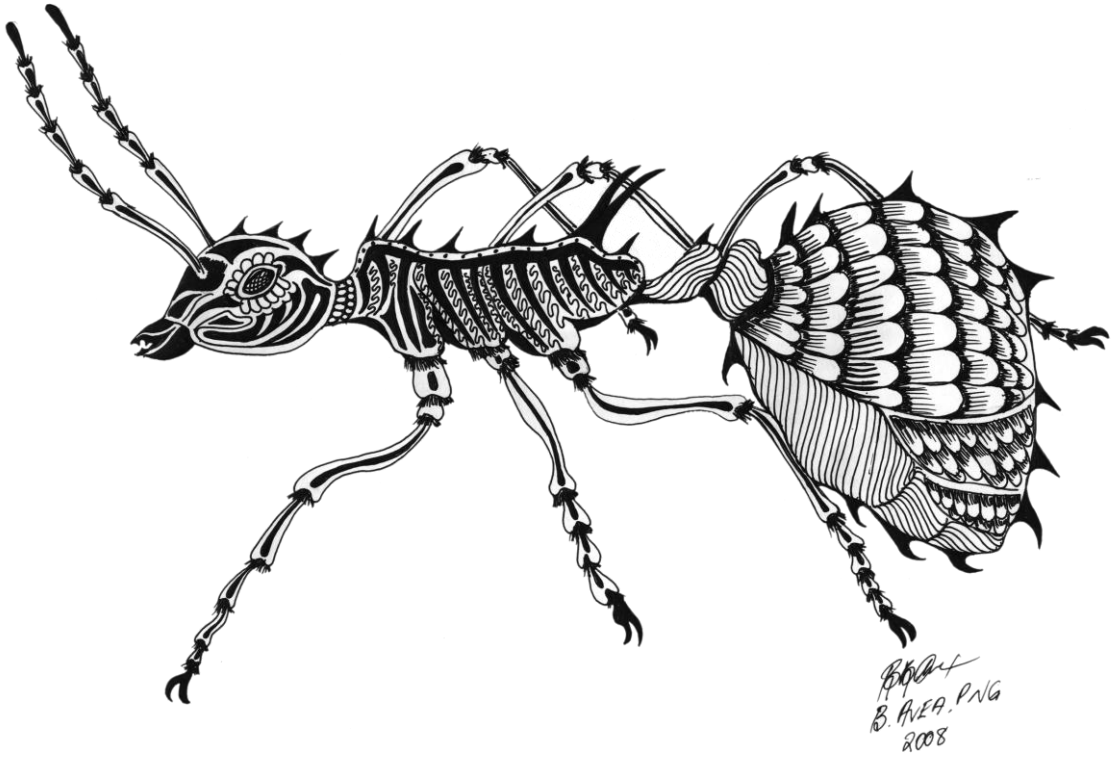
IDENTIFICATION GUIDE · WORKERS

ANTS OF NEW GUINEA AND MELANESIA

Picture keys to the subfamilies and genera

Key to the 11 subfamilies and keys to the genera: 105 genera of New Guinea, the Bismarck Archipelago, the Solomon Islands, Vanuatu, New Caledonia and Fiji



Compiled by **Milan Janda**

Laboratory of Molecular Ecology & Biodiversity

ENES Morelia, UNAM, Mexico · Palacký University Olomouc · Biology Centre CAS, Czech Republic

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Ponerinae

15 genera



Myrmicinae

37 genera



Formicinae

20 genera



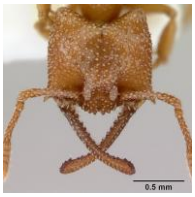
Dolichoderinae

12 genera



Ectatomminae

3 genera



Amblyoponinae

6 genera

New Guinea Binatang Research Center
Papua New Guinea

Draft v27, 29 October 2026

Specimen photos: AntWeb.org and newguineants.org (CC BY 4.0). Full credits on the last pages.

Ants of New Guinea and Melanesia: picture keys to the subfamilies and genera (workers)

Draft v27, 29 October 2026

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www.newguineants.org Ants of New Guinea: species pages and specimen photos
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HOW THE KEYS WERE MADE

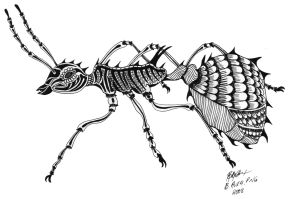
These keys were compiled from published resources and databases, in particular the AntWiki online keys, AntWeb, GBIF, Ants of New Guinea (newguineants.org), the New Guinea ant checklist (Janda et al., 2026) and generic revisions and monographs, listed under Sources (page 128). The characters were checked on specimen photos of Melanesian specimens wherever possible.

SUGGESTED CITATION

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PICTURES

Specimen photos: AntWeb.org (CC BY 4.0), newguineants.org (CC BY 4.0); drawings as credited on page 129. Cover drawing: Benson Avea, Papua New Guinea, 2008. Text and keys © 2026 Milan Janda.



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New Guinea Binatang Research Center
Papua New Guinea

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How to use this guide

- For **workers** only. Queens and males need other keys.
- First find the **subfamily** (pages 6–9), then use the genus key of that subfamily.
- Check the result on the **genus page**: the numbers on the photos match the numbered characters.
- Look at several workers from the same sample. Size and colour vary within a genus: rely on structure. Sizes on the genus pages are approximate ranges of worker length (head to gaster tip, side view); "c. X mm" is the length of the photographed worker, measured with its scale bar.
- Parts of an ant and words used in the keys, with drawings: page 5.
- The guide covers 105 genera in 11 subfamilies from the New Guinea list (New Guinea with its islands, Bismarck Archipelago to the Louisiades), Bougainville, the Solomons, Vanuatu, New Caledonia and Fiji.
- Keys to species: the last column of the genus list (page 121 on); full references on pages 126–127.

Views used in the keys

Full-face view: the head seen from the front, its upper surface towards you; mandibles at the bottom.

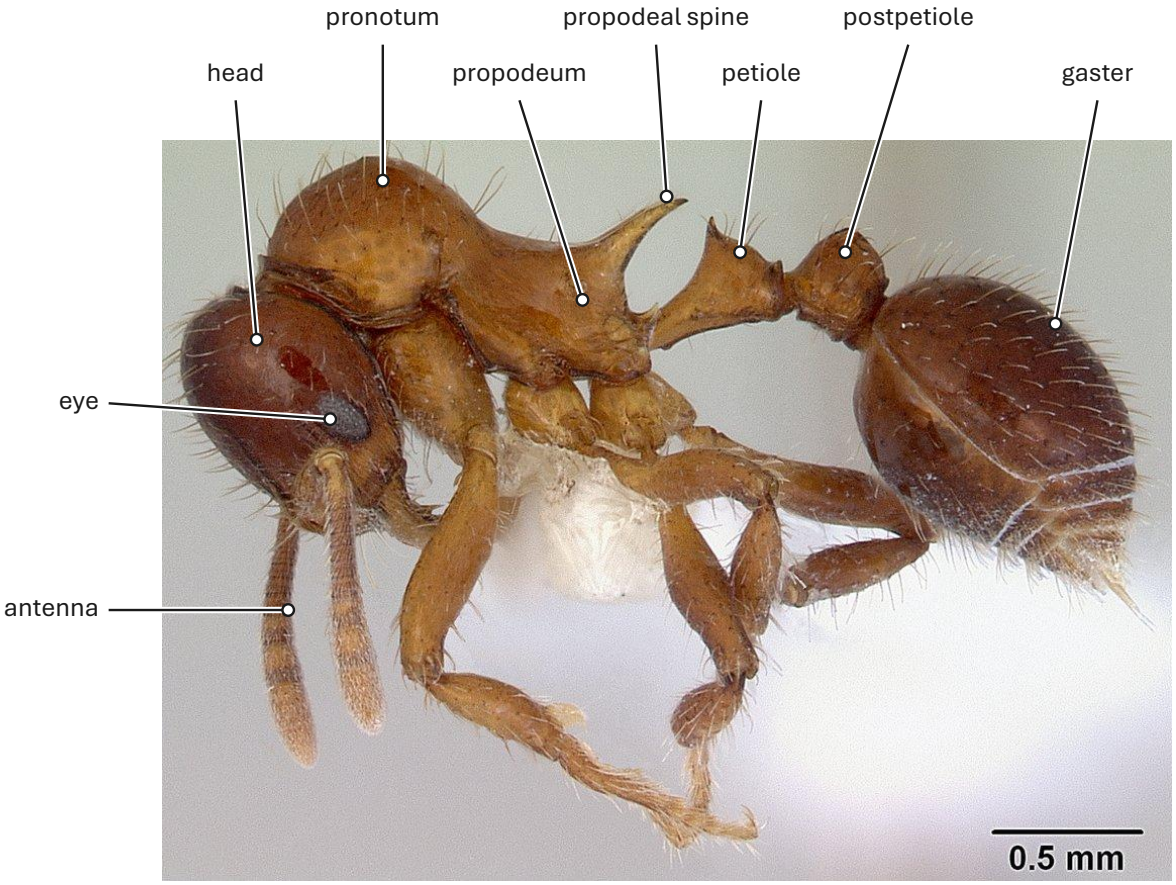
Side view (profile): the ant seen from its left or right side.

From above (dorsal view): the upper side of the body.

From below (ventral view): the underside: palps, sternites, the underside of the head.

From behind: the gaster tip, or the back of the head, facing you.

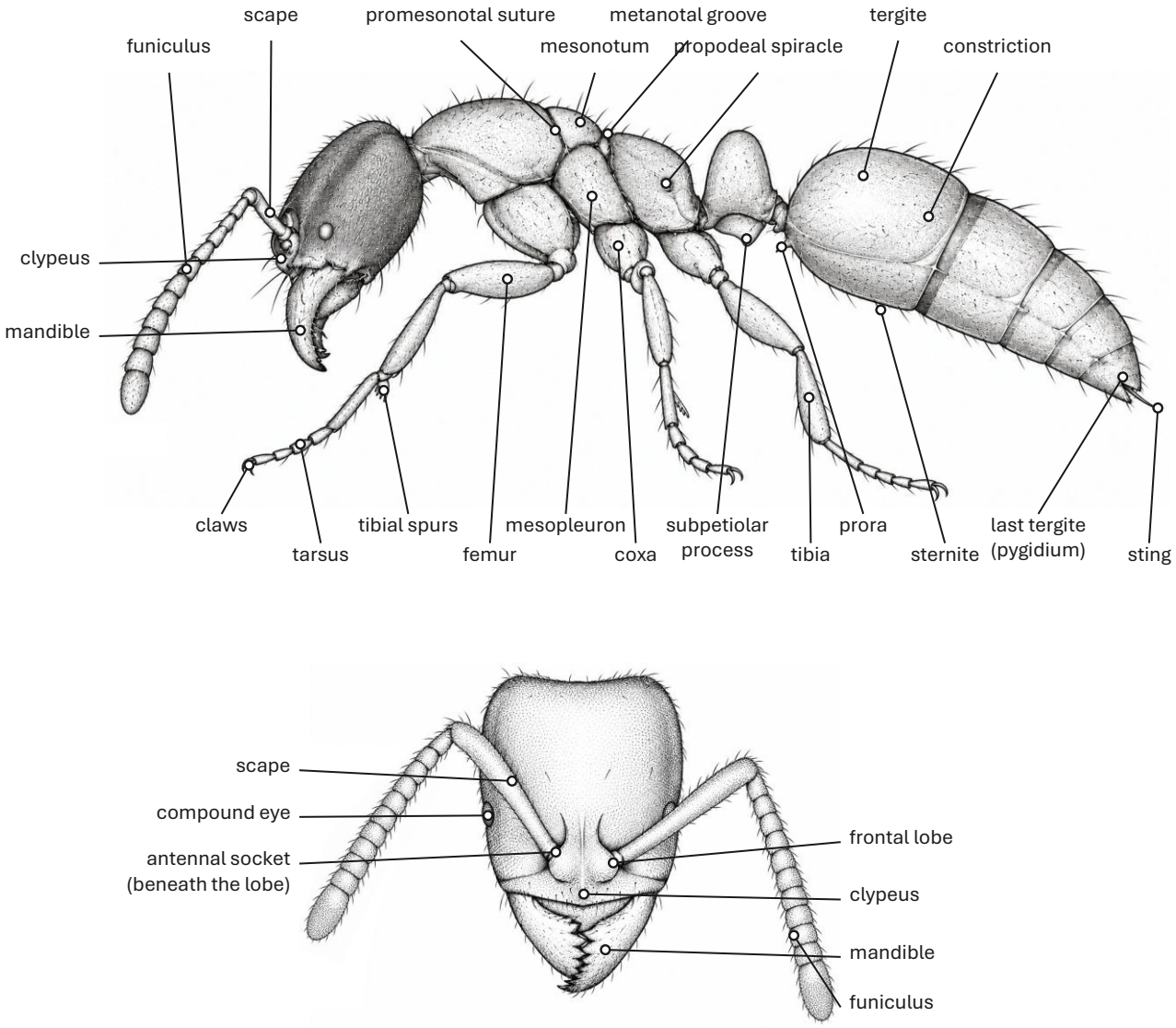
"High", "low": on the head, relative to its middle (full-face view); on the propodeum, relative to the angle between its upper and rear faces (side view).



Side view: *Lordomyrma furcifera* (Myrmicinae), worker from near Lae, Papua New Guinea

Photos: AntWeb.org, CC BY 4.0 (CASENT0172482).

Parts of an ant and words used in the keys



A generalized worker of Ponerinae: side view and head in full-face view. Head, pronotum, propodeum, petiole, postpetiole, gaster, eye and antenna: photo on page 4.

Mesosoma: the middle part of the body, with the legs: thorax plus propodeum.

Pronotum, mesonotum, propodeum: the upper plates of the mesosoma, from front to back. The propodeum has an upper face and a rear face (declivity).

Mesopleuron: the side plate of the mesosoma above the middle leg.

Metanotal groove: the groove or notch on top of the mesosoma, in front of the propodeum.

Waist: one segment (petiole) or two (petiole and postpetiole) between mesosoma and gaster.

Gaster: the large rear part of the body. Many stinging ants have a girdle-like constriction behind its first segment.

Frontal lobes: plates over the antennal sockets; they hide the sockets in most subfamilies.

Clypeus: the plate above the mandibles, in front of the antennal sockets.

Scape: the long first segment of the antenna; the rest is the funiculus. "Scapes laid back": turned back along the head, in full-face view.

Palps: the small jointed feelers of the mouthparts, under the head: maxillary (outer) and labial (inner). "Palps 2:3" (palp formula) = 2 maxillary and 3 labial segments; the maxillary count comes first.

Tergite, sternite: the upper and the lower plate of a gaster segment.

Acidopore: round nozzle at the gaster tip of Formicinae, often fringed with hairs.

Last tergite (pygidium): upper plate of the last visible gaster segment.

Subpetiolar process: the lobe under the petiole.

Prora: a lobe or ridge under the front of the first gaster segment.

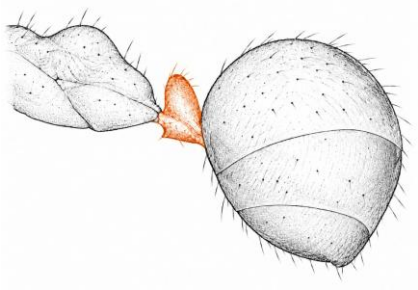
Propodeal spiracle: the breathing pore on the side of the propodeum: a slit or round.

Spurs: the spines at the tip of the tibia: comb-like (with teeth) or simple.

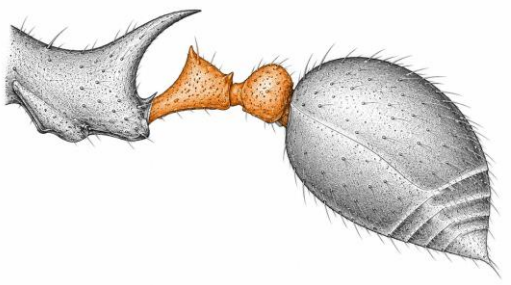
Coxa: the first segment of the leg, joined to the body.

Promesonotal suture: the line between pronotum and mesonotum.

Key to the subfamilies (1 of 4)



Philidris: one waist segment



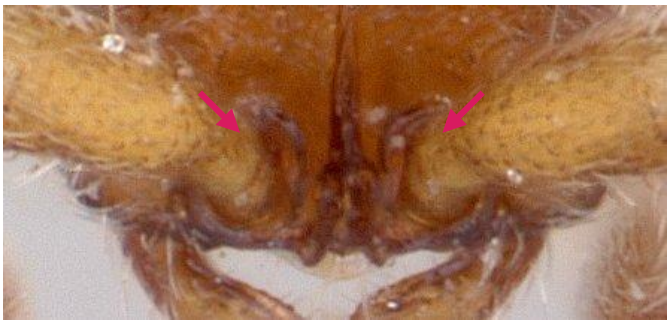
Lordomyrma: petiole and postpetiole

1a **One** segment between mesosoma and gaster (the petiole). The gaster can have a constriction behind its first segment, but that segment is large and part of the gaster

→ **step 4**

1b **Two** small segments (petiole and postpetiole), both much smaller than the gaster segment behind them

→ **step 2**



Zasphinctus: sockets exposed



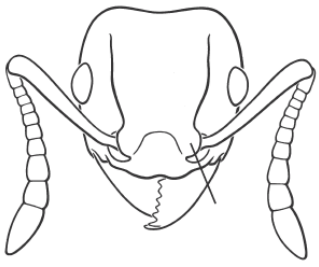
Tetraponera: eye

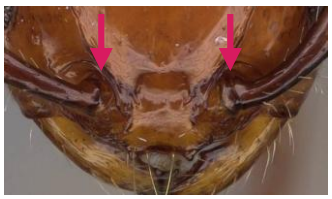
2a Antennal sockets fully exposed, close to the front edge of the head (no frontal lobes over them). Eyes absent or tiny (a few facets at most)

→ **step 3**

2b Eyes very large, about half as long as the head. Mandibles short and triangular. Body long and narrow; pronotum movable against the mesonotum

→ **Pseudomyrmecinae** p. 12





Pristomyrmex inermis: sockets exposed



Myrmecia apicalis: mandibles

2c Frontal lobes cover the antennal sockets at least in part. Eyes smaller, absent in a few soil genera. Pronotum and mesonotum fused. (In *Pristomyrmex* the lobes are reduced and the sockets exposed, but the eyes are well developed and the front of the clypeus has 3 or more small teeth)

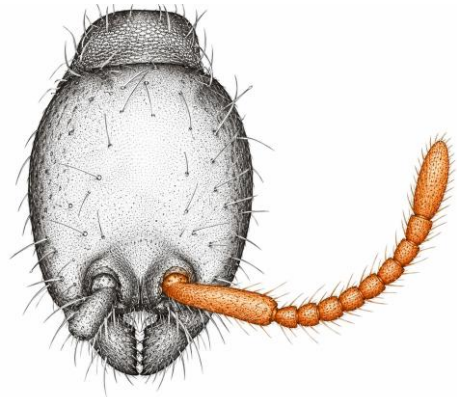
→ **Myrmicinae** p. 66

2d Mandibles long, straight and narrow, with teeth along the whole inner edge. Eyes large. Over 10 mm, with a strong sting. New Caledonia only

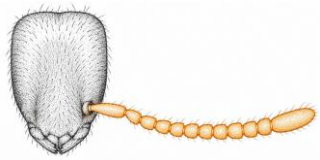
→ **Myrmeciinae** p. 11

Photos: AntWeb.org, CC BY 4.0 (CASENT0173054, CASENT4032494, CASENT0922988, CASENT0903788). Line drawings: Fisher & Cover 2007, from the AntWiki keys.

Key to the subfamilies (2 of 4)



Aenictus: 10 segments



Leptanilla: 12 segments



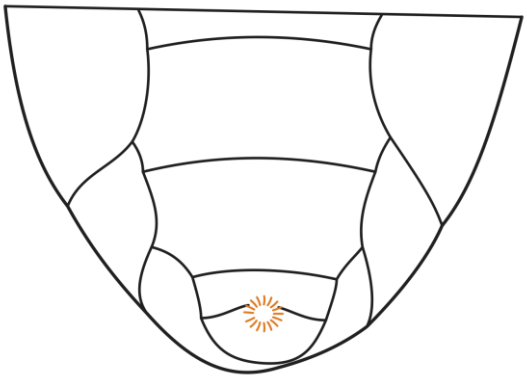
L. swani: head, front view

3a Antenna with 8–11 segments. Workers 2–5 mm, yellow to dark brown; eyes absent or tiny. *Aenictus*: army ants in columns; *Ooceraea*: leaf litter

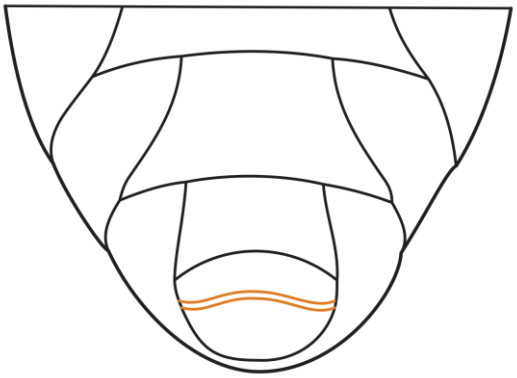
→ **Dorylinae** p. 33

3b Antenna with 12 segments. Tiny (under 1.5 mm), pale yellow; deep in the soil

→ **Leptanillinae** p. 11



gaster tip, from behind



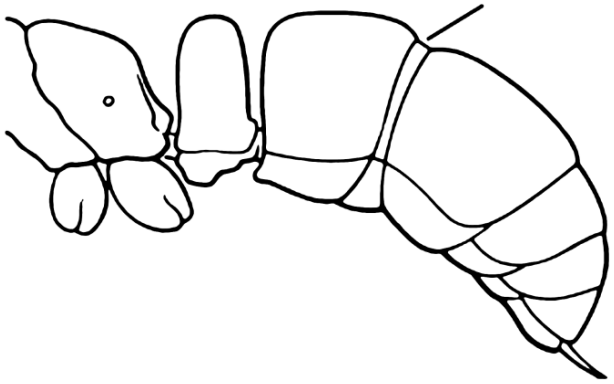
gaster tip, from behind

4a No sting. Gaster tip a round nozzle (**acidopore**), usually with a fringe of hairs

→ **Formicinae** p. 44

4b No sting. Gaster tip a **slit**, without a fringe of hairs

→ **Dolichoderinae** p. 19



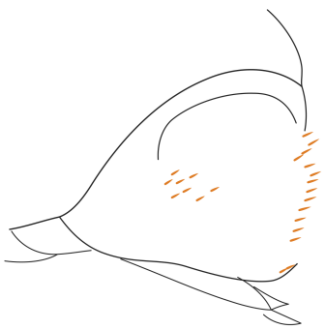
Hypoponera

4c A **sting** (often pulled in: look at the tip from below). Gaster with a constriction behind its first segment

→ **step 5**

Photos: AntWeb.org, CC BY 4.0 (CASENT0172006). Line drawings: Fisher & Cover 2007, from the AntWiki keys.

Key to the subfamilies (3 of 4)



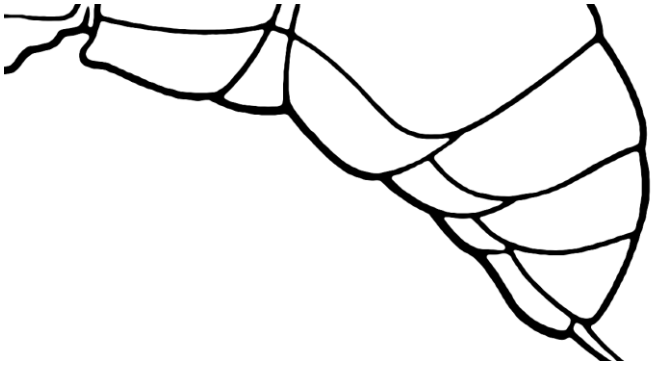
last tergite, from the side



peg-like spines

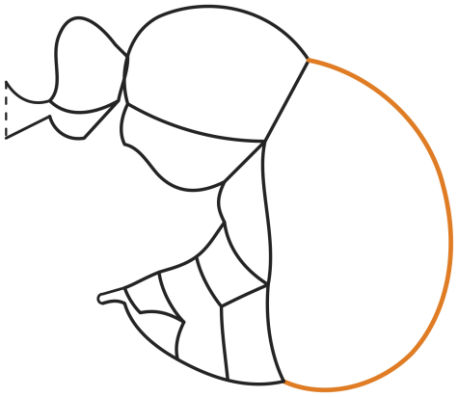
5a Last tergite flattened and edged with a row of peg-like spines. Antennal sockets exposed; body a cylinder (*Lioponera*, *Parasyscia*, *Simopone*, *Zasphinctus*)

→ **Dorylinae** p. 33



5b Last tergite rounded, without pegs

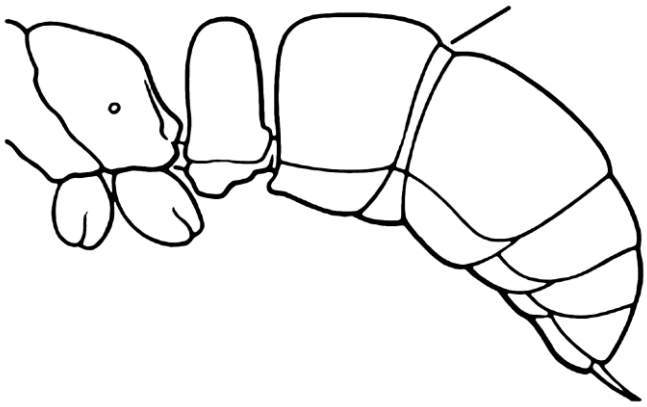
→ **step 6**



Proceratium: gaster curled

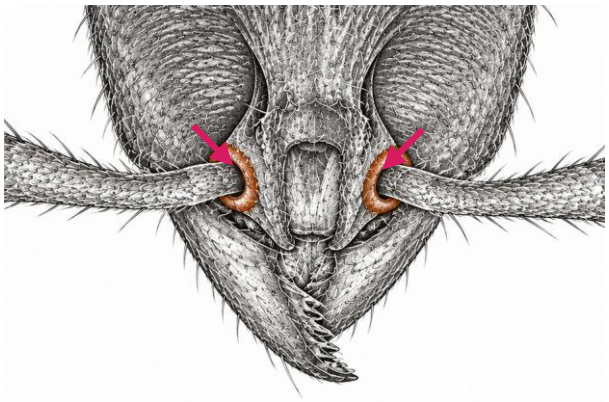
6a Second gaster segment strongly arched and much larger than the first, so that the gaster tip points forward, under the gaster (side view)

→ **step 7**



6b Gaster not curled: its tip points backward or straight down (side view)

→ **step 8**



Proceratium: sockets exposed

7a Antennal sockets exposed, near the front of the head; frontal lobes reduced to a thin ridge (*Proceratium*, *Discothyrea*)

→ **Proceratiinae** p. 118



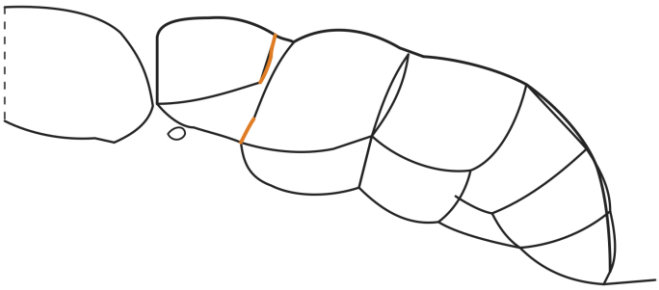
Rhytidoponera: frontal lobes over the sockets

7b Antennal sockets covered by frontal lobes; body with coarse ridges; one comb-like spur on the hind tibia

→ **Ectatomminae** p. 40

Line drawings: Fisher & Cover 2007, from the AntWiki keys.

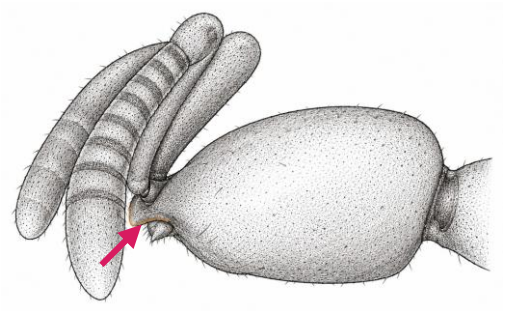
Key to the subfamilies (4 of 4)



petiole broadly joined to the gaster

8a Petiole broadly joined to the gaster: no rear face, no narrow neck

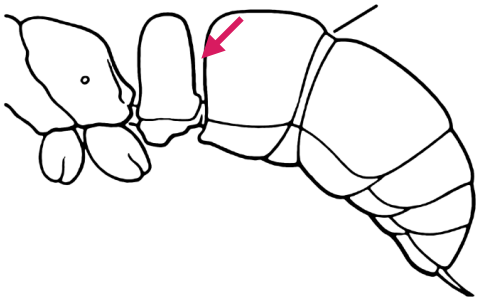
→ **Amblyoponinae** p. 13



Probolomyrmex: shelf

8b Antennal sockets on a shelf that overhangs the mandibles; frontal lobes fused into a thin vertical plate (*Probolomyrmex*)

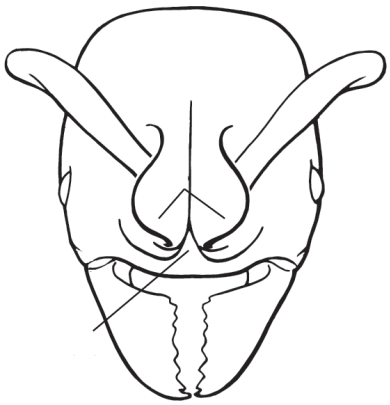
→ **Proceratiinae** p. 118



Hypoponera: petiole with a rear face

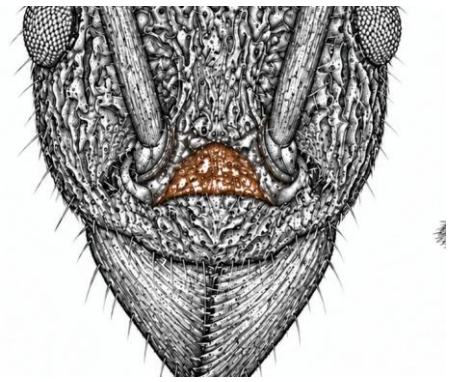
8c Petiole with a rear face, joined to the gaster by a narrow neck; sockets behind the clypeus

→ **step 9**



9a Frontal lobes close together, at most a narrow strip of clypeus between them. (Wide apart only in *Platythyrea*: dull, frosted body and **two** comb-like spurs on the hind tibia)

→ **Ponerinae** p. 103



Rhytidoponera: clypeus between the lobes

9b Frontal lobes wide apart, the clypeus reaching back between them. **One** comb-like spur on the hind tibia; a lobe or ridge under the base of the gaster; coarse ridges or pits

→ **Ectatomminae** p. 40

Step 4: look at the gaster tip from behind, at high magnification. In Formicinae the fringe of hairs may be worn off; *Camponotus* and *Polyrhachis* often lack it, but their antennal sockets sit well behind the clypeus.

Dorylinae come out twice: *Aenictus* and *Ooceraea* have two waist segments (step 3); the other genera have one, followed by a large segment set off by a constriction (step 5). Proceratiinae and Ectatomminae come out twice too: those with a curled gaster at step 7, the others at step 8 (*Probolomyrmex*) and step 9.

Drawings: Fisher et al. 2025, CC0. Line drawings: Fisher & Cover 2007, from the AntWiki keys.

The 11 subfamilies (1 of 3)



Amblyoponinae

genus key p. 13

One waist segment, broadly joined to the gaster (no rear face). Sting. Mandibles long, with many teeth; front of the clypeus with peg-like teeth. Eyes small or absent. Soil and rotten wood.

6 genera: *Amblyopone*, *Fulakora*, *Myopopone*, *Mystrium*, *Prionopelta*, *Stigmatomma*

Photo: *Mystrium camillae*, CASENT0172330



Dolichoderinae

genus key p. 19

One waist segment, sometimes flat and hidden. No sting; the gaster tip is a slit without a fringe of hairs. Body usually soft (hard and sculptured in *Dolichoderus*); many smell when crushed.

12 genera: *Anonychomyrma*, *Arnoldius*†, *Chronoxenus*, *Dolichoderus*, *Iridomyrmex*, *Leptomyrmex*, *Ochetellus*, *Papyrius*, *Philidris*, *Tapinoma*, *Technomyrmex*, *Turneria*

Photo: *Leptomyrmex fragilis*, CASENT0127004



Dorylinae

genus key p. 33

Antennal sockets fully exposed at the front of the head. *Aenictus*: two waist segments, no eyes; army ants in columns. The others: last tergite with peg-like setae; one waist segment (two in *Ooceraea*); body often cylindrical.

6 genera: *Aenictus*, *Lioponera*, *Ooceraea*, *Parasyscia*, *Simopone*, *Zasphinctus*

Photo: *Ooceraea papuana*, CASENT0434834



Ectatomminae

genus key p. 40

One waist segment, a sting and a constriction behind the first gaster segment. Frontal lobes set wide apart; one comb-like spur on the hind tibia; coarse ridges or pits on the body.

3 genera: *Holcoponera*, *Rhytidoponera*, *Stictoponera*

Photo: *Rhytidoponera celtinodis*, CASENT0010628

° not on the New Guinea list: Bougainville, Solomons, Vanuatu, New Caledonia or Fiji. † known from one New Guinea specimen, identified to genus only.

Photos: AntWeb.org, CC BY 4.0 (CASENT0172330, CASENT0127004, CASENT0434834, CASENT0010628).

The 11 subfamilies (2 of 3)



Formicinae

genus key p. 44

One waist segment. No sting; the gaster tip is a round nozzle (acidopore), usually with a fringe of hairs.

20 genera: *Acropyga*, *Anoplolepis*, *Brachymyrmex*°, *Calomyrmex*, *Camponotus*, *Colobopsis*, *Echinopla*, *Euprenolepis*, *Notoncus*, *Nylanderia*, *Oecophylla*, *Opisthopsis*, *Overbeckia*, *Paraparatrechina*, *Paratrechina*, *Plagiolepis*, *Polyrhachis*, *Prenolepis*, *Prolasius*, *Pseudolasius*

Photo: *Polyrhachis dohrni*, CASENT0009230



Leptanillinae

only regional genus: *Leptanilla*

Tiny (under 1.5 mm), pale, blind. Two waist segments; antennal sockets exposed; antenna with 12 segments. Live deep in the soil; found by soil sifting.

1 genus: *Leptanilla*

Photo: *Leptanilla swani*, CASENT0172006



Myrmeciinae

only regional genus: *Myrmecia*

New Caledonia only (*Myrmecia apicalis*; photo: a syntype worker from New Caledonia). Large (over 10 mm), two waist segments, huge eyes, long straight mandibles toothed along their whole inner edge; a strong sting.

1 genus: *Myrmecia*°

Photo: *Myrmecia apicalis*, worker, CASENT0903788



Myrmicinae

genus key p. 66

Two waist segments. Frontal lobes usually cover the antennal sockets (reduced in *Pristomyrmex*, whose sockets are exposed); pronotum and mesonotum fused. Most genera and most species.

37 genera: *Adelomyrmex*, *Allomerus*°, *Ancyridris*, *Aphaenogaster*, *Calyptomyrmex*, *Cardiocondyla*, *Carebara*, *Cataulacus*, *Chelaner*, *Colobostruma*, *Crematogaster*, *Dacetinops*, *Dilobocondyla*, *Eurhopalothrix*, *Liomyrmex*, *Lordomyrma*, *Mayriella*, *Meranoplus*, *Metapone*, *Monomorium*, *Myrmecina*, *Orectognathus*, *Pheidole*, *Podomyrma*, *Poecilomyrma*°, *Pristomyrmex*, *Rhopalomastix*, *Rhopalothrix*, *Rogeria*, *Romblonella*, *Solenopsis*, *Strumigenys*, *Syllophopsis*, *Tetramorium*, *Trichomyrmex*, *Vollenhovia*, *Vombisidris*

Photo: *Pristomyrmex umbripennis*, CASENT0010664

° not on the New Guinea list: Bougainville, Solomons, Vanuatu, New Caledonia or Fiji.

Photos: AntWeb.org, CC BY 4.0 (CASENT0009230, CASENT0172006, CASENT0903788, CASENT0010664).

The 11 subfamilies (3 of 3)



Ponerinae

genus key p. 103

One waist segment; a sting; a girdle-like constriction behind the first gaster segment. Frontal lobes close together (wide apart only in *Platythyrea*). Hard body.

15 genera: *Anochetus*, *Brachyponera*, *Cryptopone*, *Diacamma*, *Ectomomyrmex*, *Hypoponera*, *Leptogenys*, *Mesoponera*, *Myopias*, *Odontomachus*, *Parvaponera*, *Platythyrea*, *Ponera*, *Pseudoneoponera*, *Pseudoponera*

Photo: *Odontomachus*, MJ31479



Proceratiinae

genus key p. 118

Proceratium and *Discothyrea*: gaster tip turned down and forward, the second gaster segment strongly arched and forming the rear end. *Probolomyrmex*: gaster not curled, its tip pointing backward. Antennal sockets exposed or on a shelf over the mandibles. Leaf litter and soil.

3 genera: *Discothyrea*, *Probolomyrmex*, *Proceratium*

Photo: *Proceratium papuanum*, CASTYPE06965



Pseudomyrmecinae

only regional genus: *Tetraponera*

Two waist segments, very large eyes, long narrow body, short scapes. Pronotum movable against the mesonotum. Live in hollow twigs and stems.

1 genus: *Tetraponera*

Photo: *Tetraponera allaborans*, CASENT4032494

° not on the New Guinea list: Bougainville, Solomons, Vanuatu, New Caledonia or Fiji.

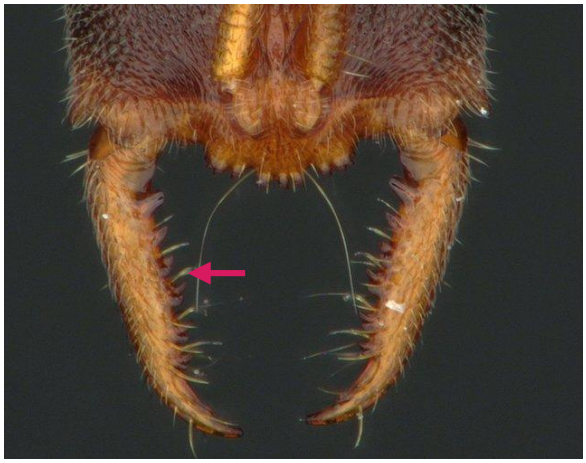
Photos: AntWeb.org, CC BY 4.0 (CASTYPE06965, CASENT4032494).

Amblyoponinae: key to the genera (1 of 2)



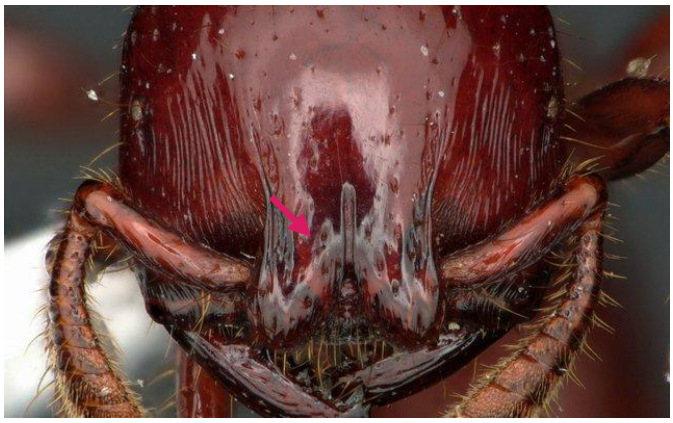
1a Mandibles with only **three** teeth, near the tip; closed mandibles fit against the clypeus. Tiny, pale

→ ***Prionopelta*** p. 16



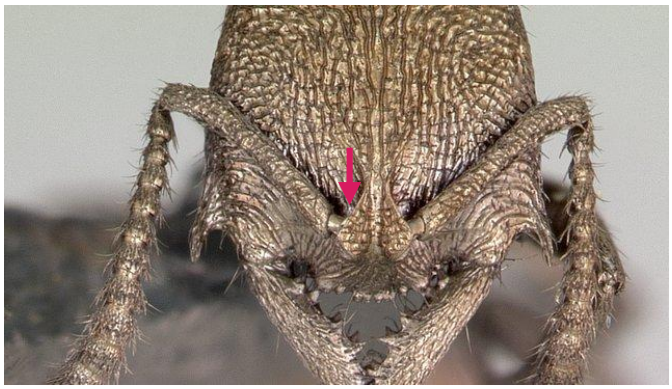
1b Mandibles with **five or more** teeth along the inner edge; a gap between the closed mandibles and the clypeus

→ **step 2**



2a Frontal lobes large, reaching forward over the clypeus and forming the front edge of the head. Last antennal segments flattened

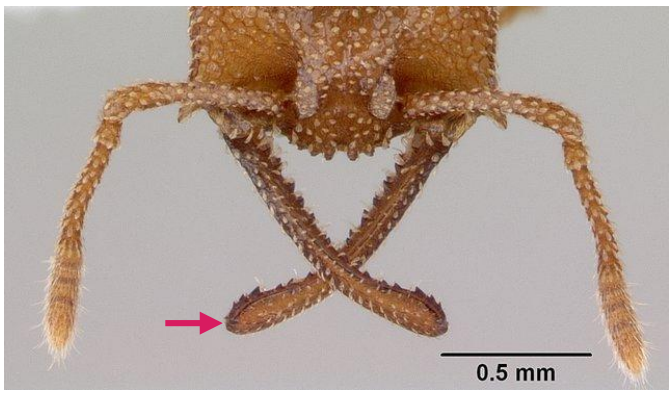
→ ***Myopopone*** p. 15



Stigmatomma: frontal lobes

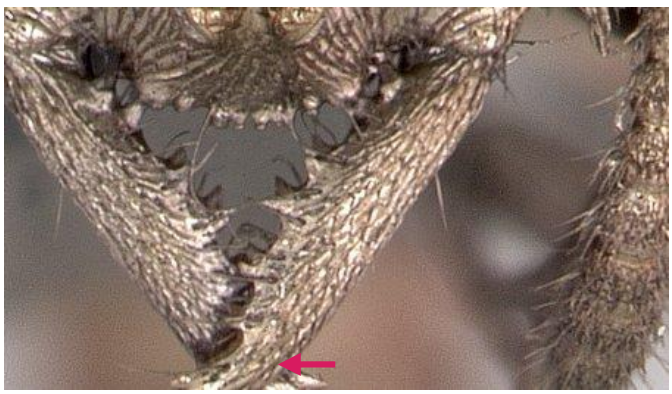
2b Frontal lobes short, not covering the clypeus. Antennal segments round in section

→ **step 3**



3a Mandible tips blunt, with short blunt teeth. Rear margin of the head concave. Hairs broad, scale-like

→ ***Mystrium*** p. 15



3b Mandible tip a single sharp tooth. Hairs thin and pointed

→ **step 4**

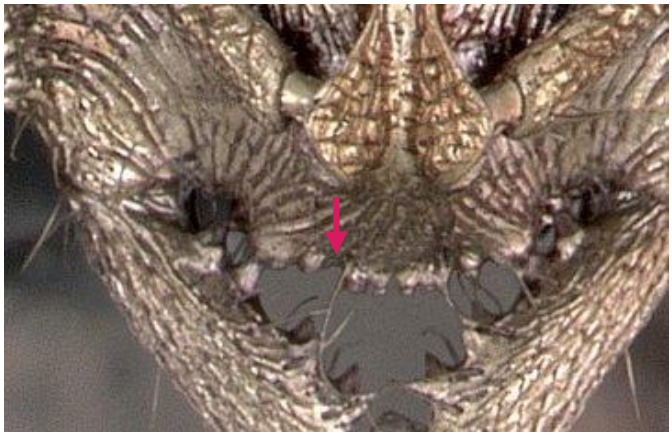
Photos: AntWeb.org, CC BY 4.0 (CASENT0434875, CASENT0172804, CASENT0172330).

Amblyoponinae: key to the genera (2 of 2)



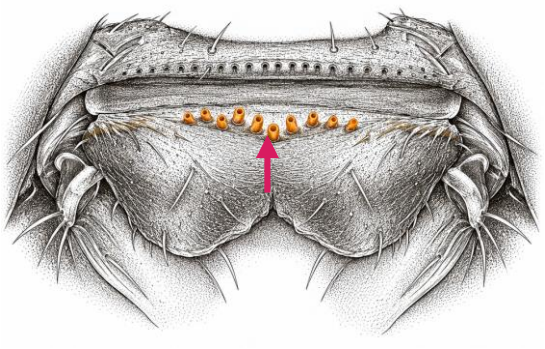
4a Front edge of the clypeus with a row of low lobes, each bearing a peg-like tooth

→ ***Fulakora*** p. 17

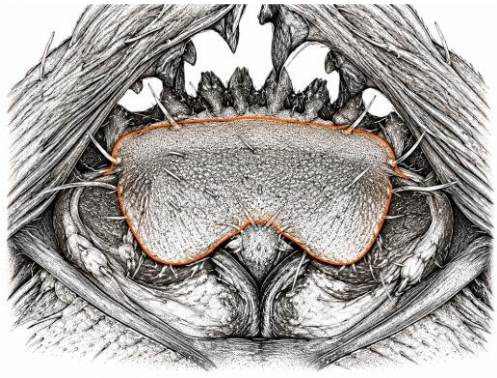


4b Clypeal teeth arise directly from the evenly convex front edge

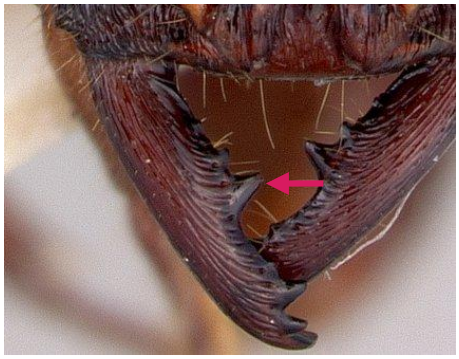
→ **step 5**



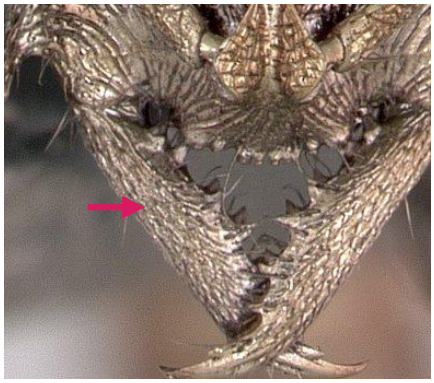
A. australis: setae on the labrum
reference specimen, New Zealand



S. pallipes: labrum plain



A. australis: mandibles
reference specimen, Australia



S. noonadan: mandibles

5a Mandibles stout; their teeth in one row, large, much larger than the small denticles at their bases. Labrum with a row of small tooth-like setae across its base (open the mandibles). In New Guinea: *A. australis*, large, finely striate

→ ***Amblyopone*** p. 16

5b Mandibles with paired teeth: under each true tooth a lower denticle as large or larger. No tooth-like setae on the labrum. In New Guinea: *S. noonadan*, coarse network sculpture, a spine at each lower corner of the head

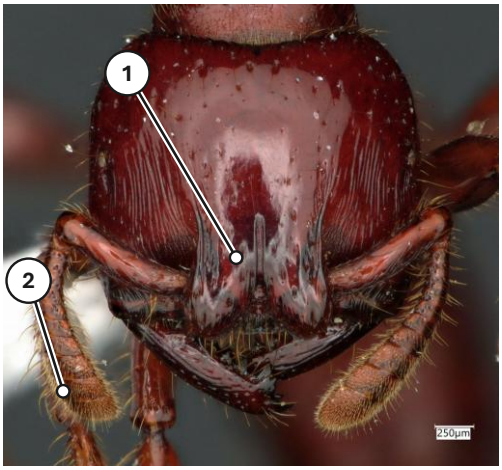
→ ***Stigmatomma*** p. 17

Step 5 follows Yoshimura & Fisher (2014). A tooth or spine at the lower corners of the head does not separate the genera: *S. noonadan* has one.

Photos: AntWeb.org, CC BY 4.0 (CASENT0172804, CASENT0172212).



Myopopone, MJ14795



Myopopone, MJ14795

Myopopone 8–12 mm

New Guinea list: 1 species

1 Frontal lobes large, reaching forward over the clypeus and forming the front edge of the head

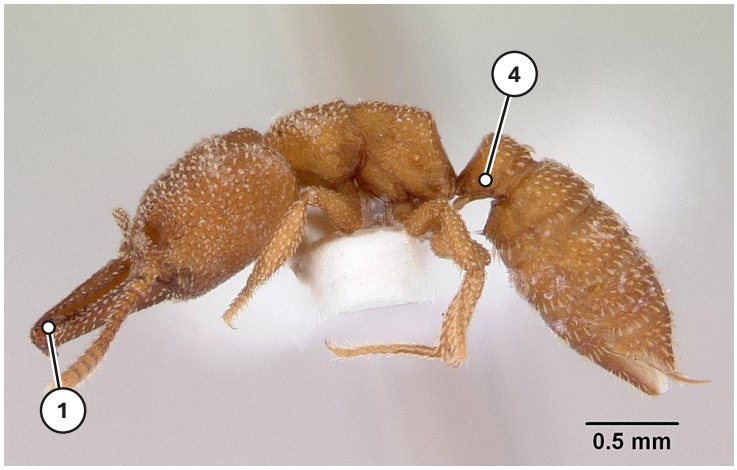
2 Last segments of the antenna flattened, not round in section

3 Petiole broadly joined to the gaster, without a rear face

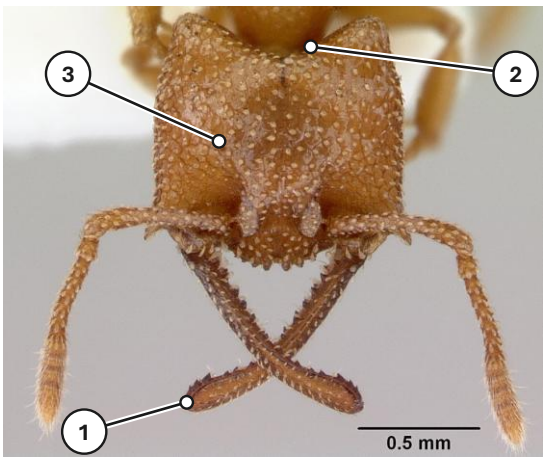
4 Large and red-brown; mandibles long, with teeth along the whole inner edge

Compare: *Mystrium* (blunt mandible tips, scale-like hairs); *Stigmatomma* and relatives (frontal lobes short, antennae round)

In New Guinea: *M. castanea* lives in rotten logs, where it hunts beetle larvae.



Mystrium camillae, CASENT0172330



Mystrium camillae, CASENT0172330

Mystrium 4–8 mm

New Guinea list: 3 species

1 Mandibles long and slender, their tips blunt, with short blunt teeth

2 Rear margin of the head concave, its corners often projecting

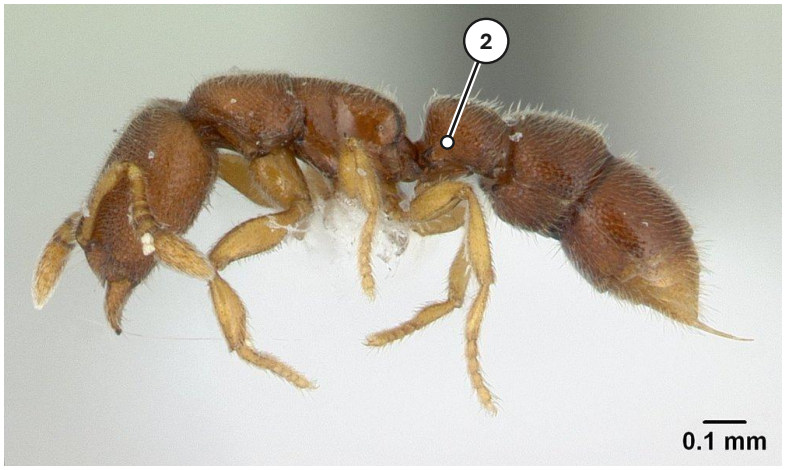
3 Hairs short, broad and flattened (scale-like)

4 Petiole broadly joined to the gaster

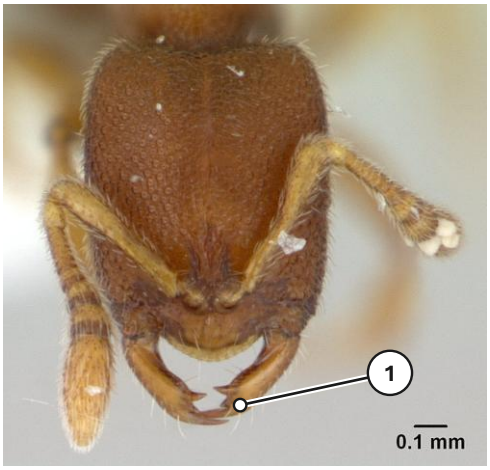
Compare: *Stigmatomma*, *Fulakora*, *Amblyopone* (sharp mandible tip, thin pointed hairs)

In New Guinea: Leaf litter and rotten wood of forest. The mandibles snap past each other to stun prey such as centipedes.

Photos: AntWeb.org, CC BY 4.0 (CASENT0172330).



Prionopelta opaca, CASENT0434875



Prionopelta opaca, CASENT0434875

Prionopelta 1.5–2.5 mm

New Guinea list: 6 species

1 Mandibles with only three teeth, near the tip, the middle one smallest; closed mandibles fit against the clypeus

2 Petiole broadly joined to the gaster, without a rear face

3 Tiny, yellowish to orange-brown; eyes absent or a single facet

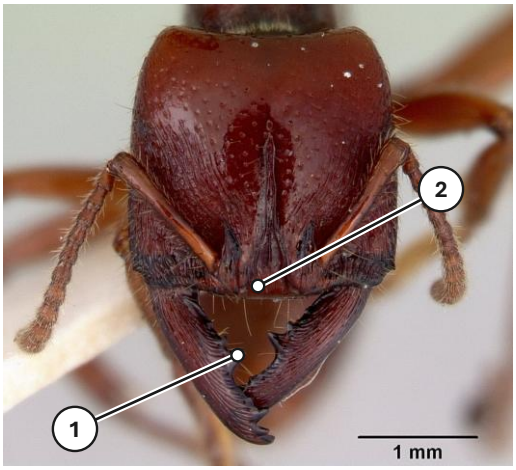
4 Antenna short and thick

Compare: *Stigmatomma* and relatives (five or more teeth along the mandible); *Hypoponera* (Ponerinae: petiole a scale)

In New Guinea: Rotten wood, soil and leaf litter of forest; small colonies. Found mostly by sifting litter.



Amblyopone australis, CASENT0172212



Amblyopone australis, CASENT0172212

Amblyopone 5–9 mm

New Guinea list: 1 species

1 Mandibles stout; their teeth in one row, large, much larger than the small denticles at their bases

2 Front edge of the clypeus evenly convex, with peg-like teeth arising directly from it

3 Labrum with small tooth-like setae: seen only when the mandibles are open

4 Large, dark brown to black; head finely striate; eyes small

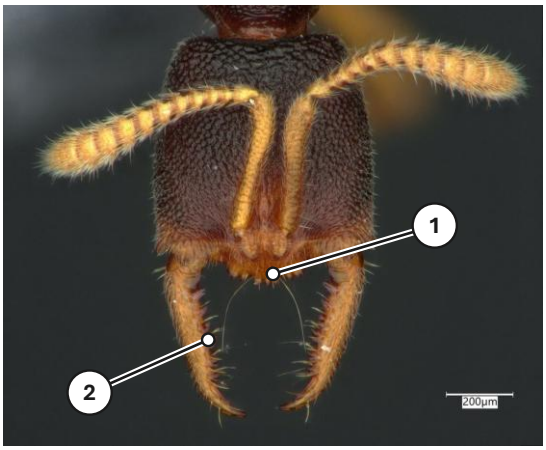
Compare: *Stigmatomma* (paired teeth on the mandible; no tooth-like setae on the labrum); *Fulakora* (clypeal teeth on low lobes)

In New Guinea: *A. australis*, mainly Australian, is recorded from New Guinea; it hunts centipedes under logs and stones. Photos: *A. australis*, a worker from Mt Aggie, Australian Capital Territory (CASENT0172212): a reference specimen from outside New Guinea.

Photos: AntWeb.org, CC BY 4.0 (CASENT0434875, CASENT0172212).



Fulakora, MJ31887



Fulakora, MJ31887

Fulakora 3–5 mm

New Guinea list: 1 species

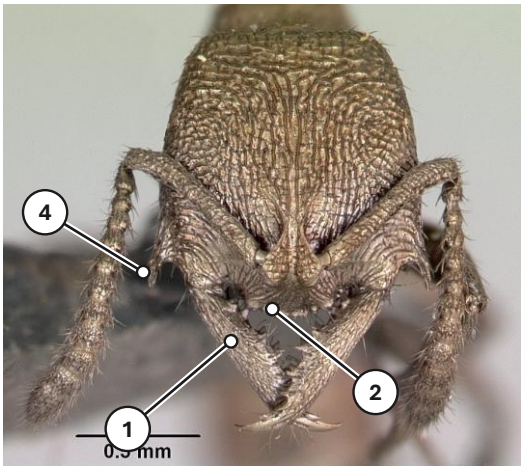
1 Front edge of the clypeus with a row of low lobes, each bearing a peg-like tooth
2 Mandibles long and narrow, with teeth along the whole inner edge; the tip sharp
3 Small: the head of *F. papuana* is about 0.7 mm wide
4 Brown; eyes tiny

Compare: *Stigmatomma* and *Amblyopone* (clypeal teeth arise directly from the margin)

In New Guinea: *F. papuana*: leaf litter and rotten wood of forest.



Stigmatomma noonadan, CASENT0172804



Stigmatomma noonadan, CASENT0172804

Stigmatomma 3–5 mm

New Guinea list: 1 species

1 Mandibles with paired teeth: under each true tooth a lower denticle as large or larger
2 Front edge of the clypeus with peg-like teeth arising directly from the margin, not on lobes
3 No tooth-like setae on the labrum
4 *S. noonadan*: coarse network sculpture; a sharp spine at each lower corner of the head

Compare: *Amblyopone* (large single teeth on stout mandibles); *Fulakora* (clypeal teeth on low lobes); *Mystrium* (blunt mandible tips)

In New Guinea: *S. noonadan*: soil and leaf litter; rarely collected.

Photos: AntWeb.org, CC BY 4.0 (CASENT0172804).

Dolichoderinae in New Guinea

How to recognise them

One waist segment, sometimes flat and hidden. No sting; the gaster tip is a slit without a fringe of hairs. Body usually soft (hard and sculptured in *Dolichoderus*); many smell when crushed.

12 genera in New Guinea: *Anonychomyrma* (13), *Arnoldius* (1 record), *Chronoxenus* (1), *Dolichoderus* (4), *Iridomyrmex* (10), *Leptomyrmex* (7), *Ochetellus* (3), *Papyrius* (1), *Philidris* (4), *Tapinoma* (6), *Technomyrmex* (10), *Turneria* (4)

- Several characters are small: palps (count the segments), the front margin of the clypeus, the propodeal spiracle. Use high magnification and look at several workers.
- Tramp species on the NG list include *Tapinoma melanocephalum* (ghost ant) and *Technomyrmex albipes*.
- In the key to the subfamilies, Dolichoderinae come out at step 4b.
- Keys to species: *Iridomyrmex* (Heterick & Shattuck 2011), *Leptomyrmex* (Lucky & Ward 2010), *Technomyrmex* (Bolton 2007), *Turneria* (Shattuck 1990). All published keys: "Published keys for New Guinea and Melanesia", at the end of the book.

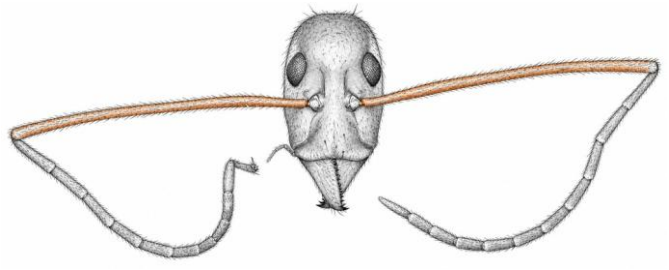


Leptomyrmex, MJ0884

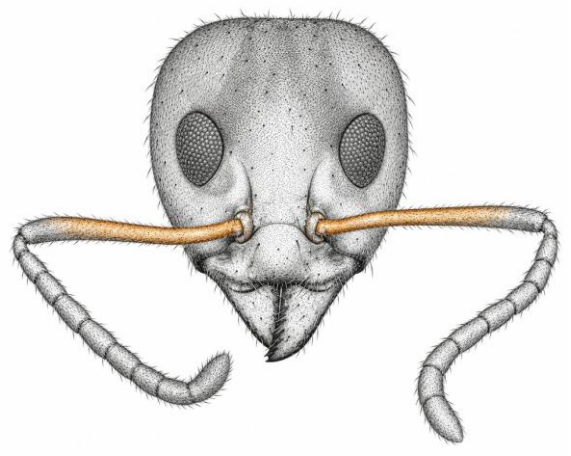


Philidris, MJ31456

Dolichoderinae: key to the genera (1 of 6)



Leptomyrmex: scape about 3 × that distance scapes shown extended



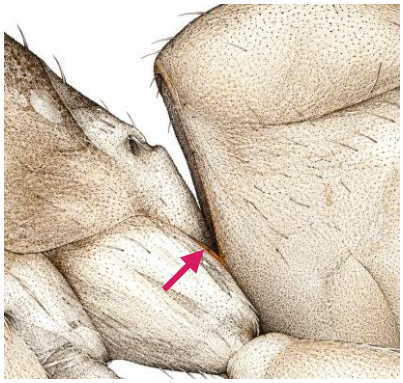
Iridomyrmex: scape about as long as that distance scapes shown extended

1a Full-face view, scapes laid back: they pass the rear of the head by **half their length or more** (scape at least twice as long as the distance from its base to the rear margin of the head). Legs very long

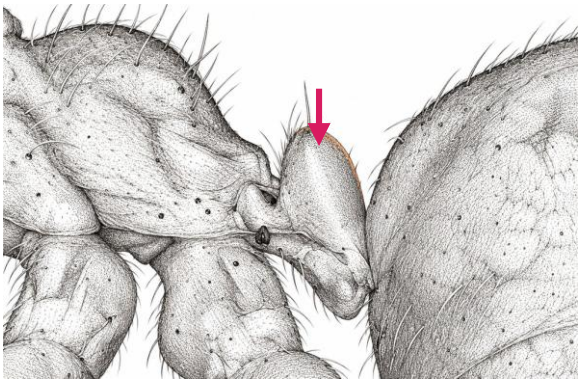
→ ***Leptomyrmex*** p. 27

1b Full-face view: scapes pass the rear of the head by less than half their length, or not at all (scape less than twice that distance)

→ **step 2**



Tapinoma: petiole under the gaster



Philidris: petiole a scale



Technomyrmex



Anonychomyrma

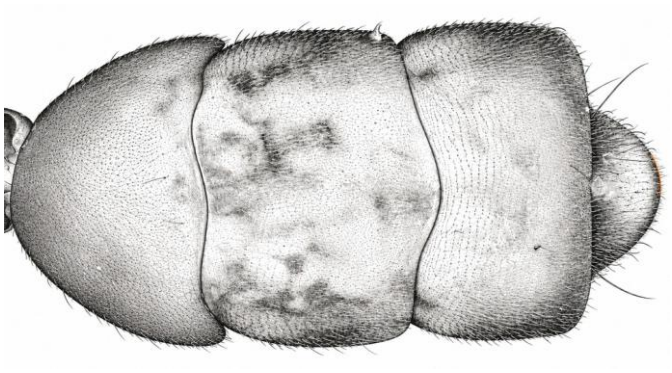
2a Side view: petiole **greatly reduced**, a low node under the overhanging front of the gaster. Upper face of the propodeum shorter than its rear face. Mandible without a basal angle

→ **step 3**

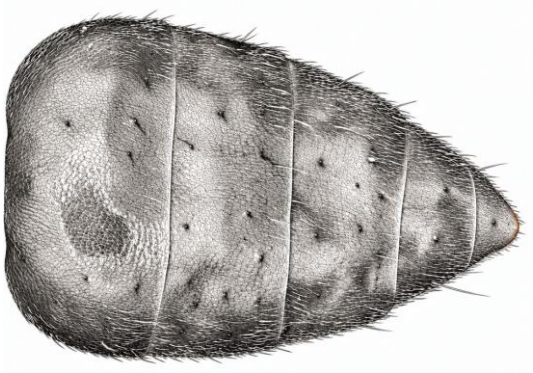
2b Side view: petiole with a **developed scale**, with front and rear faces (it may lean strongly forward, as in *Philidris*). Mandible with a distinct basal angle

→ **step 4**

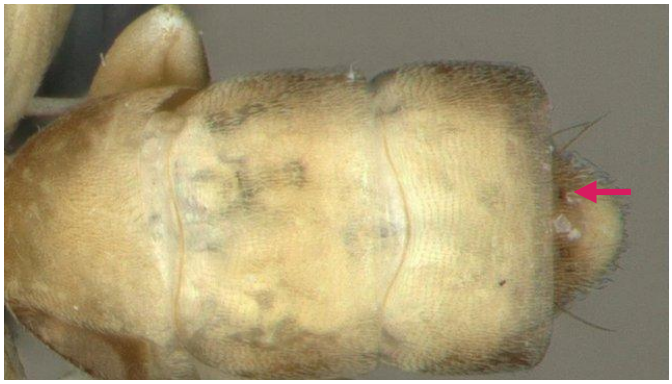
Dolichoderinae: key to the genera (2 of 6)



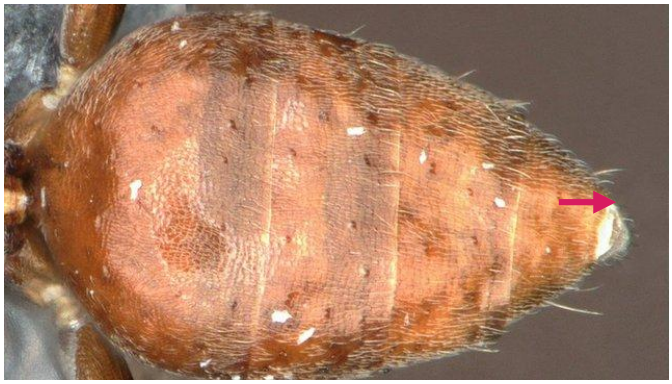
Tapinoma: 4 tergites from above



Technomyrmex: 5 tergites from above



Tapinoma



Technomyrmex

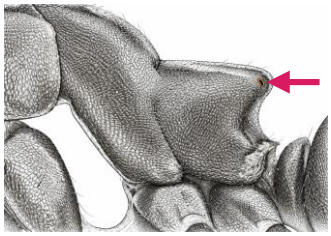
3a Fifth gaster tergite turned under, onto the underside: from above only **4** tergites, and the gaster tip opens downward. Pronotum usually without erect hairs

→ ***Tapinoma*** p. 29

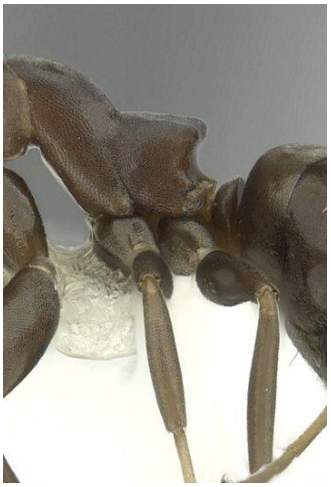
3b Fifth gaster tergite on the upper side (sometimes small and pulled in): from above **5** tergites; the tip at the end of the gaster. Pronotum commonly with 2–10 erect hairs

→ ***Technomyrmex*** p. 30

Dolichoderinae: key to the genera (3 of 6)



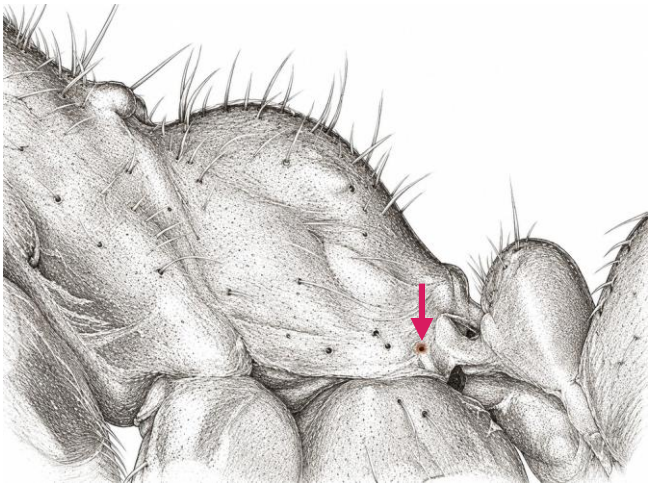
Turneria: spiracle high



Turneria

4a Side view: propodeal spiracle **high**, near the angle between the upper and rear faces. Eyes large and oval; frontal carinae wide apart, close to the eyes. Small, about 2 mm. (Spiracle looks high but a deep metanotal notch: compare *Papyrius*, step 8a)

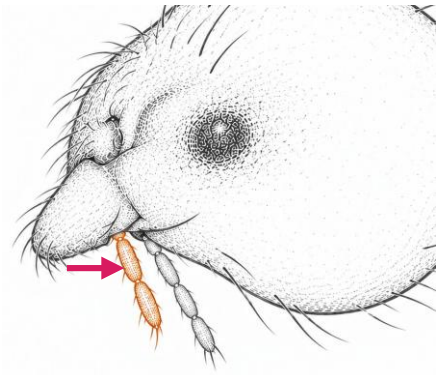
→ ***Turneria*** p. 30



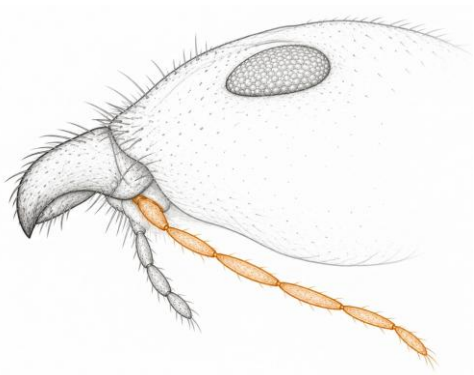
Philidris: spiracle low

4b Side view: propodeal spiracle **low** on the side of the propodeum, well below the angle between the upper and rear faces

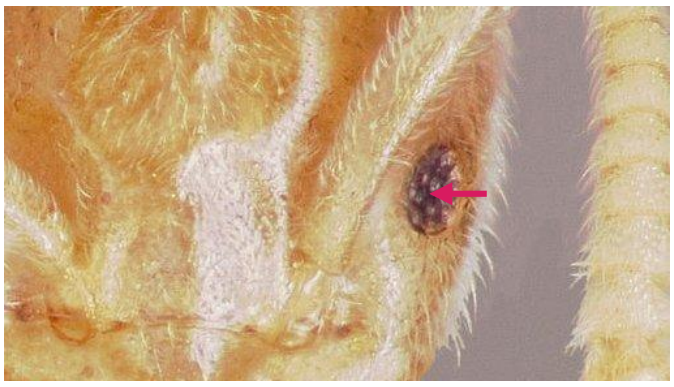
→ **step 5**



maxillary palp: 2 segments (schematic)



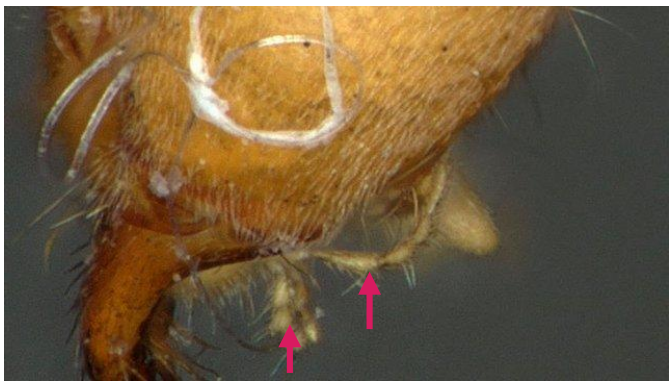
maxillary palp: 6 segments (schematic)



Chronoxenus: eye small

5a Maxillary palp with only **2** segments, short, not reaching back under the head. Eyes small, about as wide as the scape. Also: tiny (1.5–2 mm), pale

→ **step 6**



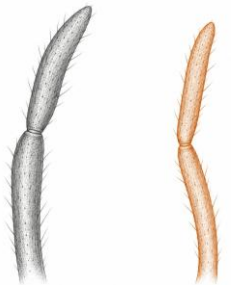
Iridomyrmex: palps under the head

5b Maxillary palp with **5 or 6** segments, usually long and reaching back along the underside of the head (shorter in *Papyrius*). Eyes much wider than the scape. Most over 2 mm

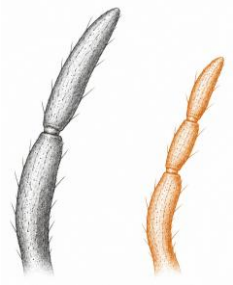
→ **step 7**

Photos: AntWeb.org, CC BY 4.0 (CASENT0249807, CASENT0006104).

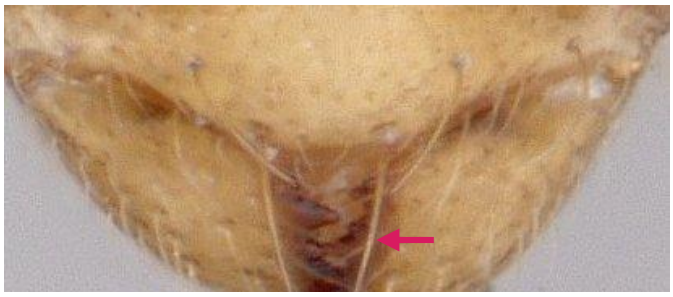
Dolichoderinae: key to the genera (4 of 6)



labial palp: 2 segments (schematic)



labial palp: 3 segments (schematic)



Arnoldius: long hairs on the clypeus



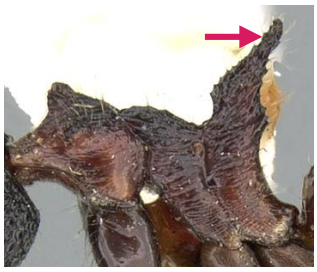
Chronoxenus rossi: clypeus

6a Labial palp with **2** segments (palps 2:2). Front margin of the clypeus with 2–12 long, curved hairs, about as long as the closed mandibles

→ ***Arnoldius*** p. 25

6b Labial palp with **3** segments (palps 2:3). Hairs on the front of the clypeus short

→ ***Chronoxenus*** p. 26



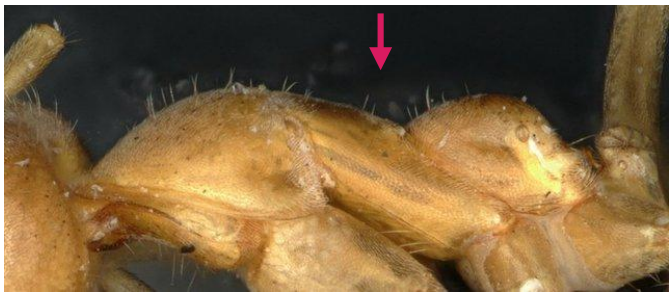
D. tricornis: median propodeal cone
Kokoda, PNG



Iridomyrmex: underside rounded



D. monoceros: propodeal cone; cuticle fairly shiny



Iridomyrmex: smooth, thin mesosoma

7a Mesosoma hard and modified: propodeum with a **tall median cone**, paired spines, or (unarmed *D. thoracicus*) a blunt projection above a concave rear face, with a broad, deep depression in front of it. Cuticle thick and hard. If the profile is ambiguous: underside of the head with a flange near the base of each mandible

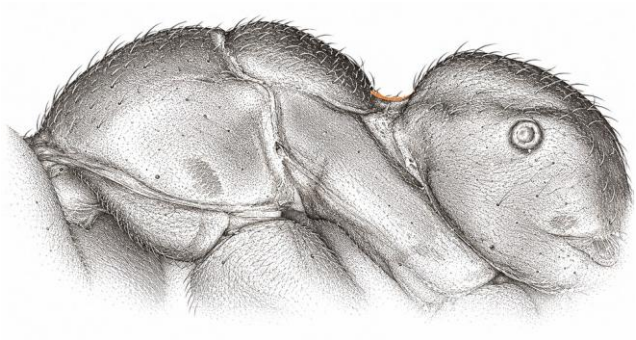
→ ***Dolichoderus*** p. 26

7b Propodeum without a tall median cone or paired spines; cuticle thin. Propodeum rounded or angular, its rear face sometimes concave (as in *Ochetellus*). Underside of the head near the mandible base rounded, at most with a ridge

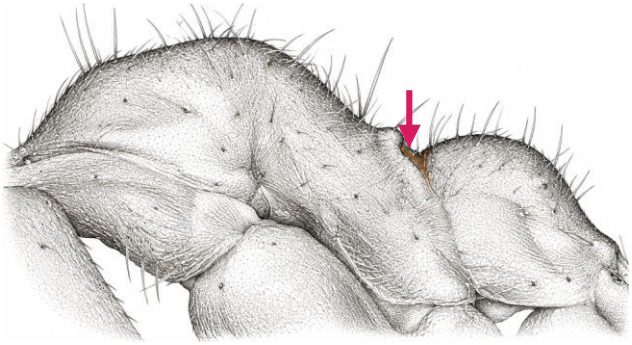
→ **step 8**

Photos: AntWeb.org, CC BY 4.0 (CASENT0178023, CASENT0006104).

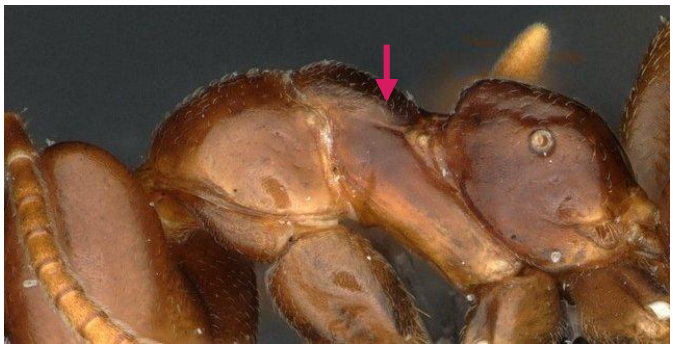
Dolichoderinae: key to the genera (5 of 6)



Papyrius: deep notch



Philidris: an angle



Papyrius



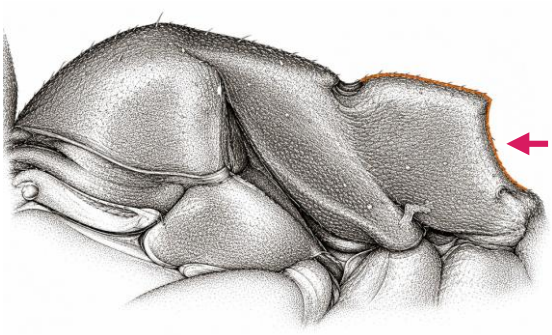
Anonychomyrma

8a Side view: metanotal groove a **deep notch**. Palps short. Mandibles with 10–15 teeth, no small denticles

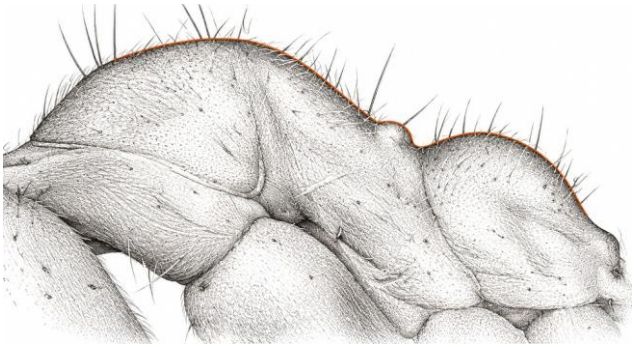
→ ***Papyrius*** p. 28

8b Side view: metanotal groove an angle or a narrow notch. Palps long. Mandibles with fewer teeth and some small denticles

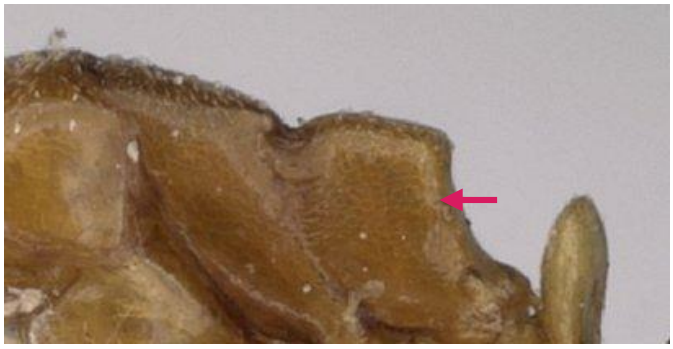
→ **step 9**



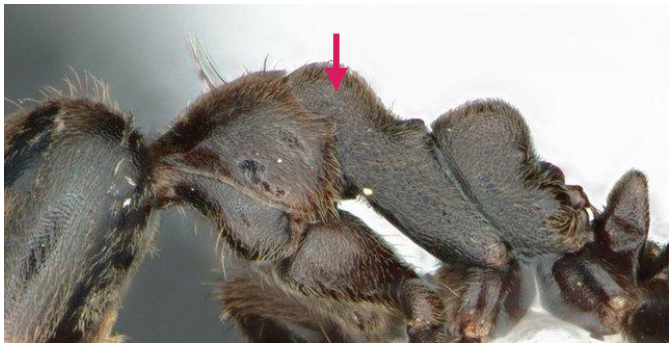
Ochetellus: flat; concave behind



Philidris: sloping



Ochetellus



Anonychomyrma

9a Side view: mesosoma almost **flat** above. Propodeum with a short upper face and a **concave** rear face, meeting in a sharp angle

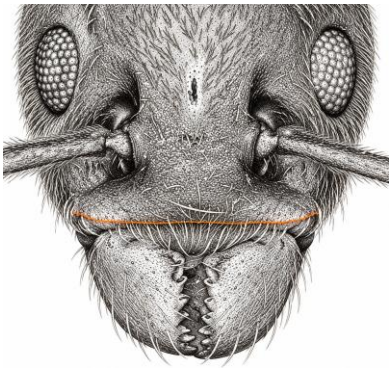
→ ***Ochetellus*** p. 28

9b Pronotum higher than the propodeum, the mesonotum **sloping** between them; propodeum rounded

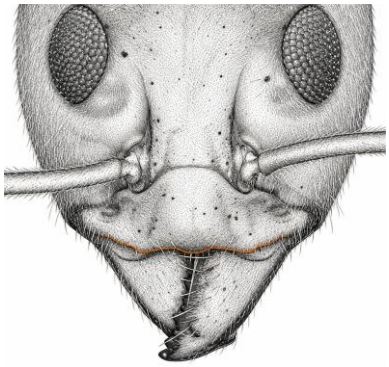
→ **step 10**

Photos: AntWeb.org, CC BY 4.0 (CASENT0249752).

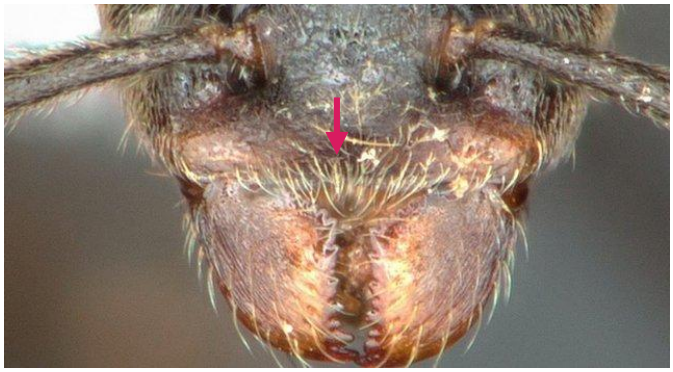
Dolichoderinae: key to the genera (6 of 6)



Anonychomyrma: margin arched



Iridomyrmex: projection between lobes



Anonychomyrma



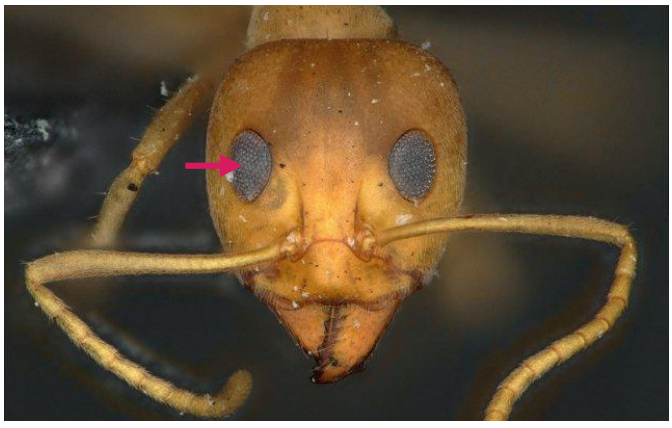
Iridomyrmex

10a Full-face view: front margin of the clypeus **evenly arched** across its width, the middle flat to convex, without any projection. (A weak or absent projection does not exclude *Iridomyrmex*: check step 11 and compare both genus pages)

→ ***Anonychomyrma*** p. 25

10b Full-face view: front margin of the clypeus with a **central projection** (pointed or rounded) between two rounded lobes; weak in some *Iridomyrmex*, rarely absent

→ **step 11**



Iridomyrmex



Philidris

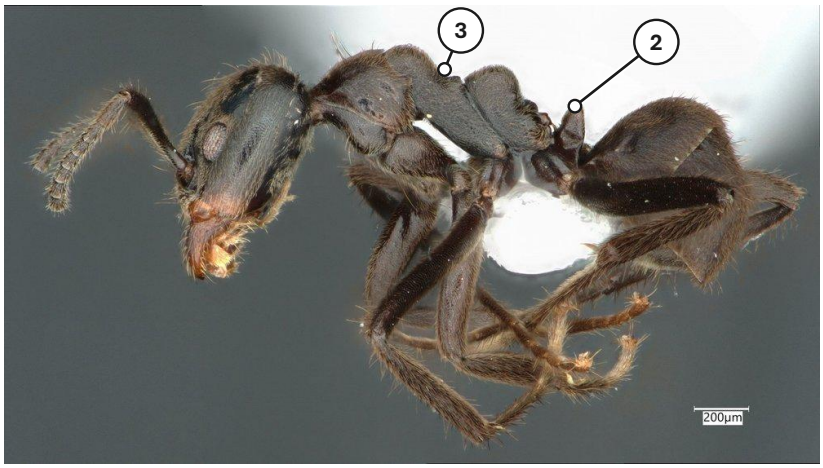
11a Full-face view: eyes at or above the middle of the sides of the head, well away from the clypeus. Rear margin of the head rounded. Side view: petiole scale upright

→ ***Iridomyrmex*** p. 27

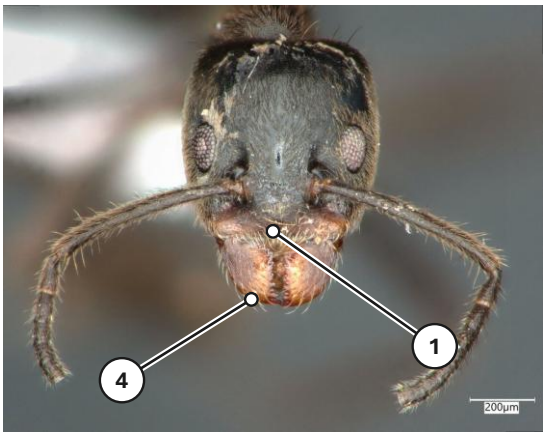
11b Full-face view: eyes below the middle of the sides of the head, close to the clypeus and the mandible bases. Rear margin of the head concave. Side view: petiole scale leaning strongly forward

→ ***Philidris*** p. 29

Look at palps, clypeus and propodeal spiracle at high magnification, on several workers. The cautions at steps 4a and 10a mark known overlaps (*Papyrius*, weak-projection *Iridomyrmex*). Palp drawings are schematic: the segment counts follow Dubovikoff (2005), the shapes are not traced from exposed palps. Step 6 after Dubovikoff (2005).



Anonychomyrma, MJ1023



Anonychomyrma, MJ1023

Anonychomyrma c. 3 mm

New Guinea list: 13 species (+1 subspecies)

1 Front margin of the clypeus evenly arched, without a central projection

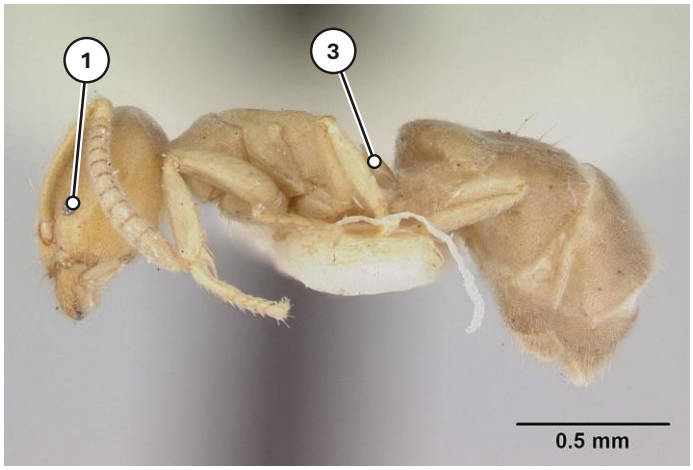
2 Petiole an upright scale

3 Pronotum higher than the propodeum, the mesonotum sloping between them; metanotal groove a broad angle

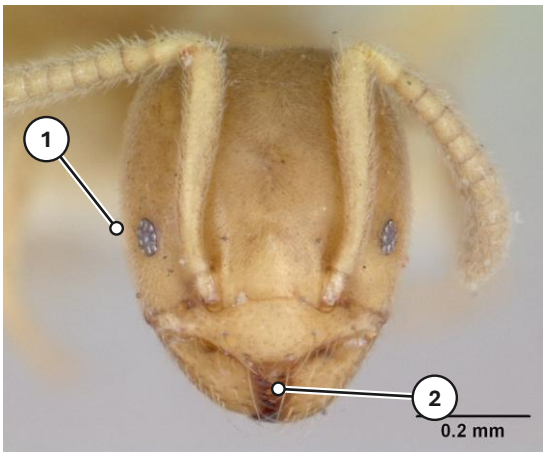
4 Mandible: the tooth at the tip only a little longer than the next; few small denticles

Compare: *Iridomyrmex* and *Philidris* (clypeus with a central projection); *Ochetellus* (mesosoma flat, propodeum concave behind)

In New Guinea: 13 species and 1 subspecies on the NG list, the most of any dolichoderine genus there.



Arnoldius flavus, CASENT0178023



Arnoldius flavus, CASENT0178023

Arnoldius c. 2 mm

New Guinea: one record (genus only)

1 Tiny and pale yellow; eyes small, with few facets

2 Front margin of the clypeus with 2–12 long, curved hairs, about as long as the closed mandibles

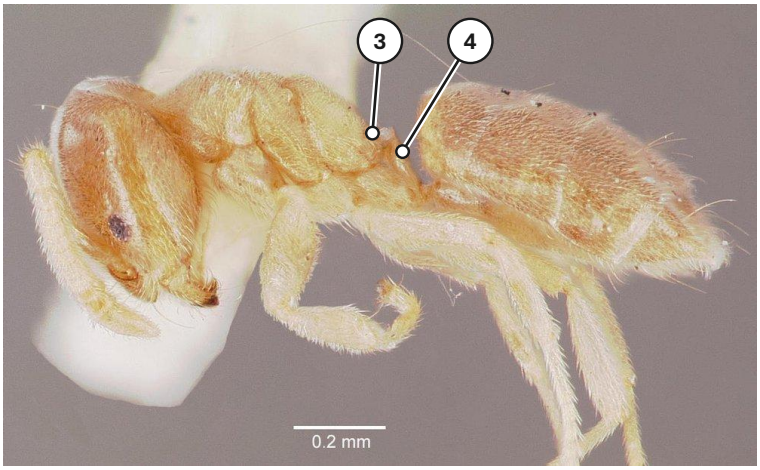
3 Petiole an erect scale, leaning a little forward; propodeum short above

4 Palps very short: 2 maxillary and 2 labial segments (dissect, or look at high magnification)

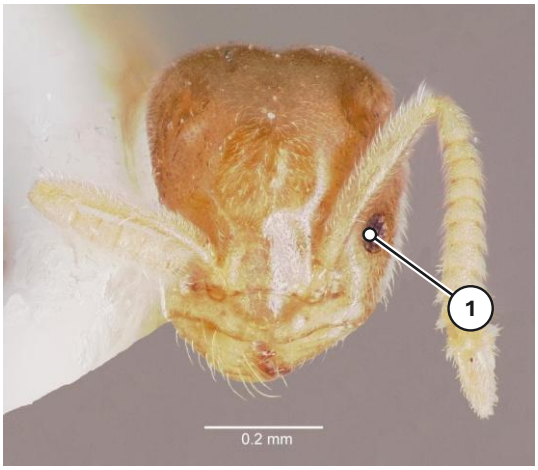
Compare: *Chronoxenus* (labial palp with 3 segments); the larger genera (palps long, eyes larger)

In New Guinea: One record: a worker from Buna (Oro Province), collected by P.M. Room in 1972, identified to genus only (ANIC 32-024034; GBIF, AntWeb). The four named taxa are Australian (AntCat). Photo: *A. flavus*, an Australian worker.

Photos: AntWeb.org, CC BY 4.0 (CASENT0178023).



Chronoxenus rossi, CASENT0006104



Chronoxenus rossi, CASENT0006104

Chronoxenus c. 1.6 mm

New Guinea list: 1 species

1 Tiny and pale yellow; eyes small

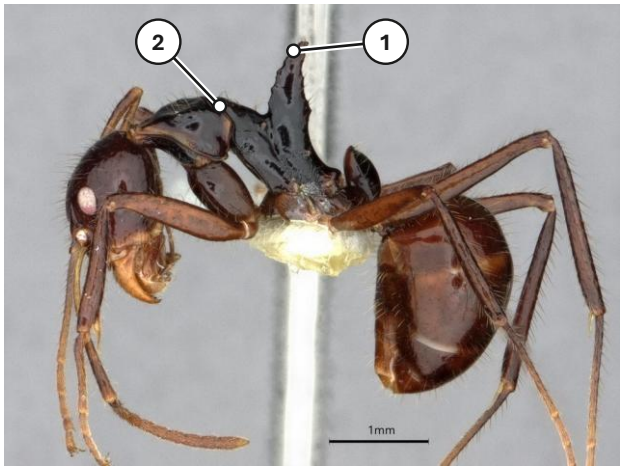
2 Palps short and hard to see: 2 maxillary and 3 labial segments

3 Mesosoma compact: the upper face of the propodeum much shorter than its sloping rear face

4 Petiole an erect scale, not overhung by the gaster

Compare: *Arnoldius* (labial palp with 2 segments; long curved hairs on the clypeus); *Tapinoma* and *Technomyrmex* (petiole greatly reduced, under the gaster); the larger genera (palps long and easy to see)

In New Guinea: Only *C. rossi*, described from Maffin Bay (Papua) as *Bothriomyrmex rossi*. Found by sifting leaf litter (General & Alpert 2012, for the genus). Photo: a worker from the type locality.



Dolichoderus monoceros, CASENT0866528



Dolichoderus monoceros, CASENT0866528

Dolichoderus c. 4.6 mm

New Guinea list: 4 species

1 Propodeum strongly modified: a tall median cone (*D. monoceros*, *D. tricornis*), paired spines (*D. cuspidatus*) or a blunt projection above a concave rear face (*D. thoracicus*)

2 Mesonotum weakly convex (*monoceros* group), spined (*D. cuspidatus*) or set off from the propodeum by a broad depression (*D. thoracicus*); *D. tricornis* also has two conical pronotal shoulders

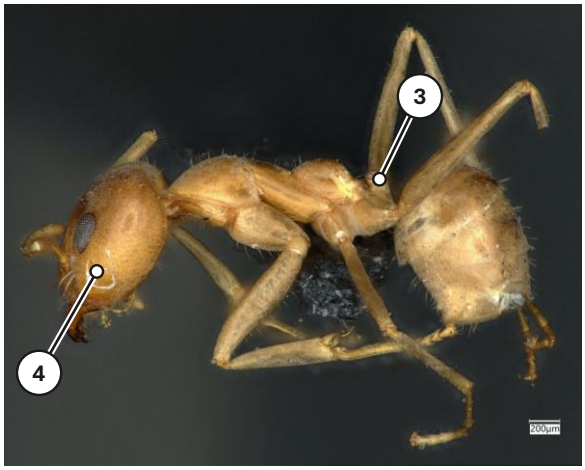
3 Cuticle thick and hard; sculpture from fairly shiny (*D. monoceros*) to coarse (*D. tricornis*)

4 Confirmation: underside of the head with a flange near the base of each mandible (needs an exposed view)

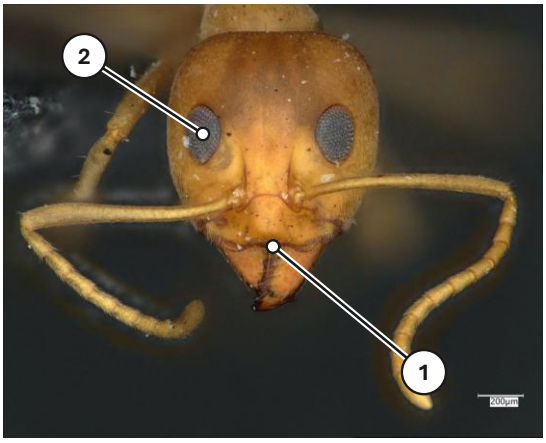
Compare: the other genera with a petiolar scale (no cone or spines on the propodeum; thin cuticle; no flange under the head). *Ochetellus* also has a concave rear face of the propodeum: compare the whole profile

In New Guinea: 4 species on the NG list. *D. thoracicus* tends mealybugs on fruit trees and is common in gardens (General & Alpert 2012, Philippines).

Photos: AntWeb.org, CC BY 4.0 (CASENT0006104, CASENT0866528).



Iridomyrmex, MJ31298



Iridomyrmex, MJ31298

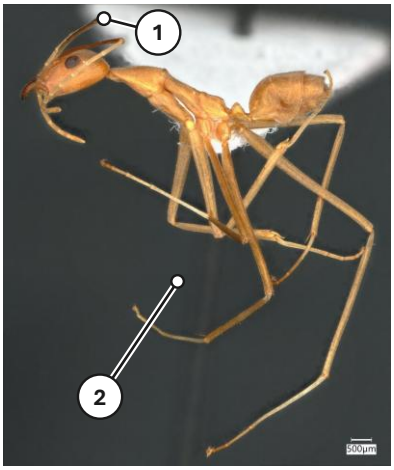
Iridomyrmex c. 3.3 mm

New Guinea list: 10 species

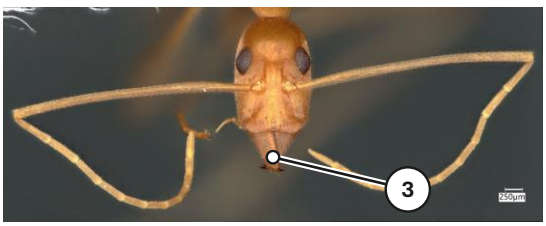
1 Front margin of the clypeus with a central projection between two rounded lobes (wavy margin)
2 In full-face view, eyes at or above the middle of the sides of the head, well away from the clypeus
3 Petiole an upright scale
4 Rear margin of the head rounded; palps long

Compare: *Philidris* (eyes below mid-head, near the clypeus; petiole leaning forward; rear of the head concave); *Anonychomyrma* (clypeus evenly arched)

In New Guinea: 10 species on the NG list. Fast-moving; nests in the ground, often in large colonies (General & Alpert 2012).



Leptomyrmex, MJ0884



Leptomyrmex, MJ0884

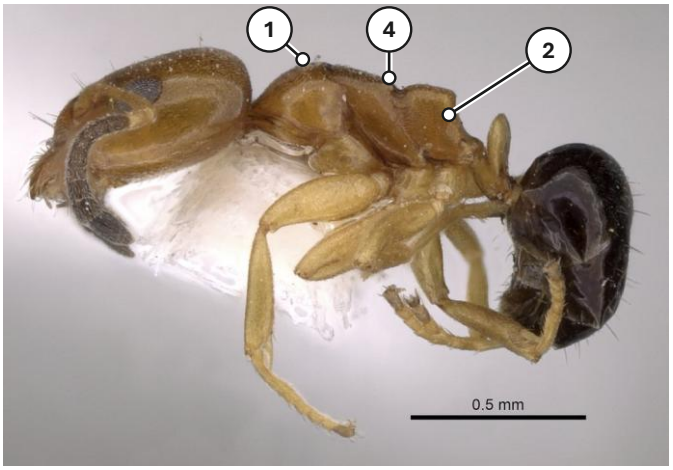
Leptomyrmex c. 6.7 mm

New Guinea list: 7 species

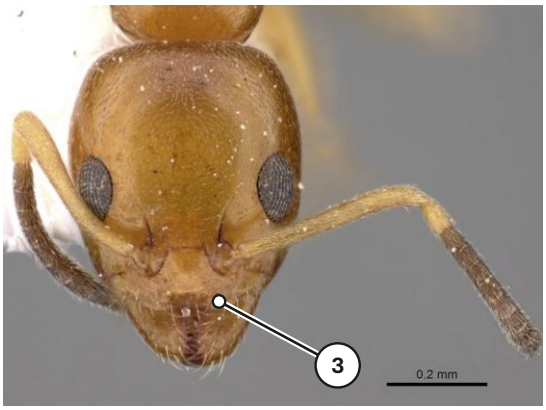
1 Scapes very long: they pass the rear of the head by half their length or more
2 Legs very long; head and mesosoma long and slender
3 Mandibles long, with many small teeth
4 Front of the underside of the head notched in the middle

Compare: all other genera (scapes pass the rear of the head by less than half their length)

In New Guinea: Spider ants; 7 species on the NG list. The genus lives mostly in Australia, New Guinea and New Caledonia; most queens are wingless (General & Alpert 2012).



Ochetellus cf. *glaber*, CASENT0249752



Ochetellus cf. *glaber*, CASENT0249752

Ochetellus c. 2 mm

New Guinea list: 3 species (+1 subspecies)

1 Upper surface of the mesosoma almost flat

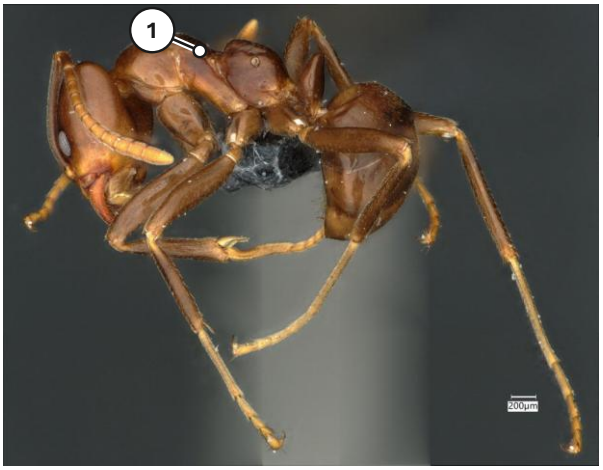
2 Propodeum with a short upper face and a concave rear face, meeting in a sharp angle

3 Front margin of the clypeus concave in the middle

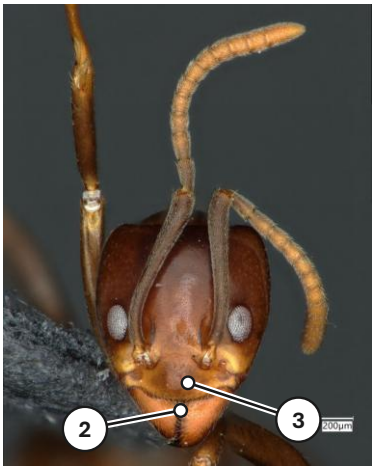
4 Metanotal groove a narrow notch

Compare: *Anonychomyrma*, *Iridomyrmex* and *Philidris* (pronotum higher, mesonotum sloping, propodeum rounded); *Dolichoderus* (thick, sculptured cuticle)

In New Guinea: Records include *O. epinotalis* and the *O. glaber* complex (with *O. glaber consimilis*). Forages on the ground and on vegetation, sometimes in columns (General & Alpert 2012). Fiji has *O. sororis* (AntWeb).



Papyrius, MJ31431



Papyrius, MJ31431

Papyrius c. 2.8 mm

New Guinea list: 1 species (+2 subspecies)

1 Metanotal groove a deep notch, below the level of the mesonotum and the propodeum

2 Mandibles with 10–15 teeth and no small denticles

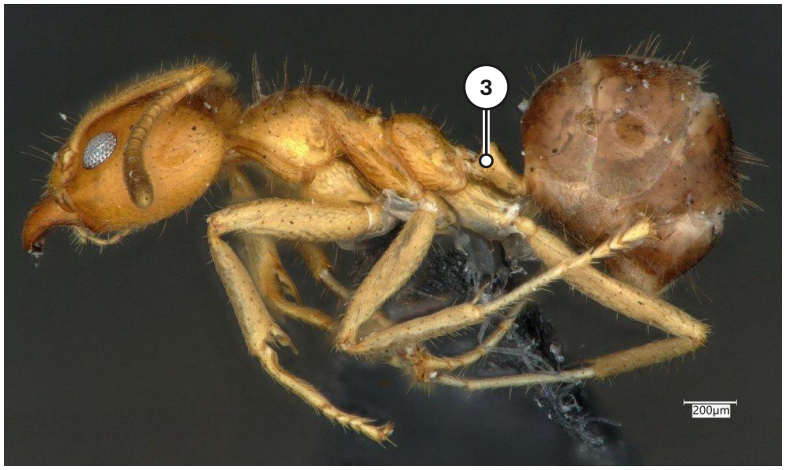
3 Front margin of the clypeus with a row of very short, straight hairs

4 Palps short, not extending far back along the underside of the head

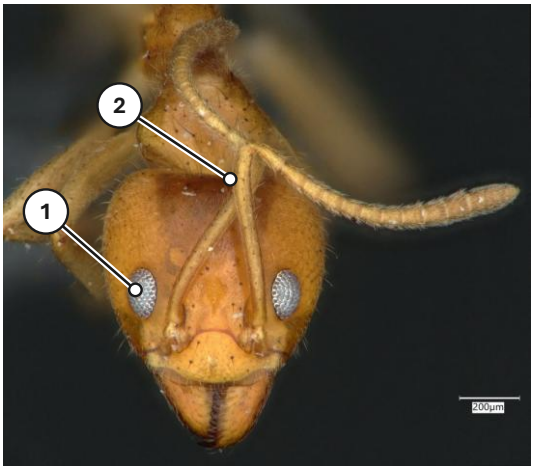
Compare: *Anonychomyrma*, *Iridomyrmex*, *Philidris* (palps long; metanotal groove an angle or a narrow notch)

In New Guinea: *P. nitidus* and its subspecies on the NG list. Nests in dead wood and covers nests and feeding sites with carton (AntWiki).

Photos: AntWeb.org, CC BY 4.0 (CASENT0249752).



Philidris, MJ31456



Philidris, MJ31456

Philidris c. 2.7 mm

New Guinea list: 4 species (+2 subspecies)

1 In full-face view, eyes below the middle of the sides of the head, close to the clypeus

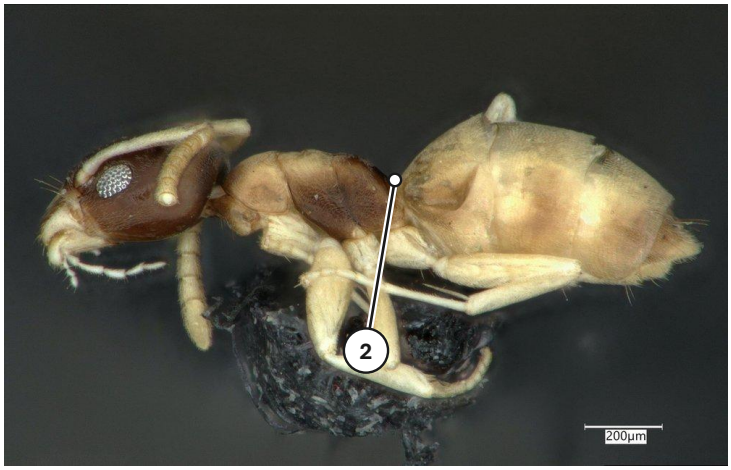
2 Rear margin of the head concave

3 Petiole a scale leaning forward, its front face much shorter than its rear face

4 Workers of a colony vary in size

Compare: *Iridomyrmex* (eyes at or above mid-head; petiole upright; rear of the head rounded)

In New Guinea: 4 species and 2 subspecies on the NG list. Nests in rotten wood, carton or ant-plants (*Myrmecodia*), defended vigorously (General & Alpert 2012). In Fiji, *P. nagasau* farms *Squamellaria*.



Tapinoma, MJ31296



Tapinoma, MJ31296

Tapinoma c. 1.7 mm

New Guinea list: 6 species

1 Fifth gaster tergite turned under, onto the underside: 4 tergites seen from above; the gaster tip opens downward

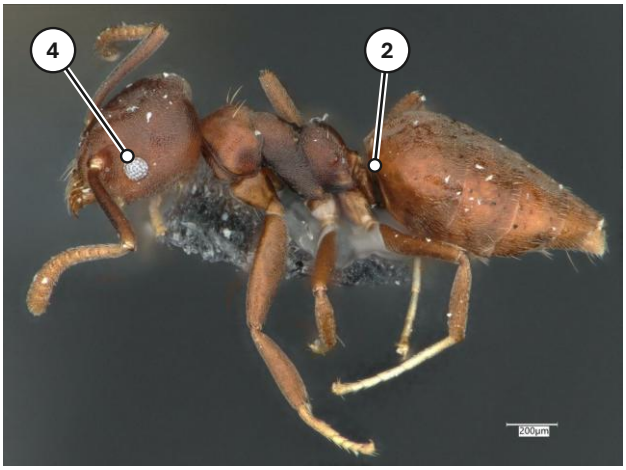
2 Petiole greatly reduced, a low node under the overhanging front of the gaster

3 Upper face of the propodeum shorter than its rear face

4 Small and soft; pronotum usually without erect hairs

Compare: *Technomyrmex* (fifth gaster tergite on the upper side: 5 tergites from above; a few erect hairs on the pronotum)

In New Guinea: 6 species on the NG list. *T. melanocephalum*, the ghost ant, is a tropical tramp that comes into houses (General & Alpert 2012).



Technomyrmex, MJ31599



Technomyrmex, MJ31599

Technomyrmex c. 2.1 mm

New Guinea list: 10 species

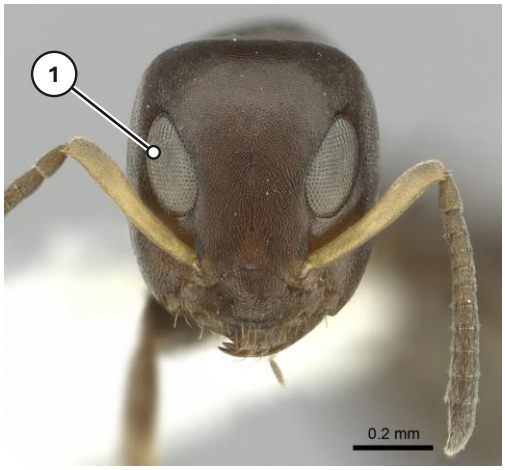
1 Fifth gaster tergite on the upper side: 5 tergites seen from above; the tip at the end of the gaster
2 Petiole greatly reduced, a low node under the overhanging front of the gaster
3 Pronotum usually with a few erect hairs
4 Eyes at or in front of the middle of the head

Compare: *Tapinoma* (fifth gaster tergite turned under: 4 tergites from above; pronotum usually without erect hairs)

In New Guinea: 10 species on the NG list. Scavengers; nest in soil, rotten wood, under bark and stones. *T. albipes* is a widespread tramp (General & Alpert 2012). Fiji has *T. vitiensis* (AntWeb).



Turneria arbusta, CASENT0249807



Turneria arbusta, CASENT0249807

Turneria c. 2.1 mm

New Guinea list: 4 species

1 Eyes large and oval
2 Frontal carinae wide apart, close to the inner margins of the eyes
3 Propodeum with rounded bumps; its spiracle high, near the angle between the upper and rear faces
4 Petiole a scale; palps long

Compare: the other genera with a petiolar scale (propodeal spiracle low on the side of the propodeum, well below the angle)

In New Guinea: 4 species on the NG list. Lives in trees: nests in dead twigs, in small colonies; workers forage singly on vegetation (AntWiki, after Shattuck 1990).

Photos: AntWeb.org, CC BY 4.0 (CASENT0249807).

Dolichoderinae at a glance

Genus	Recognise it by	Size	NG species	Page
Anonychomyrma	clypeus evenly arched; pronotum high, mesonotum sloping	c. 3 mm	13	25
Arnoldius	tiny, pale; palps 2:2; long curved hairs on the clypeus	c. 2 mm	1 record	25
Chronoxenus	tiny, pale; palps short; propodeum short above	c. 1.6 mm	1	26
Dolichoderus	propodeum raised: a tall cone, spines or a blunt projection; hard cuticle	c. 4.6 mm	4	26
Iridomyrmex	clypeus with a central projection; eyes above mid-head	c. 3.3 mm	10	27
Leptomyrmex	spider ants: very long legs and scapes	c. 6.7 mm	7	27
Ochetellus	mesosoma flat; propodeum concave behind, sharp angle	c. 2 mm	3	28
Papyrius	deep metanotal groove; 10–15 mandibular teeth, no small denticles	c. 2.8 mm	1	28
Philidris	eyes below mid-head, near the clypeus; rear of head concave	c. 2.7 mm	4	29
Tapinoma	petiole reduced; 4 gaster tergites from above	c. 1.7 mm	6	29
Technomyrmex	petiole reduced; 5 gaster tergites from above	c. 2.1 mm	10	30
Turneria	large oval eyes; propodeal spiracle high	c. 2.1 mm	4	30

How to recognise them

Antennal sockets fully exposed at the front of the head. *Aenictus*: two waist segments, no eyes; army ants in columns. The others: last tergite with peg-like setae; one waist segment (two in *Ooceraea*); body often cylindrical.

6 genera in New Guinea: *Aenictus* (15), *Lioponera* (5), *Ooceraea* (2), *Parasyscia* (8), *Simopone* (1), *Zasphinctus* (1)

- Two groups. *Aenictus*: army ants with a simple last tergite and two waist segments. Five genera with peg-like setae on the last tergite and one waist segment (two in *Ooceraea*): *Lioponera*, *Ooceraea* and *Parasyscia* were in *Cerapachys*, *Zasphinctus* in *Sphinctomyrmex*, until Borowiec (2016); and *Simopone*.
- Most are predators of other ants and raid their nests for brood. Most live in soil and leaf litter and are found by sifting litter (Winkler samples); *Aenictus* columns are also seen on the ground.
- In the key to the subfamilies, *Aenictus* and *Ooceraea* (two waist segments) come out at step 3a, the other genera at step 5a.
- The key figures are from Borowiec (2016). AII–AVI are abdominal segments 2–6, counted from the propodeum (AI). AII is the petiole. With one waist segment, AIII is the first gaster segment; in *Aenictus* and *Ooceraea* AIII is the postpetiole and the gaster begins at AIV.
- Keys to species: *Aenictus*, Wilson (1964); the other genera, Wilson (1959b; as *Cerapachys*, *Phyracaces* and *Sphinctomyrmex*). All published keys: "Published keys for New Guinea and Melanesia", at the end of the book.



Aenictus, MJ14776



Parasyscia inconspicua, CASENT0249313

Photos: AntWeb.org, CC BY 4.0 (CASENT0249313).

Dorylinae: key to the genera (1 of 3)



simple pygidium



two waist segments



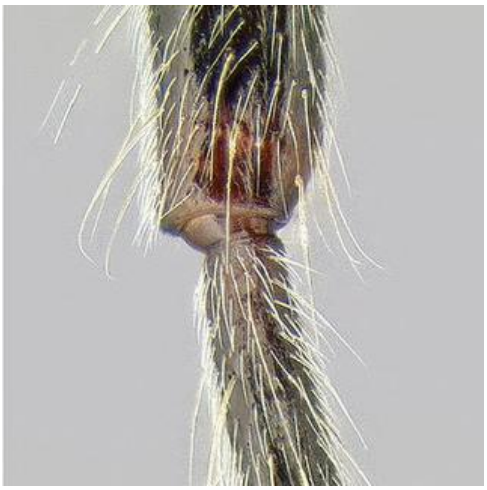
pygidium with peg-like setae (arrowhead)

1a Last tergite (pygidium) **simple**, without peg-like setae. Waist of two segments (petiole and postpetiole). Eyes absent

→ ***Aenictus*** p. 36

1b Pygidium with many stout, **peg-like setae**. Waist of one segment (two in *Ooceraea*)

→ **step 2**



tip of the middle tibia: no spur



one spur

2a Middle tibia **without** a spur. Antennal sockets set wide apart, separated by a broad extension of the clypeus; eyes large

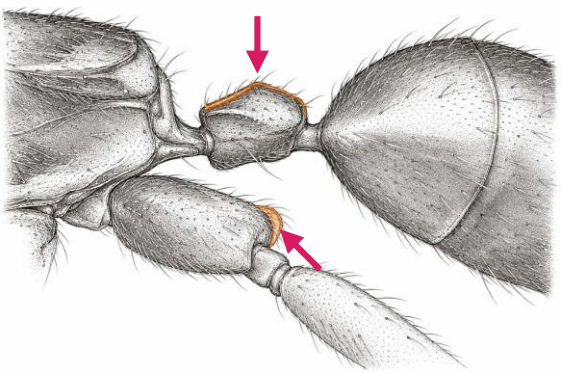
→ ***Simopone*** p. 38

2b Middle tibia with **one** spur. Antennal sockets close together

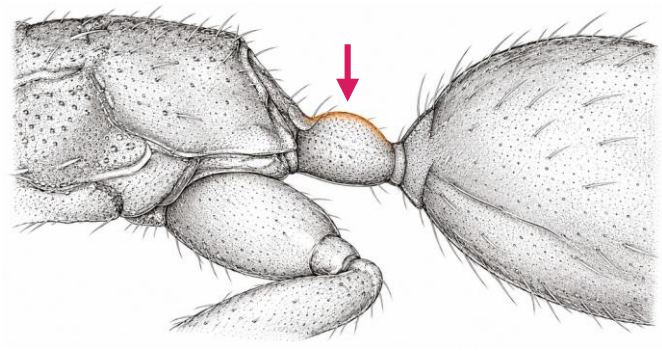
→ **step 3**

Photo figures: Borowiec 2016, CC BY 4.0.

Dorylinae: key to the genera (2 of 3)



Lioponera: margins; coxal lamella



Parasyscia: rounded; no lamella



margin (white line)



no margin

3a Petiole with sharp margins along its upper sides, at least at the front. Hind coxa usually with a thin, translucent plate (lamella) at its back; the lamella can be reduced in some Australasian species, which keep the sharp petiolar margins

→ ***Lioponera*** p. 36

3b Petiole without sharp margins along its upper sides (at most a short crest just above the petiolar spiracle). Hind coxa without a lamella

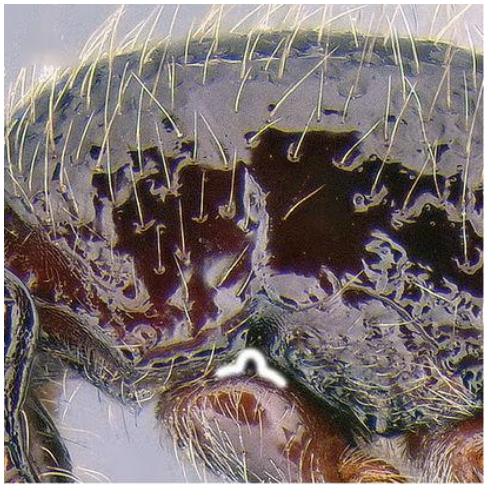
→ **step 4**

Photo figures: Borowiec 2016, CC BY 4.0.

Dorylinae: key to the genera (3 of 3)



deep cut (white line)



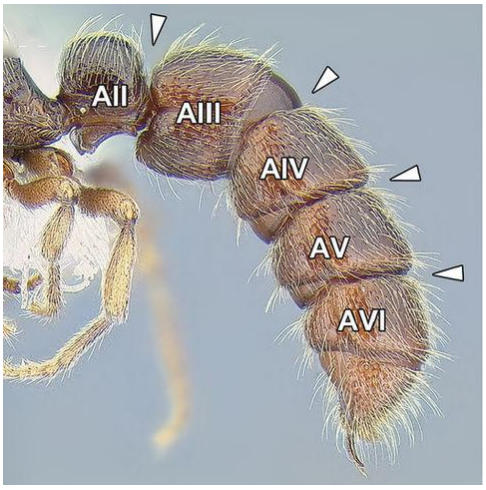
fused (white mark)

4a Side of the mesosoma with a **deep cut** between pronotum and mesopleuron, often curved and lined with short hairs. Waist of two segments: a small postpetiole

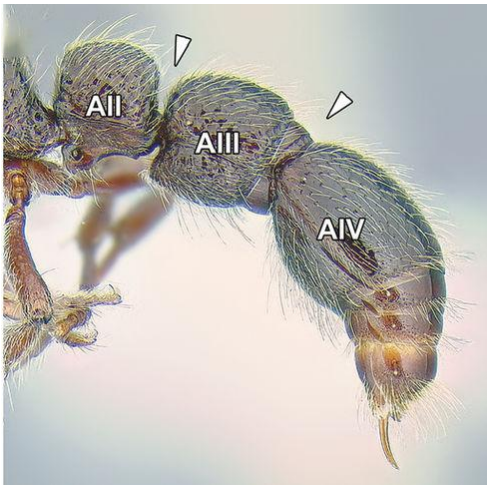
→ ***Ooceraea*** p. 37

4b Pronotum and mesopleuron **fused**: no cut, at most a faint line

→ **step 5**



constrictions (arrowheads)



smooth gaster tip

5a Abdominal segments V and VI (the 3rd and 4th gaster segments) also constricted at their front: the upper outline of the gaster is a row of bumps

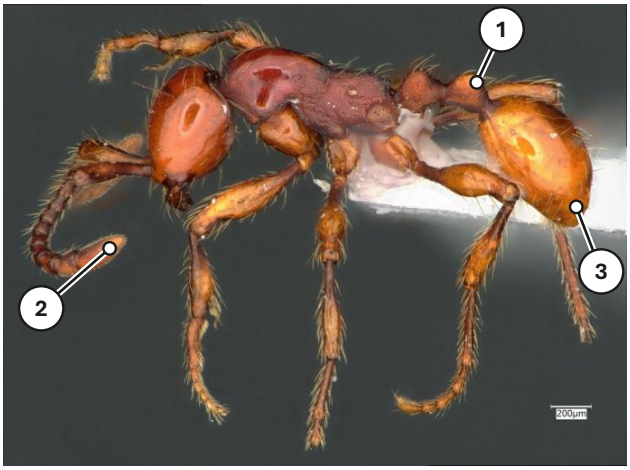
→ ***Zasphinctus*** p. 38

5b No constrictions at the front of abdominal segments V and VI: the gaster tip has a smooth outline

→ ***Parasyscia*** p. 37

Photo figures from Borowiec (2016). Abdominal segments are numbered from the propodeum (AI): AII is the petiole. With one waist segment AIII is the first gaster segment; in *Aenictus* and *Ooceraea* AIII is the postpetiole and the gaster begins at AIV.

Photo figures: Borowiec 2016, CC BY 4.0.



Aenictus, MJ14776



Aenictus, MJ14776

Aenictus 2–4 mm

New Guinea list: 15 species

1 Waist of two segments: petiole and postpetiole

2 Eyes absent; antenna short, with 8–10 segments

3 Last tergite (pygidium) simple, without peg-like setae

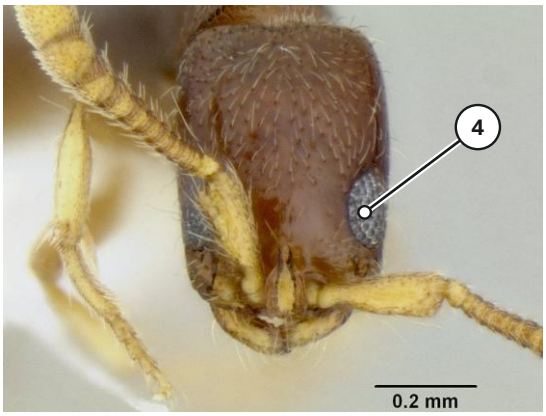
4 Antennal sockets fully exposed, close to the front of the head

Compare: Myrmicinae (also two waist segments, but frontal lobes cover the antennal sockets; most have eyes); the other dorylines (pygidium with pegs; one waist segment, two in *Ooceraea*)

In New Guinea: Army ants: colonies raid in columns on the ground and in leaf litter, mostly for the brood of other ants, and move their nest often.



Lioponera sp., CASENT0106205



Lioponera sp., CASENT0106205

Lioponera 2.5–6 mm

New Guinea list: 5 species

1 Upper sides of the petiole with sharp margins, at least at the front

2 Hind coxa usually with a thin, translucent plate (lamella) at its back

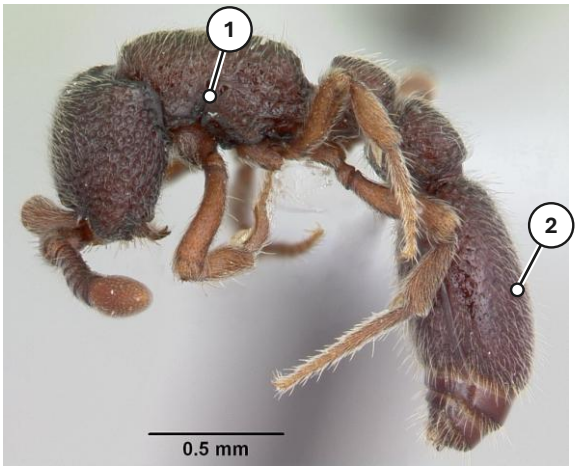
3 Hind tibia with a gland opening near its tip, usually a slit

4 Eyes present, with more than 20 facets

Compare: *Parasyscia*, *Ooceraea* and *Zasphinctus* (petiole without margins; no lamella on the hind coxa)

In New Guinea: Nests in soil, rotten wood or hollow twigs; raids the nests of other ants. Many Australian species (formerly *Phyracaces*). Photo: an unnamed species from Wewak.

Photos: AntWeb.org, CC BY 4.0 (CASENT0106205).



Ooceraea papuana, CASENT0434834



Ooceraea papuana, CASENT0434834

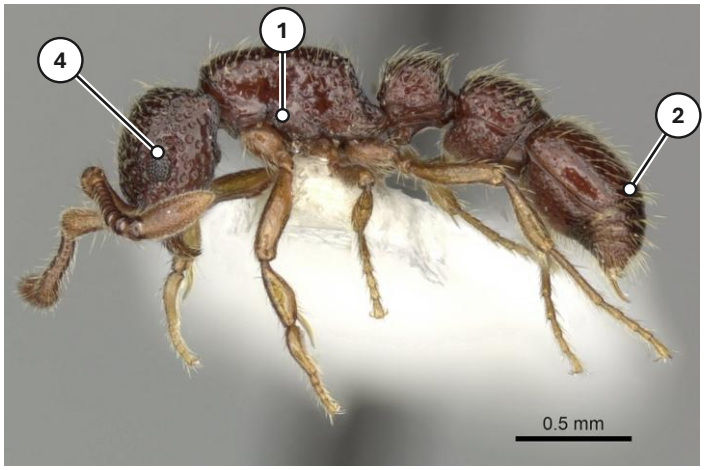
Ooceraea 2–3 mm

New Guinea list: 2 species

1 Side of the mesosoma with a deep cut between pronotum and mesopleuron
2 Gaster outline smooth: no constrictions at the front of abdominal segments V and VI
3 Antenna with 9–11 segments; the last one much enlarged
4 Waist of two segments (a small postpetiole); eyes absent or tiny (1–5 facets)

Compare: *Parasyscia* (pronotum and mesopleuron fused; one waist segment)

In New Guinea: Leaf litter and soil. Fiji has its own species. *O. biroi*, a tropical tramp, has no record from Melanesia yet.



Parasyscia inconspicua, CASENT0249313



Parasyscia inconspicua, CASENT0249313

Parasyscia 2–4 mm

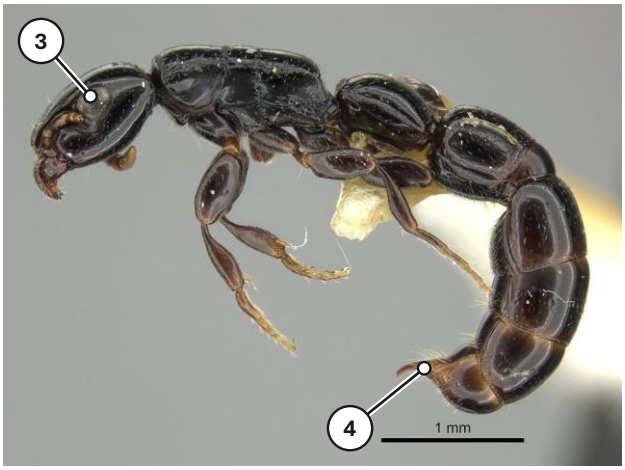
New Guinea list: 8 species

1 Pronotum and mesopleuron fused: no deep cut on the side of the mesosoma
2 Gaster outline smooth: no constrictions at the front of abdominal segments V and VI
3 Petiole without sharp margins; hind coxa without a lamella
4 Often coarsely pitted; eyes present, from one facet to many

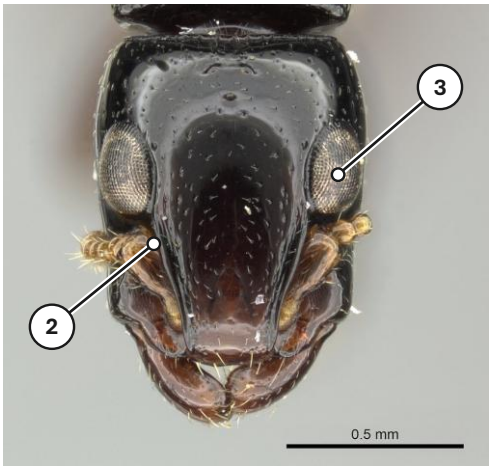
Compare: *Zasphinctus* (gaster with a row of constrictions); *Ooceraea* (deep cut on the side of the mesosoma); *Lioponera* (margined petiole)

In New Guinea: Leaf litter and soil of forest; raids other ants. Formerly in *Cerapachys*. Fiji has several species (e.g. *P. lindrothi*, *P. vitiensis*).

Photos: AntWeb.org, CC BY 4.0 (CASENT0434834, CASENT0249313).



Simopone gressitti, CASENT0249114



Simopone gressitti, CASENT0249114

Simopone 4–6 mm

New Guinea list: 1 species

1 Middle tibia without a spur (hind tibia with one)

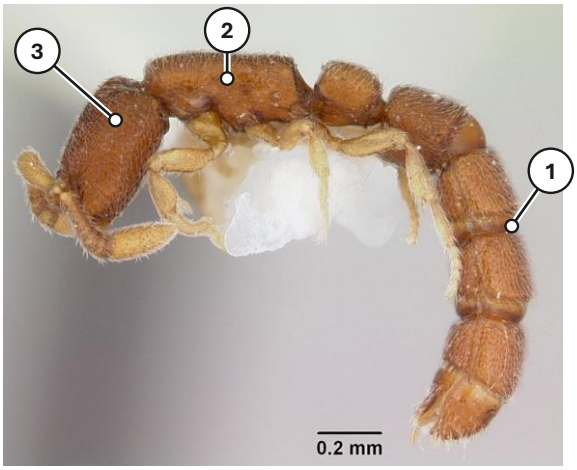
2 Antennal sockets set wide apart, separated by a broad extension of the clypeus

3 Eyes large; ocelli present; body long, slender and shiny

4 Last tergite (pygidium) with peg-like setae

Compare: the other dorylines of New Guinea (one spur on the middle tibia; antennal sockets close together)

In New Guinea: Arboreal: nests in trees and raids other ants; rarely collected. Photo: the holotype of *S. gressitti*, from Hollandia (Jayapura).



Zasphinctus cribratus, CASENT0173054



Zasphinctus cribratus, CASENT0173054

Zasphinctus 2–6 mm

New Guinea list: 1 species

1 Abdominal segments V and VI also constricted at their front: the outline of the gaster is a row of bumps

2 Pronotum and mesopleuron fused: no deep cut on the side of the mesosoma

3 Eyes absent in *Z. cribratus* (present, with many facets, in some other species)

4 Body long, cylindrical and densely pitted

Compare: *Parasyscia* (smooth gaster tip); *Ooceraea* (deep cut on the side of the mesosoma; two waist segments)

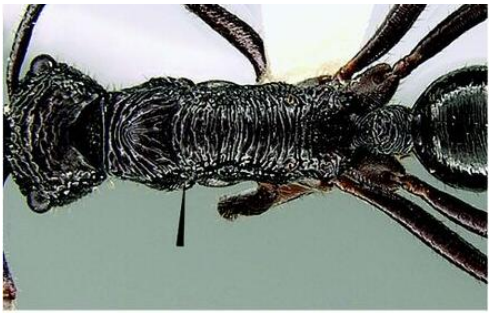
In New Guinea: Cryptic: soil and rotten wood. *Z. cribratus* (formerly *Sphinctomyrmex*) is the New Guinea species.

Photos: AntWeb.org, CC BY 4.0 (CASENT0249114, CASENT0173054).

Dorylinae at a glance

Genus	Recognise it by	Size	NG species	Page
Aenictus	two waist segments; blind; army ants	2–4 mm	15	36
Lioponera	margined petiole; hind-coxal lamella usually present	2.5–6 mm	5	36
Ooceraea	deep cut on the side of the mesosoma	2–3 mm	2	37
Parasyscia	no cut, no margins; smooth gaster tip	2–4 mm	8	37
Simopone	no spur on the middle tibia; sockets wide apart	4–6 mm	1	38
Zasphinctus	gaster with a row of constrictions	2–6 mm	1	38

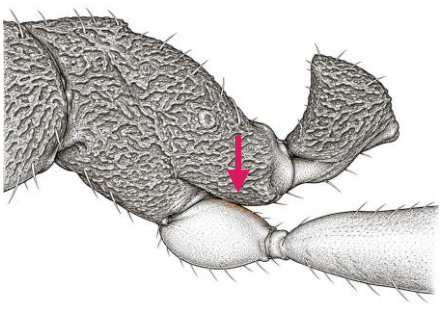
Ectatomminae: key to the genera



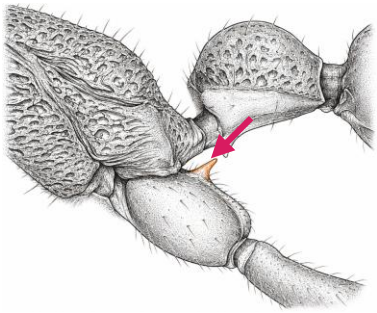
suture, from above



fused, from above



Rhytidoponera: hind coxa smooth



Stictoponera biroi: tooth on the hind coxa

1a From above, a distinct suture between pronotum and mesonotum: two separate plates. Hind coxa smooth on its upper side, never with a tooth or spine

→ ***Rhytidoponera*** p. 41

1b From above, pronotum and mesonotum fused, or (*Holcoponera*) parted by a deep suture. Hind coxa often with a tooth or lobe on its upper side (always in *Holcoponera*)

→ **step 2**



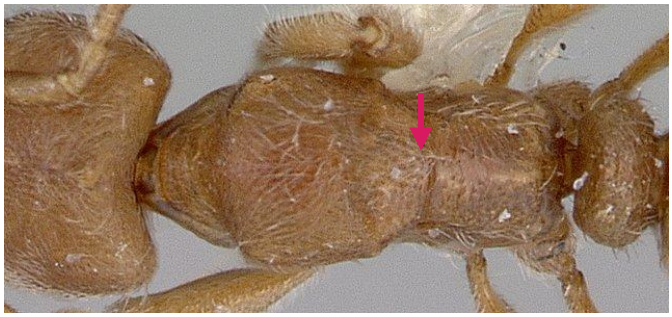
no suture, from above



deep suture, from above



S. grammodes, from above



Holcoponera, from above

2a No suture between pronotum and mesonotum, or a faint line that does not break the sculpture. Usually large pits

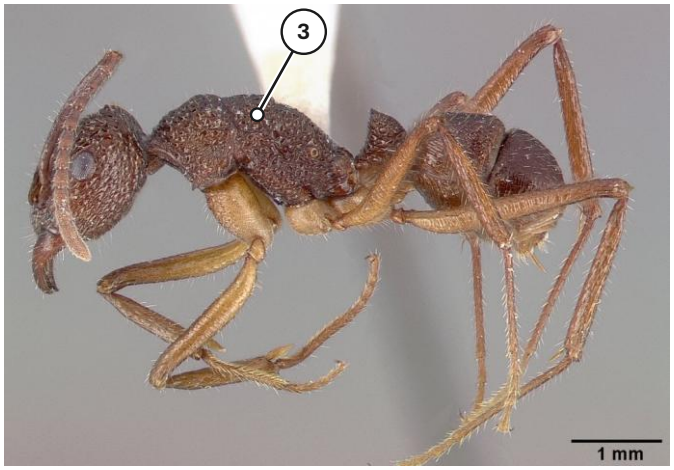
→ ***Stictoponera*** p. 41

2b A deep suture between pronotum and mesonotum that breaks the sculpture. Usually fine lengthwise ridges

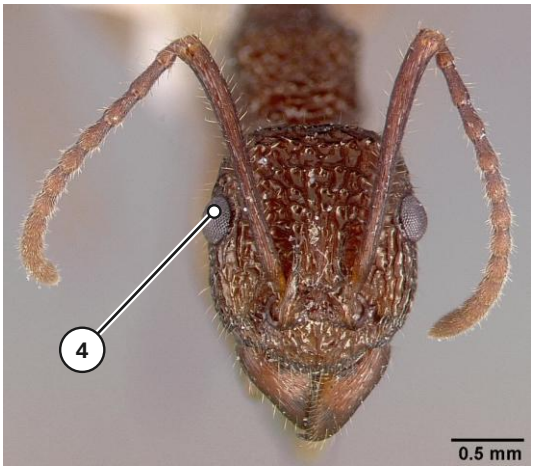
→ ***Holcoponera*** p. 42

Gnamptogenys is not keyed: it is a New World genus; the Old World species once placed in it are now in *Stictoponera* and *Holcoponera* (Camacho et al. 2022).

Photos: AntWeb.org, CC BY 4.0 (CASENT0281526, CASENT0172257). Figures from above: Camacho et al. 2022 (AntWeb photos, CC BY 4.0), via AntWiki.



Rhytidoponera celtinodis, CASENT0010628



Rhytidoponera celtinodis, CASENT0010628

Rhytidoponera 4–9 mm

New Guinea list: 12 species

1 From above, a distinct suture between pronotum and mesonotum: each forms a separate plate

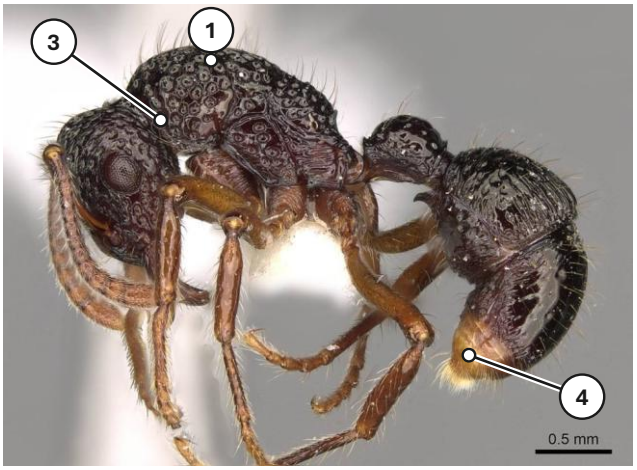
2 Hind coxa smooth on its upper side, without a tooth or spine

3 Coarse pits, ridges or wrinkles; many species with a metallic green, blue or purple sheen

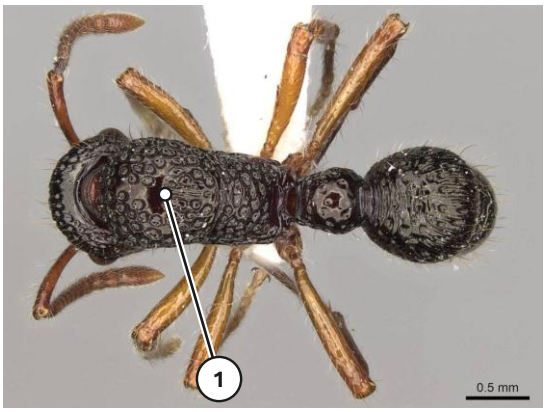
4 Eyes large; frontal lobes set wide apart

Compare: *Stictoponera* (pronotum and mesonotum fused; tooth on the hind coxa); *Platythyrea* (Ponerinae: dull, frosted; two spurs)

In New Guinea: The commonest ectatommines, on the ground in forest, gardens and open land. In many species mated workers lay the eggs.



Stictoponera grammodes, CASENT0281526



Stictoponera grammodes, CASENT0281526

Stictoponera 3–6 mm

New Guinea list: 9 species

1 From above, pronotum and mesonotum fused into one plate: no suture, or a faint line that does not break the sculpture

2 Hind coxa often with a tooth or spine on its upper side, near the body (not in every species)

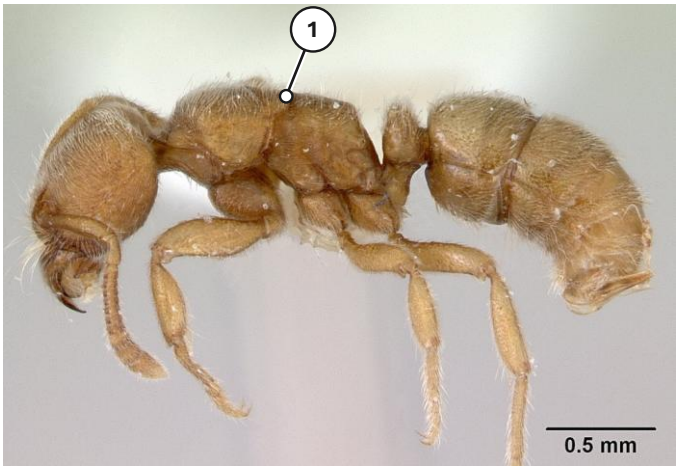
3 Large round pits (foveae) or coarse ridges on head and body

4 Gaster tip curved down; frontal lobes set wide apart

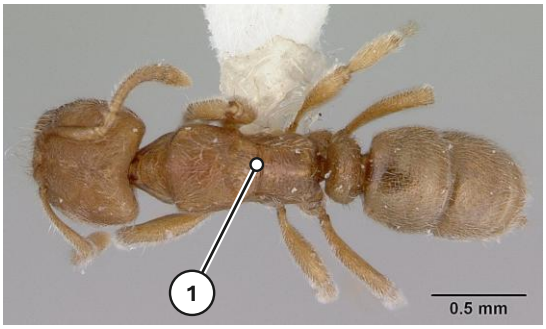
Compare: *Rhytidoponera* (separate plates, smooth coxa); *Holcoponera* (deep suture between pronotum and mesonotum). Use the suture, the sculpture and the coxa together: the coxal tooth is frequent, not universal

In New Guinea: Leaf litter and rotten wood of forest; slow-moving, often coated with soil. Formerly in *Gnamptogenys*.

Photos: AntWeb.org, CC BY 4.0 (CASENT0010628, CASENT0281526).



Holcoponera cf. *epinotalis*, CASENT0172257



Holcoponera cf. *epinotalis*, CASENT0172257

Holcoponera 3–5 mm

New Guinea list: 5 species

1 A deep suture between pronotum and mesonotum that breaks the sculpture
2 Hind coxa with a tooth or lobe on its upper side
3 Fine, regular lengthwise ridges on head and body (most species)
4 Small; yellow-brown to black; frontal lobes set wide apart

Compare: *Stictoponera* (no suture, large pits); *Rhytidoponera* (smooth coxa)

In New Guinea: Leaf litter of forest; rarely collected. Formerly in *Gnamptogenys*. Photo: a worker from Kokoda, near *H. epinotalis*.

Ectatomminae at a glance

Genus	Recognise it by	Size	NG species	Page
Rhytidoponera	separate pronotum and mesonotum; coxa smooth	4–9 mm	12	41
Stictoponera	one plate on top; large pits; coxal tooth (most species)	3–6 mm	9	41
Holcoponera	deep suture; fine lengthwise ridges	3–5 mm	5	42

Photos: AntWeb.org, CC BY 4.0 (CASENT0172257).

How to recognise them

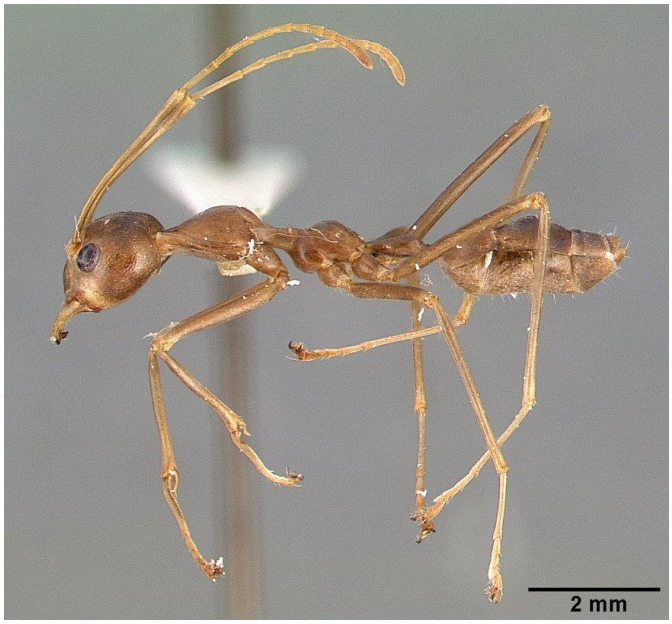
One waist segment. No sting; the gaster tip is a round nozzle (acidopore), usually with a fringe of hairs.

19 genera in New Guinea, and 1 more in Melanesia only: *Acropyga* (7), *Anoplolepis* (1), *Brachymyrmex* (Melanesia), *Calomyrmex* (2), *Camponotus* (37), *Colobopsis* (18), *Echinopla* (11), *Euprenolepis* (1), *Notoncus* (2), *Nylanderia* (9), *Oecophylla* (1), *Opisthopsis* (8), *Overbeckia* (1), *Paraparatrechina* (5), *Paratrechina* (2), *Plagiolepis* (3), *Polyrhachis* (244), *Prenolepis* (1), *Prolasius* (3), *Pseudolasius* (16)

- Two large groups. Camponotini (*Camponotus*, *Colobopsis*, *Polyrhachis*, *Calomyrmex*, *Echinopla*, *Opisthopsis*, *Overbeckia*): antennal sockets well behind the clypeus. The *Prenolepis* group and relatives (*Nylanderia*, *Paraparatrechina*, *Paratrechina*, *Prenolepis*, *Euprenolepis*, *Pseudolasius*): sockets at the clypeus; most with paired dark hairs (not *Euprenolepis* or *Pseudolasius*).
- Count the antennal segments first, counting the scape as segment 1; then look at the sockets, the palps and the metapleural gland at high magnification. A palp formula such as 6:4 gives the maxillary-palp segments first, then the labial-palp segments.
- Tramp species on the NG list include *Anoplolepis gracilipes* (yellow crazy ant) and *Paratrechina longicornis*.
- In the key to the subfamilies, Formicinae come out at step 4a.
- Keys to species: *Polyrhachis* (Kohout), *Acropyga* (LaPolla 2004), *Euprenolepis* (LaPolla 2009), *Prenolepis* (Williams & LaPolla 2016, 2018). All published keys: “Published keys for New Guinea and Melanesia”, and the full list of sources, in the main volume (NG_ant_keys_v18).



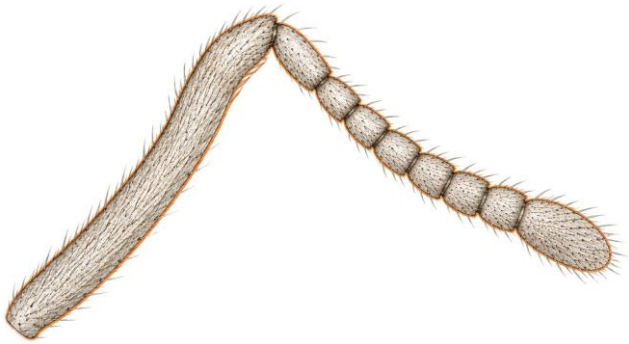
Polyrhachis, MJ31956



Oecophylla smaragdina, CASENT0010656

Photos: AntWeb.org, CC BY 4.0 (CASENT0010656).

Formicinae: key to the genera (1 of 10)



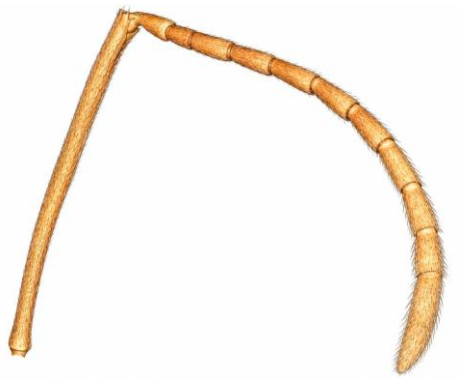
B. obscurior: antenna, 9 segments
after a reference specimen



Paratrechina



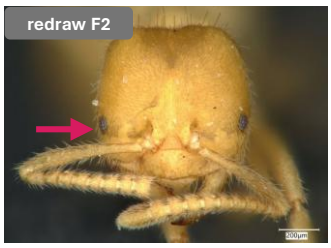
Plagiolepis: 11 segments



antenna: 12 segments

1a Antenna with **7–11** segments (fewer than 12)
→ **step 2**

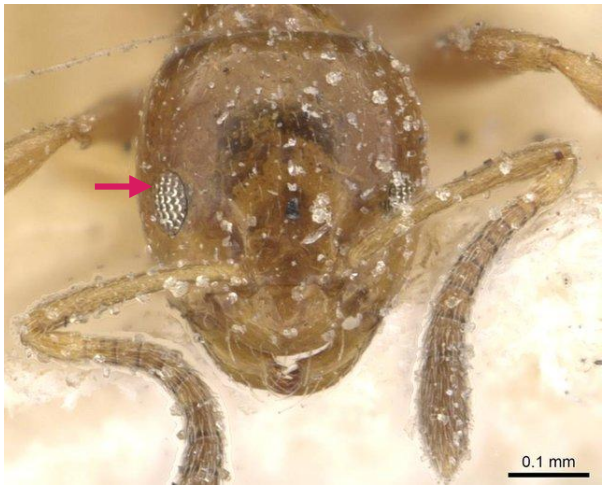
1b Antenna with **12** segments
→ **step 5**



Acropyga: eye tiny



eye tiny (MJ31949)



Plagiolepis: eye

2a Eyes tiny or absent, at most as wide as the scape. Palps very short (2:3). Pale yellow; underground
→ ***Acropyga*** p. 54

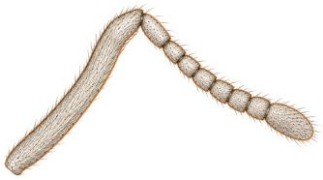
2b Eyes larger than the width of the scape. Palps long
→ **step 3**

Photos: AntWeb.org, CC BY 4.0 (CASENT0909845).

Formicinae: key to the genera (2 of 10)



B. obscurior
reference specimen



antenna: 9 segments



Plagiolepis: 11 segments

3a Antenna with **9** segments. Tiny (1.5–2 mm). Melanesia, introduced

→ ***Brachymyrmex*** p. 55

3b Antenna with **11** segments

→ **step 4**



Anoplolepis: scapes very long



Plagiolepis: scapes short

4a Scapes very long: they pass the rear of the head by two thirds of their length or more. Legs very long; body slender

→ ***Anoplolepis*** p. 54

4b Scapes short: they pass the rear of the head by less than a quarter of their length. Body compact

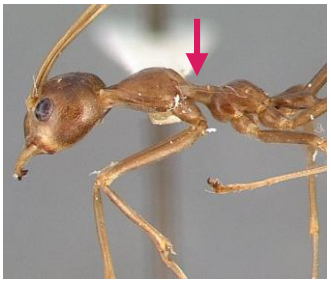
→ ***Plagiolepis*** p. 61

Photos: AntWeb.org, CC BY 4.0 (CASENT0104889, CASENT0909845).

Formicinae: key to the genera (3 of 10)



Oecophylla: mandibles



Oecophylla: mesonotum



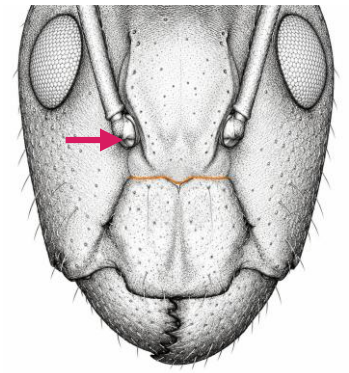
Camponotus: mandibles

5a Mandibles long, with **10 or more** teeth. Mesonotum constricted; legs very long. Weaver ant, orange or green

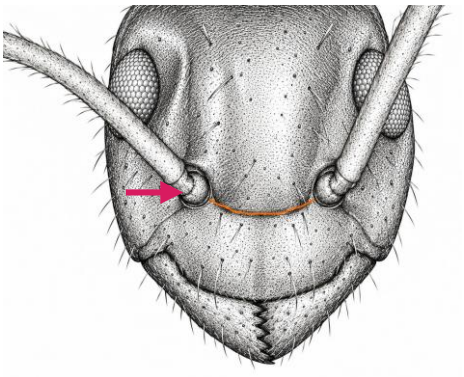
→ ***Oecophylla*** p. 59

5b Mandibles with **8 or fewer** teeth. Mesonotum not constricted

→ **step 6**



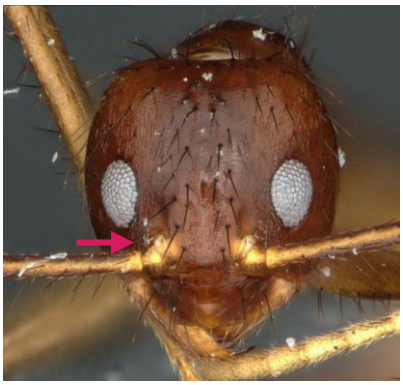
Camponotus: socket well behind the clypeus



Prenolepis: socket at the clypeus



Camponotus



Nylanderia

6a Full-face view: antennal sockets **well behind** the rear margin of the clypeus (the gap wider than the scape)

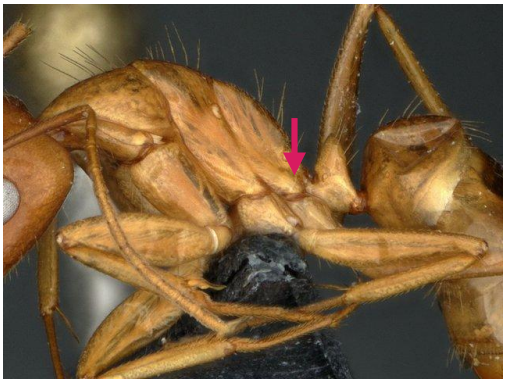
→ **step 7**

6b Full-face view: antennal sockets **at** the rear margin of the clypeus, or almost so

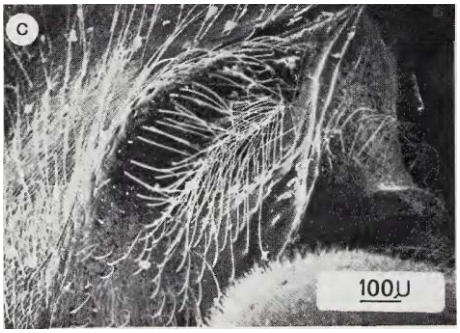
→ **step 13**

Photos: AntWeb.org, CC BY 4.0 (CASENT0010656).

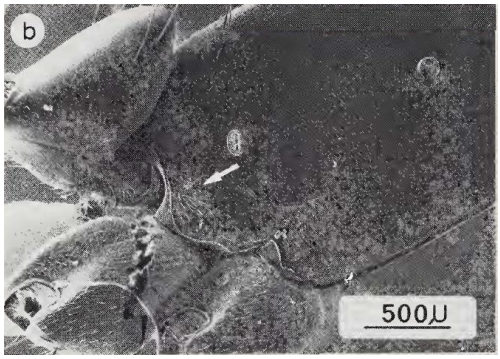
Formicinae: key to the genera (4 of 10)



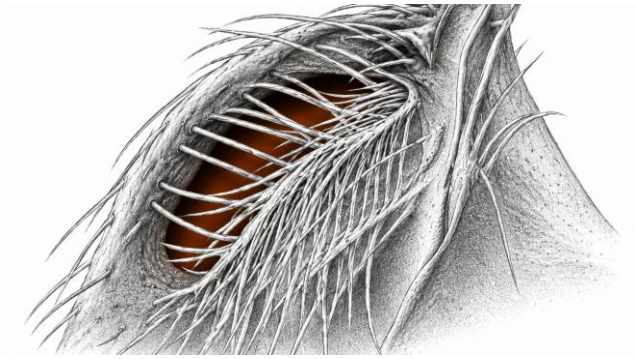
Camponotus: no opening



opening behind guard hairs:
Dinomyrmex gigas, reference
specimen (SEM, higher magnification)



no opening (arrow): *C. consobrinus*,
reference specimen (SEM)



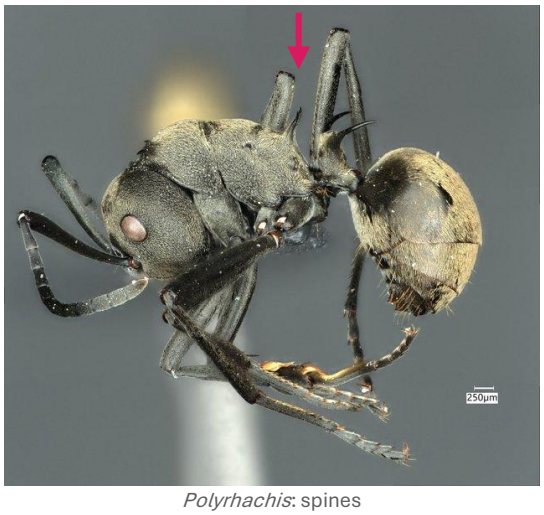
the same opening
(drawing)

7a Side view: **no** metapleural gland opening on the rear corner of the mesosoma, above the hind coxa

→ **step 8**

7b Side view: a metapleural gland opening above the hind coxa, often with a fringe of hairs (the higher oval opening is the propodeal spiracle, not the gland)

→ **step 10**



Polyrhachis: spines



Camponotus

8a Spines or teeth on the pronotum, propodeum or petiole. First gaster tergite at least half of the gaster

→ ***Polyrhachis*** p. 62

8b No spines. First gaster tergite much less than half of the gaster

→ **step 9**

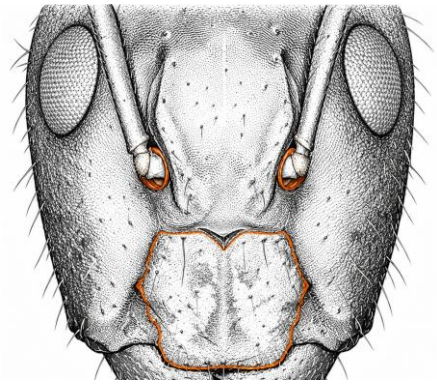
Formicinae: key to the genera (5 of 10)



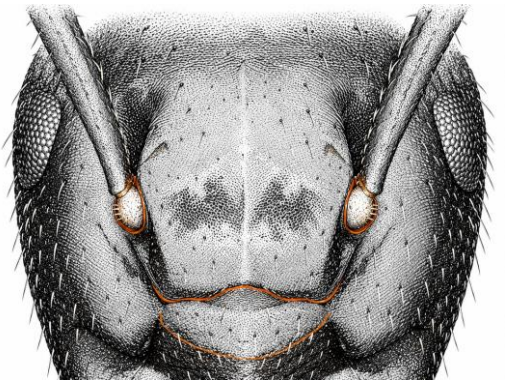
Camponotus



Colobopsis



clypeus with front corners



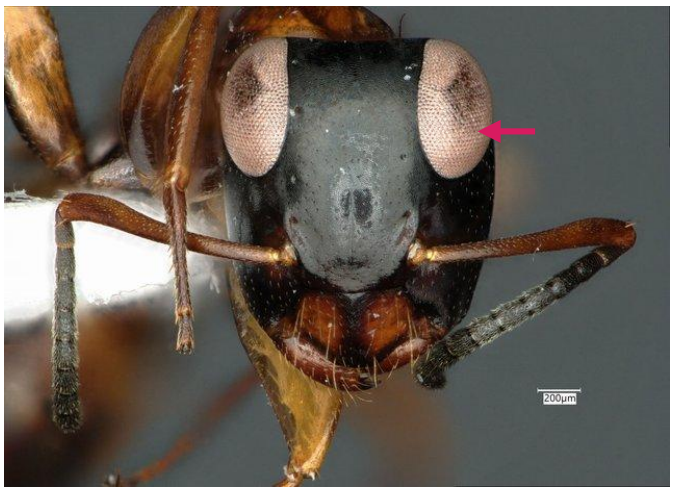
sockets wide apart

9a Clypeus with prominent front corners. Antennal sockets on the front half of the frontal carinae, closer together. Majors with a normal head

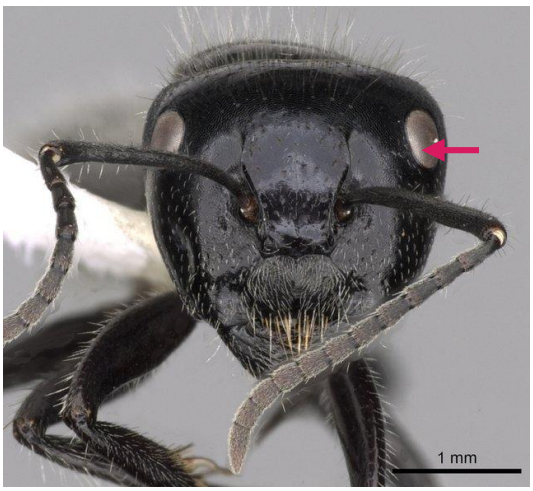
→ ***Camponotus*** p. 56

9b Clypeus without prominent front corners. Antennal sockets at about mid-length of the frontal carinae, wider apart. Majors usually with a plug-shaped head (in some only weakly truncate). Small, in twigs

→ ***Colobopsis*** p. 56



Opisthopsis: eyes at the rear corners



Calomyrmex: eyes on the sides

10a Eyes very large, at the rear corners of the head (full-face view)

→ ***Opisthopsis*** p. 59

10b Eyes on the sides of the head, well in front of its rear margin

→ **step 11**

Photos: AntWeb.org, CC BY 4.0 (CASENT0249960).

Formicinae: key to the genera (6 of 10)



Echinopla: first tergite



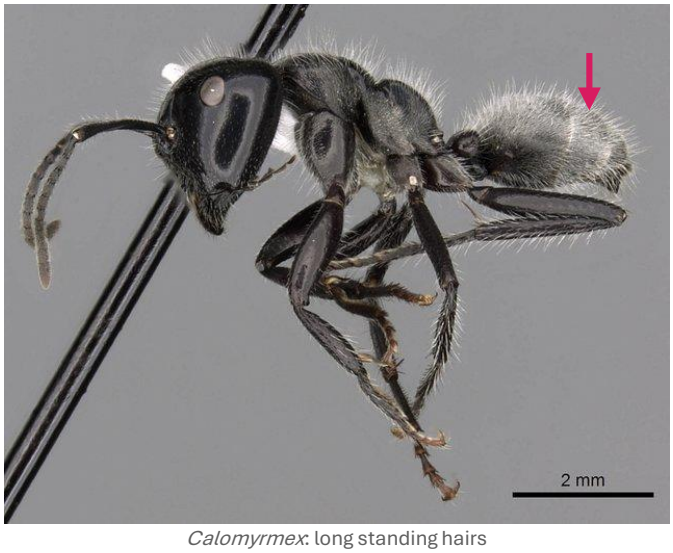
Calomyrmex

11a First gaster tergite very large, covering most of the gaster. Petiole a scale with teeth or spines

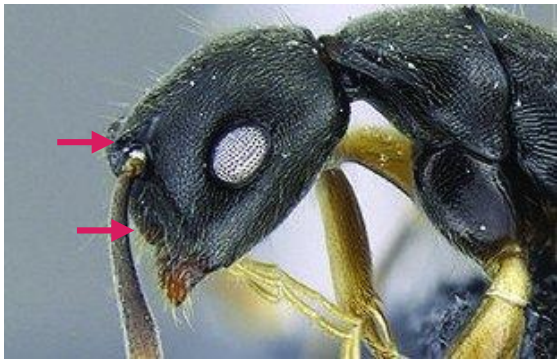
→ ***Echinopla*** p. 57

11b First gaster tergite much less than half of the gaster. Petiole without spines

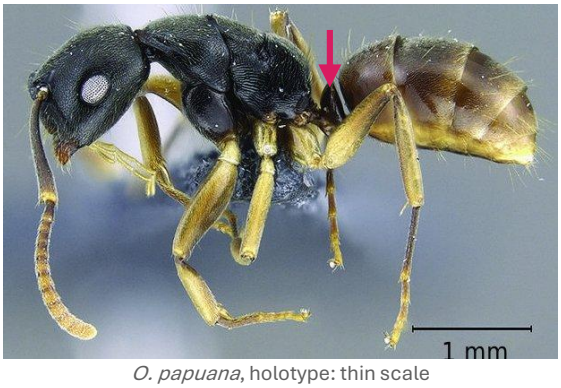
→ **step 12**



Calomyrmex: long standing hairs



O. papuana, holotype: carina and clypeus



O. papuana, holotype: thin scale

12a Long erect hairs on the scapes and the upper side of the tibiae; much standing hair. Body usually metallic. Petiole a node or thick scale

→ ***Calomyrmex*** p. 55

12b Clypeus much wider than long, turned down at the front; frontal carinae projecting in side view. Petiole a thin scale

→ ***Overbeckia*** p. 60

12c Neither: a few *Camponotus* with a metapleural gland (*C. putatus* group)

→ ***Camponotus*** p. 56

Photos: AntWeb.org, CC BY 4.0 (CASENT0884106, CASENT0249960). Photos: Klimeš et al. (2022), fig. 5, with permission (holotype worker).

Formicinae: key to the genera (7 of 10)



Pseudolasius



Nylanderia

13a Maxillary palp **short**, with 2–5 segments

→ **step 14**

13b Maxillary palp **long**, with 6 segments, reaching back under the head

→ **step 15**



Euprenolepis: mesonotum pinched



Pseudolasius

14a Side view: mesonotum **pinched**. Mandibles strongly curved

→ ***Euprenolepis*** p. 57

14b Mesonotum not pinched. Mandibles not strongly curved

→ ***Pseudolasius*** p. 63

Photos: Ants of New Guinea (newguineants.org), CC BY 4.0 (MCZ0071).

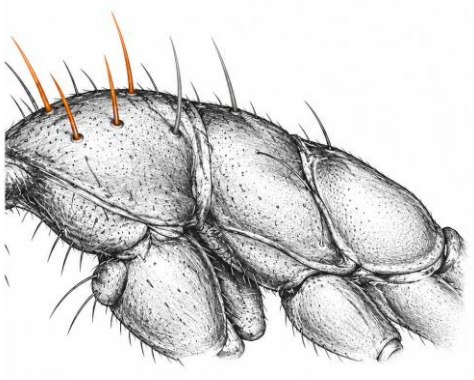
Formicinae: key to the genera (8 of 10)



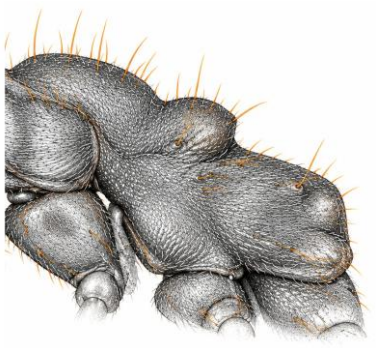
Nylanderia



Notoncus: reference specimen
from Western Australia



hairs in pairs



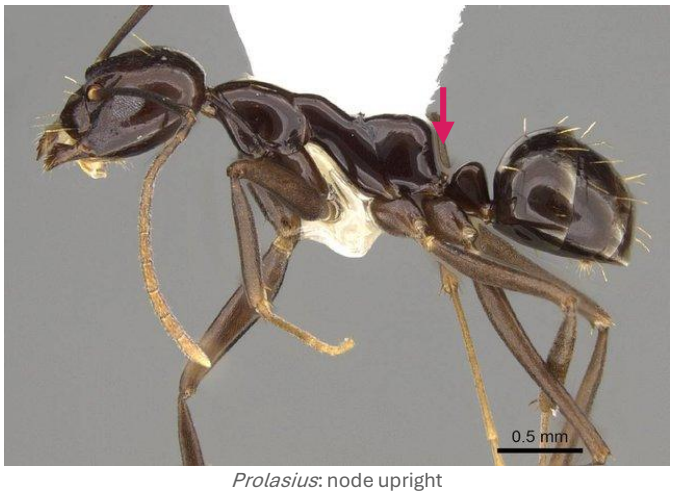
thin hairs, not in pairs
(drawn from the same specimen)

15a Head and mesosoma with conspicuous, stout, dark erect hairs; on the mesosoma they often form loose **pairs** (the hairs on the head need not be paired)

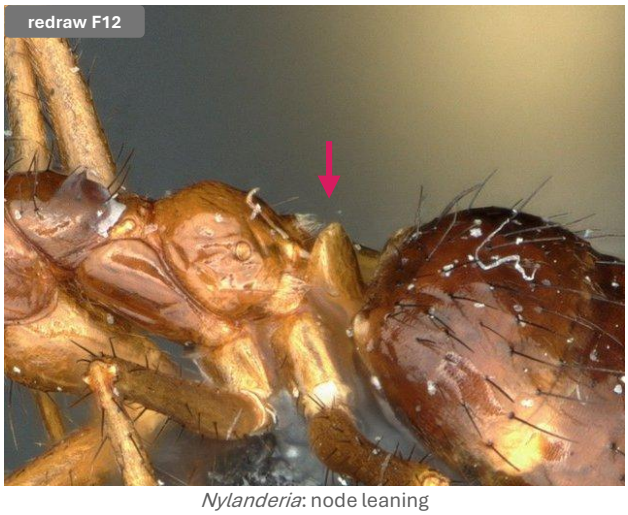
→ **step 16**

15b Erect hairs thin, inconspicuous or few: no stout dark hairs as in 15a

→ **step 20**



Prolasius: node upright



Nylanderia: node leaning

16a Petiole node upright, its front and rear faces long and almost parallel

→ ***Prolasius*** p. 63

16b Petiole node leaning forward, its front face much shorter than the rear face

→ **step 17**

Photos: AntWeb.org, CC BY 4.0 (CASENT0172025, CASENT0281472).

Formicinae: key to the genera (9 of 10)



Paratrechina: mesosoma long

17a Mesosoma **long and slender**

→ **step 18**



Nylanderia: mesosoma compact

17b Mesosoma **short and compact**

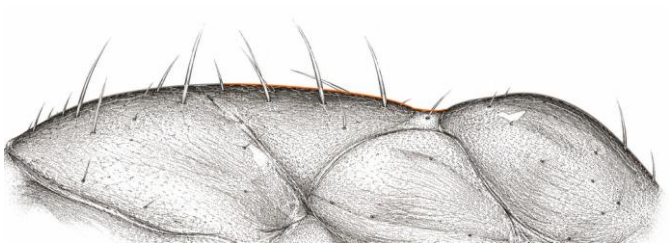
→ **step 19**



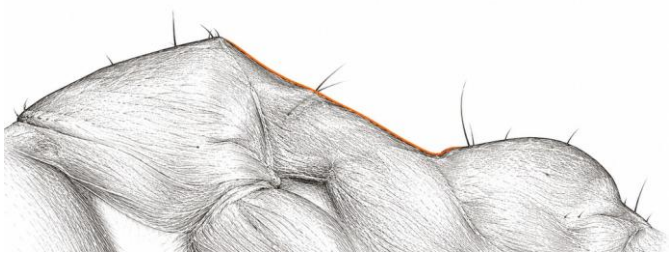
Paratrechina



Prenolepis lakekamu



upper outline almost continuous
(not to scale)



sharp decline at the mesonotum
(not to scale)

18a Side view: mesosoma low, its upper outline almost continuous; no sharp decline at the mesonotum

→ ***Paratrechina*** p. 61

18b Side view: pronotum mostly flat on top, then a sharp decline at the constricted mesonotum and an upward turn behind it. Small, c. 2.4 mm (*P. lakekamu*)

→ ***Prenolepis*** p. 62

Photos: AntWeb.org, CC BY 4.0 (USNMENT01126705).

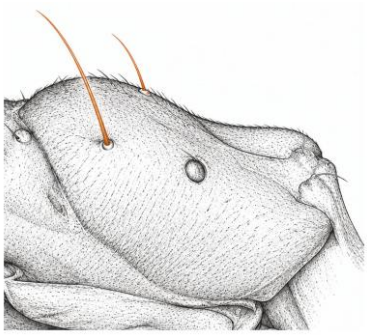
Formicinae: key to the genera (10 of 10)



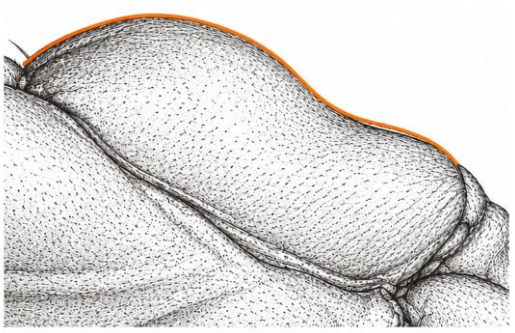
Paraparatrechina



Nylanderia



one pair of hairs on the propodeum



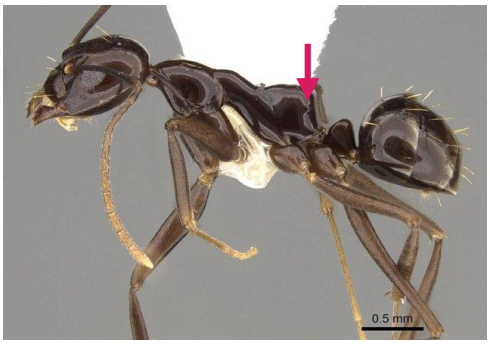
propodeum without erect hairs

19a Propodeum with **one pair** of erect hairs. Scapes without erect hairs

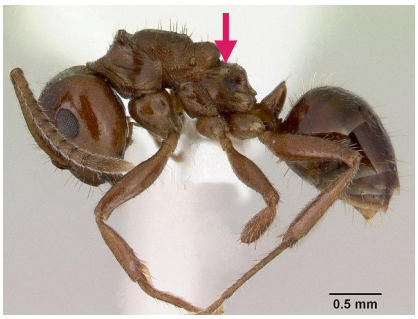
→ ***Paraparatrechina*** p. 60

19b Propodeum without erect hairs. Scapes with erect hairs

→ ***Nylanderia*** p. 58



Prolasius: spiracle



Notoncus: reference specimen from Western Australia



spiracle close to the rear face
reference specimen, Queensland



spiracle well in front of the rear face

20a Propodeal spiracle very close to the rear face of the propodeum. Scapes long

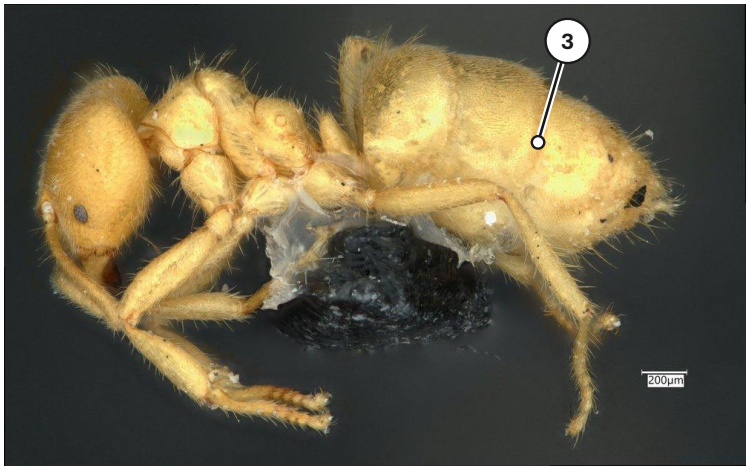
→ ***Prolasius*** p. 63

20b Propodeal spiracle at least its own width in front of the rear face

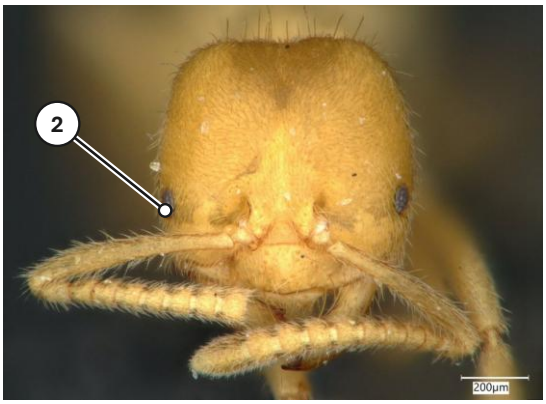
→ ***Notoncus*** p. 58

Draft key. *Camponotus* (steps 9 and 12) and *Prolasius* (steps 16 and 20) come out twice, as in the keys it follows. Steps 15 and 18 were revised on 26 Oct 2026 and still need a test on more New Guinea workers.

Photos: AntWeb.org, CC BY 4.0 (CASENT0281472, CASENT0434642, CASENT0172025).



Acropyga, MJ31302



Acropyga, MJ31302

Acropyga 1.5–3 mm

New Guinea list: 7 species

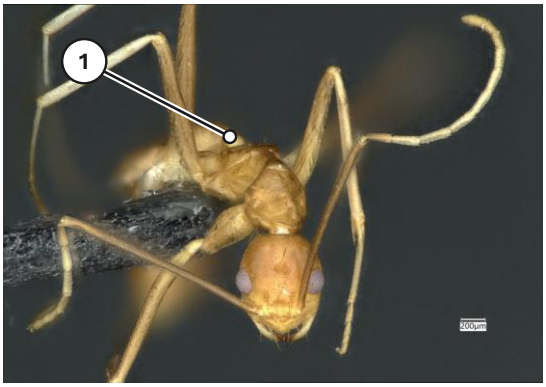
1 Antenna with 7–11 segments (fewer than 12)
2 Eyes tiny, a few facets, or absent
3 Pale yellow; body soft, with dense fine hairs
4 Palps short: 2 maxillary and 3 labial segments

Compare: *Pseudolasius* (12 antennal segments); *Plagiolepis* and *Brachymyrmex* (eyes larger; palps long)

In New Guinea: Underground; the workers tend root mealybugs. Keys to species: LaPolla (2004).



Anoplolepis, MJ31293



Anoplolepis, MJ31293

Anoplolepis 4–5 mm

New Guinea list: 1 species

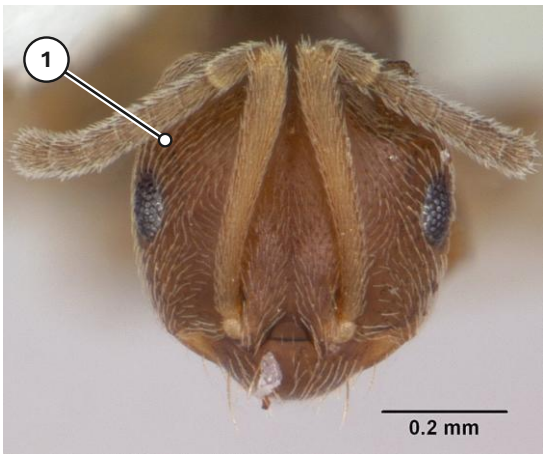
1 Scapes very long: they pass the rear of the head by two thirds of their length or more
2 Legs very long; body slender, yellowish brown
3 Antenna with 11 segments
4 Pronotum longer than wide, from above

Compare: *Plagiolepis* (scapes short, body compact); *Paratrechina* and *Oecophylla* (12 antennal segments)

In New Guinea: Only *A. gracilipes*, the yellow crazy ant: an invasive tramp of gardens, plantations and forest edges.



Brachymyrmex obscurior, CASENT0104889



Brachymyrmex obscurior, CASENT0104889

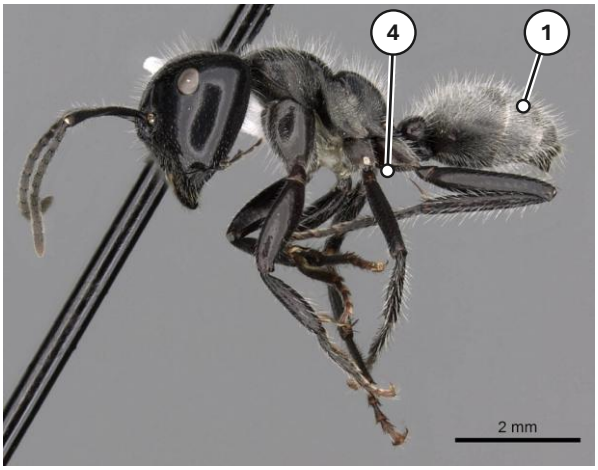
Brachymyrmex 1.5–2 mm

Melanesia only: not on the New Guinea list

1 Antenna with 9 segments, without a club
2 Tiny, yellow to brown
3 Eyes well developed
4 Mesosoma short and compact

Compare: *Plagiolepis* (11 antennal segments); *Nylanderia* and *Paraparatrechina* (12 segments)

In New Guinea: Not on the New Guinea checklist used here. Introduced *Brachymyrmex*, including *B. cordemoyi*, are documented from the Solomon Islands, Vanuatu and New Caledonia (Ortiz-Sepúlveda et al. 2019). The illustrated worker is *B. obscurior*.



Calomyrmex albertisi, CASENT0249960



Calomyrmex albertisi, CASENT0249960

Calomyrmex 6–10 mm

New Guinea list: 2 species (+1 subspecies)

1 Long erect hairs on the scapes and on the upper side of the tibiae; much standing hair on the body
2 Body often with a metallic sheen
3 Metapleural gland opening above the hind coxa
4 Petiole a node or a thick scale, without spines

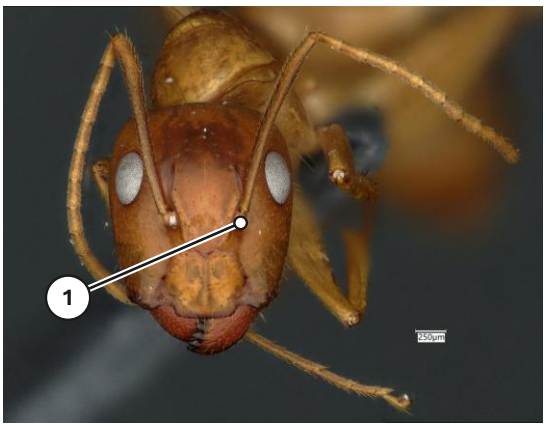
Compare: *Camponotus* (metapleural gland usually absent); *Echinopla* (first gaster tergite covering most of the gaster; spiny petiole)

In New Guinea: A genus of Australia and New Guinea.

Photos: AntWeb.org, CC BY 4.0 (CASENT0104889, CASENT0249960).



Camponotus, MJ32299



Camponotus, MJ32299

Camponotus 3–15 mm

New Guinea list: 37 species (+4 subspecies)

1 Antennal sockets well behind the rear margin of the clypeus
2 Metapleural gland usually absent (a few species have one: key step 12c)
3 First gaster tergite much less than half of the gaster; no spines
4 Workers often of many sizes, from minors to majors

Compare: *Colobopsis* (sockets wider apart, at mid-length of the frontal carinae; clypeus without front corners); *Polyrhachis* (spines; large first gaster tergite)

In New Guinea: Sugar ants; common on vegetation and on the ground; many nest in rotten wood.



Colobopsis, MJ1135



Colobopsis, MJ1135

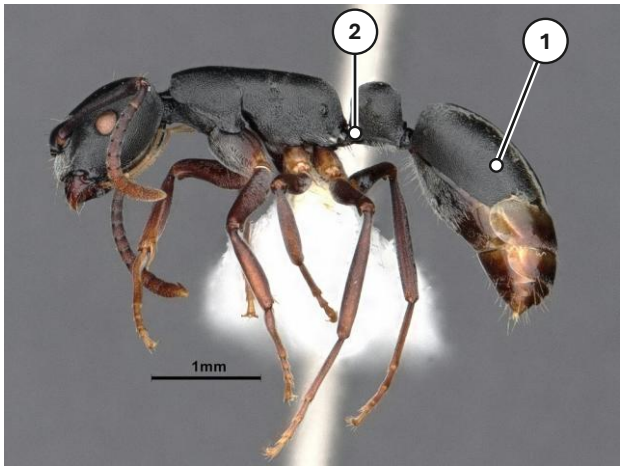
Colobopsis 3–6 mm

New Guinea list: 18 species (+3 subspecies)

1 Antennal sockets wide apart, at about mid-length of the frontal carinae
2 Clypeus without prominent front corners
3 Majors usually with the front of the head cut off (a plug for the nest entrance), in some species only weakly truncate
4 Small; nests in hollow twigs

Compare: *Camponotus* (sockets closer together; clypeus with front corners)

In New Guinea: Arboreal. Split from *Camponotus* by Ward et al. (2016). With minor workers only, use the sockets and the clypeus.



Echinopla mistura, CASENT0884106



Echinopla mistura, CASENT0884106

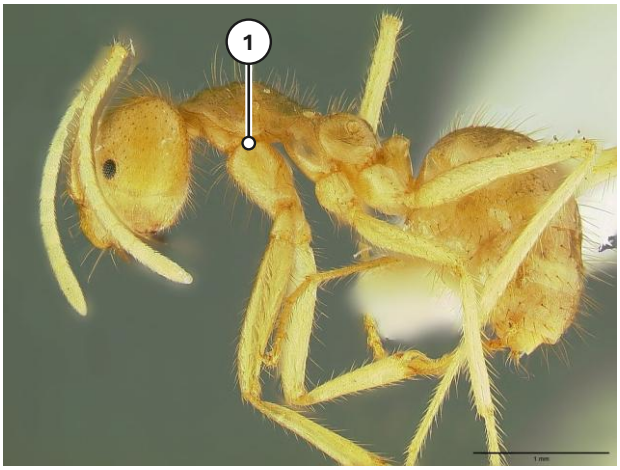
Echinopla 4–7 mm

New Guinea list: 11 species

1 First gaster tergite very large, covering most of the gaster
2 Petiole a scale with teeth or spines
3 Body coarsely sculptured, with many erect hairs
4 Metapleural gland present

Compare: *Polyrhachis* (spines also on the mesosoma; no metapleural gland)

In New Guinea: Arboreal; seldom collected.



Euprenolepis procera, MCZ0071



Euprenolepis procera, MCZ0071

Euprenolepis 2.5–4 mm

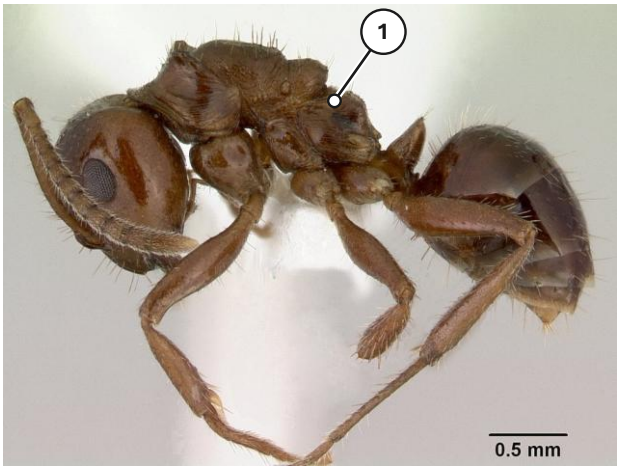
New Guinea list: 1 species

1 Mesonotum pinched, in side view
2 Mandibles strongly curved
3 Palps short: palp formula usually 3:4 (AntWiki)
4 Antennal sockets close to the clypeus

Compare: *Pseudolasius* (mesonotum not pinched; mandibles not strongly curved)

In New Guinea: Only *E. procera*, which harvests mushrooms in Southeast Asian forests (Witte & Maschwitz 2008). Keys to species: LaPolla (2009).

Photos: AntWeb.org, CC BY 4.0 (CASENT0884106). Photos: Ants of New Guinea (newguineants.org), CC BY 4.0 (MCZ0071).



Notoncus capitatus, CASENT0172025



Notoncus capitatus, CASENT0172025

Notoncus 3–5 mm

New Guinea list: 2 species

1 Propodeal spiracle at least its own width in front of the rear face of the propodeum

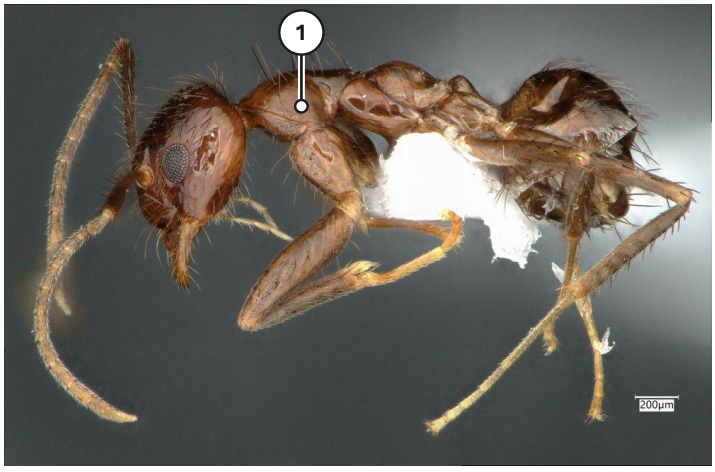
2 A rounded or angular rise between mesonotum and propodeum in some species

3 Hairs thin, not in pairs

4 Antennal sockets close to the clypeus; palps long

Compare: *Prolasius* (spiracle close to the rear face)

In New Guinea: An Australian genus. Photos: *N. capitatus*, a worker from 120 km W of Balladonia, Western Australia (CASENT0172025): a reference specimen from outside New Guinea.



Nylanderia, MJ0957



Nylanderia, MJ0957

Nylanderia 1.5–3 mm

New Guinea list: 9 species (+2 subspecies)

1 Stout dark erect hairs; on the mesosoma loosely in pairs, on the head irregular

2 Scapes with erect hairs

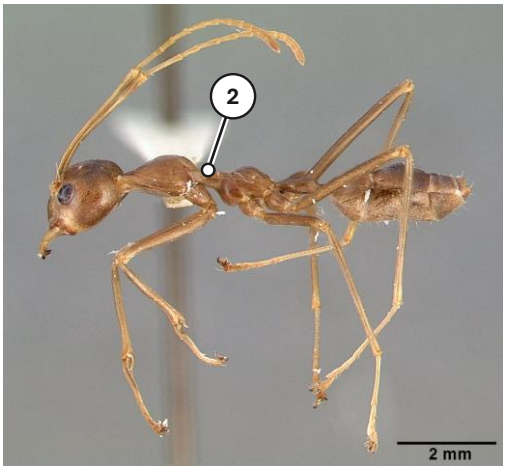
3 Mesosoma short and compact

4 No erect hairs on the propodeum

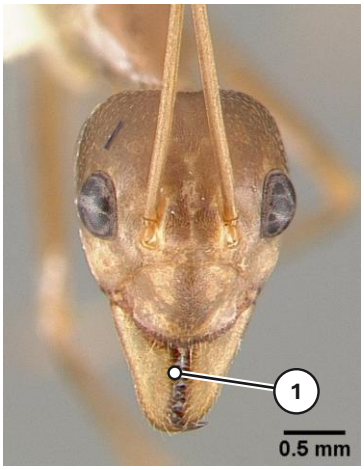
Compare: *Paraparatrechina* (a pair of erect hairs on the propodeum; scapes without erect hairs); *Paratrechina* (mesosoma long and slender)

In New Guinea: Common in leaf litter and on low vegetation; some species are tramps.

Photos: AntWeb.org, CC BY 4.0 (CASENT0172025).



Oecophylla smaragdina, CASENT0010656



Oecophylla smaragdina, CASENT0010656

Oecophylla 7–10 mm

New Guinea list: 1 species (+1 subspecies)

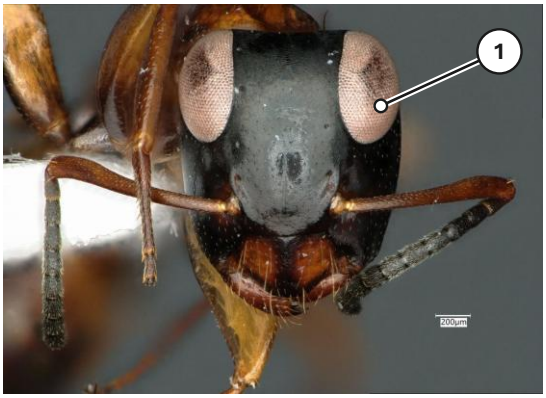
1 Mandibles long, with 10 or more teeth
2 Mesonotum constricted; legs and body long
3 Petiole a low node
4 Orange or green; nests of leaves woven together with larval silk

Compare: *Anoplolepis* (11 antennal segments); *Camponotus* (mandibles with fewer teeth)

In New Guinea: Only *O. smaragdina*, the green tree ant or weaver ant: common in gardens and in the forest canopy.



Opisthopsis, MJ14798



Opisthopsis, MJ14798

Opisthopsis 4–8 mm

New Guinea list: 8 species

1 Eyes very large, at the rear corners of the head
2 Metapleural gland present
3 Often two-coloured; fast-running
4 Petiole a scale without spines

Compare: *Camponotus* and *Calomyrmex* (eyes on the sides of the head)

In New Guinea: Arboreal.

Photos: AntWeb.org, CC BY 4.0 (CASENT0010656).



Overbeckia papuana, holotype worker



Overbeckia papuana, holotype worker

Overbeckia c. 4 mm

New Guinea list: 1 species

1 Petiole a thin scale with a sharp upper edge
2 Clypeus much wider than long, turned down at the front
3 In side view the frontal carinae project forward
4 Metapleural gland present

Compare: *Camponotus* (clypeus not turned down; frontal carinae not projecting)

In New Guinea: Only *O. papuana* (Wanang, Madang; Klimeš et al. 2022). Photos: the holotype worker, Wanang (Klimeš et al. 2022, fig. 5). In Camponotini (Ward et al. 2025).



Paraparatrechina, MJ31446



Paraparatrechina, MJ31446

Paraparatrechina 1.5–2.5 mm

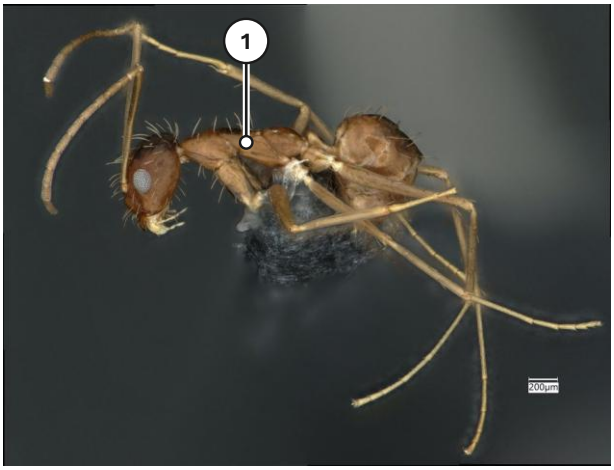
New Guinea list: 5 species

1 One pair of erect hairs on the propodeum
2 Scapes without erect hairs
3 Stout erect hairs, paired on the mesosoma
4 Small, compact, often pale

Compare: *Nylanderia* (no hairs on the propodeum; erect hairs on the scapes)

In New Guinea: Leaf litter and low vegetation.

Photos: Klimeš et al. (2022), fig. 5, with permission (holotype worker).



Paratrechina, MJ31486



Paratrechina, MJ31486

Paratrechina 2.5–3 mm

New Guinea list: 2 species

1 Mesosoma long and slender; low, its upper outline almost continuous in side view

2 Scapes and legs very long

3 Erect hairs on the head scattered

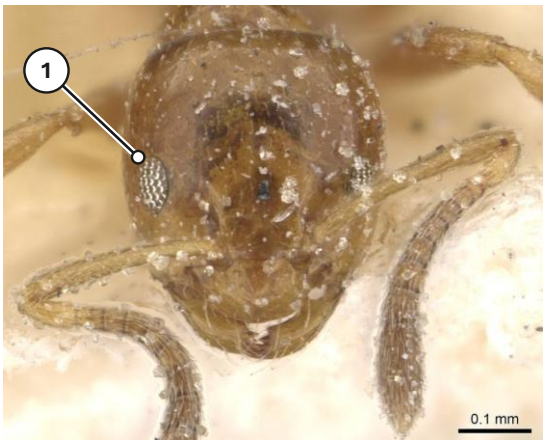
4 Dark erect hairs in pairs on the mesosoma

Compare: *Prenolepis* (mesonotum sharply declining behind a mostly flat pronotum); *Nylanderia* (mesosoma compact)

In New Guinea: *P. longicornis*, the longhorn crazy ant, is a tramp of gardens and buildings.



Plagiolepis bicolor, worker, CASENT0909845



Plagiolepis bicolor, worker, CASENT0909845

Plagiolepis 1–2 mm

New Guinea list: 3 species

1 Antenna with 11 segments

2 Scapes short: they pass the rear of the head by less than a quarter of their length

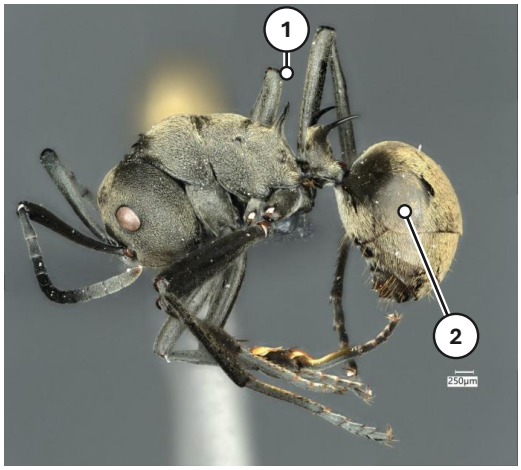
3 Funiculus segments 2 and 3 much shorter than segment 4

4 Tiny and compact

Compare: *Anoplolepis* (very long scapes and legs); *Brachymyrmex* (9 antennal segments)

In New Guinea: Photo: a syntype of *P. bicolor* from Ralum, Bismarck Archipelago.

Photos: AntWeb.org, CC BY 4.0 (CASENT0909845).



Polyrhachis, MJ31956



Polyrhachis, MJ31956

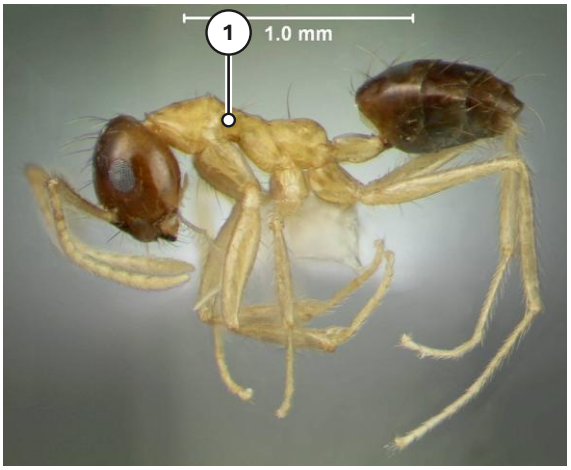
Polyrhachis 4–12 mm

New Guinea list: 244 species (+16 subspecies)

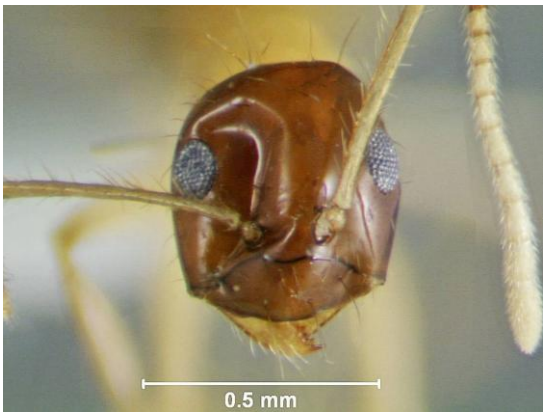
1 Spines or teeth on the pronotum, propodeum or petiole
2 First gaster tergite at least half of the gaster
3 No metapleural gland
4 Body often densely sculptured, or with golden or silver hairs

Compare: *Camponotus* (no spines; small first gaster tergite); *Echinopla* (metapleural gland; mesosoma without spines)

In New Guinea: Spiny ants: the largest ant genus of New Guinea. Many nest in vegetation; some weave nests with larval silk. Keys to species: Kohout (1988–2013).



Prenolepis lakekamu, USNMENT01126705



Prenolepis lakekamu, USNMENT01126705

Prenolepis c. 2.4 mm

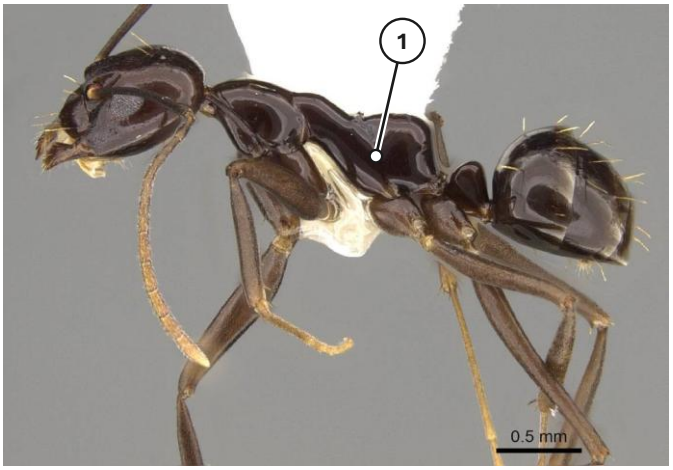
New Guinea list: 1 species

1 Mesosoma long and slender; pronotum mostly flat on top, followed by a sharp decline at the constricted mesonotum and an upward turn behind it (*P. lakekamu*)
2 Workers c. 2.4 mm (2.38–2.45 mm)
3 Paired dark erect hairs on the mesosoma
4 Antennal sockets close to the clypeus

Compare: *Paratrechina* (mesosoma low, its outline almost continuous)

In New Guinea: Only *P. lakekamu*, described by Williams & LaPolla (2018), with a key to the species; the genus revision is Williams & LaPolla (2016).

Photos: AntWeb.org, CC BY 4.0 (USNMENT01126705).



Prolasius sp., CASENT0281472



Prolasius sp., CASENT0281472

Prolasius 2.5–4 mm

New Guinea list: 3 species

1 Propodeal spiracle very close to the rear face of the propodeum
2 Scapes long
3 Petiole node upright
4 Antennal sockets close to the clypeus; palps long

Compare: *Notoncus* (spiracle well in front of the rear face)

In New Guinea: An Australian genus with a few New Guinea species.



Pseudolasius, MJ31314



Pseudolasius, MJ31314

Pseudolasius 2–4 mm

New Guinea list: 16 species (+2 subspecies)

1 Eyes small
2 Palps short (maxillary palp with 2–5 segments; count it in a dissected or exposed palp)
3 Pale yellow and hairy; workers of very different sizes, majors with big heads
4 Antennal sockets close to the clypeus

Compare: *Acropyga* (fewer than 12 antennal segments); *Euprenolepis* (mesonotum pinched)

In New Guinea: Underground; seldom seen above ground.

Photos: AntWeb.org, CC BY 4.0 (CASENT0281472).

Formicinae at a glance

Genus	Recognise it by	Size	NG species	Page
Acropyga	pale, tiny eyes; antenna with 7–11 segments; underground	1.5–3 mm	7	54
Anoplolepis	very long legs and scapes; 11 antennal segments	4–5 mm	1	54
Brachymyrmex	tiny; antenna with 9 segments	1.5–2 mm	Melanesia	55
Calomyrmex	hairy, often metallic; metapleural gland present	6–10 mm	2	55
Camponotus	sockets far behind the clypeus; no spines; metapleural gland usually absent	3–15 mm	37	56
Colobopsis	sockets wide apart; majors usually with a plug-shaped head	3–6 mm	18	56
Echinopla	first gaster tergite covers the gaster; spiny petiole	4–7 mm	11	57
Euprenolepis	mesonotum pinched; mandibles strongly curved; palps short	2.5–4 mm	1	57
Notoncus	spiracle well in front of the rear face; thin hairs	3–5 mm	2	58
Nylanderia	paired dark hairs; erect hairs on the scapes; compact	1.5–3 mm	9	58
Oecophylla	weaver ant: long legs, many-toothed mandibles	7–10 mm	1	59
Opisthopsis	huge eyes at the rear corners of the head	4–8 mm	8	59
Overbeckia	thin petiolar scale; broad, turned-down clypeus	c. 4 mm	1	60
Paraparatrechina	one pair of erect hairs on the propodeum	1.5–2.5 mm	5	60
Paratrechina	long slender mesosoma, very long scapes and legs	2.5–3 mm	2	61
Plagiolepis	tiny; 11 antennal segments; short scapes	1–2 mm	3	61
Polyrhachis	spiny ants: spines on mesosoma or petiole	4–12 mm	244	62
Prenolepis	slender mesosoma; flat pronotum, then a sharp decline at the mesonotum	c. 2.4 mm	1	62
Prolasius	spiracle at the rear face of the propodeum	2.5–4 mm	3	63
Pseudolasius	pale, hairy; small eyes; short palps; majors with big heads	2–4 mm	16	63

Myrmicinae in New Guinea

How to recognise them

Two waist segments. Frontal lobes usually cover the antennal sockets (reduced in *Pristomyrmex*, whose sockets are exposed); pronotum and mesonotum fused. Most genera and most species.

35 genera in New Guinea, and 2 more in Melanesia only: *Adelomyrmex* (1), *Allomerus* (1, Melanesia), *Ancyridris* (2), *Aphaenogaster* (7), *Calyptomyrmex* (1), *Cardiocondyla* (16), *Carebara* (8), *Cataulacus* (1), *Chelaner* (3), *Colobostruma* (1), *Crematogaster* (32), *Dacetinops* (3), *Dilobocondyla* (1), *Eurhopalothrix* (10), *Liomyrmex* (2), *Lordomyrma* (7), *Mayriella* (1), *Meranoplus* (10), *Metapone* (6), *Monomorium* (3), *Myrmecina* (7), *Orectognathus* (10), *Pheidole* (57), *Podomyrma* (21), *Poecilomyrma* (Melanesia), *Pristomyrmex* (19), *Rhopalomastix* (1), *Rhopalothrix* (1), *Rogeria* (1), *Romblonella* (2), *Solenopsis* (4), *Strumigenys* (78), *Syllophopsis* (3), *Tetramorium* (35), *Trichomyrmex* (1), *Vollenhovia* (21), *Vombisidris* (3)

- The largest subfamily here. Key steps 1–8 sort out the distinctive genera (scrobes below the eyes, few antennal segments, the shield of *Meranoplus*, the postpetiole of *Crematogaster*); then the antennal club, the clypeus and the antennal count.
- Count the antennal segments, counting the scape as segment 1, and look at the front margin of the clypeus from in front: one seta at its midpoint (lateral setae may also be present), or no seta at the midpoint (setae paired either side of it, in a row, or none). A palp formula such as 5:3 gives the maxillary-palp segments first, then the labial-palp segments.
- Tramp species on the NG list include *Monomorium floricola*, *M. pharaonis*, *Trichomyrmex destructor*, *Solenopsis geminata*, *Tetramorium bicarinatum* and several *Cardiocondyla*; *Allomerus auropunctatus* (little fire ant) is in Bougainville to New Caledonia.
- *Monomorium* in its old, wide sense was polyphyletic: *Syllophopsis*, *Trichomyrmex* (another tribe) and *Chelaner* have been split off (Ward et al. 2015; Sparks et al. 2019).
- In the key to the subfamilies, Myrmicinae come out at step 2c.
- Keys to species: *Strumigenys* (Bolton 2000), *Pheidole* (Sarnat et al. 2015, 2016), *Tetramorium* (Bolton 1977), *Pristomyrmex* (Wang 2003), *Metapone* (Taylor & Alpert 2016). All published keys: "Published keys for New Guinea and Melanesia", and the full list of sources, in the main volume (NG_ant_keys_v18).



Pheidole, MJ0584



Orectognathus, MJ31975

Myrmicinae: key to the genera (1 of 16)



Eurhopalothrix



side view: scape below the eye



Tetramorium

1a Scape, laid back, runs **below** the eye (into a scrobe below the eye)

→ **step 2**

1b Scape, laid back, runs **above** the eye

→ **step 5**



Cataulacus, from above



Eurhopalothrix

2a Antenna with 11 segments. First gaster tergite covers the whole gaster from above. Flat, armoured, on trees

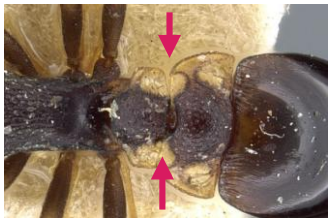
→ ***Cataulacus*** p. 85

2b Antenna with 4–7 segments. Small litter ants

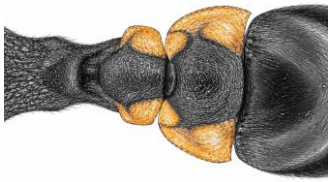
→ **step 3**

Photos: AntWeb.org, CC BY 4.0 (CASENT0280800).

Myrmicinae: key to the genera (2 of 16)



Colobostruma: flanges, from above



flanges of petiole and postpetiole



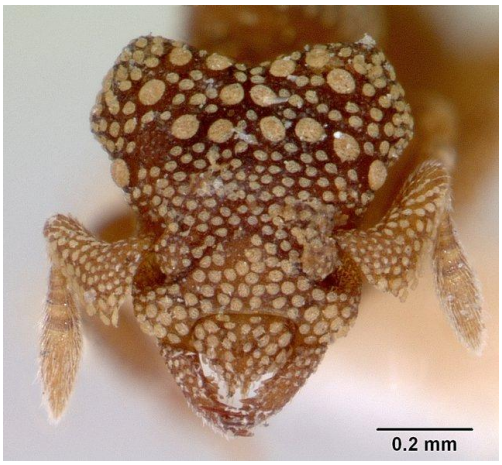
Eurhopalothrix, from above

3a Antenna with 4–6 segments; palps 5:3. Petiole and postpetiole with thin, wing-like flanges (from above)

→ ***Colobostruma*** p. 86

3b Antenna with 7 segments; palps 2:2 or fewer. Waist without flanges

→ **step 4**



R. orbis
reference specimen, Queensland



Eurhopalothrix

4a Mandibles thin and linear: closed, they touch only at their tips

→ ***Rhopalothrix*** p. 95

4b Mandibles triangular, closing along their whole length

→ ***Eurhopalothrix*** p. 88

Photos: AntWeb.org, CC BY 4.0 (CASENT0904964, CASENT0172459).

Myrmicinae: key to the genera (3 of 16)



Strumigenys



Pheidole

5a Antenna with **4–6** segments

→ **step 6**

5b Antenna with **9–12** segments

→ **step 7**



Orectognathus



5 segments; antennomere 3 long

6a Antenna with 5 segments; antennomere 3 (counting the scape as 1) conspicuously long. Palps 5:3. Trap-jaws

→ ***Orectognathus*** p. 92



Strumigenys

6b Antenna with 4 or 6 segments; antennomere 3 short. Palps 1:1

→ ***Strumigenys*** p. 97



Meranoplus, from above

7a Antenna with 9 segments. Mesosoma a broad shield whose thin, sharp edges project over the sides

→ ***Meranoplus*** p. 90

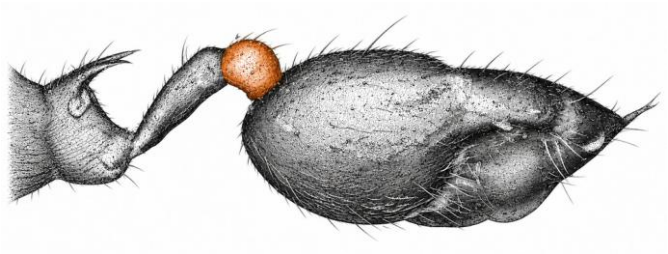


Pheidole, from above

7b Antenna with 10–12 segments. No such shield

→ **step 8**

Myrmicinae: key to the genera (4 of 16)



Crematogaster: postpetiole on top of the gaster



Pheidole: postpetiole at the front of the gaster

8a Postpetiole joined to the **upper** side of the gaster; gaster heart-shaped from above. Petiole flat, without a node

→ ***Crematogaster*** p. 87

8b Postpetiole joined to the front of the gaster. Petiole usually with a node

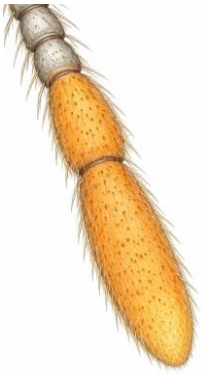
→ **step 9**



Solenopsis



Pheidole: club of 3



club of 2



club of 3 (MJ0585)

9a Antenna ending in a conspicuous **2-segmented** club

→ **step 10**

9b Antenna with a club of 3 or more segments, or without a club

→ **step 15**

Myrmicinae: key to the genera (5 of 16)



Adelomyrmex



A. biroi

10a Antenna with **12** segments. Middle of the clypeus a raised lengthwise platform; propodeum with two short, stout spines

→ ***Adelomyrmex*** p. 82



Carebara

10b Antenna with **9–11** segments

→ **step 11**



Rhopalomastix

11a Frontal lobes touching, or separated only by a narrow groove. Postpetiole broadly joined to the gaster

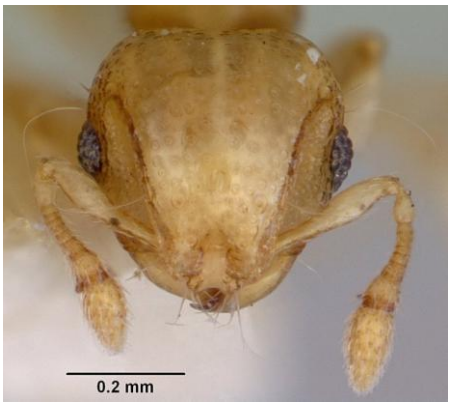
→ ***Rhopalomastix*** p. 95



Solenopsis

11b Frontal lobes clearly apart, the clypeus between them

→ **step 12**



Mayriella

12a Front of the head with scrobes that take the whole antenna. Eye narrowed to a point below. One worker size

→ **step 13**



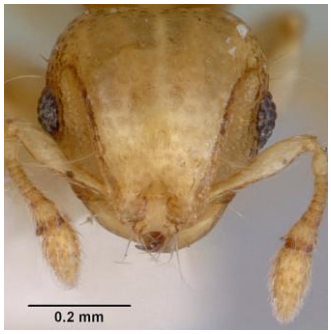
Carebara

12b No scrobes. Eyes small and round, or absent

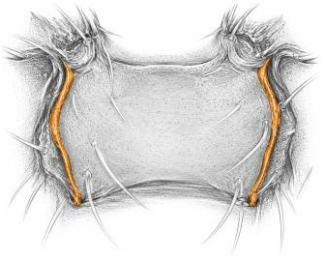
→ **step 14**

Photos: AntWeb.org, CC BY 4.0 (CASENT0916623, CASENT0900743, CASENT0178531, CASENT0172443).

Myrmicinae: key to the genera (6 of 16)



Mayriella



clypeus: two lengthwise ridges



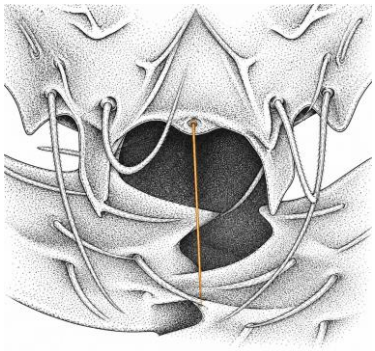
A. auropunctatus
reference specimen, Florida, USA

13a Antenna with 10 segments. Clypeus with two lengthwise ridges

→ ***Mayriella*** p. 90

13b Antenna with 11 segments. Clypeus smooth. Golden; little fire ant (introduced)

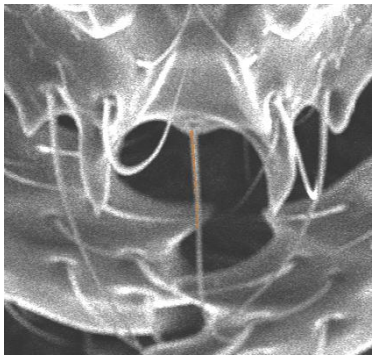
→ ***Allomerus*** p. 82



Solenopsis: one seta at the midpoint
after a reference specimen, Arabian Peninsula



Carebara minor: no seta at the midpoint



S. elhawagryi minor (SEM)
Sharaf & Aldawood 2012



major

14a Front margin of the clypeus with **one** long seta at its midpoint (lateral setae may also be present). Propodeum unarmed; metanotal groove impressed. One worker size, or sizes grading into each other

→ ***Solenopsis*** p. 97

14b No seta at the midpoint of the clypeal margin. Workers often of very different sizes: tiny minors and big-headed majors

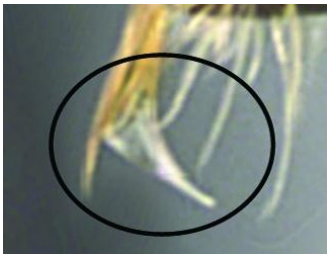
→ ***Carebara*** p. 85

Photos: AntWeb.org, CC BY 4.0 (CASENT0172443, CASENT0005064, CASENT0900745).

Myrmicinae: key to the genera (7 of 16)



Tetramorium: ridge in front of the socket



sting appendage (circled): *T. tosii*, reference specimen, Madagascar



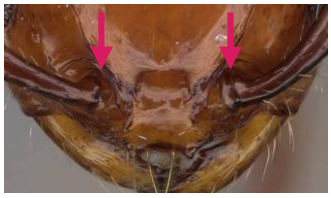
Pheidole

15a Clypeus raised into a sharp ridge in front of each antennal socket. Sting with a triangular or pennant-shaped appendage (sting extended)

→ **step 16**

15b Clypeus not ridged in front of the sockets. Sting simple

→ **step 17**



P. inermis: sockets exposed



P. inermis: unarmed



Tetramorium

16a Frontal lobes reduced: antennal sockets fully exposed. Front margin of the clypeus with **3 or more** small teeth. Antenna with 11 segments. Mandibles tilted down in side view. Pronotum with teeth or spines, or unarmed

→ ***Pristomyrmex*** p. 94

16b Frontal lobes cover the sockets at least in part, or the clypeus has 2 teeth or angles at most. Antenna usually with 12 segments (11 in a few species)

→ ***Tetramorium*** p. 98



Podomyrma: 11 segments



Pheidole: 12 segments

17a Antenna with **10 or 11** segments

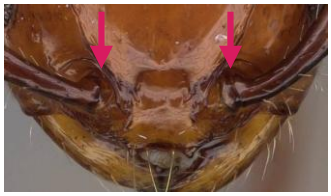
→ **step 18**

17b Antenna with **12** segments

→ **step 25**

Photos: AntWeb.org, CC BY 4.0 (CASENT0922988).

Myrmicinae: key to the genera (8 of 16)



P. inermis: sockets exposed



Pristomyrmex with spines

18a Frontal lobes reduced: antennal sockets fully exposed. Front margin of the clypeus with **3 or more** small teeth. Mandibles tilted down in side view. Pronotum and propodeum with teeth or spines in most species, unarmed in a few

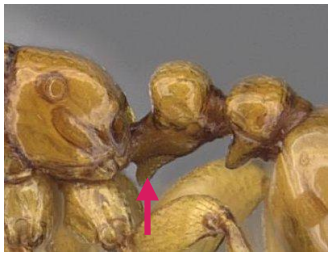
→ ***Pristomyrmex*** p. 94



Podomyrma

18b Not this combination: frontal lobes cover the sockets at least in part, or the clypeus has 2 teeth or angles at most

→ **step 19**



Liomyrmex: lobe under the petiole



no eyes

19a Eyes absent. A large lobe under the petiole. Frontal lobes wide apart. Yellow, smooth

→ ***Liomyrmex*** p. 89



Podomyrma

19b Eyes present

→ **step 20**



Podomyrma

20a Middle and hind femora greatly swollen. Petiole and postpetiole low and barrel-shaped, or petiole with 1–3 small spines

→ ***Podomyrma*** p. 93



Vollenhovia

20b Femora not swollen. Petiole and postpetiole with nodes

→ **step 21**

Photos: AntWeb.org, CC BY 4.0 (CASENT0922988, CASENT0922902).

Myrmicinae: key to the genera (9 of 16)



Dacetinops

21a Spongy, whitish tissue under the petiole, the postpetiole and the base of the gaster. Deep scrobes. 3-segmented club

→ ***Dacetinops*** p. 87



M. truki
reference specimen, Micronesia

21b No spongy tissue

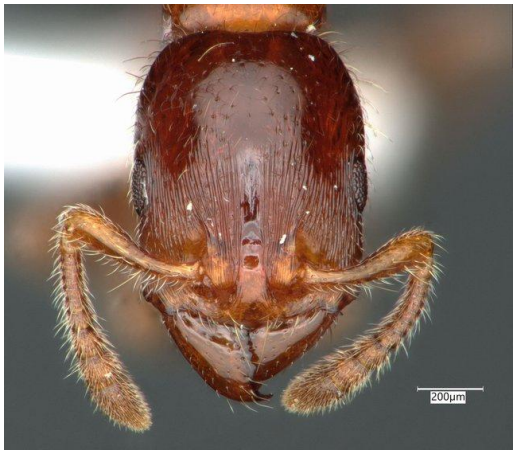
→ **step 22**



M. truki
reference specimen, Micronesia

22a Deep scrobes, partly overhung, the small eye at their lower edge. Clypeus with a square lobe over the mandibles. Petiole and postpetiole broad and flat on top; body cylindrical

→ ***Metapone*** p. 91



Vollenhovia

22b No such scrobes; body not cylindrical

→ **step 23**



Myrmecina



low carina well below the eye

23a A long ridge along the side of the head below the eye, from the mandible to the rear corner (11-segmented *Myrmecina*)

→ ***Myrmecina*** p. 92



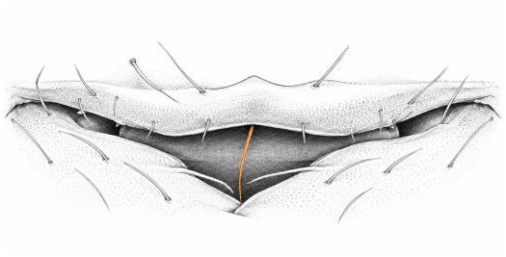
Vollenhovia

23b No such ridge

→ **step 24**

Photos: AntWeb.org, CC BY 4.0 (CASENT0006672).

Myrmicinae: key to the genera (10 of 16)



Syllophopsis: seta at the midpoint
after Heterick 2006, fig. 103 (*S. hildebrandti*)



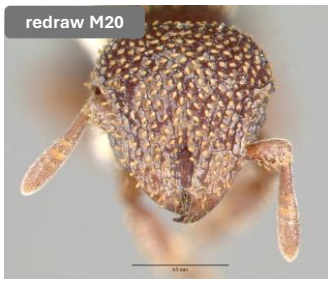
Vollenhovia

24a Front margin of the clypeus with one long seta at its midpoint (it can arise beneath a projecting clypeal ledge, its base hidden in full-face view). Eye minute, 1–2 facets. Tiny, pale

→ ***Syllophopsis*** p. 98

24b No seta at the midpoint of the clypeal margin. A large plate under the petiole; petiole without a stalk

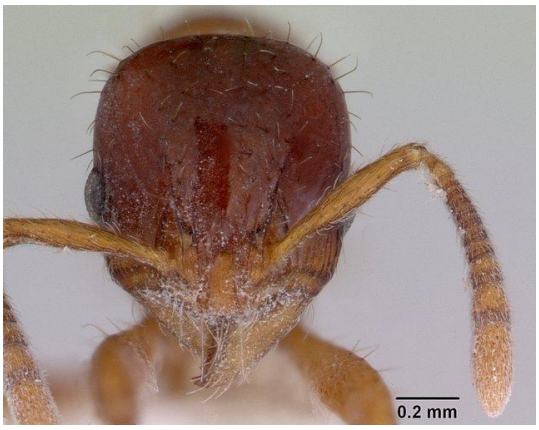
→ ***Vollenhovia*** p. 99



Calyptomyrmex



clypeal fork



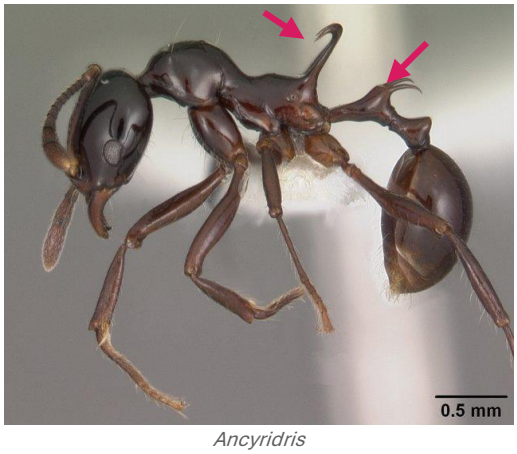
Lordomyrma

25a Front margin of the clypeus with a broad, two-lobed fork over the mandibles. Scale-like hairs

→ ***Calyptomyrmex*** p. 84

25b Clypeus convex, or with two short teeth at most

→ **step 26**



Ancyridris



Aphaenogaster

26a Propodeum with a pair of long, flattened, hooked spines, and petiole with a pair of long spines on top

→ ***Ancyridris*** p. 83

26b Petiole without spines

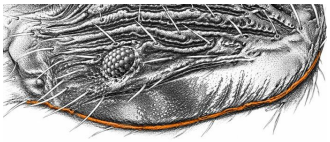
→ **step 27**

Photos: AntWeb.org, CC BY 4.0 (CASENT0010655, CASENT0172482, CASENT0102469, CASENT0280945).

Myrmicinae: key to the genera (11 of 16)



Myrmecina



carina along the side of the head



Pheidole

27a A long ridge or groove along the side of the head, from the mandible to the rear corner

→ **step 28**

27b No such ridge

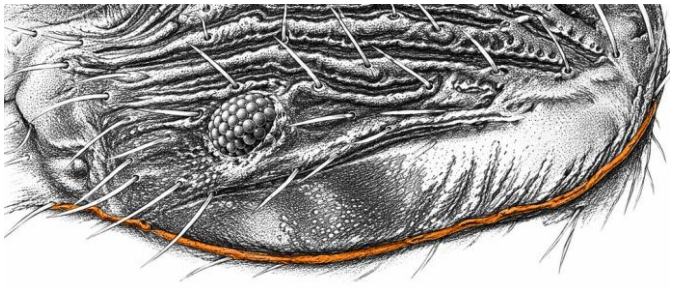
→ **step 29**



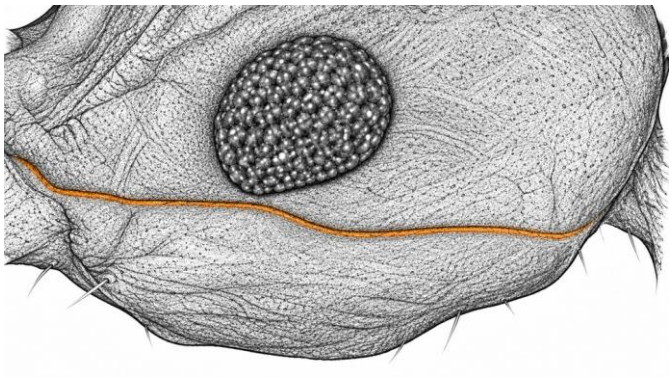
Myrmecina



Vombisidris



low carina well below the eye



sinuate groove below the eye

28a A low carina along the side of the head, well below the eye. Petiole low, sessile, without a distinct node. (Extra low teeth in front of the propodeal spines occur in some species, but are not needed here)

→ ***Myrmecina*** p. 92

28b A distinct, sinuate groove below the eye. Petiole with a node

→ ***Vombisidris*** p. 100

Photos: AntWeb.org, CC BY 4.0 (CASENT0922897).

Myrmicinae: key to the genera (12 of 16)



Dilobocondyla



petiole

29a Rear corners of the head sharply angular. Petiole long, low and barrel-shaped, without a node. Propodeum without spines

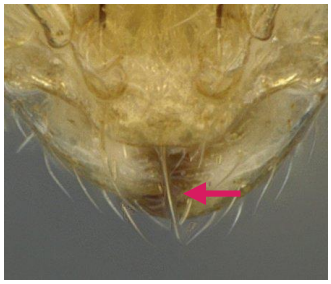
→ ***Dilobocondyla*** p. 88



Pheidole

29b Rear corners of the head rounded, or petiole with a node

→ **step 30**



M. cf. *intrudens*: one seta at the midpoint (Wau, PNG)



M. cf. *intrudens*

30a Front margin of the clypeus with **one** long seta at its midpoint (lateral setae may also be present)

→ **step 31**



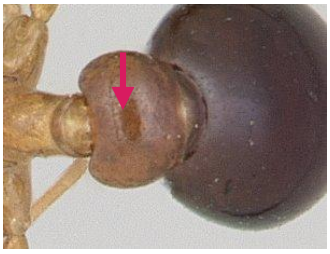
Pheidole

30b No isolated seta at the midpoint of the clypeal margin: the marginal setae paired either side of the midline, in a row, or absent. (Broken hairs: check the insertion points, or another worker)

→ **step 35**



Cardiocondyla, from above



postpetiole much broader than the petiole

31a Postpetiole swollen: from above much broader than the petiole. Maxillary palp with 5 segments

→ ***Cardiocondyla*** p. 84



Monomorium

31b Postpetiole about square, at most a little broader than the petiole

→ **step 32**

Photos: AntWeb.org, CC BY 4.0 (FOCOL1970, CASENT0434411, CASENT0103276).

Myrmicinae: key to the genera (13 of 16)



Rogeria



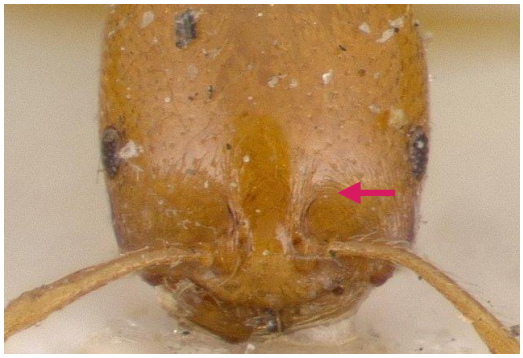
Chelaner

32a Head and mesosoma coarsely areolate to rugose. Propodeum with a pair of short teeth or spines. No spurs on the middle and hind tibiae

→ ***Rogeria*** p. 96

32b Head and mesosoma smooth or finely sculptured. Propodeum unarmed

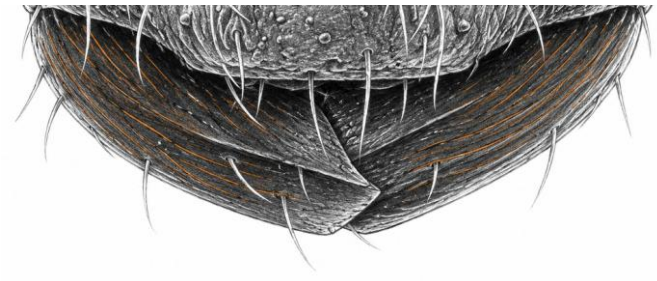
→ **step 33**



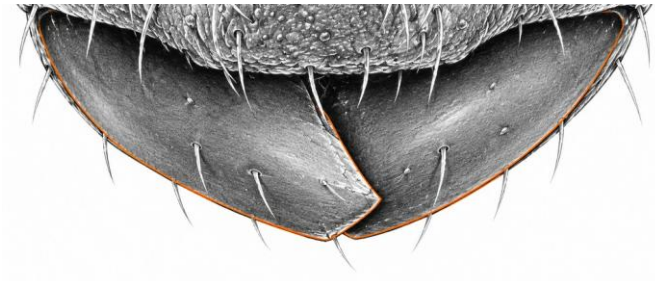
T. destructor (lectotype): striolae around the socket; reference specimen, India



Monomorium



mandibles striate (typical worker)



mandibles smooth

33a Mandible usually with fine lengthwise striae (weak or nearly absent in the smallest workers), at most 4 teeth. Fine curved striolae around the antennal sockets. Workers of several sizes in one nest: a single tiny worker may need its larger nestmates

→ ***Trichomyrmex*** p. 99

33b Mandible smooth (except for hair pits), or the whole head densely sculptured; no striolae around the sockets. One worker size

→ **step 34**

Photos: AntWeb.org, CC BY 4.0 (CASENT0904569, CASENT0008623, CASENT0010954).

Myrmicinae: key to the genera (14 of 16)



Monomorium (*floricola* type)



Chelaner

34a **Provisional: the worker characters of the two genera overlap.** The specimen matches one of the three introduced *Monomorium* of the region, checked with a species key (Antkey): *M. floricola* (head and gaster dark, mesosoma yellow), *M. pharaonis* (pale yellow, head and mesosoma dull, densely sculptured) or *M. intrudens*

→ ***Monomorium*** p. 91

34b Matches none of them: probably *Chelaner* (*C. aper*, *C. edentatus*, *C. gilberti*). Colour, shine and a pit at the propodeal spiracle do not separate the genera reliably: compare both genus pages, and a colony series

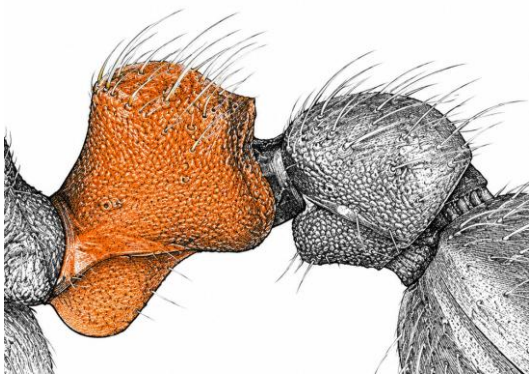
→ ***Chelaner*** p. 86



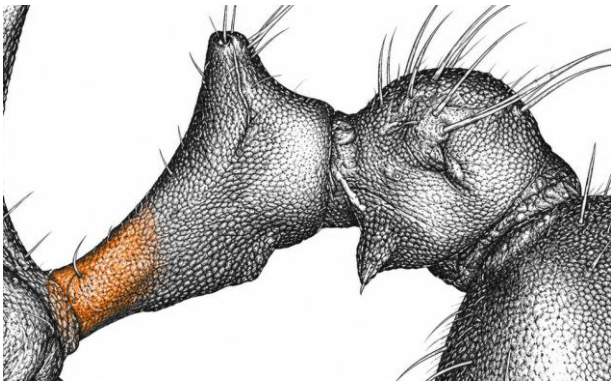
Vollenhovia



Pheidole



petiole: node without a stalk



stalk in front of the node (major)

35a Petiole node about as long as the petiole: no stalk in front of it

→ **step 36**

35b Petiole with a distinct stalk in front of the node

→ **step 37**

Photos: AntWeb.org, CC BY 4.0 (CASENT0904569).

Myrmicinae: key to the genera (15 of 16)



Romblonella



Vollenhovia

36a Scrobes for the scapes. Propodeum with a pair of long, stout spines. Palps 5:3; a small tooth under the petiole

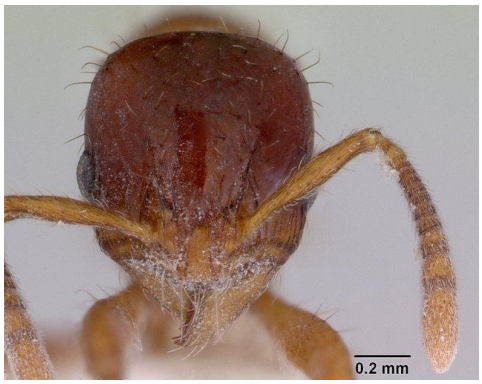
→ ***Romblonella*** p. 96

36b No scrobes. A large plate under the petiole. Propodeum rounded or with small teeth. Palps 2:2

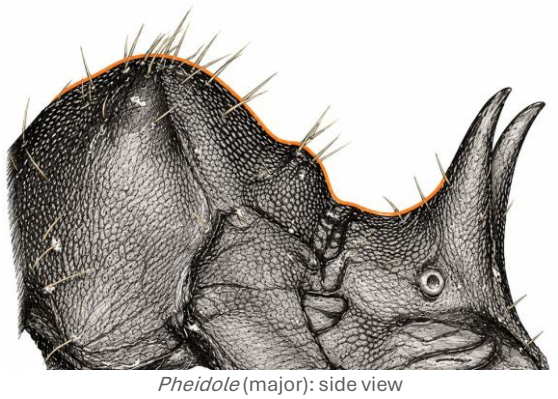
→ ***Vollenhovia*** p. 99



Pheidole minor



Lordomyrma



Pheidole (major): side view



Lordomyrma: side view

37a Frontal carinae short or absent, not reaching far behind the eyes (long, bordering scrobes, in some huge-headed *Pheidole* majors). Clypeus without two lengthwise ridges. (Side view: propodeum lower than the pronotum)

→ **step 38**

37b Frontal carinae long, reaching back towards the rear corners of the head. Clypeus with two lengthwise ridges. (Side view: mesosoma variable, often with a depression between promesonotum and propodeum). One worker size

→ **step 39**

Photos: AntWeb.org, CC BY 4.0 (CASENT0172482).

Myrmicinae: key to the genera (16 of 16)



Pheidole: minor



major



Aphaenogaster

38a Club of 3 segments. Workers of two sizes: minors and majors with huge heads. Palps 2:2 or 3:2

→ ***Pheidole*** p. 93

38b Club of 4 segments, or no distinct club. One worker size, over 3.4 mm. Palps 4:3

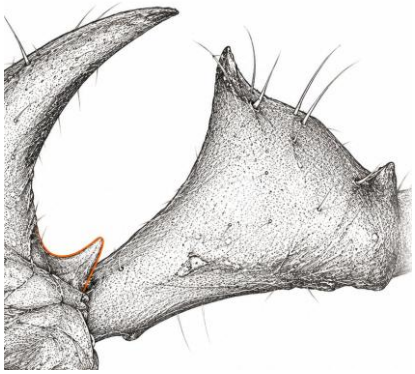
→ ***Aphaenogaster*** p. 83



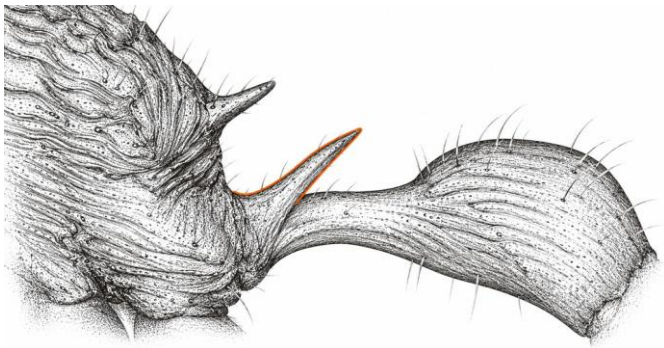
L. furcifera, near Lae



Poecilomyrma senirewae:
reference specimen, Fiji



propodeal lobe short



propodeal lobe long, spine-like
(not to scale with 39a)

39a Propodeal lobes short, much shorter than the propodeal spines. New Guinea to Fiji

→ ***Lordomyrma*** p. 89

39b Propodeal lobes long and spine-like, longer than the propodeal spines. Head and mesosoma coarsely rugose. Fiji only (Sarnat & Economo 2012, key couplet 36)

→ ***Poecilomyrma*** p. 94

Draft key. *Myrmecina* and *Vollenhovia* come out twice (11- and 12-segmented species), *Pristomyrmex* at steps 16 and 18. Steps 34 and 37–39 are provisional (revised 26 Oct 2026).

Photos: AntWeb.org, CC BY 4.0 (CASENT0280945, CASENT0172482, CASENT0181574).



Adelomyrmex, MJ31872



Adelomyrmex biroi, worker, CASENT0916623

Adelomyrmex 2–3 mm

New Guinea list: 1 species

1 Antenna with 12 segments, ending in a 2-segmented club
2 Middle of the clypeus raised into a lengthwise platform
3 Propodeum with two short, stout spines
4 Small, dark; head and body densely sculptured

Compare: *Carebara*, *Solenopsis* and the other genera with a 2-segmented club (9–11 antennal segments)

In New Guinea: Only *A. biroi*, known from very few workers. Leaf litter.



Allomerus auropunctatus, CASENT0005064



Allomerus auropunctatus, CASENT0005064

Allomerus 1–1.5 mm

Melanesia only: 1 species

1 Antenna with 11 segments, ending in a 2-segmented club
2 Deep scrobes that take the whole antenna
3 Propodeum with long spines
4 Tiny, golden yellow; painful sting

Compare: *Mayriella* (10 antennal segments; clypeus with two lengthwise ridges)

In New Guinea: *A. auropunctatus* (formerly *Wasmannia auropunctata*), the little fire ant: an invasive tramp in Bougainville, the Solomons, Vanuatu and New Caledonia: one species throughout Melanesia. The New Guinea checklist has it (as *Wasmannia*) only from Bougainville, which lies outside New Guinea in these keys. Photo: a reference specimen from Florida.

Photos: AntWeb.org, CC BY 4.0 (CASENT0916623, CASENT0005064).



Ancyridris polyrhachioides, CASENT0102469



Ancyridris polyrhachioides, CASENT0102469

Ancyridris c. 6 mm

New Guinea list: 2 species

1 Propodeum with a pair of long, flattened, hooked spines
2 Petiole with a pair of long spines on top
3 Antenna with 12 segments; legs and scapes long
4 Body dark, shining

Compare: *Aphaenogaster* (petiole without spines); *Polyrhachis* (Formicinae: one waist segment)

In New Guinea: Two species, only in New Guinea. Related to *Lordomyrma* (Taylor 2009).



Aphaenogaster dromedaria, CASENT0280945



Aphaenogaster dromedaria, CASENT0280945

Aphaenogaster 4–7 mm

New Guinea list: 7 species

1 Slender, long-legged; head narrowed behind into a neck in several species
2 Propodeum lower than the pronotum, the mesonotum sloping down to it
3 Antenna with 12 segments; club of 4 segments or indistinct
4 One worker size; palps 4:3

Compare: *Pheidole* (club of 3 segments; majors with big heads); *Lordomyrma* (long frontal carinae; clypeus with two ridges)

In New Guinea: Forest floor and low vegetation.

Photos: AntWeb.org, CC BY 4.0 (CASENT0102469, CASENT0280945).



Calyptomyrmex beccarii, CASENT0010655



Calyptomyrmex beccarii, CASENT0010655

Calyptomyrmex 2–3 mm

New Guinea list: 1 species

1 Front of the clypeus with a broad two-lobed fork over the mandibles
2 Body covered with broad, scale-like hairs
3 Antenna with 12 segments; eyes small
4 Coarsely sculptured

Compare: *Eurhopalothrix* (7 antennal segments; scape passing below the eye)

In New Guinea: Only *C. beccarii*. Leaf litter.



Cardiocondyla paradoxa, CASENT0103276



Cardiocondyla paradoxa, CASENT0103276

Cardiocondyla 1.5–3 mm

New Guinea list: 16 species

1 Postpetiole swollen: from above much broader than the petiole
2 Front margin of the clypeus with one long seta at its midpoint (lateral setae may also be present)
3 Head and mesosoma without standing hairs (most species)
4 Maxillary palp with 5 segments

Compare: *Monomorium*, *Chelaner*, *Trichomyrmex* (postpetiole about square)

In New Guinea: Several tramp species (*C. emeryi*, *C. nuda*, *C. obscurior*, *C. wroughtonii*) and native species. Open, disturbed ground.

Photos: AntWeb.org, CC BY 4.0 (CASENT0010655, CASENT0103276).



Carebara melanocephala, minor, CASENT0900743



Carebara melanocephala, major, CASENT0900745

Carebara 1–6 mm

New Guinea list: 8 species (+1 subspecies)

1 Antenna with 9–11 segments, ending in a 2-segmented club
2 Workers of very different sizes: tiny minors and big-headed majors
3 No scrobes; eyes small and round, or absent
4 No seta at the midpoint of the clypeal margin

Compare: *Solenopsis* (one median clypeal seta; propodeum unarmed); *Pheidole* (3-segmented club)

In New Guinea: Includes the former *Oligomyrmex* and *Pheidologeton*. Soil and leaf litter; some species raid in columns.



Cataulacus setosus, CASENT0280800



Cataulacus setosus, CASENT0280800

Cataulacus 3–6 mm

New Guinea list: 1 species

1 First gaster tergite covers the whole gaster from above
2 Scrobes below the eyes; antenna with 11 segments
3 Body flat, coarsely sculptured, with toothed or spiny edges
4 Lives on trees

Compare: *Eurhopalothrix* (7 antennal segments; litter); *Meranoplus* (mesosoma a shield, 9 antennal segments)

In New Guinea: Only *C. setosus*. Arboreal.

Photos: AntWeb.org, CC BY 4.0 (CASENT0900743, CASENT0900745, CASENT0280800).



Chelaner edentatus, worker, CASENT0904569



Chelaner edentatus, worker, CASENT0904569

Chelaner 1.5–4 mm

New Guinea list: 3 species

1 Antenna with 12 segments and a 3-segmented club
2 Front margin of the clypeus with one long seta at its midpoint (lateral setae may also be present)
3 Propodeum unarmed
4 Body often smooth and shining

Compare: *Monomorium* (the tramps: see step 34); *Trichomyrmex* (mandible striate, striolae around the sockets)

In New Guinea: Formerly in *Monomorium*; resurrected by Sparks et al. (2019) for the Australasian species with 12-segmented antennae. Photo: a syntype of *C. edentatus* from Woodlark Island.



Colobostruma foliacea, worker, CASENT0904964



Colobostruma foliacea, worker, CASENT0904964

Colobostruma 1.5–2.5 mm

New Guinea list: 1 species

1 Antenna with 4–6 segments; scrobes below the eyes
2 Petiole and postpetiole with thin, wing-like flanges (from above)
3 Mandibles with teeth along the whole inner edge
4 Palps 5:3: maxillary palp with 5 segments, labial palp with 3

Compare: *Strumigenys* (scape passing above the eye; palps 1:1)

In New Guinea: Only *C. foliacea*. Leaf litter.

Photos: AntWeb.org, CC BY 4.0 (CASENT0904569, CASENT0904964).



Crematogaster, MJ0820



Crematogaster, MJ0820

Crematogaster 2–5 mm

New Guinea list: 32 species (+3 subspecies)

1 Postpetiole joined to the upper side of the gaster
2 Gaster heart-shaped from above; raised over the body when alarmed
3 Petiole flat, without a node
4 Antenna with 11 (or 10) segments

Compare: all other genera (postpetiole joined to the front of the gaster)

In New Guinea: Very common on vegetation; many nest in plants.



Dacetinops, MJ32372



Dacetinops, MJ32372

Dacetinops 2–3 mm

New Guinea list: 3 species

1 Underside of petiole, postpetiole and gaster base with spongy, whitish tissue
2 Deep scrobes; eyes below them
3 Antenna with 11 segments, 3-segmented club; palps 2:2
4 Coarse lengthwise ridges; first gaster segment takes nearly the whole gaster

Compare: *Strumigenys* (also spongy tissue, but 4–6 antennal segments); *Metapone* (no spongy tissue)

In New Guinea: Described from the Busu River near Lae (Brown & Wilson 1957). Leaf litter. Keys to species: Taylor (1985).



Dilobocondyla cataulacoidea, worker, FOCOL1970



Dilobocondyla cataulacoidea, worker, FOCOL1970

Dilobocondyla 4–6 mm

New Guinea list: 1 species

1 Rear corners of the head sharply angular or pointed
2 Petiole long, low and barrel-shaped, without a distinct node
3 Shallow scrobes for the scapes
4 Propodeum rounded, without spines

Compare: *Podomyrma* (11 antennal segments; femora swollen)

In New Guinea: Only *D. cataulacoidea*. Arboreal.



Eurhopalothrix, MJ0935



Eurhopalothrix, MJ0935

Eurhopalothrix 1.5–3 mm

New Guinea list: 10 species

1 Antenna with 7 segments; scape passing below the eye into a scrobe
2 Mandibles triangular, closing along their length
3 Body with flattened, scale-like hairs
4 Slow; leaf litter

Compare: *Rhopalothrix* (mandibles linear); *Calyptomyrmex* (12 antennal segments)

In New Guinea: Keys to species: Brown & Kempf (1960), Taylor (1990).

Photos: AntWeb.org, CC BY 4.0 (FOCOL1970).



Liomyrmex gestroi, CASENT0922902



Liomyrmex gestroi, CASENT0922902

Liomyrmex 3–5 mm

New Guinea list: 2 species

1 Eyes absent
2 A large lobe under the petiole
3 Antenna with 11 segments; frontal lobes wide apart
4 Yellow, smooth and shining

Compare: *Metapone* (eyes present; deep scrobes)

In New Guinea: Lives in termite nests.



Lordomyrma furcifera, CASENT0172482



Lordomyrma furcifera, CASENT0172482

Lordomyrma 3–5 mm

New Guinea list: 7 species

1 Frontal carinae long, reaching back towards the rear corners of the head
2 Clypeus with two lengthwise ridges
3 Propodeum with well-developed spines; mesosoma variable in side view, often with a depression between promesonotum and propodeum (not necessarily one even arch)
4 Mandibles with 6–10 teeth; eyes large

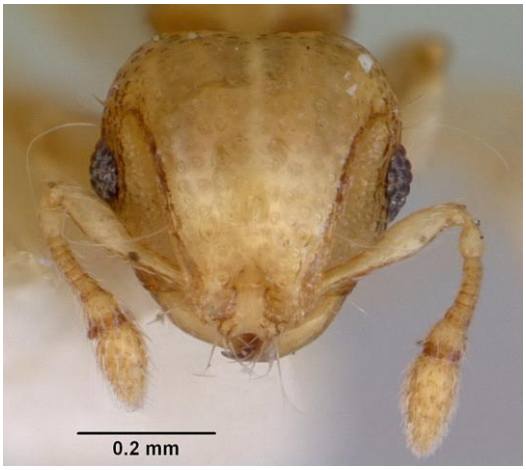
Compare: *Pheidole*, *Aphaenogaster* (no long frontal carinae); *Poecilomyrma* (Fiji: propodeal lobes spine-like, longer than the propodeal spines); *Ancyridris* (hooked spines on the petiole)

In New Guinea: Many undescribed species (Taylor 2009). Leaf litter and rotten wood.

Photos: AntWeb.org, CC BY 4.0 (CASENT0922902, CASENT0172482).



Mayriella sharpi, worker, CASENT0172443



Mayriella sharpi, worker, CASENT0172443

Mayriella c. 1.5 mm

New Guinea list: 1 species

1 Antenna with 10 segments, ending in a 2-segmented club
2 Scrobes for the antennae; eye narrowed to a point below
3 Clypeus with two lengthwise ridges
4 Propodeum with spines or teeth

Compare: *Allomerus* (11 antennal segments; clypeus smooth)

In New Guinea: Only *M. sharpi* (holotype from Sogeri, photo). Leaf litter.



Meranoplus, MJ1331



Meranoplus, MJ1331

Meranoplus 3–5 mm

New Guinea list: 10 species

1 Mesosoma a broad shield with thin, sharp edges projecting over the sides
2 Antenna with 9 segments
3 Body with long, dense standing hairs
4 Usually scrobes for the antennae

Compare: *Cataulacus* (first gaster tergite covers the gaster; 11 antennal segments)

In New Guinea: Open and forest ground; often harvest seeds.

Photos: AntWeb.org, CC BY 4.0 (CASENT0172443).



Metapone truki, CASENT0006672



Metapone truki, CASENT0006672

Metapone 4–8 mm

New Guinea list: 6 species

1 Deep scrobes, partly overhung, the small eyes at their lower edge

2 Clypeus with a square lobe over the mandibles

3 Petiole and postpetiole broad, flat on top

4 Body long and cylindrical; antenna with 11 segments

Compare: *Liomyrmex* (eyes absent); *Dacetinops* (spongy tissue under the waist)

In New Guinea: Predators of termites. Keys to species: Taylor & Alpert (2016). Photo: *M. truki*, a worker from Micronesia.



Monomorium, MJ31444



Monomorium floricola, worker, CASENT0010954

Monomorium 1.5–2.5 mm

New Guinea list: 3 species

1 Front margin of the clypeus with one long seta at its midpoint (lateral setae may also be present)

2 Propodeum unarmed

3 Antenna with 12 segments, 3-segmented club (NG species)

4 Postpetiole about square, not swollen

Compare: *Chelaner* (worker characters overlap: see step 34); *Trichomyrmex* (mandible usually striate; striolae around the sockets); *Cardiocondyla* (postpetiole swollen)

In New Guinea: Only introduced tramps: *M. floricola* (bicoloured: head and gaster dark, mesosoma yellow; photos), *M. pharaonis* (Pharaoh ant) and *M. intrudens*. The checklist's fourth name, *M. edentatum*, is *Chelaner edentatus* listed twice. *Monomorium* in its old, wide sense was polyphyletic (see Names in older keys).

Photos: AntWeb.org, CC BY 4.0 (CASENT0006672, CASENT0010954).



Myrmecina, MJ0955



Myrmecina, MJ0955

Myrmecina 2–4 mm

New Guinea list: 7 species

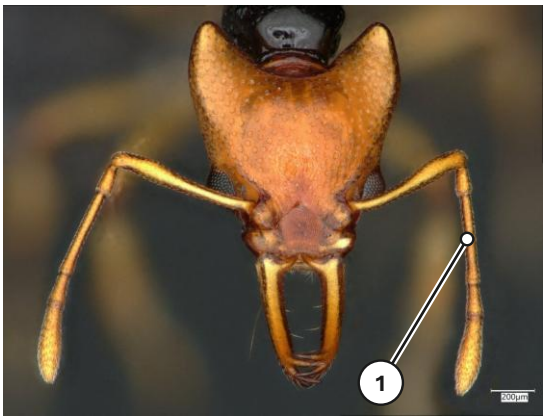
1 A low carina along the side of the head, from the mandible back, well below the eye
2 Petiole low, without a distinct node
3 Propodeum with spines or teeth; extra low teeth in front of them in some species
4 Antenna with 12 (some 11) segments

Compare: *Vombisidris* (a sinuate groove below the eye; petiole with a node)

In New Guinea: Leaf litter; slow-moving.



Orectognathus, MJ31975



Orectognathus, MJ31975

Orectognathus 2–4 mm

New Guinea list: 10 species

1 Antenna with 5 segments; antennomere 3 (counting the scape as 1) long
2 Mandibles long, linear (trap-jaws)
3 Palps 5:3
4 Head broad behind; eyes on the sides

Compare: *Strumigenys* (4 or 6 antennal segments; palps 1:1)

In New Guinea: Leaf litter and rotten wood. Keys to species: Taylor (1977), Taylor & Lowery (1972).



Pheidole, MJ0585



Pheidole, MJ0584

Pheidole 1.5–5 mm

New Guinea list: 57 species (+4 subspecies)

1 Workers in two sizes: minors, and majors with very large heads

2 Antenna with 12 segments, 3-segmented club

3 Propodeum lower than the pronotum; mesonotum sloping

4 Palps 2:2 or 3:2

Compare: *Aphaenogaster* (one worker size; club of 4 segments); *Carebara* (2-segmented club)

In New Guinea: The most species-rich myrmicine genus here after *Strumigenys*. Keys to species: Sarnat et al. (2015, 2016).



Podomyrma, MJ0924



Podomyrma, MJ0924

Podomyrma 3–8 mm

New Guinea list: 21 species (+6 subspecies)

1 Middle and hind femora greatly swollen

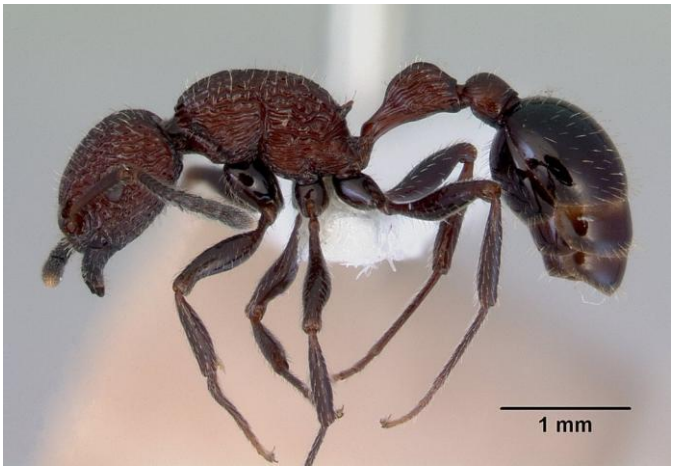
2 Antenna with 11 segments

3 Petiole low and barrel-shaped, or with 1–3 small spines

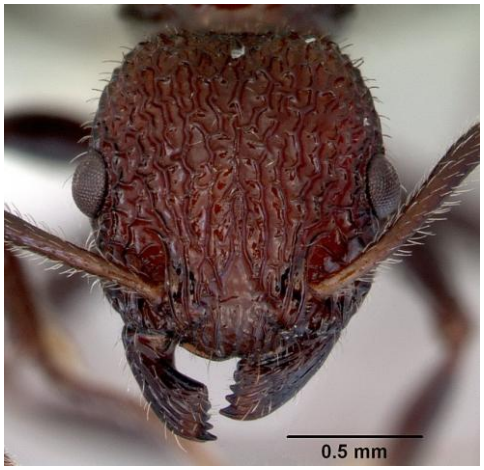
4 Lives on trees, nests in hollow twigs

Compare: *Dilobocondyla* (12 antennal segments); *Pristomyrmex* (sockets exposed; front of the clypeus with 3 or more small teeth)

In New Guinea: Arboreal.



Poecilomyrma senirewae, CASENT0172278



Poecilomyrma senirewae, CASENT0172278

Poecilomyrma 3–4 mm

Melanesia only: not on the New Guinea list

1 Antenna with 12 segments and a 3-segmented club; no scrobes
2 Propodeal lobes long and spine-like, longer than the propodeal spines (Sarnat & Economo 2012)
3 Head and mesosoma coarsely rugose
4 Fiji only

Compare: *Lordomyrma* (also in Fiji; propodeal lobes shorter than the spines)

In New Guinea: Not on the New Guinea list: endemic to Fiji (two species). Photo: *P. senirewae*, Viti Levu.



Pristomyrmex, MJ31389



Pristomyrmex inermis, CASENT0922988

Pristomyrmex 2.5–4.5 mm

New Guinea list: 19 species

1 Frontal lobes reduced: antennal sockets exposed
2 Front of the clypeus with 3 or more small teeth
3 Antenna with 11 segments, 3-segmented club; mandibles tilted down in side view
4 Pronotum with teeth or spines in many species, unarmed in others (*P. inermis*: pronotum and propodeum unarmed)

Compare: *Tetramorium* (frontal lobes cover the sockets; clypeus with 2 teeth at most)

In New Guinea: Leaf litter and rotten wood. Keys to species: Wang (2003). Photos: MJ31389 (side view) and *P. inermis* CASENT0922988 (head), Karkar Island.

Photos: AntWeb.org, CC BY 4.0 (CASENT0172278, CASENT0922988).



Rhopalomastix rothneyi, CASENT0178531



Rhopalomastix rothneyi, CASENT0178531

Rhopalomastix 1.5–2 mm

New Guinea list: 1 species

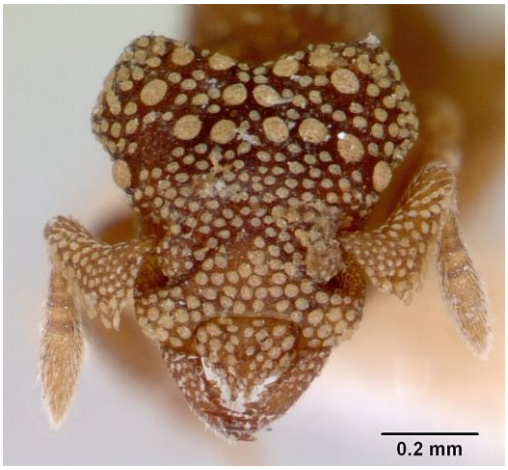
1 Frontal lobes touching, or separated only by a narrow groove
2 Antenna with 10 segments, 2-segmented club
3 Propodeum unarmed; no impression at the metanotal groove
4 Postpetiole broadly joined to the gaster

Compare: *Solenopsis* (frontal lobes apart; one median clypeal seta)

In New Guinea: Only *R. rothneyi* (photo from Rabaul). Arboreal.



Rhopalothrix orbis, CASENT0172459



Rhopalothrix orbis, CASENT0172459

Rhopalothrix c. 1.5 mm

New Guinea list: 1 species

1 Mandibles thin and linear, meeting only at their tips
2 Antenna with 7 segments; scrobes below the eyes
3 Body with scale-like hairs
4 Tiny; leaf litter

Compare: *Eurhopalothrix* (mandibles triangular)

In New Guinea: Only *R. diadema*. Photo: *R. orbis*, a worker from Queensland.

Photos: AntWeb.org, CC BY 4.0 (CASENT0178531, CASENT0172459).



Rogeria, MJ32347



Rogeria, MJ32347

Rogeria 2–3 mm

New Guinea list: 1 species

1 Front margin of the clypeus with one strong seta at its midpoint
2 No spurs on the middle and hind tibiae
3 Head and mesosoma coarsely areolate to rugose
4 Antenna with 12 segments, the 3-segmented club longer than the rest of the funiculus

Compare: *Monomorium*, *Chelaner* (smooth or finely sculptured; propodeum unarmed); *Lordomyrma* (long frontal carinae)

In New Guinea: Only *R. stigmatica*; New Guinea workers have small eyes (Kugler 1994). Leaf litter.



Romblonella, MJ31452



Romblonella, MJ31452

Romblonella 2.5–3.5 mm

New Guinea list: 2 species

1 Petiole node about as long as the petiole: no stalk in front
2 Scrobes for the scapes
3 Propodeum with a pair of long, stout spines
4 Palps 5:3; a small tooth under the petiole

Compare: *Vollenhovia* (no scrobes; a large plate under the petiole)

In New Guinea: On trees and low vegetation.



Solenopsis, MJ31291



Solenopsis, MJ31291

Solenopsis 1–4 mm

New Guinea list: 4 species

1 Antenna with 9 or 10 segments, ending in a 2-segmented club

2 Front margin of the clypeus with one long seta at its midpoint (lateral setae may also be present)

3 Propodeum unarmed

4 Clypeus with two lengthwise ridges, often ending in teeth

Compare: *Carebara* (no seta at the midpoint); *Rhopalomastix* (frontal lobes touching)

In New Guinea: *S. geminata*, the tropical fire ant, is an introduced tramp; *S. papuana* is native and tiny.



Strumigenys, MJ31335



Strumigenys, MJ31335

Strumigenys 1–3 mm

New Guinea list: 78 species

1 Antenna with 4 or 6 segments

2 Palps 1:1

3 Usually spongy tissue under the petiole and postpetiole

4 Mandibles long and linear (trap-jaws) or short and triangular

Compare: *Orectognathus* (5 antennal segments); *Colobostruma* (scrobes below the eyes)

In New Guinea: The most species-rich myrmicine genus here. Includes the former *Pyramica* and *Smithistruma*. Keys to species: Bolton (2000).



Syllophopsis, MJ14830



Syllophopsis, MJ14830

Syllophopsis c. 1.5 mm

New Guinea list: 3 species (+1 subspecies)

1 Eye minute, with 1–2 facets

2 Front margin of the clypeus with one long seta at its midpoint (lateral setae may also be present)

3 Antenna with 11 segments

4 Tiny, pale yellow; propodeum unarmed

Compare: *Monomorium* (eyes larger); *Vollenhovia* (no seta at the midpoint; a plate under the petiole)

In New Guinea: Formerly in *Monomorium*, reinstated by Ward et al. (2015). Soil and leaf litter.



Tetramorium, MJ0513



Tetramorium, MJ0513

Tetramorium 2–4 mm

New Guinea list: 35 species

1 Clypeus raised into a sharp ridge in front of each antennal socket

2 Sting with a triangular or pennant-shaped appendage

3 Frontal lobes cover the sockets at least in part

4 Antenna with 11 or 12 segments

Compare: *Pristomyrmex* (sockets exposed; clypeus with 3 or more small teeth)

In New Guinea: Many species, including tramps (*T. bicarinatum*, *T. simillimum*, *T. lanuginosum*, *T. pacificum*, *T. insolens*). Keys to species: Bolton (1977).



Trichomyrmex destructor, worker, CASENT0008623



Trichomyrmex destructor, worker, CASENT0008623

Trichomyrmex 2–3.5 mm

New Guinea list: 1 species

1 Mandible usually with fine lengthwise striae (weak or absent in the smallest workers), at most 4 teeth
2 Fine curved striolae around the antennal sockets
3 Workers of several sizes in one nest; palps 2:2
4 Propodeum unarmed, its upper face with fine cross-ridges

Compare: *Monomorium*, *Chelaner* (mandible smooth; one worker size). A single tiny worker may need its larger nestmates

In New Guinea: Only *T. destructor*, a tramp. Formerly in *Monomorium*; reinstated by Ward et al. (2015) in another tribe, Crematogastrini (Sharaf et al. 2016). Photo: the lectotype.



Vollenhovia, MJ1007



Vollenhovia, MJ1007

Vollenhovia 2–4 mm

New Guinea list: 21 species (+3 subspecies)

1 A large plate under the petiole
2 Petiole node about as long as the petiole: no stalk in front
3 Antenna with 11 or 12 segments
4 Propodeum rounded or with small teeth; palps 2:2

Compare: *Romblonella* (scrobes; long propodeal spines); *Syllophopsis* (one median clypeal seta)

In New Guinea: Rotten wood and leaf litter.

Photos: AntWeb.org, CC BY 4.0 (CASENT0008623).



Vombisidris acherdos, CASENT0922897



Vombisidris acherdos, CASENT0922897

Vombisidris 2.5–3.5 mm

New Guinea list: 3 species

1 A distinct, sinuate groove along the side of the head below the eye

2 Petiole with a stalk and a low node

3 Propodeum smooth near the metanotal groove, with spines behind

4 Antenna with 12 segments

Compare: *Myrmecina* (a low carina well below the eye; petiole without a node)

In New Guinea: Arboreal; seldom collected.

Photos: AntWeb.org, CC BY 4.0 (CASENT0922897).

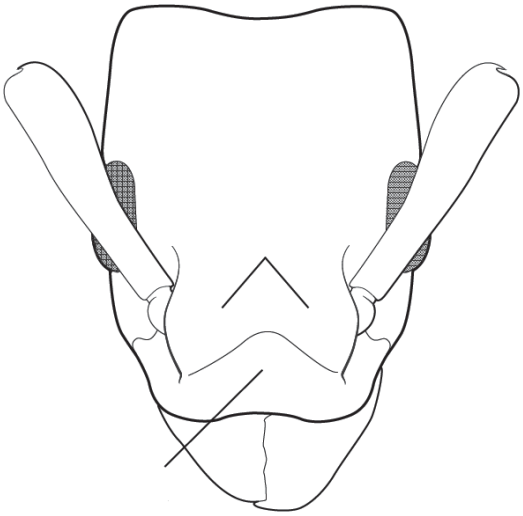
Myrmicinae at a glance (1 of 2)

Genus	Recognise it by	Size	NG species	Page
Adelomyrmex	antenna 12 with a 2-segmented club; clypeus a raised platform	2–3 mm	1	82
Allomerus	little fire ant: tiny, golden; scrobes; 11 segments, 2-segmented club	1–1.5 mm	1, Melanesia	82
Ancyridris	long hooked spines on the propodeum and the petiole	c. 6 mm	2	83
Aphaenogaster	slender, long legs; head with a neck; propodeum low	4–7 mm	7	83
Calyptomyrmex	clypeus with a two-lobed fork over the mandibles; scale-like hairs	2–3 mm	1	84
Cardiocondyla	postpetiole much broader than the petiole; one median clypeal seta	1.5–3 mm	16	84
Carebara	2-segmented club; minors tiny, majors with big heads	1–6 mm	8	85
Cataulacus	flat, armoured; first gaster tergite covers the gaster	3–6 mm	1	85
Chelaner	shining; propodeum unarmed; one median clypeal seta	1.5–4 mm	3	86
Colobostruma	small; wing-like flanges on the waist; scrobes below the eyes	1.5–2.5 mm	1	86
Crematogaster	postpetiole on top of a heart-shaped gaster	2–5 mm	32	87
Dacetinops	spongy white tissue under the waist; deep scrobes; 11 segments	2–3 mm	3	87
Dilobocondyla	rear corners of the head angular; petiole long and low	4–6 mm	1	88
Eurhopalothrix	7 antennal segments; scrobes below the eyes; scale-like hairs	1.5–3 mm	10	88
Liomyrmex	eyeless, yellow, smooth; large lobe under the petiole	3–5 mm	2	89
Lordomyrma	long frontal carinae; clypeus with two ridges; propodeal spines	3–5 mm	7	89
Mayriella	tiny; 10 segments, 2-segmented club; scrobes; clypeus with two ridges	c. 1.5 mm	1	90
Meranoplus	mesosoma a shield with thin projecting edges; very hairy	3–5 mm	10	90
Metapone	cylindrical; deep scrobes; flat broad waist; in termite galleries	4–8 mm	6	91

Myrmicinae at a glance (2 of 2)

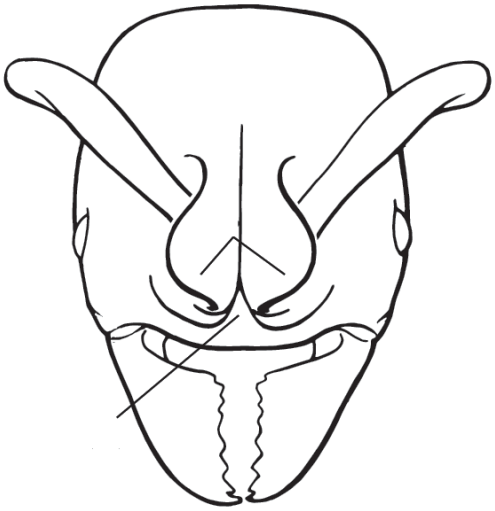
Genus	Recognise it by	Size	NG species	Page
Monomorium	tiny tramp ants; one median clypeal seta; propodeum unarmed	1.5–2.5 mm	3	91
Myrmecina	ridge along the side of the head; petiole low, no node	2–4 mm	7	92
Orectognathus	trap-jaws; 5 antennal segments	2–4 mm	10	92
Pheidole	majors with huge heads; club of 3 segments	1.5–5 mm	57	93
Podomyrma	swollen femora; 11 segments; arboreal	3–8 mm	21	93
Poecilomyrma	Fiji only; propodeal lobes spine-like, longer than the propodeal spines	3–4 mm	Melanesia	94
Pristomyrmex	sockets exposed; clypeus with 3+ small teeth; 11 segments	2.5–4.5 mm	19	94
Rhopalomastix	frontal lobes touching; 2-segmented club; arboreal	1.5–2 mm	1	95
Rhopalothrix	7 segments; scrobes below the eyes; linear mandibles	c. 1.5 mm	1	95
Rogeria	coarsely sculptured; one median clypeal seta; no spurs on middle and hind tibiae	2–3 mm	1	96
Romblonella	scrobes; long propodeal spines; petiole without a stalk	2.5–3.5 mm	2	96
Solenopsis	2-segmented club; one median clypeal seta; propodeum unarmed	1–4 mm	4	97
Strumigenys	tiny trap-jaw or short-jawed litter ants; 4 or 6 segments	1–3 mm	78	97
Syllophopsis	tiny, pale; eye 1–2 facets; one median clypeal seta	c. 1.5 mm	3	98
Tetramorium	clypeus ridged in front of the sockets; sting with an appendage	2–4 mm	35	98
Trichomyrmex	mandible usually striate; striolae around the sockets; workers of several sizes	2–3.5 mm	1	99
Vollenhovia	plate under the petiole; petiole without a stalk	2–4 mm	21	99
Vombisidris	sinuate groove below the eye	2.5–3.5 mm	3	100

Ponerinae: key to the genera (1 of 6)



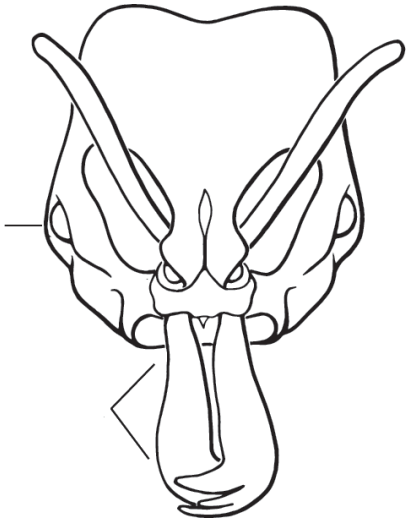
1a Clypeus reaching back far between the frontal lobes; antennal sockets wide apart. Two comb-like spurs on the hind tibia; claws usually with one tooth. Body dull, frosted

→ ***Platythyrea*** p. 109



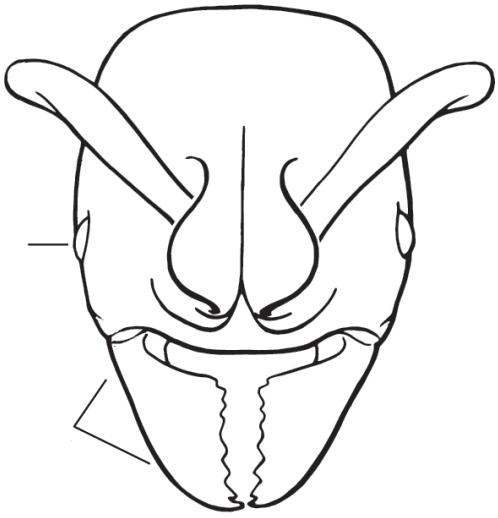
1b Clypeus at most a narrow strip between the frontal lobes; antennal sockets close together

→ **step 2**



2a Mandibles long and straight, inserted side by side at the middle of the front of the head (**trap-jaws**)

→ **step 3**

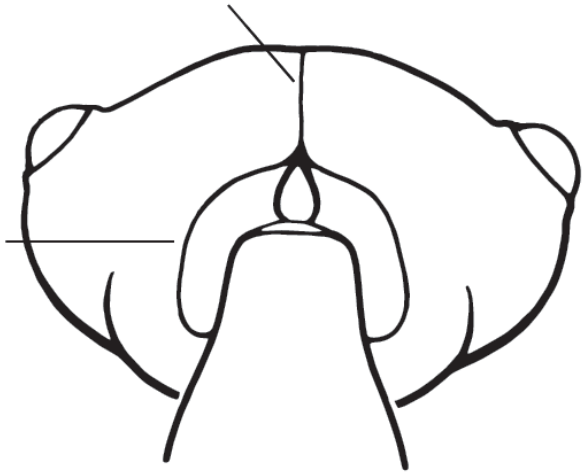


2b Mandibles inserted at the sides of the front of the head

→ **step 4**

Drawings: Fisher et al. 2025, CC0.

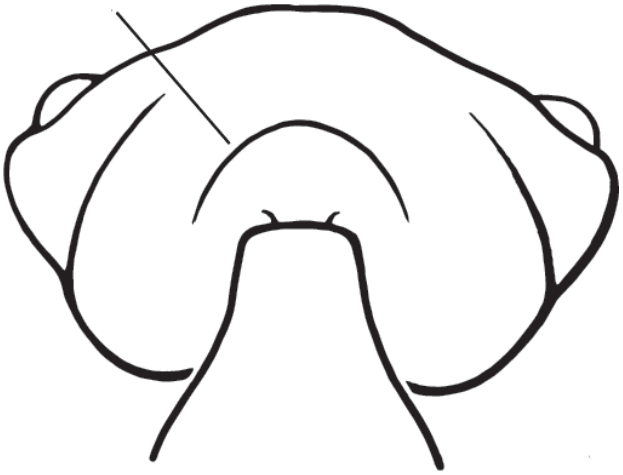
Ponerinae: key to the genera (2 of 6)



head from behind

3a Back of the head with a V-shaped ridge and two dark lines that meet in a groove on top

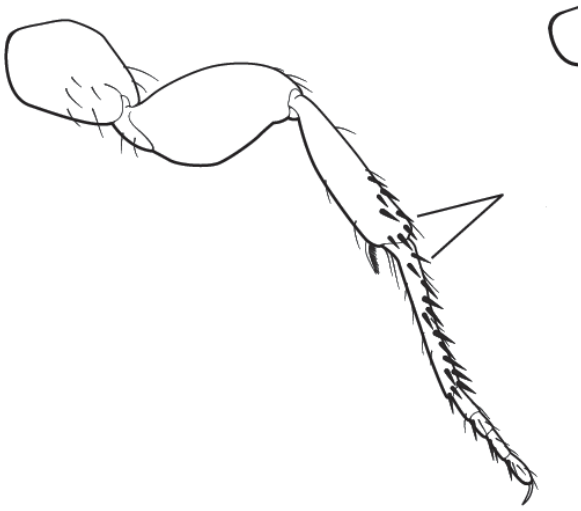
→ ***Odontomachus*** p. 109



head from behind

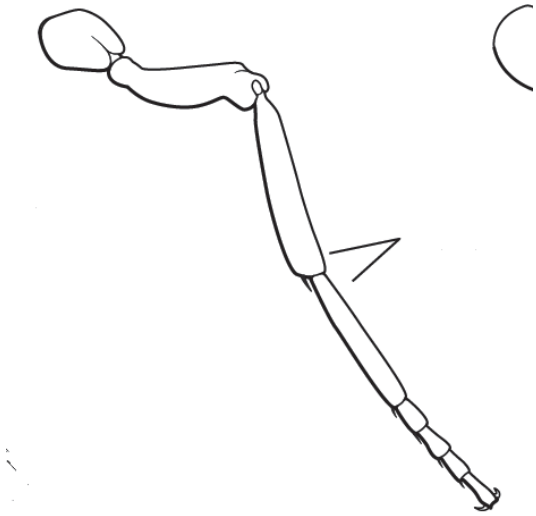
3b Back of the head evenly curved: no V, no dark lines

→ ***Anochetus*** p. 110



4a Middle tibia with many thick, peg-like bristles along its upper side (most *Cryptopone*: eyes small, a few facets, or absent)

→ ***Cryptopone*** p. 112

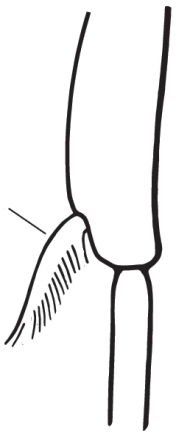


4b Middle tibia without such bristles (a few near the tip at most)

→ **step 5**

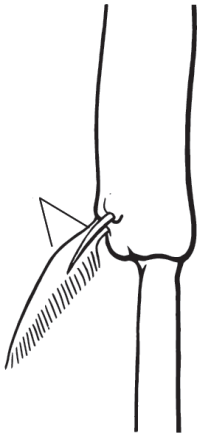
Drawings: Fisher et al. 2025, CC0.

Ponerinae: key to the genera (3 of 6)



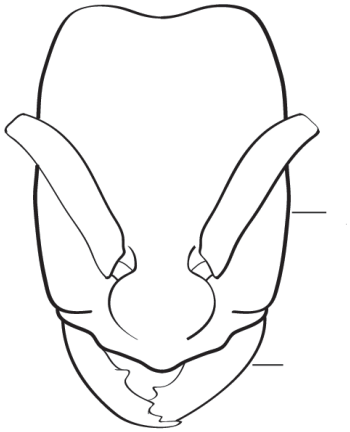
5a Hind tibia with **one** spur, which is comb-like

→ **step 6**



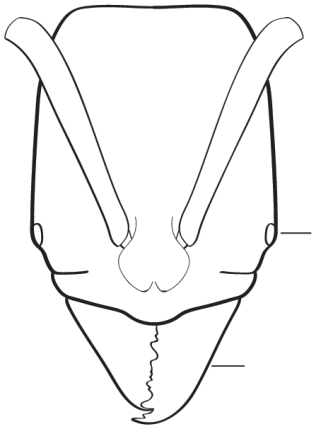
5b Hind tibia with **two** spurs: a large comb-like one and a small simple one

→ **step 8**



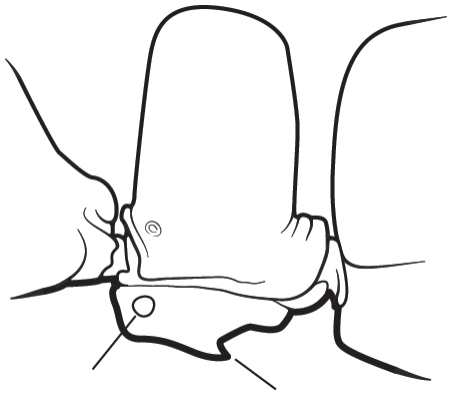
6a Eyes absent. Mandibles short and narrow, or triangular with a small pit on the outer side near the base (the few *Cryptopone* without bristles on the middle tibia)

→ ***Cryptopone*** p. 112



6b Eyes present, though often small (a few facets). Mandibles without such a pit

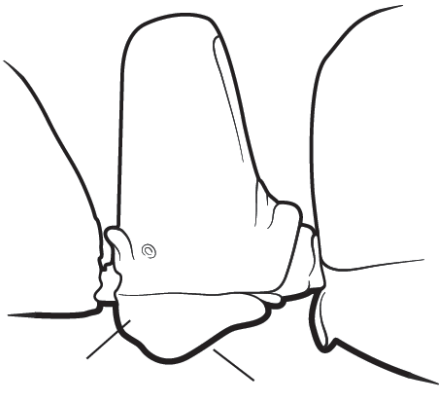
→ **step 7**



petiole, side view

7a Lobe under the petiole with a translucent window in front and two small teeth behind

→ ***Ponera*** p. 111



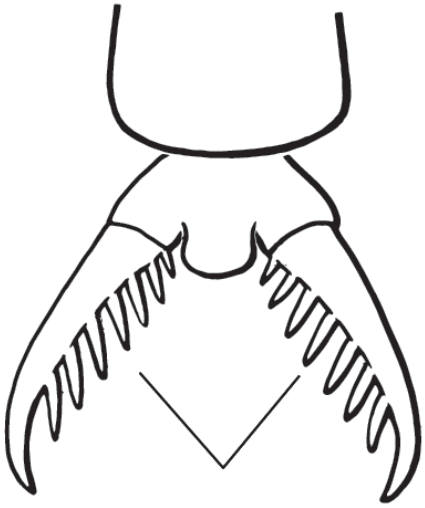
petiole, side view

7b Lobe under the petiole without window and teeth

→ ***Hypoponera*** p. 112

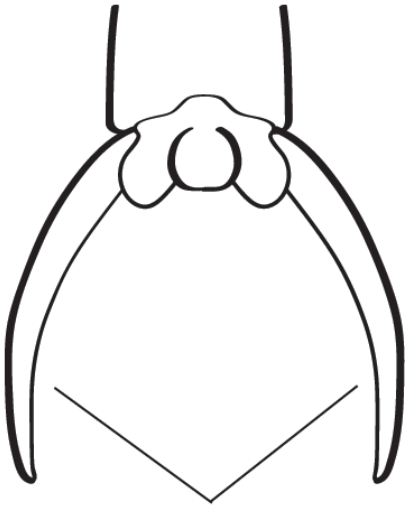
Drawings: Fisher et al. 2025, CC0.

Ponerinae: key to the genera (4 of 6)



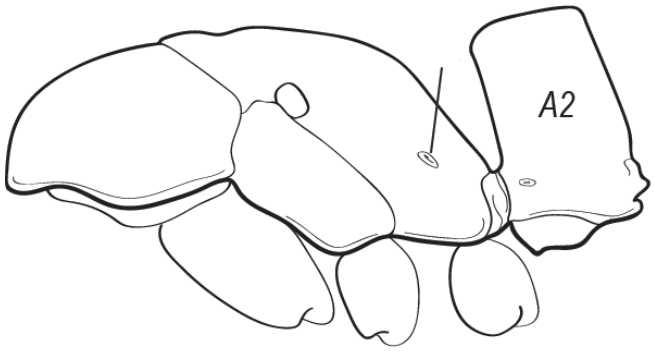
8a Tarsal claws with teeth: usually a comb, in some species only 1–3 small teeth before the tip

→ ***Leptogenys*** p. 110



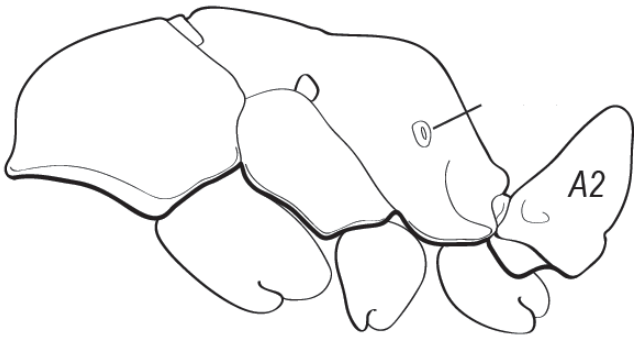
8b Tarsal claws simple, without teeth

→ **step 9**



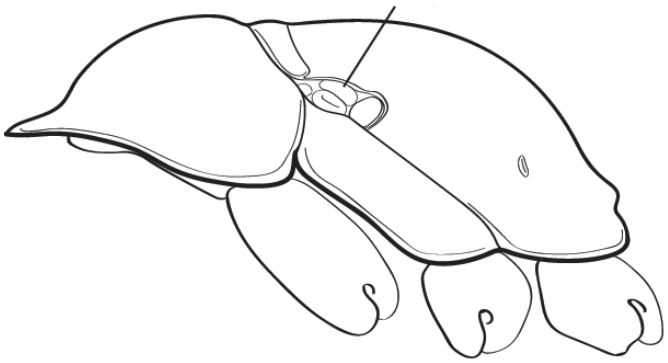
9a Propodeal spiracle a **slit**

→ **step 10**



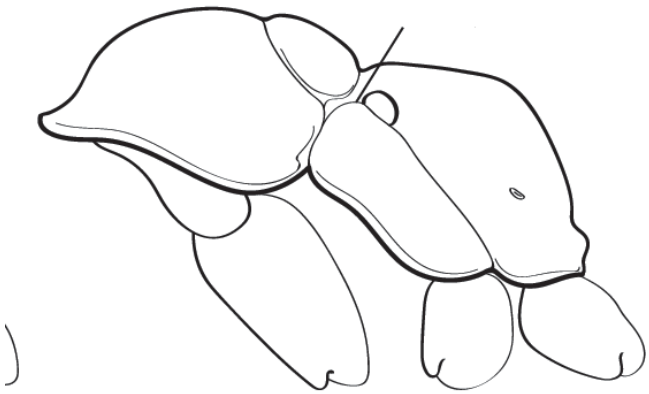
9b Propodeal spiracle **round** or oval

→ **step 14**



10a A deep pit in front of the metanotal spiracle; petiole with two long spines on top

→ ***Diacamma*** p. 111

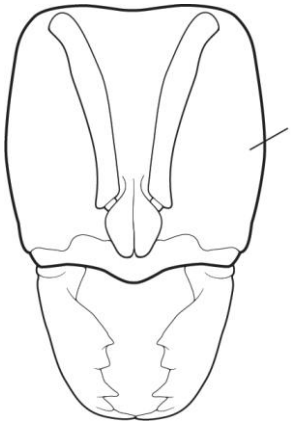


10b No pit on the side of the mesosoma; petiole rounded on top, without spines

→ **step 11**

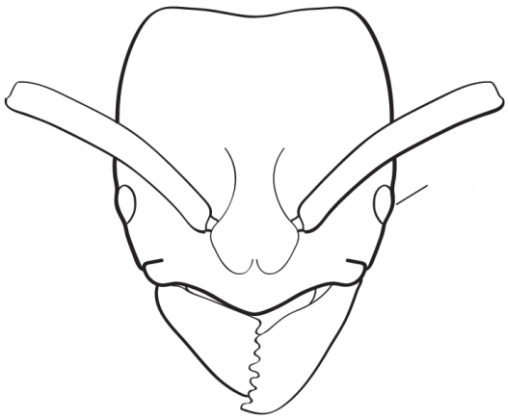
Drawings: Fisher et al. 2025, CC0.

Ponerinae: key to the genera (5 of 6)



11a Eyes tiny (2–4 facets) or absent; lobe under the petiole with a window; pale yellow-brown

→ ***Parvaponera*** p. 114



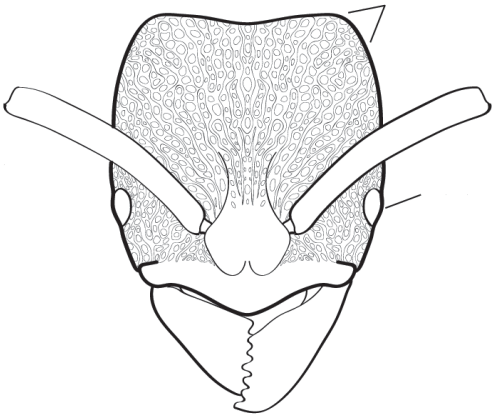
11b Eyes larger, with many facets

→ **step 12**



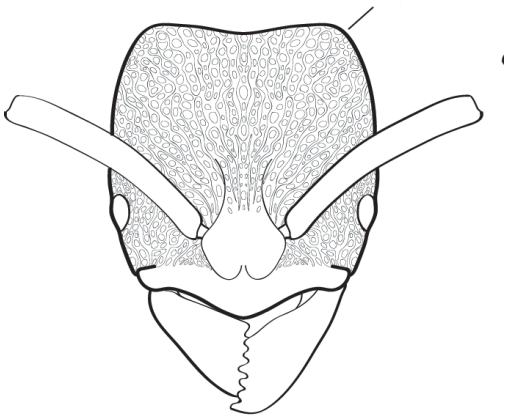
12a Eyes on top of the head, a small gap from its side margin. Dense standing hairs and pubescence; rear edge of the petiole often with small teeth

→ ***Pseudoneoponera*** p. 113



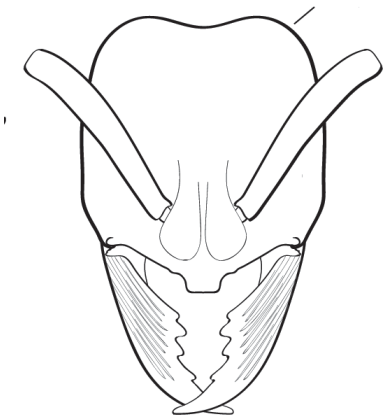
12b Eyes at the side of the head, touching its margin. Fewer hairs; petiole without teeth

→ **step 13**



13a Strong ridges on head and body; rear corners of the head angular; mesopleuron divided by a groove

→ ***Ectomomyrmex*** p. 113

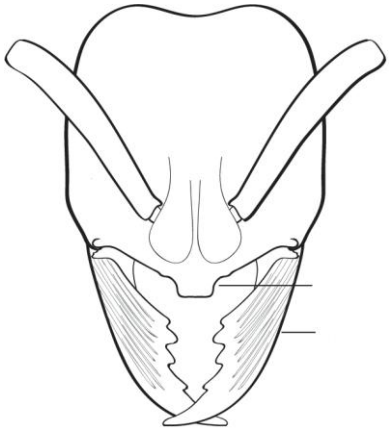


13b No strong ridges; rear corners of the head rounded; mesopleuron not divided

→ ***Pseudoponera*** p. 114

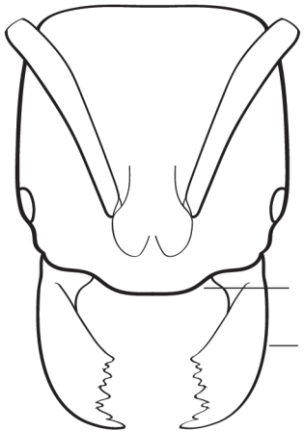
Drawings: Fisher et al. 2025, CC0.

Ponerinae: key to the genera (6 of 6)



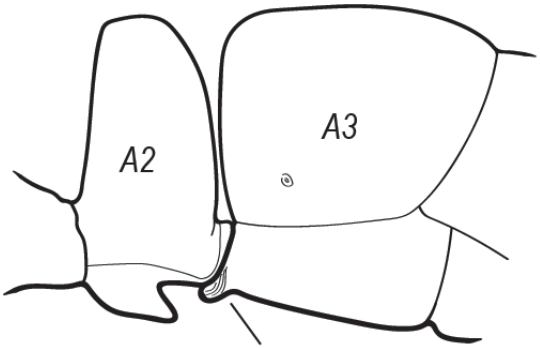
14a Mandibles long and narrow; clypeus with a square middle lobe that projects over them (most *Myopias*)

→ ***Myopias*** p. 116



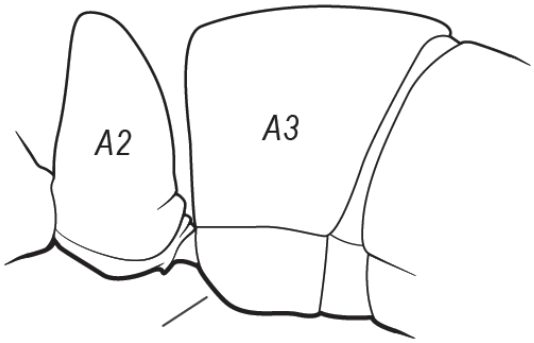
14b Mandibles triangular; front edge of the clypeus simply convex

→ **step 15**



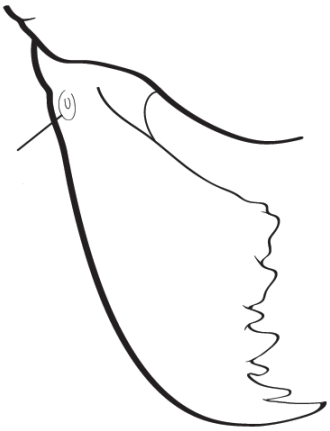
15a A lobe or ridge (**prora**) under the front of the first gaster segment; no pit at the base of the mandible

→ ***Mesoponera*** p. 115



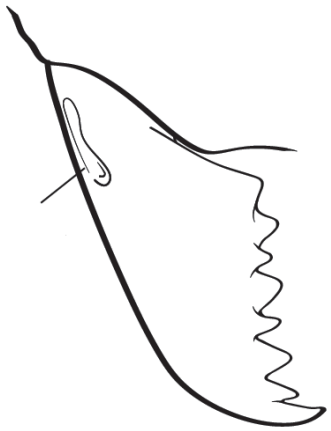
15b No prora

→ **step 16**



16a A small round pit on the outer side of the mandible near its base; clypeus rounded in profile

→ ***Brachyponera*** p. 115

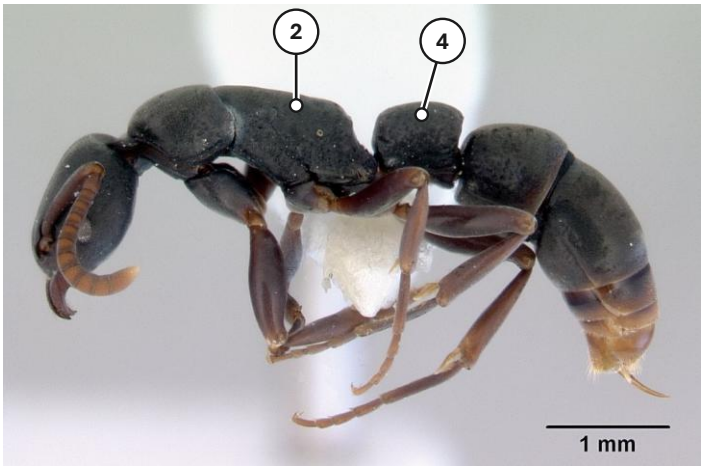


16b A groove along the whole length of the mandible; clypeus angular in profile (*Myopias* with triangular mandibles)

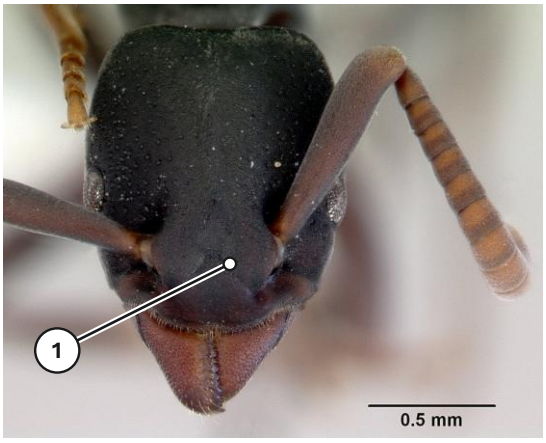
→ ***Myopias*** p. 116

Cryptopone (steps 4 and 6) and *Myopias* (steps 14 and 16) come out twice, as in Fisher et al. (2025): their species differ in the keyed character.

Drawings: Fisher et al. 2025, CC0.



Platythyrea parallela, CASENT0172411



Platythyrea parallela, CASENT0172411

Platythyrea 5–10 mm

New Guinea list: 4 species

1 Frontal lobes small and flat, set wide apart: the clypeus reaches back between them

2 Whole body dull, finely frosted (pruinose) and densely punctate

3 Hind tibia with two comb-like spurs; tarsal claws usually with one tooth (rarely without)

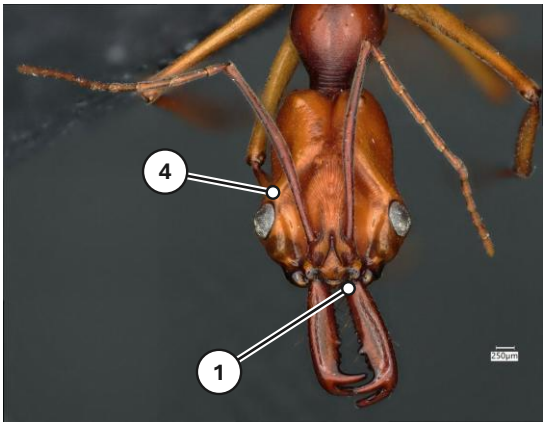
4 Petiole block-like, its rear corners often with teeth

Compare: *Rhytidoponera* (Ectatomminae: one comb-like spur, coarse ridges); all other ponerines have the frontal lobes close together

In New Guinea: Rotten wood, dead branches and tree trunks, where workers forage singly.



Odontomachus, MJ31479



Odontomachus, MJ31479

Odontomachus 8–14 mm

New Guinea list: 18 species

1 Long straight mandibles inserted side by side at the middle of the front of the head (trap-jaws)

2 Back of the head with a V-shaped ridge and two dark lines that meet in a groove on top

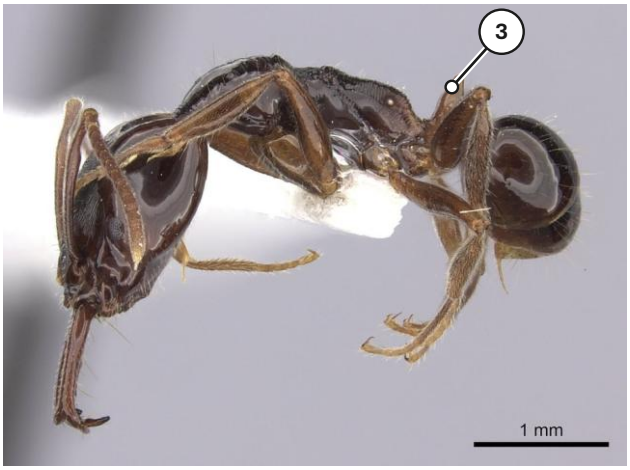
3 Petiole tall, tapering to a single spine

4 Large; head with a bulge behind each eye

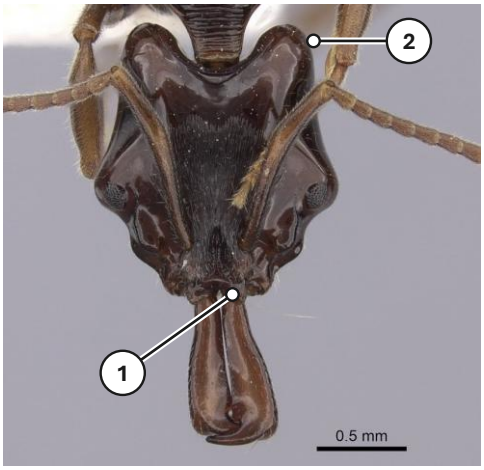
Compare: *Anochetus* (back of the head evenly rounded, no dark lines; petiole a scale; usually smaller)

In New Guinea: Fast hunters on the ground and low vegetation, in forest, gardens and plantations; they jump by snapping the mandibles against the ground. *O. simillimus* is also common in villages.

Photos: AntWeb.org, CC BY 4.0 (CASENT0172411).



Anochetus cato, CASENT0260490



Anochetus cato, CASENT0260490

Anochetus 3–8 mm

New Guinea list: 13 species

1 Trap-jaws as in *Odontomachus*: long straight mandibles inserted at the middle of the front of the head

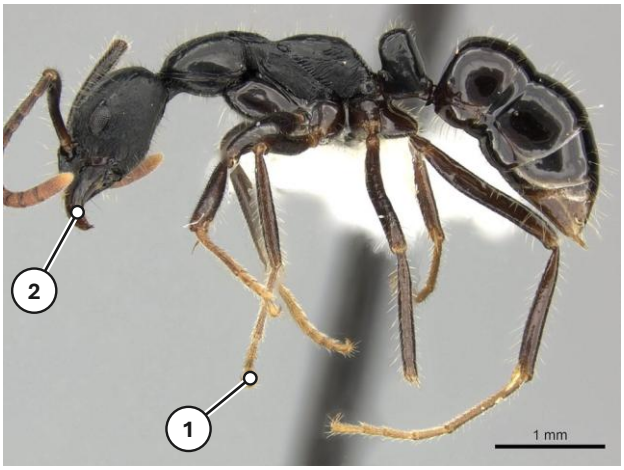
2 Back of the head evenly rounded: no V-shaped ridge and no dark lines

3 Petiole a scale, its top rounded, notched or with two teeth

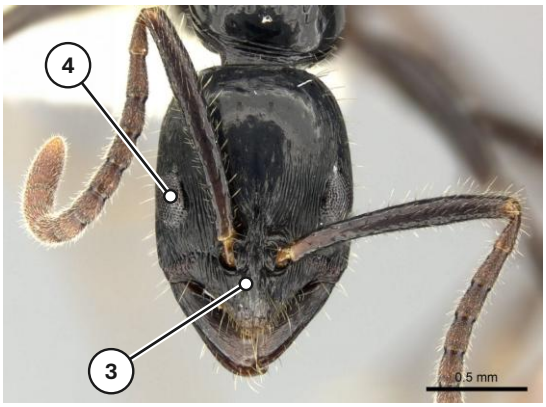
4 Mostly smaller than *Odontomachus*

Compare: *Odontomachus* (V-shaped ridge and dark lines at the back of the head; petiole with a single spine)

In New Guinea: Leaf litter, soil and rotten wood in forest; slow-moving. *A. graeffei* is widespread in the Pacific.



Leptogenys diminuta, CASENT0270547



Leptogenys diminuta, CASENT0270547

Leptogenys 4–12 mm

New Guinea list: 19 species

1 Tarsal claws comb-like, with a row of teeth (look at high magnification)

2 Mandibles usually long, slender and curved, with few teeth (triangular in some species)

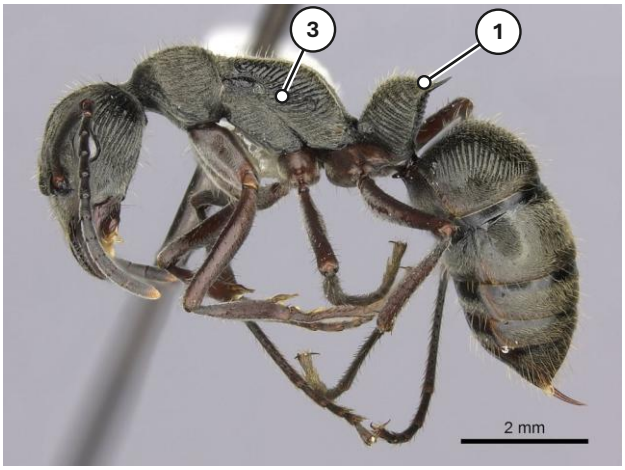
3 Clypeus with a pointed or keeled middle lobe

4 Slender, with long legs and scapes; eyes well developed

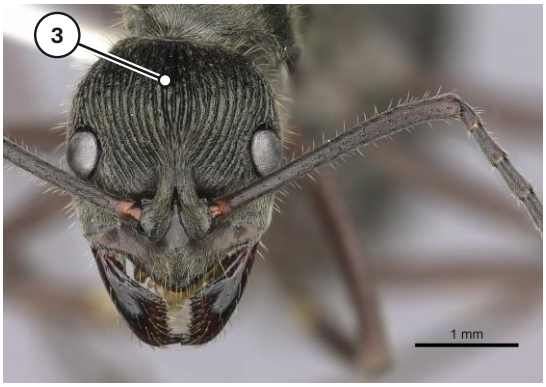
Compare: *Myopias* (claws simple; clypeus with a square lobe or mandible with a long groove); other ponerines (claws simple)

In New Guinea: Ground and leaf-litter hunters; many species specialise on isopods, some raid in columns.

Photos: AntWeb.org, CC BY 4.0 (CASENT0260490, CASENT0270547).



Diacamma rugosum, CASENT0260420



Diacamma rugosum, CASENT0260420

Diacamma 9–15 mm

New Guinea list: 6 species

1 Petiole with two long spines on top

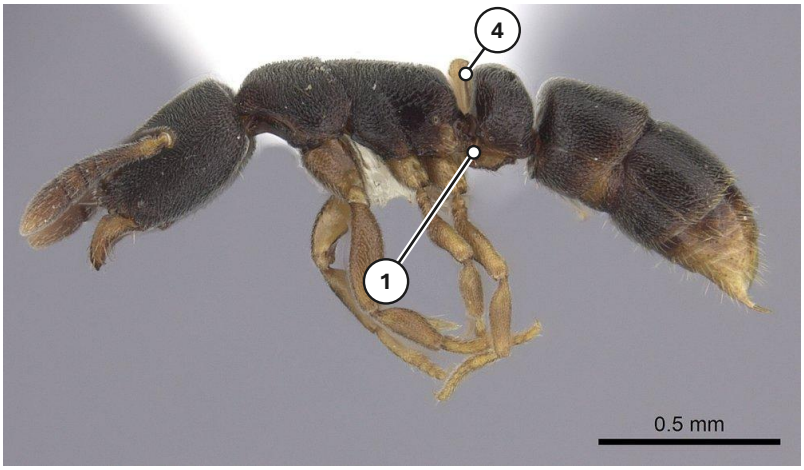
2 A deep pit on the side of the mesosoma, in front of the metanotal spiracle

3 Body with fine to coarse curved ridges; often with a bluish or purple sheen

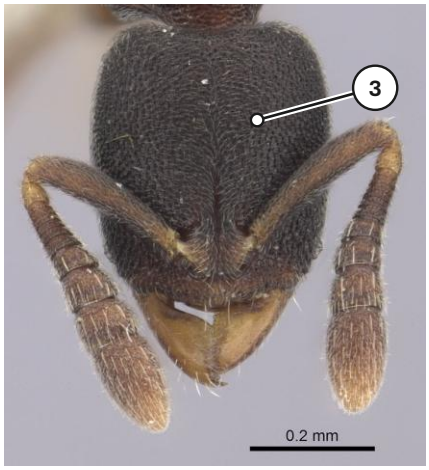
4 Large and long-legged; no queens: a mated worker lays the eggs

Compare: *Ectomomyrmex* and other large dark ponerines (no spines on the petiole, no pit on the mesosoma)

In New Guinea: Conspicuous single foragers on the ground, in forest and in open and disturbed places.



Ponera clavicornis, CASENT0249223



Ponera clavicornis, CASENT0249223

Ponera 2–3.5 mm

New Guinea list: 16 species

1 Lobe under the petiole (subpetiolar process) with a translucent window in front and two small teeth behind

2 Hind tibia with one comb-like spur only

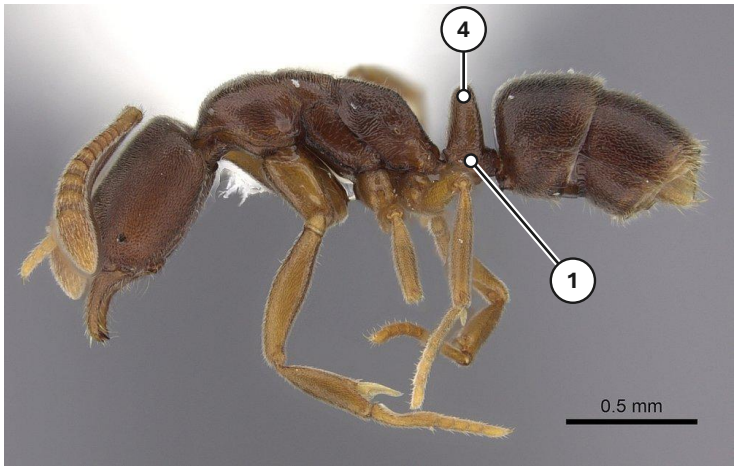
3 Small, dark and densely punctate; eyes small

4 Petiole a thick scale

Compare: *Hypoponera* (lobe under the petiole without window and teeth); *Parvaponera* (two spurs on the hind tibia)

In New Guinea: Leaf litter and soil of forest; collected by sifting litter.

Photos: AntWeb.org, CC BY 4.0 (CASENT0260420, CASENT0249223).



Hypoponera tenella, CASENT0260439



Hypoponera tenella, CASENT0260439

Hypoponera 1.5–4 mm

New Guinea list: 17 species

1 Lobe under the petiole simple: no window and no teeth
2 Hind tibia with one comb-like spur only
3 Small, yellow to dark brown; eyes small, often only a few facets
4 Petiole a thick scale

Compare: *Ponera* (window and teeth under the petiole); *Cryptopone* (eyes small or absent; a pit at the base of the mandible; most with thick bristles on the middle tibia)

In New Guinea: The commonest small ponerine in litter samples; a few tramp species also live in gardens and towns.



Cryptopone rotundiceps, CASENT0650363



Cryptopone rotundiceps, CASENT0650363

Cryptopone 2–5 mm

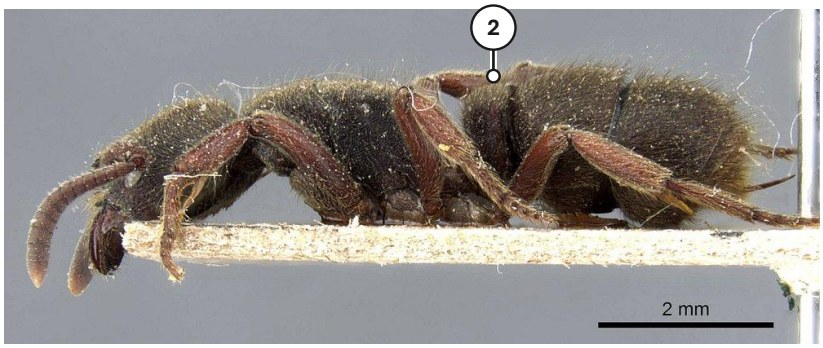
New Guinea list: 7 species

1 Eyes small (a few facets) or absent
2 Middle tibia with many thick, peg-like bristles on its upper side (most species)
3 Mandible with a small pit on its outer side near the base
4 Pale yellow to reddish; dense fine hair

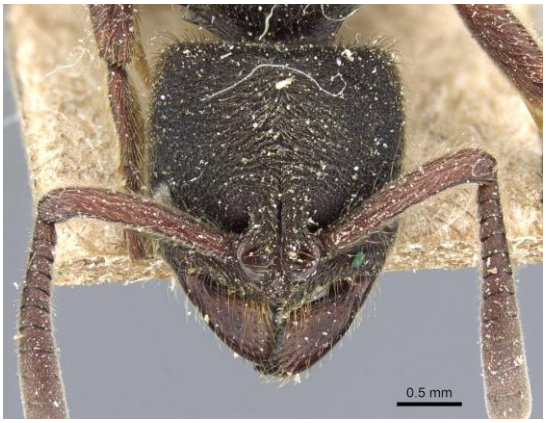
Compare: *Hypoponera* (no thick bristles on the middle tibia; no pit at the base of the mandible)

In New Guinea: Soil and rotten wood; seldom seen above ground.

Photos: AntWeb.org, CC BY 4.0 (CASENT0260439, CASENT0650363).



Pseudoneoponera obesa, CASENT0905740



Pseudoneoponera obesa, CASENT0905740

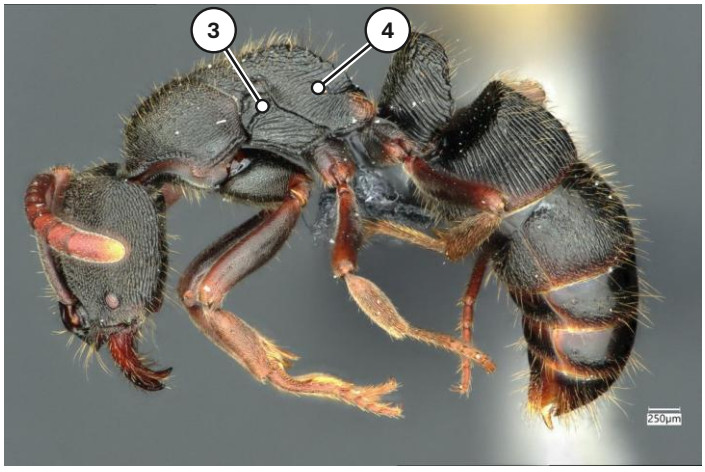
Pseudoneoponera 6–12 mm

New Guinea list: 4 species (+1 subspecies)

1 Eyes set on top of the head, a small gap from its side margin (front view)
2 Dense standing hairs and dense pubescence on head and body
3 Petiole semicircular from above, its rear upper edge often with a row of small teeth
4 Propodeum broad; body coarsely sculptured, dark

Compare: *Ectomomyrmex* (fewer hairs; eyes at the side of the head; mesopleuron divided by a groove)

In New Guinea: Ground-nesting. Photo: *P. obesa*, a syntype of *Ponera obesa* Emery, from Ighibirei (Central Province).



Ectomomyrmex, MJ32320



Ectomomyrmex, MJ32320

Ectomomyrmex 5–10 mm

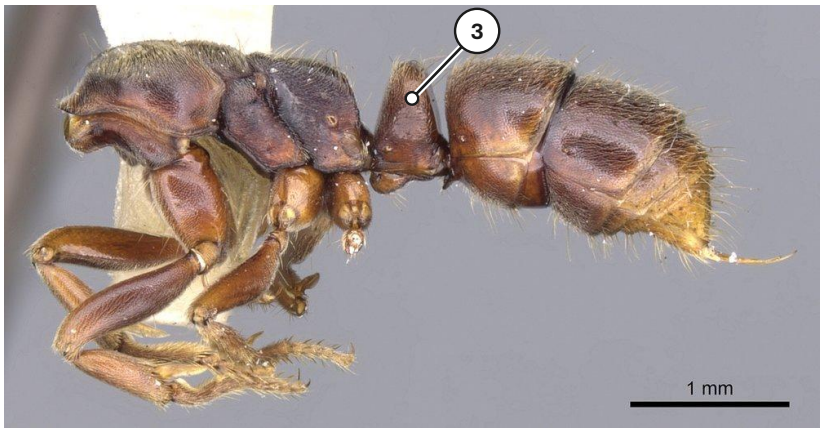
New Guinea list: 9 species

1 Head and body strongly sculptured, usually with fine lengthwise ridges
2 Rear corners of the head angular
3 Side of the mesosoma (mesopleuron) divided by a transverse groove
4 Propodeal spiracle slit-shaped; tarsal claws simple

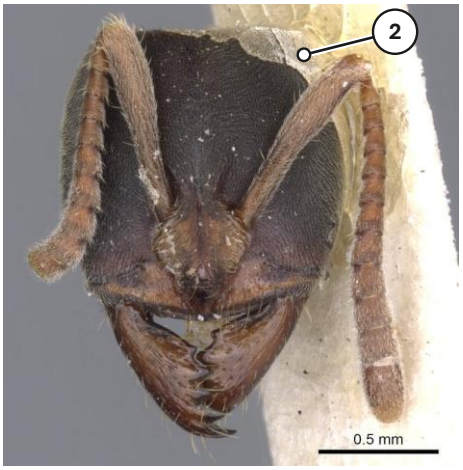
Compare: *Pseudoponera* (smooth, rounded head corners); *Pseudoneoponera* (very hairy; eyes on top of the head)

In New Guinea: Leaf litter, soil and rotten wood in forest.

Photos: AntWeb.org, CC BY 4.0 (CASENT0905740).



Pseudoponera stigma, CASENT0902507



Pseudoponera stigma, CASENT0902507

Pseudoponera 4–6 mm

New Guinea list: 1 species

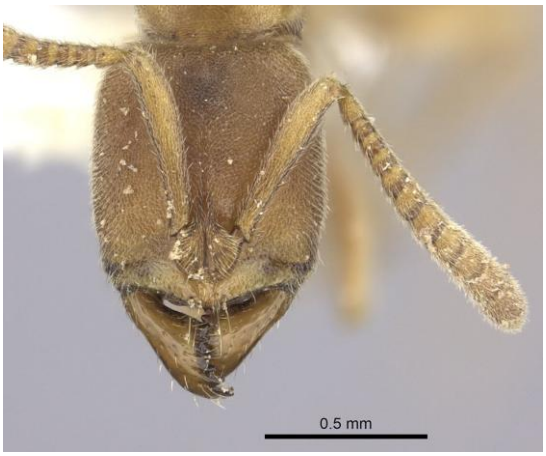
1 Head and body without strong ridges: smooth or finely punctate
2 Rear corners of the head rounded
3 Petiole a scale; lobe under it rounded behind
4 Propodeal spiracle slit-shaped; eyes small

Compare: *Ectomomyrmex* (strong ridges, angular head corners); *Mesoponera* (round spiracle; prora under the gaster)

In New Guinea: *P. stigma*, a widespread tropical species that nests in rotten wood and under bark.



Parvaponera sheldoni, CASENT0249180



Parvaponera sheldoni, CASENT0249180

Parvaponera 2–3 mm

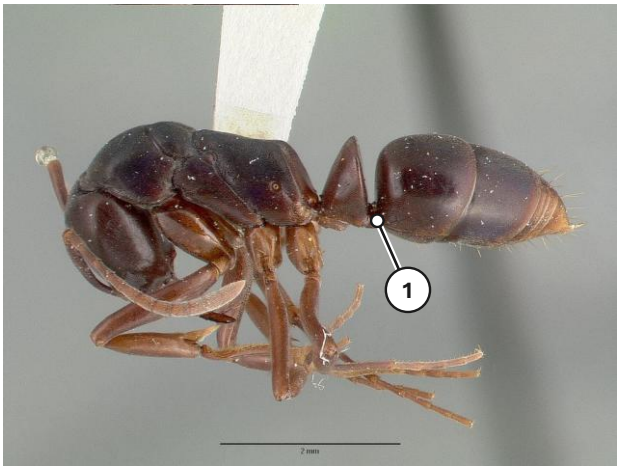
New Guinea list: 2 species

1 Eyes very small (2–4 facets) or absent
2 Lobe under the petiole with a translucent window in front
3 Pale yellow-brown; small
4 Hind tibia with two spurs; propodeal spiracle slit-shaped

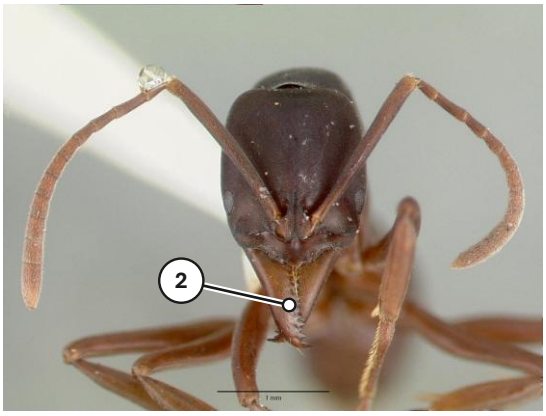
Compare: *Ponera* and *Hypoponera* (one spur on the hind tibia)

In New Guinea: Soil and litter. *P. darwinii* is widespread in the Old World tropics; *P. sheldoni* in Southeast Asia and Oceania. Photo: *P. sheldoni*, a worker from Moorea (French Polynesia).

Photos: AntWeb.org, CC BY 4.0 (CASENT0902507, CASENT0249180).



Mesoponera papuana, CASTYPE06957



Mesoponera papuana, CASTYPE06957

Mesoponera 5–9 mm

New Guinea list: 4 species

1 A lobe or ridge (prora) under the front of the first gaster segment

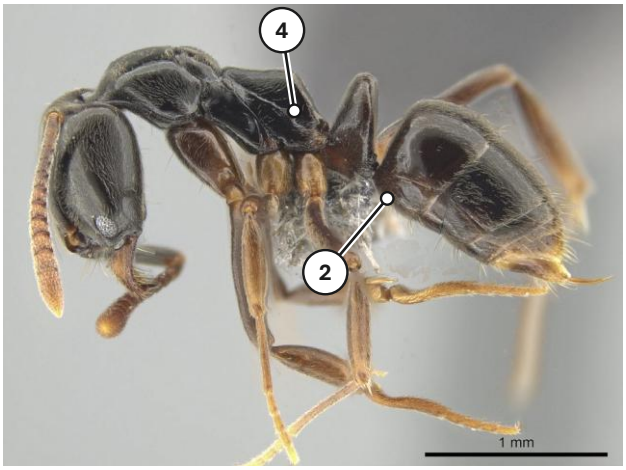
2 Mandible triangular, without a pit at its base; its outer edge slightly concave

3 Clypeus rounded in profile, lying against the mandibles

4 Propodeal spiracle round or oval

Compare: *Brachyponera* (no prora; pit at the base of the mandible)

In New Guinea: Forest floor and rotten wood. *M. papuana* was described from New Guinea; *M. manni* from the Solomon Islands.



Brachyponera obscurans, CASENT0650372



Brachyponera obscurans, CASENT0650372

Brachyponera 3.5–6 mm

New Guinea list: 6 species

1 Mandible with a small round pit on its outer side near the base

2 No prora under the first gaster segment

3 Clypeus rounded in profile

4 Propodeal spiracle round or oval; dark, often with paler legs and mandibles

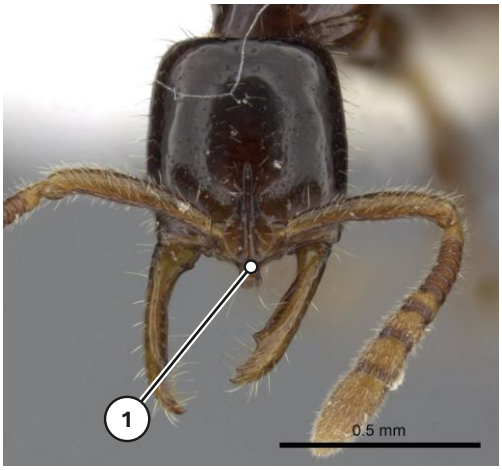
Compare: *Mesoponera* (prora present; no pit on the mandible); *Myopias* (groove along the whole mandible)

In New Guinea: Forest litter and rotten wood.

Photos: AntWeb.org, CC BY 4.0 (CASTYPE06957, CASENT0650372).



Myopias tenuis, CASENT0270596



Myopias tenuis, CASENT0270596

Myopias 3–10 mm

New Guinea list: 19 species

1 Most species: mandibles long and narrow, and a square lobe of the clypeus projecting over them

2 Other species: mandible triangular, with a groove along its whole length; clypeus angular in profile

3 Eyes small to moderate

4 Gaster with a strong constriction behind the first segment

Compare: *Leptogenys* (comb-like claws); *Brachyponera* (pit, not a groove, on the mandible)

In New Guinea: Leaf litter and rotten wood of forest; specialised predators. New Guinea is rich in species.

Photos: AntWeb.org, CC BY 4.0 (CASENT0270596).

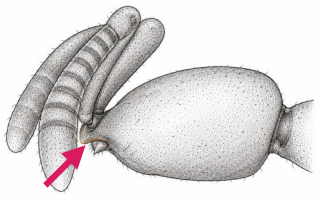
Ponerinae at a glance

Genus	Recognise it by	Size	NG species	Page
Platythyrea	dull, frosted surface; frontal lobes wide apart	5–10 mm	4	109
Odontomachus	trap-jaws; V-shaped ridge at the back of the head	8–14 mm	18	109
Anochetus	trap-jaws; back of the head rounded	3–8 mm	13	110
Leptogenys	comb-like tarsal claws	4–12 mm	19	110
Diacamma	two spines on the petiole	9–15 mm	6	111
Ponera	window and two teeth under the petiole	2–3.5 mm	16	111
Hypoponera	small; simple lobe under the petiole	1.5–4 mm	17	112
Cryptopone	eyes small or absent; thick bristles on the middle tibia	2–5 mm	7	112
Pseudoneoponera	very hairy; eyes on top of the head	6–12 mm	4	113
Ectomomyrmex	strongly ridged; angular head corners	5–10 mm	9	113
Pseudoponera	smooth; rounded head; slit spiracle	4–6 mm	1	114
Parvaponera	tiny eyes; window under the petiole; two spurs	2–3 mm	2	114
Mesoponera	prora under the gaster; round spiracle	5–9 mm	4	115
Brachyponera	pit at the base of the mandible	3.5–6 mm	6	115
Myopias	square lobe on the clypeus or grooved mandible	3–10 mm	19	116

Proceratiinae: key to the genera



gaster tip backward


shelf over the mandibles

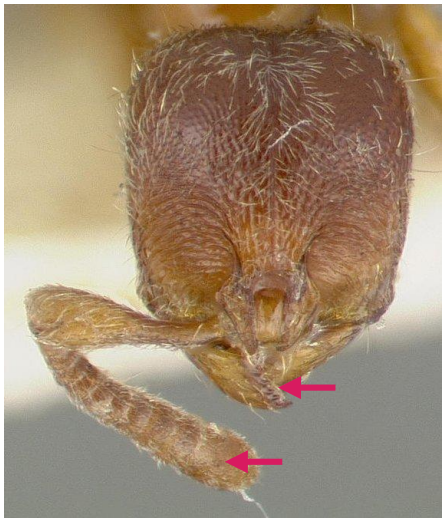

Proceratium: gaster tip

1a Gaster not curled: its tip points backward or straight down. Antennal sockets on a shelf that overhangs the mandibles

→ ***Probolomyrmex*** p. 120

1b Second gaster segment strongly arched: the gaster tip points down and forward

→ **step 2**





2a Mandibles with several teeth, not covered by the clypeus. Antenna with 12 segments; the last one moderately enlarged

→ ***Proceratium*** p. 119

2b Mandibles small, mostly hidden under the clypeus. Antenna with 10 or fewer segments; the last one huge and egg-shaped

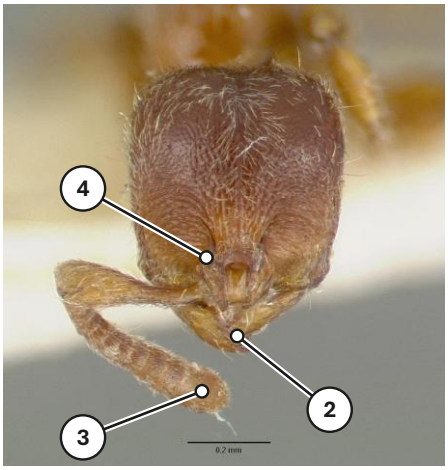
→ ***Discothyrea*** p. 119

All three are cryptic: they are found by sifting leaf litter (Winkler or Berlese samples), seldom by hand.

Photos: AntWeb.org, CC BY 4.0 (CASENT0172414, CASTYPE06965, CASENT0903858).



Proceratium papuanum, CASTYPE06965



Proceratium papuanum, CASTYPE06965

Proceratium 2–4 mm

New Guinea list: 4 species

1 Second gaster segment strongly arched: the gaster tip points down and forward

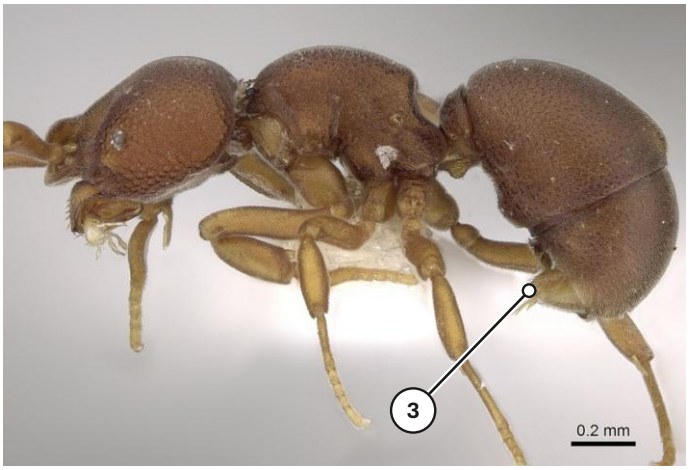
2 Mandibles with several teeth; the clypeus does not cover them

3 Antenna with 12 segments; the last one enlarged but shorter than the rest of the funiculus

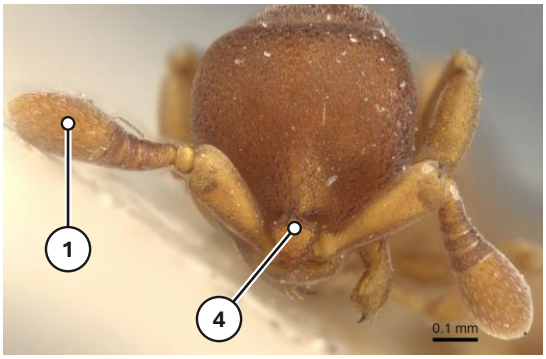
4 Antennal sockets exposed, near the front of the head

Compare: *Discothyrea* (mandibles hidden, huge last antennal segment); *Probolomyrmex* (gaster not curled)

In New Guinea: Leaf litter and soil; specialist predators of arthropod eggs, mostly of spiders.



Discothyrea clavicornis, CASENT0281863



Discothyrea clavicornis, CASENT0903858

Discothyrea 1.5–2.5 mm

New Guinea list: 1 species

1 Antenna with 10 or fewer segments; the last one huge, egg-shaped, about as long as all the others after the scape together

2 Mandibles small, mostly hidden under the clypeus, with one tooth at the tip

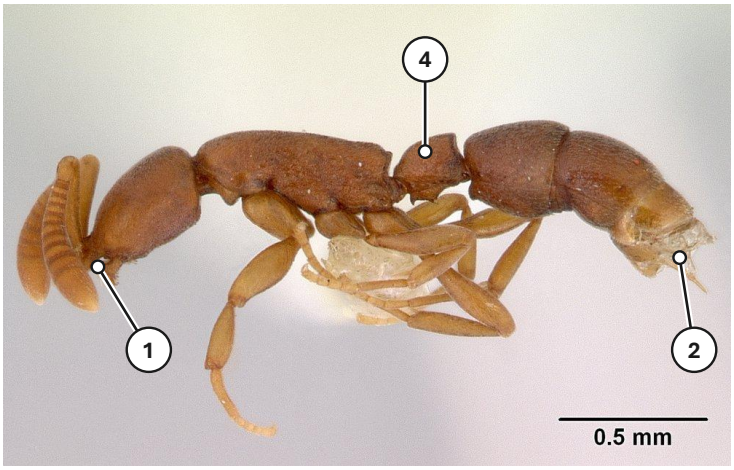
3 Second gaster segment strongly arched: the gaster tip points down and forward

4 Tiny and compact; antennal sockets close together on a raised area

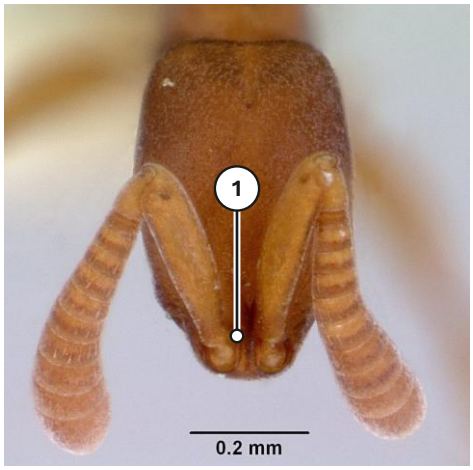
Compare: *Proceratium* (toothed mandibles, 12 antennal segments)

In New Guinea: Leaf litter; eats arthropod eggs. *D. clavicornis* is the species on the New Guinea list.

Photos: AntWeb.org, CC BY 4.0 (CASTYPE06965, CASENT0281863, CASENT0903858).



Probolomyrmex sp., CASENT0172414



Probolomyrmex sp., CASENT0172414

Probolomyrmex 2–3 mm

New Guinea list: 2 species

1 Antennal sockets far forward, on a shelf that overhangs the mandibles; frontal lobes fused into a thin vertical plate

2 Gaster not curled: its tip points backward or straight down

3 Slender, yellow-brown; eyes absent

4 Petiole an upright node

Compare: *Proceratium* and *Discothyrea* (gaster curled); *Hypoponera* (Ponerinae: sockets behind the clypeus, covered by frontal lobes)

In New Guinea: Soil and leaf litter; very rarely collected. Photo: a worker from Popondetta, not identified to species.

Proceratiinae at a glance

Genus	Recognise it by	Size	NG species	Page
Proceratium	gaster curled; toothed mandibles; 12 antennal segments	2–4 mm	4	119
Discothyrea	huge egg-shaped last antennal segment	1.5–2.5 mm	1	119
Probolomyrmex	sockets on a shelf over the mandibles; gaster straight	2–3 mm	2	120

Photos: AntWeb.org, CC BY 4.0 (CASENT0172414).

All genera and the keys to use (1 of 3)

Genus	Subfamily	NG spp.	Records	In this guide	Published keys to species
Amblyopone	Amblyoponinae	1	New Guinea list	p. 16	Brown 1960; Wilson 1958a; Taylor 1979
Fulakora	Amblyoponinae	1	New Guinea list	p. 17	Brown 1960; Taylor 1979 (as *Amblyopone*)
Myopopone	Amblyoponinae	1	New Guinea list	p. 15	Brown 1960
Mystrium	Amblyoponinae	3	New Guinea list	p. 15	Bihn & Verhaagh 2007
Prionopelta	Amblyoponinae	6	New Guinea list	p. 16	Shattuck 2008
Stigmatomma	Amblyoponinae	1	New Guinea list	p. 17	Brown 1960; Taylor 1979 (as *Amblyopone*)
Anonychomyrma	Dolichoderinae	13	New Guinea list	p. 25	–
Arnoldius	Dolichoderinae	–	New Guinea: 1 specimen (Buna, 1972)	p. 25	–
Bothriomyrmex	Dolichoderinae	–	old name of *Chronoxenus rossi*	see *Chronoxenus*	–
Chronoxenus	Dolichoderinae	1	New Guinea list	p. 26	–
Dolichoderus	Dolichoderinae	4	New Guinea list	p. 26	–
Iridomyrmex	Dolichoderinae	10	New Guinea list	p. 27	Heterick & Shattuck 2011
Leptomyrmex	Dolichoderinae	7	New Guinea list	p. 27	Lucky & Ward 2010
Ochetellus	Dolichoderinae	3	New Guinea list	p. 28	–
Papyrius	Dolichoderinae	1	New Guinea list	p. 28	–
Philidris	Dolichoderinae	4	New Guinea list	p. 29	–
Tapinoma	Dolichoderinae	6	New Guinea list	p. 29	Antkey (introduced)
Technomyrmex	Dolichoderinae	10	New Guinea list	p. 30	Bolton 2007; Antkey
Turneria	Dolichoderinae	4	New Guinea list	p. 30	Shattuck 1990
Aenictus	Dorylinae	15	New Guinea list	p. 36	Wilson 1964
Lioponera	Dorylinae	5	New Guinea list	p. 36	Wilson 1959b (as *Phyracaces*)
Ooceraea	Dorylinae	2	New Guinea list	p. 37	Wilson 1959b (as *Cerapachys*)
Parasyscia	Dorylinae	8	New Guinea list	p. 37	Wilson 1959b (as *Cerapachys*)
Simopone	Dorylinae	1	New Guinea list	p. 38	–
Zasphinctus	Dorylinae	1	New Guinea list	p. 38	Wilson 1959b (as *Sphinctomyrmex*)
Holcoponera	Ectatomminae	5	New Guinea list	p. 42	Lattke 2004 (as *Gnamptogenys*)
Rhytidoponera	Ectatomminae	12	New Guinea list	p. 41	Wilson 1958b
Stictoponera	Ectatomminae	9	New Guinea list	p. 41	Lattke 2004 (as *Gnamptogenys*)
Acropyga	Formicinae	7	New Guinea list	p. 54	LaPolla 2004
Anoplolepis	Formicinae	1	New Guinea list	p. 54	Antkey
Brachymyrmex	Formicinae	–	Solomons, Vanuatu, N. Caledonia (Ortiz-Sepúlveda et al. 2019)	p. 55	Antkey
Calomyrmex	Formicinae	2	New Guinea list	p. 55	–
Camponotus	Formicinae	37	New Guinea list	p. 56	–
Colobopsis	Formicinae	18	New Guinea list	p. 56	–
Echinopla	Formicinae	11	New Guinea list	p. 57	–
Euprenolepis	Formicinae	1	New Guinea list	p. 57	LaPolla 2009

NG spp. = species on the New Guinea list (subspecies not counted; spelling duplicates merged). Old names: p. 124. Keys to genera: p. 125; full references of all keys: pp. 126–127.

All genera and the keys to use (2 of 3)

Genus	Subfamily	NG spp.	Records	In this guide	Published keys to species
Notoncus	Formicinae	2	New Guinea list	p. 58	–
Nylanderia	Formicinae	9	New Guinea list	p. 58	Antkey (introduced)
Oecophylla	Formicinae	1	New Guinea list	p. 59	–
Opisthopsis	Formicinae	8	New Guinea list	p. 59	–
Overbeckia	Formicinae	1	New Guinea list	p. 60	–
Paraparatrechina	Formicinae	5	New Guinea list	p. 60	–
Paratrechina	Formicinae	2	New Guinea list	p. 61	Antkey
Plagiolepis	Formicinae	3	New Guinea list	p. 61	Antkey (introduced)
Polyrhachis	Formicinae	244	New Guinea list	p. 62	Kohout 1988, 1990, 2006, 2007, 2013a, 2013b
Prenolepis	Formicinae	1	New Guinea list	p. 62	Williams & LaPolla 2016, 2018
Prolasius	Formicinae	3	New Guinea list	p. 63	–
Pseudolasius	Formicinae	16	New Guinea list	p. 63	–
Leptanilla	Leptanillinae	1	New Guinea list	–	–
Myrmecia	Myrmeciinae	–	New Caledonia (*M. apicalis*; AntWeb CASENT0903788, syntype worker)	–	–
Adelomyrmex	Myrmicinae	1	New Guinea list	p. 82	–
Allomerus	Myrmicinae	–	1 sp., Bougainville to N. Caledonia (introduced)	p. 82	Antkey (as *Wasmannia*)
Ancyridris	Myrmicinae	2	New Guinea list	p. 83	–
Aphaenogaster	Myrmicinae	7	New Guinea list	p. 83	–
Calyptomyrmex	Myrmicinae	1	New Guinea list	p. 84	Shattuck 2011
Cardiocondyla	Myrmicinae	16	New Guinea list	p. 84	Seifert 2023
Carebara	Myrmicinae	8	New Guinea list	p. 85	–
Cataulacus	Myrmicinae	1	New Guinea list	p. 85	Bolton 1974
Chelaner	Myrmicinae	3	New Guinea list	p. 86	–
Colobostruma	Myrmicinae	1	New Guinea list	p. 86	Bolton 2000
Crematogaster	Myrmicinae	32	New Guinea list	p. 87	–
Dacetinops	Myrmicinae	3	New Guinea list	p. 87	Taylor 1985
Dilobocondyla	Myrmicinae	1	New Guinea list	p. 88	–
Eurhopalothrix	Myrmicinae	10	New Guinea list	p. 88	Brown & Kempf 1960; Taylor 1990
Liomyrmex	Myrmicinae	2	New Guinea list	p. 89	–
Lordomyrma	Myrmicinae	7	New Guinea list	p. 89	–
Mayriella	Myrmicinae	1	New Guinea list	p. 90	Shattuck & Barnett 2007
Meranoplus	Myrmicinae	10	New Guinea list	p. 90	–
Metapone	Myrmicinae	6	New Guinea list	p. 91	Taylor & Alpert 2016
Monomorium	Myrmicinae	3	New Guinea list	p. 91	Antkey (introduced)
Myrmecina	Myrmicinae	7	New Guinea list	p. 92	–
Orectognathus	Myrmicinae	10	New Guinea list	p. 92	Bolton 2000; Taylor 1977; Taylor & Lowery 1972

NG spp. = species on the New Guinea list (subspecies not counted; spelling duplicates merged). Old names: p. 124. Keys to genera: p. 125; full references of all keys: pp. 126–127.

All genera and the keys to use (3 of 3)

Genus	Subfamily	NG spp.	Records	In this guide	Published keys to species
Pheidole	Myrmicinae	57	New Guinea list	p. 93	Sarnat et al. 2015 (introduced), 2016; Fischer et al. 2016 (Fiji)
Podomyrma	Myrmicinae	21	New Guinea list	p. 93	–
Poecilomyrma	Myrmicinae	–	Fiji (endemic)	p. 94	–
Pristomyrmex	Myrmicinae	19	New Guinea list	p. 94	Wang 2003
Rhopalomastix	Myrmicinae	1	New Guinea list	p. 95	–
Rhopalothrix	Myrmicinae	1	New Guinea list	p. 95	Brown & Kempf 1960; Taylor 1990
Rogeria	Myrmicinae	1	New Guinea list	p. 96	–
Romblonella	Myrmicinae	2	New Guinea list	p. 96	–
Solenopsis	Myrmicinae	4	New Guinea list	p. 97	Antkey (introduced)
Strumigenys	Myrmicinae	78	New Guinea list	p. 97	Bolton 2000
Syllophopsis	Myrmicinae	3	New Guinea list	p. 98	–
Tetramorium	Myrmicinae	35	New Guinea list	p. 98	Bolton 1977
Trichomyrmex	Myrmicinae	1	New Guinea list	p. 99	Antkey (introduced)
Vollenhovia	Myrmicinae	21	New Guinea list	p. 99	–
Vombisidris	Myrmicinae	3	New Guinea list	p. 100	–
Anochetus	Ponerinae	13	New Guinea list	p. 110	Brown 1978; Satria et al. 2017; AntWiki
Brachyponera	Ponerinae	6	New Guinea list	p. 115	Wilson 1958b
Cryptopone	Ponerinae	7	New Guinea list	p. 112	Wilson 1958b
Diacamma	Ponerinae	6	New Guinea list	p. 111	Wilson 1958b
Ectomomyrmex	Ponerinae	9	New Guinea list	p. 113	Wilson 1958b
Hypoponera	Ponerinae	17	New Guinea list	p. 112	Wilson 1958b
Leptogenys	Ponerinae	19	New Guinea list	p. 110	Wilson 1958a
Mesoponera	Ponerinae	4	New Guinea list	p. 115	Wilson 1958b
Myopias	Ponerinae	19	New Guinea list	p. 116	Willey & Brown 1983; Probst et al. 2015
Odontomachus	Ponerinae	18	New Guinea list	p. 109	Brown 1976; Wilson 1959a
Odontoponera	Ponerinae	–	NG checklist only: to check	not keyed	–
Parvaponera	Ponerinae	2	New Guinea list	p. 114	Wilson 1958b
Platythyrea	Ponerinae	4	New Guinea list	p. 109	Wilson 1958a; Brown 1975
Ponera	Ponerinae	16	New Guinea list	p. 111	Taylor 1967
Pseudoneoponera	Ponerinae	4	New Guinea list	p. 113	Wilson 1958b
Pseudoponera	Ponerinae	1	New Guinea list	p. 114	Wilson 1958b
Discothyrea	Proceratiinae	1	New Guinea list	p. 119	–
Probolomyrmex	Proceratiinae	2	New Guinea list	p. 120	Shattuck et al. 2012
Proceratium	Proceratiinae	4	New Guinea list	p. 119	Baroni Urbani & de Andrade 2003
Tetraponera	Pseudomyrmecinae	10	New Guinea list	–	Ward 2001

NG spp. = species on the New Guinea list (subspecies not counted; spelling duplicates merged). Old names: p. 124. Keys to genera: p. 125; full references of all keys: pp. 126–127.

Names in older keys

Older keys and checklists use names that have since changed. A genus name can also have a different scope in an older key: check the date of the key.

Name in older keys	Now	Change made by
Wasmannia (*W. auropunctata*)	*Allomerus* (*A. auropunctatus*); older keys give a narrower *Allomerus*	Longino & Branstetter 2026
Gnamptogenys (Old World species)	*Stictoponera*, *Holcoponera*	Camacho et al. 2022
Amblyopone (part)	*Stigmatomma*; *Fulakora*	Yoshimura & Fisher 2012; Ward & Fisher 2016
Cerapachys (part)	*Lioponera*, *Ooceraea*, *Parasyscia*	Borowiec 2016
Sphinctomyrmex (Old World species)	*Zasphinctus*	Borowiec 2016
Pachycondyla (Old World part)	*Brachyponera*, *Ectomomyrmex*, *Mesoponera*, *Parvaponera*, *Pseudoneoponera*, *Pseudoponera*	Schmidt & Shattuck 2014
Bothriomyrmex (Oriental and Australian species)	*Chronoxenus*; *Arnoldius*	Dubovikoff 2005
Iridomyrmex (part)	*Anonychomyrma*, *Ochetellus*, *Papyrius*, *Philidris*	Shattuck 1992
Camponotus (part)	*Colobopsis*	Ward et al. 2016
Monomorium (old, wide sense: polyphyletic)	*Monomorium*; *Syllophopsis*; *Trichomyrmex* (another tribe, Crematogastrini); *Chelaner*	Ward et al. 2015; Sparks et al. 2019
Paratrechina (part)	*Nylanderia*, *Paraparatrechina*	LaPolla et al. 2010

Borowiec, M.L. (2016) Generic revision of the ant subfamily Dorylinae. *ZooKeys* 608: 1–280.

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Published keys for New Guinea and Melanesia

Keys to subfamilies and genera that cover the New Guinea and Melanesian fauna. Keys to species: last column of the genus list (p. 121 on). Full references: pp. 126–127. Many older keys use names that have changed since: p. 124.

Subfamily	Published keys	Online keys (AntWiki)
All subfamilies	Bolton 1994 (world); Shattuck 1999 (Australia); General & Alpert 2012 (Philippines); Sarnat & Economo 2012 (Fiji); Antkey and PIAkey (introduced)	Key to Australian Ant Subfamilies
Amblyoponinae	Brown 1960; Eguchi et al. 2014	Key to Australian Amblyoponinae Genera; Key to Philippine Amblyoponinae
Dolichoderinae	Shattuck 1992; Dubovikoff 2005 (*Arnoldius*, *Chronoxenus*)	Key to Australian Genera of Dolichoderinae
Dorylinae	Borowiec 2016; Yamada et al. 2023; Eguchi et al. 2014	Key to Dorylinae World Genera; Key to doryline genera of the Oriental realm; Key to Australian Genera of Dorylinae
Ectatomminae	Camacho et al. 2022	Key to Ectatomminae Genera; Key to Australian Genera of Ectatomminae
Formicinae	LaPolla et al. 2010 (*Prenolepis* group); Ward et al. 2025 (Camponotini)	Key to Australian Genera of Formicinae; Key to Philippine Formicinae; Key to Camponotini genera
Leptanillinae	Griebenow 2024; Eguchi et al. 2014	Key to Leptanillinae Genera
Myrmeciinae	Shattuck 1999 (one genus)	–
Myrmicinae	Eguchi et al. 2011; Bolton 2000 (former Dacetini); Chung et al. 2025 (Solenopsidini, 11-segmented antennae)	Key to Australian Genera of Myrmicinae; Key to Vietnamese Myrmicinae Genera; Key to Dacetini; Key to genera of Solenopsidini with 11 antennal segments
Ponerinae	Fisher et al. 2025; Eguchi et al. 2014	Key to Palearctic–Indomalaya–Australasia Genera of Ponerinae; Key to Australian Genera of Ponerinae
Proceratiinae	Eguchi et al. 2014	Key to Australian Genera of Proceratiinae; Key to Vietnamese Proceratiinae Genera
Pseudomyrmecinae	Eguchi et al. 2011; Ward 2001 (one genus)	–

Published keys: references (1 of 2)

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Sources

Compiled by Milan Janda, Laboratory of Molecular Ecology & Biodiversity (www.hormigas.mx), from the published resources and databases below. Principal reference: Ants of New Guinea: www.newguineants.org.

Keys and characters

AntWiki "Key to Australian Genera of Dolichoderinae" (accessed 15 Oct 2026), after Shattuck (1992): the basis of this key.

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Pictures

Specimen photos: AntWeb.org (California Academy of Sciences), licence CC BY 4.0, from its image server or its copies on Wikimedia Commons, and photos of MJ-numbered New Guinea specimens (Janda lab collection; photos Emiliano Ramírez-Cepeda, 2026). New Guinea specimens are used wherever good photos exist; specimens from elsewhere are marked "reference specimen". Cropped, and marked with numbers and arrows, for this guide.

Key drawings: generated with AI tools by Milan Janda (2026) after the specimen photos and published figures named below and on the chapter lists (“Drawings, step …: after …”).

Drawings of the Ponerinae key: Fisher et al. (2025), CC0 public domain dedication; the key letters were removed, the pointer lines kept.

Ectatomminae seen from above: panels of figs 6 and 9 of Camacho et al. (2022), AntWeb photos (CC BY 4.0), as shown in the AntWiki key; panel letters removed.

Line drawings of subfamily characters: Fisher & Cover (2007), University of California Press, as shown in the AntWiki keys; key letters and captions removed (steps 4, 5, 6 and 8a: redrawn as clean vectors; peg detail at step 5 drawn after them). Reproduced here for teaching.

Drawings, main keys: after the waist (MJ31331; CASENT0172482), *Aenictus* antenna (MJ14776), *Leptanilla* head and antenna (CASENT0172006), *Proceratium* head (CASTYPE06965), *Probolomyrmex* head (CASENT0172414), hind coxae (CASENT0010628, CASENT0172380), *Rhytidoponera* head (CASENT0010628) and labra (Yoshimura & Fisher 2014, fig. 6: *Amblyopone australis* CASENT0100424, a reference specimen from Parakai, Auckland, New Zealand; CASENT0247077).

Parts of an ant (page 5): a generalized worker of Ponerinae, drawn after a New Guinea worker (MJ31497) and the AntWiki “Morphology and Terminology” figures.

Dorylinae: Specimen photos: AntWeb.org (CC BY 4.0) and MJ specimens, all from New Guinea; the *Simopone* is the holotype of *S. gressitti*. Key figures: Borowiec (2016), *ZooKeys* 608, CC BY 4.0 (panel letters removed). Drawings, step 3: after CASENT0106205, CASENT0249313 and Borowiec (2016).

Dolichoderinae: Specimen photos: MJ specimens (seven genera) and AntWeb.org (CC BY 4.0) for *Chronoxenus*, *Dolichoderus*, *Ochetellus* and *Turneria* (New Guinea specimens; step 7: *D. tricornis* CASENT0906224, Kokoda, and *D. monoceros* CASENT0866528), *Arnoldius flavus* (Australia). Drawings, steps 1–4 and 8–10: after MJ0884, MJ1023, MJ31296, MJ31298, MJ31331, MJ31341, MJ31431, MJ31599, CASENT0249752 and CASENT0249807; steps 5 and 6 (palps): after the palp formulae of Shattuck (1992) and Dubovikoff (2005) and CASENT0006104, MJ31298, CASENT0178023. The other key pictures are crops of the specimen photos.

Formicinae: Specimen photos: MJ specimens (eleven genera); AntWeb.org (CC BY 4.0) for *Calomyrmex*, *Echinopla*, *Plagiolepis*, *Prenolepis*, *Prolasius* (New Guinea specimens) and the reference specimens *Brachymyrmex*, *Notoncus capitatus* CASENT0172025 (120 km W of Balladonia, Western Australia) and *Prolasius* CASENT0434642 (Bunya Mountains, Queensland; step 20); newguineants.org for *Euprenolepis*. Drawings, steps 1, 3, 6, 9, 15, 18 and 19: after *Brachymyrmex obscurior* CASENT0104889, MJ32299, MJ31486, MJ0957, MJ31446, MJ1135, *Prenolepis lakekamu* USNMENT01126705 (holotype) and *Notoncus* CASENT0172025 and CASENT0106015 (Rossville, Queensland). *Overbeckia papuana* holotype worker (Wanang, Madang; step 12 and genus page): Klimeš et al. (2022), fig. 5a, b, used with permission of P. Klimeš. Metapleural gland, step 7: SEMs of workers from Hölldobler & Engel-Siegel (1984), fig. 5b (*Camponotus consobrinus*) and 5c (*Dinomyrmex gigas*, as *Camponotus gigas*), public domain (BHL); the 7b drawing is after fig. 5c. Characters marked “redraw” still need drawings.

Myrmicinae: Specimen photos: MJ specimens (twenty genera); AntWeb.org (CC BY 4.0) for the other genera, New Guinea specimens except the reference specimens *Metapone truki* (Micronesia), *Rhopalothrix orbis* (Australia), *Trichomyrmex destructor* (lectotype), *Allomerus auropunctatus* (Florida) and *Poecilomyrma senirewae* (Fiji); *Pristomyrmex inermis* CASENT0922988 is from Karkar Island. Published figures (CC BY): *Solenopsis* clypeus, SEM, Sharaf & Aldawood (2012), *PLoS ONE* 7: e49485, fig. 15 (step 14, *S. elhawagryi* minor worker, Arabian Peninsula; the step 14a drawing is after the same figure); *Tetramorium tosii* sting, Hita Garcia & Fisher (2015), *ZooKeys* 512, fig. 3B (step 15, Madagascar). Drawings, steps 3, 6, 8, 9, 13, 14, 23, 27, 28, 33, 35, 37 and 39: after MJ31975, MJ0827, MJ0584, MJ0585, MJ31291, CASENT0904964, CASENT0900743, CASENT0172482, CASENT0181574, Eguchi et al. (2011: figs 52, 71, 91, 97; Vietnamese workers) and Herrera et al. (2023, *ZooKeys* 1191, CC BY 4.0: figs 21D, 42D; Galápagos workers); step 24a after Heterick (2006, fig. 103: *Syllophopsis hildebrandti* worker, as *Monomorium*). Characters marked “redraw” still need drawings.

Cover drawing: Benson Avea, Papua New Guinea, 2008. Text and keys © 2026 Milan Janda.

Photo credits

Specimen photographs from AntWeb.org, CC BY 4.0 (https://creativecommons.org/licenses/by/4.0), from its image server or its copies on Wikimedia Commons; [NGA] = Ants of New Guinea, newguineants.org, CC BY 4.0. Names follow current classification; the name on the AntWeb file is given where it differs. Species, specimen code (where collected: New Guinea specimens, and reference specimens from outside New Guinea where they stand in for a genus): photographer.

Adelomyrmex biroi, CASENT0916623 (Hansemann Mountains, Papua New Guinea): AntWeb

Allomerus auropunctatus, CASENT0005064 (Florida, USA (introduced)): AntWeb

Amblyopone australis, CASENT0172212 (Mt Aggie, Australian Capital Territory, Australia): AntWeb

Ancyridris polyrhachioides, CASENT0102469 (Papua New Guinea): AntWeb

Anochetus cato, CASENT0260490 (Papua New Guinea): AntWeb

Aphaenogaster dromedaria, CASENT0280945 (Finisterre Mountains, Papua New Guinea): AntWeb

Arnoldius flavus, CASENT0178023: April Nobile

Brachymyrmex obscurior, CASENT0104889: AntWeb

Brachyponera obscurans, CASENT0650372 (Papua New Guinea): AntWeb

Calomyrmex albertisi, CASENT0249960 (Varirata National Park, Central Province, Papua New Guinea): AntWeb

Calyptomyrmex beccarii, CASENT0010655 (Maffin Bay, Papua, Indonesia): AntWeb

Cardiocondyla paradoxa, CASENT0103276 (Maffin Bay, Papua, Indonesia): AntWeb

Carebara melanocephala, CASENT0900743 (Maffin Bay, Papua, Indonesia): AntWeb

Carebara melanocephala, CASENT0900745 (Maffin Bay, Papua, Indonesia): AntWeb

Cataulacus setosus, CASENT0280800 (Mysol, West Papua, Indonesia): AntWeb

Chelaner edentatus, CASENT0904569 (Woodlark Island, Papua New Guinea): AntWeb

Chronoxenus rossi, CASENT0006104 (Indonesian New Guinea): AntWeb

Colobostruma foliacea, CASENT0904964 (Papua New Guinea): AntWeb

Cryptopone rotundiceps, CASENT0650363 (Papua New Guinea): AntWeb

Diacamma rugosum, CASENT0260420 (Papua New Guinea): AntWeb

Dilobocondyla cataulacoidea, FOCOL1970 (Sattelberg near Finschhafen, Papua New Guinea): AntWeb

Discothyrea clavicornis, CASENT0903858 (Papua New Guinea): AntWeb

Discothyrea clavicornis, CASENT0281863 (Papua New Guinea): AntWeb

Dolichoderus monoceros, CASENT0866528 (Papua New Guinea): AntWeb

Echinopla mistura, CASENT0884106 (Ivimka, Lakekamu Basin, Gulf Province, Papua New Guinea): AntWeb

Euprenolepis procera, MCZ0071 (Finschhafen, Morobe Province, Papua New Guinea): Ants of New Guinea [NGA]

Holcoponera cf. *epinotalis*, CASENT0172257 (Papua New Guinea): AntWeb

Hypoponera tenella, CASENT0260439 (Papua New Guinea): AntWeb

Leptanilla swani, CASENT0172006: April Nobile

Leptogenys diminuta, CASENT0270547 (Papua New Guinea): AntWeb

Leptomyrmex fragilis, CASENT0127004 (Papua New Guinea): Andrea Lucky 2008

Liomyrmex gestroi, CASENT0922902 (Varirata National Park, Central Province, Papua New Guinea): AntWeb

Lioponera sp., CASENT0106205 (Papua New Guinea): AntWeb

Lordomyrma furcifera, CASENT0172482 (Papua New Guinea): April Nobile

Mayriella sharpi, CASENT0172443 (Bisianumu near Sogeri, Papua New Guinea): AntWeb

Mesoponera papuana, CASTYPE06957 (Indonesian New Guinea): AntWeb

Metapone truki, CASENT0006672 (Moen, Chuuk, Micronesia): AntWeb

Monomorium cf. *intrudens*, CASENT0434411 (Wau (18 km NW), Morobe, Papua New Guinea): AntWeb

Monomorium floricola, CASENT0010954 (Maffin Bay, Papua, Indonesia): AntWeb

Myopias tenuis, CASENT0270596 (Papua New Guinea): AntWeb

Myrmecia apicalis, CASENT0903788 (New Caledonia): Zach Lieberman

Mystrium camillae, CASENT0172330 (Papua New Guinea): AntWeb

Notoncus capitatus, CASENT0172025 (120 km W of Balladonia, Western Australia, Australia): AntWeb

Ochetellus cf. *glaber*, CASENT0249752 (Papua New Guinea): AntWeb

Oecophylla smaragdina, CASENT0010656 (Indonesian New Guinea): AntWeb

Ooceraea papuana (as *Cerapachys papuanus*), CASENT0434834 (Papua New Guinea): April Nobile

Overbeckia papuana, holotype worker (Wanang, Madang, PNG): Klimeš et al. 2022, fig. 5 (with permission)

Parasyscia inconspicua, CASENT0249313 (Papua New Guinea): AntWeb

Parvaponera sheldoni, CASENT0249180: AntWeb

Plagiolepis bicolor, CASENT0909845 (Ralum, Bismarck Archipelago, Papua New Guinea): AntWeb

Platythyrea parallela, CASENT0172411 (Papua New Guinea): April Nobile

Poecilomyrma senirewae, CASENT0181574 (Fiji): Evan P. Economo

Poecilomyrma senirewae, CASENT0172278 (Nadarivatu, Viti Levu, Fiji): AntWeb

Polyrhachis dohrni, CASENT0009230 (Papua New Guinea): April Nobile

Ponera clavicornis, CASENT0249223 (Papua New Guinea): AntWeb

Prenolepis lakekamu, USNMENT01126705 (Ivimka, Lakekamu Basin, Gulf Province, Papua New Guinea): AntWeb

Prionopelta opaca, CASENT0434875 (Papua New Guinea): Erin Prado

Pristomyrmex inermis, CASENT0922988 (Kevasop, Karkar Island, Madang, Papua New Guinea): Wade Lee

Pristomyrmex umbripennis, CASENT0010664 (Indonesian New Guinea): April Nobile

Probolomyrmex sp., CASENT0172414 (Papua New Guinea): AntWeb

Proceratium papuanum, CASTYPE06965 (Indonesian New Guinea): AntWeb

Prolasius sp., CASENT0281472 (12 km SW Telefomin, West Sepik, Papua New Guinea): AntWeb

Prolasius sp., CASENT0434642 (Bunya Mountains N.P., Westcott Campground, Queensland, Australia): AntWeb

Pseudoneoponera obesa, CASENT0905740 (Papua New Guinea): AntWeb

Pseudoponera stigma, CASENT0902507 (Indonesian New Guinea): AntWeb

Rhopalomastix rothneyi, CASENT0178531 (Rabaul, East New Britain, Papua New Guinea): AntWeb

Rhopalothrix orbis, CASENT0172459 (Tamborine Mountain, Queensland, Australia): AntWeb

Rhytidoponera celtinodis, CASENT0010628 (Indonesian New Guinea): April Nobile

Simopone gressitti, CASENT0249114 (Indonesian New Guinea): AntWeb

Stictoponera grammodes, CASENT0281526 (Papua New Guinea): AntWeb

Stigmatomma noonadan (as *Amblyopone noonadan*), CASENT0172804 (Papua New Guinea): April Nobile

Tetraponera allaborans, CASENT4032494 (Papua New Guinea): AntWeb

Trichomyrmex destructor, CASENT0008623 (India): AntWeb

Turneria arbusta, CASENT0249807 (Papua New Guinea): AntWeb

Vombisidris acherdos, CASENT0922897 (11 km E Baiyer River Sanctuary, Papua New Guinea): AntWeb

Zasphinctus cribratus, CASENT0173054 (Papua New Guinea): AntWeb

Own photos of New Guinea specimens (Janda collection, MJ numbers), photographer Emiliano Ramírez-Cepeda (Janda lab, 2026): *Tetramorium* MJ0513; *Pheidole* MJ0584; *Pheidole* MJ0585; *Crematogaster* MJ0820; *Leptomyrmex* MJ0884; *Podomyrma* MJ0924; *Eurhopalothrix* MJ0935; *Tetramorium* MJ0953; *Myrmecina* MJ0955; *Nylanderia* MJ0957; *Rhytidoponera* MJ0989; *Vollenhovia* MJ1007; *Anonychomyrma* MJ1023; *Colobopsis* MJ1135; *Meranoplus* MJ1331; *Aenictus* MJ14776; *Myopopone* MJ14795; *Opisthopsis* MJ14798; *Syllophopsis* MJ14830; *Solenopsis* MJ31291; *Anoplolepis* MJ31293; *Tapinoma* MJ31296; *Iridomyrmex* MJ31298; *Acropyga* MJ31302; *Pseudolasius* MJ31314; *Strumigenys* MJ31335; *Pristomyrmex* MJ31389; *Papyrius* MJ31431; *Monomorium* MJ31444; *Paraparatrechina* MJ31446; *Romblonella* MJ31452; *Philidris* MJ31456; *Odontomachus* MJ31479; *Paratrechina* MJ31486; *Technomyrmex* MJ31599; *Nylanderia* MJ31605; *Adelomyrmex* MJ31872; *Fulakora* MJ31887; *Acropyga* MJ31949; *Polyrhachis* MJ31956; *Orectognathus* MJ31975; *Camponotus* MJ32299; *Ectomomyrmex* MJ32320; *Rogeria* MJ32347; *Dacetinops* MJ32372