASZAB, 1980), *Amarygmus commutatus* BREMER, 2001, *Amarygmus hayekae* KASZAB, 1980, *Amarygmus hospes* (KASZAB, 1980), *Amarygmus lewisi* KASZAB, 1980, *Amarygmus lucens* KASZAB, 1980, *Amarygmus masumotoi* BEJŠAK-COLLORADO-MANSFELD, 2000, *Amarygmus silvicola* KASZAB, 1980, *Amarygmus simoni* KASZAB, 1980, *Amarygmus sivae* (KASZAB, 1980) und *Amarygmus srilankanus* (KASZAB, 1980).

*Amarygmus tenuicornis* MOTSCHULSKY, 1863 wird nachbeschrieben und abgebildet. Folgende taxonomische Veränderungen sind anzuzeigen: *Amarygmus lewisi* KASZAB, 1980 = *Amarygmus politicollis* KASZAB, 1980 [syn. n.]; *Amarygmus masumotoi* BEJŠAK-COLLORADO-MANSFELD, 2000 = *Amarygmus merkli* BREMER, 2001 [syn. n.] (jetzt valide Namen unterstrichen). Neue Arten, die beschrieben und abgebildet werden, sind *Amarygmus indictus* **sp. n.** (Sri Lanka), *Amarygmus repentinus* **sp. n.** (Sri Lanka), *Amarygmus serendib* **sp. n.** (Sri Lanka), *Amarygmus standai* **sp. n.** (Sri Lanka), *Amarygmus taprobanus* **sp. n.** (Sri Lanka) und *Amarygmus cardamonensis* **sp. n.** (Süd-Indien). Eine Bestimmungstabelle der *Amarygmus*-Arten von Sri Lanka wird vorgestellt.

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