On a collection of shield bugs from arid areas of central and southern Australia*)

(Insecta, Heteroptera, Pentatomoidea)

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Abstract

For a total of 47 species and 2 additional subspecies of Pentatomoidea from arid areas of central and southern Australia in the Zoologische Staatssammlung München – a great many of them being just recently described – collecting records are presented. Aeliosoma weberi gen. nov., sp. nov. from the vicinity of Alice Springs, Northern Territory, is newly described. The genus cannot be included in one of the existing generic groups of Australian Pentatomoidea erected by Gross (1975b), but it is perhaps rather closely related to either Poecilotoma or Menestheus groups, respectively. For some other species first state records are presented: Buthumka transitionalis Gross, 1975, new to Victoria. Bachesia enigmatica Gross, 1975, new to Northern Territory. From that species, in addition, the hitherto unknown male is recorded. Poecilotomis apicalis apicalis (Westwood, 1837), subspecies new to Northern Territory. Menida personata Distant, 1881, new to South Australia. Distribution ranges of some species are considerably extended, especially of Neagenor anteaureus Gross, 1976, Aglaophon varius Stål, 1876, Poecilotomis apicalis abdominalis Distant, 1910, Oecirrho prasinata (Stål, 1859), and Eversoria picta Gross, 1975.

Introduction

The Zoologische Staatssammlung München holds a collection of shield bugs from central and southern Australia, collected by the author and his companions R. Berg and H. Spieth during 1972. Most of the material has been collected in the vicinity of Alice Springs and at some places in the Mc Donnell Ranges in central Australia (southern Northern Territory), in the northern parts of South Australia, especially in the gibber stone desert near Coober Pedy, in the Flinders Ranges, and in the mallee areas of the Eyre Peninsula. Some additional specimens are from other places in the Northern Territory, western Queensland, and western Victoria.

Rather few is known about systematics and distribution of Pentatomoidea in Australia, especially in the central desert areas. Apart from some older papers containing miscellaneous descriptions of different species, of Bergroth (1895, 1905, 1912, 1916, 1920), Distant (1881, 1900, 1910, 1911), Stål (1876), and van Duzee (1905), only some recent generic revisions are at hand, especially Gross (1970, 1972, 1975a) and McDonald & Edwards (1978). The comprehensive work on the South Australian Pentatomoidea (Gross 1975b, 1976), finally, deals with species from the area under consideration. As can be seen from the latter work, a great many species have been described just in very recent years. But we are still far from a good exhaustive knowledge of the Australian Pentatomid fauna. In particular, very few is known about the distribution of the species. To be sure, there are some collections from de-

*) In honour of Dr. H. H. Weber (Kiel).
desert areas, but the real distribution boundaries of most species are virtually unknown. There is reason to believe, that climatic (temperature or rainfall) gradients or, presumably more important, vegetation zones act as distribution barriers, but for the moment, it is by no means possible to furnish proof for such ideas, because far too less collecting work has been done in the desert areas of central Australia. This is especially due to the remoteness and inaccessibility of most desert areas of interior Australia, but, on the other hand, also to the difficulties of collecting in such areas. Due to the prevalent vegetation type best collecting methods are burning out of the Spinifex tussocks or else collecting at light.

The following account shall help to complete knowledge of distribution of the species, especially of some very recently described species from which records are still very rare. Arrangement of the species follows the arrangement into "generic groups" rather than into subfamilies or tribes which was with convincing arguments proposed by Gross (1975b). In his arrangement of groups some hitherto distinctly separated subfamilies or tribes, as for example Asopinae, Halyiinae, Graphosomatinae, Podopinae, and even Phyllocochpalinae fall into or near the central body of the family and are not given subfamily rank.

The species:

**Scutelleridae**

*Choerocoris peganus* (Fabricius, 1775)


**Pentatomidae**

*Turrubulana plana* Distant, 1910


*Ochisme australis* (Dallas, 1851)

A widely distributed species of arid areas, it lives mainly under bark of *Eucalyptus*. – Northern Territory: Ormiston Gorge, 140 km w. of Alice Springs, 20. 9. 1972; Alice Springs, 18. 9. 1972. – South Australia: Gawler Range, 40 km w. of Iron Knob, Eyre Peninsula, 20. 12. 1972; Wilpena Pound, Flinders Ranges, 25. 12. 1972. The species was plentiful at most places and was collected mainly under bark of Mallee and River eucalypts.

*Amphidexus suspensus* Bergroth, 1918

Also a dry country species, living mainly under *Eucalyptus* bark. – South Australia: Gawler Range, 40 km w. of Iron Knob, Eyre Peninsula, 20. 12. 1972; Wilpena Pound, Finders Ranges, 25. 12. 1972; at both places under bark of eucalypts.

*Buthnumka transitionalis* Gross, 1975

The species was hitherto known only from South Australia and from Western Australia. – Victoria: The Grampians, 10 km s. Hall's Gap, 30. 12. 1972; from low vegetation. This is so far the first record of that species from Victoria.

*Hillhera acuminata* Distant, 1910

A strange looking inhabitant of the desert areas of southern Australia. – South Australia: 10 km s. of Coober Pedy, 28. 9. 1972, at light in gibber stone desert. The species lives perhaps in Spinifex hummocks.
Fig. 1. *Aeliosoma weberi* gen. nov., spec. nov. Holotypus, ♂.
Aeliosoma gen. nov.

Diagnosis: Narrow, elongate species, body shape similar to Aelia. Head: Narrow and elongate, across eyes just half as wide as pronotum. Anteclypeus somewhat raised. Juga a little longer than anteclypeus, just slightly tapering to tip, not strongly raised anteriorly, not meeting in front of anteclypeus. Antennes four-segmented, anterior part of antennophores visible from above. Anterior margin of pronotum deeply excised, sides excavate, abruptly angling behind middle. Posterior angles acute, prominent, with a short tooth directed backwards. Scutellum elongate, tip rounded. Corium at lateral border considerably surpassing tip of scutellum. Rostrum rather delicate, surpassing intermediate coxae. Latero-tergites slightly toothed. Thoracic sterna deeply sulcate medially, margins of prothoracic sulcus with sharply raised edges. Orificium without an elongate keel or a short ear-shaped process, evaporite channel very short. Base of abdomen not swollen into a knob or spine. Abdomen not sulcate medially, 3rd and 4th abdominal segments without a stridulatory area. Pygophore ventrally with a deep, nearly square median excision.

Type species: Aeliosoma weberi spec. nov.

In shape and habitus the new genus comes rather close to the Poecilotoma group of Gross (1975b) and, on the other hand, to the Menestheus group, in last group especially to the genus Pseudaelia. Pseudaelia species, however, are somewhat wider, the antennophores are not or hardly visible from above in that genus, and the antennae are five-segmented. Poecilotoma, on the other hand, is much stouter, the antennophores are much more prominent, and the juga are strongly raised anteriorly. Thus, Aeliosoma cannot belong to either of these groups. But in the opinion of Gross (1975b), both, Poecilotoma and Menestheus groups are rather nearly related. Therefore, Aeliosoma takes perhaps a connecting position between them and should be regarded as an own group.

Aeliosoma weberi spec. nov. (Figs. 1, 2)

Locus typicus: Alice Springs.

Diagnosis: A narrow, elongate, Aelia-like species, characterized by a continuous, clear yellow stripe on pronotum and scutellum and by its four-segmented antenna.

Description of holotypus:

Length (to tip of membrane): 9,7 mm, width: 3,7 mm.

Colour: Greyish to yellowish, with dense and rather coarse dark puncture. Anteclypeus whitish, dark-edged. The whitish marking is continuous with the yellow-white median stripe of pronotum and scutellum. Inside of eyes a small whitish spot. Base of antennophore densely punctate, dark, but tip whitish. 1st antennal segment yellow, just outer part sparsely punctate. Ground colour of 2nd antennal segment yellow, segment, however, very densely punctate, therefore rather dark. 3rd and 4th antennal segments reddish-brown, punctures unicolourous. Pronotum apart from the median stripe, with two vague, whitish stripes each laterally. Scutellum with raised median stripe, which ends in the whitish tip of scutellum, with whitish lateral callus, and with irregular whitish borders. Corium with two vaguely defined white stripes near inner and outer border of mesocorium. Membrane whitish, veins shining, blackish-brown. Lower side yellowish, laterotergites yellow, densely punctate. Lower side of head and prothorax densely punctate, punctures unicoleious, abdomen far more sparsely punctate, punctures small, bordered with pink, only punctures on last sternites larger. Legs yellowish, sparsely punctate, punctures very small, dark. Tips of tibiae and of tarsal segments little darker.

Head: Across eyes just half as wide as long. Juga surpassing anteclypeus, their tips acute, but not meeting in front of anteclypeus. Lateral border in front of eyes with a very blunt tooth, then slightly excavate, smooth. Eyes semicircular, prominent, slightly moved away from anterior border of pronotum. Surface of head evenly and coarsely punctate, a small area inside of eyes smooth, not punctate. Whole surface with sparse, but rather elongate, erect pilosity, just light-coloured areas nearly smooth,


Scutellum: Elongate, but shorter than lateral border of corium. Considerably raised in middle, becoming flattened towards apex. Tip rounded.

Hemielytres: Corium narrow, elongate, posterior border slightly sinuate. Hemielytres densely and coarsely punctate, just two narrow stripes near inner and outer border of mesocorium impunctate. Whole pronotum, scutellum, and hemielytres rather sparsely hirsute. Membrane considerably surpassing abdomen, just inner quarter with some reticulate meshes.

Lower side: Laterotergites slightly toothed, last sternite deeply excraved. Rostrum surpassing intermediate coxae, penultimate segment of rostrum about 2,5× as long as last segment. Tip of rostrum black.

Legs: Fairly elongate, especially posterior tibia. Femora and tibiae densely pilose, hairs elongate, partly erect, partly depressed, some about twice as long as tibia wide. Also tarsi pilose.

♂ genital organ: Pygophore (Figs. 2a, c) deeply excraved ventrally, excision about square. Parameres (Fig. 2b) hook-shaped, aedeagus (Fig. 2d) with circular apical lobe of conjunctiva.

Distribution: Known only from the vicinity of Alice Springs, Northern Territory.

Habits: Virtually unknown, the type specimen was collected at light.

Derivation of name: Genus name because of its similarity to the northern genus Aelia. Species name: In honour of the German Heteroptologist Dr. H. H. Weber (Kiel).

Ippatha australiensis Distant, 1910

A desert living species from dry areas of all states. – Northern Territory: Environments of Alice Springs, 19.9.1972, at light.
**Bachesia enigmatica** Gross, 1975

Presumably also a desert species, but due to the existence of hitherto only three specimens, all females from South Australia, few is known about habits and distribution. – Northern Territory: Environments of Alice Springs, 21.9.1972, at light. The unique specimen is perhaps the first record of the male of this species and also the first record for the Northern Territory. It does not show the elongated tip of abdomen of the females.

**Dictyotus caenosus** (Westwood, 1837)

The species is rather common in more southern areas, less so in the interior (GROSS 1975b). – Northern Territory: Alice Springs, 18.9.1972, at light.

**Poecilotoma grandicornis** (Erichson, 1842)


**Neagenor spinosus** (Dallas, 1851)

The most widely distributed species of this genus, it lives perhaps on *Eucalyptus*. – Northern Territory: Alice Springs, 21.9.1972, at light.

**Neagenor anteauraeus** Gross, 1976

This newly described species seems very rare, the few records are from southern central Australia. – Northern Territory: Devil’s Marbles, 130 km s. of Tennant Creek, 14.9.1972, under bark of *Eucalyptus*. This is by far the northernmost record of this species.

**Neagenor minor** Gross, 1976

Most records of that species are from desert areas in the northern Territory and in Western Australia. – Northern Territory: Alice Springs, 21.9.1972, at light.

**Alcaeus hermannsburgi** (Distant, 1910)

A desert species from Central Australia. – Northern Territory: Environments of Alice Springs, 19.9.1972, under bark of *Eucalyptus*.

**Alcaeus lignicolor** Walker, 1867


**Theseus modestus** (Stål, 1965)

A widely distributed species which lives under the bark of River Gum (*Eucalyptus camaldulensis*) in dry areas. – Queensland: 10 km w. of Cloncurry, 10.9.1972, on *Eucalyptus*.

**Aglaophon varius** Stål, 1876

The species was described from southeastern Queensland. – Queensland: 10 km w. of Cloncurry, 10.9.1972, at *Eucalyptus*. That record possibly extends the range of the species to a considerable extent to the northwest.

**Poecilotometis extraneus** Gross, 1972

A rare species, hitherto only recorded from the Flinders Range in South Australia and from northwestern Victoria. – South Australia: Wilpena Pound, Flinders Range, 25.12.1972, a small series under bark of River eucalypts.

**Poecilotometis alienus** Walker, 1867

A very similar species to *P. extraneus*, but with a much wider range. – South Australia: Wilpena Pound, Flinders Range, 25.12.1972, under bark of River eucalypts.

**Poecilotometis apicalis apicalis** (Westwood, 1837)

The nominate subspecies is distributed through southern Australia, where it is rather common on eucalypts (GROSS 1972) – South Australia: Wilpena Pound, Flinders Range, 25.12.1972, on *Eucalyptus*. – Northern Territory: Devil’s Marbles, 130 km s. of Tennant Creek, 14.9.1972. The Flinders Range record is immediately at the nor-
tern border of the suspected range of this subspecies, but the specimen from Devil's Marbles extends the range considerably to the north and deeply into Northern Territory from where no Poecilometis apicalis of any subspecies was hitherto known.

Poecilometis apicalis abdominalis (Distant, 1910)
The northernmost subspecies has been recorded from northern, eastern and central Queensland south of Townsville (GROSS 1972) – Queensland: Einasleigh River, 65 km e. of Georgetown, 7.9.1972. This is a record far north-west from the known range of that subspecies.

Poecilometis patreli s ynigrum (Bergroth, 1916)
This subspecies is a common inhabitant of arid areas, where it lives mainly under bark of the River Gum (Eucalyptus camaldulensis). – Northern Territory: Ormiston Gorge, 140 km w. of Alice Springs, 20.9.1972; environments of Alice Springs, 21.9.1972, at both places on River Gums.

Poecilometis punctiventris (Stål, 1876)
A western species, rather rare in South Australia and the eastern states. – South Australia: Hambidge Mallee, 60 km w. of Cleve, Eyre Peninsula, 22.12.1972.

Poecilometis fuscescens (Stål, 1876)

Poecilometis acanthopygius (Stål, 1876)
A more northern species from dry areas of the interior. – Northern Territory: Alice Springs, 19.9.1972, at bark of Eucalyptus.

Poecilometis calidus Walker, 1867
A species of the northern part of Australia which ranges south to Central Australia. – Northern Territory: Ormiston Gorge, 140 km w. of Alice Springs, 20.9.1972; at the southern boundary of the range.

Poecilometis nigriventris nigriventris (Dallas, 1851)
This is the subspecies of the northern part of Australia. – Queensland: 10 km w. of Cloncurry, 10.9.1972, under bark of River eucalypts.

Poecilometis nigriventris superbus (Distant, 1899)
The vividly coloured subspecies ranges from central to northern Australia. – Northern Territory: Devil's Marbles, 130 km s. of Tennant Creek, 14.9.1972; Ormiston Gorge, 140 km w. of Alice Springs, 20.9.1972; environments of Alice Springs, 21.9.1972; all records from under bark of River Gum.

Agonoscelis rutila (Fabricius, 1775)
Very widely distributed in most eastern states. – South Australia: Bunyaroo Valley, Flinders Ranges, 26.12.1972, a series caught from low vegetation.

Kapunda troughtoni (Distant, 1910)

Kapunda tepperi Gross, 1976
Very nearly related to preceding species, but much rarer. Known only from South Australia. – South Australia: 10 km s. of Coober Pedy, 28.9.1972, only 1 specimen was caught at light together with a series of about 40 K. troughtoni.

Kalkadoona pallida (Van Duzee, 1905)
An arid country species of southern Australia. – South Australia: 10 km s. of Coober Pedy, 28.9.1972, at light.
Kalkadoona cooperi Gross, 1976
A fairly rare species, known only from southern parts of South Australia. – South Australia: Wilpena Pound, Flinders Ranges, 25.12.1972, from bark of Eucalyptus.

Oncocoris apicalis (Dallas, 1851)
The rather rare species is distributed over most of southern Australia. – South Australia: Wilpena Pound, Flinders Ranges, 25.12.1972, from Eucalyptus bark.

Oncocoris desertus Bergroth, 1916

Oncocoris carpentarius McDonald, 1978
This recently described species was hitherto recorded from very few places in northern Queensland and Northern Territory. – Queensland: Einasleigh River, 65 km e. of Georgetown, 7.9.1972, from River Eucalyptus.

Cephaloplatus granulatus Bergroth, 1895
A desert species, mainly recorded from interior South Australia. – South Australia: 10 km s. of Coober Pedy, 28.9.1972, at light.

Cephaloplatus nubifer Bergroth, 1916

Cephaloplatus bellus Gross, 1970
Also a species from the interior of Australia. – Northern Territory: Environments of Alice Springs, 21.9.1972, at light.

Minchamia hubbardae Gross, 1976
The species would belong to subfamily Phyllocephalinae. After Gross (1976) it is restricted to Spinifex areas of the interior. – South Australia: Wilpena Pound, Flinders Ranges, 25.12.1972, under stone on the ground.

Stenozygm meridionale Gross, 1976
Very few specimens are known from this recently described species. – South Australia: 10 km s. of Coober Pedy, 28.9.1972, at light in gibber stone desert.

Anaxilans vesicnlosus (Herrich-Schaeffer, 1839)
A species from sandy areas near the coast. – South Australia: Coast near Lake St. Clair, 40 km s. of Kingston, 5.10.1972.

Menida personata Distant, 1881
A rather rare species from central Australia. – South Australia: 10 km s. of Coober Pedy, 28.9.1972, at light. It seems to represent the first record from South Australia.

Ocirrhoe unimaculata (Westwood, 1837)
The species lives near the coast in most parts of its range, but in rather dry environments (Gross 1976). – South Australia: Hambidge Mallee, 60 km w. of Cleve, Eyre Peninsula, 22.12.1972, at light in very dry mallee.

Ocirrhoe prasinata (Stål, 1859)
The species seems more hygrophilous than other species of the genus. – South Australia: Coast near Lake St. Clair, 40 km s. of Kingston, 5.10.1972; Wilpena Pound, Flinders Ranges, 25.12.1972. The Wilpena Pound specimen is the only record from dry, more northern areas.
Cuspicona intacta  Walker, 1868

Cuspicona ooldeae  Gross, 1975
Also a species from arid regions. – South Australia: 10 km s. of Coober Pedy, 28.9.1972, at light in gibber stone desert.

Cuspicona eremophilae  Gross, 1975
A dry area species of southern Australia. – South Australia: 10 km s. of Coober Pedy, 28.9.1972, at light in gibber stone desert.

Everardia picta  Gross, 1975
The species has a curious distribution, it is known so far from desert areas of northwestern South Australia and adjacent Western Australia and from the vicinity of Adelaide (GROSS 1976). – South Australia: 10 km s. of Coober Pedy, 28.9.1972, at light in gibber stone desert. This record is rather east of the known range.

Literature


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