

IDENTITY OF SPECIES OF TRICHOPTERA DESCRIBED BY K. KORBOOT
1964-65 (INSECTA)

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Abstract

Neboiss, A., 1987. Identity of species of Trichoptera described by K. Korboot 1964-65 (Insecta).
Mem. Mus. Vict. 48: 131-140.

Species of Trichoptera described by Korboot in 1964-65 have been re-examined and their amended taxonomic positions are indicated. New illustrations are prepared to facilitate their identification.

Introduction

The identities of thirteen species of caddis-flies from Australia and New Guinea described in three papers by K. Korboot (1964a, b, 1965) have been of some concern. The descriptions contain a number of inaccuracies, and some descriptions do not correspond to the designated type material; the illustrations are too diagrammatic to permit positive identification. The entire material has now been re-examined and wherever possible new illustrations have been prepared

from freshly cleared abdomens of paratypic and positively identified material.

The original species names are listed here in the sequence they appear in the particular publications, followed by the present combination.

All holotypes and some paratypes of these species are deposited in the Queensland Museum collection, Brisbane (QM); the remaining material, including paratypes, is in the Entomology Department, University of Queensland, St Lucia (EQU).

1. 1964a "Four new species of caddis-flies from eastern Australia.":

<i>Oecetis situlus</i>	see <i>Oecetis australis</i> (Banks, 1920).
<i>Helicopsyche cochleaetesta</i>	see <i>Helicopsyche cochleaetesta</i> Korboot, 1964.
<i>Hydrobiosella letti</i>	see <i>Hydrobiosella letti</i> Korboot, 1964.
<i>Macronema torrenticola</i>	see <i>Baliomorpha banksi</i> (Mosely, 1953).

2. 1964b "Eight new species of caddis-flies from the Australian region.":

<i>Ornatus densus</i>	see <i>Tanorus densus</i> (Korboot, 1964).
<i>Austreconomina kenampi</i>	see <i>Polycentropus kenampi</i> (Korboot, 1964).
<i>Polycentropus niger</i>	see <i>Polycentropus similis</i> Kimmins, 1962.
<i>Symphitoneuria ampla</i>	see <i>Symphitoneuria ampla</i> Korboot, 1964.
<i>Triaenodes bernaysae</i>	see <i>Triaenodes bernaysae</i> Korboot, 1964.
<i>Hydropsyche flynni</i>	see <i>Hydropsyche flynni</i> Korboot, 1964.
<i>Abacaria barretti</i>	see <i>Abacaria barretti</i> Korboot, 1964.
<i>Herbertorossia rapsoni</i>	see <i>Herbertorossia orakaivai</i> Kimmins, 1962.

3. 1965 "A new species of caddis-fly from New Guinea.":

<i>Chimarra aiyura</i>	see <i>Chimarra aiyura</i> Korboot, 1965.
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Depository institutions for other material noted are: Australian National Insect Collection, Canberra (ANIC); Bernice P. Bishop Museum, Honolulu (BPBM); British Museum (Natural History) London (BMNH); and Natural History Museum, Sofia (NHMS).

The preparations made for this study bear the present author's notebook number with prefix "PT". They have been cleared in KOH solution and transferred to glycerine for drawing and storage in microvials. The Queensland Museum type registration number has the prefix "T".

Hydrobiosidae

Tanorus densus (Korboot)

Figures 1-3

Ornatus densus Korboot, 1964a: 48, figs. 4-6, 27 (not 29 as stated in description).

Tanorus densus.—Neboiss, 1984a: 180, figs. 4-7.

Type material. Holotype ♂, NEW GUINEA: Papua New Guinea, Mendi (6°10'S, 143°40'E), 5500 ft (1680 m), UV-light, 11 Oct 1960, J.H. Barrett, QM T-6189 (abdomen and wings on microscope slide). paratypes 2♂♂, collected with holotype, EQU (genitalia preparation PT-1250 figured).

Female unknown. No other material is available.

Diagnosis. The pocket-like folds of male forewings in resting position form a characteristic, horizontally flattened area above thoracic segments; ventral margin of segment 9 produced distally and thickened; tubercles at base of segment 10 bilobed.

Remarks. The generic name *Ornatus* Korboot, 1964b, was found to be preoccupied by *Ornatus* Laubenfels, 1955 (Porifera, Family Camerospongiidae); a new name, *Tanorus*, was introduced by Neboiss (1984a).

In comparing "*Ornatus*" with the Australian genus *Taschorema* Mosely, Korboot incorrectly described the latter as being without fork 4 in the forewing, and "*Ornatus*" hindwing with "scent organ . . . broad, thickened, dark in colour and thickly covered with hairs". There is no such structure (organ) present in the hindwing, although there is a large pocket-like fold in the forewing along vein A.

Distribution. New Guinea (central highlands).

Philopotamidae

Chimarra aiyura Korboot

Figures 4-6

Chimarra aiyura Korboot, 1965: 40, figs. 1-4.

Type material. Holotype ♂, NEW GUINEA: Papua New Guinea, Aiyura (6°20'S, 145°53'E), 5500 ft (1680 m), 12 Sep 1960, J.H. Barrett, QM T-6205; paratype ♂, collected with holotype, EQU (genitalia preparation PT-1307 figured).

Female unknown.

No other material is available.

Diagnosis. Male abdominal segment 9 with small ventral keel; U-shaped mesal excision at apex of segment 10; inferior appendages slender, evenly curved.

Remarks. The holotype abdomen is mounted on a microscope slide, but the individual parts of the genitalia are difficult to interpret; thus, the abdomen of the paratype was cleared, details were compared with the holotype and new figures prepared.

Distribution. New Guinea (central highlands).

Hydrobiosella letti Korboot

Figures 7,8

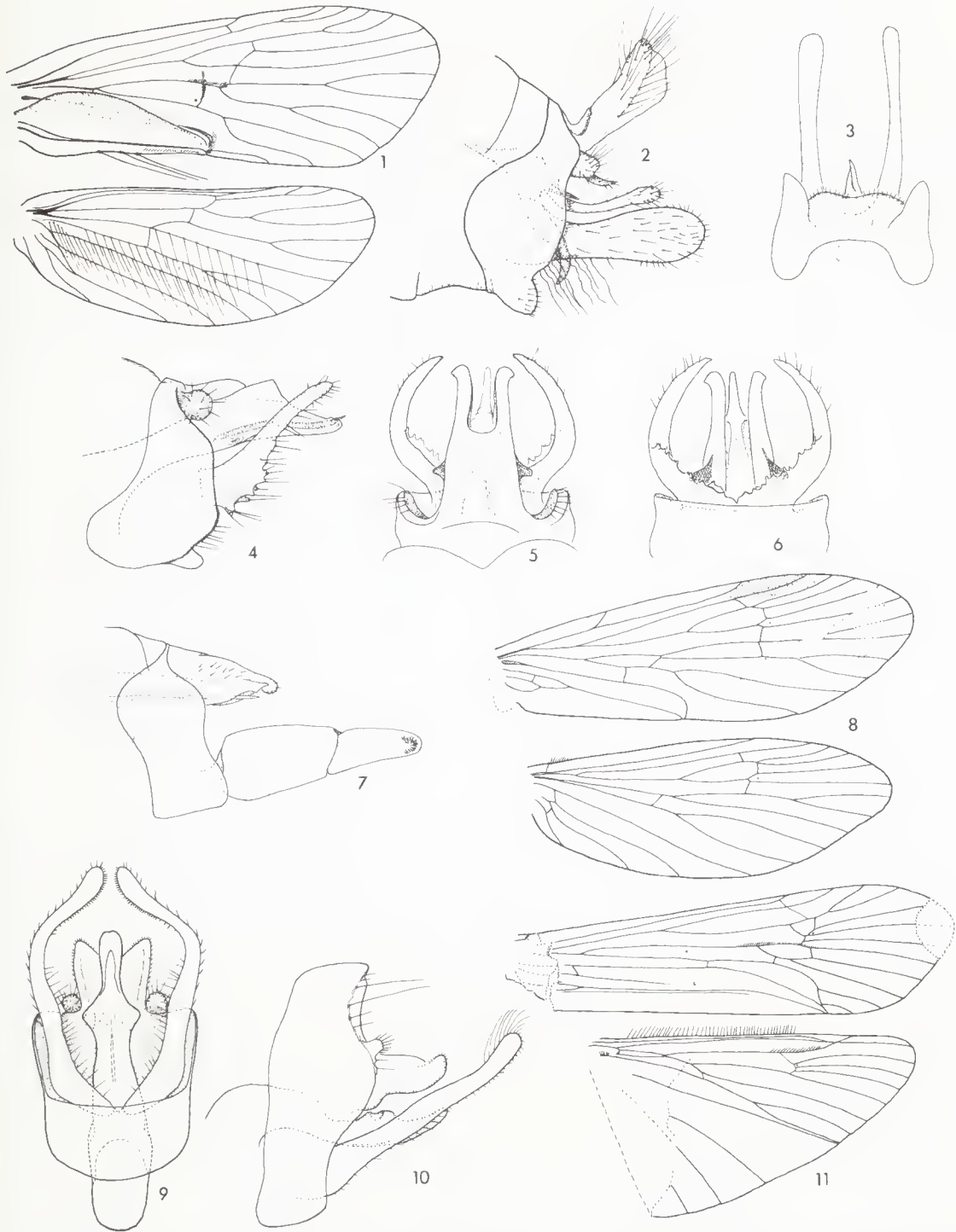
Hydrobiosella letti Korboot, 1964a: 36, figs. 40-57.

Type material. Holotype ♂, AUSTRALIA: New South Wales, Lett River nr Lithgow, 25 Sep 1962, Korboot, QM T-6182 (abdomen and wings mounted on microscope slides).

Female unknown. No new material is available.

Diagnosis. Male abdominal segment 9 short, without lateral excision, segment 10 in lateral view triangular, small, pointed lateral flange near apex; phallus with long sclerotized spine.

Remarks. Described from a single male specimen. The tip of the abdomen has been cleared and mounted on a microscope slide. The wings are mounted separately and consist of several broken pieces; the venation is reconstructed and shown in figure 8. The forewing length of 12 mm given in the description is an obvious error; the scale line given to figure 46 indicates the correct forewing length of 4.5 mm. The vial containing remaining body parts has two locality labels, one giving Lett River via Lithgow the other Montville, Qld as the place of collection. Details of the Lett



Figures 1-3, *Tanorus densus* (Korboot), paratype male: 1, wing venation; 2, genitalia lateral; 3, ventral. Figures 4-6, *Chimarra aiyura* Korboot, paratype male: 4, genitalia lateral; 5, dorsal; 6, ventral. Figures 7, 8, *Hydrobiosella letti* Korboot, holotype male: 7, genitalia lateral; 8, wing venation. Figures 9-11, *Baliomorpha banksi* (Mosely), holotype male of *M. torrenticola* Korboot; 9, genitalia ventral; 10, lateral; 11, wing venation.

River label correspond to the published information. No further specimens have been captured from either locality.

Distribution. Australia (eastern New South Wales).

Hidropsychidae

Baliomorpha banksi (Mosely)

Figures 9-11

Macronemum torrenticola Korboot, 1964a: 39, figs. 58-78.
Baliomorpha banksi.-Neboiss, 1984b: 130, figs. 9, 10, 35-38 (full synonymy).

Type material. Holotype ♂, AUSTRALIA: Queensland, Cedar Creek, Tamborine, 3 Oct 1962, Korboot (as in original publication) (QM T-6183); paratype ♀, same locality as holotype (QM T-6184).

Diagnosis. Forewings blackish with numerous pale yellow to golden spots scattered between the veins. Phallus expanded mid-laterally, apex upcurved.

Remarks. The species *M. torrenticola* was synonymized with *B. banksi* (Mosely) by Neboiss (1984b). The original description refers to a single specimen, the male holotype. However, further in the text wing measurements are given for both sexes. The holotype male is preserved in alcohol; the right side wings and abdomen are removed and mounted on microscope slide. In the same vial is one female specimen with head and right side wings detached and loose in the vial, a cast pupal shell is present also, but its identity is not confirmed.

The following labels are present: "Montville, Q. Mar. 1962. K.K. sp.R./ *Macronemum* sp. nov. E.F. Riek det. 1962/ *M. torrenticola* ♂ Holotype, Korboot/ QM reg.no ♂ Holotype T-6183; ♀ paratype T-6184". This locality and date disagree with label data on holotype slides which are the same as in the publication. The slide T-6183a contains male wings, but the slide T-6183b contains the abdomen of *Smicrophylax* sp. male.

There is also discrepancy in wing measurements as the holotype forewing length is 10 mm, not 16 mm as given in the description.

According to Dean (1984) the larva described and figured as *M. torrenticola* is an unidentified species of the subfamily Diplectroninae.

Distribution. Australia (north-east and south-east Queensland).

Hidropsyche flynni Korboot

Figures 12-15

Hidropsyche flynni Korboot, 1964b: 51, figs. 1-3, 26.
Hidropsyche papuana Kumanski, 1979: 202, figs. 21-23. syn. nov.

Type material. Holotype ♂ of *Hidropsyche flynni*, NEW GUINEA: Papua New Guinea, Laiagam (Liagam) (5°30'S, 143°25'E), 5700 ft (1730 m), 23 Mar 1963, J.H. Barrett (QM T-6185); paratypes 3 ♀ ♀ collected with holotype (EQU).

Holotype ♂ of *Hidropsyche papuana*, NEW GUINEA: Papua New Guinea, Telefomin (5°08'S, 141°30'E) 1660 m, 25 Jul-3 Sep 1975 (NHMS). Type not examined.

Other material examined. NEW GUINEA: 1 ♂, 21 ♀ ♀, Lia-gam, collected with holotype of *H. flynni*; (genitalia preparation PT-1340 ♂; PT-1348 ♀ figured) (EQU); 1 ♂, 4 ♀ ♀, Mendi (6°10'S, 143°40'E), 11 Oct 1960, J.H.Barrett (EQU).

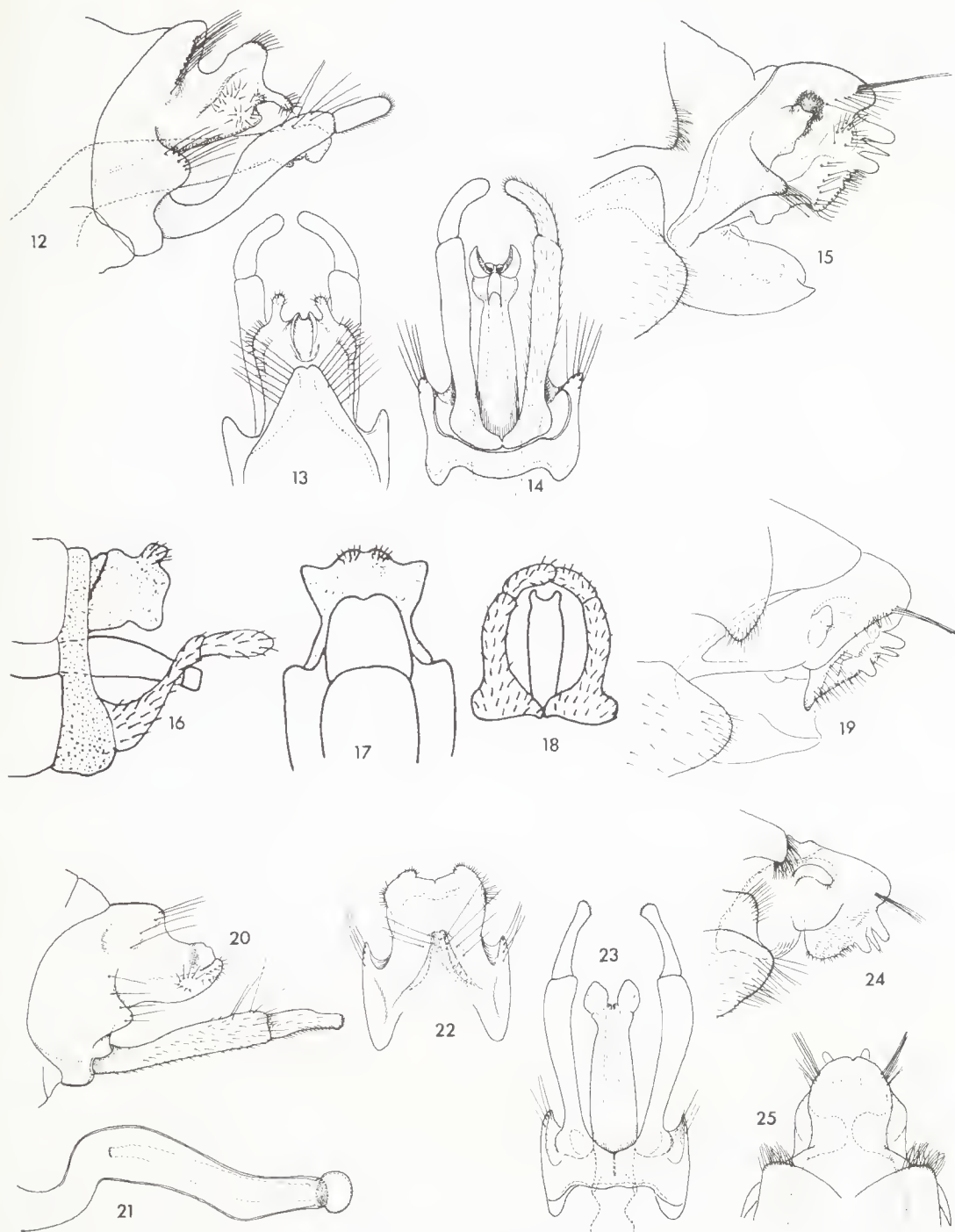
Diagnosis. Distal margin of male abdominal segment 9 with rounded lateral lobe; segment 10 in lateral view raised mid-dorsally into a distinct hump, a pair of digitiform processes at apex. Female abdominal segment 9 with lateral cavity short, rounded.

Length of forewing: ♂ 13-16 mm; ♀ 17-19 mm.

Remarks. The type material of four specimens, the holotype male and three female paratypes, was selected by Korboot from the original series of 26 specimens. The remaining specimens (1 ♂, 21 ♀ ♀) have been used here to verify the identity of the species.

The length of forewings for both sexes given in the original description (♂ 20-21 mm; ♀ 26-28 mm) is erroneous as there are no specimens of these dimensions among the material. The correct sizes are given above. The figures of male genitalia apparently were prepared from a cleared preparation, which was later mounted on a microscope slide. However, the slide labelled as *Hidropsyche flynni* holotype contains the abdomen of an unidentified *Anisocentropus* sp. male. New figures are prepared from the specimens collected with the holotype.

The illustrations and description of *Hidropsyche papuana* Kumanski (1979) fully agree with



Figures 12-15, *Hydropsyche flynni* Korboot, topotypes: 12, male genitalia lateral; 13, dorsal; 14, ventral; 15, female genitalia lateral. Figures 16-19, *Abacaria barretti* Korboot, male figures reproduced from Korboot 1964b: 16, male genitalia lateral; 17, dorsal; 18, ventral; 19, paratype female, genitalia lateral. Figures 20-25, *Herbertorossia orakaivai* Kimmins, paratypes of *H. rapsoni* Korboot; 20, male genitalia lateral; 21, phallus lateral; 22, male genitalia dorsal; 23, ventral; 24, female genitalia lateral; 25, dorsal.

specimens of *H. flynni*. *H. papuana* is thus a new synonym.

Distribution. New Guinea (central highlands).

Abacaria barretti Korboot

Figures 16-19

Abacaria barretti Korboot, 1964b: 52, figs. 7-9, 24.

Type material. Holotype ♂, NEW GUINEA: Papua New Guinea, Kundiawa (5°59'S, 145°01'E) 5200 ft (1580 m), 15 Sep 1959, J.H. Barrett (QM T-6191); paratypes 2 ♀♀ collected with holotype (genitalia preparation PT-1346 figured) (EQU).

No new material is available.

Diagnosis. Male abdominal segment 9 in dorsal view broad, rounded apically, slightly excised mesally; segment 10 short, in lateral view truncate apically, upper apical angles rounded, slightly elevated. Female abdominal segment 9 with lateral cavity elongate oval.

Length of forewing: ♂ 6-7 mm; ♀ 6.5 mm.

Remarks. No part of the microscope preparation labelled as the holotype abdomen corresponds with the published illustrations of male genitalia. Indeed, that abdomen appears to be a female of an unknown species. The type material consists of only three specimens, the holotype male and two paratype females. The presence of other similar species in the same general area makes it necessary to obtain authentic male specimens from the type locality to verify the species identity. Under the present circumstances the original illustrations of the male genitalia (here reproduced) strongly suggest that, irrespective of described differences, *A. barretti* is most likely a synonym of *A. subfusca* Kimmins (1962).

Distribution. New Guinea (central highlands).

Herbertorossia orakaivai Kimmins

Figures 20-25

Herbertorossia orakaivai Kimmins, 1962: 141, fig. 40.

Herbertorossia rapsoni Korboot, 1964b: 52, figs. 10-12, 31 (not 13-15 as stated in description). syn. nov.

Type material. Holotype ♂ of *Herbertorossia orakaivai*, NEW GUINEA: Papua New Guinea, Kokoda (8°52'S, 147°45'E), May 1933, L.E. Cheesman (BMNH); paratypes 10 ♂♂, 10 ♀♀, same locality as holotype, L.E. Cheesman, Jul, Sep, Oct 1933 (BMNH). Type not examined.

Holotype ♂ of *Herbertorossia rapsoni*, NEW GUINEA: Papua New Guinea, Minj (5°51'S, 144°40'E) 5200 ft (1580 m), 20 May 1960, J.H. Barrett 1960 (QM T-6190); paratypes 1 ♂ 2 ♀♀ collected with holotype (genitalia preparations PT-1391 ♂, PT-1392 ♀ figured) (EQU).

Other material examined. NEW GUINEA: 1 ♂, 13 ♀♀, Minj, 5200 ft, 20 May 1960, J.H. Barrett (EQU).

Diagnosis. Male foreleg tarsal claw enlarged; abdominal segment 9 in dorsal view somewhat triangular, minutely excised apically, lateral lobe small, bluntly triangular; segment 10 in dorsal view broad, apical angles rounded, mesal excavation shallow, broad. Female abdominal segment with lateral cavity broad.

Length of forewing: ♂ 6-7 mm; ♀ 7-8 mm.

Remarks. Re-examination of type material revealed that one of the three paratypes, although labelled as female, is actually a male. The abdomen was cleared and new figures prepared. The holotype body is mounted as a microscope preparation. Although the preparations of both sexes show some small differences, these are not considered sufficient for separating *H. rapsoni* from *H. orakaivai* Kimmins and the species are here synonymised.

Distribution. New Guinea (central highlands).

Polycentropodidae

Polycentropus kenampi (Korboot)

Figures 26-29

Austreconomina kenampi Korboot, 1964b: 48, figs. 19-23, 25 (not 13-15, 23-25 as stated in description).

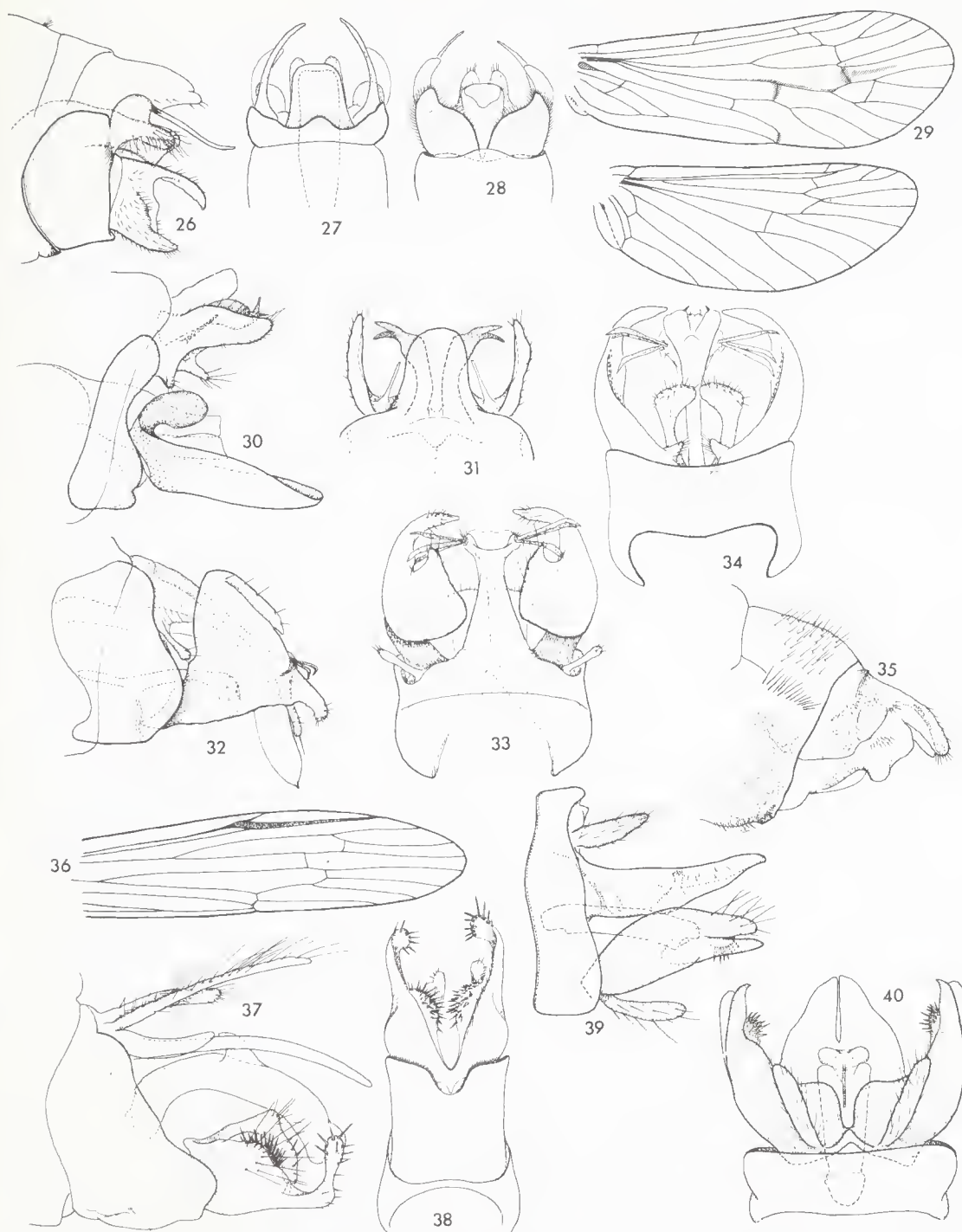
Polycentropus drummondi Illies, 1969: 487, figs. 1-3. syn. nov.

Type material. Holotype ♀ (not ♂) of *Austreconomina kenampi*, NEW GUINEA: Papua New Guinea, Mt. Wilhelm (5°44'S, 145°04'E) 11300 ft (3440 m), 3 Sep 1959, A.M. Rapsion (QM T-6188); paratypes 3 ♂♂ (not ♀♀ as stated in the description) J.H. Barrett (genitalia preparation PT-1318 figured) (EQU).

Holotype ♂ of *Polycentropus drummondi*, NEW GUINEA: Papua New Guinea, shore of Lake Aunde (5°44'S, 145°04'E) 3600 m, 2 Oct 1966, J. Illies (ANIC); paratype ♀ collected with holotype. Type not examined.

No other material is available.

Diagnosis. Male genitalia with segment 9 semi-membranous, mesal section extended distally into somewhat rectangular lobe, obscuring segment



Figures 26-29, *Polycentropus kenampi* (Korboot), paratype male; 26, genitalia lateral; 27, dorsal; 28, ventral; 29, wing venation. Figures 30, 31, *Polycentropus similis* Kimmins, male from Karimui nr Goroka; 30, genitalia lateral; 31, dorsal. Figures 32-35, *Helicopsyche cochleaetesta* Korboot, specimens from Brisbane area; 32, male genitalia lateral; 33, dorsal; 34, ventral; 35, female genitalia lateral. Figure 36, *Oecetis australis* (Banks), holotype male of *O. situlus* Korboot, portion of forewing. Figures 37, 38, *Trianodes bernaysae* Korboot, male from Brisbane area: 37, genitalia lateral; 38, ventral. Figures 39, 40, *Symphitoneuria ampla* Korboot, male from Laiagam: 39, genitalia lateral; 40, ventral.

10; upper margin of superior appendage extended into long mesally curved process; inferior appendage short, broad, upper margin forming a curved process.

Length of forewing: ♂ 6.2-6.5 mm; ♀ 6.5 mm.

Remarks. The genus *Austreconomina* with its type species *A. kenampi* originally was placed in the psychomyiid subfamily Paduniellinae. The description, however, is in many respects strange and puzzling, and apparently is based on erroneous count of 6-segmented maxillary palps, 4-segmented labial palps and assumed forked R₁ in forewings.

The re-examination of type material revealed that the holotype is a female, not male as stated in the description, and corresponds to the figures 19-21 which illustrate a female. The three paratypes are all males, not females as described.

The maxillary palp of the holotype is mounted on a microscope slide, segment 5 is sharply twisted at about midway as illustrated in the figure 23 and obviously has been miscounted as two segments. The labial palpi are 3-segmented and there is no fork at the apex of R₁ in forewing. The genus *Austreconomina* has all the characteristics of *Polycentropus* and is here placed into synonymy with it.

The two species, *P. kenampi* and *P. drummondi* are both described from the same general locality; the illustrations of the latter agree so well that it is here placed into synonymy with *P. kenampi*.

Distribution. New Guinea (central highlands).

***Polycentropus similis* Kimmins**

Figures 30, 31

Polycentropus similis Kimmins, 1962: 131 fig. 33.

Polycentropus niger Korboot, 1964b: 49, figs. 16-18, 29 (not 30 as stated in description) syn. nov.

Type material. Holotype ♂ of *Polycentropus similis*, NEW GUINEA: Papua New Guinea, Kokoda 1200 ft (365 m), Jun 1933, L.E. Cheesman (BMNH). Type not examined.

Holotype ♂ of *Polycentropus niger*, NEW GUINEA: Papua New Guinea, Umbra, Mt Hagen 5100 ft (1550 m), 20d Mar 1960, J.H. Barrett (QM T-6192); paratype 1 ♂ same locality, now identified as *Polycentropus mounthageni* Kumanski (EQU); 2 ♀ ♀ collected with holotype (species identity not confirmed).

Diagnosis. Male abdominal segment 10 elongate, rounded apically, membranous, fused with segment 9; a pair of apically bifid processes arise below the base of segment 10; superior appendages with a thin projection on inner surface; inferior appendages elongate, stout, arched, apically clavate branch meso-basally.

Length of forewing: ♂ 7-7.5 mm; ♀ 7.5 mm.

Remarks. According to the published information the type material of *P. niger* consists of four specimens, the holotype male and three paratype females. Re-examination of this material revealed that one of the paratypes actually is a male of another species, probably *Polycentropus mounthageni* Kumanski. As the female of *P. mounthageni* is unknown and both occur in the same general area, the identity of the two paratype females is placed in doubt. The abdomen of *P. niger* holotype is mounted on a microscope slide restricting the angle of view. The available details agree well with figures of *P. similis* Kimmins and both species are synonymised.

The illustrations of *Polycentropus australis* described by Ulmer (1915) and recorded from three localities of the Sepik river area closely resemble, and may be the same as, *Polycentropus similis* Kimmins. Ulmer's type material consisted of two male and three female specimens which were deposited in the Berlin Museum. Of these, only one female has been located (Etapenberg, 28 Oct 1912) in that collection. Further details on characters and distribution of this species is required to verify its identity and likely synonymy with *Polycentropus similis* Kimmins.

Distribution. New Guinea (central highlands).

Helicopsychidae

***Helicopsyche cochleatosta* Korboot**

Figures 32-35

Helicopsyche cochleatosta Korboot, 1964a: 34, figs. 20-39.

Type material. Holotype ♂, AUSTRALIA: Queensland, Tamborine Mountains, 1 Dec 1962, K. Korboot (QM T-6173); paratypes 2 ♂ ♂, 7 ♀ ♀ (1 ♂, 1 ♀ to Ross), collected with holotype (EQU).

Other material examined. Queensland and New South Wales (numerous localities).

Diagnosis. Male abdominal segment 10 long, curved downwards, abruptly widened apically, three strong spines on either side; inferior appendages in lateral view broadly triangular.

Length of forewing: ♂ 4.5-5 mm; ♀ 4.5-6 mm.

Remarks. The abdomen of the male holotype is mounted on microscope slide in an oblique dorso-ventral position; individual parts could be compared with a cleared paratype, from which new figures were prepared. The paratype material, according to the description, consisted of 11 specimens (5 males, 6 females) in the EQU collection; of these, nine specimens (2 males, 7 females) were available for study, but the remaining two (1 male, 1 female) have been sent some years ago to the late Dr Ross (Schneider, in litt. 1983).

Distribution. Eastern Australia.

Leptoceridae

Oecetis australis (Banks)

Figure 36

Oecetina australis Banks, 1920: 350.

Oecetis australis—Neboiss, 1978: 840.

Oecetis situlus Korboot, 1964a: 32, figs. 1-9 syn. nov.

Type material. Holotype ♂, *Oecetina australis*, AUSTRALIA: (as New Holland), Melbourne (Victoria), Thorey (ANIC). Type examined.

Holotype ♂, *Oecetis situlus*, AUSTRALIA: Queensland, Cedar Creek, Tamborine Mountains, 5 Sep 1962, K. Korboot (excluding the mounted wings) (QM T-6166); paratype ♂ collected with holotype (QM).

Diagnosis. Male genitalia with inferior appendages in ventral view short, mesally separated by deep V-shaped excision; apico-mesal angle more or less extended distally into a narrow process.

Remarks. The type material consists of two males and one female in individual vials in one glass tube; details are as follows:

Specimen 1—holotype male: head detached, all four wings and the first six abdominal segments are attached to thorax, the tip of abdomen together with genitalia removed and mounted on a microscope slide.

Specimen 2—male: thorax and all wings intact, abdomen removed, cleared in KOH; genitalia partially distorted.

Specimen 3—female: head, thorax and abdomen intact, both left side wings detached. The forewing base section breakage line agrees with corresponding part of mounted wing portion on microscope slide which is erroneously labelled as holotype ♂ wing; hindwing is mounted on a separate slide and labelled "holotype" hindwing. This specimen is not conspecific with *O. situlus* holotype but is now identified as *Oecetis pechana* Mosely.

The details of *O. situlus* holotype genitalia and wing venation agree with *Oecetis australis*. *O. situlus* is here suppressed to synonymy. The larva described in the same paper is not that of *O. situlus* (= *australis*) but is *Notalina fulva* type "A" according to R. St Clair (in litt. 1985).

Distribution. Eastern Australia.

Triaenodes bernaysae Korboot

Figures 37,38

Triaenodes bernaysae Korboot, 1964b: 50, figs. 32-51.

Type material. Holotype ♂, AUSTRALIA: Queensland, Cedar Creek, Tamborine Mountain, 12 Sep 1962, K. Korboot (QM T-6169); paratypes 3 ♂ collected with holotype (QM; EQU).

Other material examined. Queensland: Brisbane, Camp Mountain; New South Wales: Ebor, Dorrigo, Barrington Tops.

Diagnosis. Male abdominal segment 9 narrowed distally, ventral margin with rounded, moderately broad mesal excavation; superior appendages slender; inferior appendages short, basally broad, lower apical angle extended, bent upward as a clavate process, an angular, downward directed process arises on inner surface near base.

Remarks. The original description gives a total of six specimens—the holotype and five paratype males as the type material. Of these the holotype and four paratypes were examined; all but one male paratype are in the Queensland Museum collection. The museum specimens are preserved in alcohol and placed in individual vials labelled I-IV. Details are as follows:

Vial I—complete male specimen, intact.

Vial II—complete male specimen, but abdomen detached.

Vial III—a male of another *Triaenodes* species, specimen with abdomen and right side forewing detached.

Vial IV—holotype, specimen in two sections, but wings attached to the corresponding thoracic segments; the tip of abdomen detached at segment 6 and mounted separately as microscope slide.

The glass tube containing the four vials also has the following labels: "Sp.8/ Bred fr. pupa Tamb. Mt. Q Jan. 1962, K.Korboot/ *Triaenodes* sp. nov. E.F. Riek det. 1962/ *T. bernaysae* ♂ Holotype K. Korboot/ ♂ Holotype T-6169, ♀ paratypes T-6170–T-6172 (holotype abdomen on slide)". It is noted that the published date does not correspond to that on the label, and the three paratypes are registered as females. The paratype male in the Queensland University collection bears the same locality and date as the specimens in the Museum collection.

Distribution. South-eastern Queensland and North-eastern New South Wales.

Symphitoneuria ampla Korboot

Figures 39, 40

Symphitoneuria ampla Korboot, 1964b: 49, figs. 13-15, 28, 30 (not 27 as stated in description).

Symphitoneuria ampla.-Illies, 1969: 490, figs. 7-11.

Type material. Holotype ♂, NEW GUINEA: Papua New Guinea, Mt Wilhelm (5°44'S, 145°04'E) 11300 ft (3440 m) at light, 4 Sep 1959, J.H. Barrett (QM T-6187); paratypes 3 ♂♂ (not ♀♀ as stated in description) collected with holotype (EQU).

Diagnosis. Male forewing with section of veins Rs and M fused along discoidal cell. Abdominal segment 9 narrow, segment 10 in dorsal view gradually widened basally, a deep, narrow slit apico-mesally; both apical branches of the inferior appendages about equal in length.

Length of forewing: ♂ 13.5-15.5 mm; ♀ 15-17 mm.

Remarks. The species was redescribed and new illustrations published by Illies (1969) from specimens collected at Lake Aunde, the same general area as the type material. Although only the male holotype and three male (not female) paratypes are designated, a further 15 males and 13 females

are conspecific and bear the same labels with the same locality and date.

Distribution. New Guinea (central highlands).

Acknowledgments

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