

**Three new taxa of *Amemboa* Esaki, 1925, from Thailand  
and Viet Nam (Heteroptera: Gerridae)**

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**Abstract** – *Amemboa* (s. str.) *aquafrigida* sp. n. from Thailand (Phetchabun, Chayaphum), *Amemboa* (s. str.) *schwendingeri* sp. n. from Thailand (Mae Hong Son, Chiang Mai), and *Amemboa* (*Amemboides*) *velaris orientalis* ssp. n. from Viet Nam (Lam Dong) are described and figured. A population of *Amemboa velaris* is described from Thailand (Phetchabun) which is geographically and morphologically intermediate between *A. velaris velaris* (from Thailand: Chiang Mai) and *A. velaris orientalis* ssp. n. A checklist of the *Amemboa* species of Thailand is provided. With 13 figures.

INTRODUCTION

The eotrechine genus *Amemboa* ESAKI was revised by POLHEMUS & ANDERSEN (1984) who recognized 23 species. One of them, *R. riparia* POLHEMUS & ANDERSEN, 1984, turned out to be a synonym (ZETTEL & CHEN 1996). Since this revision only three species were described (ZETTEL 1995, ZETTEL & CHEN 1996). Most of the 25 known species are distributed in Indochina and Malaysia (16 species), but the fauna of Thailand is especially rich (10 described species including the records of *A. speciosa* POLHEMUS & ANDERSEN, 1984, in our samplings; see checklist). So it was rather surprising to discover two undescribed species in North and Northeast Thailand.

These two new species, here described, belong to the subgenus *Amemboa* s. str. and have distinctive characters which separate them easily from most other species. *Amemboa aquafrigida* sp. n. and *A. schwendingeri* sp. n. are closely related with *A. prostates* POLHEMUS & ANDERSEN, 1984. These three species form a monophyletic group based on two characters in male genitalia: a bifid medium part of the proctiger and a long and slender apical part of the pygophor.

Further, a new subspecies of *A. velaris* POLHEMUS & ANDERSEN, a species belonging to the subgenus *Amemboides*, is described from Viet Nam. ZETTEL & CHEN (1996) mentioned differences between females of this species from North Thailand and Viet Nam. However, at that time not enough material was available to prove whether or not these differences were individual variations. Since then, more material has been collected

and differences in male genitalia have been found. Both support a separation of two allopatric subspecies. The type material of *A. velaris* consists of specimens from North Thailand (Chiang Mai Province: Doi Inthanon, Doi Suthep, Fang distr.) and Viet Nam (Vinh Phu Province) (POLHEMUS & ANDERSEN 1984). The holotype is from Doi Inthanon, and therefore the nominate form is that from North Thailand. After investigation of male genitalia it turned out that paratype specimens of *A. velaris* from Viet Nam belong to *A. vasarhelyii* ZETTEL, 1995. A population from Phetchabun Province shows a combination of characters of both subspecies and is described below.

*Depositories:* CSS – Coll. W. D. SHEPARD, California State University, Sacramento, U.S.A.; CJP – Coll. J. T. POLHEMUS, Englewood, Colorado, U.S.A.; CNT – Coll. N. NIESER, Tiel, The Netherlands; CPC – Coll. P. P. CHEN, Beijing, China; KKUA – Khon Kaen University, Faculty of Agriculture, Department of Entomology, Khon Kaen, Thailand; KKUB – Khon Kaen University, Faculty of Sciences, Department of Biology, Khon Kaen, Thailand; NMW – Naturhistorisches Museum in Wien, Vienna, Austria; SMTD – Staatliches Museum für Tierkunde, Dresden, Germany; HNHM – Hungarian Natural History Museum, Budapest, Hungary; ZMUC – Zoological Museum, University of Copenhagen, Denmark.

***Amemboa* (s. str.) *aquafrigida* sp. n.**  
(Figs 2, 5–6, 9)

*Etymology:* *aqua frigida* (Latin, ablativus loci) means “in cold water” and refers to the type locality in Nam Nao National Park; “nam nao” also means cold water in Thai language.

*Holotype* (apterous ♂): “Thailand:Phetchabun Prov./ Nam Nao NP, Huai Phrom/ Laeng, 24.II.1995/ leg. H. ZETTEL (22)” (NMW); *paratypes* (all apterous): 38 ♂♂, 33 ♀♀, same locality and labels (CJP, CNT, CPC, KKUA, KKUB, NMW); 1 ♂ “Nam Nao NP/ Huai Phrom Laeng/ 24.II.1995/ leg. Tasanee Jamjanya” (KKUA); 2 ♂♂ “Thailand: Phetchabun/ Nam Nao NP, Prom Laeng/ 22.III.1994/ leg. W. D. Shepard (1040)” (CSS); 4 ♂♂, 3 ♀♀ “Thailand: Phetchabun/ Nam Nao NP, Huai Ya/ Krua, 14.III.1994/ leg. W. D. Shepard (1039)” (CSS, NMW); 1 ♂, 1 ♀ “Thailand: Chaiyaphum/ Phu Khieo NP, trib. to/ Huai Prom Mai, 5.IV.1994/ leg. W. D. Shepard (1054)” (NMW).

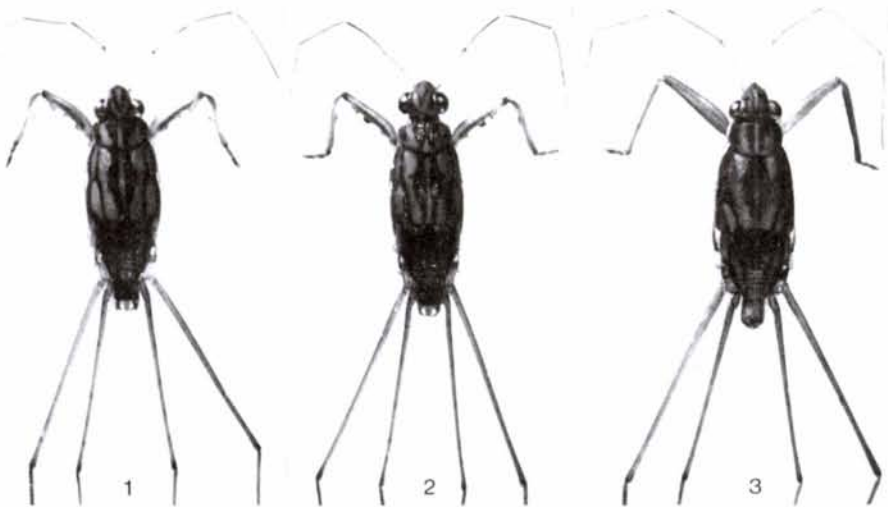
*Description:* Apterous form: Measurements (in mm): Body length 3.4–3.7 (♂♂), 3.8–4.2 (♀♀); width of head at eyes 0.83–0.88 (♂♂), 0.89–0.94 (♀♀); maximum width at mesacetabula 1.18–1.25 (♂♂), 1.42–1.55 (♀♀). – Colour: Yellowish to brownish; dorsal colour pattern see Fig. 2; in ventral view, male with proacetabula, broad anterior-lateral stripes and narrow posterior-medial stripe on mesonotum, metasternum, sternites 2–7 blackish; female with proacetabula, broad anterior-lateral stripes and a more or less developed longitudinal stripe along sternites blackish; antenna brownish, segment 1 yellowish; legs yellowish, tarsi brownish, profemur with a brownish stripe on posterior face. – Ratio of lengths of antennal segments as 1.2 : 1 : 1.15 : 1.7–1.8 in male, 1.3 : 1 : 1.2 : 1.9–2.0 in female; lengths of leg segments in relation to length of mesofemur (= 100): male: profemur 34, protibia 32, protarsus 5+8, mesotibia 67, mesotarsus 28+12, metafemur 91, metatibia 38, metatarsus 15+11; female: profemur 35, protibia 35, mesotibia 65, metatibia 38, others as in male. – Mesonotum of male medianly 2.35, of female 3.2, times as long as pronotum; profemur of male with three distinct black hair patches, one small basally and two in distal half which are separated by a shallow excavation; protibia of male with a thickening covered by short

dark erect hairs (Fig. 5); fore leg of female simple; laterotergites 2–5 completely fused in both sexes, or suture between laterotergites 4 and 5 more or less developed. – Male genitalia (Figs 6, 9): Pygophor long, low and slender, with long narrow apical part which is evenly tapering in dorsal view, conspicuously hirsute in distal part. Proctiger with long, curved lateral arms which are broad basally and evenly tapering towards tip, ending narrowly rounded, ventrally set with a few stout bristles in distal part. Dorsomedial part of proctiger set with long hairs basally, then bifid, forking off into a second pair of lateral arms. Second pair of lateral arms much shorter than the first, each arm not obviously tapering, set with stout bristles which are directed ventrad, apically with stout, curved bristles. Parameres very small. – Female terminalia: Connexival margin of sternite 7 evenly down-curved, without prominent hairs; proctiger densely set with long yellow hairs.

Macropterous form unknown.

*Distribution:* Thailand: Phetchabun, Chayaphum.

*Comparative notes:* Diagnostic characters in *Amemboa* (s.str.) species are mainly found in males, whereas females are mostly indistinguishable (POLHEMUS & ANDERSEN 1984). *Amemboa aquafrigida* sp. n. is closely related to *A. prostata* POLHEMUS & ANDERSEN, 1984, which is the only described species with a bifid medium part of the proctiger. But in *A. prostata* the profemur of the male is lacking a distinct proximal hair patch which is very prominent in *A. aquafrigida* sp. n. (Fig. 5). Further, the lateral arms of the proctiger are widened subapically in *A. prostata* (see POLHEMUS & ANDERSEN 1984: fig. 53; comp. also Fig. 7). Parameres of *A. aquafrigida* sp. n. are very rudimentary and seem to be smaller than those of *A. prostata* (POLHEMUS & ANDERSEN 1984: fig. 53). *Amemboa aquafrigida* sp. n. is also very similar to *A. schwendingeri* sp. n.; differences see below.



Figs 1–3. Habitus of apterous males showing the colour pattern: 1 = *A. schwendingeri* sp. n., 2 = *A. aquafrigida* sp. n., 3 = *A. velaris*, specimen from Nam Nao NP

Females of *A. aquafrigida* sp. n. are difficult to distinguish from females of the syntopic *A. lyra* (PAIVA), differing only in colouration: (1) median black stripes on pronotum always reaching hind margin in *A. aquafrigida* sp. n., but very rarely and faintly in *A. lyra*, (2) median black stripes on mesonotum at connection level abruptly narrowed in *A. lyra*, but more contiguous in *A. aquafrigida* sp. n., (3) the dark stripe on mesopleuron is broader in *A. aquafrigida* sp. n., usually not distinctly narrower than the yellow area below.

***Amemboa* (s. str.) *schwendingeri* sp. n.**

(Figs 1, 4, 7–8)

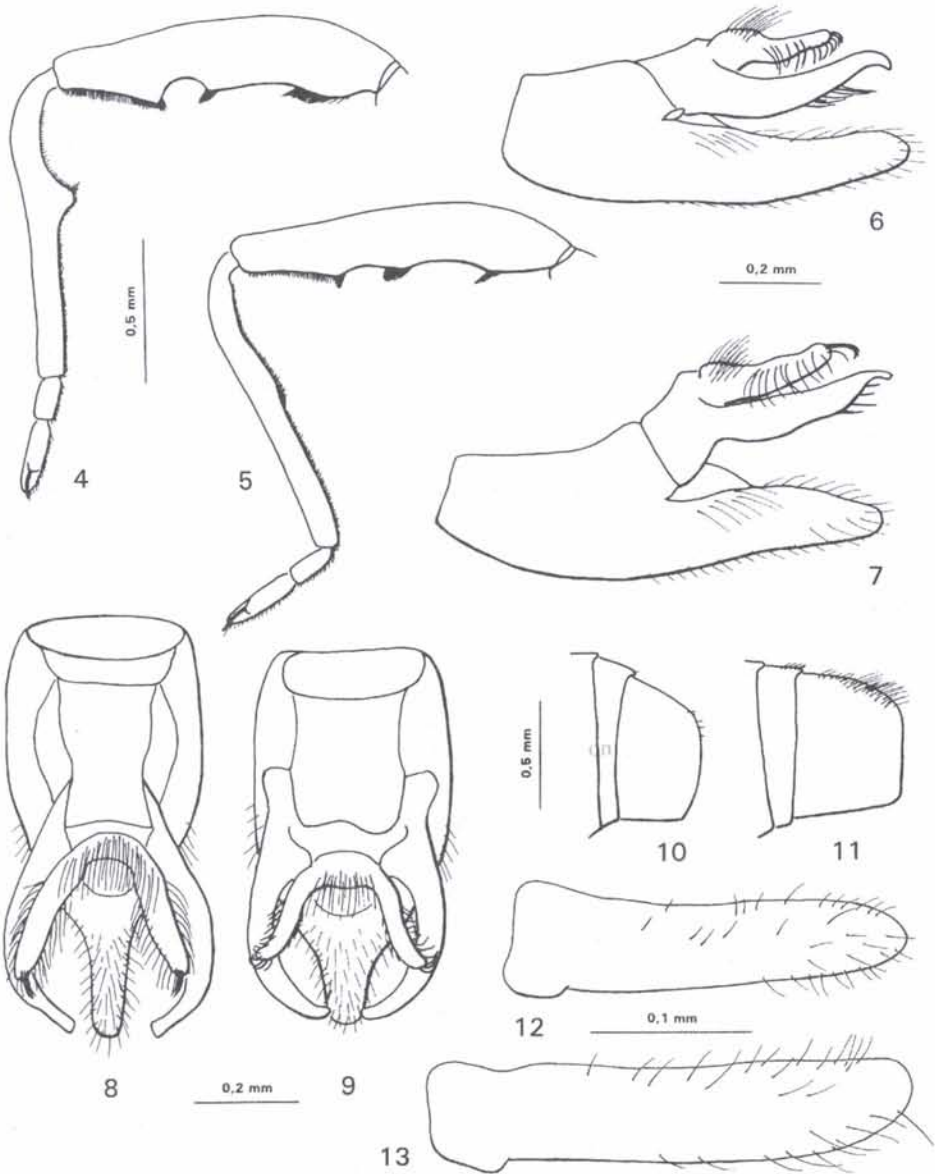
*Etymology*: This species is named in honour of Dr. PETER SCHWENDINGER (University of Innsbruck and Chiang Mai University) for his help during the collecting trip to the type locality.

*Holotype* (apterous ♂): "Thailand:Chiang Mai Prov./ Chiang Dao, Ban Yang Thung/ Pong, 500m, 8.11.1995/ leg. H. Zettel (10)" (NMW); *paratypes* (all apterous): 5 ♂♂, 4 ♀♀, same locality and labels (NMW, CPC, KKUA); 1 ♂ "Thailand: Mae Hong Son Prov./ 3 km SE Mae Hong Son/ 13.11.1995/ leg. H. Zettel (14b)" (NMW).

*Description*: Apterous form: Measurements (in mm): Body length 3.5–3.8 (♂♂), 3.8–4.0 (♀♀); width of head at eyes 0.84–0.88 (♂♂), 0.88–0.92 (♀♀); maximum width at mesacetabula 1.18–1.25 (♂♂), 1.40–1.46 (♀♀). – Colour: Yellowish to brownish; dorsal colour pattern see Fig. 1; in ventral view, male with proacetabula, broad anterior-lateral stripes and narrow posterior-medial stripe on mesonotum, metasternum, sternites 2–7, two narrow longitudinal stripes medially on segment 8 blackish; female only with proacetabula, broad anterior-lateral stripes and longitudinal stripes on sternite 7 blackish; antenna brownish, segment 1 yellowish; legs yellowish, tarsi brownish. – Ratio of lengths of antennal segments as 1.2 : 1 : 1.1 : 2.05 in both sexes; lengths of leg segments in relation to length of mesofemur (= 100): male: profemur 34, protibia 30, protarsus 4+9, mesotibia 67, mesotarsus 28+12, metafemur 90, metatibia 38, metatarsus 16+11; female: profemur 35, protibia 35, protarsus 5+9, middle and hind leg as in male. – Mesonotum of male medianly 2.25, of female 3.1, times as long as pronotum; profemur of male with three distinct black hair patches, one basal and two in distal half which are separated by a deep excavation; protibia of male with a large tooth covered by dark hairs at tip (Fig. 4); fore leg of female simple; laterotergites 2–5 completely fused in both sexes, only suture between laterotergites 4 and 5 slightly (incompletely) developed in some specimens. – Male genitalia (Figs 7, 8): Pygophor long, low and slender, with long narrow apical part which is nearly parallel-sided in dorsal view, conspicuously hirsute in distal part; proctiger with long, s-curved lateral arms which are broad basally, slightly widened subapically and suddenly tapering apically, ending slightly truncate, ventrally set with a few stout bristles in distal part; dorsomedial part of proctiger set with long hairs basally, then bifid, forking off into a second pair of lateral arms; second lateral arms shorter than the first, not obviously tapering, set with stout bristles which are directed ventrad, apically with a conspicuous tuft of stout, curved bristles. Parameres lacking. – Female terminalia: Connexival margin of sternite 7 evenly down-curved, without prominent hairs; proctiger densely set with long yellow hairs.

Macropterous form unknown.

*Distribution*: Thailand: Mae Hong Son, Chiang Mai.



Figs 4–13. Fore leg of males: 4 = *A. schwendingeri* sp. n., 5 = *A. aquafrigida* sp. n.; male genitalia (lateral view): 6 = *A. aquafrigida* sp. n., 7 = *A. schwendingeri* sp. n.; male genitalia (dorsal view): 8 = *A. schwendingeri* sp. n., 9 = *A. aquafrigida* sp. n.; female sternite 6–7 (lateral view): 10 = *A. velaris velaris*, 11 = *A. velaris orientalis* ssp. n.; paramere: 12 = *A. velaris orientalis* ssp. n., 13 = *A. velaris velaris*

*Comparative notes:* *Amemboa schwendingeri* sp. n. is similar to *A. aquafrigida* sp. n., but has a very prominent tooth on the protibia of male (Fig. 4) and a very slender, parallel-sided tip of the pygophor (Fig. 8), which is broader and more regularly tapered in *A. aquafrigida* sp. n. (Fig. 9). The lateral arms of the proctiger are slightly widened subapically (Fig. 7). *Amemboa schwendingeri* sp. n. differs from *A. prostata* mainly by three hair patches on the profemur of male, more slender tip of pygophor, and lacking parameres. Females of *A. schwendingeri* sp. n. can be separated from *A. aquafrigida* sp. n. by a relatively longer antennal segment 2 and by lighter colouration.

*Amemboa (Amemboides) velaris* POLHEMUS & ANDERSEN, 1984

*Diagnosis:* Lateral parts of metanotum adjacent to mesonotum glabrous; male with long genital segments (longer than sternites 2–7 together), apically rounded pygophor, and a simple elongate paramere; female with metanotum not modified and connexival margin of sternite 7 simple and down-curved.

For a detailed description see POLHEMUS & ANDERSEN (1984).

*Amemboa (Amemboides) velaris velaris* POLHEMUS & ANDERSEN, 1984  
(Figs 10, 13)

*Material examined* (specimens apterous if not otherwise mentioned): 1 ♂ (holotype) "THAILAND: NW/ Hot area/ Doi Inthanon/ 28. Oct. 1979/ N.M. Andersen leg." (ZMUC); 8 ♂♂, 4 ♀♀ "Thailand: Chiang Mai Prov./ Doi Suthep NP, Doi 5 Suthep/ nr. Wat Doi/ Suthep, 900 m, 1.11.1995/ leg. H. Zettel (3)" (NMW); 7 ♂♂, 3 ♀♀ "Thailand: Chiang Mai Prov./ Doi Suthep NP, Doi Suthep/ nr. Ruesse Cave, 900–1000m/ 5.11.1995, leg. H. Zettel (7)" (NMW); 1 ♀ "Thailand: Chiang Mai/ Doi Suthep NP, Huai/ Sa Lad, 24.III.1994/ leg. W. D. Shepard (1043)" (NMW); 8 ♂♂, 3 ♀♀, 7 macropterous ♂♂, 2 macropterous ♀♀ "Thailand: Chiang Mai Prov./ Doi Chiang Dao/ nr. cave, 500m, 7.11./ 1995, leg. H. Zettel (9a)" (NMW); 2 ♂♂, 4 ♀♀ "THAILAND: Chiang Mai Prov./ Fang Dist., Royal Angkhang/ Station, 1400 m, stream/ 14.I.1995, P. Chen & Suriya" (CPC).

*Diagnosis of subspecies:* Body length (in mm): apterous form 3.9–4.4 (♂♂), 4.2–4.7 (♀♀), macropterous form 4.3–4.6 (♂♂), 4.8–4.9 (♀♀); colour yellowish with a diffuse brownish dorsal colour pattern (especially on thorax) giving the species a marmorate appearance; brownish parts of mesonotum extended, yellowish part usually reduced to two small elongate stripes in anterior third and two elongate spots in posterior half which are more or less confluent in posterior third; male paramere simple, straight bar-shaped, 0.26–0.31 mm long, with broadly rounded apex; apterous female frequently with long stout black hairs along median part of hind margins of tergites 5 and 6, the connexival margin of sternite 7 evenly rounded and externally and internally at most with thin, short, whitish hairs; winged female with two tufts of long black hairs laterally on tergite 8.

*Distribution:* Thailand: Chiang Mai.

*Comparative notes:* see under *A. v. orientalis* ssp. n.

***Amemboa* (*Amemboides*) *velaris orientalis* ssp. n.**

(Figs 11–12)

*Etymology*: *orientalis* (Latin, adjective) means "eastern"; referring to the eastern distribution of the new subspecies in relation to the nominal subspecies.

*Holotype* (apterous ♂): "S VIETNAM, 28.–30.4.1994/ 12 km N Dalat-LangBian/ P. Pacholátko & L. Dembicky leg." (NMW); *paratypes* (all apterous): 5 ♂♂, 9 ♀♀, from the same locality (NMW, CPC, SMTD); 5 ♂♂, 4 ♀♀ "Viet Nam/ Suoi Vang/ 15 km NW Da Lat", "No. 308./ 17.X.1988, leg./ Vásárhelyi" (HNHM, NMW); 2 ♂♂, 2 ♀♀ "S VIETNAM, 16 km N Dalat-/ Ankreot, 1205°N, 10824°E/ 1400m, 15.4.1995/ leg. Pacholátko & Dembicky" (NMW).

*Description*: Main characters all as in *Amemboa velaris* s.str.; differences are found only in the following characters:

Apterous forms: Measurements (in mm): Body length of 4.5–4.8 (♂♂), 4.8–5.6 (♀♀, depending if the tip of abdomen is curved down or not); width of head at eyes 0.92–0.98 (♂♂), 1.00–1.06 (♀♀), maximum width at mesacetabula 1.42–1.56 (♂♂), 1.82–1.95 (♀♀). – Dorsal colour pattern usually with more contrast and brighter than in ssp. *velaris*, posterior third of mesonotum usually bright yellowish and anterior stripes clearly separated from surrounding brownish area. – Male genitalia: paramere simple, straight bar-shaped, slightly tapering toward apex, 0.21–0.26 mm long, with obtusely pointed apex (Fig. 12). – Female abdomen: along hind margins of tergites always without long hairs; connexival margin of sternite 7 evenly rounded and densely set with long dark hairs (Fig. 11).

Macropterous form unknown.

*Distribution*: Viet Nam: Lam Dong.

*Comparative notes*: Males of *Amemboa velaris velaris* and *A. v. orientalis* ssp. n. are distinguishable by the length of the parameres, which are smaller in subspecies *orientalis* (0.21–0.25 mm in ssp. *orientalis* and 0.26–0.31 mm in ssp. *velaris*); apex of paramere is less rounded in subspecies *orientalis* (comp. Figs 12–13). Females differ in pilosity on connexival margin of sternite 7, which consists of long, brown to black, dense and shaggy hairs in subspecies *orientalis* (Fig. 11), but short, whitish and very sparse hairs in subspecies *velaris* s. str. (Fig. 10). Further, females of subspecies *velaris* s. str. frequently bear some long black hairs on the hind margins of tergites 5–7, which are always lacking in subspecies *orientalis*. Males and females are distinctly larger in subspecies *orientalis* (apterous males 4.5–4.8 mm, apterous females 4.8–5.6 mm in ssp. *orientalis*, apterous males 3.9–4.4 mm, apterous females 4.2–4.7 mm in ssp. *velaris*).

***Amemboa* (*Amemboides*) *velaris*, intermediate form**

(Fig. 3)

*Material examined*: 1 apterous ♂, 3 macropterous ♂♂, 2 apterous ♀♀, 2 macropterous ♀♀ "Thailand:Phetchabun Prov./ Nam Nao NP, Huai Ya Krua/ nr. Headquarter, 24.11./ 1995, leg. H. ZETTEL (23)" (NMW) (KKUB, NMW); 1 macropterous ♂ "Nam Nao NP/ 24.11.1995/ leg. Tasanee

Jamjanya" (KKUA); 2 apterous ♂♂, 1 apterous ♀ "Thailand: Petchabun/ Nam Nao NP, Huai Ya/ Krua, 14.III.1994/ leg. W. D. Shepard (1039)" (css, nmw).

*Diagnosis and comparative notes:* Specimens from Petchabun Prov. in Northeast Thailand show an intermediate combination of characters between the subspecies *velaris* and *orientalis*: Parameres of male are as in *orientalis*, with length 0.21–0.25 mm and more pointed apex. But apterous females show characters as in *velaris*, lacking dense pilosity on lateral margin of sternite 7 and with long hairs on tergites. Size is rather small, 3.8–4.0 mm in apterous males, 4.1–4.4 mm in apterous females, 4.1–4.3 mm in macropterous males, and 4.5–4.6 mm in macropterous females. Apterous specimens are darker than those of both subspecies (Fig. 3).

*Distribution:* Thailand: Petchabun.

#### CHECKLIST OF *AMEMBOA* SPECIES AND SUBSPECIES RECORDED FROM THAILAND

The checklist is based on data given by POLHEMUS & ANDERSEN (1984) and extended by numerous new records from samplings of P. CHEN, Y. HANBOONSONG, T. JAMJANYA, M. MADL, N. NIESER, P. SCHWENDINGER, W. D. SHEPARD, and H. ZETTEL; ! = species newly recorded for Thailand; \* = new province records; records under quotation marks from POLHEMUS & ANDERSEN (1984) from unknown province.

Species name / subspecies name	Provinces
<i>Amemboa</i> (s. str.) <i>javanica</i> LUNDBLAD, 1933	Chiang Mai*, Phrae*, Petchabun*, Khon Kaen*, Saraburi, Prachinburi, Kanchanaburi, Petchaburi
<i>Amemboa</i> (s. str.) <i>brevifasciata</i> MIYAMOTO, 1967	Nakhon Nayok, Loei*, Ubon Ratchanthani*, Satun*, "South Thailand, Khao Chang"
<i>Amemboa</i> (s. str.) <i>prostata</i> POLHEMUS & ANDERSEN, 1984	"South Thailand: Banna, Nakhon"
<i>Amemboa</i> (s. str.) <i>schwendingeri</i> sp. n. !	Mae Hong Son*, Chiang Mai*
<i>Amemboa</i> (s. str.) <i>aquafrigida</i> sp. n. !	Petchabun*, Chayaphum*
<i>Amemboa</i> (s. str.) <i>lyra</i> (PAIVA, 1918) (= <i>riparia</i> POLHEMUS & ANDERSEN, 1984 syn. by ZETTEL & CHEN, in print)	Mae Hong Son*, Chiang Mai, Tak, Nan*, Phrae*, Petchabun*
<i>Amemboa</i> (s. str.) <i>armata</i> POLHEMUS & ANDERSEN, 1984	Chiang Mai
<i>Amemboa</i> (s. str.) <i>speciosa</i> POLHEMUS & ANDERSEN, 1984 !	Petchabun*, Chayaphum*
<i>Amemboa</i> (s. str.) <i>cristata</i> POLHEMUS & ANDERSEN, 1984	Mae Hong Son*, Chiang Mai, Lampang, Phrae*, Petchabun*, Chayaphum*, Kanchanaburi, Saraburi, Krabi, Satun*, "Hinlaem"



<i>Amemboa</i> ( <i>Amemboides</i> ) <i>perlata</i> POLHEMUS & ANDERSEN, 1984	Phrae*, Phetchabun*, Saraburi
<i>Amemboa</i> ( <i>Amemboides</i> ) <i>nodosa</i> POLHEMUS & ANDERSEN, 1984	Phuket
<i>Amemboa</i> ( <i>Amemboides</i> ) <i>velaris velaris</i> POLHEMUS & ANDERSEN, 1984	Chiang Mai
<i>Amemboa</i> ( <i>Amemboides</i> ) <i>velaris</i> , intermediate form !	Phetchabun*

\* \* \*

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# The oribatid species described by Berlese (Acari)

MAHUNKA, S. and L. MAHUNKA-PAPP

The authors had the opportunity for years to study the Oribatid species described by Berlese currently deposited in the Istituto Sperimentale per la Zoologia Agraria at Florence. The results of this series of studies are summarized in this volume.

The volume begins with an essay-like Introduction heavily relying on subjective opinions discussing the general questions of Oribatology. The following section lists Berlese's species placed in the modern system helping the specialists with morphological notes and many drawings; here also the condition of the specimens is discussed and lectotypes are designated.

The third, large section is the catalogue proper, wherein all the species are listed in the systematic order together with their combination and synonymic names. Here one may find all the literature data, usually missing from ordinary works, with reference to Description and Taxonomy, Distribution, with special emphasis on Catalogues whose references are partly unreliable. Where it was deemed necessary further information are added under the heading of Remarks. The volume closes with a very detailed list of literature.

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