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Previous volumes (2010-2020): 250 € / year (4 issues)

Acarologia, CBGP, CS 30016, 34988 MONTFERRIER-sur-LEZ Cedex, France

ISSN 0044-586X (print), ISSN 2107-7207 (electronic)

The digitalization of Acarologia papers prior to 2000 was supported by Agropolis Fondation under the reference ID 1500-024 through the « Investissements d'avenir » programme (Labex Agro: ANR-10-LABX-0001-01)



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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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(Received 23 February 2012; accepted 16 May 2012; published online 22 June 2012)

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**ABSTRACT** — This paper presents a review of 91 ptyctimous oribatid mite species including three Mesoplophoridae, 25 Euphthiracaroidae and 63 of Phthiracaroidae of the Australasian Region. Thirteen species are new for science: *Mesoplophora (Mesoplophora) parapulchra* n. sp., *Apoplophora paraserrata* n. sp., *Acrotrititia paraspiculifera* n. sp., *Microtrititia cristata* n. sp., *Plonaphacarus vicinus* n. sp., *Steganacarus (Rhacaplacarus) cucullus* n. sp., *Austrophthiracarus konwerskii* n. sp., *Arphthiracarus triestigius* 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 Euphthiracaroidae and 182 Phthiracaroidae. 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 Phthiracaroidae genera: *Notophthiracarus* and *Austrophthiracarus*. Within the Euphthiracaroidae, the highest number of species has been observed in the genera *Oribotrititia* and *Acrotrititia*.

**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 (Niedbala 2009d) de-

spite the recent several papers concerning the occurrence of these mites in the Oriental and Australasian Regions (Niedbala 2000), Pacific Islands (Niedbala 1998a), Hawaiian Islands (Niedbala 1994, 1998b) and Australia (Niedbala 2006, Niedbala and Penttinen 2007, Niedbala 2009a, b, c).

This paper provides additional knowledge of the ptyctimous oribatid mite fauna of the Australasian Region. It results from faunistic 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 (Niedbala 1998). The species *Sabacarus ranokaoensis* Hammer, 1970 reported from Easter Island, has proved to be conspecific with *S. corneri* (Niedbala 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* (Niedbala 2000).

In the 1980's, only a bit more than 20 species were known from this region. Since 1981, Niedbala 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 splendia 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 brevopilosa* 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 inaccessus* 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  
*Hoplophthiracarus 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.**

Niedbala W.

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

TABLE 1: Continued.

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

TABLE 1: Continued.

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

TABLE 1: Continued.

Species	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
<i>Phthiracarus crispus</i> Hammer, 1972			x				x	x							
<i>Phthiracarus curiosus</i> Niedbala, 1998								x							
<i>Phthiracarus fraternus</i> Niedbala, 1998							x								
<i>Phthiracarus inaccessus</i> Niedbala, 1998							x			<b>X</b>					
<i>Phthiracarus insularis</i> Jacot, 1935							x								
<i>Phthiracarus obscurus</i> Niedbala, 1986										x					
<i>Phthiracarus paucus</i> Niedbala, 1991		x				x	x			<b>X</b>		<b>X</b>	<b>X</b>		
<i>Phthiracarus pellucidus</i> Ramsay, 1966				x									<b>X</b>		
<i>Phthiracarus perlucidus</i> Niedbala, 1994								x							
<i>Phthiracarus persimilis</i> Niedbala, 1998							x								
<i>Phthiracarus plenus</i> Niedbala, 1998								x							
<i>Phthiracarus probus</i> Niedbala et Colloff, 1997															x
<i>Phthiracarus pygmaeus</i> Balogh, 1958					x		x	x				<b>X</b>			
<i>Phthiracarus reductus</i> Niedbala, 1998								x							
<i>Phthiracarus swiftae</i> Niedbala, 1998								x							
<i>Phthiracarus tubulus</i> (Hammer, 1972)							x								
<i>Plonaphacarus aduncus</i> Niedbala et Colloff, 1997															x
<i>Plonaphacarus berlesei</i> Niedbala, 1987												<b>X</b>	x		
<i>Plonaphacarus dikros</i> Niedbala, 2000				x											
<i>Plonaphacarus feideri</i> Niedbala, 1987											<b>X</b>	<b>X</b>	<b>X</b>		
<i>Plonaphacarus forsslundi</i> Niedbala, 1987					x		x			<b>X</b>		x	<b>X</b>		
<i>Plonaphacarus grandjeani</i> Niedbala, 1987					x					<b>X</b>					
<i>Plonaphacarus insolens</i> Niedbala, 2000				x											
<i>Plonaphacarus kugohi</i> (Aoki, 1959)	x	x	x		x	x	x	x	<b>X</b>	<b>X</b>	x	<b>X</b>			
<i>Plonaphacarus toolangiensis</i> Niedbala, 2006														x	
<i>Plonaphacarus trojani</i> Niedbala, 2010										<b>X</b>		<b>X</b>			
<i>Plonaphacarus vicinus</i> sp. nov.										<b>X</b>					
<i>Sobacarus corneri</i> Ramsay et Sheals, 1969				x			x	x				<b>X</b>	<b>X</b>		
<i>Steganacarus (Rhacaplacarus) cucullus</i> sp. nov.												<b>X</b>			
<i>Steganacarus (Rhacaplacarus) diaphoros</i> Niedbala, 2000										x					
<i>Steganacarus (Rhacaplacarus) jacoti</i> Niedbala, 1987		x								x					
<i>Steganacarus (Rhacaplacarus) szeptycki</i> Niedbala, 2009												<b>X</b>			
<i>Steganacarus (?) tenuiseta</i> 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)  
*Arphthacarus remotus* (Niedbała, 1989)  
*Arphthacarus trivestigiatus* **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 North-west 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*<sub>1</sub> 53, *d*<sub>1</sub> 58, *d*<sub>2</sub> 88, *e*<sub>1</sub> 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*<sub>2</sub> rigid, rough and shorter than smooth and flagellate ventral setae *c*<sub>3</sub> and *cp*; setae *c*<sub>2</sub> more remote from anterior margin than setae *c*<sub>1</sub> and *c*<sub>3</sub>.

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 Northeast 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.

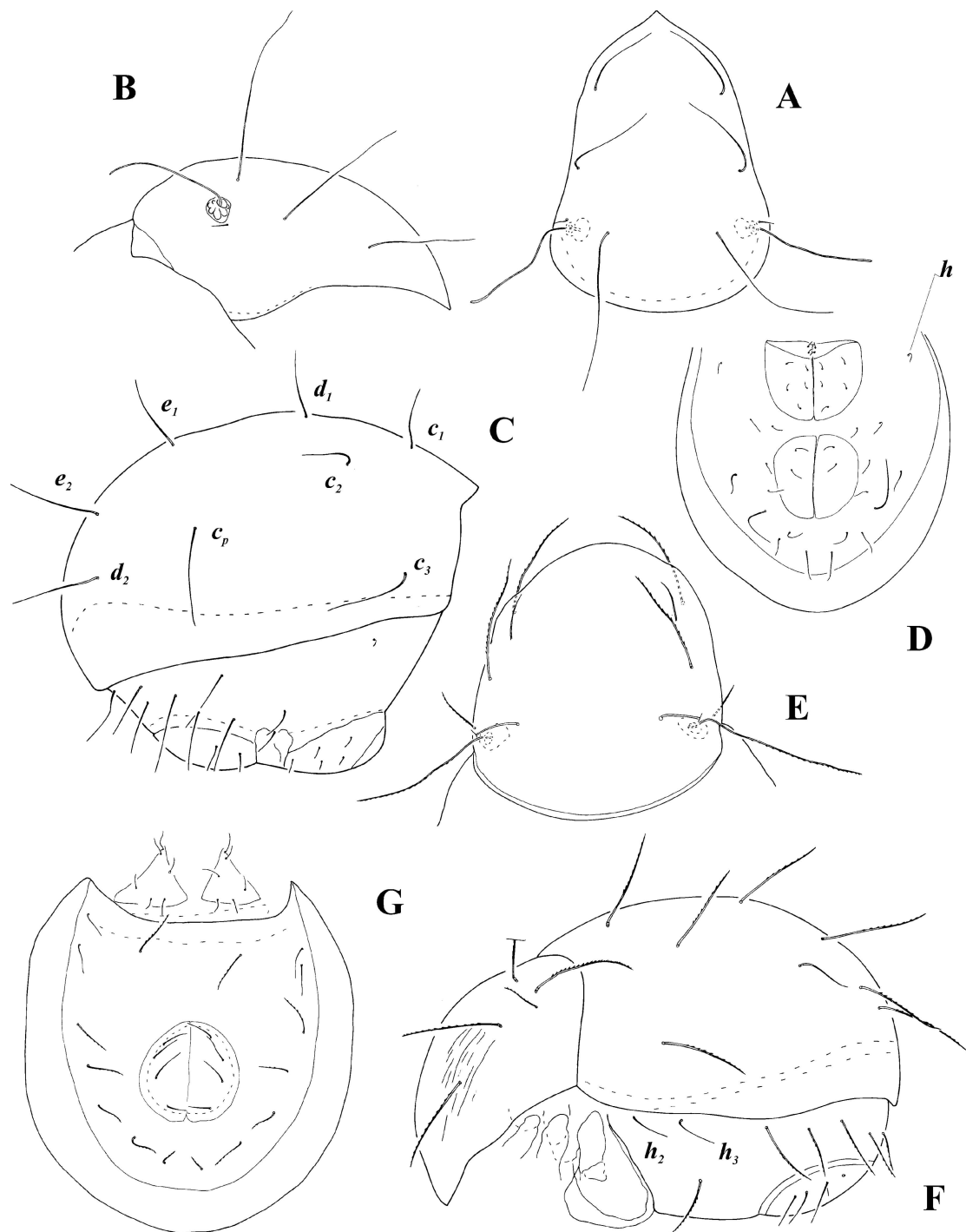


FIGURE 1: *Mesoplophora* (*Mesoplophora*) *parapulchra* n. sp. (holotype): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma, D – ventral view of opisthosoma; *Apoplophora* *paraserrata* n. sp. (holotype): E – prodorsum, dorsal view, F – lateral view of body, G – 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  $30 \times 23$ ; anal plates  $86 \times 40$ , 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,  $17^\circ 43'S$   $145^\circ 30'E$ , 3 July 1971, coll. R.W. Taylor and J. Feehan - 10; ANIC-355 Tully Falls NP,  $17^\circ 47'S$   $145^\circ 33'E$ , 750 m, rainforest, 2 July 1971, coll. R.W. Taylor and J. Feehan - 12; ANIC-536 Mt Archer, 608 m, nr Rockhampton,  $23^\circ 20'S$   $150^\circ 35'E$ , 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,  $30^\circ 25'S$   $151^\circ 38'E$ , 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

***Acrotrititia paraspiculifera* n. sp.**  
(Figures 2A-C)

Material examined — Holotype and two paratypes (one in ANIC, one in NHC): ANIC-1058 9 km Northeast 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 *Acrotrititia spiculifera*.

Comparison to related species — The new species is similar to *Acrotrititia 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).

***Microtrititia 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  $86 \times 45$ , anoadanal plate  $139 \times 48$ .

Description — One of the larger species of genus *Microtrititia*. 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  $c_{1-3}$  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.

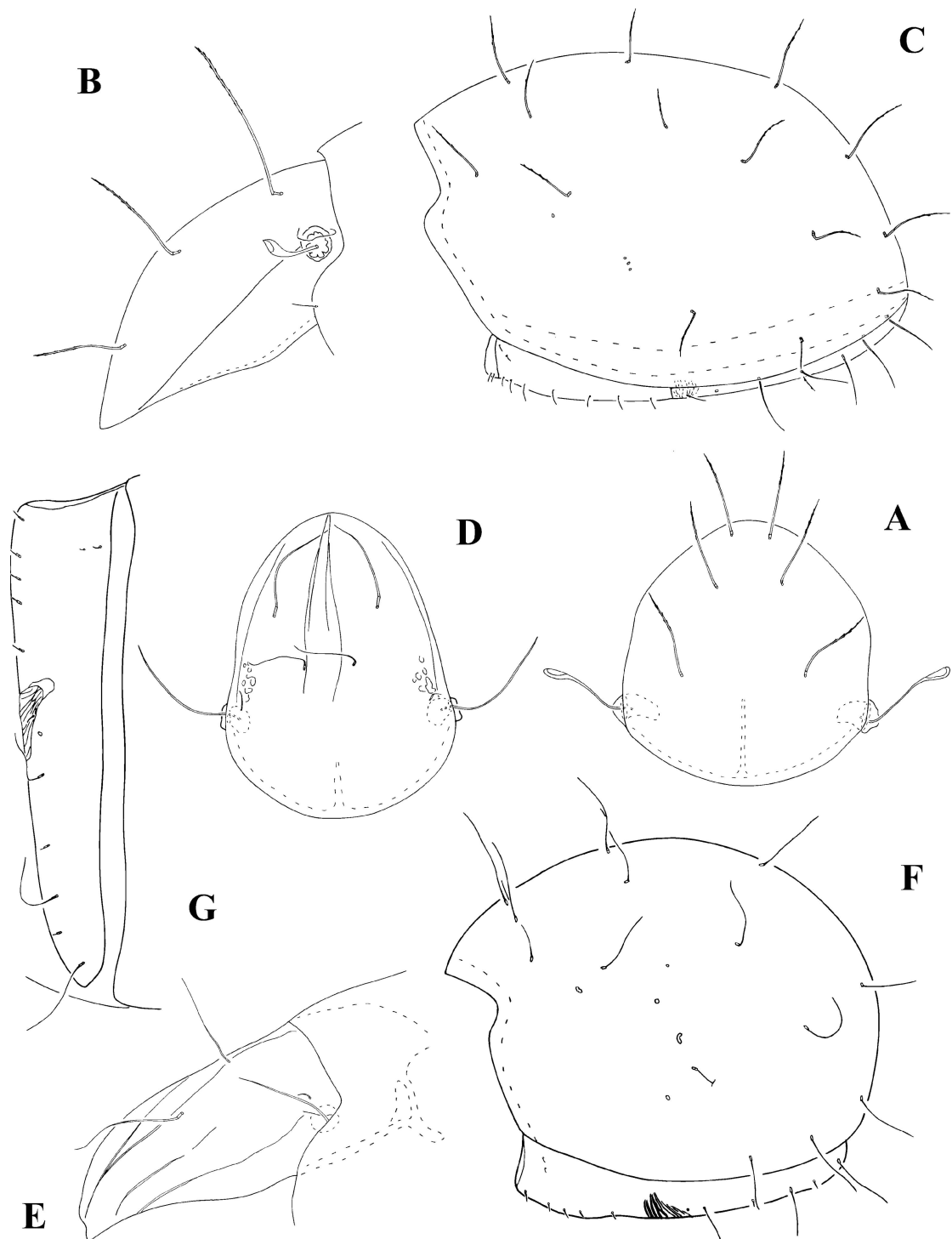


FIGURE 2: *Acrotrititia paraspiculifera* n. sp. (holotype): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma; *Microtrititia cristata* n. sp. (holotype): D – prodorsum, dorsal view, E – prodorsum, lateral view, F – lateral view of opisthosoma, G – ventral view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

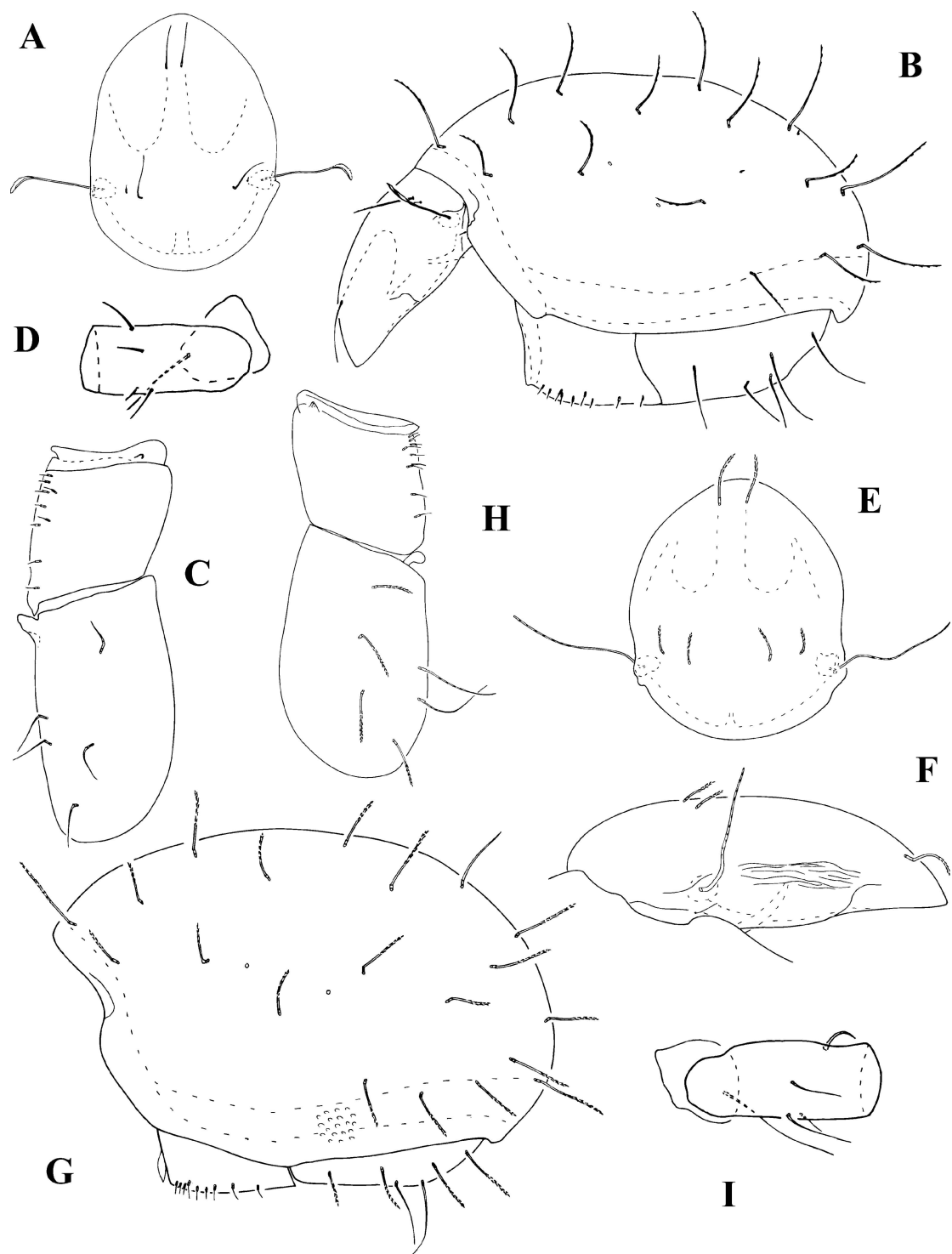


FIGURE 3: *Plonaphacarus vicinus* n. sp. (holotype): A – prodorsum, dorsal view, B – lateral view of body, C – genitoaggenital and anoadanal plates, D – trochanter and femur I; *Austrophthiracarus konwerskii* n. sp. (holotype): E – prodorsum, dorsal view, F – prodorsum, lateral view, G – lateral view 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 sclerophyll 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, Dorrig NP, Blackbutt Trail, 8 km East of Dorrig, 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, Dorrig NP, 6 km Southeast of Dorrig, 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  $c_{1-3}$  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, Dorrig 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, Dorrig 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.



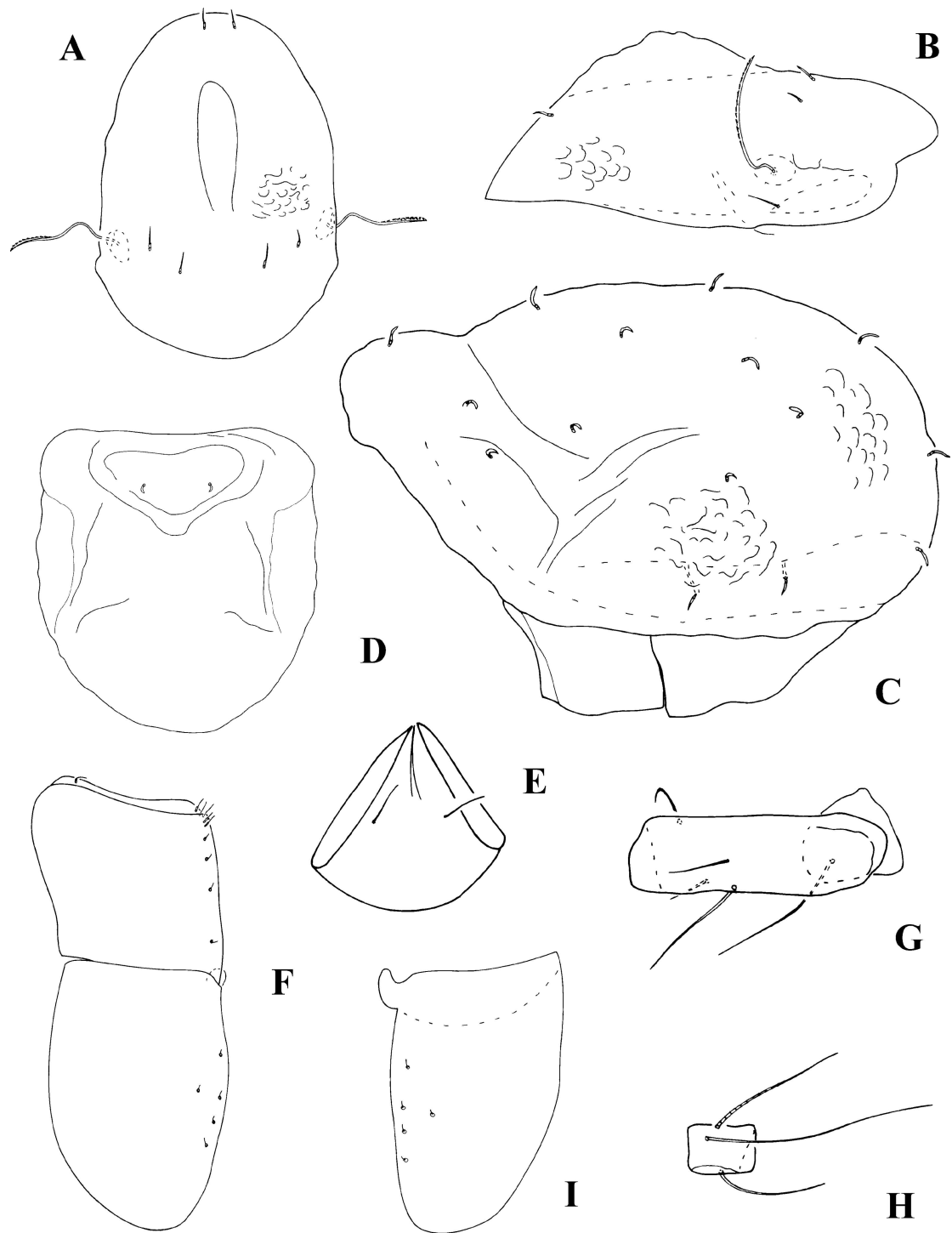


FIGURE 4: *Steganacarus (Rhacaplacarus) cucullus* n. sp. (holotype): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma, D – dorsal view of notogaster, E – mentum of infracapitulum, F – genitoaggenital and anoadanal plates, G – trochanter and femur I, H – tibia IV;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

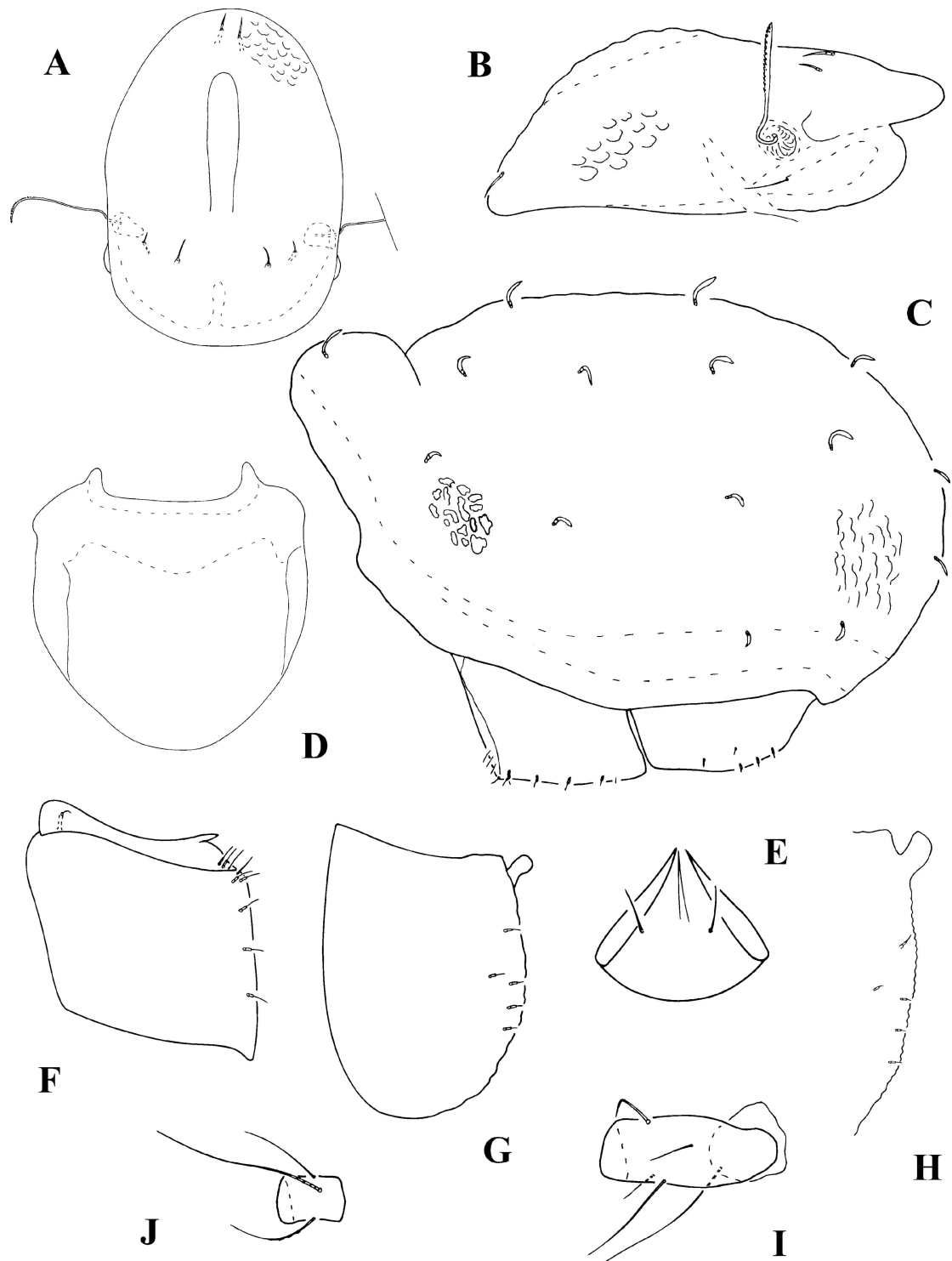


FIGURE 5: *Steganacarus (Rhacaplacarus) cucullus* n. sp. (paratype II): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma, D – dorsal view of notogaster, E – mentum of infracapitulum, F – genitoaggenital plate, G – anoadanal plate, H – paraxial margin of genitoaggenital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

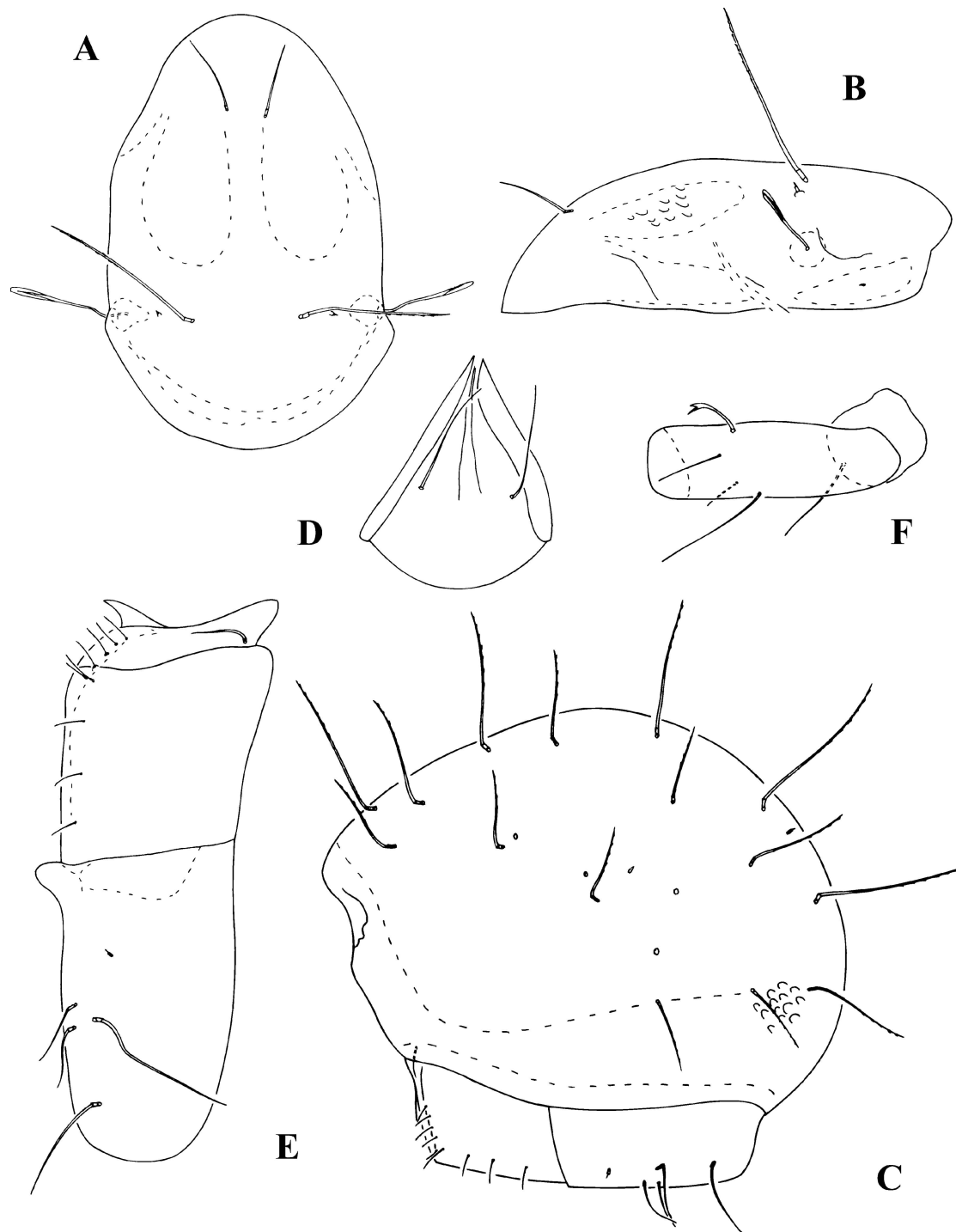


FIGURE 6: *Arphthycarus trivestigijs* n. sp. (holotype): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma, D – mentum of infracapitulum, E – genitoaggenital and anoadanal plates, F – trochanter and femur I.

***Arphthnicarus trivestigijs* 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  $215 \times 119$ , anoadanal plate  $190 \times 101$ .

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, Southwest 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  $197 \times 162$ ; anoadanal plate  $227 \times 152$ .

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.

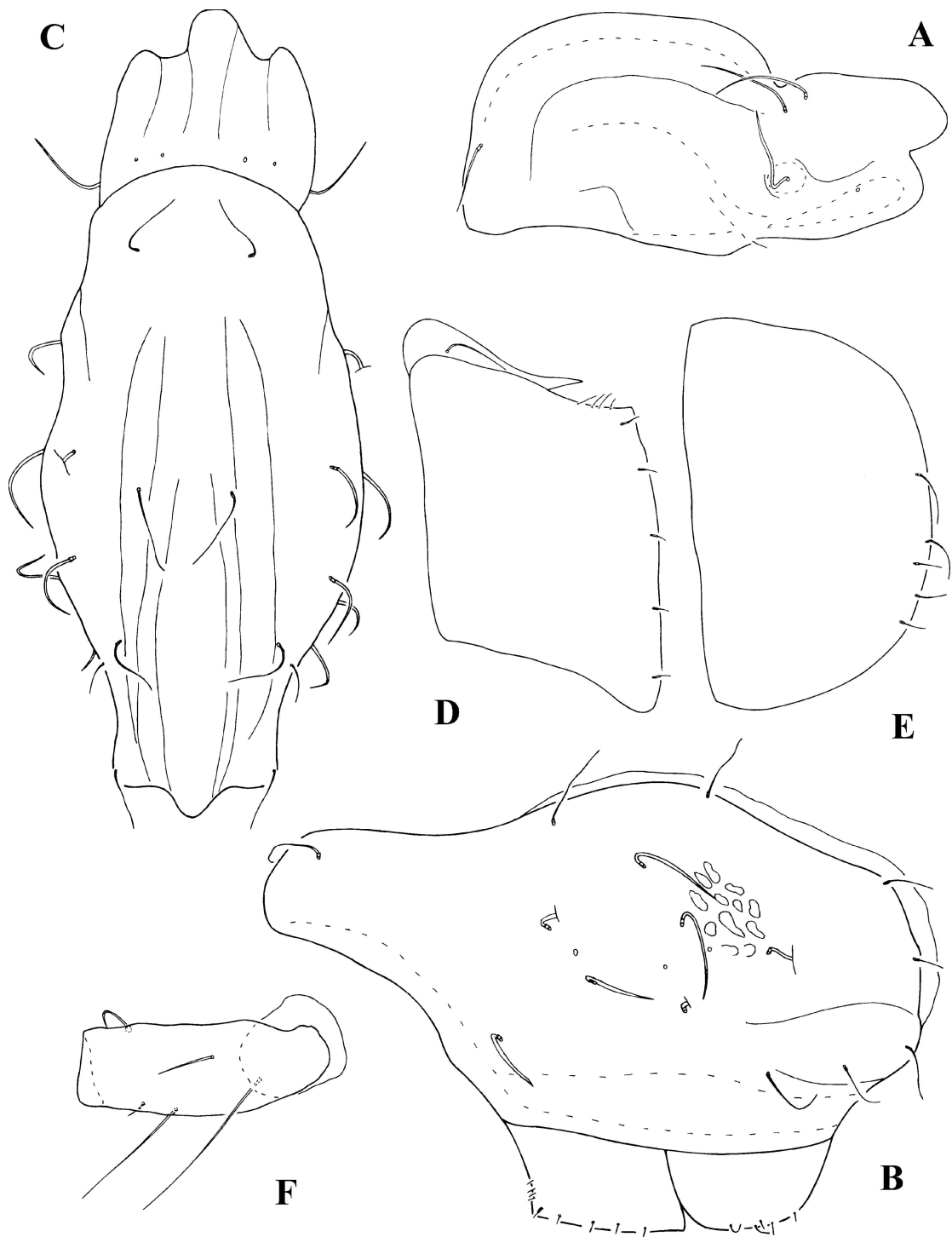


FIGURE 7: *Notophthiracarus angustus* n. sp. (holotype): A – prodorsum, lateral view, B – lateral view of opisthosoma, C – dorsal view of body, D – genitoaggenital plate, E – anoanal plate, F – trochanter and femur I.

**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* Niedbala, 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  $187 \times 119$ , anoadanal plate  $202 \times 114$ .

**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 sclerophyll *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 sclerophyll subst. rainforest litter, 23 May 1993, coll. D.S. Chandler - 1; ANIC-1610, Bruxner Park Floral Reserve, Sealy Lookout Road, 5 km Northwest of Coffs Harbour, 260 m, cut wet sclerophyll 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* Niedbala, 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,

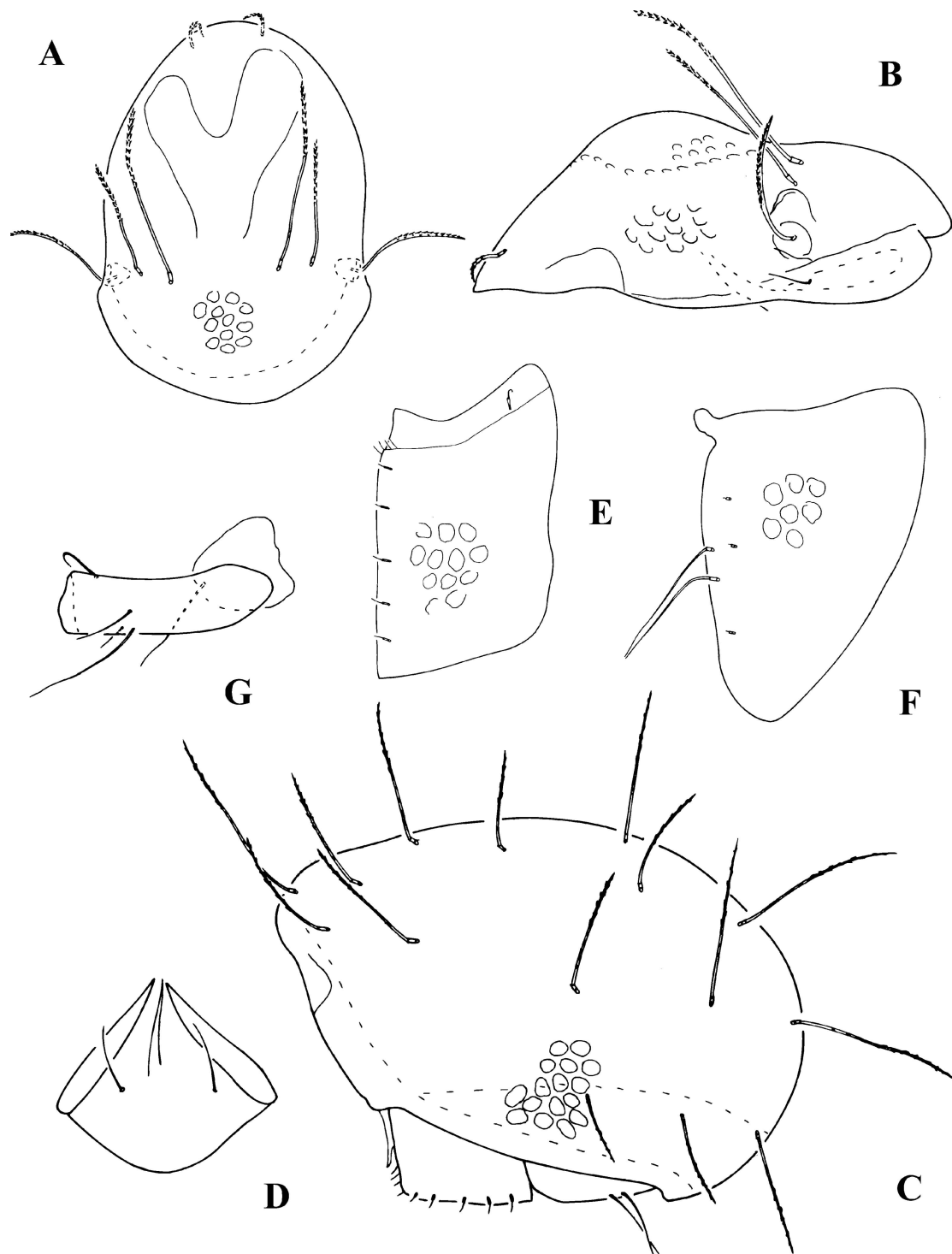


FIGURE 8: *Notophthiracarus bloszyki* n. sp. (holotype): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma, D – mentum of infracapitulum, E – genitoaggenital plate, F – ano-adanal plate, G – trochanter and femur I.

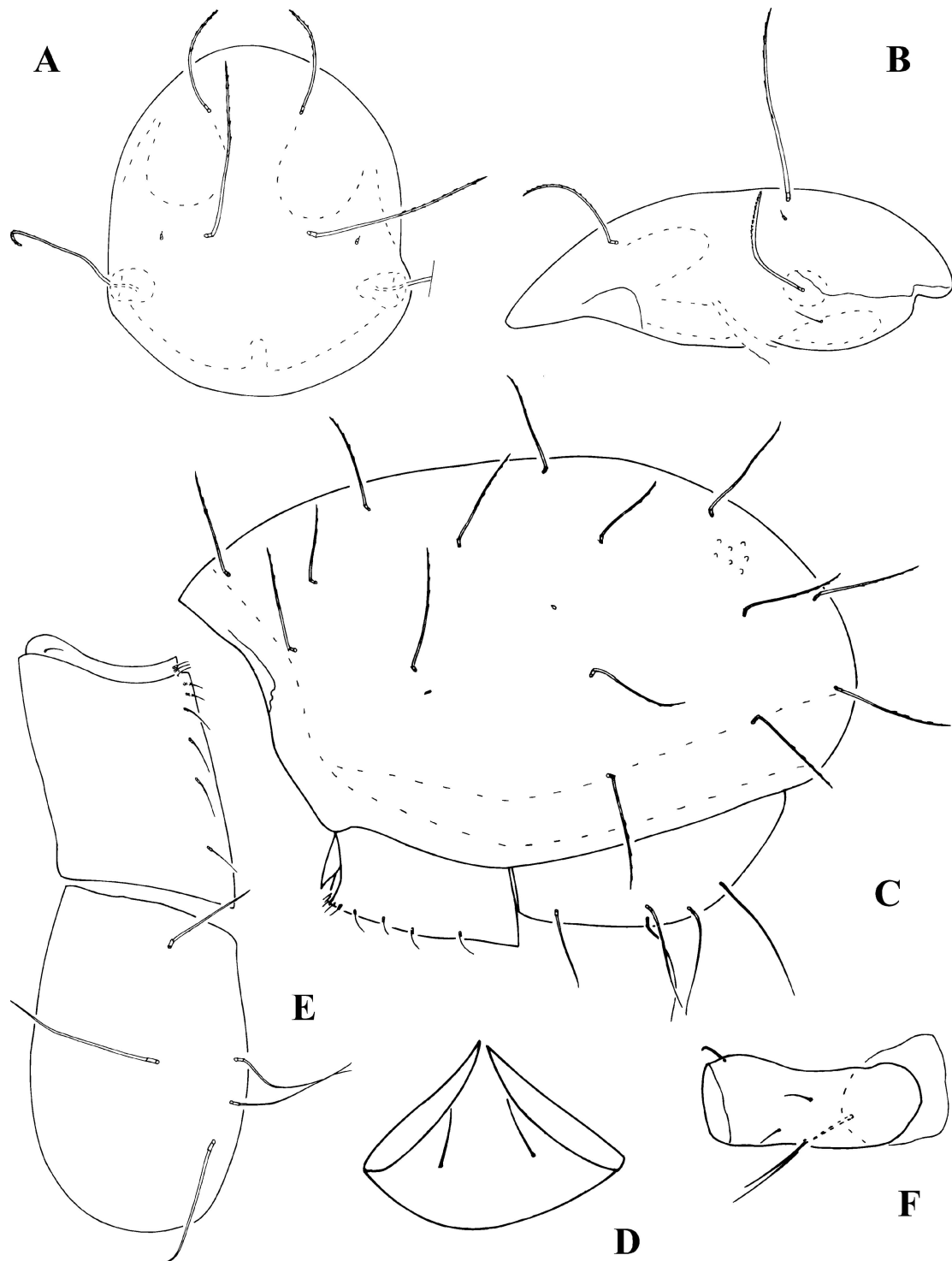


FIGURE 9: *Notophthiracarus hallidayi* n. sp. (holotype): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma, D – mentum of infracapitulum, E – genitoaggenital and ano-adanal plates, F – trochanter and femur I.



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

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  $g_{6-9}$  remarkably longer than setae  $g_{1-5}$ . 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 szepteykii* Nied-

bala, 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 I of femora I.

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

Material examined — Holotype. ANIC-546, Mt. Lewis, 960 m,  $16^\circ 35'S$   $145^\circ 17'E$ , 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  $197 \times 146$ , anoadanal plate  $252 \times 146$ .

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  $c_{1-3}$  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

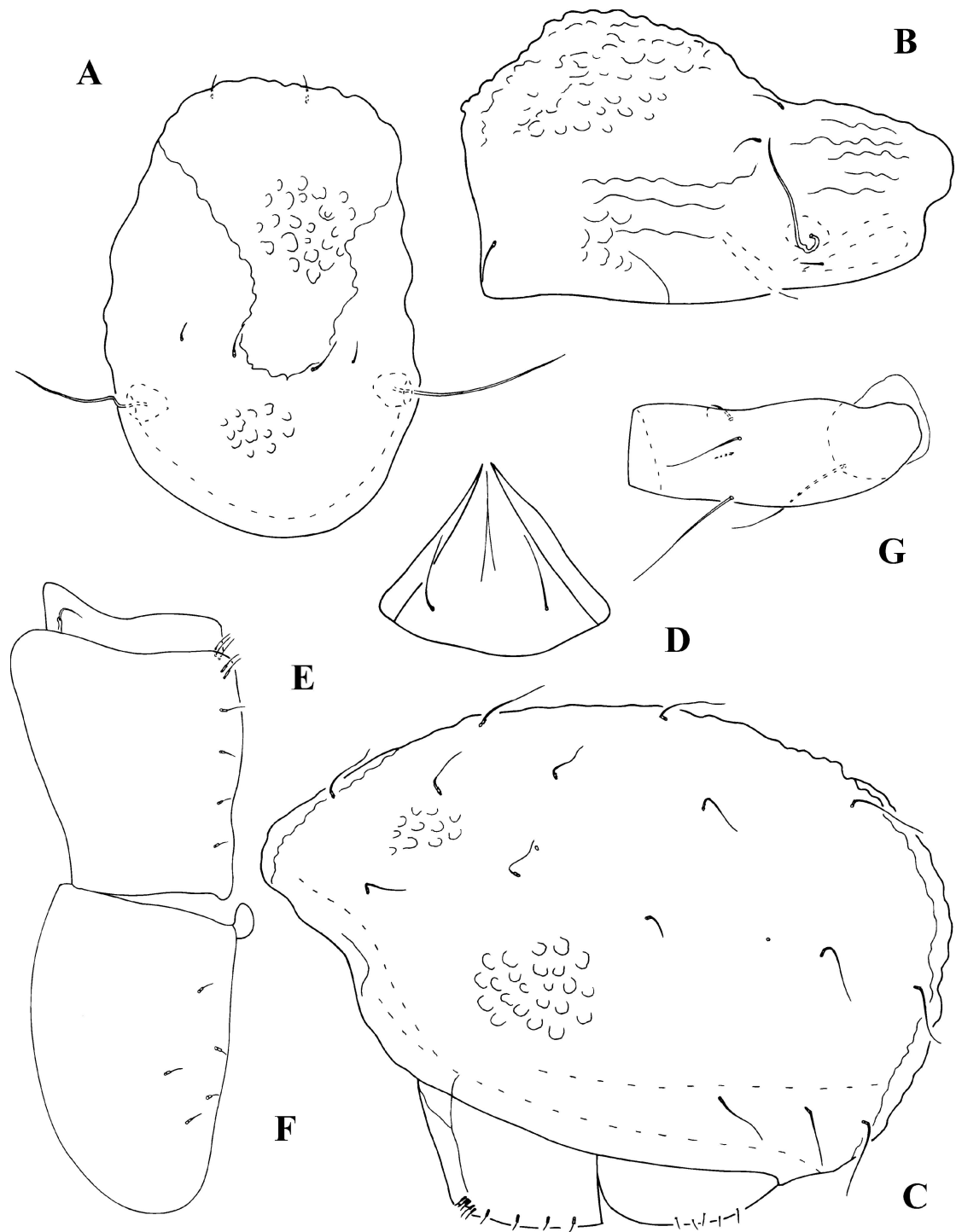


FIGURE 10: *Notophthiracarus lewisensis* n. sp. (holotype): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma, D – mentum of infracapitulum, E – genitoaggenital plate F – ano-adanal plate, G – trochanter and femur I.

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 Philippines.

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  $76 \times 58$ ; anoadanal plate  $111 \times 51$ .

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, Dorriggo NP, Never Never camping, rainforest, sieved litter, sample 7, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 30; DOR-010, Dorriggo NP, Never Never camping, rainforest, litter, near dead log, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 6; DOR-005, Dorriggo NP, Never Never camping, rainforest, unsieved wood dust, sample 1, 16 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 2; DOR1-002, Dorriggo NP, rainforest litter, un-sieved material, sample 3, 17 Aug. 2007, coll. J. Błoszyk and S. Konwerski - 12; DOR1-005, Dorriggo 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.

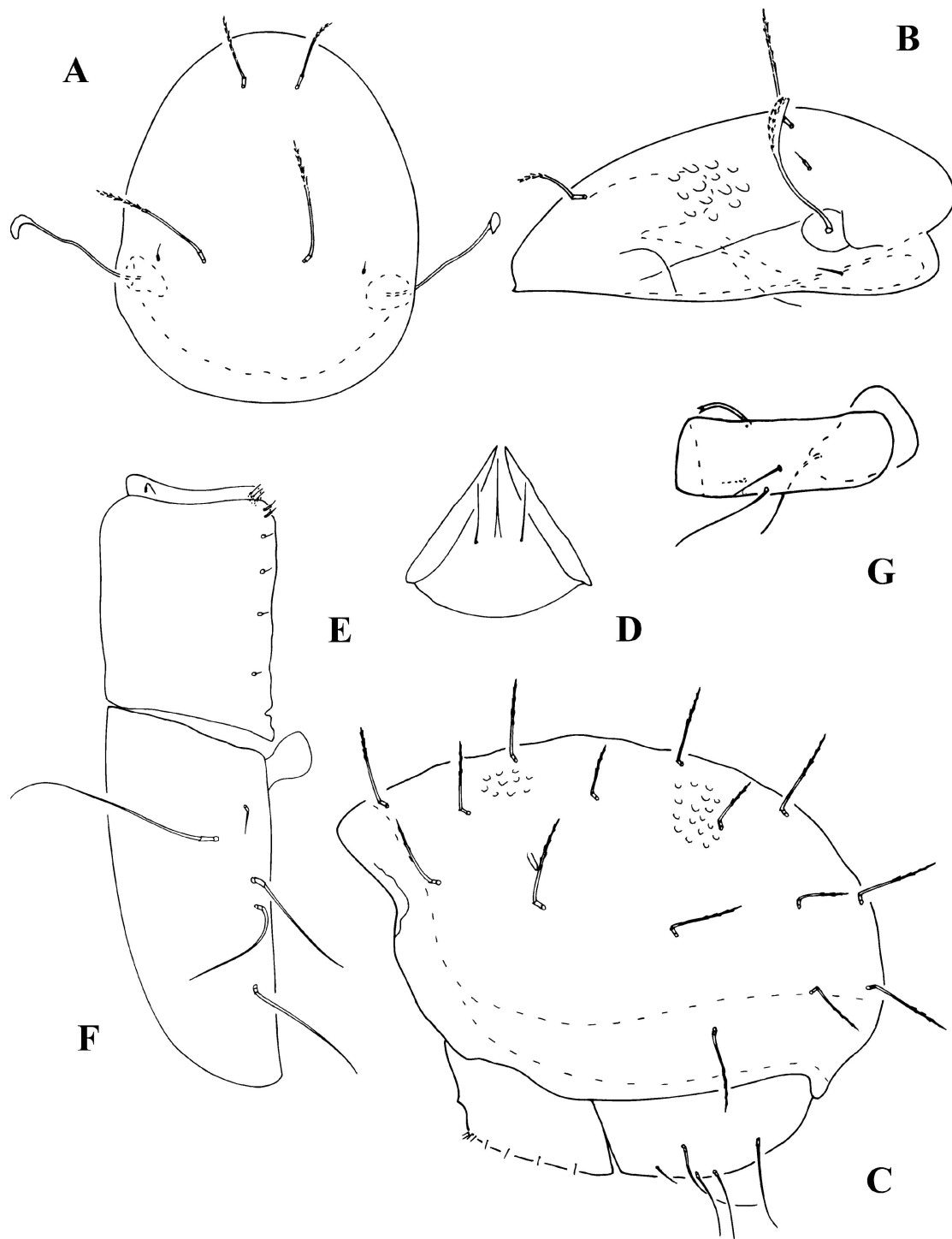


FIGURE 11: *Notophthiracarus parausitatus* n. sp. (holotype): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma, D – mentum of infracapitulum, E – genitoaggenital plate, F – anoadanal plate, G – trochanter and femur I.

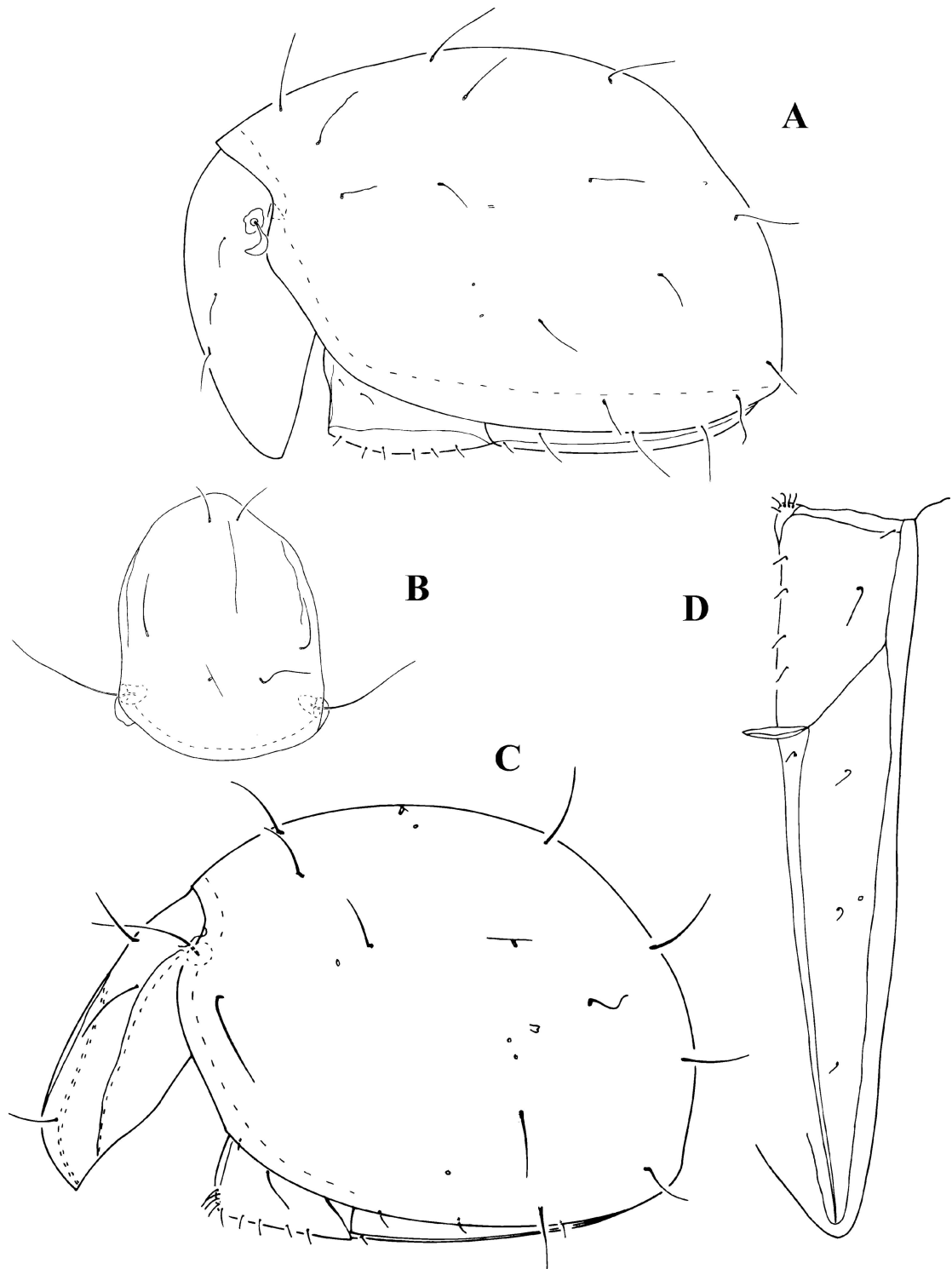


FIGURE 12: *Sabacarus corneri* Ramsay et Sheals, 1969 (specimen from DOR-015): A – lateral view of body; *Austrotrititia saraburiensis* Aoki, 1965 (specimen from ANIC-313): B – prodorsum, dorsal view, C – lateral view of body, D – ventral view of opisthosoma, left side.

## COMMENTS ON SOME KNOWN SPECIES

This section aims for eight of the 78 known species, to provide measurements and morphological features because 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 (Niedbala 1998).

### *Austrotrititia 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  $162 \times 96$ , anoadanal plate  $353 \times 76$ . The specimen from Australia is smaller than the specimens from Thailand (Aoki 1965), Japan (Aoki 1980) and Samoa (Niedbala 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  $ag_1$ .

### *Acrotrititia 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*).

### *Acrotrititia 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  $114 \times 63$ , anoadanal plate  $124 \times 51$ . Australian specimens have slightly longer setae than those from New Zealand (Niedbala 2000).

### *Austrophthiracarus glennieensis* Niedbala, 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  $141 \times 96$ , anoadanal plate  $232 \times 116$ .

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* (Niedbala, 1987) (Figures 15A, B)

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

### *Notophthiracarus szepteycki* Niedbala, 2009 (Figures 15C-G)

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

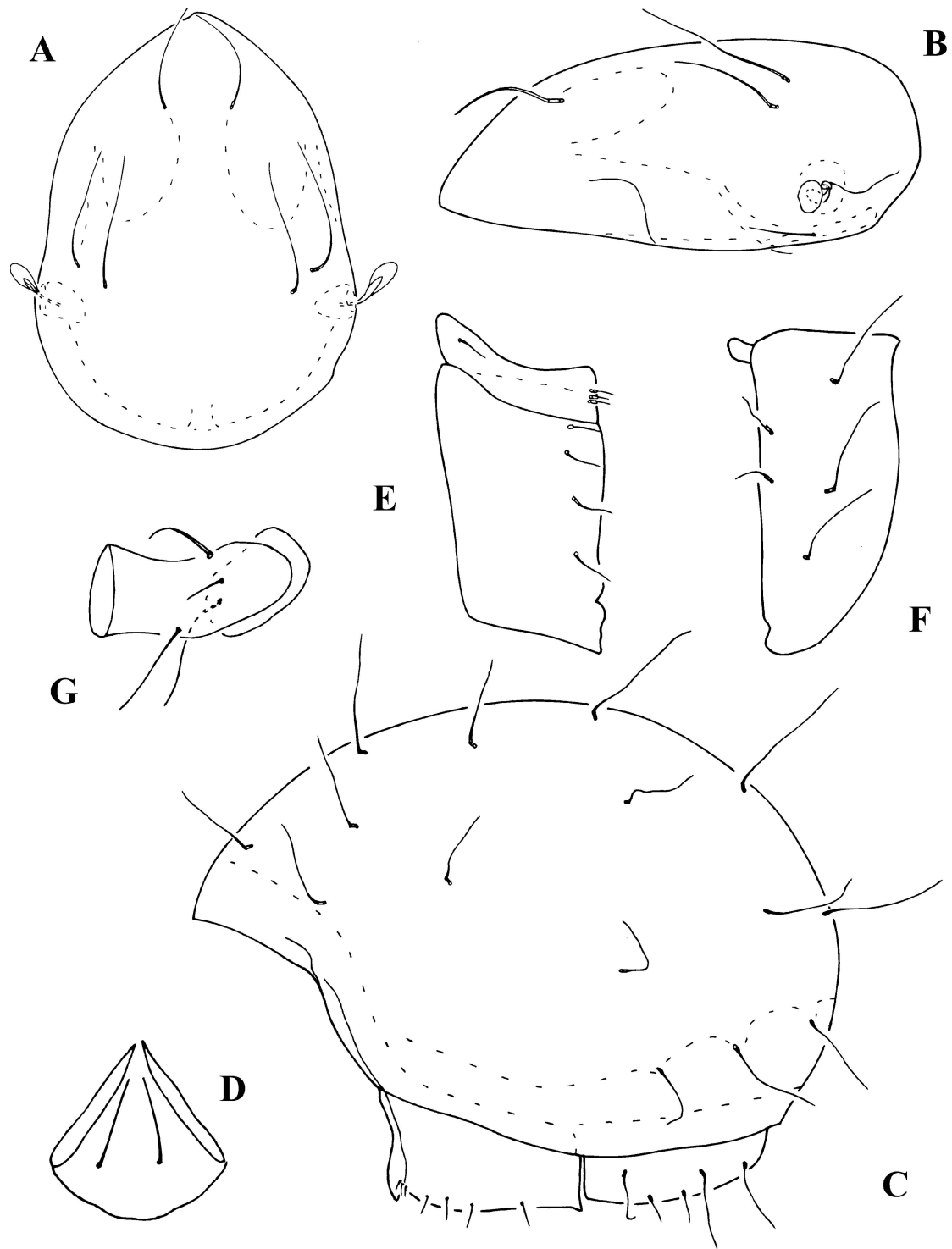


FIGURE 13: *Phthiracarus pellucidus* Ramsay, 1966 (specimen from CRO-009): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma, D – mentum of infracapitulum, E – genitoaggenital plate, F – anoadanal plate, G – trochanter and femur I.

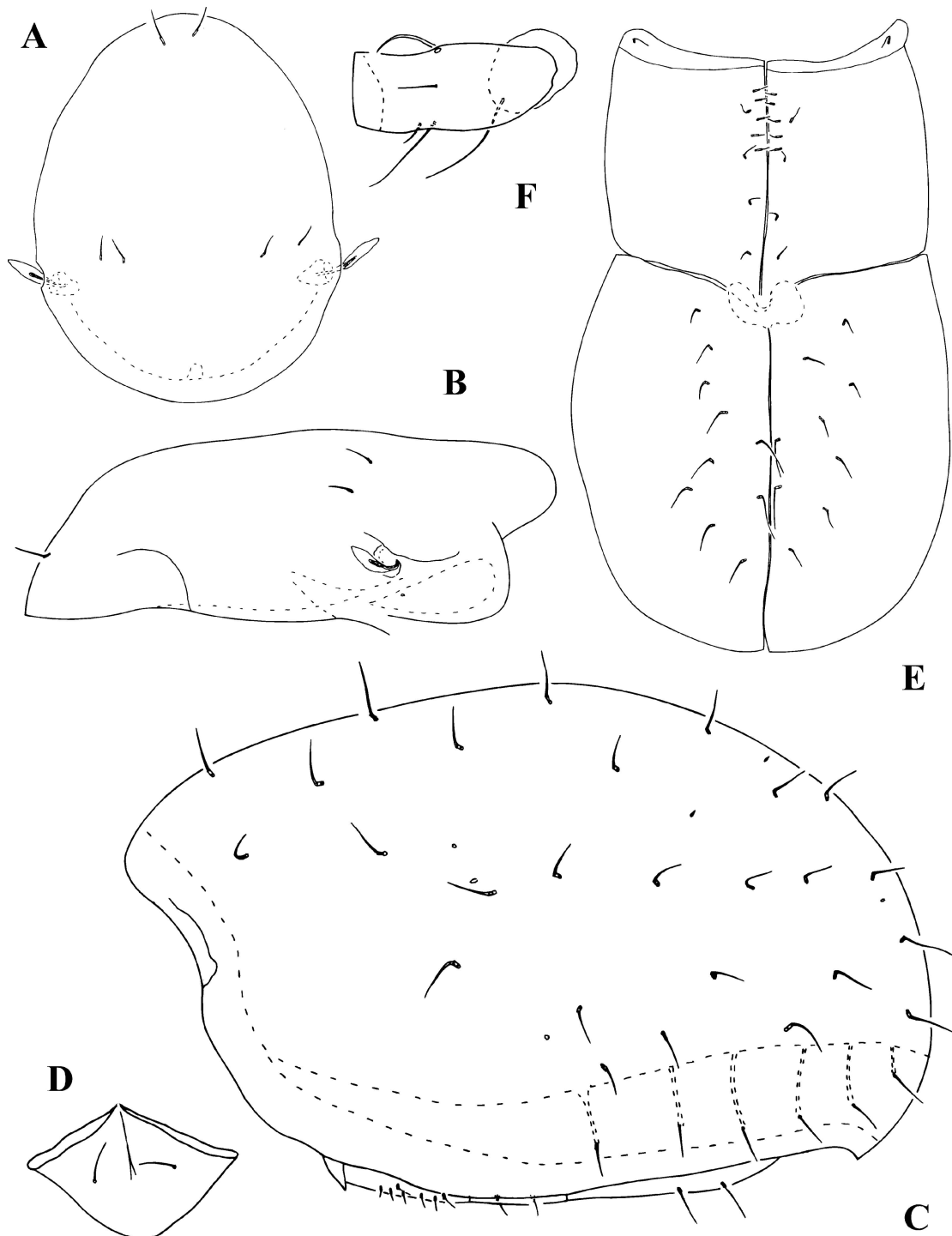


FIGURE 14: *Austrophthiracarus glenniensis* Niedbała, 2006 (specimen from ANIC-1494): A – prodorsum, dorsal view, B – prodorsum, lateral view, C – lateral view of opisthosoma, D – mentum of infracapitulum, E – genitoaggenital and ano-adanal plates, F – trochanter and femur I.



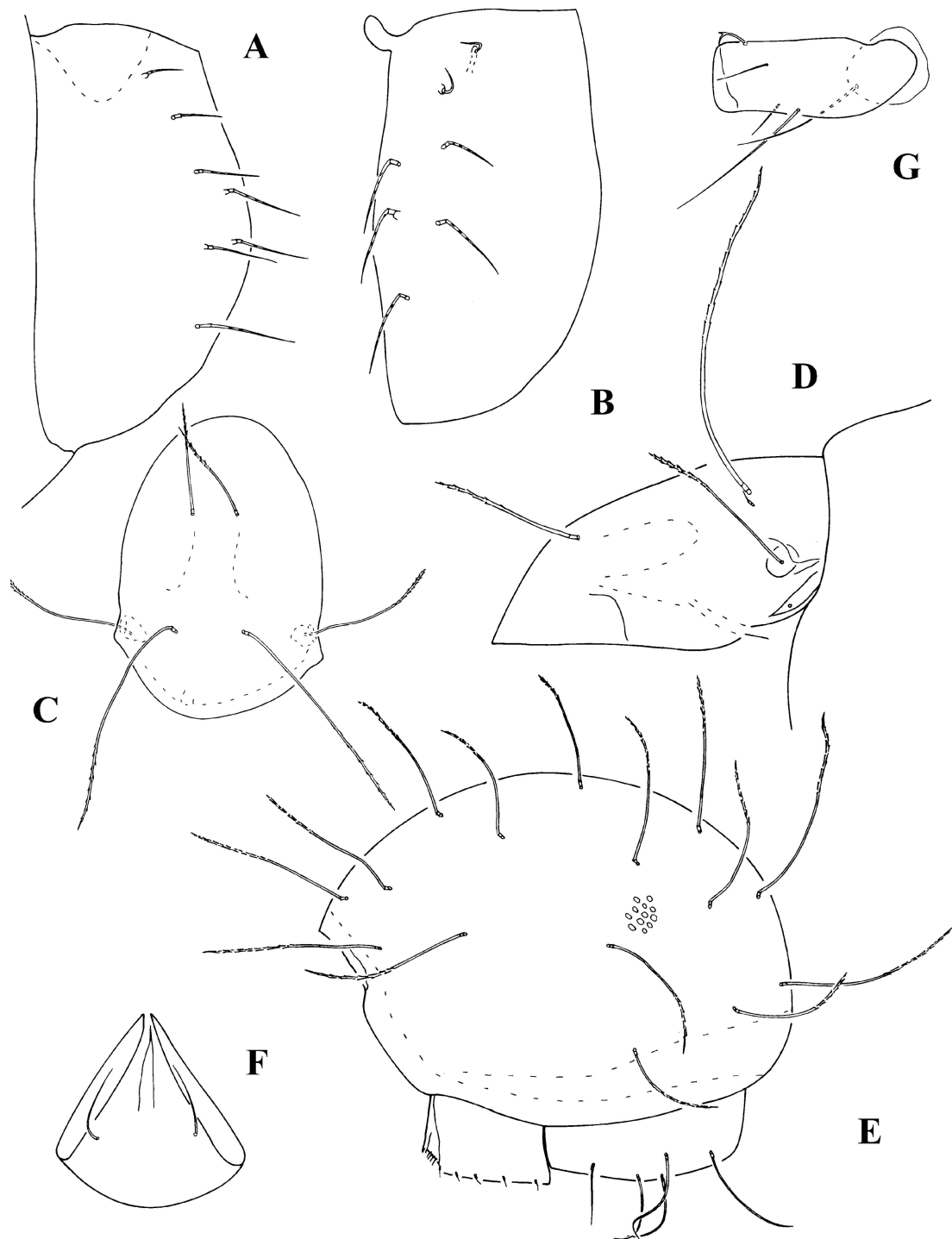


FIGURE 15: *Austrophthiracarus scopoli* (Niedbała, 1987) (specimen from ANIC-933): A – right anoadanal plate, B – left anoadanal plate; *Notophthiracarus szeptycki* Niedbała, 2009 (specimen from NBP-001): C – prodorsum, dorsal view, D – prodorsum, lateral view, E – lateral view of opisthosoma, F – mentum 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 Euphthiracaroida and 63 to Phthiracaroida. 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* Niedbala, 1993, *Oribotritia duplex* Niedbala, 2000, *Sabacarus corneri* Ramsay et Sheals, 1969, *Indotritia brevopilosa* Niedbala, 2000, *Indotritia brevisetosa* Niedbala, 2000, *Indotritia krakatauensis* (Sellnick, 1923), *Austrotritia bifurcata* Niedbala, 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* (Niedbala, 1998), *Acrotritia spiculifera* (Mahunka, 1991), *Acrotritia wallworki* (Lee, 1981), *Microtritia contraria* Niedbala, 1993, *Microtritia glabrata* Stary, 1993, *Microtritia tropica* Markel, 1964, *Phthiracarus anonymus* Grandjean, 1933, *Phthiracarus paucus* Niedbala, 1991, *Phthiracarus pygmaeus* Balogh, 1958, *Plonaphacarus forsslundi* Niedbala, 1987, *Plonaphacarus grandjeani* Niedbala, 1987, *Plonaphacarus kugohi* (Aoki, 1959), *Hoplophthiracarus montigenus* Niedbala, 1981, *Austrophthiracarus baloghi* Niedbala, 1987, *Austrophthiracarus dissonus* Niedbala

et Colloff, 1997, *Austrophthiracarus fusticulus* Niedbala, 2000, *Austrophthiracarus glennieensis* Niedbala, 2006, *Austrophthiracarus scopoli* (Niedbala, 1987), *Austrophthiracarus sellnicki* (Niedbala, 1987), *Austrophthiracarus willmanni* (Niedbala, 1987), *Notophthiracarus alienus* Niedbala, 1989, *Notophthiracarus capillatus* Niedbala, 1989, *Notophthiracarus consimilis* Niedbala et Colloff, 1997, *Notophthiracarus distinctus* Niedbala, 1989, *Notophthiracarus hammerae* Niedbala, 1987, *Notophthiracarus mahunkai* Niedbala, 1987, *Notophthiracarus shealsi* (Lee, 1980), *Notophthiracarus usitatus* Niedbala, 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* Niedbala, Corpuz-Raros et Gruezo, 2006, *Oribotritia paracorporaali* Niedbala et Penttinen, 2007, *Acrotritia bipartita* (Niedbala, 2000), *Acrotritia paradivida* Niedbala et Penttinen, 2007, *Acrotritia sterigma* (Niedbala, 1998), *Phthiracarus banksi* Niedbala, 1987, *Phthiracarus inaccessus* Niedbala, 1998, *Phthiracarus pellucidus* Ramsay, 1966, *Plonaphacarus berlessei* Niedbala, 1987, *Plonaphacarus feideri* Niedbala, 1987, *Hoplophthiracarus hulli* Niedbala, 1987, *Hoplophthiracarus mallacoolaensis* Niedbala, 2006, *Austrophthiracarus lamingtoni* Niedbala, 2000, *Austrophthiracarus parafusticulus* Niedbala, 2005, *Austrophthiracarus parapulchellus* Niedbala, 2006, *Austrophthiracarus perti* (Niedbala, 1987), *Notophthiracarus bonangensis* Niedbala, 2006, *Notophthiracarus caliginosus* Niedbala, 1989, *Notophthiracarus flagrus* Niedbala, 2000, *Notophthiracarus hammeni* Niedbala, 1987, *Notophthiracarus modicus* Niedbala 2000, *Notophthiracarus ramsai* Niedbala, 1987, *Notophthiracarus ravidus* Niedbala, 2006, *Notophthiracarus repostus* Niedbala, 1989.

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

are two genera of Phthiracaroidae: *Notophthiracarus* – 79 species and *Austrophthiracarus* – 39 species. From the Euphthiracaroidae 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 the 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.

#### ACKNOWLEDGEMENTS

I am very grateful to all those who have collected the samples from which the species presented in this work were selected and identified. My special

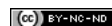
thanks are due to Drs B. Halliday (ANIC), J. Błoszyk and S. Konwerski (NHC) for collecting and lending the material examined and used in this work. All material has been collected under appropriate collection permits and approved ethics guidelines.

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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  
*Apopophora 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  
*Apopophora 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  
*Apopophora 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 Northeast of Mt. Webb, 15°03'S 143°09'E, sieved rainforest litter, 1-3 Oct. 1980, coll. T.A. Weir  
*Austrotritia bifurcata* (1), *Acrotritia comteae* (33), *Plonaphacarus kugohi* (1)
- ANIC-691, 3 km Northeast 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 Northeast 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 Northeast 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 Northeast 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 Northeast of Mt Tozer, 12°43'S 143°17'E, rainforest litter, 5-10 June 1986, leg T.A. Weir  
*Austrotritia bifurcata* (45), *Acrotritia comteae* (15), *Acrotritia spiculifera* (1), *Plonaphacarus kugohi* (2)
- ANIC-1058, 9 km Northeast 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), *Arphthacarus 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 brevopilosa* (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 Southeast 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 Southeast 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 Southeast 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 Northeast 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 brevopilosa* (2), *Acrotritia curticephala* (2), *Plonaphacarus forsslundi* (1), *Notophthiracarus ravidus* (3), *Atropacarus* (*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 brevopilosa* (11), *Acrotritia wallworki* (35), *Microtritia tropica* (4), *Phthiracarus paucus* (5), *Notophthiracarus ravidus* (1), *Notophthiracarus shealsi* (30)

ANIC-1121, 15 km Northwest of Bald Hill, McIlwraith 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 brevopilosa* (5), *Acrotritia refracta* (4), *Acrotritia spiculifera* (9), *Acrotritia wallworki* (16), *Microtritia contraria* (2), *Phthiracarus inaccessus* (1), *Phthiracarus paucus* (3), *Plonaphacarus vicinus* **n. sp.** (1), *Austrophthiracarus fusticulus* (1), *Arphthiracarus 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 brevopilosa* (3), *Microtritia cristata* (19), *Austrophthiracarus glenniensis* (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 brevopilosa* (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, Cooloolo NP, Poona Lake, 25°57'S 153°06'E, sieved rain forest litter, 18 Apr. 1982, coll. A. Calder

*Oribotritia duplex* (8), *Indotritia brevopilosa* (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 brevopilosa* (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 brevopilosa* (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 brevopilosa* (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 glenniensis* (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 brevopilosa* (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 brevopilosa* (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 brevopilosa* (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 brevopilosa* (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 brevopilosa* (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 brevopilosa* (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 brevopilosa* (6), *Acrotritia comteae* (2), *Microtritia tropica* (1), *Austrophthiracarus dissonus* (2), *Austrophthiracarus glenniensis* (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 brevopilosa* (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 brevopilosa* (20), *Acrotrititia 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 brevopilosa* (10), *Acrotrititia comteae* (14), *Microtrititia 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 brevopilosa* (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 brevopilosa* (11), *Acrotrititia 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 brevopilosa* (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 brevopilosa* (15), *Microtrititia 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 brevopilosa* (11), *Microtrititia glabrata* (2), *Hoplophthiracarus 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 brevopilosa* (54), *Acrotrititia 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 brevopilosa* (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 brevopilosa* (45), *Acrotrititia comteae* (2), *Acrotrititia spiculifera* (20), *Microtrititia 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), *Acrotrititia bipartita* (1), *Acrotrititia spiculifera* (29), *Microtrititia 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 brevopilosa* (4), *Acrotrititia bipartita* (1), *Acrotrititia 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 sclerophyll subst. rainforest litter, 23 May 1993, coll. D.S. Chandler

*Oribotritia duplex* (2), *Indotritia brevopilosa* (7), *Acrotrititia 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 sclerophyll rotten log litter, 23 May 1993, coll. D.S.Chandler

*Oribotritia contraria* (6), *Indotritia brevopilosa* (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 sclerophyll *Eucalyptus grandis* litter, 19 Jan. 1993, coll. D.S. Chandler

*Oribotritia contraria* (10), *Oribotritia lepteces* (8), *Acrotritia spiculifera* (22), *Plonaphacarus trojani* (1), *Hoplophiracarus malla-coolaensis* (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 brevopilosa* (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, Beauray 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, Beauray 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 berlesii* (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

*Austrotititia 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), *Acrotrititia comteae* (9), *Microtrititia 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), *Indotrititia brevopilosa* (1), *Microtrititia 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  
*Acrotrititia 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), *Acrotrititia 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  
*Apoplophora paraserrata* **n. sp.** (7), *Acrotrititia curticephala* (10), *Microtrititia 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), *Microtrititia 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), *Indotrititia brevopilosa* (2), *Acrotrititia curticephala* (4), *Microtrititia cristata* **n. sp.** (3), *Microtrititia 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), *Acrotrititia curticephala* (3), *Microtrititia cristata* **n. sp.** (1), *Microtrititia 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), *Acrotrititia bipartita* (1), *Acrotrititia 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), *Acrotrititia 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), *Acrotrititia 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), *Acrotrititia 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  
*Microtrititia tropica* (ca 130), *Acrotrititia 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 leaves 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 brevopilosa* (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 material, 16 July 2007, coll. J. Błoszyk and S. Konwerski  
*Phthiracarus paucus* (1), *Notophthiracarus consimilis* (1)

Niedbała W.

MTB-026, Mount Buffalo NP, 617 m asl, 36°41'565"S 146°51'137"E, border of park, car park near stream, 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)