

Research articleSubmitted: March 24th, 2016 - Accepted: May 20th, 2017 - Published: June 30th, 2017**New data on the Australasian Xantholinini. 9th. New genus, new species, and new records from Australia, New Caledonia and New Zealand (Coleoptera: Staphylinidae)**[259th contribution to the knowledge of the Staphylinidae]

Arnaldo BORDONI

Museo di Storia Naturale dell'Università di Firenze, sezione di Zoologia "La Specola" - Via Romana 17, I-50125 Firenze, Italy
arnaldo.bordoni@fastwebnet.it**Abstract**

One genus and four species of Xantholinini are described as new: *Kamilaroius serpens* gen. n., sp. n. and *Andelis australis* sp. n. from Australia; *Zeteotomus caledonicus* sp. n. from New Caledonia, and *Wangareiella suborbata* sp. n. from New Zealand. The male genitalia of *Australinus megacephalus* (Lea) are figured for the first time. New records of other species of Xantholinini from the Australasian region are listed.

Key words: New genus, new species, new records, Australia, New Caledonia, New Zealand, *Wangareiella*, *Zeteotomus*, *Andelis*, *Kamilaroius*, *Australinus*.

urn:lsid:zoobank.org:pub:5A046632-1248-4EDF-84F9-B3E7C0DB84E6

Introduction

This contribution derives from the recent examination of material of Staphylinidae Xantholinini from the Australasian Region. Despite the recent revisions of the Xantholinini of Australia (Bordoni 2005a), New Zealand (Bordoni 2005b), New Guinea (Bordoni 2010), and the Pacific Islands (Bordoni 2013), the current knowledge on the staphylinids of this vast area is still unsatisfactory. The discovery of a new Australian genus with a really unusual aedeagus, and that of a remarkable sub-anophthalmous species from New Zealand, are therefore not surprising. I also describe two new species from New Caledonia and Australia, and provide new distributional data.

Collection Acronyms

- ANIC** Australian National Insect Collection, Canberra, Australia
cB A. Bordoni collection, Florence, Italy
cN J. Nunn collection, Dunedin, New Zealand
cT S. Thorpe collection, Auckland, New Zealand
FMNH Field Museum of Chicago, Chicago, USA
MMUE Manchester Museum, Manchester, UK
MNHN Muséum National d'Histoire naturelle, Paris, France
MZUF Museo Zoologico "La Specola", Florence, Italy

NMW Naturhistorisches Museum Wien, Vienna, Austria

QM Queensland Museum, Brisbane, Australia

Taxonomy

Whangareiella fulvipes (Broun, 1880)

Examined material. New Zealand: BP, Bay of Plenty, Te Puke, J. Todd lgt, Mar-Apr 2008, 1 ex. (cT), 1 ex. (cB); SL, Princhester Base Hut, Takitimu For., J. Nunn lgt, 14 Jan 2000, 1 ex. (cB)

Distribution. New Zealand (Bordoni 2005a, 2010a). New record for Bay of Plenty.

Whangareiella suborbata sp. n.

urn:lsid:zoobank.org:act:38B179B0-E12F-478C-88A9-F230D03072BE

Examined material. Holotype ♂: "New Zealand" (see Note), Helms, Reitter (NMW).

Diagnosis. A new species of the genus *Wangareiella* Bordoni, 2005, endemic to New Zealand and previously considered monotypic [*W. fulvipes* (Broun, 1880)]. The new species differs for the following characters: body very flat

and longer, eyes almost obsolete, neck very narrow, elytra shorter, and very different shape of the aedeagus.

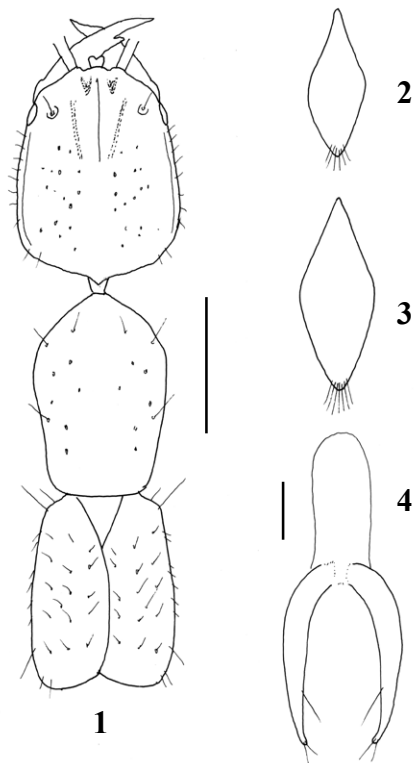
Description. Body length 4.6 mm; length from anterior margin of head to posterior margin of elytra 2.2 mm. Body of characteristic shape (Fig. 1), orange yellowish, very flat. Head elongate, dilated posteriorly; neck very narrow. Pronotum shorter and a little narrower than head, with irregular punctuation, arranged in dorsal and lateral series. Elytra short, narrow, with rounded humeral angles. Surface with three series of fine punctures, arranged in one justasutural, one median and one lateral. Head and pronotum with polygonal, fine micro-reticulation. Elytra wrinkled. Abdomen with fine and dense, transverse micro-striation and fine, sparse punctuation.

Tergite and sternite of the male genital segment as in Figs 2–3. Aedeagus (Fig. 4) very small, 0.35 mm long, diaphanous, with long parameres, provided with some setae; inner sac apparently not visible.

Etymology. The specific epithet refers to the Latin *suborbatus*, *a*, *um* (= almost anophthalmous).

Distribution. New Zealand, probably Greymouth area (see Notes).

Notes. The holotype, very old, bears the label “*Pachycory-*



Figs 1–4 – *Whangareiella suborbata* sp. n.: **1**, fore body (bar scale: 0.5 mm); **2**, tergite and **3**, sternite of the male genital segment; **4**, aedeagus (scale bar: 0.5 mm).

nus pseudocoevus Fvl.” (inlitt.), ”c. Epplsh. Steind. d.” R. Helms collected in Greymouth, South Island, Buller region, BR (S. Thorpe, pers. comm. 2015), so it is likely that this is the type locality of the species.

***Zeteotomus caledonicus* sp. n.**

urn:lsid:zoobank.org:act:53EBE647-9DD5-410F-A19E-5034490AF651

Examined material. Holotype ♀: **New Caledonia:** Col d’Amieu, 400 m, 21°35’S, 165°48’E, *Pyrethrum*, trees and logs, G. Montheith lgt, 25 Nov 2003 (MNH).

Diagnosis. A new species of *Zeteotomus*, markedly different from all previously known congeners by the peculiar shape of the body and head.

Description. Body length 3.5 mm; length from anterior margin of head to posterior margin of elytra 2.2 mm. Body small, slender and shiny, characterized by the very long and narrow head (Fig. 5); yellow with elytra largely infuscate, 3rd and 5th abdominal segments light brown. Head very long and narrow, sub-rectangular, with sub-rectilinear and sub-parallel sides, and strictly rounded posterior angles. Eyes proportionally large, slightly protruding. Surface of head with few, sparse micro-punctures. Pronotum shorter and a little narrower than head, with very rounded anterior angles. Surface with sparse micro-punctuation and 3–4 irregular punctures, similar to a dorsal series. Elytra long, considerably longer and slightly wider than pronotum, with 2 series of very fine punctures. Abdomen with fine and sparse punctuation.

Male unknown.

Etymology. The specific epithet refers to New Caledonia.

Distribution. The species is known from the type locality only, in New Caledonia.

Notes. This new species differs from the known *Zeteotomus* of the Polynesian sub-region by its size, shape of head, punctuation and coloration. In a previous contribution (Bordoni 2014), this species was cited as “*Zeteotomus* unnamed species”. Although the description of a new taxon of Xantholinini based on a single female specimen is usually not advisable, following the above-cited recent revisions of Xantholinini from New Zealand, Australia, New Guinea and the Pacific Islands (see Introduction), it is now possible to describe this new species, easily and univocally characterized by its peculiarly narrow and long body shape.

***Pseudocorynus mediocris* (Broun, 1880)**

Examined material. **New Zealand:** NT, Rumbaba, unknown collector, 28 Jan 1977, 1 ex. (MMUE); Kaimanga, unknown collector, 14 Feb 1880, 1 ex. (MMUE); Coromandel, unknown collector, Sep 1978, 1 ex. (cB).

Distribution. New Zealand (Bordoni 2005a, 2010a).

Neoxhantolinus brouni (Sharp, 1876)

Examined material. New Zealand, Whangarei, unknown collector, 1879, 1 ex. (MZUF).

Distribution. Kermadec Islands, New Zealand (Bordoni 2005a).

Note. In an old collection of MZUF, as gift of Broun.

Australinus megacephalus (Lea, 1925)

Type material. The FMNH preserves two specimens, 1 male and 1 female, labeled “*Leptacinus/ megacephalus/ Lea Co-type/ Lord Howe*”, “*Cotypus Lea/ don.Lea*” (on violet label), “Chicago NHMus”.

Description. The male is identical to the female described in Bordoni (2005). Tergite and sternite of the male genital segment as in Figs 6–7. Aedeagus (Fig. 8) very small, 0.26 mm long, of unusual shape.

Notes. Bordoni (2005) studied 4 syntypes from Australia, Lord Howe Isl. (ANIC), and designated a lectotype. These four type specimens are females, so the male was previously unknown.

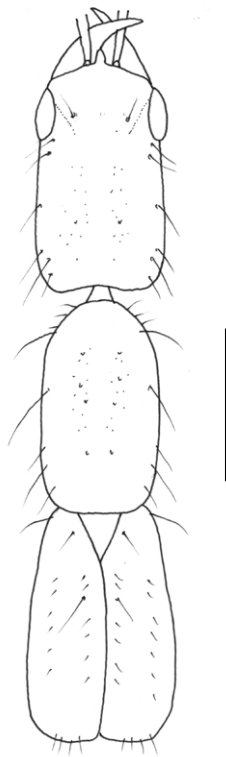


Fig. 5 – *Zeteotomus caledonicus* sp. n.: fore body (scale bar: 0.5 mm).

Distribution. Lord Howe Isand (Bordoni 2005).

Thyrecephalus rufitarsis (Fauvel, 1877)

Examined material. Australia: NQ, Itot Springs, I. Grant lgt, 9 Mar 1947, 1 ex. (MZUF).

Distribution. Australia (Bordoni 2005).

Thyrecephalus albertisi (Fauvel, 1877)

Examined material. Australia: QLD, Edungalba, G. Hangay 8 Jan 1968, 1 ex. (MZUF).

Distribution. From Philippines to New Guinea, Hawaii (introduced), Australia: NT, QLD (Bordoni 2005).

Thyrecephalus orthodoxus (Olliff, 1887)

Examined material. New Zealand: Ohope, E.W. Aubrooklgt, 11–19 Feb 1988, 5 exx. (MMUE); Matata, E.W. Aubrooklgt, 18 Oct 1987, 1 ex. (cB); Whakatane, E.W. Aubrooklgt, 9 Jan 1988, 2 exx. (MMUE); Makurua Gorge, E.W. Aubrooklgt, 18 Feb 1990, 1 ex. (MMUE); Ohiwarharbour, E.W. Aubrooklgt, 30 Mar 1990, 1 ex. (MM); Kawerau, Ohiwa, E.W. Aubrooklgt, 27–28 Oct 1974, 1 ex. (cB); Bay of Plenty, L. Kawerau, E.W. Aubrooklgt, 10–25 Oct 1974, 2 exx. (MMUE), 1 ex. (cB).

Distribution. Australia, New Zealand (North Island) (Bordoni 2005a, 2010a).

Thyrecephalus arnhemensis Bordoni, 2005

Examined material. Australia: NT, Victoria river, Road house, unknown collector, 9 Oct 2012, 1 ex. (cN); QLD, Ravenshoe, Archer river, unknown collector, 4 Sep 2012, 1 ex. (cN), 1 ex. (cB).

Distribution. Australia (NT: Arnhem Land; North WA; North QLD: Bordoni 2005).

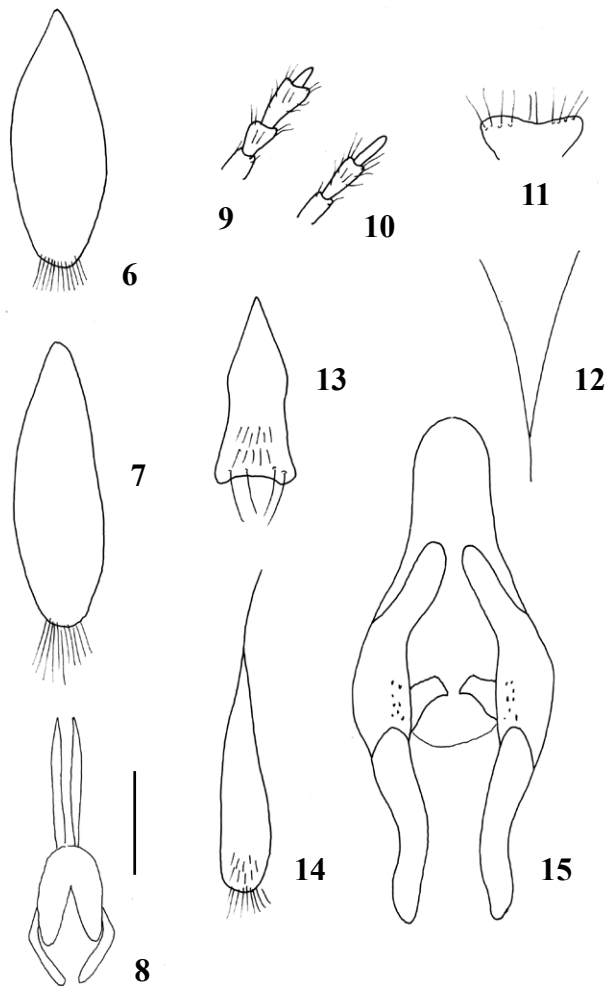
Kamilaroius gen. n.

urn:lsid:zoobank.org:act:A6058C9A-EB14-43C0-AB26-7BC7F3BF65EC

Type species: *Kamilaroius serpens* sp. n.

Diagnosis. A new genus similar in overall appearance to *Gyrohyppus* Leach, 1819 from the Palaearctic, Oriental, Afrotropical and Nearctic (1 species) Regions, but different in the flat body, shape of the head, structure of the upper epipleural line of the pronotum (observed laterally), visible only in its posterior portion and not joining the lower line, for the single ctenidium of metatibia, and the peculiar shape of the aedeagus.

Description. Body (Fig. 20) flat, small. The genus is characterized by the following combination of characters: 2nd



Figs 6-15 – *Australinus megacephalus* (Lea): **6**, tergite and **7**, sternite of the male genital segment; **8**, aedeagus (bar scale: 0.1 mm). *Kamilaroius serpens* sp. n.: **9**, maxillary palpus; **10**, labial palpus; **11**, labrum; **12**, gular sutures; **13**, tergite and **14**, sternite of the male genital segment; **15**, aedeagus (scale bar: 0.1 mm).

antennomere longer than 3rd, 3rd segment of maxillary palp longer than 2nd and last segment very small, short and evidently narrower than 3rd (Fig. 9); labial palpi with elongated segments, the last shorter than the second (Fig. 10); labrum slightly emarginated in the middle (Fig. 11); mandibles with lateral groove; gular sutures V-shaped for almost their entire length (Fig. 12); ocular grooves obsolete; frontal grooves very superficial; antesternal plate divided; posterior margin of sternum a little protruding; structure of upper epipleural line of pronotum (observed laterally) visible only in its posterior portion and not joining lower line; anterior tarsi not dilated; one metatibial ctenidium. Aedeagus very peculiarly shaped (Fig. 15).

Etymology. The generic name refers to the Aboriginal name of the area of Narrabri.

Note. The presence or absence of upper epipleural line

of the pronotum (observed laterally) is a key character in Xantholinini. Among the Australian Xantholinini just the genus *Neoxantholinus* Cameron, 1944 has upper epipleural line visible only in its posterior part. However, this genus, according to other mentioned characters, is very different from the genus *Kamilaroius*, which is quite distinct.

***Kamilaroius serpens* sp. n.**

urn:lsid:zoobank.org:act:F070ABB1-326B-49CC-B8C0-FFC4549BE466

Examined material. Holotype ♂: **Australia:** NSW, Narrabri Racecourse, unknown collector, 30 Sep 2012, on lawn (QM).

Description. Length of body 4.6 mm; from anterior margin of head to posterior margin of elytra: 2.6 mm. Head black, pronotum and abdomen dark reddish-brown, elytra brown with yellowish, pale posterior half. Body shiny, flat, slender and narrow. Head with fine, sparse punctuation. Eyes small and slightly protruding, with largely rounded posterior angles and sub-rectilinear sides. Pronotum longer and a little narrower than head, with markedly sinuate sides. Surface with dorsal series of 9–10 punctures and lateral series of 3–4 punctures. Elytra long, longer and wider than pronotum, with rounded humeral angles. Surface with fine and sparse punctuation, arranged in few series. Abdomen with fine and sparse punctuation at sides.

Tergite and sternite of the male genital segment as in Figs 13–14. Aedeagus (Fig. 15) (lost in laboratory after the description) very small, 0.20 mm long, membranous and transparent, of very particular shape.

Etymology. The specific epithet refers to aboriginal “nhurraaybaraay” (Narrabri), probably for “snake place”, from the Latin adjective (ex Cicerone) *serpens-entis* (winding).

Distribution. The species is known from the type locality only.

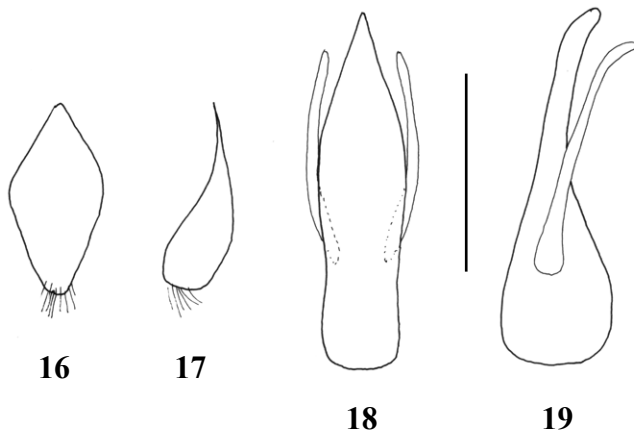
***Gyrphypnus fracticornis* (Müller, 1776)**

Examined material. **New Zealand:** Wairarapa, unknown collector, Mar 1984, 3 exx. (MMUE).

Distribution. Palaearctic species (Müller 1776), introduced by human activities in North America, Chile, Australia and New Zealand (Bordoni 2005, 2005a).

***Bruxneria lamingtoniana* Bordoni, 2012**

Examined material. **Australia:** NSW, Dorrigo Nat. Park, Lyre Bird Walk, unknown collector, 4 Oct 2012, 1 ex. (cN); NSW, Border Ranges Nat. Park, Brindleck Walk, unknown collector, 3 Nov 2012, 2 exx. (cN), 1 ex. (cB); QLD, Binna Bunna, Tallavallal Tck, unknown collector, 1 Nov 2012, 1 ex. (cN).



Figs 16-19 – *Andelis australis* sp. n.: **16**, tergite and **17**, sternite of the male genital segment; **18-19**, aedeagus in dorsal and lateral view (scale bar: 0.1 mm).

Distribution. Australia (QLD, NSW) (Bordoni 2012).

Note. The holotype of this species is now preserved in QM. Habitus, male genital segment and aedeagus as in Figs 21–22.

Linosomus socius (Fauvel, 1877)

Examined material. New Zealand: Bay of Plenty, E.W. Aubrooklgt, Sep 1974, 1 ex. (MMUE); Wellington, H. Last lgt, 30 Jan 1977, 1 ex. (MMUE). **Australia:** SA, Stirling, “Woorabinda”, Stirling Linear Park, Mt Lofty Ranges, N. Stevens lgt, 1 Dec 2000–3 Jan 2001, 1 ex. (MMUE); SA, Adelaide Hills, Crawford Fst Mt., unknown collector, 27 Jun 2012, 3 exx. (cN),

Distribution. South Africa, St. Helena, Chile, Australia, New Zealand (Bordoni 2005a, 2010a).

Phacophallus japonicus (Cameron, 1933)

Examined material. Australia: Narrabeen, NSW, G. Hangay lgt, 27 Jun 1985, 1 ♂ (MZUF), 1 ♂ (cB).

Distribution. Oriental Region, South China. Anthropophilic species imported with human activities into Australia, Europe and North America (Bordoni 2002, 2005).

Paracorynus arecae (Broun, 1880)

Examined material. New Zealand: Whangarei, unknown collector, 1879, 1 ex. (MZUF); NZ, Teraherina Kau, unknown collector, Dec 1979, 1 ex. (MMUE).

Distribution. New Zealand (Bordoni 2005a).

Note. In an old collection of MZUF, as gift of Broun.

Pseudoxantholinus sharpi (Broun, 1880)

Examined material. New Zealand: Whangarei, unknown collector, 1879, 1 ex. (MZUF)

Distribution. New Zealand: North Island (Bordoni 2005, 2010a).

Note. In an old collection of MZUF, as gift of Broun.

Pseudocorynus cultus (Broun, 1880)

Examined material. New Zealand: Awakeri Réserve, E.W. Aubrook lgt, 28 Nov 1987, 1 ex. (MMUE), 1 ex. (cB); Bay of Plenty, Okataina, E.W. Aubrook lgt, 25 Mar 1983, 1 ex. (MMUE); Patura Taki, Forsk lgt, 12 Nov 1997, 1 ex. (MMUE).

Distribution. New Zealand (Bordoni 2005a).

Otagonia nunni Bordoni, 2010a

Examined material. New Zealand: North Island, Wairarapa, unknown collector, 30 Jan 1983, 1 ex. (MMUE).

Distribution. New Zealand, North Island (Bordoni 2010a).

Note. This species was described from some localities of the Wellington and Wairarapa provinces. This is the first record since the description of the species.

Enervia sp.

Examined material. Australia: Tasmania, Lake Leake, unknown collector, 31 Jan 2010, 2 exx. (cN), 1 ex. (cB).

Note. The above-cited specimens (two females) differ from the thus far known taxa of the genus *Enervia* Bordoni, 2005, and are probably to be referred to a new, undescribed species; first records of the genus in Tasmania.

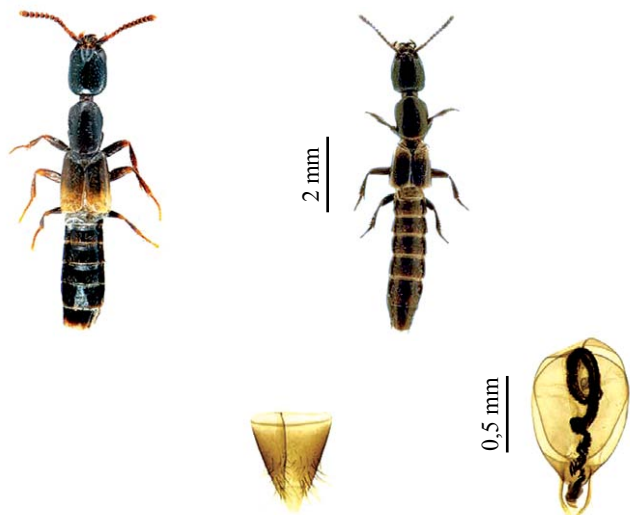
Andelis australis sp. n.

urn:lsid:zoobank.org:act:6306E33E-C155-4FD3-BA9B-38BBE496D924

Examined material. Holotype ♂: **Australia:** QLD, Atherton, Curtain Fig N.P., unknown collector, 12 Aug 2011 (QM); **paratype:** same data, 1 ♀ (cB).

Diagnosis. A very small species of the genus *Andelis* Bordoni, 2002, the first known from Australia (the only related species occur in Papua New Guinea and Solomon Islands). From these taxa the new species differs for the size of the body, sparser punctuation, and peculiar shape of the aedeagus.

Description. Length of body 2.7 mm; from anterior margin of head to posterior margin of elytra: 1.3 mm. Reddish-brown with darker head; elytra brown. Head sub-rectangu-



Figs 20-22 – Habitus of: **20**, *Kamilaroius serpens* sp. n.; **21**, *Bruxneria lamingtoniana* Bordonii, with **22**, male genital segment and aedeagus of the same (photo by S. Cuoco).

lar, with sub-rectilinear and sub-parallel sides and strictly rounded posterior angles. Eyes proportionally large, protruding. Pronotum longer than head, dilated anteriorly and here as wide as head, with very oblique anterior margins and largely rounded anterior angles. Surface with some punctures, not particularly dense, apart from a wide median band without punctures. Elytra long, sub-rectangular, a little dilated posteriorly, longer and wider than pronotum, with rounded humeral angles. Whole body with evident punctuation and yellowish pubescence.

Tergite and sternite of the male genital segment as in Figs 16–17. Aedeagus (Figs 18–19) very small, 1.18 mm long, diaphanous, short, with long, very narrow parameres; inner sac apparently not visible.

Etymology. The specific epithet refers to Australia.

Distribution. The species is known from the type locality only.

Notes. The genus *Andelis* is characteristic of the tropical areas of the Oriental Region (Malaysia, Philippines, Sunda Islands). Only two isolated species were previously known from the Australasian Region: *A. punctatus* Bordonii, 2014 from Papua New Guinea and *A. minutulus* Bordonii, 2010 from the Solomon Islands. *Andelis australis* markedly differs from both these species for the shape of the body and aedeagus. This is the first species of this genus collected in Australia. It is among the smallest species of the genus, similar in length to *A. pallidus* Bordonii, 2002 from Java (2.8 mm long).

Acknowledgements – I wish to thank the following colleagues

for sending me material allowing me to prepare this contribution: L. Bartolozzi (MZUF), D. Logunov (MMUE), G. Monteith (QM), J. Nunn (Dunedin), H. Schillhammer (NMW), S. Thorpe (Auckland). Special thanks to the friend S. Cuoco (Livorno) for the color pictures. An anonymous referee also contributed to improve the quality of the article.

References

- Bordoni A. 2002. Xantholinini della Regione Orientale (Coleoptera: Staphylinidae). Classificazione, filogenesi e revisione tassonomica. Monografie del Museo Regionale di Scienze Naturali, Torino, 33: 1–998.
- Bordoni A. 2005a. Revision of the Xantholinini of Australia (Coleoptera: Staphylinidae). Monografie del Museo Regionale di Scienze Naturali, Torino, 42: 435–614.
- Bordoni A. 2005b. Revisione degli Xantholinini della Nuova Zelanda (Coleoptera, Staphylinidae). Bollettino del Museo Regionale di Scienze Naturali, Torino, 22: 329–442.
- Bordoni A. 2010. Revisione degli Xantholinini della Nuova Guinea e delle isole austromalesi (Coleoptera: Staphylinidae). Bollettino del Museo Regionale di Scienze Naturali, Torino, 27: 253–635.
- Bordoni A. 2010a. Xantholinini of the Australasian Region (Coleoptera, Staphylinidae). III. Description of *Otagonia nunni* n. sp. and new records from New Zealand. New Zealand Entomologist, 33: 114–117.
- Bordoni A. 2012. Xantholinini of the Australasian region. IV. A new genus from Australia and new records (Coleoptera: Staphylinidae). Fragmenta entomologica, 44: 71–78.
- Bordoni A. 2013. Revisione degli Xantholinini della sottoregione polinesiana (Coleoptera, Staphylinidae). Memorie della Società entomologica italiana, 90: 1–58.
- Bordoni A. 2014. Xantholinini of the Australian region (Coleoptera: Staphylinidae), VI. Species from New Guinea of the last collection in the Manchester Museum. New genus, new species and new records: 135–143. In: Telnov D. (ed.). Biodiversity, Biogeography and Nature Conservation in Wallacea and New Guinea. Volume II. The Entomological Society of Latvia, Riga: 458 pp., 126 pls.
- Bordoni A. 2014a. New data on the Australasian Xantholinini (Coleoptera: Staphylinidae), 7. New Caledonian species in the Queensland Museum. Australian Entomologist, 41: 147–151.
- Broun T. 1880. Manual of the New Zealand Coleoptera. Part I. Hughes, Wellington, 651 pp.
- Cameron M. 1933. New species of Staphylinidae (Col.) from Japan. The Entomologist's Monthly Magazine, 69: 168–175.
- Fauvel A. 1877. Les Staphylinides de l'Australie et de la Polynésie. Annali del Museo civico di Storia naturale di Genova, 10: 168–297.
- Lea A.M. 1927. Descriptions of new Staphylinidae from Fiji. Records of the South Australian Museum, 3: 273–278.
- Müller O.F. 1776. Zoologie Danicae Prodromus, seu Animalium Danicae et Norvegiae indigenarum characteres, nomina et synonyma imprimis popularium. Hafniae, Hallageris ed., xxxii + 282 pp.
- Olliff A.S. 1887. A revision of the Staphylinidae of Australia. Part III. Proceeding of the Linnean Society of New South Wales, 2 ser., 2: 471–512.
- Sharp D. 1876. Description of some new genera and species of New Zealand, Coleoptera. The Entomologist's Monthly Magazine, 13: 20–28.