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AN UPDATED STUDY OF PTYCTIMOUS MITE FAUNA (ACARI: ORIBATIDA) OF THE AUSTRALASIAN REGION WITH A DESCRIPTION OF THIRTEEN NEW SPECIES

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ABSTRACT — This paper presents a review of 91 ptyctimous oribatid mite species including three Mesoplophoridae, 25 Euphthiracaroidea and 63 of Phthiracaroidea of the Australasian Region. Thirteen species are new for science: *Mesoplophora* (*Mesoplophora*) *parapulchra* **n. sp.**, *Apoplophora paraserrata* **n. sp.**, *Acrotritia paraspiculifera* **n. sp.**, *Microtritia cristata* **n. sp.**, *Plonaphacarus vicinus* **n. sp.**, *Steganacarus* (*Rhacaplacarus*) *cucullus* **n. sp.**, *Austrophthiracarus konwerskii* **n. sp.**, *Arphthicarus trivestigius* **n. sp.**, *Notophthiracarus angustus* **n. sp.**, *Notophthiracarus bloszyki* **n. sp.**, *Notophthiracarus hallidayi* **n. sp.**, *Notophthiracarus lewisensis* **n. sp.**, *Notophthiracarus parausitatus* **n. sp.** Descriptions of eight known species are also provided with some morphological remarks.

New localities have been discovered for 46 species extending their hitherto geographical ranges. Twenty-four species, considered until now as endemics to one locality, are reported from new localities. The greatest number of endemic mites has been found in southern Australia, in particular in the State of Victoria.

The present ptyctimous fauna of the Australasian Region comprises now 240 species, including one Protoplophoridae, eight Mesoplophoridae, 49 Euphthiracaroidea and 182 Phthiracaroidea. Almost all genera of the group are reported from this region. The largest number of ptyctimous mite species has been found in Queensland and New South Wales. The highest number of species is found in two Phthiracaroidea genera: *Notophthiracarus* and *Austrophthiracarus*. Within the Euphthiracaroidea, the highest number of species has been observed in the genera *Oribotritia* and *Acrotritia*.

KEYWORDS — ptyctimous mites; new species; Australasian; faunistic synthesis

INTRODUCTION

Ptyctimous oribatid mites are typical soil invertebrates. Their occurrence is trophically related to the presence of organic matter. Ptyctimous mites are common in all land ecosystems throughout the world, however their great species diversity has been only recently emphasized. The fauna of the Southern Hemisphere has been particularly neglected, and the fauna of the Australasian Region remains poorly known (Niedbała 2009d) despite the recent several papers concerning the occurrence of these mites in the Oriental and Australasian Regions (Niedbała 2000), Pacific Islands (Niedbała 1998a), Hawaiian Islands (Niedbała 1994, 1998b) and Australia (Niedbała 2006, Niedbała and Penttinen 2007, Niedbała 2009a, b, c).

This paper provides additional knowledge of the ptyctimous oribatid mite fauna of the Australasian Region. It results from faunitsic surveys carried out in very diverse localities and habitats,

mostly on the mainland of Australia. The present study allows the discovery of thirteen species new to science, whose descriptions are herein included. For some of the already known species reported once in their original descriptions a detailed morphological analysis is herein provided. At last, a synthetic list of the known species of ptyctimous oribatid mites of the Australasian Region is presented.

History of investigation in the Australasian region

The exploration of the fauna of the Ptyctimous mites of the Australasian region has started relatively late. The first papers reported only new species for Science, found first in the Pacific islands and later on the mainland. The first species were described by Jacot in 1929 from Hawaii: (*Euphthiracarus* (*Indotritia*) *bryani* and *Euphthiracarus* (*Indotritia*) *hawaiiensis*). In 1935 he described two other new species: *Indotritia lebronneci* and *Phthiracarus insularis* from Marquesas Islands. Subsequent species were described after the second world war, in 1959 by Sellnick: *Austrotritia quadricarinata* and *Hoplophorella singularis* from Rapa Island (Southeastern Polynesia), in 1966 by Wallwork: *Neophthiracarus neotrichus* from Campbell Island and by Ramsay: *Indotritia aotearoana*, *Phthiracarus pellucidus* and *Notophthiracarus australis* from New Zealand. The subspecies – *Microtritia tropica solomonensis* (now *Microtritia tropica*) as *nomen nudum* was found and named by Ramsay and Sheals in 1969 on Guadalcanal (Salomon Islands) but their descriptions have not been published. Similarly, descriptions of the species *Sabacarus corneri* also from Guadalcanal (Salomon Islands) by the same authors in the same year has not been published either (Niedbała 1998). The species *Sabacarus ranokaoensis* Hammer, 1970 reported from Easter Island, has proved to be conspecific with *S. corneri* (Niedbała 1998). In the series of Hammer's works (Hammer 1971, Hammer 1972, Hammer 1973) a few subsequent new species have been described: *Steganacarus craterifer* from Suva (Fiji), *Hoplophthiracarus tubulus* from Tahiti, *Hoplophorella rangiroaensis* from Rangiroa and *Phthiracarus hamatus* from Tongatapu.

The first species from the mainland (Queensland) – *Austrophthiracarus radiatus* – was described in 1978 by Balogh and Mahunka. Lee in 1981 described two other new species *Rhysotritia wallworki* and *Hoplophthiracarus shealsi* from South Australia. The same author found a rare species *Protoplophora palpalis* Berlese, 1910. Unfortunately, he only illustrated the claws of tarsus II, it is thus impossible to determine if the species was really *Protoplophora palpalis* sensu Berlese (1910) or *Protoplophora grandjeani* sensu Bernini (1983) (as suggested by Colloff and Halliday (1998)) because of the poor description provided (Niedbala 2004).

Balogh and Balogh (1983) described *Austrophthiracarus wallworki* from New South Wales. The same authors (Balogh and Balogh 1986) also described: *Steganacarus* (?) *tenuiseta* from Papua New Guinea, while Balogh and Mahunka (1997) described two other species: *Notophthiracarus alpinus* and *Notophthiracarus gressitti*, which were later proved to be conspecific with *Notophthiracarus sinuosus* and *Notophthiracarus quietus* (Niedbała 2000).

In the 1980's, only a bit more than 20 species were known from this region. Since 1981, Niedbała started exploration of this region, starting with the description of a new species *Hoplophthiracarus montigenus* from Papua New Guinea. Since then, relatively intensive studies on many samples collected in different localities in the Australasian Region obtained mostly from the Australian National Insect Collection and CSIRO Ecosystem Sciences, have considerably contributed to the knowledge of fauna of this region. Colloff and Halliday (1998) in their catalogue reported 73 Ptyctimous mite species from Australia, and now this number increased to 158 and to 240 considering the entire Australasian Region.

Materials and methods

The material presently analysed was obtained thanks to the courtesy of Dr. Bruce Halliday from the collection of the Australian National Insect Collection (ANIC) and CSIRO Ecosystem Sciences. A considerable part of the material has been collected during the expedition in Australia organ-

ised in 2007 by the Faculty of Biology (Adam Mickiewicz University, Poznań, directed by Prof. Jerzy Błoszyk). The expedition was financed by a grant from Ministry of Science and Higher Education N303 091 32/3082. An additional sample contains a species collected by Dr J. Smykla, (PAN, Kraków) from New Zealand

All the specifications like localities, abbreviations and sample numbers are given according to the original labels from the ANIC collection. Observations, measurements and illustrations were made using a standard compound microscope. All measurements are given in micrometers. The number of specimens observed is given in parentheses. The morphological terminology is based on Niedbała (2000, 2006). Leg chaetome (setation) complete or complete type is: I: 1-4-2(2)-5(1)-17(3)-1, II: 1-3-2(1)-3(1)-12(2)-1, III: 2-2-1(1)-2(1)-10(0)-1, IV: 2-2-2(0)-2(1)-10(0)-1. The number of of splenidia is given in parenthesis and follows the number of simple setae.

The descriptions of new species follow the International Code of Zoological Nomenclature, in particular as expressed in articles 45c, 61, 73a and Recommendation 73D. They are based on holotype and only the measurements of this latter have been included in the present paper. Indeed, proportions of the sizes of individual characters of the paratypes will be very similar to those of the holotype. All holotypes and some paratypes are deposited in Australian National Insect Collection, Canberra (ANIC) and some paratypes in Natural History Collections, Adam Mickiewicz University, Poznań (NHC).

RESULTS

List of the species found in the new localities (Table 1)

Mesoplophora parapulchra **n. sp.**
Apoplophora pantotrema (Berlese, 1913)
Apoplophora paraserrata **n. sp.**
Oribotritia contraria Niedbała, 1993
Oribotritia duplex Niedbała, 2000
Oribotritia lepteces Niedbała, Corpuz-Raros et Gruezo, 2006
Oribotritia paracorporaali Niedbała et Penttinen, 2007
Sabacarus corneri Ramsay et Sheals, 1969
Indotritia brevipilosa Niedbała, 2000
Indotritia brevisetosa Niedbała, 2000
Indotritia krakatauensis (Sellnick, 1923)
Austrotritia bifurcata Niedbała, 2000
Austrotritia lebronneci (Jacot, 1935)
Austrotritia saraburiensis Aoki, 1965
Acrotritia ardua (C.L. Koch, 1841)
Acrotritia bipartita (Niedbała, 2000)
Acrotritia comteae (Mahunka, 1983)
Acrotritia curticephala (Jacot, 1938)
Acrotritia paradivida Niedbała et Penttinen, 2007
Acrotritia paraspiculifera **n. sp.**
Acrotritia refracta (Niedbała, 1998)
Acrotritia spiculifera (Mahunka, 1991)
Acrotritia sterigma (Niedbała, 1998)
Acrotritia wallworki (Lee, 1981)
Microtritia contraria Niedbała, 1993
Microtritia cristata **n. sp.**
Microtritia glabrata Stary, 1993
Microtritia tropica Markel, 1964
Phthiracarus anonymus Grandjean, 1933
Phthiracarus banksi Niedbała, 1987
Phthiracarus inacessus Niedbała, 1998
Phthiracarus pellucidus Ramsay, 1966
Phthiracarus paucus Niedbała, 1991
Phthiracarus pygmaeus Balogh, 1958
Plonaphacarus berlesei Niedbała, 1987
Plonaphacarus feideri Niedbała, 1987
Plonaphacarus forsslundi Niedbała, 1987
Plonaphacarus grandjeani Niedbała, 1987
Plonaphacarus kugohi (Aoki, 1959)
Plonaphacarus trojani Niedbała, 2010
Plonaphacarus vicinus **n. sp.**
Hoplophthiracarus hulli Niedbała, 1987
Hoplophiracarus mallacoolaensis Niedbała, 2006
Hoplophthiracarus montigenus Niedbała, 1981
Steganacarus (*Rhacaplacarus*) *cucullus* **n. sp.**
Steganacarus (*Rhacaplacarus*) *szeptyckii* Niedbała, 2009
Austrophthiracarus baloghi Niedbała, 1987
Austrophthiracarus dissonus Niedbała et Colloff, 1997
Austrophthiracarus fusticulus Niedbała, 2000
Austrophthiracarus glennieensis Niedbała, 2006
Austrophthiracarus konwerskii **n. sp.**

TABLE 1: Ptyctimous mites (Acari, Oribatida) of the Australasian Region.

Species	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Acrotritia ardua (C.L.Koch, 1841)	x	x	x				x	x	**X**	**X**		x			
Acrotritia bipartita (Niedbała, 2000)										**X**		**X**			
Acrotritia comteae **(**Mahunka, 1983)		x	x	x			x		**X**	**X**	x	**X**	x		
Acrotritia curticephala (Jacot, 1938)		x	x		x		x	x	x	**X**		**X**			
Acrotritia divida (Mahunka, 1991)		x	x						x	x	x				
Acrotritia otaheitensis (Hammer, 1972)							x								
Acrotritia paradivida Niedbała et Penttinen, 2007										**X**		x			
Acrotritia paraspiculifera sp. nov.										**X**					
Acrotritia refracta (Niedbała, 1998)			x		x		x		**X**	**X**	x	**X**		x	
Acrotritia spiculifera (Mahunka, 1991)		x	x		x		x		x	**X**		**X**			
Acrotritia sterigma (Niedbała, 1998)							x			**X**					
Acrotritia wallworki (Lee, 1981)		x							**X**	**X**		**X**	**X**	x	
Aedoplophora grandjeani Mahunka, 1977	x														
Apoplophora kapiti Niedbała, 2004										x					
Apoplophora pantotrema (Berlese, 1913)	x	x			x				x	**X**	x				
Apoplophora paraserrata sp. nov.										**X**		**X**			
Apoplophora solomonensis Niedbała, 1998					x										
Arphthicarus aoki (Niedbała, 1987)										x					
Arphthicarus heterotrichus Niedbała, 2000				x											
Arphthicarus ineptus (Niedbała, 1984)					x										
Arphthicarus remotus (Niedbała, 1989)										**X**					
Arphthicarus scuticus Niedbała, 2006												x			
Arphthicarus tinctus Niedbała, 2000			x												
Arphthicarus trivestigius sp. nov.										**X**					
Atropacarus (*Atropacarus*) *controversus* Niedbała, 2000				x											
Atropacarus (*Atropacarus*) *griseus* Niedbała, 1984		x			x										
Atropacarus (*Atropacarus*) *pergratus* Niedbała, 1998							x								
Atropacarus (*Atropacarus*) *striculus* (C.L.Koch, 1836)								x				**X**	**X**		**X**
Atropacarus (*Hoplophorella*) *buffaloensis* Niedbała, 2006													x		
Atropacarus (*Hoplophorella*) *cucullatus* (Ewing, 1909)		x	x		x				**X**	**X**					
Atropacarus (*Hoplophorella*) *diaphoros* Niedbała, 2000										x					
Atropacarus (*Hoplophorella*) *dissimilis* Niedbała, 1998							x								
Atropacarus (*Hoplophorella*) *hamatus* (Ewing, 1909)	x						x		x	**X**	x				
Atropacarus (*Hoplophorella*) *rangiroaensis* (Hammer, 1972)					x	x	x								
Atropacarus (*Hoplophorella*) *singularis* (Sellnick, 1959)	x				x	x	x		**X**	x	x		x		
Atropacarus (*Hoplophorella*) *stilifer* (Hammer, 1961)							x								
Atropacarus (*Hoplophorella*) *szeptycki* Niedbała, 2009										**X**					
Atropacarus (*Hoplophorella*) *vitrinus* (Berlese, 1913)	x	x	x		x		x	x	**X**	**X**	x				
Austrophthiracarus aculeatus Niedbała et Colloff, 1997			x									x			x
Austrophthiracarus aenus Niedbała, 2000			x												
Austrophthiracarus aureus Niedbała, 2000				x											
Austrophthiracarus baloghi Niedbała, 1987												**X**	x		x
Austrophthiracarus daimonos Niedbała, 2000				x											
Austrophthiracarus dissonus Niedbała et Colloff, 1997		x										**X**			x
Austrophthiracarus egregious Niedbała et Colloff, 1997															x
Austrophthiracarus facetus Niedbała et Colloff, 1997															x
Austrophthiracarus foaensis Niedbała, 2007			x												
Austrophthiracarus fusticulus Niedbała, 2000										**X**		x	**X**		
Austrophthiracarus glennieensis Niedbała, 2006										**X**	x	**X**			**X**
Austrophthiracarus hallidayi Niedbała et Colloff, 1997															x
Austrophthiracarus kochi (Niedbała, 1987)													x		
Austrophthiracarus konwerskii sp.nov.												**X**			
Austrophthiracarus lamingtoni Niedbała, 2000										x		**X**			
Austrophthiracarus largus Niedbała, 2000			x												
Austrophthiracarus latior (Niedbała, 1982)			x					x							
Austrophthiracarus michaeli (Niedbała, 1987)										x					
Austrophthiracarus multisetosus Balogh et Balogh, 1983												x			
Austrophthiracarus mutabilis Niedbała et Colloff, 1997													x		x
Austrophthiracarus neotrichus (Wallwork, 1966)				x											
Austrophthiracarus nicoleti (Niedbała, 1987)										**X**					
Austrophthiracarus nimius Niedbała, 2009												**X**			
Austrophthiracarus parafusticulus Niedbała, 2006											x	**X**	**X**		
Austrophthiracarus paralargus Niedbała, 2007										x					
Austrophthiracarus parapilosus Niedbała, 2006													x		
Austrophthiracarus parapulchellus Niedbała, 2006												**X**	x		
Austrophthiracarus perpropinquus Niedbała et Colloff, 1997															x
Austrophthiracarus perti (Niedbała, 1987)										x	**X**	**X**			
Austrophthiracarus pilosus Niedbała et Colloff, 1997															x
Austrophthiracarus pulchellus Niedbała, 1993				x											x

TABLE 1: Continued.

Species	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Austrophthiracarus radiatus Balogh et Mahunka, 1978										x		x	x		
Austrophthiracarus scopoli (Niedbała, 1987)												**X**	x		x
Austrophthiracarus sellnicki (Niedbała, 1987)										**X**		**X**	x	x	x
Austrophthiracarus tragardhi (Niedbała, 1987)													x		
Austrophthiracarus wallworki Balogh et Balogh, 1983										x					
Austrophthiracarus warburtonensis Niedbała, 2006													x		
Austrophthiracarus weldboroughensis Niedbała, 2006															x
Austrophthiracarus willmanni Niedbała, 1987										**X**		**X**	x		x
Austrotritia bifurca Niedbała, 2000		x								**X**		**X**			
Austrotritia bryani (Jacot, 1928)								x							
Austrotritia carinata Niedbała, 2000		x								x	x				
Austrotritia lebronneci (Jacot, 1935)		x	x		x		x		**X**	**X**	x				
Austrotritia quadricarinata Sellnick, 1959							x								
Austrotritia robusta Niedbała et Corpuz-Raros, 1987		x	x												
Austrotritia saraburiensis Aoki, 1965					x		x			**X**					
Euphthiracarus monodactylus (Willmann, 1919)		x													
Euphthiracarus (*?*) *nasutus* Niedbała, 1998								x							
Hoplophthiracarus bisulcus Niedbała, 1993				x											
Hoplophthiracarus hamatus (Hammer, 1973)							x								
Hoplophthiracarus hulli Niedbała, 1987												**X**	x		
Hoplophthiracarus lividus Niedbała, 2000				x											
Hoplophthiracarus mallacoolaensis Niedbała, 2006												**X**	x		
Hoplophthiracarus montigenus Niedbała, 1981		x	x		x							**X**			x
Hoplophthiracarus proximus Niedbała, 1984		x			x										
Hoplophthiracarus rafalski Niedbała, 1997			x												
Indotritia aotearoana Ramsay, 1966				x									x		x
Indotritia brevipilosa Niedbała, 2000			x							**X**		**X**	**X**		
Indotritia brevisetosa Niedbała, 2000										**X**		**X**			x
Indotritia javensis (Sellnick, 1923)		x													
Indotritia krakatauensis (Sellnick, 1923)		x	x		x	x	x		**X**		x				
Mesoplophora parapulchra sp. nov.										**X**		**X**			
Mesoplophora (*Parplophora*) *leviseta* Hammer, 1979					x		x								
Mesoplophora (*Parplophora*) *polita* Niedbała, 1985		x													
Mesoplophora (*Parplophora*) *subtilis* Niedbała, 1981		x													
Microtritia contraria Niedbała, 1993				x						**X**		**X**		**X**	x
Microtritia cristata sp. nov.										**X**		**X**			
Microtritia fusa Niedbała, 2000				x						x		x	x		
Microtritia hawaiiensis Niedbała, 1994								x							
Microtritia novazealandiensis Niedbała, 2006		x		x						**X**		**X**	**X**		x
Microtritia paratropica Niedbała, 2006											x	x			
Microtritia tropica Markel, 1964		x			x		x			**X**		**X**	**X**		
Microtritia tumida Niedbała, 1998					x		x								
Notophthiracarus abstemius Niedbała et Colloff, 1997															x
Notophthiracarus admirabilis Niedbała et Colloff, 1997											x				x
Notophthiracarus alienus Niedbała, 1989												x	**X**		x
Notophthiracarus angustus sp. nov.												**X**			
Notophthiracarus aquilus Niedbała, 2000				x											
Notophthiracarus ater Niedbała, 2000				x											
Notophthiracarus atratus Niedbała, 2000				x											
Notophthiracarus australis Ramsay, 1966				x											
Notophthiracarus bentoni Niedbała, 1998							x								
Notophthiracarus berlesei Niedbała, 2006													x		
Notophthiracarus bloszyki sp. nov.												**X**			
Notophthiracarus bonangensis Niedbała, 2006													**X**		
Notophthiracarus brachys Niedbała, 2006				x											
Notophthiracarus buffaloensis Niedbała, 2006													**X**		
Notophthiracarus caliginosus Niedbała, 1989				x									**X**		
Notophthiracarus calugari Niedbała, 1987													x		
Notophthiracarus capillatus Niedbała, 1989												**X**	x		x
Notophthiracarus claviger Niedbała, 1993				x									x		x
Notophthiracarus comatus Niedbała, 2000				x											
Notophthiracarus comparativus Niedbała et Colloff, 1997													x		x
Notophthiracarus consimilis Niedbała et Colloff, 1997										x		**X**	**X**		x
Notophthiracarus conspicuus Niedbała, 1989				x											x
Notophthiracarus craterifer (Hammer, 1971)					x										
Notophthiracarus curiosus Niedbała, 1998							x								
Notophthiracarus dandenongensis Niedbała, 2006													x		
Notophthiracarus distinctus Niedbała, 1989										x		**X**			x
Notophthiracarus fatidicus Niedbała, 1982		x								x		x			

TABLE 1: Continued.

Species	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Notophthiracarus fecundus Niedbała, 2000				x											
Notophthiracarus flagrus Niedbała, 2000										**X**		**X**	**X**		
Notophthiracarus flexiloquus Niedbała, 1989												x			x
Notophthiracarus fulvus (Niedbała, 1985)		x													
Notophthiracarus glennieensis Niedbała, 2006												x			
Notophthiracarus hallidayi sp. nov.												**X**			
Notophthiracarus hammeni Niedbała, 1987										**X**		**X**	**X**		
Notophthiracarus hammerae Niedbała, 1987										x	x	**X**	x		x
Notophthiracarus heterosetosus Niedbała, 1998					x										
Notophthiracarus incomparabilis Niedbała, 2000				x											
Notophthiracarus indubitatus Niedbała et Colloff, 1997															x
Notophthiracarus kamillae Niedbała, 1987										x					
Notophthiracarus lee Niedbała, 1987											x	x			
Notophthiracarus lewisensis sp. nov.										**X**					
Notophthiracarus lionsi Niedbała, 1987										x					
Notophthiracarus longisetosus Niedbała, 2000										x					
Notophthiracarus mahunkai Niedbała, 1987										x	**X**				x
Notophthiracarus maurus Niedbała, 2000				x											
Notophthiracarus modicus Niedbała, 2000										**X**		**X**			
Notophthiracarus parabonangensis Niedbała, 2006										x					
Notophthiracarus paracapillatus Niedbała, 2006				x											
Notophthiracarus paracuriosus Niedbała, 1998							x								
Notophthiracarus paraparvulus Niedbała, 2000			x												
Notophthiracarus pararavidus Niedbała, 2006													x		
Notophthiracarus paraunicarinatus Niedbała, 2007			x												
Notophthiracarus parausitatus sp. nov.										**X**		**X**			
Notophthiracarus parvulus Niedbała, 1998			x		x										
Notophthiracarus perezinigoi Niedbała, 1987										x					
Notophthiracarus perlucundus Niedbała, 2000			x	x											
Notophthiracarus queenslandensis Niedbała, 2006										x					
Notophthiracarus quietus Niedbała, 1989				x						x		x	x		x
Notophthiracarus ramsai Niedbała, 1987										**X**					
Notophthiracarus ravidus Niedbała, 2006										**X**		**X**			
Notophthiracarus repostus Niedbała, 1989				x								**X**	**X**		
Notophthiracarus rotoitiensis Niedbała, 2006				x											x
Notophthiracarus schusteri Niedbała, 1987										x					x
Notophthiracarus shealsi (Lee, 1981)										**X**	x			x	
Notophthiracarus sinuosus (Niedbała, 1982)		x													
Notophthiracarus solitarius Niedbała et Colloff, 1997															x
Notophthiracarus solomonensis Niedbała, 1998					x										
Notophthiracarus sordidus Niedbała et Colloff, 1997															x
Notophthiracarus spurcus Niedbała, 1997															x
Notophthiracarus szeptycki Niedbała, 2009												**X**			
Notophthiracarus thorntonensis Niedbała, 2007										x					
Notophthiracarus tohivea Niedbała, 1998							x								
Notophthiracarus tripartitus Niedbała, 1989				x											
Notophthiracarus trojani Niedbała, 2009										**X**					
Notophthiracarus uncinatus Niedbała et Colloff, 1997												x			x
Notophthiracarus uncinulus Niedbała, 2000				x											
Notophthiracarus unicarinatus Niedbała, 2000				x											
Notophthiracarus usitatus Niedbała, 1989										**X**		x			x
Notophthiracarus weigmanni Niedbała, 1987										x					
Oribotritia ampla Niedbała, 1991					x		x								
Oribotritia brevis Niedbała et Colloff, 1997				x							x				x
Oribotritia contortula Niedbała, 1993			x	x									x		x
Oribotritia contraria Niedbała, 1993			x	x						x		**X**	x		x
Oribotritia duplex Niedbała, 2000										**X**	**X**	**X**	x		
Oribotritia hawaiiensis (Jacot, 1928)								x							
Oribotritia incognita Niedbała, 2000				x											
Oribotritia lepteces Niedbała, Corpuz-Raros et Gruezo, 2006												**X**			
Oribotritia samoaensis Niedbała, 1998					x		x								
Oribotritia parachichijimensis Niedbała, 2007												x			
Oribotritia paracorporali Niedbała et Penttinen, 2007			x									**X**			
Oribotritia paraincognita Niedbała, 2006				x											
Oribotritia pulla Niedbała, 1998								x							
Oribotritia teretis Niedbała, 1993				x											
Phrathicarus inflatus Niedbała, 1994				x											
Phthiracarus anonymus Grandjean, 1933								x				**X**	x		
Phthiracarus banksi Niedbała, 1987				**X**								**X**	x		

TABLE 1: Continued.

Species	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Phthiracarus crispus Hammer, 1972			x				x	x							
Phthiracarus curiosus Niedbała, 1998								x							
Phthiracarus fraternus Niedbała, 1998							x								
Phthiracarus inacessus Niedbała, 1998							x			**X**					
Phthiracarus insularis Jacot, 1935							x								
Phthiracarus obscurus Niedbała, 1986										x					
Phthiracarus paucus Niedbała, 1991		x				x	x			**X**		**X**	**X**		
Phthiracarus pellucidus Ramsay, 1966				x									**X**		
Phthiracarus perlucidus Niedbała, 1994								x							
Phthiracarus persimilis Niedbała, 1998							x								
Phthiracarus plenus Niedbała, 1998								x							
Phthiracarus probus Niedbała et Colloff, 1997															x
Phthiracarus pygmaeus Balogh, 1958					x		x	x				**X**			
Phthiracarus reductus Niedbała, 1998								x							
Phthiracarus swiftae Niedbała, 1998								x							
Phthiracarus tubulus (Hammer, 1972)							x								
Plonaphacarus aduncus Niedbała et Colloff, 1997															x
Plonaphacarus berlesei Niedbała, 1987												**X**	x		
Plonaphacarus dikros Niedbała, 2000				x											
Plonaphacarus feideri Niedbała, 1987											**X**	**X**	**X**		
Plonaphacarus forsslundi Niedbała, 1987					x		x			**X**		x	**X**		
Plonaphacarus grandjeani Niedbała, 1987					x					**X**					
Plonaphacarus insolens Niedbała, 2000				x											
Plonaphacarus kugohi (Aoki, 1959)	x	x	x		x	x	x	x	**X**	**X**	x	**X**			
Plonaphacarus toolangiensis Niedbała, 2006													x		
Plonaphacarus trojani Niedbała, 2010										**X**		**X**			
Plonaphacarus vicinus sp. nov.										**X**					
Sobacarus corneri Ramsay et Sheals, 1969				x			x	x				**X**	**X**		
Steganacarus (*Rhacaplacarus*) *cucullus* sp. nov.												**X**			
Steganacarus (*Rhacaplacarus*) *diaphoros* Niedbała, 2000										x					
Steganacarus (*Rhacaplacarus*) *jacoti* Niedbała, 1987		x								x					
Steganacarus (*Rhacaplacarus*) *szeptycki* Niedbała, 2009												**X**			
Steganacarus (*?*) *tenuiseta* Balogh et Balogh, 1986		x													

Division of Australasian Region:
A - Sunda Islands
B - Papua New Guinea
C - New Caledonia
D- New Zealand
E - Melanesia (Bismarck Isl., Fiji, Solomon Isls)
F- Micronesia (Mariana Isls, Guam, Marshall)
G - Polynesia (Society Isls, Midway, Samoa, Tonga, Cook Isl., French Polynesia, Easter Isl., Marquesas Isl., Henderson Isl., Tuamotu)
H - Hawaii
I - Northern Australia
J - Queensland
K - Western Australia
L - New South Wales
M - Victoria
N - South Australia
O - Tasmania

X in bold means that the locality has been confirmed in this study

Austrophthiracarus lamingtoni Niedbała, 2000
Austrophthiracarus nicoleti (Niedbała, 1987)
Austrophthiracarus nimius Niedbała, 2009
Austrophthiracarus parafusticulus Niedbała, 2005
Austrophthiracarus parapulchellus Niedbała, 2006
Austrophthiracarus perti (Niedbała, 1987)
Austrophthiracarus sellnicki (Niedbała, 1987)
Austrophthiracarus scopoli (Niedbała, 1987)
Austrophthiracarus willmanni (Niedbała, 1987)
Arphthicarus remotus (Niedbała, 1989)
Arphthicarus trivestigius **n. sp.**
Notophthiracarus alienus Niedbała, 1989
Notophthiracarus angustus **n. sp.**
Notophthiracarus bloszyki **n. sp.**
Notophthiracarus bonangensis Niedbała, 2006
Notophthiracarus caliginosus Niedbała, 1989
Notophthiracarus capillatus Niedbała, 1989
Notophthiracarus consimilis Niedbała et Colloff, 1997
Notophthiracarus distinctus Niedbała, 1989
Notophthiracarus flagrus Niedbała, 2000
Notophthiracarus hallidayi **n. sp.**
Notophthiracarus hammeni Niedbała, 1987
Notophthiracarus hammerae Niedbała, 1987
Notophthiracarus lewisensis **n. sp.**
Notophthiracarus mahunkai Niedbała, 1987
Notophthiracarus modicus Niedbała 2000
Notophthiracarus trojani Niedbała
Notophthiracarus ravidus Niedbała, 2006
Notophthiracarus repostus Niedbała, 1989
Notophthiracarus shealsi (Lee, 1980)
Notophthiracarus szeptyckii Niedbała, 2009
Notophthiracarus usitatus Niedbała, 1989
Atropacarus (*Hoplophorella*) *cucullatus* (Ewing, 1909)
Atropacarus (*Hoplophorella*) *hamatus* (Ewing, 1909)
Atropacarus (*Hoplophorella*) *singularis* (Sellnick, 1959)
Atropacarus (*Hoplophorella*) *szeptyckii* Niedbała, 2009
Atropacarus (*Hoplophorella*) *vitrinus* (Berlese, 1913)
Atropacarus (*Atropacarus*) *striculus* (C.L. Koch, 1836)

DESCRIPTIONS OF THE NEW SPECIES

Mesoplophora (*Mesoplophora*) *parapulchra* n. sp. (Figures 1A-D)

Material examined — Holotype: ANIC-1546, Mt. Kosciuszko National Park (NP), 13 km Northwest of Jindabyne, 1 km West of Sawpit Creek Campground, alt. 1240 m, 36°21'S, 148°35'E, *Eucalyptus dalrympleana* rotten log litter, 2 May 1993, coll. D.S. Chandler.

Measurements of holotype — Prodorsum: length 263, width 182, height 106, sensillum 106, setae: *in* 139, *le* 114, *ro* 86, *ex* 12; notogaster: length 364, width 298, height 197, setae: c_1 53, d_1 58, d_2 88, e_1 76; genitoaggenital plate 76 × 51, anoadanal plate 88 × 48, distance between genitoaggenital and anoadanal plates 23.

Description — Colour yellow. Surface of body punctate.

Prodorsum without lateral carinae. Sensilla long, smooth, slightly swollen at distal end. Setae smooth, long, flagellate, rostral setae shorter than interlamellar and lateral setae, exobothridial setae minute, shorter than diameter of bothridium.

Notogaster with 8 pairs of setae, dorsal setae and setae c_2 rigid, rough and shorter than smooth and flagellate ventral setae c_3 and *cp*; setae c_2 more remote from anterior margin than setae c_1 and c_3.

Ventral side — One pair of short setae *h* on the level of genital plates present. Ventral plate with nine pairs of smooth, rather short setae, only one pair of median setae longer than other setae. Formula of genital setae: 5+2. Anoadanal plates with two pairs of smooth setae.

Etymology — The name alludes to some resemblance to *Mesoplophora pulchra*.

Comparison to related species — The new species is similar to the palaearctic species *Mesoplophora pulchra* Sellnick, 1928 but differs from it by the presence of two pairs of anal setae and presence of nine pairs of ventral setae with one pair longer median setae (versus 10 pairs of ventral setae with two pairs of longer median setae).

Apoplophora paraserrata n. sp. (Figures 1E-G)

Type material — Holotype: ANIC-1062, 11 km Northest of Mt. Tozer, 12°43'S 143°18'E, rainforest, litter, 11-16 June 1986, coll. T.A. Weir; 22 paratypes (11 in ANIC, 11 in NHC): ANIC-571 Credition Ck., 750 m, Eungella NP, 21°11'S 148°33'E, rainforest, 13 Nov. 1976, coll. R.W. Taylor and T.A. Weir.

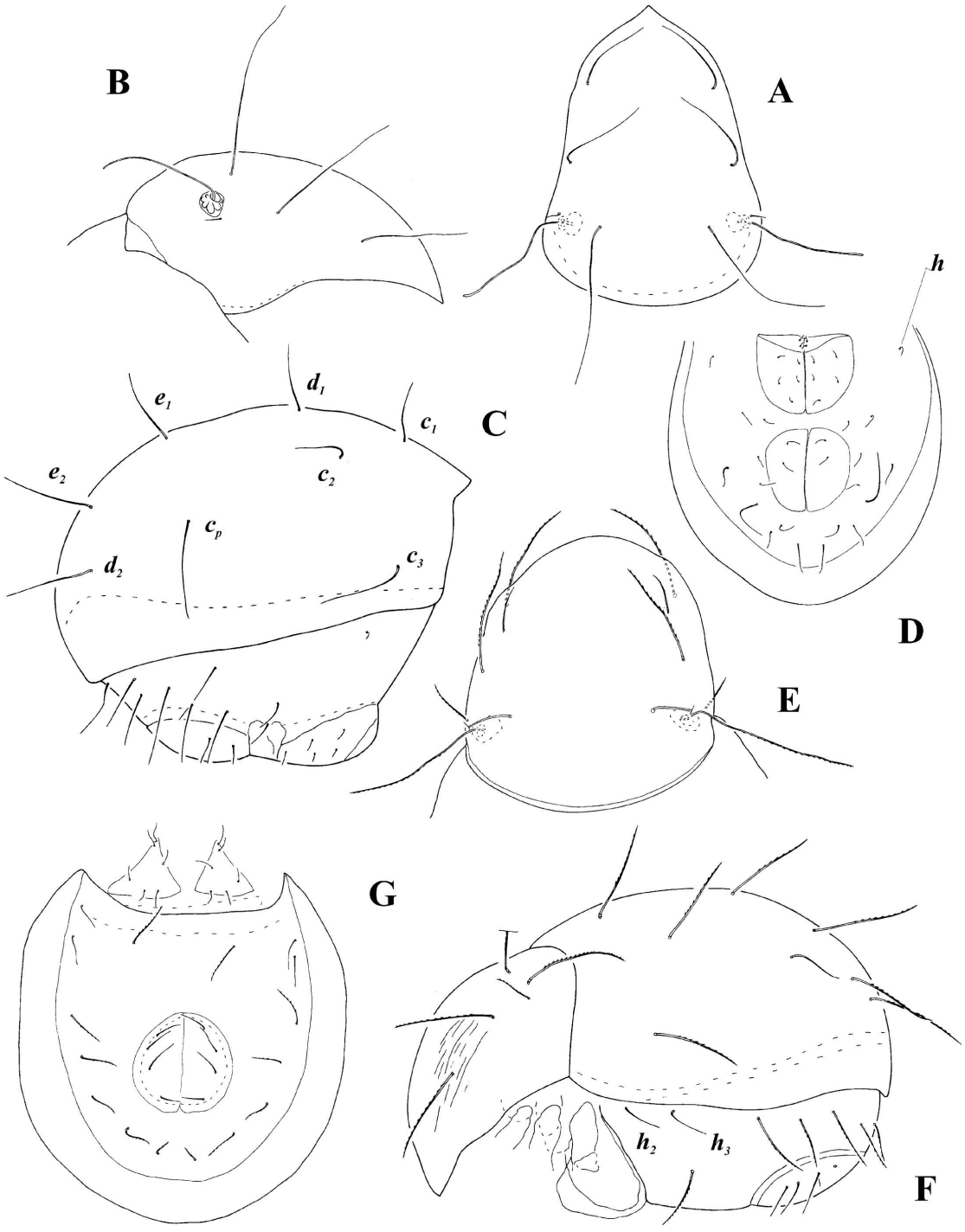


FIGURE 1: *Mesoplophora* (*Mesoplophora*) *parapulchra* **n. sp.** (holotype): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma, D – ventral view of opisthosoma; *Apoplophora paraserrata* **n. sp.** (holotype): E – prodorsum, dorsal view, F – lateral view of body, G – ventral view of opisthosoma.

Measurements of holotype — Prodorsum: length 252, width 192, height 111, sensillum 88, setae: interlamellar 105, lamellar 96, rostral 91, exobothridial 43; notogaster: length 353, width 308, height 202, setae: c_1 96, d_1 91, e_1 101; genital plates 30 × 23; anal plates 86 × 40, distance between genital and anal plates 114.

Description — Colour dark yellow, surface of body punctate, only prodorsum finely striated dorsally.

Prodorsum with traces of weak lateral carines. Sensilla rod-like covered with 30 cilia approximately. Interlamellar setae longer than other prodorsal setae. Lamellar and rostral setae of similar length and similar mutual distances, covered with 17-20 cilia. Exobothridial setae long some times longer than diameter of bothridia, covered with some cilia.

Notogaster with eight pairs of strong setae covered with 17-20 cilia. Setae of row *c* remote from anterior border, setae c_2 more than others.

Ventral region with eight pairs of setae covered 13-16 pairs of cilia, except two pairs smooth anterolateral setae h_2 and h_3 of similar length. One pair of anteromedian setae situated far anteriorly from anal plates on the level of anterolateral setae. Six pairs of smooth genital setae and four pairs of rough anal setae.

Other localities — ANIC-357 12 km South of Ravenshoe, 1000 m, rainforest , 17°43'S 145°30'E, 3 July 1971, coll. R.W. Taylor and J. Feehan - 10; ANIC-355 Tully Falls NP, 17°47'S 145°33'E, 750 m, rainforest, 2 July 1971, coll. R.W. Taylor and J. Feehan - 12; ANIC-536 Mt Archer, 608 m, nr Rockhampton, 23°20'S 150°35'E, 25 Oct. 1976, coll. R.W. Taylor and A. Weir - 2; ANIC-1395, Mount Duval, Tin Weir Creek, 15 km Northwest of Armidale, alt. 1300 m, 30°25'S 151°38'E, dry sclerophyll, *Eucalyptus viminalis* litter, 13 Mar. 1993, coll. D.S. Chandler - 2; RBO-004, Range Border NP, Camping, rainforest with palms, un-sieved litter, sample 1, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 1; RBO-006, Range Border NP, Camping, rainforest with palms, un-sieved litter, sample 2, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 9; RBO-012, Range Border NP, Camping, rainforest with palms, un-sieved litter, 18 Aug. 2007, sample 3, coll. J. Błoszyk and S. Konwerski - 7; RBO-013, Range Border NP, Camping, rainforest with palms, un-sieved litter, sample 4, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 3; RBO-012, Range Border NP, Camping, rainforest with palms, un-sieved litter, sample 5, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 2; RBO-010, Range Border NP, Camping, rainforest with palms, un-sieved litter, sample 6, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 5; RBO-011, Range Border NP, Camping, rainforest with palms, un-sieved litter under sedges, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 2; RBO-002, Range Border NP, Camping, rainforest with palms, sieved litter, sample 1, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 14; RBO-007, Range Border NP, Camping, rainforest with palms, sieved litter, sample 2, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 5; RBO-003, Range Border NP, Camping, rainforest with palms, sieved litter, sample 4, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 1; RBO-008, Range Border NP, Camping, rainforest with palms, rotten leafs of palms, material un-sieved, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 1; NAM-002, Namagi NP, *Eucalyptus* forest, un-sieved wood dust, 11 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 1.

Etymology — The name alludes to some resemblance to *Apoplophora serrata* Niedbała, 2004.

Comparison to related species — The new species is distinguishable from its congeners by the combination of the following characters: sensilla rod-like covered with 30 cilia, most setae of body covered with cilia, one pair of anteromedian setae situated far anteriorly from anal plates on the level of anterolateral setae, 2 pairs smooth anterolateral setae of similar length. This species is similar to *Apoplophora serrata* Niedbała, 2004 from Sarawak in the length of serrate notogastral setae, number of pairs of ventral setae (8) and pairs of rough anal setae (4) but this oriental species has smooth sensilla, shorter exobothridial setae, anterolateral setae unequal in length and anteromedian setae near anal plates

Acrotritia paraspiculifera n. sp. (Figures 2A-C)

Material examined — Holotype and two paratypes (one in ANIC, one in NHC): ANIC-1058 9 km Northest of Mt. Tozer, rainforest litter, 12°43'S 143°17'E, 5-10 July 1986, coll. T. Weir

Measurements of holotype — Prodorsum: length 263, height 114, width 190, sensillum 45, setae: interlamellar 131, lamellar 83, rostral 66, exobothridial 15; notogaster: length 545, height 348, width 313, setae: c_1 66, h_1 81, p_1 76; length of genitoaggenital plate 202, length of anoadanal plate 263.

Description — Colour yellow, surface of body punctate.

Prodorsum with one pair of distinct long lateral carinae. Sensilla with plum-stone shaped head. Interlamellar, lamellar and rostral setae erect and spinose in distal half. Distance between lamellar setae larger than between rostral setae.

Notogastral setae rather short, spinose in distal half, $c_1 < c_1$-d_1.

Ventral region — Nine pairs of minute genital and two pair of minute aggenital setae present. Three pairs of anal and three pairs of adanal setae present. All setae, except an_3 setae of similar length. Lyrifissures *iad* located between an_3 and ad_3 setae.

Legs — Tarsi with variable number of claws. Tarsi formula in holotype: left leg 2-3-3-1, right leg 1-3-3-1, while in paratype I the formula is 2-3-3-1 and 2-3-3-2, and in paratype II it is 2-3-3-3 and 2-3-3-3.

Etymology — The prefix *para* is Latin meaning near and refers to the similarity the new species with to *Acrotritia spiculifera*.

Comparison to related species — The new species is similar to *Acrotritia spiculifera* (Mahunka, 1991) in the plum-stone shape of sensilla, length and proportion of setae, number nine pairs of genital and two pairs of adanal setae. It is slightly bigger and distinguished from the above species by the presence of variable number of claws on the legs (all legs in *A. spiculifera* are monodactylous), larger distance between lamellar setae than between rostral setae (in *A. spiculifera* these distance is similar) and a similar length of setae on anoadanal plates, except setae an_3 (in *A. spiculifera* setae an_1 and an_2 are shorter than adanal setae).

Microtritia cristata n. sp. (Figures 2D-G)

Type material — Holotype and three paratypes (one in ANIC, two in NHC): DOR1-001, Dorrigo NP, rainforest, sieved litter, sample 2, 17 Aug. 2007, coll. J. Błoszyk and S. Konwerski; 2 paratypes: RBO-012, Range Border NP, Camping, rainforest with palms, un-sieved litter, sample 3, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski.

Measurements of holotype — Prodorsum: length 328, height 116, width 252, sensillum 96, setae: interlamellar 78, lamellar 18, rostral 109; notogaster: length 596, height 444, width 434, setae: c_1 131, h_1 114, p_1 83; genitoaggenital plate 86 × 45, anoadanal plate 139 × 48.

Description — One of the larger species of genus *Microtritia*. Colour yellow, surface of body punctate.

Prodorsum with two pairs of distinct long lateral carinae and shorter carinae between them. Median crista situated in anterior half. Sensilla long rod-like, smooth. Interlamellar setae fine, erect, flexible. Rostral setae larger and attenuate. Lamellar setae minute. Exobothridial setae vestigial. Distance between rostral setae greater than between interlamellar setae.

Notogastral setae of medium length, $c_1 < c_1$-d_1, flexible setae. Setae $c_{1\text{-}3}$ remote from anterior margin in similar distance. Four pairs of lyrifissures, *ia*, *im*, *ip*, *ips* present.

Ventral region — Five pairs of short genital and two pairs of minute aggenital setae present. Distances between setae g_1 and g_2 and between g_4 and g_5 larger than distances between setae g_2, g_3 and g_4. Three pairs of anal minute setae and three pairs of adanal long, attenuate setae present. Lyrifissures *iad* located anteriorly of ad_3 setae.

Other localities — RBO-013, Range Border NP, Camping, rainforest with palms, un-sieved litter, sample 4, 18 Aug. 2007, coll. J. Błoszyk and S.

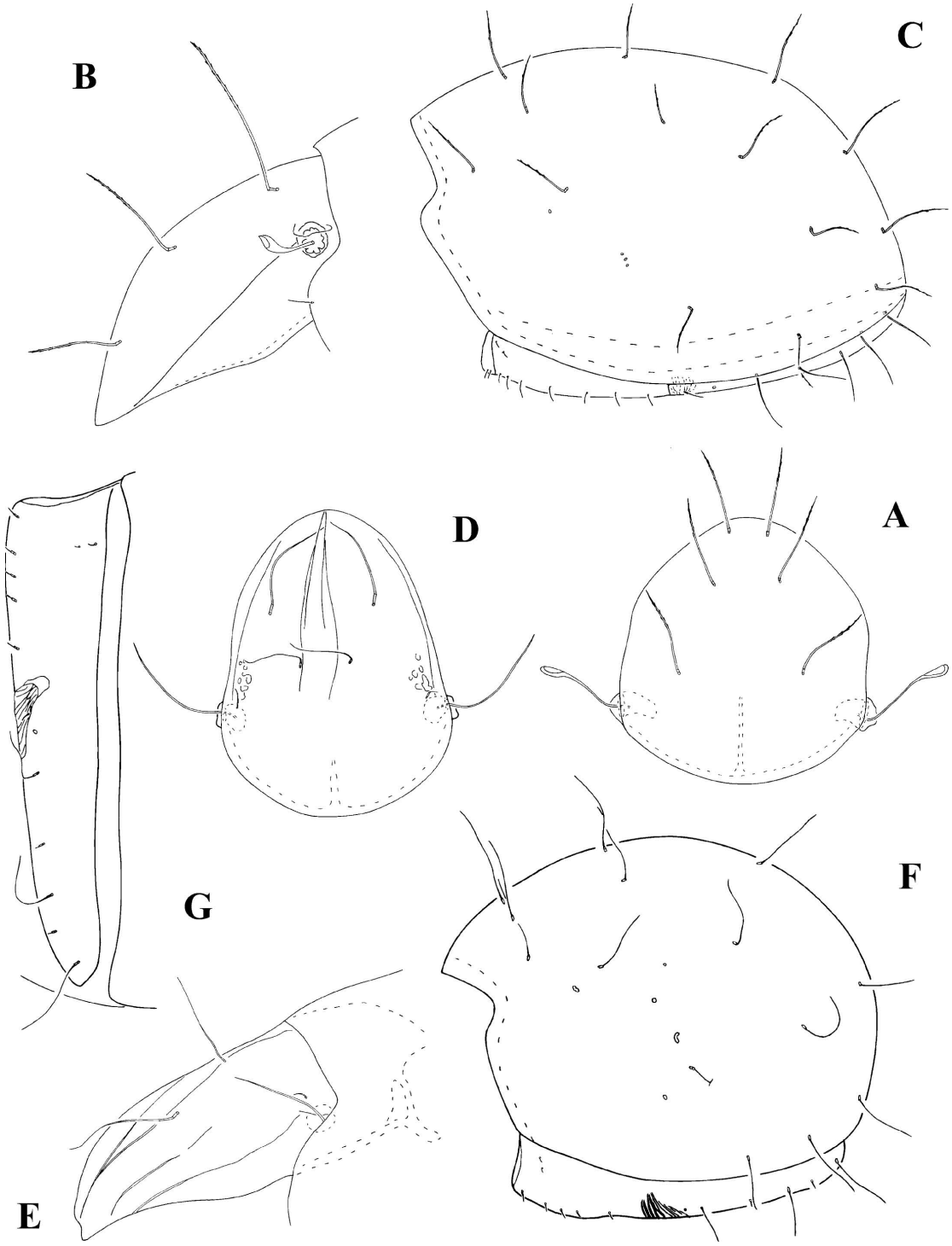


FIGURE 2: *Acrotritia paraspiculifera* **n. sp.** (holotype): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma; *Microtritia cristata* **n. sp.** (holotype): D – prodorsum, dorsal view, E – prodorsum, lateral view, F – lateral view of opisthosoma, G – ventral view of opisthosoma, left side.

Konwerski - 3; RBO-012, Range Border NP, Camping, rainforest with palms, un-sieved litter, sample 5, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 3; RBO-010, Range Border NP, Camping, rainforest with palms, un-sieved litter, sample 6, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 1.

Etymology — The name alludes to presence of dorsal crista of prodorsum.

Comparison to related species — The new species is distinguishable from the other *Microtritia* species by the presence of dorsal crista of prodorsum and three pairs of prodorsal lateral carinae.

Plonaphacarus vicinus n. sp. (Figures 3A-D)

Material examined — Holotype: ANIC-357, 12 km South of Ravenshoe, 1000 m, rainforest , 17°43'S 145°30'E, 3 July 1971, coll. R.W. Taylor and J. Feehan; 57 paratypes (29 in ANIC, 28 in NHC): ANIC-355 Tully Falls NP, 17°47'S 145°33'E, 750 m, rainforest, 2 July 1971, coll. R.W. Taylor and J. Feehan.

Measurements of holotype — Prodorsum: length 197, width 147, height 91, sensillum 63, setae: interlamellar 58, rostral 45, exobothridial 7; notogaster: length 365, width 250, height 216, setae: c_1 64, h_1 78, p_1 64; genitoaggenital plate 83 × 78; anoadanal plate 162 × 88.

Description — Colour yellow. Integument finely punctate.

Prodorsum with indistinct sigillar fields. Lateral carinae absent. Sensilla with long pedicel and short club-like, rough head. Interlamellar setae erect, rough not very long and not so thick as notogastral setae. Lamellar and exobothridial setae minute. Rostral setae filiform situated near each other.

Notogaster with 15 pairs of rigid setae, relatively short ($c_1 < c_1$-d_1), covered with distinct, four to five spines in distal half. Setae c_1 and c_3 near anterior margin, setae c_2 far from margin. Vestigial setae f_1 posteriorly of h_1 setae. Two pairs of lyrifissures, *ia* and *im*, present.

Ventral region — Formula of genital setae: 9(4+5): 0. Both rows of setae situated near each other. Anoadanal plates with rough setae, ad_1 and ad_2 longest, curved distally, anal setae shortest.

Legs setation complete. Seta *d* of femora I remote from distal end of article.

Etymology — The specific epithet *vicinus* refers to the unusual neighbouring of rostral setae of prodorsum.

Comparison to related species — The new species is distinguishable from congeners by the presence of the following characters in combination: small size of body, sensilla long, with club-like head, interlamellar setae not so thick as notogastral setae, lamellar and exobothridial setae minute, rostral setae filiform situated near each other, formula of genital setae: 9 (4+5): 0, both rows of setae situated near each other.

Austrophthiracarus konwerskii n. sp. (Figures 3E-I)

Type material — Holotype: ANIC-1338A, Dorrigo NP, 0,3 km Northwest of Visitors Centre, 770 m, 30°22'S 152°43'E, cut subtropical closed forest rotten wood litter, 20 June 1993, coll. D.S. Chandler. Four paratypes (two in ANIC, two in NHC): ANIC-1606, Bruxner Park Flora Reserve, Sealy Lookout Road, 5 km Northwest of Coffs Harbour, alt. 260 m, 30°15'S 153°07'E, wet sclerophyll forest, *Eucalyptus pilularis* litter, 23 Apr. 1993, coll. D.S. Chandler.

Measurements of holotype — Prodorsum: length 257, width 222, height 106, sensillum 83, setae: interlamellar 33, lamellar 30, rostral 43, exobothridial 13; notogaster: length 515, width 374, height 333, setae: c_1 88, h_1 and p_1 68; genitoaggenital plate 126 × 121, anoadanal plate 204 × 119.

Description — Colour brown. Surface of body, especially of notogaster covered with small concavities.

Prodorsum with weak sigillar fields. Lateral carinae absent. Sensilla long, bacilliform, rough. Setae short, thick, strongly covered with small spines, *ro* > *in* > *le* > ex.

Notogaster with 20 pairs (neotrichy in setae of rows *h* and *p*) of short ($c_1 < c_1$-d_1), thick setae, strongly covered with small spines. Setae c_1 and c_3 near anterior border, setae c_2 remote from border. Vestigial setae invisible. Two pairs of lyrifissures *ia* and *im* present.

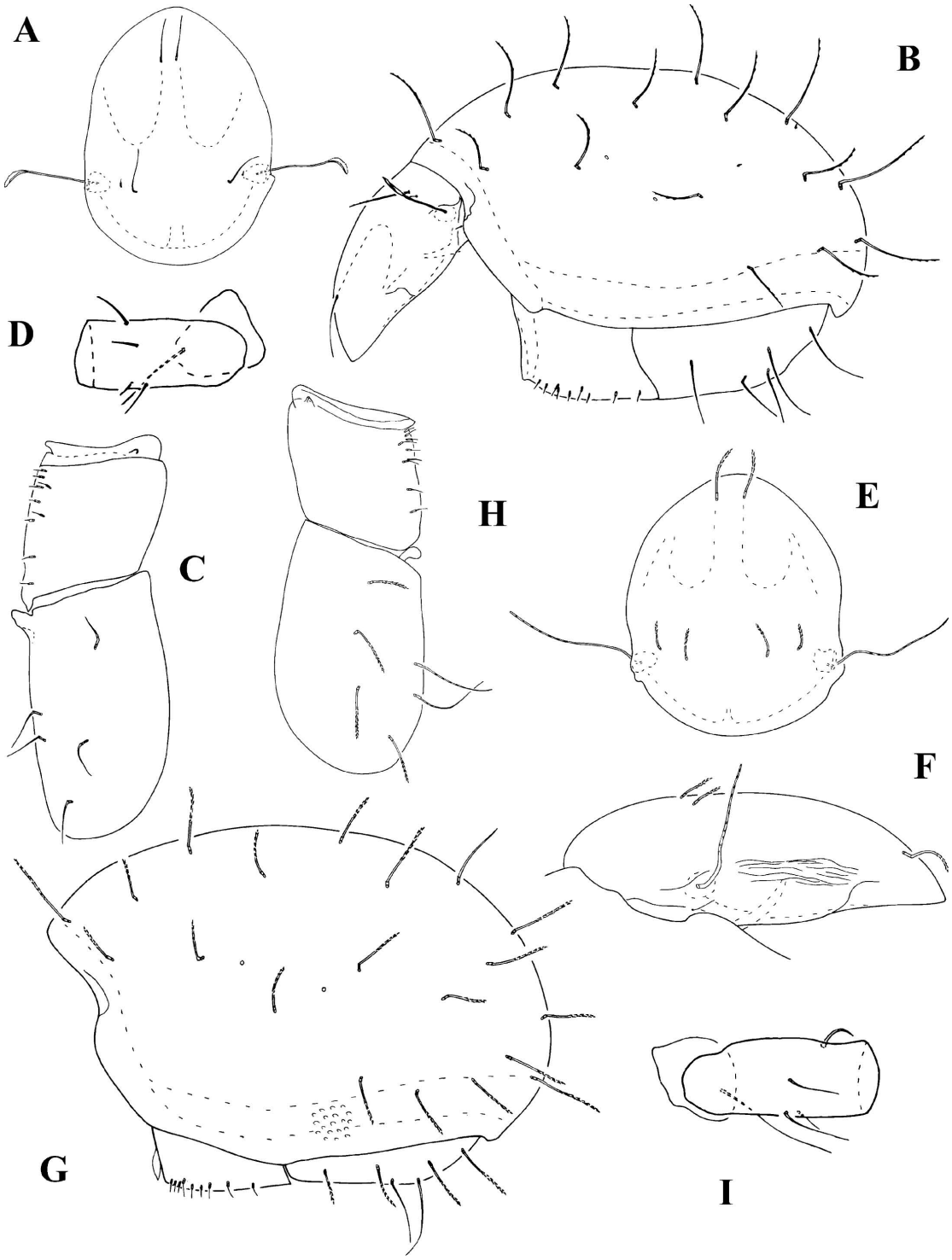


FIGURE 3: *Plonaphacarus vicinus* **n. sp.** (holotype): A – prodorsum, dorsal view, B – lateral view of body, C – genitoaggenital and anoadanal plates, D – trochanter and femur I; *Austrophthiracarus konwerskii* **n. sp.** (holotype): E – prodorsum, dorsal view, F – prodorsum, lateral view, G – lateral view of opisthosoma, H – genitoaggenital and anoadanal plates, I – trochanter and femur I.

Ventral region — Formula of genital setae: 5+ 4: 0. Two pairs of long, flagelliform, rough anal setae longer than four pairs of adanal setae, similar in length and shape to notogastral setae.

Legs — Chaetome of legs of complete type. Setae *d* of femora I distinctly remote from distal end of article.

Another locality — ANIC-1610, Bruxner Park Floral Reserve, Sealy Lookout Road, 5 m. Northwest of Coff Harbour, 260 m, cut wet scleophyll rotten log litter, 23 May 1993, coll. D.S. Chandler – 6

Etymology — The species is named to honour Dr. S. Konwerski to thank him to have collect and to have taken care of the material studied and used for this work.

Comparison to related species — The new species is distinguishable from congeners by the following combination of characters: long sensilla, short setae of prodorsum similar in shape to notogastral setae, thick and covered with small spines, neotrichy of notogastral (20 pairs) and adanal (4 pairs) setae.

Steganacarus (*Rhacaplacarus*) *cucullus* n. sp. (Figures 4A-I, 5A-J)

Type material — Holotype and one paratype (in NHC): ANIC-1344, Dorrigo NP, Blackbutt Trail, 8 km East of Dorrigo, 30°22'S 152°46'E, cut subtropical, closed forest *Acacia* and *Calliconia* litter, sample 1, 22 May 1993, coll. D.S. Chandler; four paratypes (two in ANIC, two in NHC): ANIC-1345, Dorrigo NP, 6 km Southeast of Dorrigo, alt. 490 m, 30°23'S 152°44'E, wet sclerophyll, *Eucalyptus saligna* litter, 6 Feb. 1993, coll. D.S. Chandler.

Measurements of holotype — Prodorsum: length 278, width 192, height 126, sensillum 94, setae: interlamellar and exobothridial 18, lamellar and rostral 10; notogaster: length 586, width 384, height 333, c_1, h_1 and p_1 18; genitoaggenital plate 131 × 126, anoadanal plate 197 × 131. Measurements of paratype: prodorsum: length 263, width 202, height 116; notogaster: length 566, width 434, height 313.

Description — Colour brown. Cuticle well sculptured, body covered with distinct but irregular foveae.

Prodorsum with very great, prominent median crista. Lateral carinae absent, sigillar fields not visible. Sensilla long, narrow, covered with small cilia in distal half. Setae (except filiform exobothridial) very short, swollen, rather obtuse distally.

Notogaster with prominent cowl-like structure in anterior part. Setae very short (c_1/c_1-d_1 = 0.1), swollen, rather obtuse distally, setae $c_{1\text{-}3}$ situated at the cowl. Lyrifissures and vestigial setae invisible.

Ventral region — Setae *h* of mentum slightly shorter than distance between them. Genitoaggenital plates with nine pairs of minute genital setae with arrangement: 6: 3. Anoadanal plates each with five pairs of minute setae, setae ad_3 situated near proximal border as setae ad_1 and *an*, setae ad_2 only slightly remote from proximal border.

Legs — Formula of setae and solenidia of complete type. Setae *d* of femora I slightly remote from distal end of segment.

Other localities — ANIC-1338, Dorrigo NP, 0.3 km Northwest of Visitors Centre, 770 m, 30°22'S 152°43'E, cut subtropical closed forest rotten wood litter, 20 June 1993, coll. D.S. Chandler - 1; ANIC-1338, Dorrigo NP, 0.3 km Northwest of Visitors Centre, 770 m, 30°22'S 152°43'E, cut subtropical closed forest rotten wood litter, 20 June 1993, coll. D.S. Chandler - 1.

Etymology — The specific name *cucullus* is derived from Latin for "a hood" and alludes to the presence of anterior cowl on notogaster.

Comparison to related species — The new species is easily distinguishable from congeners by the shape of setae short, swollen, rather obtuse distally, prominent median crista of prodorsum, prominent anterior cowl of notogaster, minute setae of anoadanal plates. No species of *Steganacarus* (*Rhacaplacarus*) has this combination of character states.

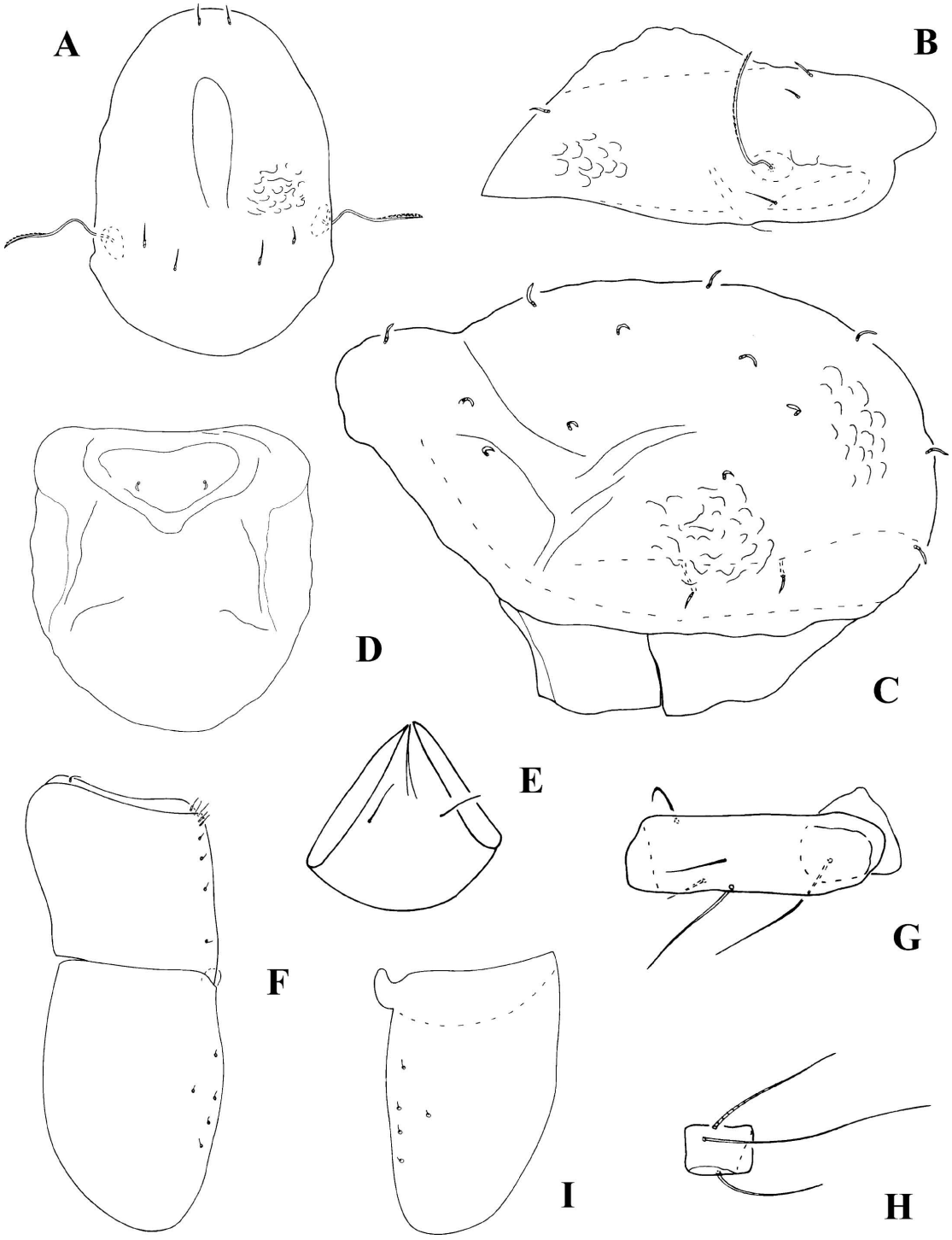


FIGURE 4: *Steganacarus* (*Rhacaplacarus*) *cucullus* **n. sp.** (holotype): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma, D – dorsal view of notogaster, E – mentum of infracapitulum, F – genitoaggenital and anoadanal plates, G – trochanter and femur I, H – tibia IV; *Steganacarus* (*Rhacaplacarus*) *cucullus* **n. sp.** (paratype I): I – anoadanal plate.

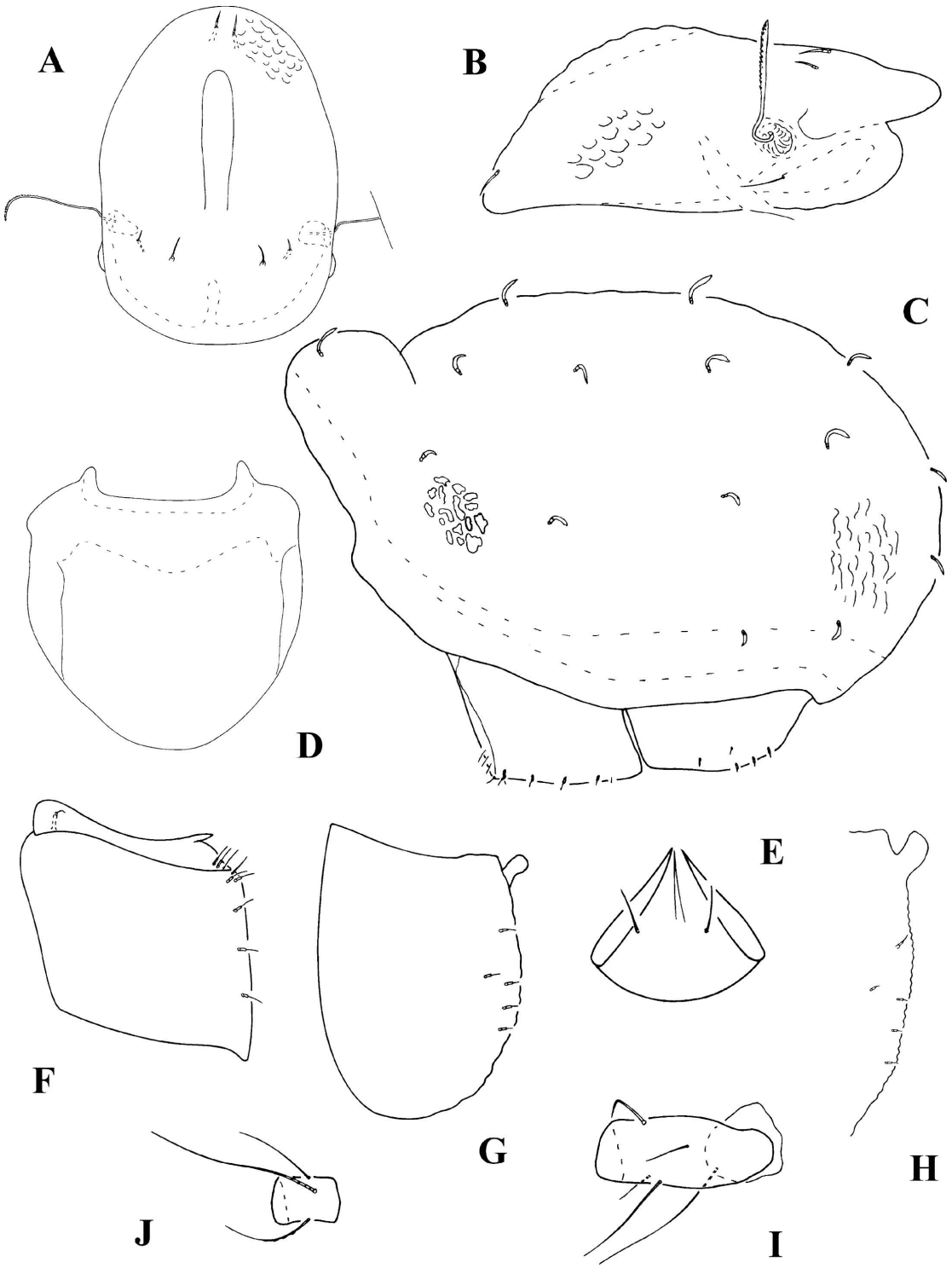


FIGURE 5: *Steganacarus* (*Rhacaplacarus*) *cucullus* **n. sp.** (paratype II): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma, D – dorsal view of notogaster, E – mentum of infracapitulum, F – genitoaggenital plate, G – anoadanal plate, H – paraxial margin of genitoaggenital plate, I – trochanter and femur I, J – tibia IV.

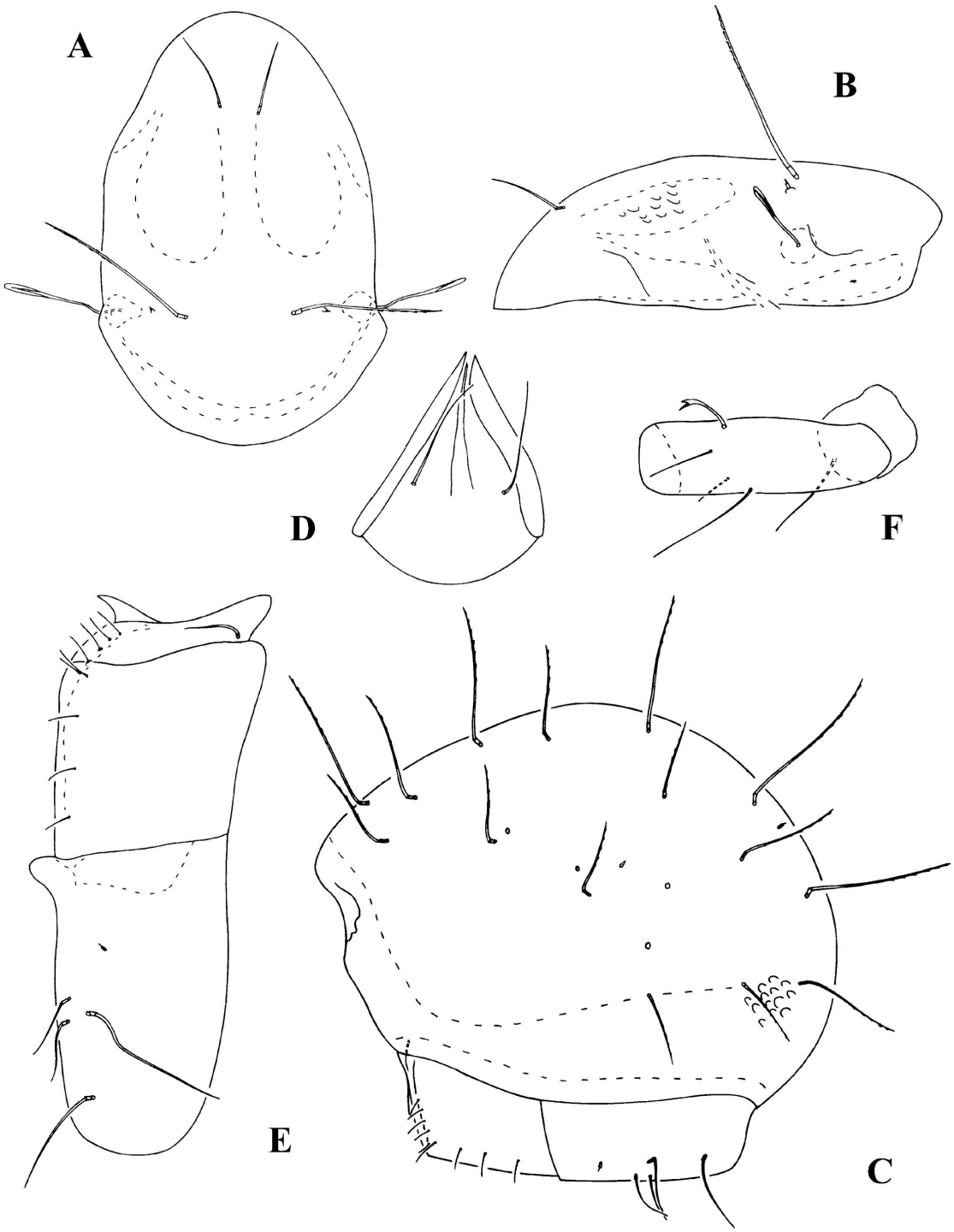


FIGURE 6: *Arphthicarus trivestigius* **n. sp.** (holotype): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma, D – mentum of infracapitulum, E – genitoaggenital and anoadanal plates, F – trochanter and femur I.

Arphthicarus trivestigius n. sp. (Figure 6A-F)

Material examined — Holotype and 37 paratypes (19 in ANIC, 18 in NHC): ANIC-357, 12 km South of Ravenshoe, 1000 m, rainforest, 17°43'S 145°30'E, 3 July 1971, coll. R.W. Taylor and J. Feehan.

Measurements of holotype — Prodorsum: length 318, width 212, height 96, sensillum 53, setae: interlamellar 126, rostral 61; notogaster: length 540, width 399, height 394, c_1 169, c_2 101, *cp* 94, h_1 177, p_1 164, c_1/c_1- d_1 = 1.2; genitoaggenital plate 215 × 119, anoadanal plate 190 × 101.

Description — Colour brown light. Cuticle well sculptured with weak concavities.

Prodorsum with sigillar fields not very distinct but narrow. Lateral carinae absent. Sensilla with long, narrow pedicel enlarged towards distal end with indistinct rough head. Interlamellar setae erect, strong, thick covered sparsely by barbs, similar to notogastral setae, lamellar and exobothridial setae vestigial, rostral setae erect, spiniform, rough.

Notogaster with 15 pairs of very thick, spiniform setae covered sparsely by barbs, median setae longer than lateral ones. Setae c_1 and c_3 remote from anterior border, setae c_2 far from border. Vestigial setae f_1 posteriorly of h_1 setae. Four pairs of lyrifissures *ia*, *im*, *ip* and *ips* present.

Ventral region — Setae *h* of mentum considerably longer than distance between them. Genitoaggenital plates with nine pairs of genital setae with arrangement: 4+1: 4. Aggenital setae long. Anoadanal plates each with five setae, anal setae smallest, adanal setae ad_2 situated near anal setae, setae ad_3 vestigial.

Legs — Formulae of setae and solenidia of complete type. Setae *d* of femora I forked distally and remote from distal end of article.

Etymology — The name of species alludes to the three different vestigial setae: lamellar, exobothridial and adanal setae ad_3.

Comparison to related species — The new species is distinguishable by the presence of three pairs of setae vestigial: lamellar, exobothridial and adanal setae ad_3, while its sensilla are long and narrow, enlarged towards distal end, median setae of notogaster longer than ventral setae, short anal setae and position of adanal setae ad_2 near anal setae.

Notophthiracarus angustus n. sp. (Figure 7A-F)

Material examined — Holotype: ANIC-068, Soutwest of Cabbage Tree Creek near Clyde Mt., *Casuarina* leaf litter in log, 20 Aug. 1968, coll. L. A. Mound.

Measurements of holotype — Prodorsum: length 389, width 273, height 185, sensillum 76, setae: *in* 76, *le* 71, *ro* 51; notogaster: length 980, width 434, height 535, setae: c_1 106, *cp* 126; h_1 88, genitoaggenital plate 197 × 162; anoadanal plate 227 × 152.

Description — Colour deep brown. Surface of body covered with dense and deep mosaic of concavities.

Prodorsum with well developed median crista and two smaller lateral cristae. Lateral carinae and posterior furrows absent. Sigillar fields not visible because of thick integument. Sensilla long, narrow, rough, bent in proximal part. Setae (except vestigial exobothridial) rather long, spinose, rigid, rough, pointed distally.

Notogaster with strong longitudinal, median crista in posterior half. Anterior part is hooked. 15 pairs of two types of shape of setae. Dorsal setae c_1, d_1, e_1, h_1 and all setae of row *p* fine, smooth, filiform and flagelliform, other ventral setae strong, dilated in median part, pointed distally, rough. Setae c_3 situated near anterior margin, setae c_1 remote slightly and setae c_2 more from border. Vestigial setae invisible. Three pairs of lyrifissures *ia*, *im* and *ip* present.

Ventral side — Setae *h* of mentum longer than distance between them. Formula of minute genital setae: 5: 4. Anoadanal plates with five pairs of minute setae, situated near proximal margin, setae an_1 and ad_3 flagellate and longer than setae an_1, ad_1 and ad_2.

Legs — Chaetome of legs complete; setae *d* on femora I slightly remote from distal end of article.

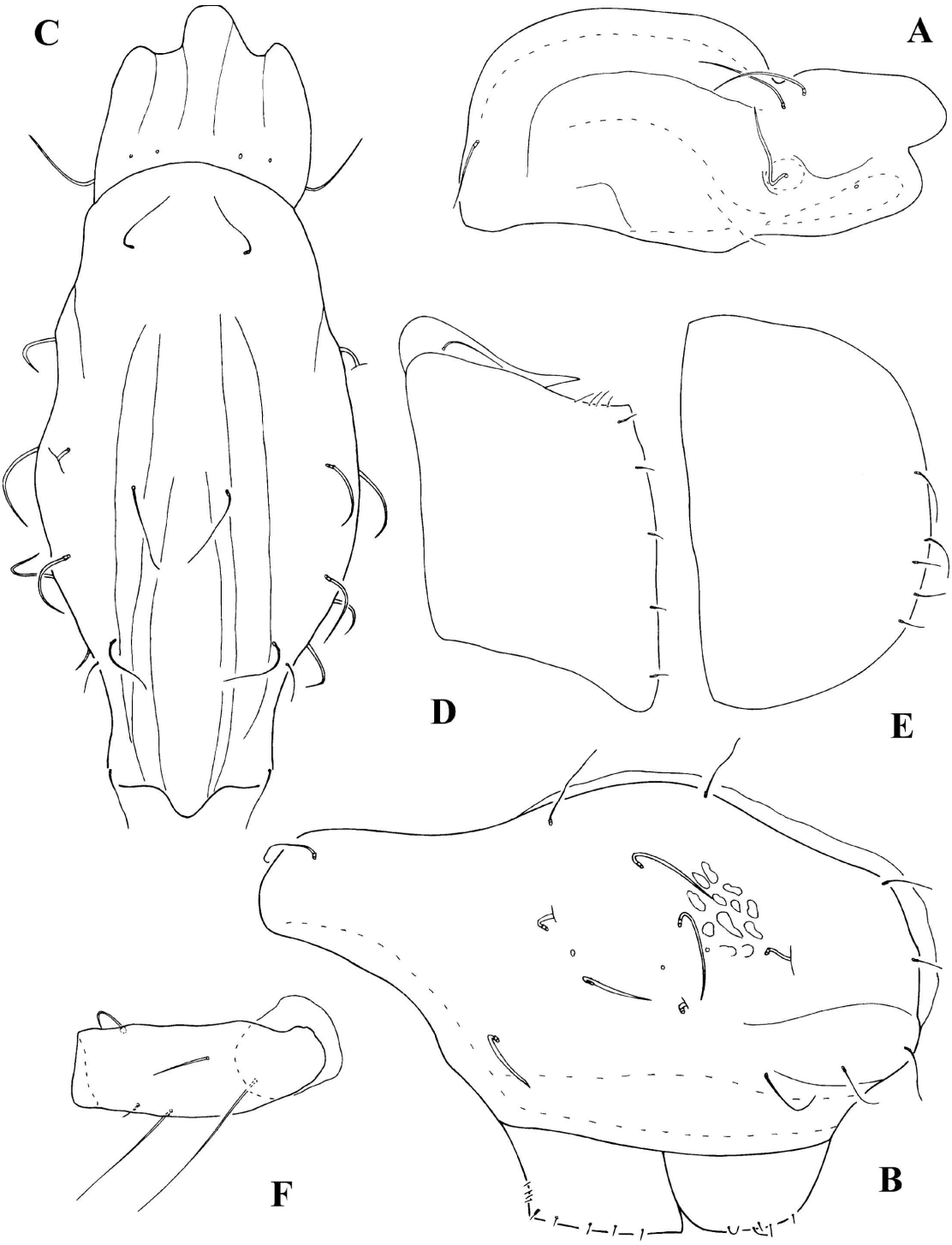


FIGURE 7: *Notophthiracarus angustus* **n. sp.** (holotype): A – prodorsum, lateral view, B – lateral view of opisthosoma, C – dorsal view of body, D – genitoaggenital plate, E – anoadanal plate, F – trochanter and femur I.

Etymology — The name *angustus* of the new species is Latin for "narrow" alluding to the shape of narrow body of species.

Comparison to related species — The new species is similar to three other species from the Oriental Region and to one Australian *Notophthiracarus* species in the presence of longitudinal dorsal ridges of notogaster: *N. orientalis* (Mahunka, 1985), *N. hauseri* Mahunka, 1995, *N. lienhardi* Mahunka, 1996 and *N. tripartitus* Niedbała, 1989. The new species is distinguishable from these latter ones by the heterotrichy of notogastral setae: dorsal fine, filiform and the ventral strong, dilated (versus homotrichy of notogastral setae).

Notophthiracarus bloszyki n. sp. (Figure 8A-G)

Type material — Holotype and 31 paratypes (16 in ANIC, 15 in NHC): ANIC-152, Bruxner Park Floral Reserve, Sealy Lookout Road, 5 km Northwest of Coffs Harbour, alt. 170 m, 30°15'S 153°07'E, wet sclerophyll forest, *Eucalyptus pilularis* litter, 18 Apr. 1993, coll. D.S. Chandler.

Measurements of holotype — Prodorsum: length 353, width 252, height 126, sensillum 101, setae: interlamellar 159, lamellar 131, rostral 38, exobothridial 25; notogaster: length 727, width 505, height 444, setae: c_1 250, h_1 263, p_1 273; genitoaggenital plate 187 × 119, anoadanal plate 202 × 114.

Description — Colour brown. Surface of body well sculptured and covered with deep concavities.

Prodorsum with distinct median crista but without lateral carinae. Sigillar fields invisible. Well developed hump present above the bothridia. Sensilla long, strong, dilated, covered with small spines. Interlamellar and lamellar setae long, thick, covered with small spines in distal half, similar to notogastral setae. Rostral setae short, thick, bent, covered with small spines.

Notogaster with 15 pairs of long ($c_1 > c_1$-d_1), thick, rigid setae, ciliate, more at distal half. Setae c_1 and c_3 slightly remote from anterior border, setae c_2 situated far from anterior border. Vestigial setae and lyrifissures invisible.

Ventral region Setae *h* of mentum shorter than distance between them. Formula of genital setae: 5: 4. Anoadanal plates with five pairs of setae. Anal setae long, thick, rough, adanal setae vestigial.

Legs — Chaetome of legs of complete type, setae *d* of femora I slightly remote from anterior end of the article.

Etymology — This species is named to honour of Prof. J. Błoszyk to thank him for collection and for lending the material studied used in this work.

Other localities — ANIC-1660, Bruxner Park Floral Reserve, Sealy Lookout Rd. 5 km Northwest of Coffs Harbour, 760 m, 30°15'S 153°07'E, cut wet scleophyll *Eucalyptus grandis* litter, 19 Jan. 1993, coll. D.S. Chandler - 5; ANIC-1611, Bruxner Park Floral Reserve, Sealy Lookout Road, 5 km Northwest of Coffs Harbour, 260 m, 30°15'S 153°07'E, cut wet scleophyll subst. rainforest litter, 23 May 1993, coll. D.S. Chandler - 1; ANIC-1610, Bruxner Park Floral Reserve, Sealy Lookout Road, 5 km Northwest of Coff Harbour, 260 m, cut wet scleophyll rotten log litter, 23 May 1993, coll. D.S. Chandler - 2.

Comparison to related species — The new species is easily distinguishable from its congeners by the shape of sensilla – long and thick, also long and thick interlamellar and lamellar setae, long anal and vestigial adanal setae. It is similar to *N. comatus* Niedbała, 2000 from New Zealand in long sensilla, interlamellar and lamellar setae but is differently sculptured, covered with concavities (versus integument finely punctuate), without prodorsal, median crista and has well developed adanal setae.

Notophthiracarus hallidayi n. sp. (Figure 9A-F)

Type material — Holotype and 14 paratypes (seven in ANIC, seven in NHC): NAM-009, Namagi NP, renewed *Eucalyptus* forest, dry un-sieved litter between stones, 11 Aug. 2007, coll. J. Błoszyk and S. Konwerski.

Measurements of holotype — Prodorsum: length 242, width 127, height 91, sensillum 76, setae: interlamellar 111, rostral 66; notogaster: length 485,

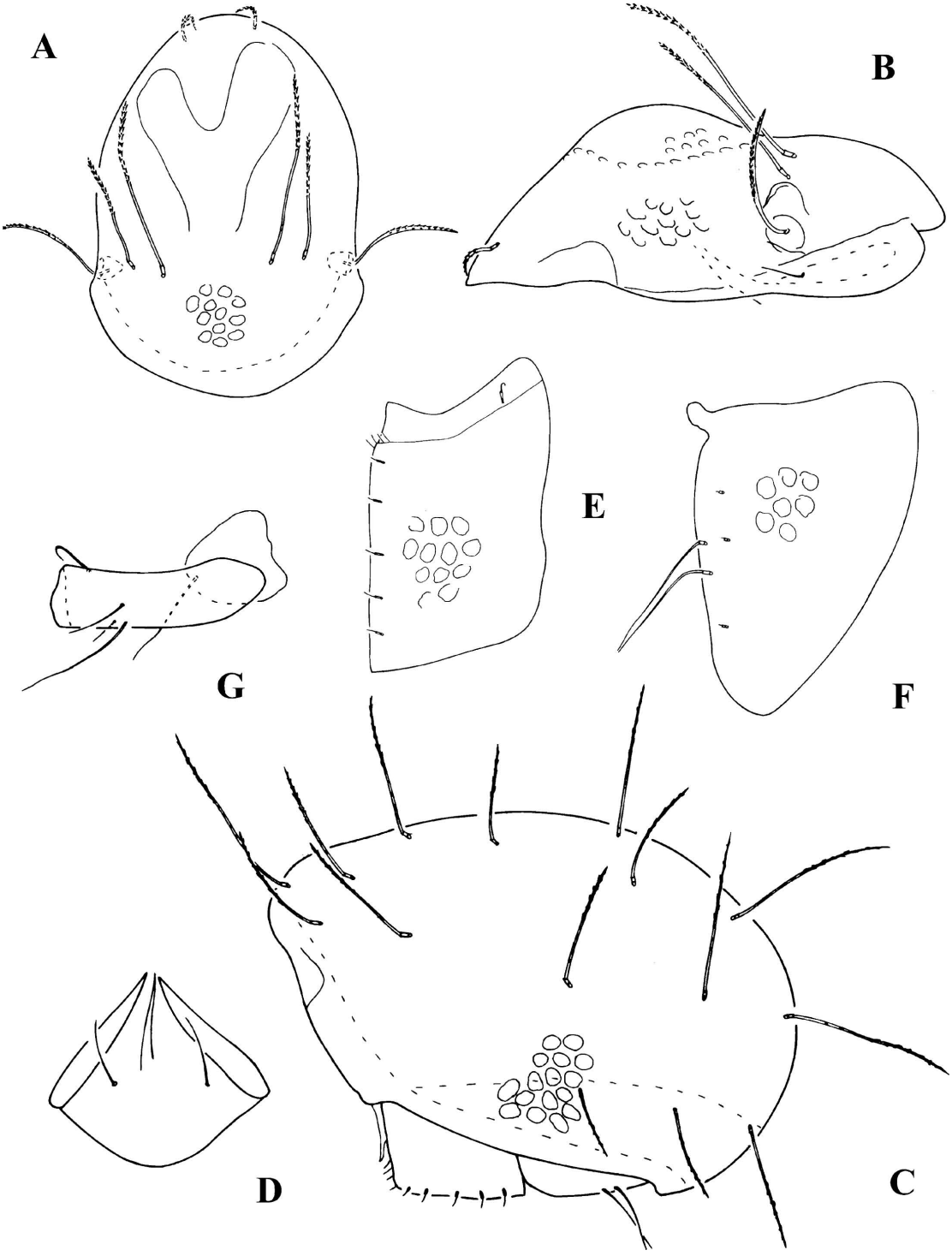


FIGURE 8: *Notophthiracarus bloszyki* **n. sp.** (holotype): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma, D – mentum of infracapitulum, E – genitoaggenital plate, F – anoadanal plate, G – trochanter and femur I.

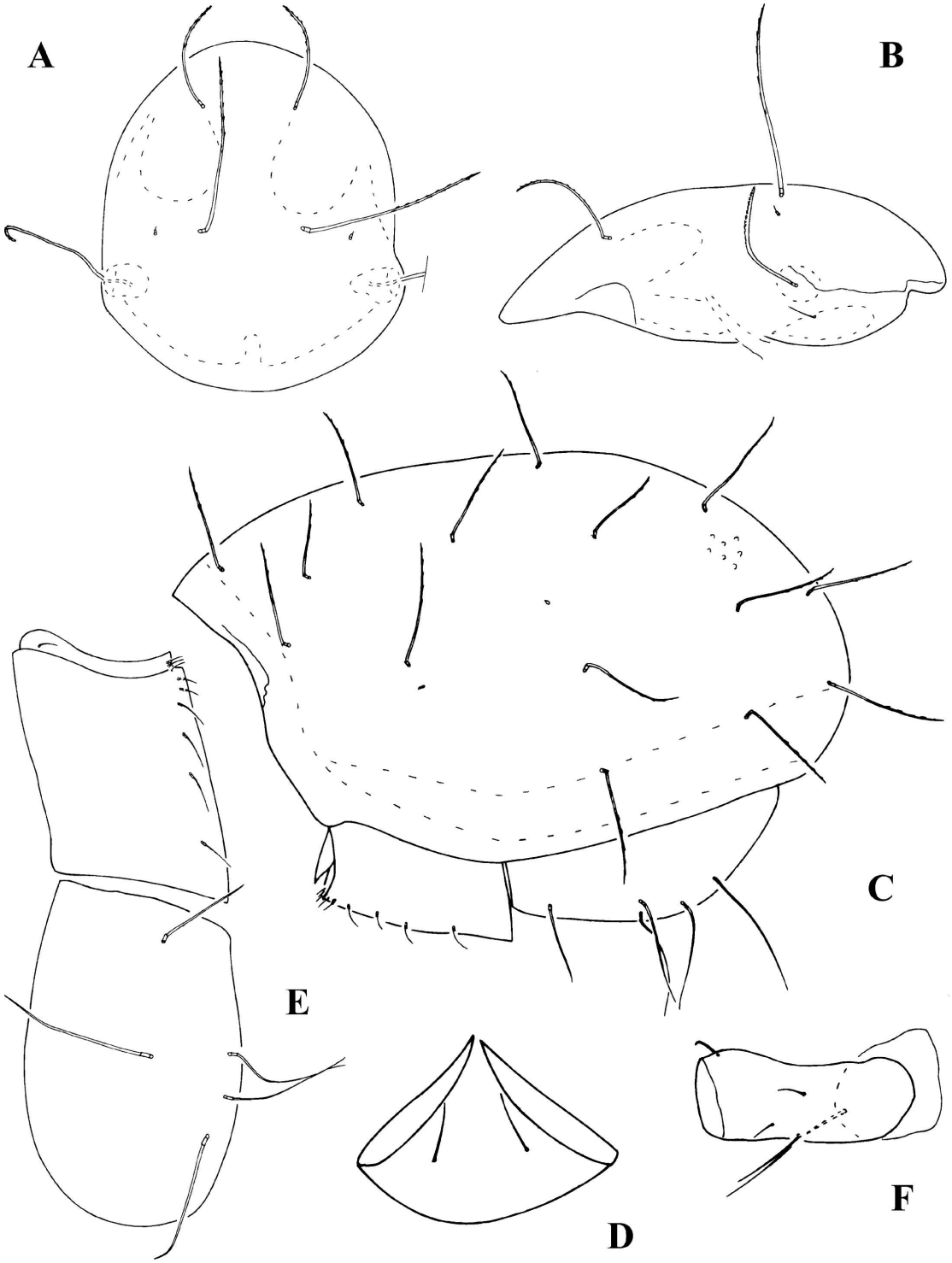


FIGURE 9: *Notophthiracarus hallidayi* **n. sp.** (holotype): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma, D – mentum of infracapitulum, E – genitoaggenital and anoadanal plates, F – trochanter and femur I.

width 313, height 278, setae: c_1 88, h_1 76, p_1 71; genitoaggenital plate 110 × 101; anoadanal plate 197 × 129.

Description — Body shagreen-like. Shape of body hexagonal in outline. Colour light brown. Surface of the notogaster covered with feeble foveae.

Prodorsum with short sigillar fields, median longer than laterals. Lateral carinae absent. Sensilla long, of equal width, covered with small cilia in distal half. Interlamellar setae long, rod-like, erect covered with cilia in distal half. Lamellar setae vestigial. Rostral setae of equal width, bent inward, covered with cilia in distal half, not pointed distally.

Notogaster with 15 pairs of rather short ($c_1 < c_1$-d_1), rigid, setae, sparsely covered with short cilia. Setae $c_1$and c_3 situated close to the anterior border, setae c_2 shifted away from the border. Vestigial setae $f_1$not observed. Two pairs of lyrifissures, *ia* and *im*, present.

Ventral region — Arrangement of genital setae: 5: 4, setae $g_{6\text{-}9}$remarkably longer than setae $g_{1\text{-}5}$. Anoadanal plates with five pairs of setae. Anal setae narrow and filiform, attenuate, adanal setae rigid, rough, setae ad_1 and ad_2 longer than other setae.

Legs — Setation of complete type. Seta *d* on femora I short and inserted at the distal end of segment, setae *l* situated at the middle of segment.

Other localities — NAM-010, Namagi NP, *Eucalyptus* forest, sieved litter, sample 1, 11 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 10; NAM-006, Namagi NP, *Eucalyptus* forest, sieved litter, sample 2, 11 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 7; NAM-008, Namagi NP, *Eucalyptus* bushes outside of park, dry sieved litter, 11 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 31, NSW-003, Lake George near Canberra, parking near HWZ, remains of *Eucalyptus* forest, sieved litter under old pines, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 2.

Etymology — It is my pleasure to name this species after Dr. B. Halliday, an outstanding Australian acarologist.

Comparison to related species — The new species is similar to *Notophthiracarus szeptyckii* Niedbała, 2009 in the shape and length of interlamellar, lamellar and notogastral setae. However, the new species is distinguishable from the other by the shape of sensilla, rostral setae and implantation of setae l of femora I.

Notophthiracarus lewisensis n. sp. (Figure 10A-G)

Material examined — Holotype. ANIC-546, Mt. Lewis, 960 m, 16°35'S 145°17'E, rainforest, 30 Oct. 1976, coll. R.W. Taylor and T.A. Weir.

Measurements of holotype — Prodorsum: length 444, width 308, height 252, sensillum 101, setae: interlamellar 38, lamellar 28, rostral 33, exobothridial 23; notogaster: length 949, width and height 596, c_1 78, h_1 106, p_1 86; genitoaggenital plate 197 × 146, anoadanal plate 252 × 146.

Description — Colour brown. Cuticle very well sculptured, covered with distinct foveae.

Prodorsum with very powerful median crista. Sigillar fields indistinct because of strong sculpture. Sensilla long, rod-like, rough. Setae fine, filiform, smooth.

Notogaster with small anterior and posterior median cristae. Setae fine, filiform, slightly flagellate, smooth and rather short (c_1/c_1-d_1 = 0.34). Setae $c_{1\text{-}3}$ remote from anterior border, setae c_1 and especially setae c_2 more than setae c_3. Between lyrifissures and vestigial setae only *ia* and f_2 visible.

Ventral region — Setae *h* of mentum slightly shorter than distance between them. Genitoaggenital plates with nine pairs of genital setae with arrangement: 6: 3. Anoadanal plates each with five pairs of minute setae, adanal setae rather close to proximal border.

Legs — Formula of setae and solenidia of complete type. Setae of femora I situated in one vertical line; setae *d* small and considerably remote from distal end of segment; setae v' and v'' unusual remote from each other.

Etymology — The specific epithet refers to the locality of this species – the Mountain Lewis.

Comparison to related species — Because of very short setae on the body, the new species

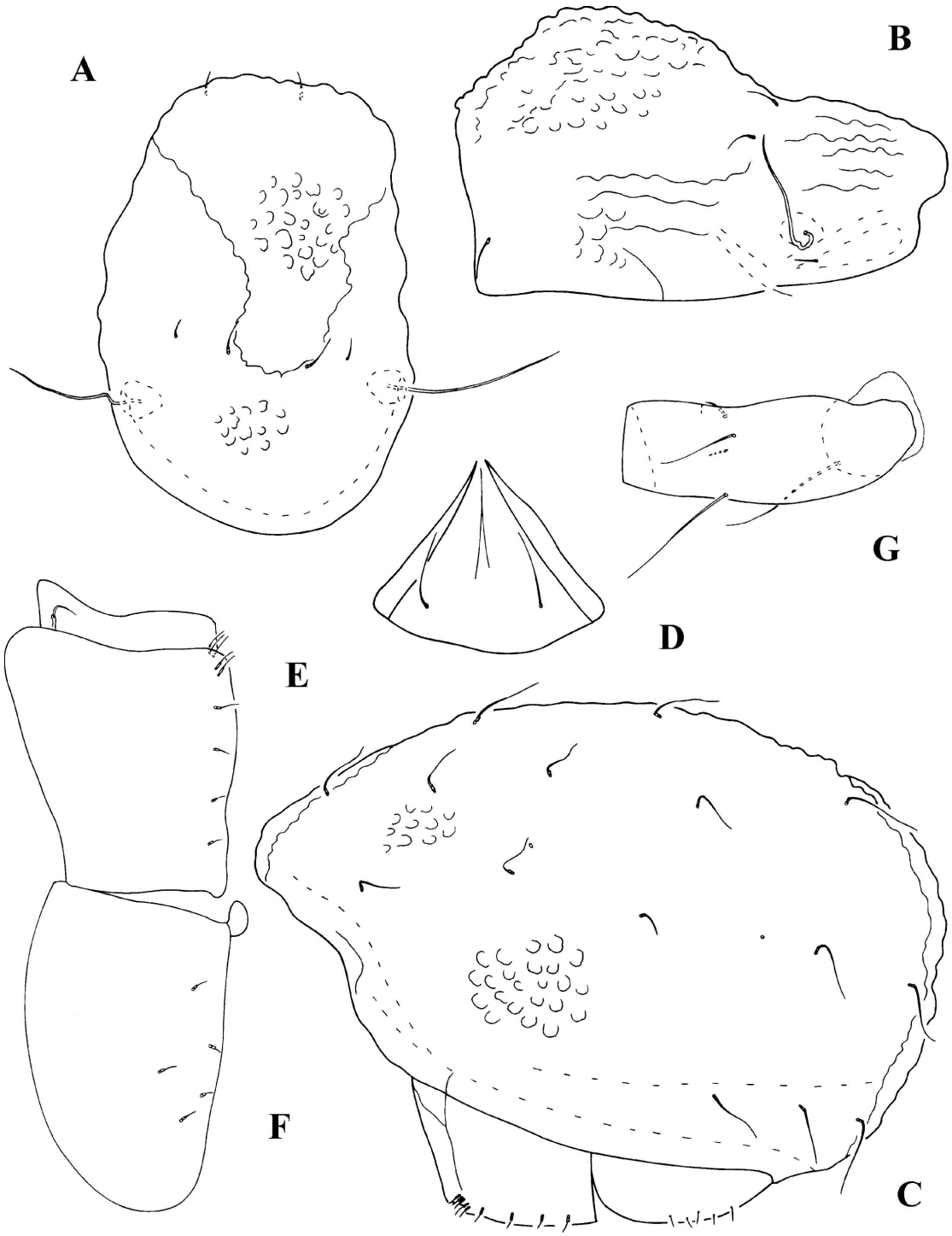


FIGURE 10: *Notophthiracarus lewisensis* **n. sp.** (holotype): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma, D – mentum of infracapitulum, E – genitoaggenital plate F – anoadanal plate, G – trochanter and femur I.

looks like *Notophthiracarus hammerae* Niedbała, 1987 from New South Wales, *Notophthiracarus admirabilis* Niedbała and Colloff, 1997 from Tasmania, *Notophthiracarus brachys* Niedbała 2006 from New Zealand and *Notophthiracarus samarensis* Niedbała, Corpuz-Raros and Gruezo, 2006 from the Phillippines.

Sensillum of *Notophthiracarus hammerae* is short, club like and setae v'' of femora I are absent. *Notophthiracarus admirabilis* has prodorsum concave posteriorly and spindle-shaped sensilla. Prodorsum of *Notophthiracarus brachys* does not have median crista, sensilla are shorter and fusiform. *Notophthiracarus samarensis* does not have so strong median crista of prodorsum, setae c_1 of notogaster situated near anterior margin, setae d of femora I located near anterior end of article and setae v' and v'' situated near each other.

Notophthiracarus parausitatus n. sp. (Figure 11A-G)

Type material — Holotype and three paratypes (one in ANIC, two in NHC): ANIC-546, Mt. Lewis, 960 m, 16°35'S 145°17'E, rainforest, 30 Oct. 1976, coll. R.W. Taylor and T.A. Weir; one paratype ANIC-952, Mt. Haig, 1150 m, 17°06'S 146°34'E, rainforest, 3 Apr. 1984, coll. A. Calder and T. Weir.

Measurements of holotype — Prodorsum: length 172, width 129, height 73, sensillum 61, setae: interlamellar 58, lamellar 10, rostral 33, exobothridial 10; notogaster: length 313, width 202, height 197, setae: c_1 56, h_1 53, p_1 51; genitoaggenital plate 76 × 58; anoadanal plate 111 × 51.

Description — Colour brown. Surface of the body covered with concavities.

Prodorsum with distinct, lateral carinae of medium length. Sigillar fields weakly discerned. Sensilla with long pedicel and short fusiform head covered with small cilia. Interlamellar setae thick, erect, covered with small cilia in distal half. Lamellar setae needleform, short, smooth. Rostral setae bent, thick, short, with cilia in distal part. Exobothridial setae similar to lamellar setae.

Notogaster with 15 pairs of rather short (c_1< c_1-d_1), rigid, thick setae, covered with short cilia in distal part, in shape as interlamellar setae. Setae c_1 and c_3 situated close to the anterior border, setae c_2 shifted away from the border. Among all lyrifissures, only large *ia* was observed.

Ventral region — Setae h of mentum longer than distance between them. Arrangement of genital setae: 6: 3. Genital setae very small. Five pairs of setae on anoadanal plate. Setae ad_1 and ad_2 rough and longer than other setae, setae ad_3 very short and needleform, setae ad_1 and ad_3 situated near proximal margin.

Legs setation of complete type. Seta d on femora I bifurcated distally and distinctly remote from distal end of segment.

Other localities — DOR-001, Dorrigo NP, Never Never camping, rainforest, sieved litter, sample 7, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 30; DOR-010, Dorrigo NP, Never Never camping, rainforest, litter, near dead log, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 6; DOR-005, Dorrigo NP, Never Never camping, rainforest, unsieved wood dust, sample 1, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 2; DOR1-002, Dorrigo NP, rainforest litter, un-sieved material, sample 3, 17 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 12; DOR1-005, Dorrigo NP, rainforest, sieved litter, sample 1, 17 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 12; NBP-001, Nymboi-Binderay NP, *Eucalyptus* forest, sieved material, 17 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 2.

Etymology — The prefix para is Latin meaning "near" and refers to the similarity of the new species to *Notophthiracarus usitatus* Niedbała, 1989.

Comparison to related species — The new species looks like *Notophthiracarus usitatus* Niedbała, 1989 in the shape of body, shape of notogastral setae, shape and proportion of interlamellar and lamellar setae. However, the new species is distinguishable from the latter one in the presence of lateral carinae of prodorsum, shape of sensilla with fusiform head, rostral setae bent distally, presence of exobothridial setae, large lyrifissures *ia*, small setae ad_3 on anoadanal plates, bifurcate setae d of femora I.

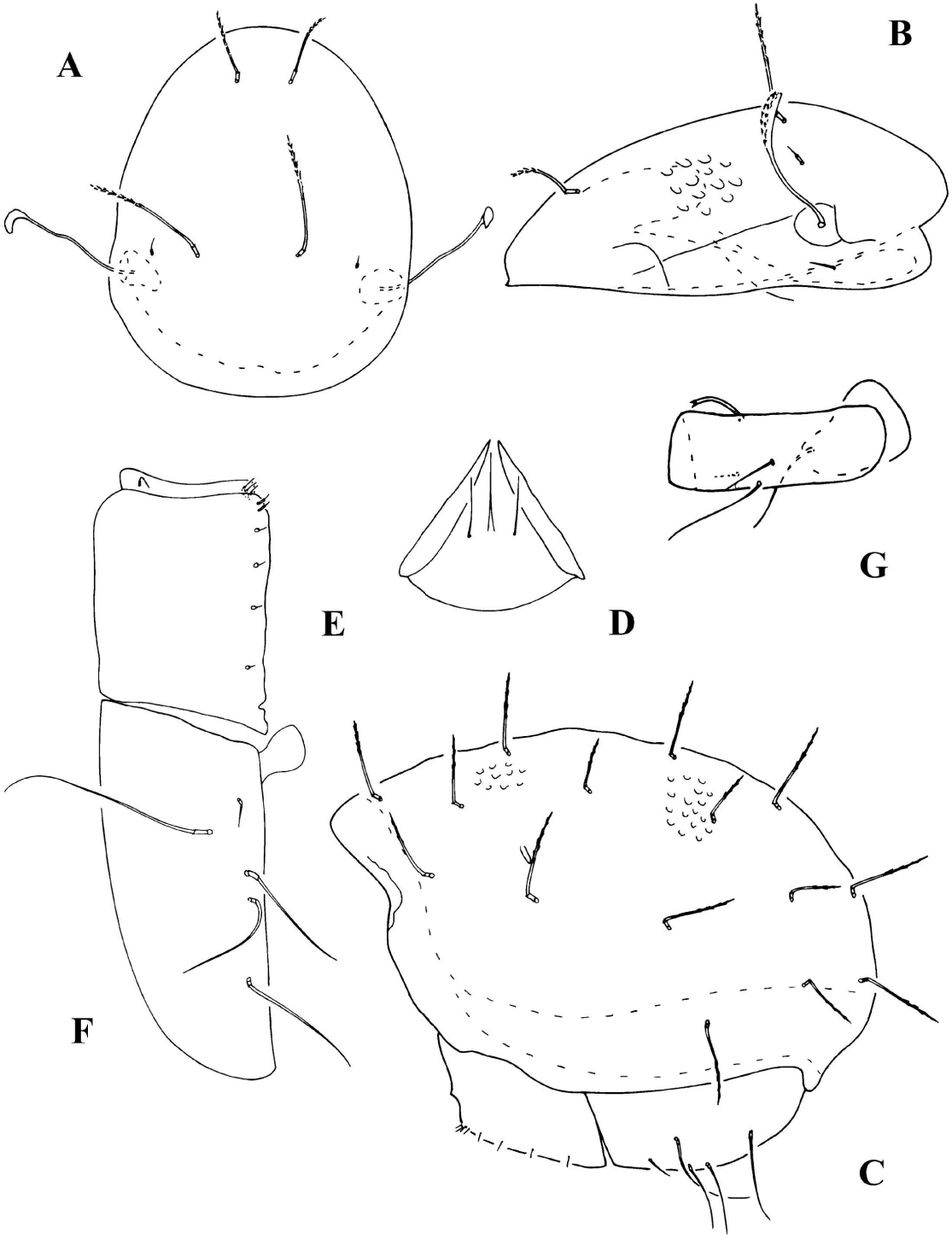


FIGURE 11: *Notophthiracarus parausitatus* **n. sp.** (holotype): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma, D – mentum of infracapitulum, E – genitoaggenital plate, F – anoadanal plate, G – trochanter and femur I.

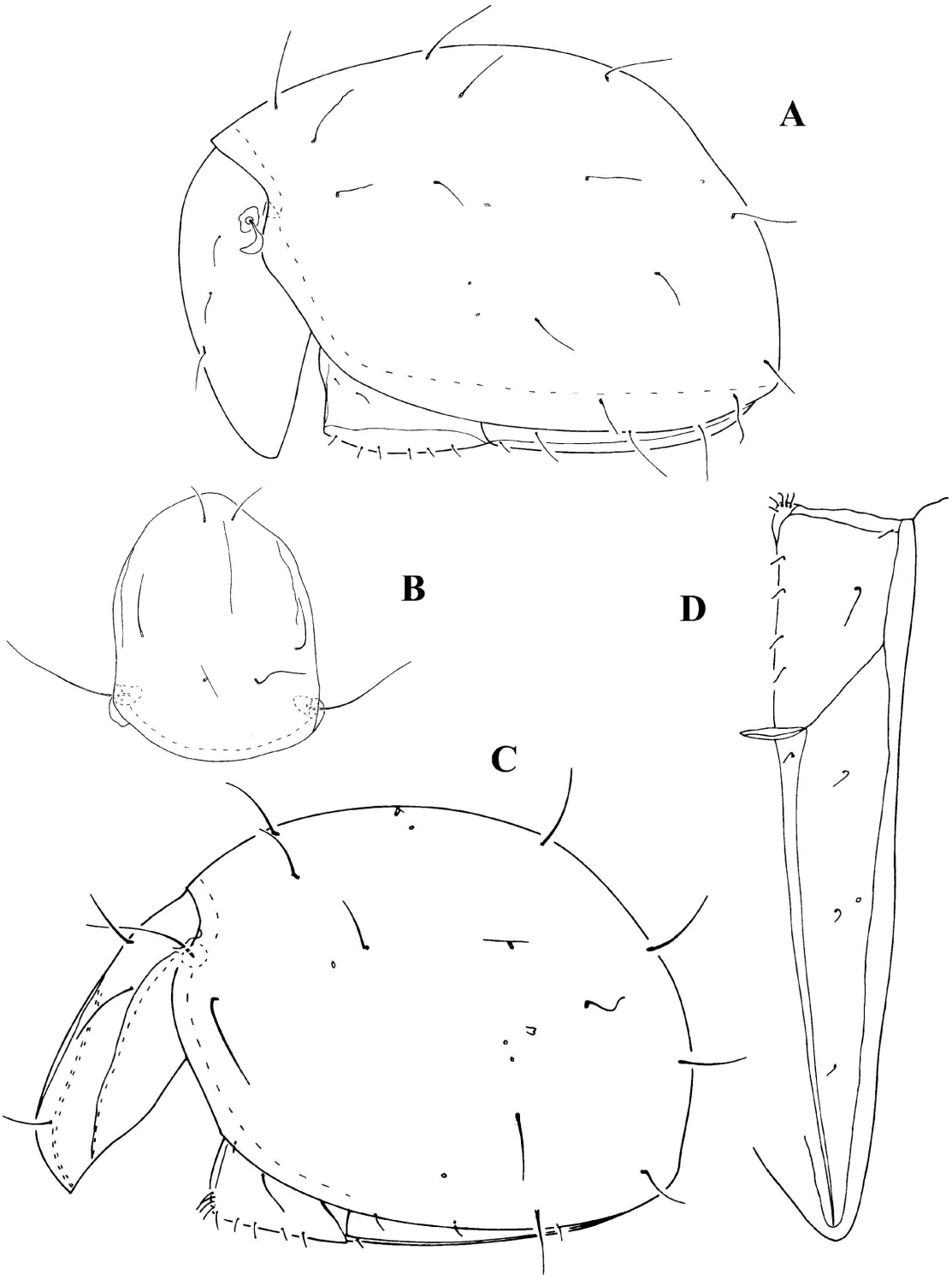


FIGURE 12: *Sabacarus corneri* Ramsay et Sheals, 1969 (specimen from DOR-015): A – lateral view of body; *Austrotritia saraburiensis* Aoki, 1965 (specimen from ANIC-313): B – prodorsum, dorsal view, C – lateral view of body, D – ventral view of opisthosoma, left side.

COMMENTS ON SOME KNOWN SPECIES

This section aims for eight of the 78 known species, to provide measurements and morphological features beacause different to the holotype.

Sabacarus corneri Ramsay and Sheals, 1969 (Figure 12A)

Measurements of specimen from sample DOR-015: prodorsum: length 185, height 76, sensillum 35, setae: interlamellar 25, lamellar 20, rostral 28; notogaster: length 343, height 212, setae: c_1 38, c_1/c_1-d_1 = 0.4. The specimens from Australia are generally slightly smaller than those from Pacific islands (Niedbała 1998).

Austrotritia saraburiensis Aoki, 1965 (Figures 12B-D)

Measurements of specimen from ANIC-313: prodorsum: length 364, height 111, width 268, sensillum 126, setae: interlamellar 68, lamellar 60, rostral 53; notogaster: length 646, height 475, width 485, setae: c_1 81, c_2 61, c_3 101, h_1 91, p_1 83; genitoaggenital plate 162 × 96, anoadanal plate 353 × 76. The specimen from Australia is smaller than the specimens from Thailand (Aoki 1965), Japan (Aoki 1980) and Samoa (Niedbała 1998a) but has all typical specific characters, especially: presence of median prodorsal crista, the longest setae c_3 of notogaster, longer setae ag_2 than ag_1.

Acrotritia spiculifera (Mahunka, 1991)

This species does not differ from *A. clavata* (Märkel, 1964) in the shape of sensilla and ratio of anal and adanal setae (as claimed by Mahunka 1991) but in the number of genital setae (six pairs in *A. clavata* and nine pairs in *A. spiculifera*).

Acrotritia wallworki (Lee, 1981)

This species is similar to *A. curticephala* (Jacot, 1938) but is distinguishable by the shape of sensilla, more fusiform and covered with cilia.

Phthiracarus pellucidus Ramsay, 1966 (Figure 13A-G)

Measurements of specimen from sample CRO-009: prodorsum: length 212, width 156, height 101, sensillum 15, setae: interlamellar 81, lamellar 58, rostral 51, exobothridial 35; notogaster: length 379, width and height 263, setae: c_1 86, h_1 81, p_1 76; genitoaggenital plate 114 × 63, anoadanal plate 124 × 51. Australian specimens have slightly longer setae than those from New Zealand (Niedbała 2000).

Austrophthiracarus glennieensis Niedbała, 2006 (Figure 14A-F)

Measurements of a specimen from ANIC 1494: prodorsum: length 283, width 217, height 101, sensillum 30, setae: interlamellar 25, lamellar 23, rostral 25, exobothridial 13; notogaster: length 576, width 373, height 343, setae: c_1 40, h_1 32, p_1 28; genitoaggenital plate 141 × 96, anoadanal plate 232 × 116.

This species is characterised by the neotrichy of notogastral setae in rows *d*, *e*, *h* and *p* as well the neotrichy of adanal setae. It has short, fusiform sensilla and long setae *d* of femur I bent in a specific way and located in the middle of article. Specimen from sample ANIC-1494 is similar in size to holotype. It is distinguishable by the greater number of notogastral setae (32 pairs), number of adanal setae (7-8 pairs), presence of lyrifissures *ips*, vestigial setae f_1 and setae *h* of mentum are shorter than distance between them.

Austrophthiracarus scopoli (Niedbała, 1987) (Figures 15A, B)

Measurements of specimen from sample ANIC-933: prodorsum: length 303, height 86, notogaster: length 535, height 298, anoadanal plate 242 × 126. This specimen has different location of adanal setae in the right and left anoadanal plates (Fig. 15A, B). All setae are rough.

Notophthiracarus szeptycki Niedbała, 2009 (Figures 15C-G)

Measurements of specimen from sample NBP-001: prodorsum: length 353, width 252, height 165,

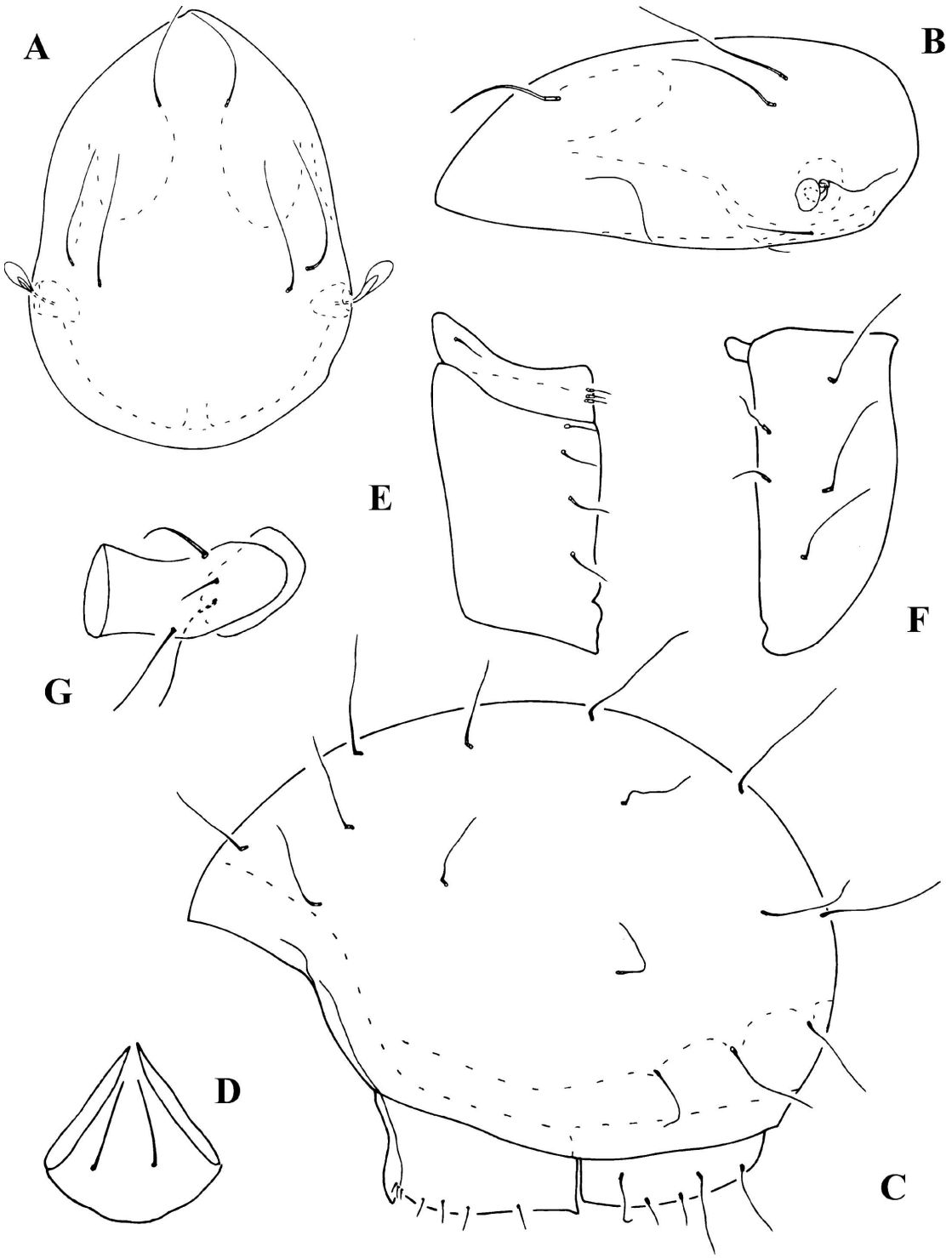


FIGURE 13: *Phthiracarus pellucidus* Ramsay, 1966 (specimen from CRO-009): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma, D – mentum of infracapitulum, E – genitoaggenital plate, F – anoadanal plate, G – trochanter and femur I.

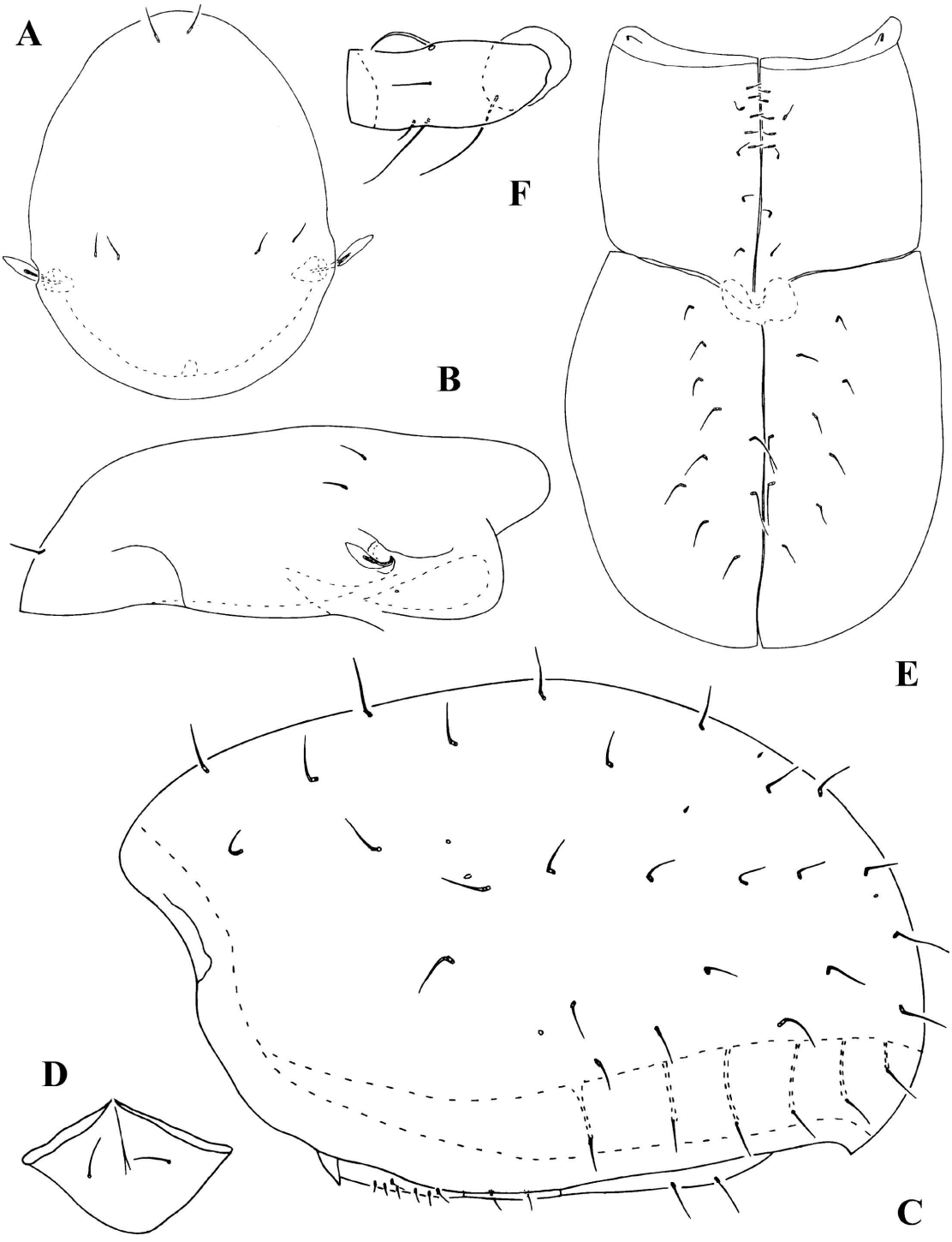


FIGURE 14: *Austrophthiracarus glennieensis* Niedbała, 2006 (specimen from ANIC-1494): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma, D – mentum of infracapitulum, E – genitoaggenital and anoadanal plates, F – trochanter and femur I.

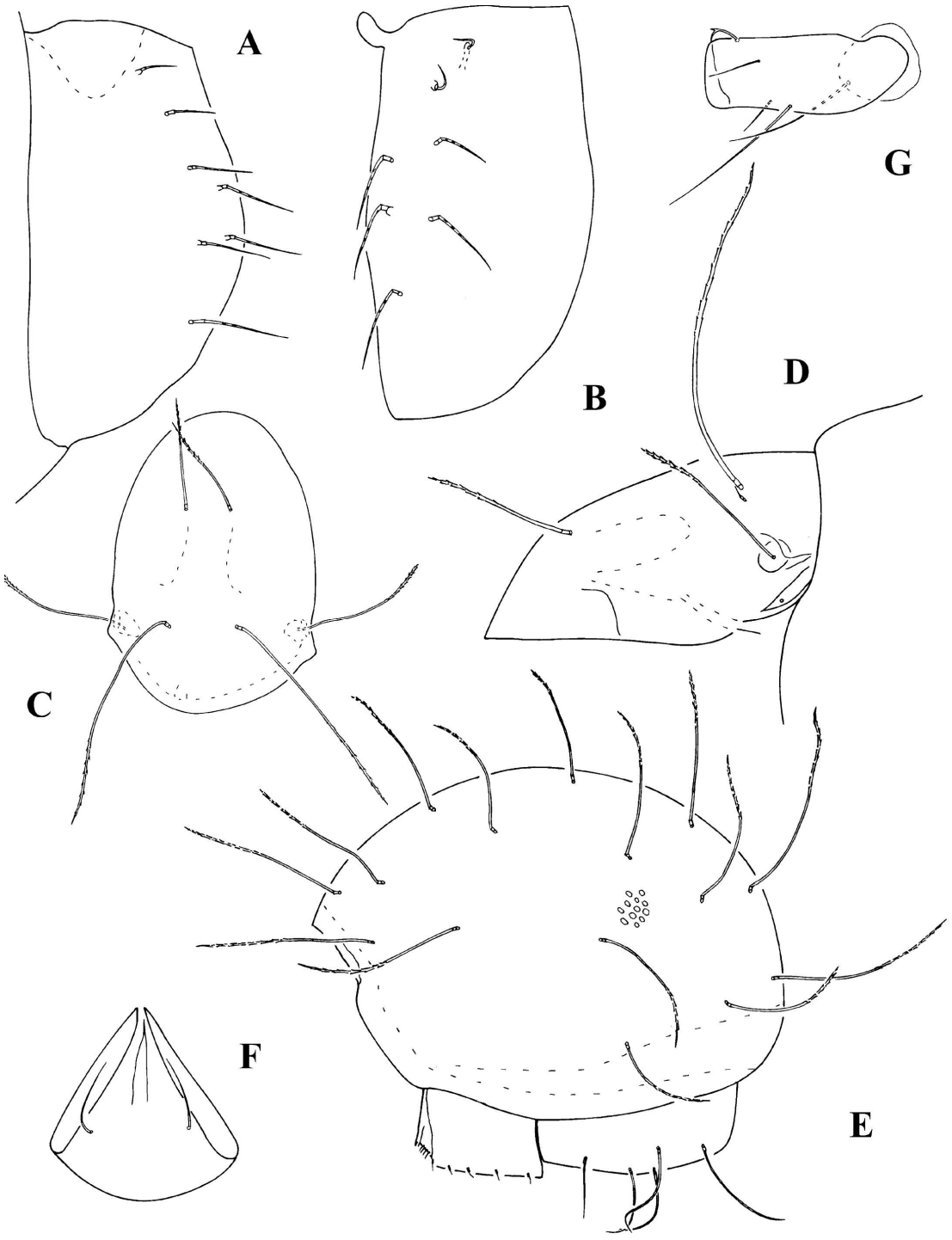


FIGURE 15: *Austrophthiracarus scopoli* (Niedbała, 1987) (specimen from ANIC-933): A – right anoadanal plate, B – left anoadanal plate; *Notophthiracarus szeptycki* Niedbała, 2009 (specimen from NBP-001): C – prodorsum, dorsal view, D – prodorsum, lateral view, E – lateral view of opisthosoma, F – mentum of infracapitulum, G – trochanter and femur I.

sensillum 151, setae: interlamellar 303, rostral 146; notogaster: length 707, height 505, setae: c_1 and h_1 263, p_1 303, c_1-d_1 = 192. Specimens from this sample differ from the holotype by longer notogastral setae ($c_1 > c_1$-d_1), slightly shorter setae *h* of mentum and bifurcate setae *d* of femora I.

Discussion

From the samples collected in the new localities, 13 new species belonging to nine genera were described five of these species belong to genus *Notophthiracarus*. Some of the other 78 already known species have been subjected to detailed morphological analysis revealing more accurate specification of some morphological features.

91 species were found in the samples from new localities; among three species belong to Mesoplophoridae, 25 to Euphthiracaroidea and 63 to Phthiracaroidea. The genus *Notophthiracarus* was the most speciose 23 species.

New localities have been identified for 46 known species, so for more than a half (nearly 60%) of them, increasing so our knowledge on their geographical and ecological ranges. These species are: *Apoplophora pantotrema* (Berlese, 1913), *Oribotritia contraria* Niedbała, 1993, *Oribotritia duplex* Niedbała, 2000, *Sabacarus corneri* Ramsay et Sheals, 1969, *Indotritia brevipilosa* Niedbała, 2000, *Indotritia brevisetosa* Niedbała, 2000, *Indotritia krakatauensis* (Sellnick, 1923), *Austrotritia bifurcata* Niedbała, 2000, *Austrotritia lebronneci* (Jacot, 1935), *Austrotritia saraburiensis* Aoki, 1965, *Acrotritia ardua* (C.L. Koch, 1841), *Acrotritia comteae* (Mahunka, 1983), *Acrotritia curticephala* (Jacot, 1938), *Acrotritia refracta* (Niedbała, 1998), *Acrotritia spiculifera* (Mahunka, 1991), *Acrotritia wallworki* (Lee, 1981), *Microtritia contraria* Niedbała, 1993, *Microtritia glabrata* Stary, 1993, *Microtritia tropica* Markel, 1964, *Phthiracarus anonymus* Grandjean, 1933, *Phthiracarus paucus* Niedbała, 1991, *Phthiracarus pygmaeus* Balogh, 1958, *Plonaphacarus forsslundi* Niedbała, 1987, *Plonaphacarus grandjeani* Niedbała, 1987, *Plonaphacarus kugohi* (Aoki, 1959), *Hoplophthiracarus montigenus* Niedbała, 1981, *Austrophthiracarus baloghi* Niedbała, 1987, *Austrophthiracarus dissonus* Niedbała et Colloff, 1997, *Austrophthiracarus fusticulus* Niedbała, 2000, *Austrophthiracarus glennieensis* Niedbała, 2006, *Austrophthiracarus scopoli* (Niedbała, 1987), *Austrophthiracarus sellnicki* (Niedbała, 1987), *Austrophthiracarus willmanni* (Niedbała, 1987), *Notophthiracarus alienus* Niedbała, 1989, *Notophthiracarus capillatus* Niedbała, 1989, *Notophthiracarus consimilis* Niedbała et Colloff, 1997, *Notophthiracarus distinctus* Niedbała, 1989, *Notophthiracarus hammerae* Niedbała, 1987, *Notophthiracarus mahunkai* Niedbała, 1987, *Notophthiracarus shealsi* (Lee, 1980), *Notophthiracarus usitatus* Niedbała, 1989, *Atropacarus* (*Hoplophorella*) *cucullatus* (Ewing, 1909), *Atropacarus* (*Hoplophorella*) *hamatus* (Ewing, 1909), *Atropacarus* (*Hoplophorella*) *singularis* (Sellnick, 1959), *Atropacarus* (*Hoplophorella*) *vitrinus* (Berlese, 1913), *Atropacarus* (*Atropacarus*) *striculus* (C.L. Koch, 1836) (Table 1).

Moreover, 24 species only reported in the original description, have been recovered. They are: *Oribotritia lepteces* Niedbała, Corpuz-Raros et Gruezo, 2006, *Oribotritia paracorporaali* Niedbała et Penttinen, 2007, *Acrotritia bipartita* (Niedbała, 2000), *Acrotritia paradivida* Niedbała et Penttinen, 2007, *Acrotritia sterigma* (Niedbała, 1998), *Phthiracarus banksi* Niedbała, 1987, *Phthiracarus inacessus* Niedbała, 1998, *Phthiracarus pellucidus* Ramsay, 1966, *Plonaphacarus berlesei* Niedbała, 1987, *Plonaphacarus feideri* Niedbała, 1987, *Hoplophthiracarus hulli* Niedbała, 1987, *Hoplophiracarus mallacoolaensis* Niedbała, 2006, *Austrophthiracarus lamingtoni* Niedbała, 2000, *Austrophthiracarus parafusticulus* Niedbała, 2005, *Austrophthiracarus parapulchellus* Niedbała, 2006, *Austrophthiracarus perti* (Niedbała, 1987), *Notophthiracarus bonangensis* Niedbała, 2006, *Notophthiracarus caliginosus* Niedbała, 1989, *Notophthiracarus flagrus* Niedbała, 2000, *Notophthiracarus hammeni* Niedbała, 1987, *Notophthiracarus modicus* Niedbała 2000, *Notophthiracarus ramsai* Niedbała, 1987, *Notophthiracarus ravidus* Niedbała, 2006, *Notophthiracarus repostus* Niedbała, 1989.

The present fauna of ptyctimous oribatid mites of the Australasian Region comprises now 240 species, including one Protoplophoridae, eight Mesoplophoridae, 49 Euphthiracaroidea and 182 Phthiracaroidea. The most numerously represented

are two genera of Phthiracaroidea: *Notophthiracarus* – 79 species and *Austrophthiracarus* – 39 species. From the Euphthiracaroidea the most abundant are *Oribotritia* and *Acrotritia*, with 14 and 12 species, respectively. The greatest number of ptyctimous mite species was found in Queensland and New South Wales, with 84 and 79 species, respectively (Table 1).

The most important features of the fauna of this region are: the exclusive presence of the genus *Phrathicarus*, the exclusive presence of the species *Austrophthiracarus nimius* with the neotrichy of prodorsum, the most species-rich genus *Notophthiracarus* and he lack of some genera, especially: *Mesotritia*, *Pocsia* and *Protophthiracarus* (Niedbała 2009d).

The fauna of ptyctimous mites of the Australian Region as well as other zoogeographic regions is far from being fully known and additional investigations have to be carried out to formulate reliable zoogeographic conclusions. Many areas from the Region are indeed too poorly investigated as to the ptyctimous fauna and some species are found at different unexpected localities.

Remark - Correction

I have to admit that in my paper Niedbała (2006) there was an error. The abbreviation CNCI (Canadian National Collection of Insects, Biosystematic Research Institute, Ottawa) at some localities (pages 100-104) should be replaced by the abbreviation ANIC (Australian National Insect Collection). In the material from these samples three new species were found *Austrophthiracarus parapilosus* Niedbała, 2006, *Notophthiracarus bonangensis* Niedbała, 2006 and *Notophthiracarus dandenongensis* Niedbała, 2006. The types of these species belong to ANIC (Australian National Collection) where they have been deposited.

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APPENDIX

LIST OF NEW LOCALITIES AND THE SPECIES FOUND

NEW GUINEA

ANIC-399, Mt. Kaindi, nr. Edie Creek, *ca* 2300 m asl, moss in forest, 15 June 1972, coll. R.W. Taylor
Apopophora pantotrema (2)

ANIC-397, Wau. Kunai Creek, *ca* 1400 m asl, rainforest, 15 June 1972, coll. R.W. Taylor
Apoplophora pantotrema (4)

WESTERN AUSTRALIA – AUSTRALIA

ANIC-150, 12 miles North of Walpole, 250 m asl, 34°48'S 116°43'E, Marri forest, leafmould, 24 Oct. 1969, coll. R. W. Taylor
Oribotritia duplex (3), *Plonaphacarus feideri* (34), *Austrophthiracarus perti* (1), *Notophthiracarus mahunkai* (5)

ANIC-143, 4 miles West of Walpole, 70 m asl, Karri forest, leafmould, 22 Oct. 1969, coll. R. W. Taylor
Plonaphacarus feideri (9), *Notophthiracarus mahunkai* (19)

NORTHERN TERRITORY – AUSTRALIA

ANIC-444, Darwin, Coconut Grove, 14 Nov. 1972, coll. T. Angeles
Indotritia krakatauensis (12), *Acrotritia ardua* (1), *Plonaphacarus kugohi* (2), *Atropacarus* (*Hoplophorella*) *singularis* (4), *Atropacarus* (*Hoplophorella*) *vitrinus* (1)

ANIC-443, Darwin, Lameroo Beach, 12°28'S 130°50'E, 9 Nov. 1972, coll. N. Forrester
Indotritia krakatauensis (2)

ANIC-473, Baroalba Gorge, 12°50'S 132°52'E, rainforest, 14 Jan. 1973, coll. R.W. Taylor
Austrotritia lebronneci (12), *Acrotritia refracta* (3), *Atropacarus* (*Hoplophorella*) *cucullatus* (2)

ANIC-470, Baroalba Creeek Springs, 12°47'S 132°51'E, rainforest, 20 Nov. 1972, coll. R.W. Taylor
Acrotritia comteae (2), *Atropacarus* (*Hoplophorella*) *cucullatus* (1)

ANIC-447, Baroalba Creek Springs, 19 km Northest of Mt. Cahill, 12°47'S 132°51'E, rainforest, 16 Nov. 1972, coll. J.E. Feehan
Plonaphacarus kugohi (1), *Acrotritia wallworki* (4)

QUEENSLAND-AUSTRALIA

ANIC-313 N.Q. Iron Range, 12°45'S 143°13'E, rainforest, 14 June 1971, coll. R.W. Taylor and J. Feehan
Austrotritia saraburiensis (1), *Plonaphacarus kugohi* (1)

SLI-003, 4.5 km West of Mill Point, Lake Cootharaba, Cooloola NP, 26°15'S 152°58'E, wet sclerophyl litter, 20 Oct. 2006, coll. T.A. Weir and A. Slipinski
Acrotritia bipartita (2), *Plonaphacarus kugohi* (4), *Notophthiracarus ravidus* (1)

ANIC-546, Mt. Lewis, 960 m asl, 16°35'S 145°17'E, rainforest, 30 Oct. 1976, coll. R.W. Taylor and T.A. Weir
Microtritia contraria (1), *Notophthiracarus lewisensis* **n. sp.** (1), *Notophthiracarus modicus* (3), *Notophthiracarus parausitatus* **n. sp.** (4)

ANIC-547, Mt. Lewis. 960 m asl, 16°35'S 145°17'E, rainforest, 31 Oct. 1976, coll. R.W. Taylor and T.A. Weir
Apoplophora pantotrema (1), *Acrotritia spiculifera* (3), *Notophthiracarus hammeni* (2), *Notophthiracarus shealsi* (1)

ANIC-718, Mt. Webb NP, 15°04'S 145°07'E, rainforest litter, 27-30 Apr. 1981, coll. A. Calder and J. Feehan
Apoplophora paraserrata (15), *Austrotritia bifurcata* (16), *Acrotritia comteae* (11), *Acrotritia spiculifera* (4), *Plonaphacarus kugohi* (8), *Atropacarus* (*Hoplophorella*) *hamatus* (1), *Atropacarus* (*Hoplophorella*) *vitrinus* (1)

ANIC-685, Mt. Webb NP, 15°04'S 145°07'E, sieved rainforest litter, 28-30 Sep. 1980, coll. T.A. Weir
Austrotritia bifurcata (13), *Acrotritia comteae* (25), *Acrotritia wallworki* (1), *Plonaphacarus kugohi* (10), *Atropacarus* (*Hoplophorella*) *cucullatus* (1)

ANIC-686, Mt Webb N. P., 15°04'S 145°07'E, sieved rainforest litter, 31 Sep. 1980, coll. T.A. Weir
Austrotritia bifurcata (14), *Acrotritia comteae* (20), *Acrotritia spiculifera* (1), *Plonaphacarus kugohi* (14), *Notophthiracarus flagrus* (1), *Atropacarus* (*Hoplophorella*) *cucullatus* (1)

ANIC-690, 3 km Northest of Mt. Webb, 15°03'S 143°09'E, sived rainforest litter, 1-3 Oct. 1980, coll. T.A. Weir
Austrotritia bifurcata (1), *Acrotritia comteae* (33), *Plonaphacarus kugohi* (1)

ANIC-691, 3 km Northest Mt Webb, 15°03'S 143°09'E, sieved rainforest litter, 1-3 Oct. 1980, coll. T.A. Weir
Acrotritia comteae (5), *Plonaphacarus kugohi* (1)

ANIC-718, Mt Webb NP, 15°04'S 143°07'E, rainforest, 27-30 Apr. 1981, coll. A. Calder and J. Feehan
Austrotritia bifurcata (5), *Acrotritia comteae* (1)

ANIC-1056, 7 km Northest of Mt. Tozer, 12°43'S 143°16'E, open forest, litter, 1 June 1986, coll. T.A. Weir
Plonaphacarus kugohi (1)

ANIC-1053, 3 km Northest of Mt. Tozer, 12°44'S 143°14'E, rainforest litter, 1-4 June 1986, coll. T.A. Weir
Austrotritia lebronneci (16), *Acrotritia refracta* (14), *Acrotritia spiculifera* (5), *Austrotritia bifurcata* (8), *Plonaphacarus kugohi* (6)

ANIC-1062, 11 km Northest of Mt. Tozer, 12°43'S 143°18'E, rainforest, litter, 11-16 June 1986, coll. T.A. Weir
Apoplophora paraserrata **n. sp.** (1), *Acrotritia comteae* (6), *Plonaphacarus kugohi* (3), *Austrotritia bifurcata* (9), *Notophthiracarus modicus* (16)

ANIC-1057, 9 km Northest of Mt Tozer, 12°43'S 143°17'E, rainforest litter, 5-10 June 1086, leg T.A. Weir
Austrotritia bifurcata (45), *Acrotritia comteae* (15), *Acrotritia spiculifera* (1), *Plonaphacarus kugohi* (2)

ANIC-1058, 9 km Northest of Mt. Tozer, 12°43'S 143°17'E, rainforest litter, 5-10 July 1986, coll. T.A. Weir
Austrotritia bifurcata (59), *Acrotritia ardua* (1), *Acrotritia comteae* (107), *Acrotritia paradivida* (2), *Acrotritia paraspiculifera* (3), *Acrotritia spiculifera* (2), *Plonaphacarus kugohi* (9), *Arphthicarus remotus* (1)

ANIC-976, Finch Hatton Gorge, 120 m asl, 21°05'S 148°38'E, *Tristania suayeolens* woodland 10, 18 Nov. 1981, coll. A. Gillison
Apoplophora pantotrema (1)

ANIC-952, Mt. Haig, 1150 m asl, 17°06'S 146°34'E, rainforest, 3 Apr. 1984, coll. A. Calder and T.A. Weir
Notophthiracarus parausitatus **n. sp.** (1)

ANIC-098, Pirate Beech 30 miles North of Cairns. Melaleuca litter in grass, 23 July 1968, coll. L.A. Mound
Austrotritia bifurcata (1), *Acrotritia refracta* (5), *Atropacarus* (*Hoplophorella*) *cucullatus* (1)

ANIC-538, Byfield, 60 m asl, 22°51'S 150°39'E, rainforest, 26 Oct. 1976, coll. R.W. Taylor and T.A. Weir
Oribotritia duplex (8), *Indotritia brevipilosa* (17), *Acrotritia spiculifera* (28), *Plonaphacarus kugohi* (3), *Notophthiracarus hammeni* (1), *Atropacarus* (*Hoplophorella*) *vitrinus* (1)

ANIC-1120, 15 km Northwest of Bold Hill, McIlwraith Range, weather station site, 420 m asl, 13°43'S 143°19'E, open forest with *Casuarina* and *Xanthorrhoea*, leaf litter, 12-27 June 1989, coll. T.A. Weir
Acrotritia bipartita (1), *Acrotritia comteae* (5), *Acrotritia wallworki* (1), *Plonaphacarus kugohi* (2)

ANIC-1216, Cockatoo Creek Crossing, 17 km Northwest of Heathlands, 11°39'S 142°27'E, gallery forest, litter, 19 Jan. 1992, coll. T.A. Weir and I.D. Nauman
Acrotritia refracta (7), *Plonaphacarus kugohi* (1)

ANIC-1213, Heathlands, 11°45'S 142°35'E, litter and fungi open forest, 15 Jan. 1992, coll. T.A. Weir and I.D. Nauman
Acrotritia refracta (1)

ANIC-1215, 12 km Southest of Heathlands, 11°43'S 142°41'E, closed forest, litter, 18 Jan. 1992, coll. T.A. Weir and I.D. Nauman
Austrotritia bifurcata (4), *Acrotritia refracta* (1)

ANIC-1214, 12 km Southest of Heathlands, 11°51'S 142°38'E, closed forest, litter, 16 Jan. 1992, coll. T.A. Weir and I.D. Nauman
Acrotritia refracta (2)

ANIC-1217, 12 km Southest of Heathlands. 11°51'S 142°38'E, closed forest, litter, 20 Jan. 1992, coll. T.A. Weir and I.D. Nauman
Acrotritia refracta (3)

ANIC-1219, 15 km Northest of Heathlands, 11°41'S 142°42'E, closed forest, litter, 23 Jan. 1992, coll. T.A. Weir and I.D. Nauman
Austrotritia bifurcata (3), *Acrotritia refracta* (1)

ANIC-727, 14 km West of North Hope Vale Mission, 15°16'S 144°59'E, rainforest, 7-10 May 1981, coll. A. Calder and J. Feehan
Apoplophora pantotrema (3), *Acrotritia bipartita* (2), *Acrotritia refracta* (25), *Plonaphacarus kugohi* (18), *Atropacarus* (*Hoplophorella*) *cucullatus* (2)

ANIC-733, Mt Cook NP, 15°29'S 145°16'E, rainforest, litter, 10-12 May 1981, coll. A. Calder and J. Feehan
Apoplophora pantotrema (15), *Austrotritia bifurcata* (2)

ANIC-600, Marchinbrook, Missionary Bay, 18°14'S 146°13'E, open forest, rainforest, 12 June 1977, coll. R.W. Taylor
Acrotritia refracta (2), *Plonaphacarus kugohi* (3)

ANIC-330, Kuranda, Black Mt., 390 m asl. 16°46'S 145°36'E, rainforest, 22 June 1971, coll. R.W. Taylor and J. Feehan
Austrotritia bifurcata (13), *Acrotritia spiculifera* (4)

ANIC-939, Cape Tribulation area, 16°03'S 145°28'E, rainforest, 21 Mar. 1984, coll. A. Calder and T.A. Weir
Apoplophora pantotrema (4), *Austrotritia bifurcata* (8), *Plonaphacarus kugohi* (1)

ANIC-988, Broken River, Eungella NP, 21°10'S 148°30'E, 700 m asl, complex mesonotophyll vine forest, 18 Nov. 1981, coll. A. Gillison
Indotritia brevipilosa (2), *Acrotritia curticephala* (2), *Plonaphacarus forsslundi* (1), *Notophthiracarus ravidus* (3), *Atropcarus* (*Hoplophorella*) *szeptycki* (28)

ANIC-568, Broken River, Eungella NP, 700 m asl, 21°10'S 148°31'E, rainforest, 10-12 Nov. 1976, coll. R.W. Taylor and T.A. Weir
Oribotritia duplex (1), *Indotritia brevisetosa* (5), *Austrophthiracarus nicoleti* (16), *Atropacarus* (*Hoplophorella*) *szeptyckii* (11)

ANIC-564, Credition Ck., Eungella NP, 760 m asl, 21°09'S 148°30'E, rainforest, 11 Nov. 1976, coll. R.W.Taylor and T.A. Weir
Oribotritia duplex (7), *Indotritia brevisetosa* (1), *Phthiracarus paucus* (1), *Austrophthiracarus nicoleti* (11), *Notophthiracarus trojani* (8), *Atropacarus* (*Hoplophorella*) *szeptyckii* (1)

ANIC-571, Credition Ck., 750 m asl, Eungella NP, 21°11'S 148°33'E, rainforest, 13 Nov. 1976, coll. R.W. Taylor and T.A. Weir
Apoplophora paraserrata (22), *Oribotritia duplex* (5), *Indotritia brevipilosa* (11), *Acrotritia wallworki* (35), *Microtritia tropica* (4), *Phthiracarus paucus* (5), *Notophthiracarus ravidus* (1), *Notophthiracarus shealsi* (30)

ANIC-1121, 15 km Northwest of Bald Hill, Mcllwraith Range, 420 m asl, 13°43'S 143°19'E, closed forest with *Araucaria cunninghamii*, leaf litter, 27 June 1989, coll. T.A. Weir
Austrotritia bifurcata (26), *Acrotritia comteae* (1), *Acrotritia refracta* (11), *Plonaphacarus kugohi* (5)

ANIC-1120, 15 km Northwest of Bald Hill, McIlwraith Range, 13°43'S 143°19'E, 420 m asl, weather station site, leaf litter, open forest with *Casuarina* and *Xanthorrhoea*, 27 June -12 July 1989, coll. T.A. Weir
Acrotritia sterigma (1), *Plonaphacarus kugohi* (5)

ANIC-366, McNamee Creek, c. 400 m asl, 17°40'S 145°48'E, rainforest, 8 July 1971, coll. R.W. Taylor and J. Feehan
Austrotritia bifurcata (30), *Acrotritia curticephala* (12), *Microtritia tropica* (2)

ANIC-436, Eacham NP, 17°18'S 145°37'E, 760 m asl, rainforest, 16 Feb. 1973, coll. R.W. Taylor
Apoplophora pantotrema (12), *Austrotritia bifurcata* (2)

ANIC-357, 12 km South of Ravenshoe, 1000 m asl, rainforest, 17°43'S 145°30'E, 3 July 1971, coll. R.W. Taylor and J. Feehan
Apoplophora paraserrata (10), *Oribotritia duplex* (5), *Indotritia brevipilosa* (5), *Acrotritia refracta* (4), *Acrotritia spiculifera* (9), *Acrotritia wallworki* (16), *Microtritia contraria* (2), *Phthiracarus inacessus* (1), *Phthiracarus paucus* (3), *Plonaphacarus vicinus* **n. sp.** (1), *Austrophthiracarus fusticulus* (1), *Arphthicarus trivestigius* **n. sp.** (38), *Notophthiracarus usitatus* (13)

ANIC-1494, 2 km North of Mt. Glorious, 27° 20'S 152°45'E, 600 m, subtropical closed forest, litter, 10 Apr. 1993, coll. D.S. Chandler
Oribotritia duplex (4), *Indotritia brevipilosa* (3), *Microtritia cristata* (19), *Austrophthiracarus glennieensis* (1), *Notophthiracarus hammerae* (3)

ANIC-1491, 5,5 km North of Mt. Glorious, 27°18'S 152°35'E, 575 m, subtropical closed forest rotten wood litter, 10 Apr. 1993, coll. D.S. Chandler
Mesoplophora parapulchra (3), *Austrophthiracarus sellnicki* (12), *Notophthiracarus hammeni* (3)

ANIC-355, Tully Falls NP, 17°47'S 145°33'E, 750 m, rainforest, 2 July 1971, coll. R.W. Taylor and J. Feehan
Apoplophora paraserrata (12), *Austrotritia bifurcata* (10), *Acrotritia refracta* (7), *Acrotritia spiculifera* (19), *Phthiracarus paucus* (2), *Plonaphacarus grandjeani* (4), *Plonaphacarus vicinus* **n. sp.** (57), *Notophthiracarus ravidus* (12)

ANIC-1507, Lamington N.P, 3 km Northwest of O'Reillys, 28°12'S 153°07'E, 850 m asl, subtropical closed forest (*Euc. propinqua*) litter, 12 Apr. 1993, coll. D.S. Chandler
Austrotritia bifurcata (2), *Acrotritia bipartita* (1), *Acrotritia curticephala* (2), *Acrotritia spiculifera* (2), *Microtritia tropica* (3), *Phthiracarus paucus* (1), *Plonaphacarus trojani* (2), *Notophthiracarus usitatus* (1)

ANIC-1508, Lamington NP, 3 km Northwest of O'Reillys, 28°12'S 153°07'E, 850 m asl, subtropical closed forest, Pine litter, 12 Apr. 1993, coll. D.S. Chandler
Indotritia brevipilosa (1), *Microtritia glabrata* (25), *Plonaphacarus forsslundi* (2), *Plonaphacarus trojani* (1), *Austrophthiracarus glennieensis* (3), *Notophthiracarus ramsai* (5), *Notophthiracarus usitatus* (7)

ANIC-536, Mt Archer, 608 m asl, Rockhampton, 23°20'S 150°35'E, 25 Oct. 1976, coll. R.W. Taylor and A. Weir
Apoplophora paraserrata (2), *Acrotritia bipartita* (3), *Atropacarus* (*Hoplophorella*) *szeptycki* (2)

ANIC-766, Cooloola NP, Poona Lake, 25°57'S 153°06'E, sieved rain forest litter, 18 Apr. 1982, coll. A. Calder
Oribotritia duplex (8), *Indotritia brevipilosa* (3), *Acrotritia bipartita* (26), *Acrotritia curticephala* (189), *Acrotritia refracta* (9), *Acrotritia spiculifera* (30), *Microtritia tropica* (9), *Phthiracarus paucus* (1), *Austrophthiracarus willmanni* (33), *Notophthiracarus ravidus* (25)

SOUTH AUSTRALIA – AUSTRALIA

ANIC-890, 25 km Southwest of Pinnaroo, 35°28'S 140°47'E, litter under mallee and heath, 24 Oct. 1983, coll. I.D. Naumann and J.C. Cardale
Microtritia contraria (2)

NEW SOUTH WALES – AUSTRALIA

ANIC-1345, Dorrigo NP, 6 km southeast of Dorrigo, 490 m asl, 30°23'S 152°44'E, wet sclerophyll, *Eucalyptus saligna* litter, 6 Feb. 1993, coll. D.S. Chandler
Indotritia brevipilosa (3), *Steganacarus* (*Rhacaplacarus*) *cucullus* **n. sp.** (4)

DOR-012, Dorrigo NP, Never Never Camping Ground, rainforest, sieved litter, sample 1, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Oribotritia duplex (1), *Oribotritia contraria* (1), *Sabacarus corneri* (20), *Acrotritia comteae* (1), *Microtritia tropica* (14), *Phthiracarus paucus* (8), *Steganacarus* (*Rhacaplacarus*) *szeptyckii* (1), *Austrophthiracarus lamingtoni* (14)

DOR-014, Dorrigo NP, Never Never Camping Ground, rainforest, sieved litter, sample 2, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Acrotritia comteae (1), *Microtritia tropica* (1), *Phthiracarus paucus* (5), *Steganacarus* (*Rhacaplacarus*) *szeptyckii* (3), *Austrophthiracarus glennieensis* (1), *Austrophthiracarus lamingtoni* (13), *Notophthiracarus ravidus* (3)

DOR-004, Dorrigo NP, Never Never Camping Ground, rainforest, sieved litter, sample 3, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Acrotritia comteae (5), *Indotritia brevipilosa* (2), *Phthiracarus paucus* (3), *Austrophthiracarus perti* (1), *Notophthiracarus consimilis* (63), *Notophthiracarus hammerae* (4), *Notophthiracarus repostus* (3)

DOR-006, Dorrigo NP, Never Never camping, rainforest, sieved litter, sample 4, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Acrotritia comteae (1), *Microtritia tropica* (1), *Phthiracarus paucus* (2), *Steganacarus* (*Rhacaplacarus*) *szeptyckii* **n. sp.** (3), *Austrophthiracarus lamingtoni* (7), *Notophthiracarus consimilis* (3), *Notophthiracarus hammerae* (5)

DOR-003, Dorrigo NP, Never Never camping, rainforest, sieved litter, sample 5, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Indotritia brevipilosa (2), *Acrotritia comteae* (6), *Steganacarus* (*Rhacaplacarus*) *szeptyckii* **n. sp.** (1), *Austrophthiracarus glennieensis* (11), *Austrophthiracarus lamingtoni* (7), *Notophthiracarus capillatus* (1), *Notophthiracarus consimilis* (15), *Notophthiracarus hammerae* (3), *Notophthiracarus repostus* (1)

DOR-011, Dorrigo NP, Never Never camping, rainforest, sieved litter, sample 6, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Austrophthiracarus lamingtoni (7), *Steganacarus* (*Rhacaplacarus*) *szeptyckii* (1), *Phthiracarus paucus* (1), *Austrophthiracarus dissonus* (2), *Oribotritia contraria* (2), *Acrotritia comteae* (1), *Microtritia tropica* (1)

DOR-001, Dorrigo NP, Never Never camping, rainforest, sieved litter, sample 7, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski

Acrotritia comteae (7), *Phthiracarus paucus* (18), *Plonaphacarus trojani* (3), *Notophthiracarus parausitatus* **n. sp.** (30), *Notophthiracarus flagrus* (1), *Notophthiracarus repostus* (1)

DOR-016, Dorrigo NP, Never Never camping, rainforest, un-sieved litter, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Sabacarus corneri (2), *Microtritia tropica* (2), *Austrophthiracarus lamingtoni* (2), *Notophthiracarus consimilis* (1)

DOR-015, Dorrigo NP, Never Never camping, rainforest, sieved wood dust, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Sabacarus corneri (16), *Steganacarus* (*Rhacaplacarus*) *szeptyckii* (2) , *Austrophthiracarus lamingtoni* (1)

DOR-005, Dorrigo NP, Never Never camping, rainforest, un-sieved wood dust, sample 1, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Acrotritia comteae (3), *Austrophthiracarus lamingtoni* (3), *Phthiracarus paucus* (1), *Notophthiracarus parausitatus* **n. sp.** (2)

DOR-013, Dorrigo NP, Never Never camping, rainforest, un-sieved wood dust, sample 2, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Austrophthiracarus parapulchellus (2)

DOR-010, Dorrigo NP, Never Never camping, rainforest, litter, near dead log, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Sabacarus corneri (6), *Microtritia tropica* (5), *Phthiracarus paucus* (7), *Austrophthiracarus dissonus* (1), *Austrophthiracarus glennieensis* (10), *Austrophthiracarus lamingtoni* (15), *Notophthiracarus parausitatus* **n. sp.** (6), *Notophthiracarus ravidus* (5)

ANIC-1128, Dorrigo NP, Never Never Picnic Area, 30°22'S 152°48'E, rainforest litter, 13-15 Nov. 1990, coll. T.A. Weir
Oribotritia duplex (1), *Notophthiracarus hammeni* (1), *Austrophthiracarus willmanni* (1)

DOR1-004, Dorrigo NP, rainforest, un-sieved litter, sample 1, 17 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Oribotritia duplex (4), *Indotritia brevipilosa* (4)

DOR1-003, Dorrigo NP, rainforest, un-sieved litter, sample 2, 17 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Notophthiracarus ravidus (1), *Phthiracarus paucus* (4), *Indotritia brevipilosa* (4)

DOR1-002, Dorrigo NP, rainforest litter, un-sieved material, sample 3, 17 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Acrotritia comteae (26), *Microtritia contraria* (10), *Austrophthiracarus lamingtoni* (10), *Notophthiracarus parausitatus* **n. sp.** (12)

DOR1-002(1), Dorrigo NP, rainforest, un-sieved material, sample 4, 17 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Oribotritia duplex (5), *Indotritia brevipilosa* (2), *Microtritia glabrata* (2), *Notophthiracarus ravidus* (7), *Notophthiracarus repostus* (1)

DOR1-005, Dorrigo NP, rainforest, sieved litter, sample 1, 17 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Indotritia brevipilosa (15), *Notophthiracarus parausitatus* **n. sp.** (12), *Notophthiracarus ravidus* (1), *Austrophthiracarus parapulchellus* (1), *Notophthiracarus hammerae* (1)

DOR1-001, Dorrigo NP, rainforest, sieved litter, sample 2, 17 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Indotritia brevipilosa (1), *Microtritia cristata* **n. sp.** (4), *Phthiracarus paucus* (1), *Notophthiracarus consimilis* (2)

ANIC-1344, Dorrigo NP, Blackbutt Trail, 8 km East of Dorrigo, 30°22'S 152°46'E, cut subtropical, closed forest *Acacia* and *Calliconia* litter, sample 1, 22 May 1993, coll. D.S. Chandler
Indotritia brevipilosa (6), *Acrotritia bipartita* (1), *Acrotritia curticephala* (1), *Steganacarus* (*Rhacaplacarus*) *cucullus* **n. sp.** (2), *Notophthiracarus modicus* (3)

ANIC-1602, Dorrigo NP, Blackbutt Trail, 8 km East of Dorrigo, 30°22'S 152°46'E, cut subtropical closed forest *Acacia* and *Calliconia* litter, sample 2, 22 May 1993, coll. D.S. Chandler
Oribotritia duplex (2), *Indotritia brevipilosa* (6), *Acrotritia comteae* (2), *Microtritia tropica* (1), *Austrophthiracarus dissonus* (2), *Austrophthiracarus glennieensis* (16), *Austrophthiracarus willmanni* (2), *Notophthiracarus hammerae* (2), *Notophthiracarus ravidus* (2)

ANIC-1663, Dorrigo NP, 0.3 km Northwest of Visitors Centre, 770 m, 30°22'S 152°43'E, cut subtropical closed forest, rotten wood litter, sample 1, 20 June 1993, coll. D.S. Chandler
Oribotritia duplex (12), *Acrotritia comteae* (1), *Indotritia brevipilosa* (1), *Austrophthiracarus parafusticulus* (2), *Austrophthiracarus willmanni* (7), *Notophthiracarus hammeni* (2)

ANIC-1663, Dorrigo NP, 0.3 km Northwest of Visitors Centre, 770 m asl, 30°22'S 152°43'E, cut subtropical closed forest, rotten wood litter, sample 2, 20 June 1993, coll. D.S. Chandler
Hoplophthiracarus mallacoolaensis (1), *Austrophthiracarus willmanni* (1)

ANIC-1616, Dorrigo NP, 0.3 km Northwest of Visitors Centre, 770 m asl, 30°22'S 152°43'E, cut subtropical closed forest, rotten wood litter, 23 May 1993, coll. D.S. Chandler
Indotritia brevipilosa (20), *Acrotritia comteae* (9), *Hoplophthiracarus mallacoolaensis* (1), *Austrophthiracarus willmanni* (2)

ANIC-1604, Dorrigo NP, Blackbutt Trail, 8 km East of Dorrigo, alt. 690 m asl, 30°22'S, 152°46'E, subtropical closed forest, rainforest litter, Berleseate, 22 May 1993, coll. D.S. Chandler
Oribotritia duplex (1), *Indotritia brevipilosa* (10), *Acrotritia comteae* (14), *Microtritia glabrata* (4), *Steganacarus* (*Rhacaplacarus*) *szeptyckii* (6), *Phthiracarus paucus* (2), *Notophthiracarus hammerae* (1)

ANIC-1605, Dorrigo NP, Blackbutt Trail, 8 km East of Dorrigo, alt. 690 m asl, 30°22'S 152°46'E, rainforest litter, 22 May 1993, coll. D.S. Chandler
Indotritia brevipilosa (2), *Phthiracarus paucus* (3), *Notophthiracarus hammerae* (2)

ANIC-1583, Dorrigo NP, Blackbutt Trail, 8 km East of Dorrigo, alt. 690 m asl, 30°22'S 152°46'E, subtropical closed forest, *Araucaria* and *Lophostemon* litter, 17 May 1993, coll. D.S. Chandler
Oribotritia duplex (1), *Indotritia brevipilosa* (11), *Acrotritia comteae* (1), *Plonaphacarus trojani* (5), *Austrophthiracarus sellnicki* (9), *Notophthiracarus ravidus* (2)

ANIC-1130, Dorrigo NP, The Glade Area/Wonga Track, rainforest litter., 30°22'S 152°43'E, 13-15 Nov. 1990, coll. T.A. Weir
Oribotritia duplex (2), *Indotritia brevipilosa* (28), *Austrophthiracarus willmanni* (1), *Notophthiracarus distinctus* (2), *Notophthiracarus hammeni* (5), *Notophthiracarus ravidus* (18)

ANIC-1338, Dorrigo NP, 0.3 km Northwest of Visitors Centre, 770 m asl, 30°22'S 152°43'E, cut subtropical closed forest rotten wood litter, 20 June 1993, coll. D.S. Chandler
Oribotritia duplex (1), *Sabacarus corneri* (1), *Indotritia brevipilosa* (15), *Microtritia glabrata* (4), *Steganacarus* (*Rhacaplacarus*) *cucullus* **n. sp.** (1), *Notophthiracarus flagrus* (7), *Notophthiracarus ravidus* (4)

ANIC-1338, Dorrigo NP, 0.3 km Northwest of Visitors Centre, 770 m asl, 30°22'S 152°43'E, cut subtropical closed forest rotten wood litter, 20 June 1993, coll. D.S. Chandler
Oribotritia duplex (1), *Oribotritia contraria* (6), *Indotritia brevipilosa* (11), *Microtritia glabrata* (2), *Hoplophiracarus mallacoolaensis* (8), *Steganacarus* (*Rhacaplacarus*) *cucullus* **n. sp.** (1), *Austrophthiracarus konwerskii* **n. sp.** (1), *Austrophthiracarus sellnicki* (1), *Notophthiracarus flagrus* (4), *Notophthiracarus capillatus* (7)

ANIC-1615, Dorrigo NP, 0.3 km Northwest of Visitors Centre, 770 m asl, 30°22'S 152°43'E, cut subtropical closed forest leaf litter, 23 May 1993, coll. D.S. Chandler
Oribotritia duplex (2), *Indotritia brevipilosa* (54), *Acrotritia comteae* (7), *Plonaphacarus trojani* (1), *Notophthiracarus ravidus* (7)

ANIC-1525, Bruxner Park Floral Reserve, Sealy Lookout Road, 5 km Northwest of Coffs Harbour, alt. 170 m asl, 30°15'S 153°07'E, wet sclerophyll forest, *Eucalyptus pilularis* litter, 18 Apr. 1993, coll. D.S. Chandler
Indotritia brevipilosa (2), *Plonaphacarus trojani* (2), *Austrophthiracarus glennieensis* (3), *Austrophthiracarus sellnicki* (1), *Notophthiracarus bloszyki* **n. sp.** (32), *Notophthiracarus ravidus* (6)

ANIC-1606, Bruxner Park Flora Reserve, Sealy Lookout Road, 5 km Northwest of Coffs Harbour, alt. 260 m, 30°15'S 153°07'E, wet sclerophyll forest, *Eucalyptus pilularis* litter, 23 Apr. 1993, coll. D.S. Chandler
Oribotritia contraria (10), *Oribotritia duplex* (13), *Indotritia brevipilosa* (45), *Acrotritia comteae* (2), *Acrotritia spiculifera* (20), *Microtritia glabrata* (4), *Phthiracarus paucus* (2), *Plonaphacarus trojani* (11), *Steganacarus* (*Rhacaplacarus*) *szeptyckii* (1), *Austrophthiracarus konwerskii* **n. sp.** (4), *Austrophthiracarus willmanni* (4), *Notophthiracarus bloszyki* **n. sp.** (15), *Notophthiracarus capillatus* (1), *Notophthiracarus hammerae* (5), *Notophthiracarus ravidus* (3)

ANIC-1608, Bruxner Park Floral Reserve, Sealy Lookout Road, 260 m asl, 34°24'S 150°50'E, sample 1, 23 May 1993, coll. D.S. Chandler
Oribotritia contraria (3), *Sabacarus corneri* (1), *Acrotritia bipartita* (1), *Acrotritia spiculifera* (29), *Microtritia glabrata* (1), *Hoplophthiracarus mallacoolaensis* (9), *Notophthiracarus ravidus* (3)

ANIC-1609, Bruxner Park Floral Reserve, Sealy Lookout Road, 34°24'S 150°50'E, sample 2, 23 May 1993, coll. D.S. Chandler
Oribotritia paracorporali (3), *Indotritia brevipilosa* (4), *Acrotritia bipartita* (1), *Acrotritia wallworki* (24), *Phthiracarus anonymus* (1), *Notophthiracarus ravidus* (12).

ANIC-1611, Bruxner Park Floral Reserve, Sealy Lookout Road, 5 km Northwest of Coffs Harbour, 260 m asl, 30°15'S 153°07'E, cut wet scleophyll subst. rainforest litter, 23 May 1993, coll. D.S.Chandler
Oribotritia duplex (2), *Indotritia brevipilosa* (7), *Acrotritia refracta* (6), *Plonaphacarus trojani* (3), *Austrophthiracarus willmanni* (2), *Notophthiracarus bloszyki* **n. sp.** (1), *Notophthiracarus ravidus* (8)

ANIC-1610, Bruxner Park Floral Reserve, Sealy Lookout Road, 5 m. Northwest of Coff Harbour, 260 m asl, cut wet scleophyll rotten log litter, 23 May 1993, coll. D.S.Chandler
Oribotritia contraria (6), *Indotritia brevipilosa* (1), *Acrotritia spiculifera* (3), *Microtritia glabrata* (1), *Phthiracarus paucus* (3), *Plonaphacarus trojani* (2), *Steganacarus* (*Rhacaplacarus*) *szeptyckii* (14), *Austrophthiracarus konwerskii* **n. sp.** (6), *Austrophthiracarus sellnicki* (1), *Notophthiracarus bloszyki* **n. sp.** (2)

ANIC-1660, Bruxner Park Floral Reserve, Sealy Lookout Rd. 5 km Northwest of Coffs Harbour, 760 m asl, 30°15′S 153°07′E, cut wet scleophyll *Eucalyptus grandis* litter, 19 Jan. 1993, coll. D.S. Chandler
Oribotritia contraria (10), *Oribotritia lepteces* (8), *Acrotritia spiculifera* (22), *Plonaphacarus trojani* (1), *Hoplophiracarus mallacoolaensis* (1), *Notophthiracarus bloszyki* **n. sp.** (5), *Notophthiracarus capillatus* (8), *Notophthiracarus ravidus* (4)

ANIC-1394, Mount Duval, Tin Weir Creek, 15 km Northwest of Armidale, alt. 1300 m asl, 30°25′S 151°38′E, dry sclerophyll litter in stream bed, 13 Mar. 1993, coll. D.S. Chandler
Indotritia brevipilosa (12), *Acrotritia comteae* (12), *Austrophthiracarus willmanni* (5), *Notophthiracarus ravidus* (1), *Atropacarus* (*Atropacarus*) *striculus* (6)

ANIC-1395, Mount Duval, Tin Weir Creek, 15 km Northwest of Armidale, alt. 1300 m asl, 30°25′S 151°38′E, dry sclerophyll, *Eucalyptus viminalis* litter, 13 Mar. 1993, coll. D.S. Chandler
Apoplophora paraserrata **n. sp.** (2), *Microtritia contraria* (1), *Notophthiracarus modicus* (3)

ANIC-778, Beaury State Forest, 700 m asl, 28°29′S 152°23′E, closed forest, 15-17 Feb. 1983, coll. T.A. Weir and A. Calder
Indotritia brevisetosa (6), *Notophthiracarus flagrus* (1), *Notophthiracarus modicus* (12)

ANIC-777, Beaury State Forest, 700 m, 28°29′S 152°23′E, litter under *Araucaria biwillii*, 15-17 Feb. 1983, coll. T.A. Weir and A. Calder
Oribotritia contraria (4), *Microtritia tropica* (12)

ANIC-246b, Clyde Mt., 700 m asl. rainforest, sample 1, 14 Apr. 1970, coll. E.F. Riek
Acrotritia comteae (1), *Phthiracarus paucus* (3), *Hoplophthiracarus hulli* (1), *Austrophthiracarus sellnicki* (11), *Notophthiracarus hammeni* (3), *Phthiracarus banksi* (15), *Notophthiracarus szeptyckii* (15)

ANIC-246, Clyde Mt., 720 m asl. rainforest, sample 2, 14 Apr. 1970, coll. E.F. Riek
Sabacarus corneri (2), *Microtritia glabrata* (1), *Hoplophthiracarus hulli* (10), *Notophthiracarus hammerae* (1)

ANIC-246, Clyde Mt., 720 m asl, rainforest, sample 3, 14 Apr. 1970, coll. E.F. Riek
Phthiracarus banksi (1), *Hoplophthiracarus hulli* (3), *Notophthiracarus hammeni* (1)

ANIC-246b, Clyde Mt., 720 m asl, rainforest, sample 4, 14 Apr. 1970, coll. E.F. Riek
Acrotritia comteae (3), *Phthiracarus banksi* (4), *Plonaphacarus berlesei* (1), *Hoplophthiracarus hulli* (13), *Austrophthiracarus glennieensis* (3), *Notophthiracarus hammeni* (1), *Notophthiracarus hammerae* (1)

ANIC-266, Clyde Mt., 700 m asl, rainforest, 3 Mar. 1970, coll. S. Curtis
Austrotritia bifurcata (1), *Phthiracarus banksi* (2), *Hoplophthiracarus hulli* (14), *Austrophthiracarus glennieensis* (3), *Notophthiracarus hammeni* (5), *Notophthiracarus hammerae* (2)

ANIC-068, Southwest of Cabbage Tree Creek near Clyde Mt., *Casuarina* leaf litter in log, 20 Aug. 1968, coll. L.A. Mound
Notophthiracarus angustus **n. sp.** (1), *Notophthiracarus consimilis* (5)

ANIC-1421, Northest of Darling Hills State Forest. West Pennant Hills, 90 m asl, 33°45′S 151°02′E, cut dry sclerophyll *Angophora costata* and fern litter, 19 Mar. 1993, coll. T.A. Weir and A. Calder
Acrotritia refracta (1), *Acrotritia wallworki* (3)

ANIC-708, Mt Keira scout camp, 320 m asl, 34°24′S 150°50′E, rainforest leaf/log litter, 4-5 Mar. 1981, coll. J. Lawrence and A. Calder
Acrotritia comteae (2)

ANIC-707, Mt Keira, 320 m, 34°24′S 150°50′E, scout camp, leaf/log litter, 4-5 Mar. 1981, coll. J. Lawrence and A. Calder
Oribotritia duplex (1), *Acrotritia comteae* (1), *Microtritia tropica* (1)

ANIC-752, Dilgry River, Barrington Tops State Forest, 31°53′S 151°32′E, open forest, litter, *Banksia* and *Eucalyptus*, 15-16 Nov. 1981, coll. T. Weir and A. Calder
Austrophthiracarus glennieensis (18)

ANIC-1513, Girard State Forest, 8 km Southwest of Drake, 28°59'S 152°20'E, 940 m asl, 4 Mar. 1983, coll. A. Gillison
Sabacarus corneri (8), *Acrotritia comteae* (9), *Microtritia contraria* (2), *Austrophthiracarus parafusticulus* (1), *Austrophthiracarus scopoli* (14)

ANIC-1546, Mt. Kosciuszko NP, 13 km Northwest of Jindabyne, 1 km west of Sawpit Creek Campground, alt. 1240 m asl, 36°21'S 148°35'E, *Eucalyptus dalrympleana* rotten log litter, 2 May 1993, coll. D.S. Chandler
Mesoplophora parapulchra **n. sp.** (1), *Indotritia brevipilosa* (1), *Microtritia glabrata* (2)

ANIC-1547, Mt. Kosciuszko NP, 13 km Northwest of Jindabyne, 1 km west of Sawpit Creek Campground, alt. 1240 m asl, 36°21'S 148°35'E, *Eucalyptus dalrympleana* litter, 2 May 1993, coll. D.S. Chandler
Hoplophthiracarus montigenus (8)

ANIC-933, Mt Kosciuszko N.P, 1 km Northeast Mt Sunrise, creekside grass sods, 4 Feb. 1984, coll. L. Hill
Austrophthiracarus willmanni (9)

ANIC-020, Brown Mt., rainforest, ca 2800 ft asl, leafmould, 30 Mar. 1967, coll. L.A. Mound
Austrophthiracarus nimius (9), *Austrophthiracarus sellnicki* (28), *Austrophthiracarus willmanni* (14), *Notophthiracarus capillatus* (15)

RBO-004, Range Border NP, Camping Ground, rainforest with palms, un-sieved litter, sample 1, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Acrotritia curticephala (1), *Apoplophora paraserrata* **n. sp.** (1)

RBO-006, Range Border NP, Camping, rainforest with palms, un-sieved litter, sample 2, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Apoplophora paraserrata **n. sp.** (9), *Acrotritia curticephala* (4), *Phthiracarus paucus* (1), *Notophthiracarus ravidus* (1)

RBO-012, Range Border NP, Camping, rainforest with palms, un-sieved litter, sample 3, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Apolophora paraserrata **n. sp.** (7), *Acrotritia curticephala* (10), *Microtritia cristata* **n. sp.** (4), *Notophthiracarus ravidus* (1)

RBO-013, Range Border NP, Camping, rainforest with palms, un-sieved litter, sample 4, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Apoplophora paraserrata **n. sp.** (3), *Microtritia cristata* **n. sp.** (3), *Notophthiracarus ravidus* (1)

RBO-012, Range Border NP, Camping, rainforest with palms, un-sieved litter, sample 5, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Apoplophora paraserrata **n. sp.** (2), *Indotritia brevipilosa* (2), *Acrotritia curticephala* (4), *Microtritia cristata* **n. sp.** (3), *Microtritia tropica* (1), *Notophthiracarus ravidus* (2)

RBO-010, Range Border NP, Camping, rainforest with palms, un-sieved litter, sample 6, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Apoplophora paraserrata **n. sp.** (6), *Acrotritia curticephala* (3), *Microtritia cristata* **n. sp.** (1), *Microtritia tropica* (11)

RBO-011, Range Border NP, Camping, rainforest with palms, un-sieved litter under sedges, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Apoplophora paraserrata **n. sp.** (2), *Acrotritia bipartita* (1), *Acrotritia curticephala* (8), *Phthiracarus paucus* (1), *Notophthiracarus ravidus* (6)

RBO-002, Range Border NP, Camping, rainforest with palms, sieved litter, sample 1, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Apoplophora paraserrata **n. sp.** (14), *Acrotritia curticephala* (4), *Phthiracarus pygmeus* (10), *Notophthiracarus ravidus* (6), *Notophthiracarus flagrus* (1)

RBO-007, Range Border NP, Camping, rainforest with palms, sieved litter, sample 2, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Apoplophora paraserrata **n. sp.** (5), *Acrotritia curticephala* (6), *Phthiracarus paucus* (1), *Notophthiracarus ravidus* (3)

RBO-001, Range Border NP, Camping, rainforest with palms, sieved litter, sample 3, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Sabacarus corneri (1), *Acrotritia curticephala* (11), *Phthiracarus pygmeus* (1), *Notophthiracarus ravidus* (4)

RBO-003, Range Border NP, Camping, rainforest with palms, sieved litter, sample 4, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Microtritia tropica (*ca* 130), *Acrotritia curticephala* (4), *Apoplophora paraserrata* **n. sp.** (1)

RBO-005, Range Border NP, Camping, rainforest with palms near stream, sieved litter, 18 Aug. 2007. J. Błoszyk and S. Konwerski
Phthiracarus paucus (7)

RBO-008, Range Border NP, Camping., rainforest with palms, rotten leafs of palms, material un-sieved, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Apoplophora paraserrata **n. sp.** (1), *Indotritia brevipilosa* (1), *Acrotritia curticephala* (2), *Microtritia tropica* (3), *Phthiracarus paucus* (1)

RBO-009, Range Border NP, Camping, rainforest with palms, wood dust, material un-sieved, 18 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Indotritia brevipilosa (2), *Acrotritia curticephala* (2)

NAM-002, Namagi NP, *Eucalyptus* forest, un-sieved wood dust, 11 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Apoplophora paraserrata **n. sp.** (1), *Notophthiracarus ravidus* (1)

NAM-005, Namagi NP, renewed *Eucalyptus* forest, litter between stones, 11 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Microtritia tropica (1), *Notophthiracarus ravidus* (3)

NAM-003, Namagi NP, big log of dead eucalyptus outside the park, wood dust un-sieved, 11 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Microtritia tropica (5), *Notophthiracarus consimilis* (1)

NAM-009, Namagi NP, renewed *Eucalyptus* forest, dry un-sieved litter between stones, 11 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Notophthiracarus hallidayi **n. sp.** (15)

NAM-010, Namagi NP, *Eucalyptus* forest, sieved litter, sample 1, 11 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Notophthiracarus hallidayi **n. sp.** (10)

NAM-006, Namagi NP, *Eucalyptus* forest, sieved litter, sample 2, 11 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Notophthiracarus hallidayi **n. sp.** (7), *Notophthiracarus hammerae* (1)

NBP-002, Nymboi-Binderay NP, *Eucalyptus* forest, sieved litter, 17 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Oribotritia duplex (1), *Acrotritia bipartita* (2), *Acrotritia curticephala* (65), *Notophthiracarus flagrus* (16)

NAM-008, Namagi NP, *Eucalyptus* bushes outside of park, dry sieved litter, 11 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Notophthiracarus hallidayi **n. sp.** (31)

HOH-001, Hat Head NP, *Eucalyptus* forest on dune, sieved litter, sample 1, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Acrotritia curticephala (25), *Microtritia tropica* (6), *Phthiracarus paucus* (1), *Phthiracarus pygmaeus* (*ca* 60)

HOH-002, Hat Head NP, *Eucalyptus* forest on dune, sieved litter, sample 2, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Phthiracarus pygmaeus (*ca* 100), *Microtritia tropica* (4), *Acrotritia curticephala* (30)

HOH-003 Hat Head NP, *Eucalyptus* forest on dune, sieved litter, sample 3, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Phthiracarus pygmaeus (9), *Acrotritia curticephala* (5)

NPB-003, Nymboi-Binderay NP, *Eucalyptus* forest, material un-sieved, 17 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Acrotritia bipartita (7), *Acrotritia curticephala* (80), *Notophthiracarus flagrus* (7)

NBP-001, Nymboi-Binderay NP, *Eucalyptus* forest, sieved material, 17 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Acrotritia bipartita (2), *Acrotritia curticephala* (60), *Notophthiracarus flagrus* (8), *Notophthiracarus parausitatus* **n. sp.** (2), *Notophthiracarus szeptyckii* (7)

NSW-003, Lake George near Canberra, parking near HWZ, remains of *Eucalyptus* forest, sieved litter under old pines, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Plonaphacarus feideri (2), *Notophthiracarus hallidayi* **n. sp.** (2)

NSW-001, Arakoon, near Soutwestern Rock, rainforest near seaside Little Bay, rich vegetation, unsieved litter and wood dust, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Acrotritia curticephala (5), *Microtritia tropica* (4), *Phthiracarus pygmaeus* (2), *Phthiracarus paucus* (1), *Plonaphacarus kugohi* (1)

ANIC-293, Australian Capital Territory, west face of Black Mountain, alt. 620 m asl, 35°16'S 149°05'E, dry sclerophyll, coll. J. Simmons
Austrophthiracarus baloghi (1), *Austrophthiracarus scopoli* (19), *Austrophthiracarus sellnicki* (3)

VICTORIA – AUSTRALIA

APN-009, Alpine NP, 653 m asl., 36°53'906"S 147°03'800"E, rainforest, *Eucalyptus* forest, old trees, steep slope, lightly dead wood from a *Eucalyptus* tree, material un-sieved, 17 July 2007, coll. J. Błoszyk and S. Konwerski
Microtritia tropica (11)

APN-004, Alpine NP, 816 m asl., 36°54'658"S 147°03'271"E, rainforest, *Eucalyptus* forest, old trees, steep slope, soil, litter, stones in soil, material un-sieved obtained from a ditch, next to a rock, 17 July 2007, coll. J. Błoszyk and S. Konwerski
Notophthiracarus bonangensis (1), *Atropacarus* (*Atropacarus*) *striculus* (1)

APN-013, Alpine NP, 653 m asl., 36°53'902"S 147°03'798"E, rainforest, *Eucalyptus* forest, old trees, steep slope, border of the park, microbiotope: dead wood from a *Eucalyptus* log (1.5 m long, 30 cm in diameter), material un-sieved, 17 July 2007, coll. J. Błoszyk and S. Konwerski
Plonaphacarus forsslundi (1), *Austrophthiracarus parafusticulus* (1)

ANP-012, Alpine NP, 653 m asl, 36°53'902"S 147°03'798"E, rainforest, *Eucalyptus* forest, old trees, steep slope, lightly brush, from under a broom (*Cytisus coparius*), border of the park, microbiotope: soil, litter, material un-sieved, 17 July 2007, coll. J. Błoszyk and S. Konwerski
Plonaphacarus feideri (5)

ANP-008, Alpine NP, 653 m asl, 36°53'906"S 147°03'800"E, rainforest, *Eucalyptus* forest, old trees, steep slope, from under a fern, soil, litter, sieved material, 17 July 2007, coll. J. Błoszyk and S. Konwerski
Acrotritia wallworki (1)

ANP-030, Alpine NP, 577 m asl, 36°54'206"S 147°03'285"E, border of the park, next to a "clay road", old pine trees, microbiotope: soil, litter, material un-sieved, 17 July 2007, coll. J. Błoszyk and S. Konwerski
Plonaphacarus feideri (10)

ANP-010, Alpine NP, 653 m asl, 36°53'906"S 147°03'800"E, rainforest, *Eucalyptus* forest, old trees, steep slope, microbiotope: bark and dead wood from a eucalyptus tree, material un-sieved, 17 July 2007, coll. J. Błoszyk and S. Konwerski
Plonaphacarus feideri (2), *Austrophthiracarus fusticulus* (1)

CRO-001, Croajingolong NP, Genoa Peak, 37°31'753"S 149°37'573"E, *Eucalyptus* forest, from crevices of rocks at the top, 4 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Indotritia brevipilosa (5), *Microtritia tropica* (3), *Notophthiracarus alienus* (7), *Notophthiracarus repostus* (11)

CRO-009, Croajingolong NP, Mallacota, Quarry Beach, seaside *Casuarina* bushes, sieved litter on slope, 3 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Phthiracarus pallucidus (7), *Notophthiracarus caliginosus* (2), *Notophthiracarus flagrus* (10), *Notophthiracarus repostus* (2)

CRO-012, Croajingolong NP, Mallacota, Quarry Beach, seaside *Casuarina* bushes, sieved litter under ferns, 3 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Phthiracarus paucus (8), *Notophthiracarus flagrus* (19), *Notophthiracarus repostus* (3)

CRO-016, Croajingolong NP, Mallacota, Quarry Beach, seaside *Casuarina* bushes, litter under sedges, 3 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Notophthiracarus flagrus (*ca* 120), *Notophthiracarus hammeni* (8)

CRO-015, Croajingolong NP, Mallacota, Betka River – bridge, *Eucalyptus* forest under river, sieved litter, 3 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Notophthiracarus hammeni (1)

CRO-020, Croajingolong NP, 450 ft asl, 37°32'318"S 149°28'260"E, *Eucalyptus* forest, sieved litter near termitary, 4 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Microtritia tropica (2), *Notophthiracarus repostus* (1)

MTB-021, Mount Buffalo NP, 621 m asl, 36°42'S 146°50'E, rainforest, *Eucalyptus* forest, old and young trees, burnt-out, rocky slop, soil, litter, logs, sieved material, 16 July 2007, coll. J. Błoszyk and S. Konwerski
Microtritia tropica (2), *Notophthiracarus consimilis* (2)

MTB-004, Mt. Buffalo NP, 621 m asl, 36°42'386"S 146°50'063"E, rainforest, *Eucalyptus* forest, old trees, burnt-out, rocky slop, microbiotope: soil, litter, sieved matrial, 16 July 2007, coll. J. Błoszyk and S. Konwerski
Phthiracarus paucus (1), *Notophthiracarus consimilis* (1)

MTB-026, Mount Buffalo NP, 617 m asl, 36°41'565"S 146°51'137"E, border of park, car park near streem, rainforest, *Eucalyptus* forest, old trees soil, litter, eucalyptus leaves, sieved material, 16 July 2007, coll. J. Błoszyk and S. Konwerski
Microtritia glabrata (3)

MTB-020, Mount Buffalo NP, 621 m asl, 36°42'S 146°50'E, rainforest, *Eucalyptus* forest, old trees, soil, litter, logs, sieved material, 16 July 2007, coll. J. Błoszyk and S. Konwerski
Microtritia glabrata (1), *Microtritia tropica* (6), *Notophthiracarus consimilis* (2)

ALB-001, Albert NP, sieved litter under old *Eucalyptus* near road, 4 Aug. 2007, coll. J. Błoszyk and S. Konwerski
Sabacarus corneri (2), *Microtritia tropica* (3)

TASMANIA

ANIC-cave 340. Tasmania, Newdegate Cave Hastings, Starircase timbers in cave, 26 May 1998, coll. A. Clarke.
Austrophthiracarus glennieensis (2), *Atropacarus* (*Atropacarus*) *striculus* (1)

NEW ZEALAND

NZ 03/04, New Zealand, South Island, Paparoa NP, Pororari River Valley, 42°06'432"S 171°20'579"E, *ca* 100 m alt., palm forest, moss on decaying log, 10 Feb. 2004, coll. J. Smykla
Phthiracarus banksi (1)