

A new species of *Andersenella* (Heteroptera: Gerridae) from Sulawesi (Indonesia)

PINGPING CHEN & NICO NIESER

CHEN, P. P. & N. NIESER, 2000. A NEW SPECIES OF *ANDERSENELLA* (HETEROPTERA: GERRIDAE) FROM SULAWESI (INDONESIA). – *ENT. BER., AMST.* 60 (4): 69-71.

Abstract: *Andersenella nilsi* spec. nov. from the island of Karakelong (Sulawesi, Indonesia) is described and compared with the other species in the genus. First data on the macropterous form in this genus are given.

Hertog Eduardstraat 16, 4001 RG Tiel, The Netherlands.

Introduction

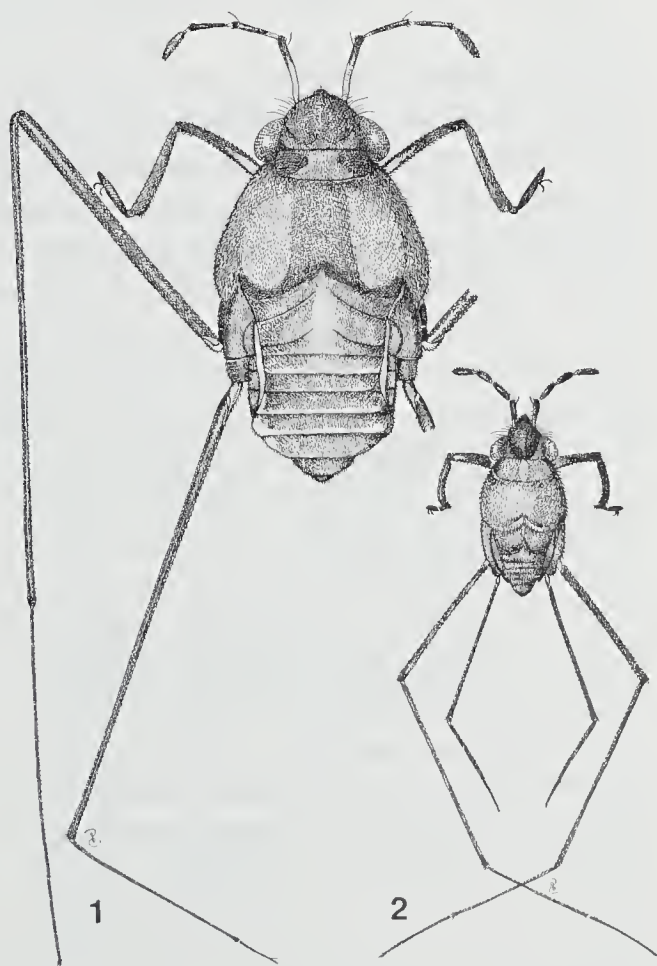
Andersenella was a monotypic genus belonging to the subfamily Trepobatinae of the Gerridae and was described with its type species *A. binotata* J. T. Polhemus and D. A. Polhemus from New Guinea (Polhemus & Polhemus, 1993). The new species gives a better understanding of the genus and extends its range considerably.

The Trepobatinae are characterised as Gerridae with a stout middle femur which is usually shorter than the middle tibia (figs 1-2) (Andersen, 1982). Within the Trepobatinae *Andersenella* belongs to the tribe Metrobatini which is characterised by having long setae on the first segment of the anterior tarsi and stiff spine-like setae on both antennal segments I and II restricted to the distal quarter. Except for the New World genus *Metrobates* the Metrobatini were restricted to the Australian and Papuan areas (Polhemus & Polhemus, 1993).

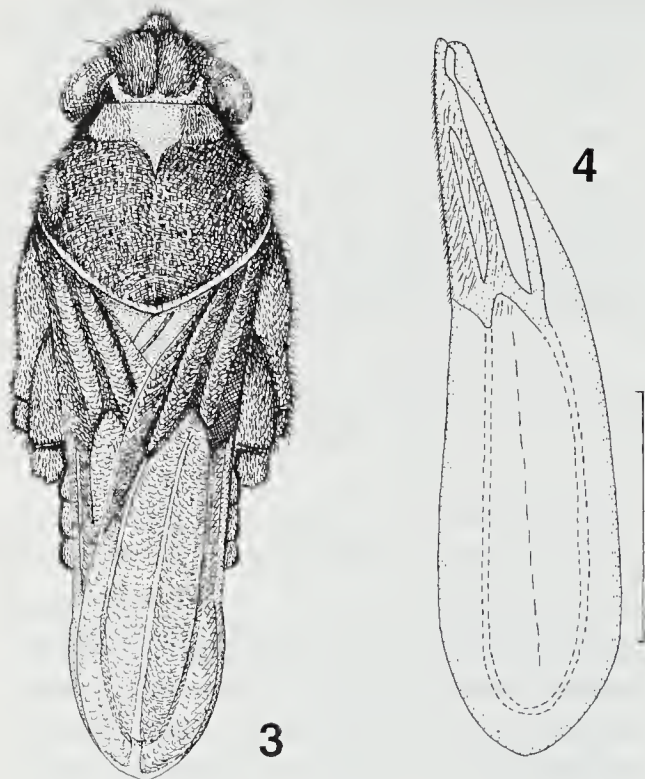
Andersenella shows a strong sexual dimorphism, males being only about half as long as females (figs 1-2). Within Metrobatini this characteristic is shared with the Eastern Australian genus *Rheumatometra* Kirkaldy, which, however, has the interocular distance twice as wide as the eye, whereas in *Andersenella* the interocular distance is 1.5 times as wide as the eye. Moreover, in *Rheumatometra* the antennal segments I and II are of subequal length, whereas in *Andersenella* the first is 1.3-1.4

times as long as the second. The yellowish spots on the mesonotum used by Polhemus & Polhemus (1993) in their key to the genera of Metrobatini turned out to be a characteristic of *A. binotata* and cannot be used to distinguish *Andersenella*.

Measurements are in mm, based on alcohol



Figs 1-2. *Andersenella nilsi* spec. nov. 1, holotype, apterous ♀ (body length 2.7 mm); 2, allotype, apterous ♂ (body length 1.35 mm).



Figs 3-4. *Andersenella nilsi* spec. nov. 3, paratype, macropterous ♀, body length 3.8 mm, appendages removed; 4, hemielytron *Andersenella nilsi*, ♀, scale line: 1 mm.

specimens. They are presented as the range with the mean between brackets. Five specimens of the apterous form of each sex have been measured. The macropterous form was only represented by one dealated male and one female. The holotype female is the largest female measured. The small intercalary segment of the antenna is included in the length of third antennal segment. The tarsal segments of the fore tarsi have been measured together as the first segment is very short, in hind tarsi the tarsal segments are fused.

Collections to which some paratypes have been sent are The Natural History Museum, London, England (BMNH); the Nieser Collection, Tiel, The Netherlands (NCTN); Naturhistorisches Museum, Vienna, Austria (NHMW); Museum Naturalis, Leiden, The Netherlands (RMNH); Zoological Museum, Amsterdam University, Amsterdam, The Netherlands (ZMAN) and Zoological Museum, University of Copenhagen, Copenhagen, Denmark (ZMUC). The abbreviations are according to Arnett et al. (1993).

The island of Karakelong where the new

species has been found belongs to the Talaud Islands, which are part of the Indonesian province of Sulawesi Utara. They are located about 300 km North of the northern point of the island of Sulawesi.

Andersenella nilsi spec. nov.

Type material

Holotype: apterous ♀: Indonesia, Sulawesi Utara Prov., Pulau Karakelong, Desa Ambela, river downstream of irrigation dam, 30.xi.1994, leg. N. Nieser (NCTN, to be transferred to RMNH). Paratypes: 56♂, 69♀ apterous, 1♂ dealate, 1♀ macropterous, same data as holotype (NCTN, 4♂, 4♀ in NHMW, and some other paratypes in BMNH, RMNH, ZMAN, ZMUC).

Description

Apterous form (figs 1-2). Dimensions. Body length ♂: 1.35-1.50 (1.40), ♀: 2.79-3.05 (2.97); greatest width ♂: 1.49-1.62 (1.55); width of head ♂: 0.52-0.54 (0.53), ♀: 0.91-0.95 (0.92); width of pronotum ♂: 0.45-0.47 (0.46), ♀: 0.68-0.74 (0.71); shortest distance between eyes anteriorly ♂: 0.25-0.26 (0.25), ♀: 0.41-0.44 (0.42); median length of mesonotum ♂: 0.32-0.36 (0.35), ♀: 0.80-0.82 (0.81).

Colour. Ground colour black. Head with an indistinct brownish transverse stripe posteriorly, extending forward along inner eye margins. Pronotum with a yellowish median spot which is covered by pruinosity. Mesonotum black with posterior part indistinctly pruinose in male, black with lateral quarters pruinose in female. Inner face of connexival segments and, especially in females, sutures of abdominal tergites yellow. Female with a median longitudinal stripe on metanotum and first abdominal tergite and margins of outer faces of connexival segments yellowish. Base of first antennal segment, acetabulum, coxa, trochanter and base of femur of fore leg, middle coxa and trochanter and hind trochanter yellowish. Mesosternum of female black with bluish pruinose bloom, rest of venter mainly yellowish. Venter of male light to dark brown.

Interocular distance anteriorly one and a

half times the width of an eye (δ : 0.25:0.16, ♀ : 0.42:0.27). Median length of pronotum about half the median length of mesonotum in males (0.16:0.35) to slightly over one quarter the median length of mesonotum in females (0.22:0.81).

Female. Length of antennal segments 0.50:0.36:0.28:0.32. First antennal segment longer than the width of interocular distance anteriorly. Measurements of legs (femur: tibia: tars1: tars2; tars 1& 2 lumped in fore and hind leg) as follows: fore leg 1.02:0.74:0.48; middle leg 2.84:3.90:1.90:0.93; hind leg 3.61:1.35:0.43.

Male. Length of antennal segments 0.21:0.16:0.14:0.17. First antennal segment slightly shorter than the width of the interocular distance anteriorly. Fore leg, femur curved and ventrally beset with short stiff setae; tibia curved apically giving the impression that it is apically broadened; femur and tibia of subequal length. Measurements of legs (as in females) as follows: fore leg 0.42:0.41:0.12; middle leg 1.08:1.45:0.82:0.57; hind leg 1.11:0.53:0.20.

Other characteristics are as in the description of the genus by Polhemus & Polhemus (1993).

Macropterous form (based on one male and one female): Antennal and leg measurements as in apterous form.

Female (fig. 3). Body length 3.80, width 1.47, median length of pronotum 1.05, humeral width of pronotum 1.28. Pronotum and wings well developed. Pronotum black, anteriorly with a median yellowish spot and an anterior transverse pruinose band, posterior margin narrowly and indistinctly brown. Wings reaching 1.15 beyond apex of abdomen.

Male, dealate. Measurements as in the apterous form, except for the median length of the pronotum (0.80) and the humeral width of the pronotum (0.89). Colour of the pronotum as in the macropterous female.

Habitat

At the collection site the water was 2 m wide

and 0.3-0.5 m deep in a 5-10 m wide stream bed. The water was colourless and slightly turbid. The vegetation on the banks consists at one side of disturbed forest on the other side of undisturbed lowland rainforest. *Andersenella nilsi* was found in side pools in the shade of the undisturbed forest.

Etymology

The name *nilsi* is given in honour of Dr Nils Møller Andersen for his outstanding contributions to the knowledge of the Gerromorpha.

Comparative notes

In comparison to *Trepobates* Uhler and *Halobatopsis* Bianchi, two genera of the tribe Trepobatini, the weak veins in the membranaceous apical part of the hemielytra (fig. 4) of *Andersenella* form a loop, whereas in *Trepobates* and *Halobatopsis* they do not meet apically (Andersen, 1982; Nieser & Lane de Melo, 1999).

Andersenella nilsi differs from *A. binotata*, the only other species in the genus, by the lack of yellow spots on the mesonotum and a smaller average size (*A. binotata*: mean body length δ : 1.79, ♀ : 3.29; greatest width δ 0.90, ♀ 1.79).

References

- ANDERSEN, N. M., 1982. The semiaquatic bugs (Hemiptera, Gerromorpha). – *Entomograph* 3: 1-455.
- ARNETT JR., R. H., G. A. SAMUELSON & G. M. NISHIDA, 1993. The insect and spider collections of the world. – *Flora & Fauna Handbook* 11: i-v, 1-308.
- NIESER, N. & A. LANE DE MELO, 1999. A new species of *Halobatopsis* (Heteroptera: Gerridae) from Minas Gerais (Brazil), with a key to the species. – *Entomologische Berichten, Amsterdam* 59: 97-102.
- POLHEMUS, J.T. & D. A. POLHEMUS, 1993. The Trepobatinae (Heteroptera: Gerridae) of New Guinea and surrounding regions, with a review of the world fauna. Part 1. Tribe Metrobatini. – *Entomologica Scandinavica* 24: 241-284.

Accepted 25.i.2000.