

REICHENBACHIA

Staatliches Museum für Tierkunde Dresden

Band 28

Ausgegeben: 25. November 1991

Nr. 24

A new giant burrowing bug from Viet-Nam (Insecta, Heteroptera: Cydnidae)

With 7 Figures

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Abstract. *Adrisa maxima* sp. n. is described and figured from N. Viet-Nam (Tonkin). Distribution of the others Oriental *Adrisa* species is recapitulated, *A. nigra* AM. & SERV is recorded from Burma and Laos, and *A. magna* (UHLER) from N. Viet-Nam. A key to Indochinese species of the genus is given. The new species is most related to *A. magna*.

Introduction

The genus *Adrisa* AMYOT & SERVILLE, 1843 is easily distinguishable from other genera of Oriental Cydnidae in having its antennae composed of only four joints, the second segment being the longest, and in its very large and robust body size. The genus bears about 20 species, majority of which is distributed in the Australian region (Australia — 8, Tasmania — 2, New Caledonia — 3, New Guinea, Timor and Moluccas — 4) and further 4 species has been described from the Oriental region (*A. clara* [WALKER, 1868] — India, *A. magna* [UHLER, 1861] — Hong-Kong, China, *A. nigra* AMYOT & SERVILLE, 1843 — Java, China, and *A. nitidicollis* [STÅL, 1854] — Java). Only two of them are known from China and Indochina, namely *A. nigra* and *A. magna*, according to HSIAO & al., 1977

A. nigra is a smaller species ranging from 12.5 to 13.5 mm in length (HSIAO & al., 1977), it was known from Java and China, and I had the opportunity of studying specimens from Burma (1 ♂ Thaton, 1983, leg. Voříšek) and N. Laos (2 ♀♀: Houei Sai, April 1, 1984, leg. Voříšek).

A. magna is a very large species in difference from the others. Its holotype measures 19 mm (9 lines) in length (UHLER, 1861), and HSIAO & al. (1977) give measurements 16.5 to 17.5 mm, DISTANT (1902) 13 to 19 mm. Thus, it supposed to be the largest representative of Cydnidae of the Oriental region at least. The species is known from Hong-Kong, China, India, Burma (Tenasserim) (UHLER, 1861; DISTANT, 1902; HSIAO & al., 1977) and I studied a specimen from N. Viet-Nam (1 ♀: Vinh Phu province, Tam Dao, 900 m, May 12–24, 1989, leg. J. Strnad at light).

Therefore, it has been very surprising that there were ascertained much larger specimens (up to 22 mm) among *Adrisa* specimens received from the same locality in N. Viet-Nam, except the smaller one (16.4 mm) which was identified as *A. magna*. The larger specimens differ from *A. magna*, except their larger size, also in some other morphological characters and they are described as new below

***Adrisa maxima* sp. n.** (Figs. 1, 2, 4, 5, 7)

Derivation of name The new species is named in reference to its very large size (maximus — biggest, largest in Latin).

Description Body black, very large and robust, oval, about 1.75–1.86 times longer than wide. Head, pronotum and scutellum more shiny than hemelytra.

Head 1.43–1.50 times wider than its median length, with moderate and wide incision in front. Clypeus closed by mandibular plates and shorter than these. Anterior margins of mandibular plates widely arch-like convex reaching beyond level of anterior margin of clypeus. Dorsal surface of head almost flat and very coarsely punctured, and also obliquely wrinkled near lateral borders of clypeus. Clypeus almost without punctures, smooth and considerably shiny, with several transverse wrinkles. Anterior margin of head (from eye to clypeus) hemmed, the narrow hem being smooth. Also posterior portion of head (behind ocelli) without punctures. Four long bristles on the dorsal side of head, first pair of them situated near anterior margin of head laterally from clypeus and second pair near anterior margin of eye. Further two pairs of bristles near anterior margin of head, but situated ventrally arising in front of the beginning of bucculae. Synthipsis 2.7–2.9 times wider than dorsal width of an eye in both sexes. Bucculae abruptly arch-like dilated in their posterior third (Fig. 5). Antennae about 1.5 times longer than pronotal length. First antennal segment shortest and not reaching beyond margin of head, second longest, gradually widening from base to its apex and 1.3–1.4 times longer than third, third and fourth segments subequal in length. First and second antennal segments blackish, third and fourth fuscous. Rostrum reaching posterior margin of middle coxae, relation of labial segments in mm: 2.15 2.74 2.94 2.05. Head coarsely punctured also ventrally, including bucculae, but only in its median portion, i. e. medially from line running from base of anterior ventral bristles to base of antenniferous tubercle and to posterolateral border of head. Thus, shiny and without punctures remain genae (mandibular plates), antenniferous tubercles and rather wide band situated along inner margin of eye on each side.

Pronotum 1.9–2.1 times wider than its median length, coarsely punctured except smooth callosities which are only slightly prominently convex. Lateral margins of pronotum narrowly hemmed along their whole length, anterior and posterior margins without hem. Posterior fifth to fourth of pronotal disc less coarsely and less densely punctured than other (especially lateral) pronotal portions. Per one long bristle near anterior pronotal margin somewhat laterally from level of ocelli on each side. Anterior pronotal margin with several rather short and stout bristles laterally in place where eye touches the margin, the bristles being sometimes invisible as they are usually recovered by posterior margin of eye.

Scutellum 1.13 times longer than its basal width, its apex rather narrow and almost acutely pointed, it does not reach level of apices of coria. Scutellum punctured except its anterolateral angles and also apex of scutellum almost smooth.

Hemelytra just reaching apex of abdomen. Corium less shiny than scutellum, coarsely and densely punctured and somewhat wrinkled. Only very narrow lateral margin of corium is smooth in anterior more than half the length of the corium, the smooth border being about as wide as antennal segments anteriorly. Moreover, the anterior third of the lateral margin of corium is markedly hemmed. Membrane dark brown to blackish without lighter spots. Apical portion of corium and membrane slightly narrower than abdomen, so that lateral margins of abdomen usually are visible dorsally as they are not recovered by hemelytra in this region.

Thorax punctured ventrally except supracoxal lobes and a rather wide stripe running along lateral border of prothorax. Evaporatorium of thoracic gland relatively large extending also on mesothorax (Fig. 2). It is mat, very coarsely and deeply wrinkled. Perithreme with a large conch-like or ear-like process lateroapically (Fig. 4) which is usually hemmed with

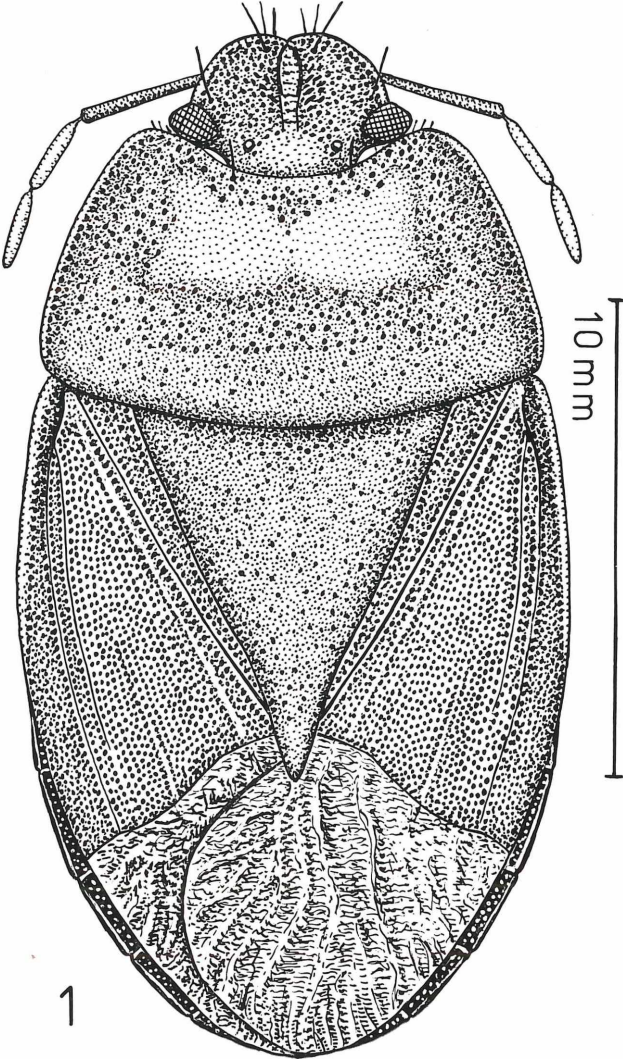


Fig. 1: *Adrisa maxima* sp. n.

light brown or fuscous. Abdomen punctured and with tiny spinulae among the punctures only ventrolaterally, but broadly smooth ventromedially in front of genital segments. Genital segments of female and also pygophore punctured. Posterior border of pygophore slightly concave medially.

Legs with bristles and spines as in *A. magna*. Tarsi usually fuscous.

Measurements in mm: smallest (♂) and largest (♀) specimens measured: Length of body 20.27–21.80, maximal width of body 11.20–11.75, length of head 3.40–3.50, width of head 4.85–5.20, synthlipsis 2.88–3.00, length of antenna 7.10–7.56 (I : II : III : IV = 1.00 : 2.50–2.63 : 1.79–2.03 : 1.81–1.90), length of pronotum 5.00–5.30, width of pronotum 10.20–10.90, length of scutellum 7.30–8.40. There are no substantial differences in size between male and female.

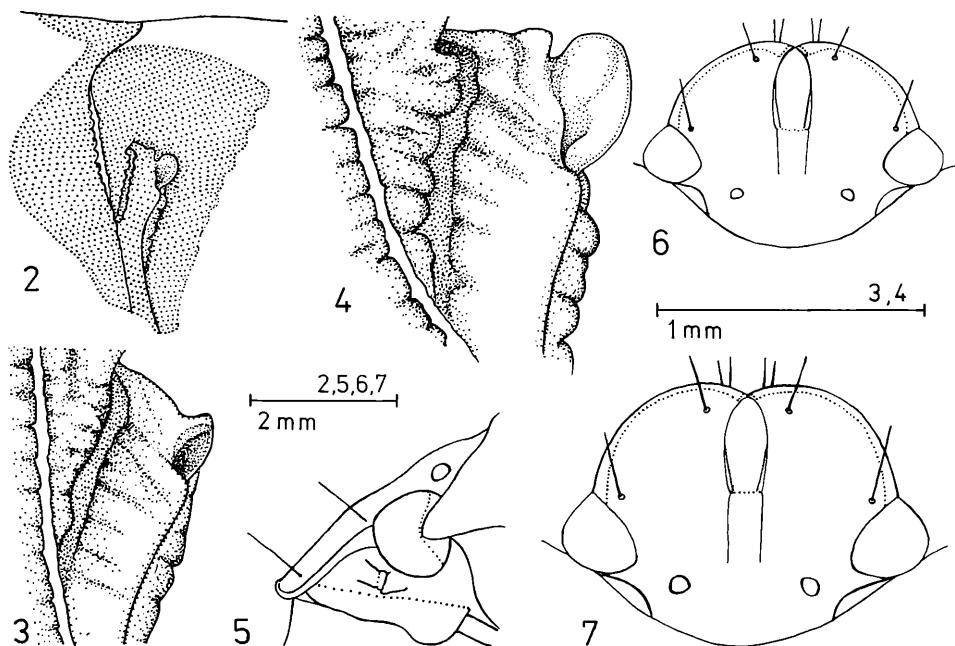


Fig. 2: Evaporatorium of *A. maxima* sp. n. — Figs. 3, 4: Apex of perithreme, 3 — *A. magna* (UHLER), 4 — *A. maxima* sp. n. — Fig. 5: *A. maxima* sp. n., head, lateral view. — Figs. 6, 7 Head, dorsal view, 6 — *A. magna* (UHLER), 7 — *A. maxima* sp. n.

Holotype ♂ and 5 paratypes (1 ♂, 4 ♀♀): N. Viet-Nam (Tonkin), Vinh-Phu province, Tam-Dao, 900 m, May 12–24, 1989, at light in the evening, leg. Jan Strnad. — Holotype and paratypes in collection J. M. Štusák, Prague.

Distinguishing and other notes

The new species is very similar to *A. magna* in its general appearance. It differs especially in having quite different shape of the apex of its perithreme which is considerably conch-like dilated in the new species (Fig. 4), while it is more acutely produced and not so widely ear-like in *A. magna* (Fig. 3). Rather small differences can be seen also by comparison of anterior margins of heads and width of their hems in both species (Figs. 6, 7). Also the very large size of the new species (20–22 mm) in difference from smaller *A. magna* (16.4–19.0 mm) is a considerable distinguishing character.

DISTANT's (1902) note that "the males are much smaller than the females" (13–19 mm) in *A. magna* seems to be not appropriate, as the difference between the smallest and largest specimens would be 6 mm what represents 46% of body length of the smallest specimen. If we take, however, measurements given by UHLER (1861) combined with data of HSIAO & al. (1977) (16.5–19 mm), the difference represents about 15.2%. On the other hand, no substantial differences between sexes has been found in the type-series of *A. maxima* sp. n. as the largest male quite agrees with one of the females in size. In the new species there is the difference between the smallest (♂) and largest (♀) specimens only 1.53 mm what represents 7.6% of its body length.

Key to the Indochinese *Adrisa* species

- 1 (2) Bucculae moderately and gradually enlarging in posterior direction. Anterior margin of head straight, without any excision, as central lobe (clypeus) is as long as lateral

lobes (mandibular plates). Central lobe not closed by lateral lobes in front. Central lobe with two bristles apically. Total length 12.5–13.5 mm, body width 6.5–7.0 mm. Java, China, Burma, Laos. **A. nigra** AMYOT & SERVILLE

- 2 (1) Bucculae abruptly, almost arch-like enlarged in their posterior third (Fig. 5). Anterior margin of head moderately and widely excised medially, as central lobe is shorter than lateral lobes. Central lobe closed by lateral lobes in front. Central lobe without any bristles apically (Figs. 6, 7). Large species, total length more than 16 mm.
- 3 (4) Apex of perithreme with a small angular process (Fig. 3). Head less excised anteriorly (Fig. 6). Body length 16.4–19 mm, width 9.0–9.5 mm. Hong-Kong, China, India, Burma, Viet-Nam. **A. magna** (UHLER)
- 4 (3) Apex of perithreme with large, rounded, conch-shaped or ear-shaped process and perithreme of quite different shape (Fig. 4). Head more excised anteriorly, as lateral lobes of head are more forwardly expanded (Fig. 7). Body length 20–22 mm, width 11–12 mm. N. Viet-Nam. **A. maxima** sp. n.

Acknowledgement

The author expresses his sincere thanks to Mr. Jan Strnad (coleopterologist, The Czechoslovak Entomological Society) who was so very kind to offer material of *Adrisa* collected by him in N. Viet-Nam for examination.

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(Received on 23. VII. 1990)

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Zeitschrift/Journal: [Reichenbachia](#)

Jahr/Year: 1990

Band/Volume: [28](#)

Autor(en)/Author(s): Stusak Josef M.

Artikel/Article: [A new giant burrowing bug from Viet-Nam \(Insecta, Heteroptera: Cydnidae\) 117-121](#)