

A new genus of myrmecophilous Chernetidae from southern Australia (Pseudoscorpionida)

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Abstract

A new genus, *Marachernes*, with three new species, *M. bellus* (type species), *M. simulans* and *M. perup*, is described from southern Australia. The relationship of the genus to two other myrmecophiles, *Myrmochernes* Tullgren and *Xenochernes* Feio, is discussed, and the possible gondwanan origin for the group is highlighted.

Introduction

Myrmecophilous pseudoscorpions are not particularly well represented in Australian museum collections, despite the large and diverse ant fauna of the continent (Taylor and Brown 1985). Therefore, the discovery of an undescribed chernetid species from south-eastern Australia which is clearly associated with ants is of special interest. This species is described below, along with two congeneric species from south-eastern and south-western Australia, and all are assigned to a new genus that appears to be related to *Myrmochernes* Tullgren from South Africa and *Xenochernes* Feio from South America.

Materials and Methods

Specimens are lodged in the following institutions: Muséum d'Histoire Naturelle, Genève (MHNG), Museum of Victoria, Melbourne (MVM), Queensland Museum, Brisbane (QM), Queen Victoria Museum, Launceston (QVM), Tasmanian Museum and Art Gallery, Hobart (TM), and Western Australian Museum, Perth (WAM). Some specimens were fully dissected, cleared and mounted on microscope slides in Euparal. One male of *Marachernes bellus* was dehydrated, mounted and gold-coated for examination in a JEOL JSM-35C Scanning Microscope. Measurements and terminology basically follow Chamberlin (1931); the terminology of the appendages and trichobothria follows Harvey (1993).

Systematics

Marachernes gen. nov.

Type species

Marachernes bellus sp. nov.

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Diagnosis

Marachernes differs from *Myrmochernes* and *Xenochernes* by the presence of 4 flagellal blades (Figs 9, 22, 32), and 1-3 accessory teeth on internolateral mound of male movable chelal finger (Figs 7, 15, 16, 19).

Description

Setae on carapace, tergites, and pedipalpal trochanter, femur and sometimes patella clavate; setae on sternites and pedipalpal chela and sometimes patella slender and acuminate (Figs 5, 20, 30). Venom apparatus present in movable finger terminating in nodus ramosus midway between *st* and *t* (Figs 1, 18, 29). Sense spots present on both chelal fingers. Cheliceral flagellum with 4 blades (Figs 9, 22, 32). Carapace with 1 pair of eye spots; with 2 transverse furrows, posterior furrow closer to posterior margin of carapace than to anterior furrow (Figs 6, 17, 28). Female genitalia with spermathecae consisting of 2 short tubules (Figs 14, 27, 35). Suture line between femur and patella of leg I oblique (Figs 11, 23, 34). Tarsus IV without tactile seta (Figs 10, 24, 33). All tarsi with a proximal slit sensillum. Claws simple; arolium shorter than claws.

Remarks

Marachernes appears to be most similar to *Xenochernes* from Brazil, based mainly upon the shape of the chelal hand. However, specimens of the latter genus have been unavailable to me [despite requests to the institution that apparently holds the type specimens of the only known species, *X. caxinguba* Feio; see also Judson (1985)]. Therefore, direct comparisons with *Xenochernes* are not possible.

Feio (1945) placed *Xenochernes* in the Xenochernetinae, and alluded to the similarity between the cheliceral morphology of *Xenochernes* and *Myrmochernes*, the type of the Myrmochernetidae. Judson (1985) synonymised Myrmochernetidae with the Chernetidae, and in a detailed redescription of *My. africanus* Tullgren (the type and only known species of the genus), also noted the similarity between the African and Brazilian species. I have examined 5♂, 1♀ syntypes of *My. africanus* in the Zoologisches Museum, Hamburg, and specimens from Grahamstown, South Africa, in the Naturhistorisches Museum, Wien (2♀), and the American Museum of Natural History, New York (1♀). Despite its small size and a suite of synapomorphies (e.g. lack of accessory teeth on the chelal fingers, lack of venom apparatus), *My. africanus* appears to be related to *Xenochernes* and *Marachernes*, based mainly on the shape of the chelal hand.

The spermathecae of *Myrmochernes africanus* (Judson, 1985, fig. 9) and *Marachernes* spp. (Figs 14, 27, 35) are quite different. Unfortunately, the spermathecae of *X. caxinguba* are not known.

Etymology

This genus is named for Māra Blossfelds, in recognition of her contributions to the collection of the type species, and combined with *Chernes*, the type species of the family. Gender: masculine.

Key to species in *Myrmochernes* group

- 1 Cheliceral flagellum with 3 blades; ♂ movable chelal finger without internobasal accessory teeth..... 2
 Cheliceral flagellum with 4 blades (Figs 9, 22, 32); ♂ movable chelal finger with 1-3 internobasal accessory teeth on mound (Figs 7, 15, 16, 19)..... *Marachernes*.. 3
- 2 Cheliceral hand with 4 setae, *es* absent (South Africa)
 *Myrmochernes africanus* Tullgren
 Cheliceral hand with 5-6 setae, *es* present (Brazil)
 *Xenochernes caxinguba* Feio
- 3 Pedipalpal patella with clavate setae (Fig. 5); anteromedian area of carapace virtually smooth (Fig. 6); trichobothrium *est* much closer to *esb* than to *et* (Figs 1, 5) *Marachernes bellus* sp. nov.
 Pedipalpal patella with acuminate setae (Figs 20, 30); anteromedian area of carapace granulate (Figs 17, 28); trichobothrium *est* approximately midway between *esb* and *et* (Figs 18, 20, 29, 30)..... 4
- 4 Chelal hand 0.96 (♂), 1.11 (♀) times longer than broad
 *Marachernes simulans* sp. nov.
 Chelal hand 1.37 (♀) times longer than broad .. *Marachernes perup* sp. nov.

***Marachernes bellus* sp. nov.**

Figures 1-16, 37-38

Holotype

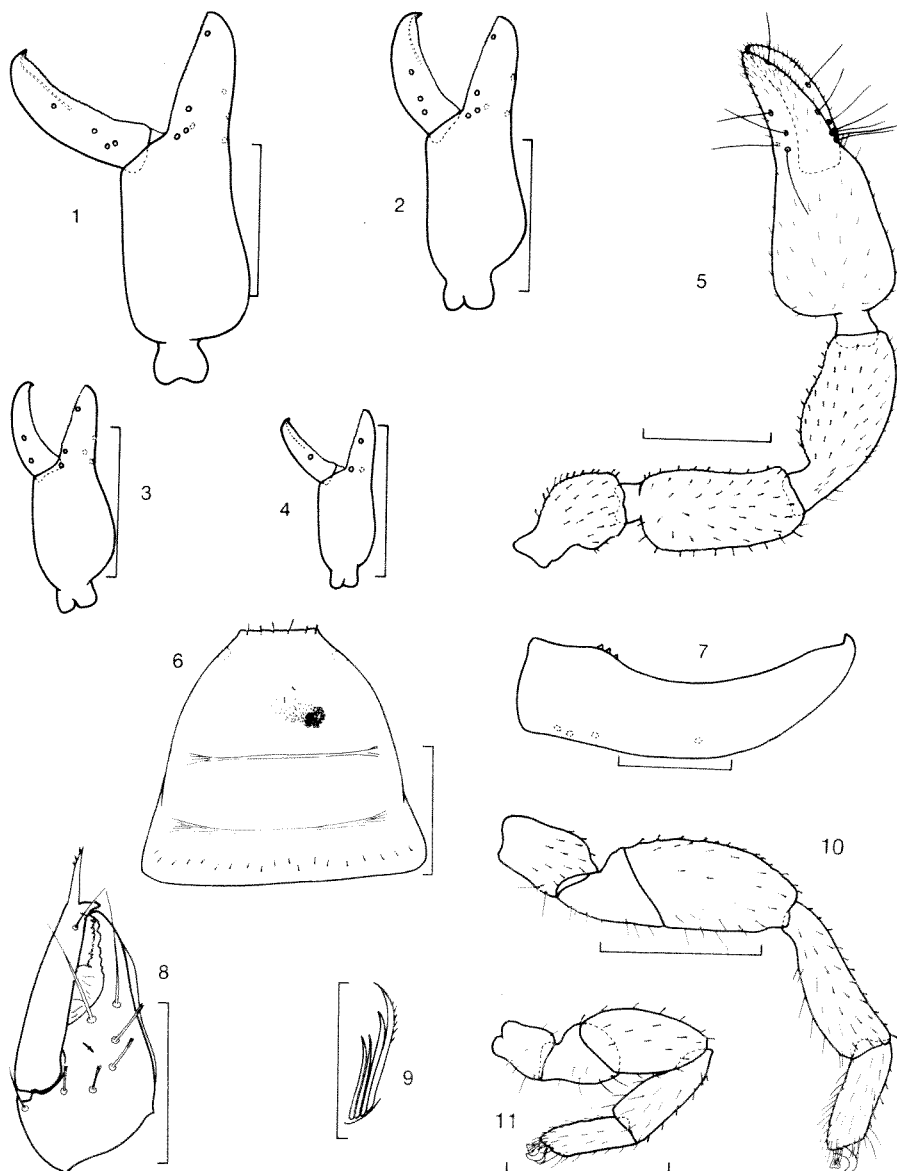
♀, Separation Creek, Otway Ranges, Victoria, Australia, 38°38'S, 143°54'E, under bark of *Eucalyptus* sp. [in association with colonies of *Iridomyrmex* sp. near *foetans* Clark (Hymenoptera: Formicidae)], 19-21 September 1989, M.S. Harvey, M.E. Blofelds (WAM, 91/1813).

Paratypes

Australia: Victoria: 16♂, 8♀, 15 tritonymphs, 5 deutonymphs, 3 protonymphs, same data as holotype (WAM, 91/1064-1110); 2♂, 2♀, 1 tritonymph, 1 deutonymph, 1 protonymph, same data as holotype (MVM, K2218-2224); 2♂, 2♀, 1 tritonymph, 1 deutonymph, 1 protonymph, same data as holotype (MHNG); 1♂, 1♀, same data (QM); 1♀, same data as holotype except 28 August 1988 (WAM, 91/1356); 1 tritonymph, 5 km NE. of Wye River, 38°36'S, 143°56'E, under bark of *Eucalyptus* sp., 20 September 1989, M.S. Harvey, M.E. Blofelds (WAM, 91/1357); 1♂, 4.5 km WSW. of Burton's Lookout, Wonga Road, 38°27'S, 143°30'E, under bark of *Eucalyptus* sp., 1 April 1978, C. Silveira (WAM, 91/1358). *Tasmania:* 1♀, Queen's Domain, Hobart, under bark on eucalypt, 29 January 1927, V.V. Hickman (TM, J3035); 1♀, Trevallyn, Launceston, 1 February 1927, V.V. Hickman (TM, J3034); 1♂, Punch Bowl, Launceston, under bark on eucalypts, 10 December 1926, V.V. Hickman (TM, J3033).

Other material examined

Australia: Tasmania: 1 tritonymph, Tatana, under bark of gum (*Eucalyptus* sp.), 30 September 1963, R.N.G. (QVM).



Figures 1-11 *Marachernes bellus* sp. nov., holotype ♀ unless otherwise stated: 1, left chela, lateral. 2, left chela, lateral, paratype tritonymph. 3, left chela, lateral, paratype deutonymph. 4, left chela, lateral, paratype protonymph. 5, right pedipalp, dorsal. 6, carapace (most setae omitted). 7, movable right chelal finger, ventral, paratype ♂. 8, left chelicera, paratype ♀. 9, left flagellum. 10, left leg IV. 11, left leg I. Scale lines = 0.50 mm (Figs 1-6, 10, 11), 0.20 mm (Figs 7, 8), 0.10 mm (Fig. 9).

Diagnosis

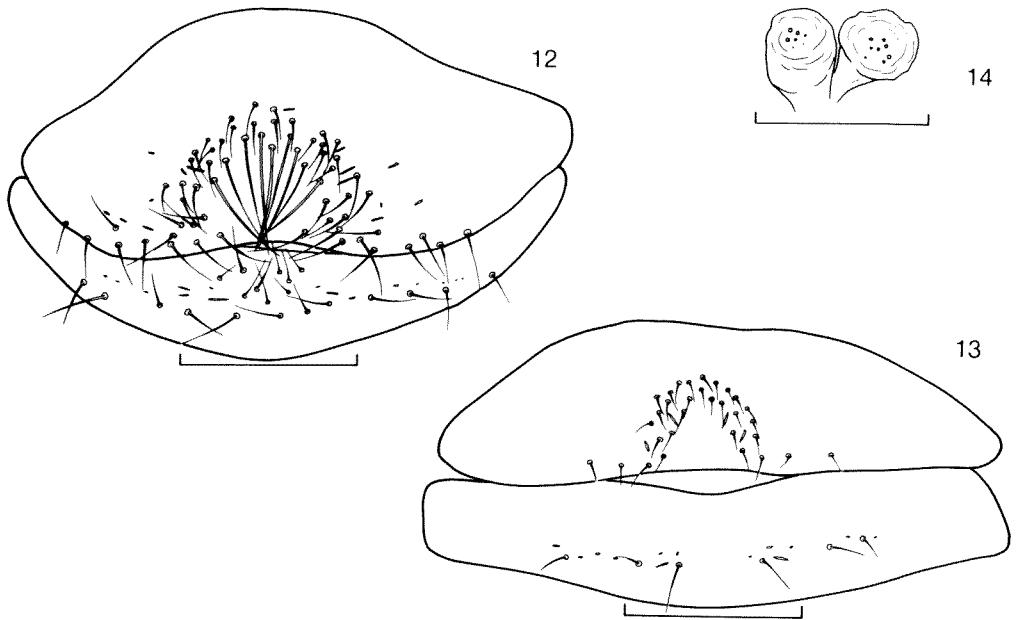
This species is easily distinguished by the clavate setae on the pedipalpal patella (Fig. 5), the virtually smooth anteromedian area of carapace (Fig. 6), and the position of trichobothrium *est*, which is much closer to *esb* than to *et* (Figs 1, 5).

Description

Adult

Colour generally yellow-brown, pedipalps, carapace and legs dark red-brown. Pleural membrane rugose. Pedipalps (Fig. 5): trochanter 1.58-1.67 (♂), 1.57-1.61 (♀), femur abruptly pedicellate, 2.22-2.35 (♂), 2.31-2.45 (♀), patella 2.24-2.47 (♂), 2.24-2.47 (♀), chela (with pedicel) 2.61-2.65 (♂), 2.46-2.60 (♀), chela (without pedicel) 2.29-2.35 (♂), 2.17-2.40 (♀), hand 1.18-1.31 (♂), 1.15-1.23 (♀) times longer than broad, movable finger 0.95-0.98 (♂), 0.93-0.98 (♀) times as long as hand. Pedipalps with coarse granulations on trochanter, femur and patella, chela smooth. Setae on trochanter, femur and patella clavate. Fixed chelal finger with 8 trichobothria, movable chelal finger with 4 trichobothria (Fig. 1); *it* closer to *isb* than to tip of finger, *est* much closer to *esb* than to *et*. Fixed finger with 29 (♂), 30-31 (♀) marginal teeth, plus 6 (♂), 6-8 (♀) external and 3 (♂, ♀) internal accessory teeth; movable finger with 35 (♂), 31-34 (♀) marginal teeth, plus 4 (♂), 6-8 (♀) external and 3 (♂), 4 (♀) internal accessory teeth; movable chelal finger with 2-3 internobasal accessory teeth on mound (Fig. 7). Chelicera (Fig. 8) with 6-7 setae on hand, *sbs*, *bs*, *bs'* and *bs''* (when present) terminally denticulate; serrula exterior with 24-25 (♂), 23-25 (♀) lamellae; galea with 3 (♂), 4 (♀) small distal or subdistal rami. Carapace (Fig. 6) with 16-19 (♂), 18-19 (♀) setae on posterior margin, 0.97-1.08 (♂), 0.89-0.98 (♀) times longer than broad; anteromedian area virtually smooth. Tergites I-X and sternites IV-X divided. Tergal chaetotaxy: ♂, 19-27: 29-34: 28-33: 41-46: 46-52: 43-49: 43-48: 45-50: 48-50: 43-46: 31-33: 2; ♀, 21-23: 23-34: 28-35: 40-46: 47-54: 44-52: 48-54: 45-49: 49-56: 45-58: 24-29: 2; arranged in 2 indistinct rows. Sternal chaetotaxy: ♂, 61-66: (2-3)13-24[10-12](2-3): (1)11-14(1): 17-20: 24-26: 26-27: 26-29: 27-28: 23-26: 11-13: 2; ♀, 31-47: (3)6-7(3): (1)11-12(1): 19-22: 22-24: 25-28: 26-30: 28-29: 25-26: 12-15: 2. Sternite XI with several tactile setae. Genital opercula of male (Fig. 12): with numerous large setae; several pairs of slit sensilla on anterior operculum, numerous smaller sensillae present on posterior operculum; opercula of female (Fig. 13): anterior operculum with small setae arranged in inverted-U pattern. Male genitalia not unusual; female genitalia as in Fig. 14. Leg I as in Fig. 11. Leg IV (Fig. 10): femur + patella 2.43-2.59 (♂), 2.57-2.74 (♀) times longer than broad.

Dimensions (mm), ♂(♀): body length 2.74-3.14 (2.99-3.34). Pedipalps: trochanter 0.49-0.52/0.30-0.32 (0.47-0.50/0.30-0.31), femur 0.78-0.80/0.34-0.36 (0.74-0.83/0.31-0.35), patella 0.82-0.84/0.34-0.37 (0.74-0.84/0.32-0.35), chela (with pedicel) 1.28-1.31/0.49-0.50 (1.18-1.28/0.48-0.52), chela (without pedicel) 1.12-1.16 (1.04-1.15), movable finger length 0.57-0.61 (0.55-0.59), hand length 0.58-0.64



Figures 12-14 *Marachernes bellus* sp. nov.: 12, genital opercula, paratype ♂. 13, genital opercula, holotype ♀. 14, spermathecae, holotype ♀. Scale lines = 0.20 mm (Figs 12, 13), 0.10 mm (Fig. 14).

(0.59-0.60). Chelicera 0.28-0.32/0.14-0.18 (0.31-0.33/0.17-0.18), movable finger length 0.22-0.24 (0.22-0.25). Carapace 0.93-1.04/0.94-1.03 (0.95-1.00/1.02-1.10). Leg I: femur + patella 0.54-0.56/0.21-0.22 (0.52-0.55/0.20-0.21), tibia 0.37-0.39/0.14-0.15 (0.36-0.37/0.14-0.15), tarsus 0.30-0.32/0.10 (0.30/0.10). Leg IV: femur + patella 0.73-0.75/0.29-0.30 (0.72-0.75/0.27-0.28), tibia 0.55-0.56/0.17-0.18 (0.51-0.54/0.17), tarsus 0.36-0.38/0.12-0.13 (0.37-0.39/0.12).

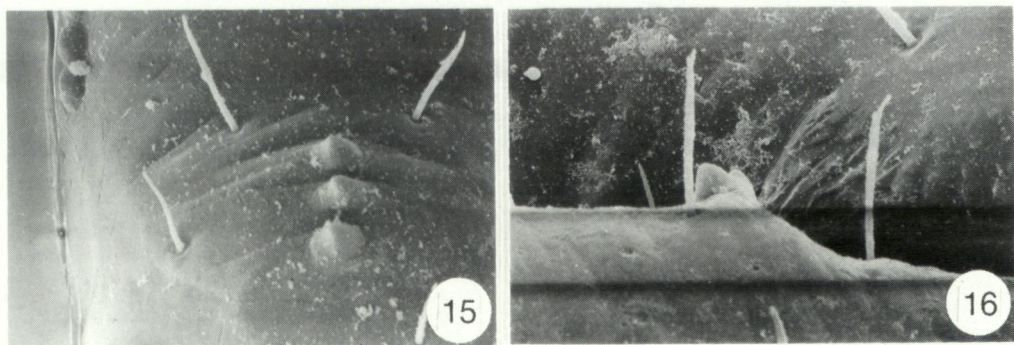
Tritonymph

Colour paler than adults. Pedipalp: trochanter 1.65, femur 2.40, patella 2.27, chela (with pedicel) 2.76, chela (without pedicel) 2.54, hand 1.22 times longer than broad. Fixed chelal finger with 7 trichobothria, movable chelal finger with 3 trichobothria (Fig. 2): *isb* and *sb* absent. Carapace 1.03 times longer than broad; anteromedian area virtually smooth.

Dimensions (mm): Body length 2.63. Pedipalps: trochanter 0.38/0.23, femur 0.60/0.25, patella 0.59/0.26, chela (with pedicel) 0.98/0.37, chela (without pedicel) 0.86, hand length 0.45, movable finger length 0.42. Carapace 0.82/0.80.

Deutonymph

Colour paler than adults. Pedipalp: trochanter 1.61, femur 2.32, patella 2.05, chela (with pedicel) 2.65, chela (without pedicel) 2.32, hand 1.21 times longer than



Figures 15-16 *Marachernes bellus* sp. nov., paratype ♂. 15, movable finger mound, ventral. 16, movable finger mound, mesal.

broad. Fixed chelal finger with 6 trichobothria, movable chelal finger with 2 trichobothria (Fig. 3): *esb*, *isb*, *sb* and *st* absent. Carapace 1.00 times longer than broad; anteromedian area virtually smooth.

Dimensions (mm): Body length 2.26. Pedipalps: trochanter 0.29/0.18, femur 0.44/0.19, patella 0.43/0.21, chela (with pedicel) 0.75/0.28, chela (without pedicel) 0.65, hand length 0.34, movable finger length 0.31. Carapace 0.66/0.66.

Protonymph

Colour very pale. Pedipalp: trochanter 0.93, femur 2.36, patella 1.88, chela (with pedicel) 2.68, chela (without pedicel) 2.32, hand 1.27 times longer than broad. Fixed chelal finger with 3 trichobothria, movable chelal finger with 1 trichobothria (Fig. 4): *eb*, *et*, *ist* and *t* present. Carapace 1.06 times longer than broad; anteromedian area virtually smooth.

Dimensions (mm): Body length 1.66. Pedipalps: trochanter 0.13/0.14, femur 0.33/0.14, patella 0.30/0.16, chela (with pedicel) 0.59/0.22, chela (without pedicel) 0.51, hand length 0.28, movable finger length 0.25. Carapace 0.52/0.49.

Remarks

As discussed below, this species is found in association with colonies of *Iridomyrmex* sp. near *foetans* Clark (Hymenoptera: Formicidae) under the bark of eucalypt trees. Voucher specimens of the ants have been lodged in MVM and WAM. At present, *M. bellus* is known from the Otway Ranges, Victoria, and Tasmania.

Etymology

The specific epithet refers to the beauty of this species (*bellus*, Latin, pretty, lovely).

***Marachernes simulans* sp. nov.**

Figures 17-27

Holotype

♀, Upper Beaconsfield, Victoria, Australia, 38°03'S, 145°15'E, under bark of tree, 23 April 1979, P. Szigat (WAM, 91/1814).

Paratype

Australia: Victoria: 1 ♂, Upper Beaconsfield, 38°03'S, 145°15'E, under bark of tree, 1 April 1979, P. Szigat (WAM, 91/1815).

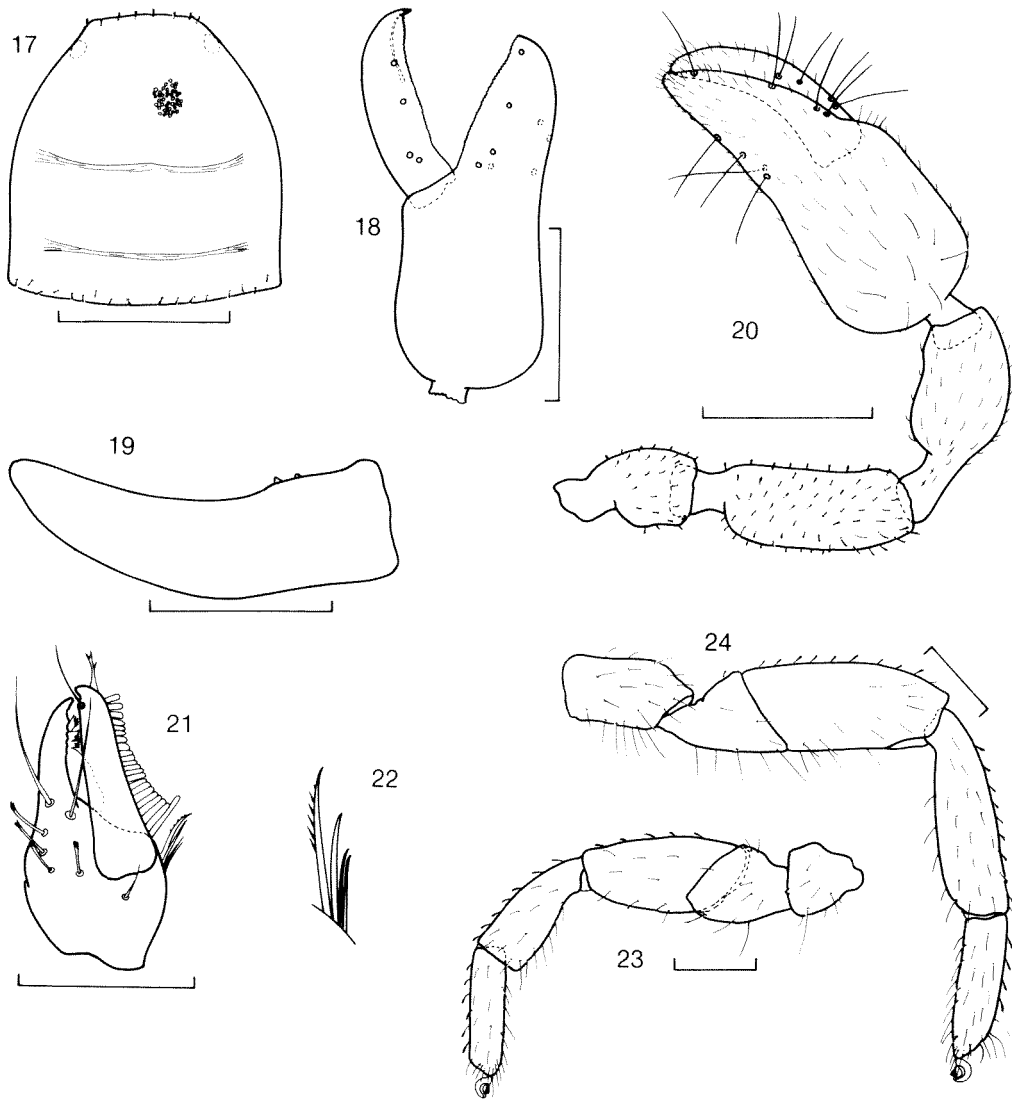
Diagnosis

This species is distinguished from *M. perup* by the broad chelal hand (Fig. 20), and from *M. bellus* by the acuminate setae on the pedipalpal patella (Fig. 18), the rugose anteromedian area of carapace (Fig. 15), and the position of trichobothrium *est*, which is midway between *esb* and *et* (Fig. 16).

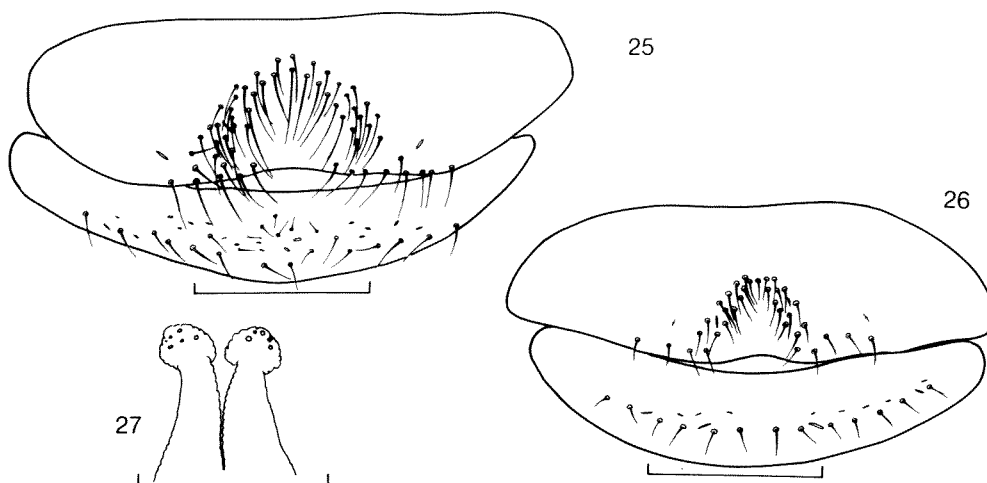
Description

Adult

Colour generally yellow-brown, pedipalps and carapace dark red-brown. Pleural membrane rugose. Pedipalps (Fig. 20): trochanter 1.77 (♂), 1.79 (♀), femur abruptly pedicellate, 2.64 (♂), 2.83 (♀), patella 2.40 (♂), 2.43 (♀), chela (with pedicel) 2.29 (♂), 2.43 (♀), chela (without pedicel) 2.06 (♂), 2.30 (♀), hand 0.96 (♂), 1.11 (♀) times longer than broad, movable finger 1.18 (♂), 1.16 (♀) times longer than hand. Pedipalps with coarse granulations on trochanter, femur and internolateral margin of patella; chela and remainder of patella smooth. Setae on trochanter and femur clavate, on patella acuminate. Fixed chelal finger with 8 trichobothria, movable chelal finger with 4 trichobothria (Fig. 18); *it* closer to *isb* than to tip of finger, *est* approximately midway between *esb* and *et*. Fixed finger with 35 (♂), 33 (♀) marginal teeth, plus 4 (♂), 8 (♀) external and 2 (♂, ♀) internal accessory teeth; movable finger with 35 (♂), 35 (♀) marginal teeth, plus 3 (♂), 5 (♀) external and 1 (♂), 2 (♀) internal accessory teeth; movable chelal finger with 1 internobasal accessory tooth on mound (Fig. 19). Chelicera with 7 setae on hand, *sbs*, *bs*, *bs'* and *bs''* strongly denticulate; serrula exterior with 23 (♂), 22 (♀) lamellae; galea of with 3 small rami, of damaged. Carapace (Fig. 17) with 19 (♂), 17 (♀) setae on posterior margin, 1.04 (♂), 1.13 (♀) times longer than broad; anteromedian area of carapace not smooth. Tergites I-X and sternites IV-X divided. Tergal chaetotaxy: ♂, 45: 56: 56: 60: 70: 73: 68: 69: 67: 52: 26: 2; ♀, 34: 52: 49: 63: 68: 67: 73: 66: 64: 59: 26: 2; arranged in 2 indistinct rows. Sternal chaetotaxy: ♂, 64: (3)22[9](3): (1)17(1): 30: 36: 36: 38: 41: 36: 13: 2; ♀, 35: (3)13(3): (1)12(1): 23: 34: 33: 40: 40: 34: 14: 2. Sternite XI with several tactile setae. Genital opercula of male (Fig. 25): with numerous large setae; 3 slit sensillae on anterior operculum, numerous smaller sensillae on posterior operculum; opercula of female (Fig. 26): anterior operculum with small setae arranged in inverted-U pattern. Male genitalia not unusual; female genitalia as in



Figures 17-24 *Marachernes simulans* sp. nov., holotype ♀ unless otherwise stated: 17, carapace (most setae omitted). 18, left chela, lateral. 19, movable right chelal finger, ventral, paratype ♂. 20, right pedipalp, dorsal. 21, right chelicera, paratype ♂. 22, left flagellum. 23, left leg I. 24, left leg IV. Scale lines = 0.50 mm (Figs 17, 18, 20), 0.20 mm (Figs 19, 21, 23, 24).



Figures 25-27 *Marachernes simulans* sp. nov.: 25, genital opercula, paratype ♂. 26, genital opercula, holotype ♀. 27, spermathecae, holotype ♀. Scale lines = 0.20 mm (Figs 25, 26), 0.10 mm (Fig. 27).

Fig. 27. Leg I as in Fig. 23. Leg IV (Fig. 24): femur + patella 2.73 (♂), 3.40 (♀) times longer than broad.

Dimensions (mm), ♂(♀): body length 2.88 (2.80). Pedipalps: trochanter 0.46/0.26 (0.43/0.24), femur 0.74/0.28 (0.65/0.23), patella 0.72/0.30 (0.68/0.28), chela (with pedicel) 1.17/0.51 (1.12/0.46), chela (without pedicel) 1.05 (1.06), movable finger length 0.58 (0.59), hand length 0.49 (0.51). Chelicera 0.31/0.16 (0.29/0.16), movable finger length 0.22 (0.23). Carapace 0.89/0.86 (0.90/0.80). Leg I: femur + patella 0.51/0.20 (0.50/0.19), tibia 0.34/0.13 (0.32/0.12), tarsus 0.30/0.09 (0.30/0.08). Leg IV: femur + patella 0.71/0.26 (0.68/0.20), tibia 0.52/0.17 (0.48/0.14), tarsus 0.37/0.11 (0.35/0.10).

Etymology

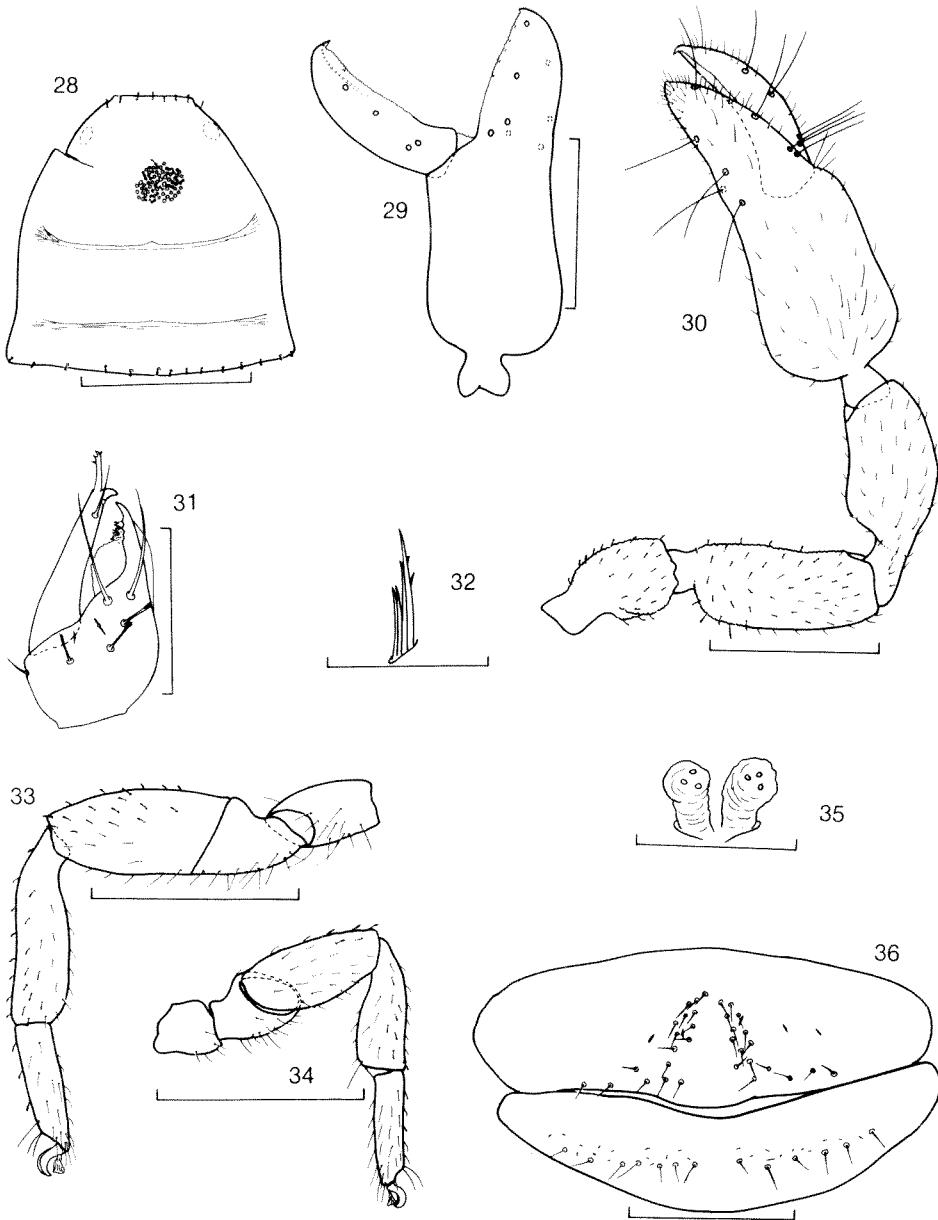
The specific epithet refers to the similarity between this species and *M. perup* (*simulo*, Latin, imitate, copy).

Marachernes perup sp. nov.

Figures 28-36

Holotype

♀, Perup Nature Reserve, ca. 40 km E. of Manjimup, Western Australia, Australia, 34°06'S, 116°40'E, from jarrah (*Eucalyptus marginata*) logs, 17 March 1989, S. Griffin (WAM, 91/1111).



Figures 28-36 *Marachernes perup* sp. nov., holotype : 28, carapace (most setae omitted). 29, left chela, lateral. 30, right pedipalp, dorsal. 31, left chelicera. 32, right flagellum. 33, left leg IV. 34, left leg I. 35, spermathecae. 36, genital opercula. Scale lines = 0.50 mm (Figs 28-30, 33, 34), 0.20 mm (Figs 31, 36), 0.10 mm (Figs 32, 35).

Diagnosis

This species is distinguished from *M. simulans* by the narrow chelal hand (Fig. 30), and from *M. bellus* by the acuminate setae on the pedipalpal patella (Fig. 28), the rugose anteromedian area of carapace (Fig. 26), and the position of trichobothrium *est*, which is midway between *et* and *esb* (Fig. 27).

Description

Adult female

Colour generally dark yellow-brown, pedipalps and anterior portion of carapace dark red-brown. Pleural membrane rugose. Pedipalps (Fig. 30): trochanter 1.87, femur abruptly pedicellate, 2.96, patella 2.48, chela (with pedicel) 2.80, chela (without pedicel) 2.56, hand 1.37 times longer than broad, movable finger 0.98 times as long as hand. Pedipalps with coarse granulations on trochanter and femur; patella and chela smooth. Setae on trochanter and femur clavate, on patella acuminate. Fixed chelal finger with 8 trichobothria, movable chelal finger with 4 trichobothria (Fig. 29); *it* closer to tip of finger than to *isb*, *est* approximately midway between *esb* and *et*, *it* midway between level of *et* and *est*. Fixed finger with 35 marginal teeth, plus 5 external and 1 internal accessory teeth; movable finger with 32 marginal teeth, plus 4 external and 1 internal accessory teeth. Chelicera with 6-7 setae on hand, *sbs*, *bs* and *bs'* terminally denticulate; serrula exterior with 23 lamellae; galea with 2 distal and 4 sub-distal rami. Carapace (Fig. 28) with 16 setae on posterior margin, 0.98 times longer than broad; anteromedian area of carapace virtually smooth. Tergites I-X and sternites IV-X divided. Tergal chaetotaxy: 37: 39: 45: 51: 57: 53: 54: 53: 47: 42: 16: 2; arranged in 2 indistinct rows. Sternal chaetotaxy: 34: (2)14(2): (1)10(1): 23: 26: 33: 31: 29: 26: 8: 2. Sternite XI with several tactile setae. Genital opercula (Fig. 36): anterior operculum with small setae arranged in inverted-U pattern. Genitalia as in Fig. 35. Leg I as in Fig. 34. Leg IV (Fig. 33): femur + patella 3.00 times longer than broad.

Dimensions (mm): body length 2.66. Pedipalps: trochanter 0.43/0.23, femur 0.68/0.23, patella 0.67/0.27, chela (with pedicel) 1.15/0.41, chela (without pedicel) 1.05, movable finger length 0.55, hand length 0.66. Chelicera 0.28/0.16, movable finger length 0.22. Carapace 0.85/0.87. Leg I: femur + patella 0.47/0.15, tibia 0.32/0.12, tarsus 0.29/0.08. Leg IV: femur + patella 0.63/0.21, tibia 0.49/0.13, tarsus 0.32/0.09.

Etymology

The specific epithet is a noun in apposition taken from the type locality.

Biology and Biogeography

Sporadic collections of *Marachernes* specimens have been taken over the past few years in southern Victoria. In September 1989, whilst collecting specimens from under bark of eucalypt trees at Separation Creek, it became apparent that the

pseudoscorpions (*M. bellus*) were only found in close proximity to the ants (*Iridomyrmex* sp. near *foetans* Clark) that were found in large aggregations under the bark. The pseudoscorpions were immobile when collected (during daylight hours), and none were seen feeding on the ants or their larvae. One pseudoscorpion was found firmly clenched in the mandibles of an ant, which was presumably feeding on the pseudoscorpion. The only known specimens of the other two *Marachernes* species, *M. simulans* and *M. perup*, were taken from under the bark of a tree and of a eucalypt log, respectively; it is not known whether ants were in close proximity.

Members of the *Iridomyrmex foetans* species group are confined to wet forests (Andersen 1991), and may parallel the Bassian distribution of *Marachernes* species. However, only a single species of *Marachernes* has been found in association with ants, and more data are needed to confirm the myrmecophilous nature of other members of the genus.

As discussed above, *Marachernes* appears to be most similar to *Myrmochernes* from South Africa and *Xenochernes* from Brazil, which tends to indicate a gondwanan origin for this group of genera. The collection and study of further pseudoscorpions living in association with ants (and other social insects, such as termites) in the southern hemisphere may help to elucidate relationships between these genera.

Acknowledgements

Māra Blossfelds' collecting prowess provided a long series of specimens of the type species, and accommodation was kindly provided by Robin Wilson. Julianne Waldoock furnished the scanning micrographs. Norman Platnick (American Museum of Natural History, New York), Jürgen Gruber (Naturhistorisches Museum, Wien), Gisela Rack (Zoologisches Museum, Hamburg), Tim Kingston (Queen Victoria Museum, Launceston) and Elizabeth Turner (Tasmanian Museum and Art Gallery, Hobart) loaned material for this study. Other specimens were donated by Charles Silveira and Sandra Griffin.

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