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New Desid Spiders (Araneae: Desidae) from New Caledonia and Eastern Australia

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ABSTRACT. Two related desid spider genera, *Canala* n.gen. from New Caledonia and *Colcarteria* n.gen. from eastern Australia, are described. *Epimecinus magnus* Berland, the type species of *Canala*, is diagnosed and figured. *Epimecinus longipes* Berland is removed from synonymy with *E. magnus* and referred to *Canala*. Its male is described. Newly described species are *Canala poya*, *Colcarteria carrai*, *C. yessabah* and *C. kempseyi*. The desine species *Forsterina koghiana* n.sp. from New Caledonia is described.

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Berland (1924) described six 'dictynid' species from New Caledonia in the genera *Epimecinus* Simon 1908, *Aphyctoschaema* Simon 1902 and *Syrorisa* Simon 1908. Lehtinen (1967) erected two genera, *Baiami* Lehtinen and *Forsterina* Lehtinen, into which he placed four of these species, two as synonyms (*E. magnus* Berland 1924, and its putative synonym *E. longipes* Berland 1924, in *Baiami*; *S. alticola* Berland 1924 and its synonym *A. alacris* Berland 1924 in *Forsterina*). Lehtinen (1967) placed *E. magnus* in *Baiami* (family Stiphidiidae), but Gray (1981) redefined *Baiami* as a southern Australian genus and excluded *E. magnus*. *Canala* n.gen., restricted to New Caledonia, is erected here for *E. magnus* and related species. These include *E. longipes*, which is removed from synonymy with *E. magnus*.

A related genus, *Colcarteria* n.gen., from northern New South Wales shares with *Canala* a distinctive combination of male palpal and female genitalic characters. These include the large, curved, basal median apophysis, the origin and course of the embolus, laminate and pointed retrolateral/ventral tibial apophyses, simple receptaculate genitalia with short, diverticulate insemination ducts and lateral teeth on the epigynum. *Canala* and *Colcarteria* are tentatively allocated to the family Desidae but affinities are apparent also with the Agelenidae and Stiphidiidae (*sensu* Forster 1970, Forster & Wilton 1973).

Berland (1924) recorded both *Forsterina alticola* (Berland) and its synonym, *A. alacris* Berland, from Mont Pani in northern New Caledonia. A new species described here comes from Mont Koghi in the south. While these spiders have clear affinities with the Australian *Forsterina* fauna and the related New Zealand genus *Reinga* Forster & Wilton 1973, a full revision of the genus *Forsterina* (Gray, in preparation) will determine if separate generic status is appropriate for the New Caledonian fauna.

All measurements are in millimetres. Colour pattern comments refer to alcohol preserved specimens. Description abbreviations: CL, CW – carapace length, width; AL, AW – abdomen length, width; EGW – eye group width; MOQL, MOQAW, MOQPW – median ocular quadrangle length, anterior width, posterior width; ML – maxilla length; LL, LW – labium length, width; SL, SW – sternum length, width; ALS, PMS, PLS – anterior lateral, posterior median and posterior lateral spinnerets. Repository abbreviations: AM – Australian Museum, Sydney; MNHN – Muséum National d'Histoire Naturelle, Paris; SAM – South Australian Museum, Adelaide.

Desidae

Canala n.gen.

Baiami.–Lehtinen 1967 (part): 218, 331.

Type species. *Epimecinus magnus* Berland 1924.

Etymology. The generic name refers to Mont Canala, the locality from which the type species was collected.

Diagnosis. Small-medium sized cribellate spiders. Caput prominent. Chelicerae long, more or less geniculate basally; groove long with 2 small, very widely spaced retromarginal teeth (basal tooth very small). Male palp with a large, sickle-shaped median apophysis, tibia with 2-3 retroventral laminate/pointed apophyses. Epigynum with lateral teeth. Receptacula contiguous, ducts directed laterally with small diverticula.

Description. Small-medium sized cribellate spiders (CL 1.5-5). Carapace with grey-brown cervical bands converging at the fovea (Y-shaped), marginal thoracic bands, eye region usually dark grey, dorsal abdomen grey-brown with paler anterior stripe and lateral spots coalescing posteriorly into chevrons, legs banded (pigmentation reduced in cavernicolous populations). Carapace strongly arched, with a prominent caput. Fovea slit-like. From above AER straight to slightly recurved, PER slightly recurved; frontally AER straight, PER procurved. AME smallest. Chelicerae robust, long, more or less geniculate basally, with a strong carina. Fang groove long, oblique; promargin with 7-15 teeth; retromargin with 2 small very widely separated teeth, apical tooth placed toward midline of groove, basal tooth very small or minute-absent and placed behind level of basal prolateral tooth. Labium and maxillae long, labium notched basolaterally and apically. Sternum cordate, extended posteriorly between coxae IV. Legs 1423, moderately long (leg I 4-5 times length carapace); trochanters notched. Legs I,II ventral spines - tibiae 222, 220 or fewer, metatarsi 222 or 221. Calamistrum subcentral to proximal, about 0.2 times length of metatarsus. Plumose hairs numerous. Trichobothria in single row on metatarsi and tarsi, 2 rows on tibiae; bothria collariform, striate. Palpal tarsi with trichobothria. Tarsal organ a low mound distal to trichobothria, pore ovoid. Male palp with embolus arising apically; a folded, membraneous conductor characteristically separated apically from the tegulum by a gap traversed by the basal part of the embolus; a large, sickle-shaped, weakly sclerotised median apophysis placed on basal tegulum; tibia with 2-3 retroventral pointed/laminate apophyses; patella with a strong apicodorsal bristle. Epigynum with a centrally membraneous fossa, lateral teeth present. Receptacula globose and contiguous. Insemination ducts short and directed laterally around receptacula from anteromedial insertions; mesal part of ducts strongly sclerotised with a small, tubercular diverticulum at junction with less sclerotised section. Spiracle narrow, placed just anterior to cribellum. Cribellum divided, triangular, posterior margin sclerotised. Spinnerets short, ALS broad and conical, PLS slender.

Included species. *Canala magna* (Berland), *C. longipes* (Berland) and *C. poya* n.sp.

Comments. Sheet web builders in cryptic surface habitats, sometimes in caves.

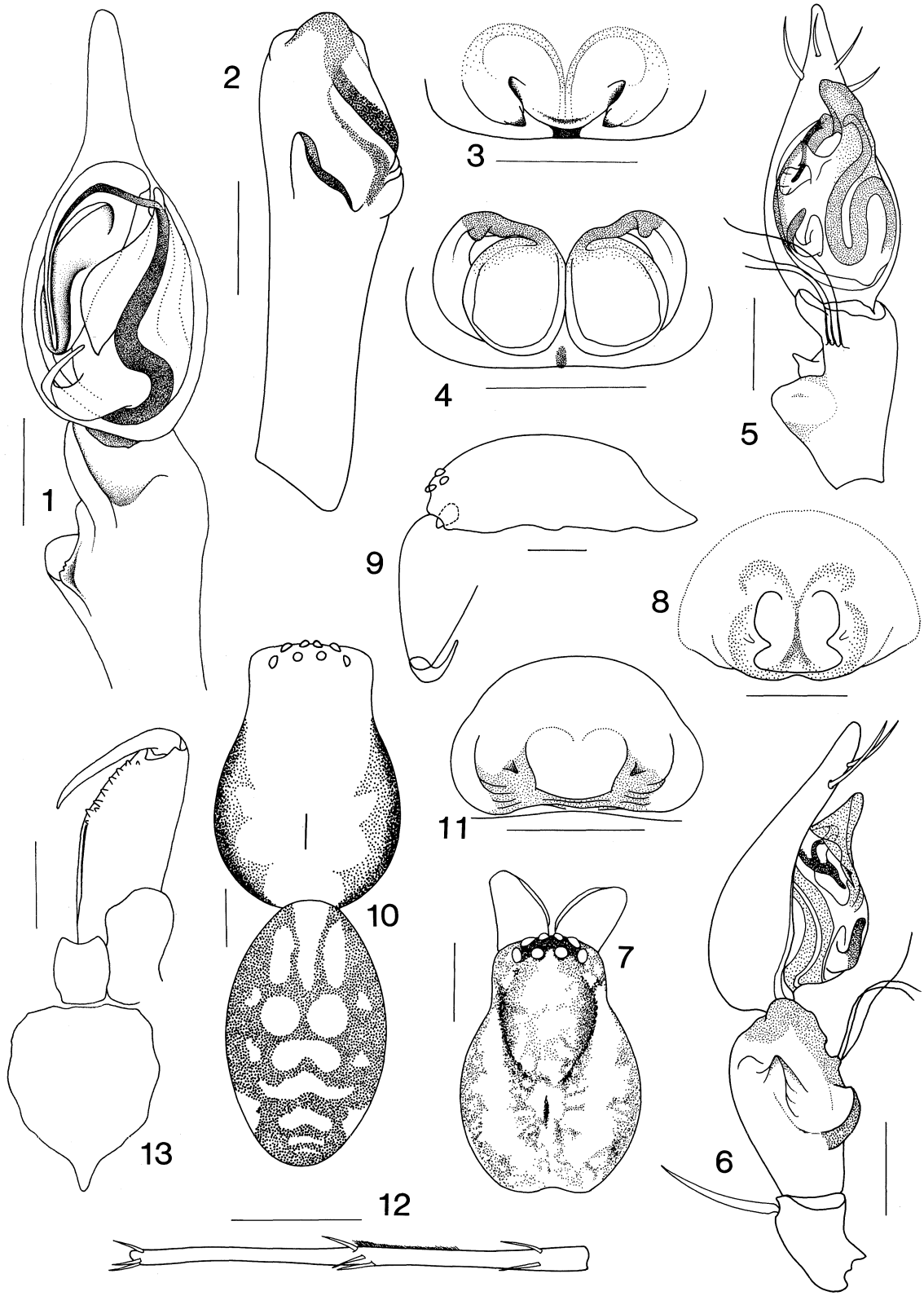
Canala magna Berland, new combination

Figs 1-4

Epimecinus magnus Berland 1924: 179, figs 26-30.
Baiami magnus.–Lehtinen 1967: 218, 331, figs 113, 117 (*Baiami magna* in caption).

Types. 5 male, 6 female COTYPES, Mont Canala, New Caledonia, Nov. 1911, AR374 (MNHN), Paris (1 male, 1 female examined).

Diagnosis. Medium sized spiders, CL male 3.60, female 5.10. Colour pattern as for genus. Chelicerae with 13-15 promarginal teeth, alternately large and small; 2 very widely spaced teeth on retromargin. Ratio eye group width to caput width 0.57:1. Foveal slit long. Ventral tibial/metatarsal spines 222/221-2. Male palp with cymbium digitiform distally; conductor folded, membraneous, retrolaterally elongate and enclosing a thin, wire-like embolus. Palpal tibia about 3.5 times longer than wide with 3 distal laminate tibial apophyses, 2 retroventral (apical and subapical), 1 retrolateral. (Note: spines, hairs abraded on male palp examined). Epigynum (Fig.3). Internal genitalia (Fig.4) with sclerotised part of insemination ducts short and narrow, running almost horizontally across anterior aspect of receptacula, diverticula directed posteriorly.



Figs 1-13. *Canala* n.gen. 1-4, *Canala magna* (Berland). 1,2, male palp: 1, ventral; 2, retrolateral tibia. 3,4, female genitalia: 3, epigynum; 4, dorsal internal. 5-8, *Canala longipes* (Berland). 5-7, male: 5, ventral palp; 6, retrolateral palp; 7, dorsal carapace. 8, female, epigynum. 9-13, *Canala poya* n.sp., female: 9, lateral carapace; 10, dorsal body; 11, epigynum; 12, dorsal metatarsus IV and calamistrum; 13, chelicera, maxilla, labium, sternum. (Scale lines: 1-4,7,11 - 0.5 mm; 5,6,8-10 - 0.25 mm; 12,13 - 1 mm)

Canala longipes (Berland) new combination

Figs 5-8

Epimecinus longipes Berland 1924: 178, figs 23-25.
Baiami magnus.–Lehtinen 1967: 218.

Types. 15 female COTYPES, AR372 (MNHN), Mont Panié, New Caledonia (1 examined).

Other material. 1 male, KS28221 (AM), Mont Panié, New Caledonia, 12 Dec. 1990, D. Bickel, 360 m.

Diagnosis. Small-medium sized spiders (CL 1.6-3). Colour pattern as for genus. Chelicerae with 7 promarginal teeth. Embolus and conductor short, apical. Male palpal tibia as long as wide with 2 apophyses (ventral laminate and retrolateral pointed). Epigynal fossa partially divided by mesally directed lobes on lateral margins on which the lateral teeth are placed (Fig.8).

Male. Measurements: CL 1.65, CW 1.18, AL 1.8, AW 1.2, EGW 0.48, MOQL 0.24, MOQAW 0.16, MOQPW 0.25, LL 0.27, LW 0.24, SL 0.89, SW 0.78. Colour pattern as for genus. Chelicerae with 7 subequal promarginal teeth; retromarginal teeth smaller, basal tooth minute. Ratio eye group width to caput width 0.66:1. Leg lengths II-IV (legs I missing), 5.40/4.88/6.63. Spination leg II: femur d113, patella d01, tibia p0110 r0010 v111(p), metatarsus p0102 r011 v022. Patellae with a small apicodorsal spine. Tibiae III,IV with 2 apical ventral spines. Male palp with cymbium conical distally; embolus short, rod-like, lying on a small, fan-shaped, membraneous conductor; tibia short, about as long as wide, with a small pointed retrolateral apophysis and a large ventral laminate apophysis; a row of 3-5 long hairs on proventral distal tibia. Patella with a strong apicodorsal and a weaker basodorsal bristle.

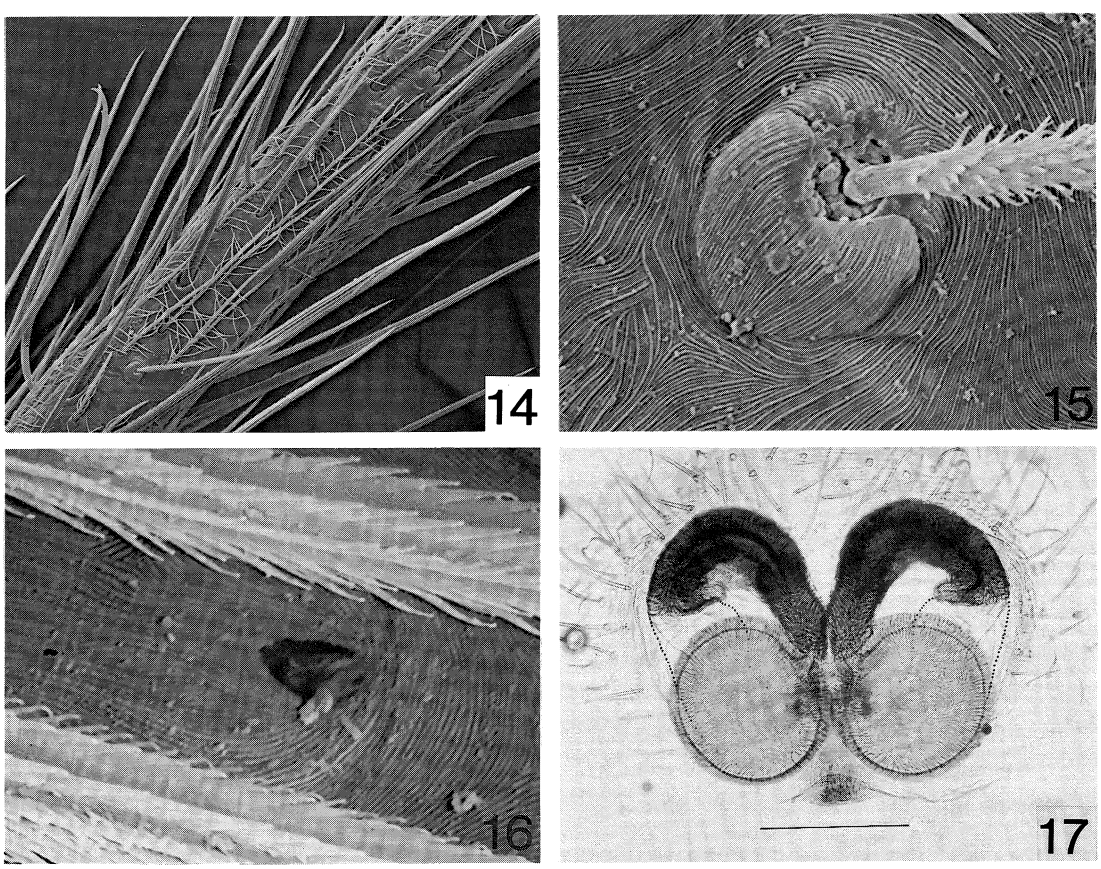
Canala poya n.sp.

Figs 9-17

Types. HOLOTYPE, female, BS1342 (SAM), Grotte de Ninrin-Reu, Poya, New Caledonia, 26 Dec. 1965, E. Hamilton-Smith. ALLOTYPE, female, KS28222 (AM), data as above, 11 Jan. 1966.

Other material. 2 juveniles, data as for holotype.

Diagnosis. Medium sized spiders. Chelicerae with



Figs 14-17. *Canala poya* n.sp. 14, plumose hairs, metatarsus. 15, trichobothrium base, metatarsus. 16, tarsal organ. 17, female genitalia, dorsal (scale line 0.25 mm).

8-9 promarginal teeth. Tibiae I-III lack apical spines, patellae without spines. Carapace weakly pigmented. Epigynum (Fig.11). Internal genitalia (Fig. 17).

Female. Measurements (holotype followed by paratype): CL 3.85(4.68), CW 2.64(3.22), AL 3.69(4.61), AW 2.16(2.85), EGW 1.13(1.28), MOQL 0.38(0.46), MOQAW 0.35(0.41), MOQPW 0.49(0.57), ML 1.45(1.76), LL 0.74(0.95), LW 0.59(0.65), SL 2.04(2.33), SW 1.54(1.81). Pigmentation reduced (only cavernicolous individuals seen), especially on carapace, abdominal pattern as for genus. Cheliceral promargin with 7-8 teeth, most subequal, basal retromarginal tooth very small. Ratio eye group width to caput width 0.67:1. Leg lengths I-IV, 21.21/16.71/14.17/19.26. Spination legs I,II: I, femur p010 d112/123, tibia p0110 r0110/0000 v220/020, metatarsus p0102 r0001 v221; II, d1213/113, tibia p0110 r0110 v220/120, metatarsus p1102 r0101 v221. Patellae with apicodorsal bristle. Tibiae I-III lack apical spines. Epigynum (Fig.11). Internal genitalia with sclerotised part of insemination ducts broad and strongly arched anterior to receptacula, diverticula directed medially.

Colcarteria n.gen.

Type species. *Colcarteria carrai* n.sp.

Etymology. This genus is named for the late Colin Carter, past-president of the Kempsey Speleological Society.

Diagnosis. Small cribellate spiders. Caput prominent. Cheliceral groove short with 2-4 approximated retromarginal teeth. Male palp with a large, sickle-shaped median apophysis, T-shaped conductor, tibia short with 2-3 laminate/pointed apophyses, patella with strong dorsal bristle. Epigynum with lateral teeth. Receptacula separated, ducts directed medially.

Description. Small cribellate spiders (CL 1.4-2.1). Carapace tan with grey-brown lateral caput and strial markings and marginal thoracic bands (often indistinct in cavernicolous populations). Abdomen brownish-grey with a pattern of paler chevrons. Carapace strongly arched with prominent caput. Fovea a broad slit. From above AER recurved, PER recurved-straight; From in front AER straight, PER procurved. AME smallest. Chelicerae with boss. Cheliceral groove short with 6-7 promarginal teeth in basal half of groove (4-5 small teeth plus 2 larger basal teeth) and 2-4 subequal teeth on retromargin, not widely separated. Labium about as wide as long, notched basolaterally and apically. Sternum cordate, broadly pointed posteriorly and projecting between coxae IV. Legs usually 1423, leg I 3-4 times length carapace. Trochanters notched. Legs I,II ventral spines - tibiae 122 or fewer, metatarsi 122. Calamistrum subcentral-proximal, about 0.3 times length of metatarsus. Plumose hairs numerous. Trichobothria in single row on tarsi and metatarsi, 2 rows on tibiae, bothria collariform, striate. Palpal tarsi with trichobothria. Tarsal organ a low mound distal to trichobothria, pore ovoid. Male palp with conical distal cymbium; a thin wire-like embolus; a t-shaped, membraneous conductor; a large, sickle-shaped, weakly sclerotised median apophysis, arising basally. Tibia short, about as long as wide, with a large ventral lamina and 1-2 retrolateral apophyses; a row of bristle-like hairs on distal proventral tibia. Epigynum with a centrally membraneous fossa and anterior lateral teeth; insemination ducts visible between receptacula. Receptacula globose and separated. Insemination ducts, each with a small, somewhat indistinct tubercular diverticulum, run medially between receptacula. Fertilisation ducts large. Spiracle narrow, placed anterior to cribellum, with 4 simple (undivided) tracheal tubes confined to abdomen. Cribellum with 2 narrow, well-separated fields. Spinnerets, 6, short; ALS broad, PLS longer, narrower. ALS, 2 major ampullate, 11 pyriform spigots. PMS, 1 minor ampullate, 1 cylindrical, 9-10 aciniform spigots; paracribellar spigots very few (? 2, obscured by dirt). PLS, 1 cylindrical, about 20 aciniform spigots (no paracribellar spigots seen on PMS).

Included species. *Colcarteria carrai* n.sp., *C. yessabah* n.sp., *C. kempseyi* n.sp.

Comments. These spiders build small, ground-level sheet webs with two to three entrances in moist forest habitats, notably rotting logs, and in caves. In caves webs occur in twilight and dark regions built among rocks and guano/debris on the cave floor.

The marked specific difference in retrolateral cheliceral tooth numbers (2 or 4) within this genus is unusual. The 4-tooth state is probably plesiomorphic, the loss of the two smaller apical teeth giving rise to the 2-tooth apomorphic state.

Colcarteria carrai n.sp.

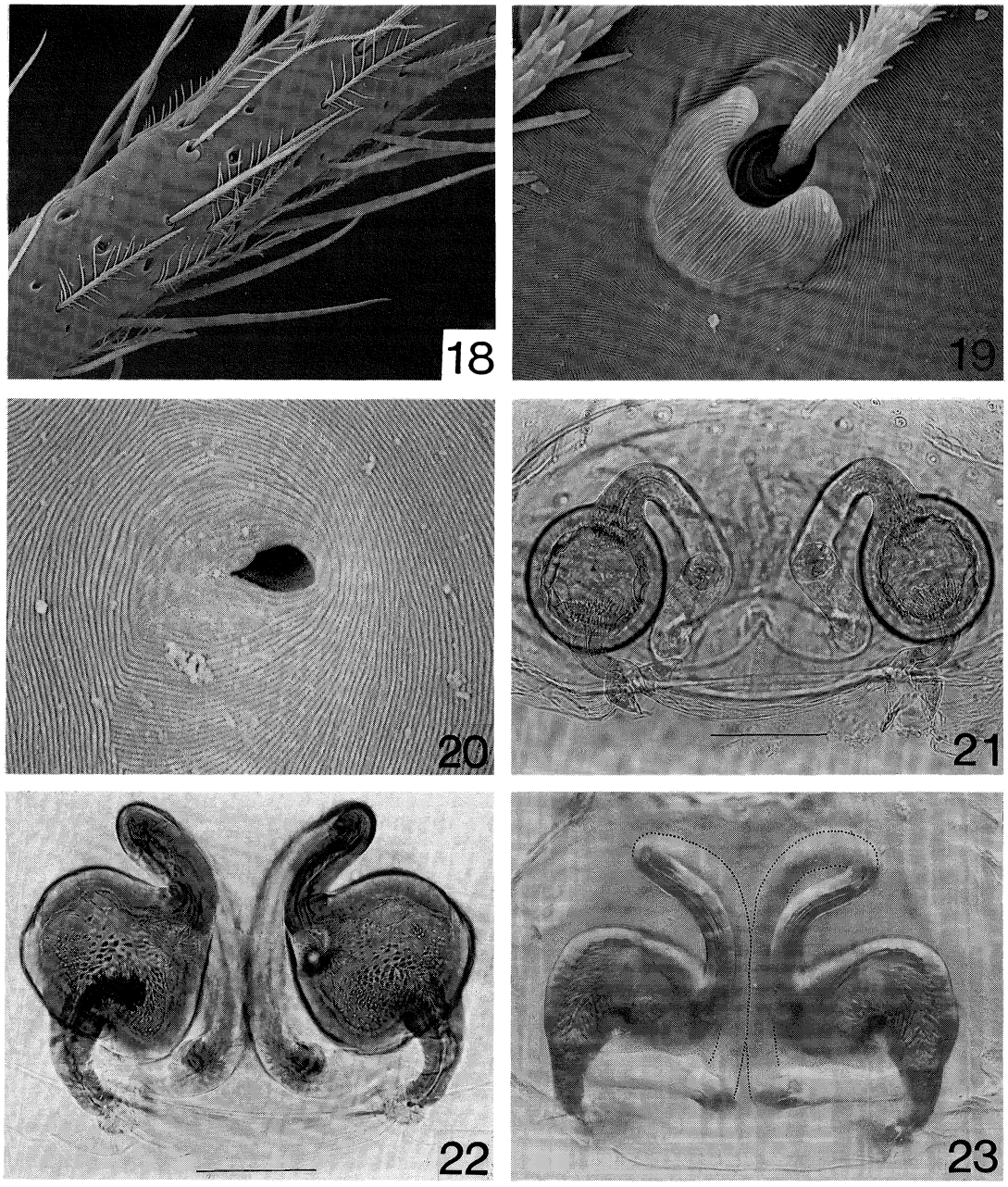
Figs 18-21, 24-34

Types. HOLOTYPE, male, KS28223 (AM), Carrai Bat Cave (SC-5), Carrai State Forest, 31°01'S 152°20'E, west of Kempsey, NSW, 25 Apr. 1974, M. Gray. ALLOTYPE, female, KS28224 (AM), data as for holotype. PARATYPES, KS28225 (AM), 9 females, 1 male, data as for holotype. KS28226 (AM), 2 males, 2 females (one used for tracheal prep. KS28227), Carrai State Forest, near Carrai Bat Cave, NSW, 26 Apr. 1974, M. Gray, in closed and tall open forest along trail to Carrai Bat Cave.

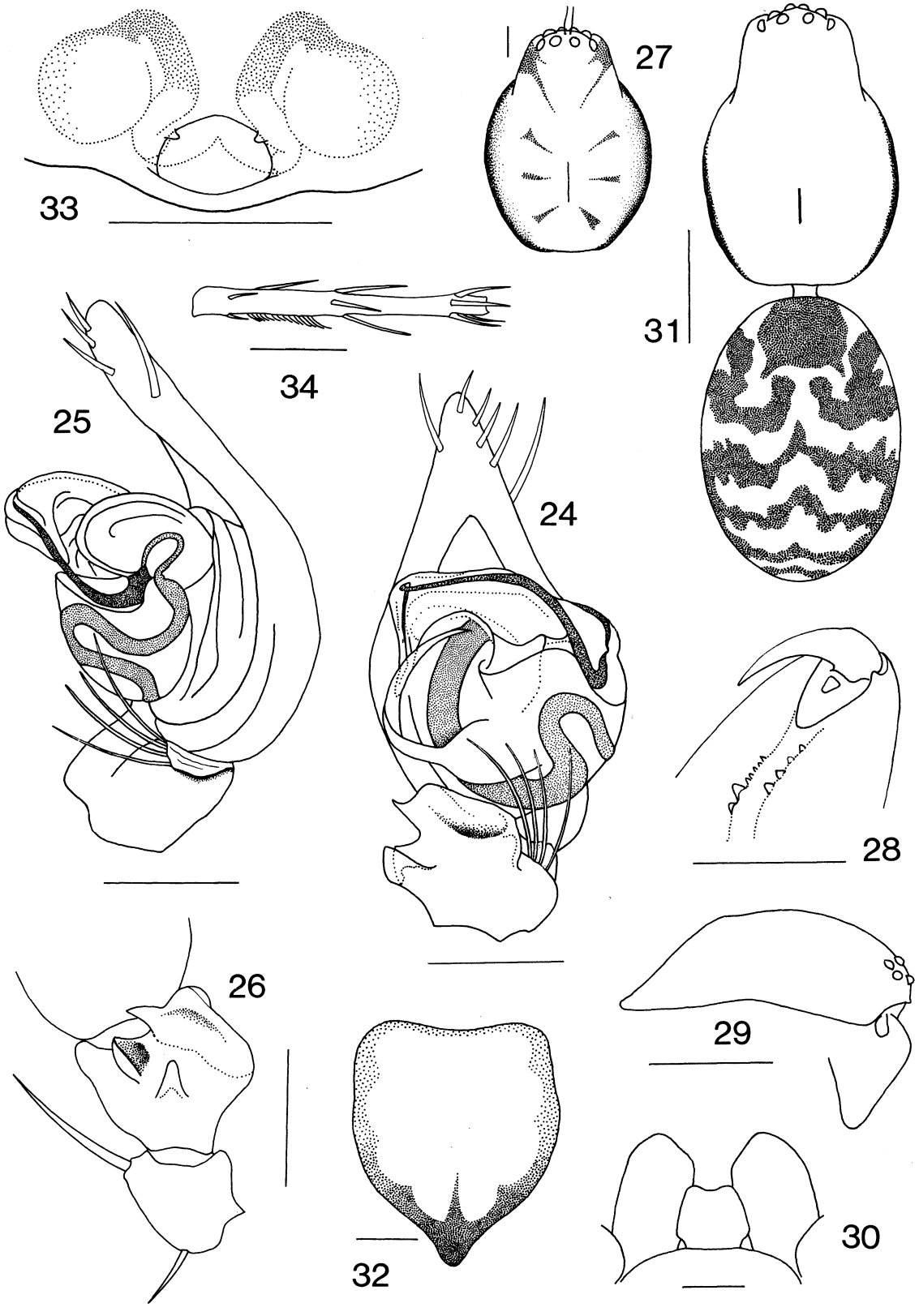
Diagnosis. Small-medium sized spiders. 3-4 teeth on cheliceral retromargin (2 in other species). Conductor wider than long. Embolus origin prolateral, subapical. Male palpal tibia with a ventral lamina and

2 retrolateral apophyses. Receptacula widely separated.

Male. Measurements: CL 1.43 (1.43-1.71), CW 1.13 (1.07-1.29), AL 1.5 (1.3-1.5), AW 1.0 (0.9-1.2), EGW 0.41 (0.38-0.47), MOQL 0.18 (0.17-0.19), MOQAW 0.16 (0.13-0.16), MOQPW 0.22 (0.18-0.24), LL 0.16 (0.16-0.22), LW 0.21 (0.20-0.26), SL 0.78 (0.77-0.92), SW 0.71 (0.63-0.71). Carapace pigmentation variable, as for genus or reduced in some cave dwelling individuals (see female Fig.31). Abdomen dorsum grey anteriorly with 6-7 narrow chevrons posteriorly. Venter with central grey stripe broken by paler patches. Cheliceral promargin with 2 basal teeth followed by 4-5 smaller teeth; 3-4 teeth on retromargin, usually smaller apically. Ratio eye width to caput width 0.73:1. Legs I,IV longest and subequal (5.70/5.68), legs II,III subequal (4.59/4.49). Spination legs I,II: I, femur d111(p)3, tibia p1010 v122/022, metatarsus p001 r001 v121; II, femur d113, tibia p1010 r0010 v122, metatarsus p1202 r102 v122. Patellae I,II,IV with short, spine-like basal and apical dorsal bristles, patella III with stronger apical spine. Embolus arises subapically, midway along prolateral tegulum; conductor wider than long. Ventral tibial apophysis pointed retrolaterally, 2 retrolateral apophyses present.



Figs 18-23. *Colcarteria* n.gen. 18-20, *C. carrai* n.sp.: 18, plumose hairs, metatarsus; 19, trichobothrium base, metatarsus; 20, tarsal organ. 21-23, female genitalia, dorsal: 21, *C. carrai* n.sp.; 22, *C. yessabah* n.sp.; 23, *C. kempseyi* n.sp. (Scale lines: 21-23 - 0.1 mm)



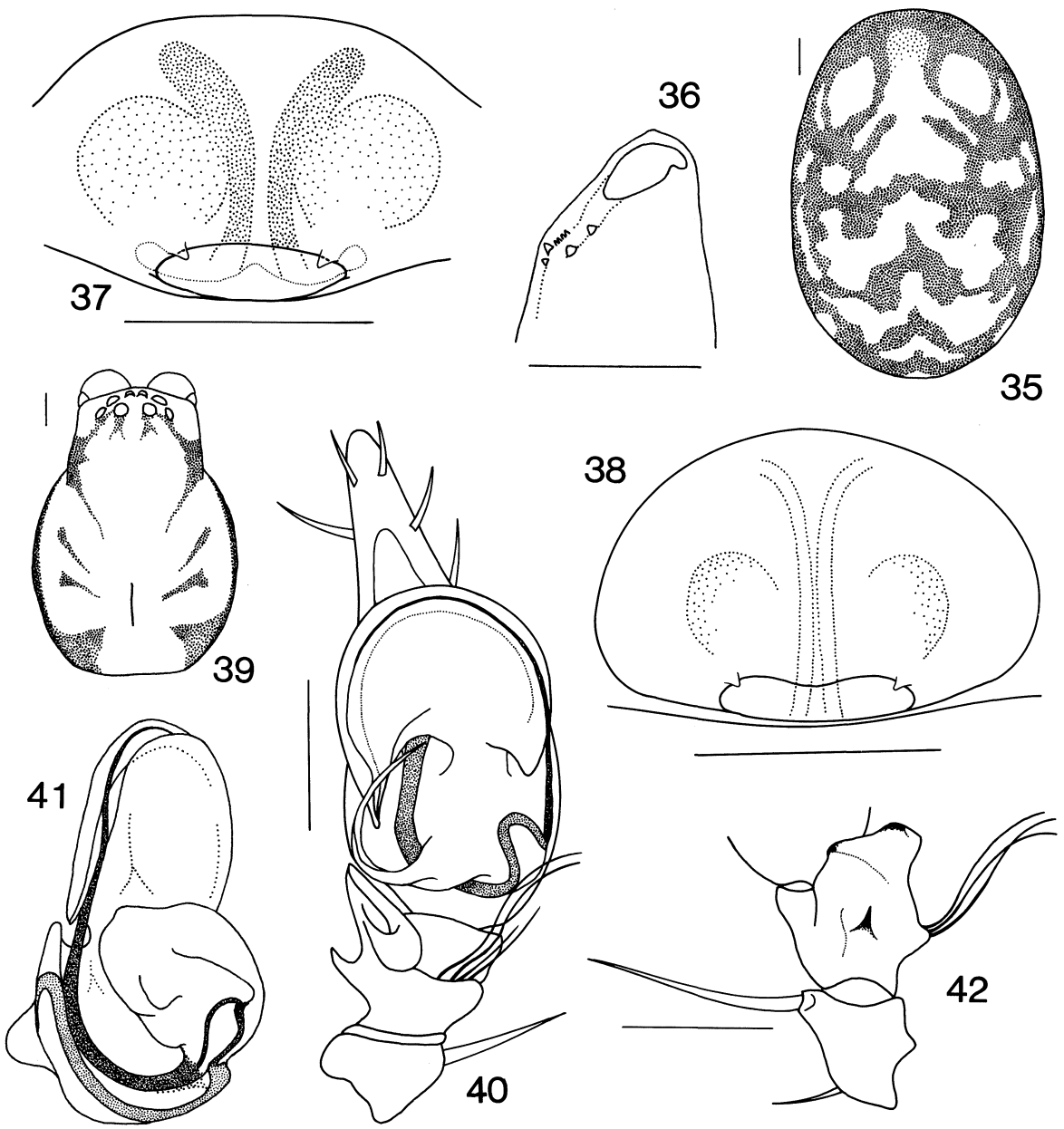
Figs 24-34. *Colcarteria carrai* n.sp. 24-26, male palp: 24, ventral; 25, prolateral; 26, retrolateral patella, tibia. 27, male carapace. 28-34, female: 28, cheliceral teeth; 29, lateral carapace; 30, maxilla and labium; 31, dorsal body; 32, sternum; 33, epigynum; 34, dorsal metatarsus IV and calamistrum. (Scale lines: 24-28,30,32,33 - 0.25 mm; 29,31 - 1 mm; 34 - 2 mm)

Female. Similar to male. Measurements: CL 1.98(1.73-2.10), CW 1.39(1.26-1.48), AL 2.3(2.0-2.6), AW 1.7(1.5-2.1), EGW 0.54(0.50-0.62), MOQL 0.24(0.19-0.24, MOQAW 0.18(0.18-0.20), MOQPW 0.28(0.25-0.30), ML 0.53(0.48-0.58), LL 0.26(0.23-0.29), LW 0.30(0.26-0.31), SL 1.07(0.95-1.10), SW 0.85(0.79-0.91). Cheliceral retromargin teeth subequal. Ratio eye group width to caput width 0.65:1. Leg lengths I-IV, 6.25/5.10/4.98/6.20. Spination legs I,II: I, femur d111(p)2, tibia v121/021(p)/020, metatarsus p001 r001 v122/121; II, femur d113, tibia p101 v122, metatarsus p102 r011 v122. Patellae as in male. Epigynum (Fig.33). Receptacula smoothly spherical-ovoid, separated by at least a diameter; insemination ducts short, separated medially, small diverticula placed at midlevel between receptacula.

Colcarteria yessabah n.sp.

Figs 22, 35-37

Types. HOLOTYPE, female, KS28228 (AM), Yessabah Bat Cave (YE-1), 31°05'S 152°43'E, near Kempsey, NSW, 18 July 1971, M. Gray. PARATYPE, females (all AM): KS28229, 2 females, data as for holotype; KS29419, 3 females, data as above, 21 July 1990, M. Gibian, entrance chamber and bat chamber passage;



Figs 35-42. 35-37, *Colcarteria yessabah* n.sp., female: 35, dorsal abdomen; 36, cheliceral teeth; 37, epigynum; 38-42, *Colcarteria kempseyi* n.sp. 38,39, female: 38, epigynum; 39, carapace. 40-42, male palp: 40, ventral; 41, prolateral, bulb only; 42, retrolateral patella and tibia. (Scale lines: 0.25 mm)

KS29420, 1 female, data as above, 29 Sept. 1990, entrance chamber.

Diagnosis. Small-medium sized spiders. Cheliceral retromargin with 2 teeth. Receptacula not widely separated. Insemination ducts converge between receptacula, longer than in *C. carrai* but shorter and broader than in *C. kempseyi.*

Female. Measurements: (paratype KS28229 in parentheses) CL 2.04(2.10), CW 1.48(1.51), AL 2.5(2.6), AW 1.8(1.8), PERW 0.55(0.56), MOQL 0.25(0.24), MOQAW 0.19(0.20), MOQPW 0.28(0.29), ML 0.58(0.59), LL 0.30(0.28), LW 0.34(0.31), SL 1.13(1.14), SW 0.93(0.93). Colouration similar to *C. carrai.* Abdomen with pale, irregular mid-dorsal stripe anteriorly, pale suffusion often laterally diffused. Cheliceral promargin teeth like *C. carrai*, retromargin with 2 teeth. Ratio eye group width to caput width 0.65:1. Leg lengths I-IV, 7.82/6.04/5.35/7.41. Spination legs I,II: I, femur d111(p)/111(p)1(p), patella d0(1), tibia v020, metatarsus v222; II, femur d113, patella d0(1), tibia p110 d(1)0 v222, metatarsus p001 r001 v222. Epigynum (Fig.37). Receptacula large, irregularly rounded, separated by less than a diameter. Insemination ducts arise anteromedially from receptacula and diverge across their anteromedial surfaces before converging (contiguous or subcontiguous) between them; the small diverticula are placed posteriorly between receptacula.

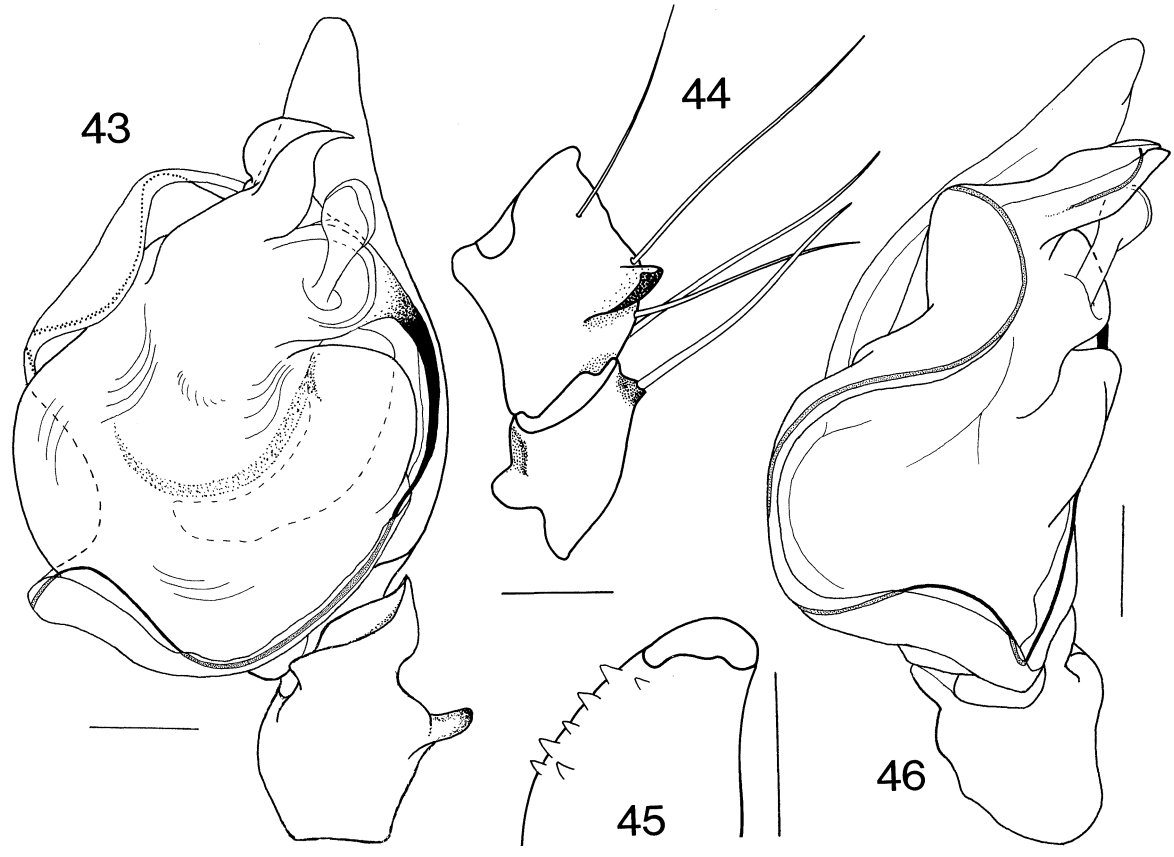
Colcarteria kempseyi n.sp.

Figs 23, 38-42

Types. HOLOTYPE, male, KS28230 (AM), Maria River State Forest, 31°11'S 152°50'E, near Kempsey, NSW, 23 Apr. 1974, M. Gray; tall open forest (*Eucalyptus gummifera*). ALLOTYPE, female, KS28231 (AM), data as for holotype.

Diagnosis. Small spiders. Cheliceral retromargin with 2 teeth. Insemination ducts thin, elongate, converge medially anterior to receptacula. Conductor large, semicircular. Embolus origin basal. Male palpal tibia with a ventral lamina and 1 retrolateral apophysis.

Male. Measurements: CL 1.50, CW 1.06, AL 1.5, AW 0.9, EGW 0.38, MOQL 0.18, MOQAW 0.15, MOQPW 0.18, LL 0.18, LW 0.22, SL 0.82, SW 0.66. Ratio eye group width to caput width 0.72:1. Moderately pigmented, pattern as for genus, abdomen similar to *C. yessabah.* Cheliceral teeth as for *C. yessabah.* Leg lengths I-IV, 5.59/4.29/3.92/5.29. Spination legs I,II: I,



Figs 43-46. *Forsterina koghiana* n.sp., male. 43-45, palp: 43, ventral; 44, retrolateral patella and tibia; 45, prolateral. 46, cheliceral teeth. (Scale lines: 43-45 - 0.25 mm; 46 - 0.5 mm)

femur d111(p)3, patella d01, tibia p110 v222, metatarsus p001 v222; II, femur d113, patella d01, tibia d(1)010 p110 r010 v222, metatarsus p111 r001, v222. v221. Patellae dorsal spines largest on legs III,IV. Male palp with large semicircular conductor, about as long as wide. Embolus origin on basal prolateral tegulum. Ventral tibial apophysis bluntly pointed retrolaterally; 1 retrolateral apophysis.

Female. Measurements: CL 1.73, CW 1.28, AL 1.7, AW 1.8, EGW 1.95, MOQL 0.20, MOQAW 0.19, MOQPW 0.26, ML 0.53, LL 0.25, LW 0.28, SL 0.96, SW 0.78. Ratio eye group width to caput width 0.71:1. Leg lengths I-IV, 6.36/4.94/4.55/6.16. Spination legs I,II: I, femur d111(p)0, patella d01, tibia v1(p)20, metatarsus p001 r001 v221; II, femur d113, patella d01, tibia d(1)00 p110 v01(r)1(p), metatarsus p012 r011 v221. Epigynum with thin, longitudinal insemination ducts visible medially. Receptacula gourd-shaped, separated by less than a diameter. Insemination ducts similar to *C. yessabah* but more elongate and slender, arising medially from receptacula, curving well above them to become contiguous anteriorly.

Comments. Female internal genitalic and cheliceral tooth structure suggests that *C. kempseyi* and *C. yessabah* are more closely related than either is to *C. carrai.*

Forsterina koghiana n.sp.

Figs 43-46

Type. HOLOTYPE, male, KS28232 (AM), Mont Koghi, near Noumea, New Caledonia, 8 July, 1963.

Diagnosis. Male palp with loosely sinuous conductor and embolus. Median apophysis narrow basally. Retrolateral apophysis placed midway along tibia (basal in *F. alticola* (Berland)).

Male. Measurements: CL 2.99, CW 1.95, (abdomen damaged), ERW 0.87, MOQL 0.40, MOQAW 0.34, MOQPW 0.44, ML 0.93, LL 0.48, LW 0.44, SL 1.62, SW 1.25. Chelicerae with 5-6 promarginal teeth (including 1 or 2 small teeth anterior to second basal tooth) and 2 well separated retromarginal teeth; a row of about 17 short hairs behind basal prolateral teeth. Leg lengths I-IV, 12.29/10.16/8.97/10.84. Spination legs I,II: I, femur d12(r small)1(p)3, tibia p1110 r1010 v222, metatarsus p011 r011 v222; II, femur d12(r small)3 or 133, tibia p0101 r1010 v222, metatarsus p111 r0101 v222. Male palp with conductor and embolus loosely overlapping tegulum basally and proapically. Embolus arises apically, retrolateral to median apophysis. Median apophysis with narrow, stalk-like base. Retrolateral tibial apophysis placed midway along tibia.

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References

Berland, L., 1924. Araignées de la Nouvelle Caledonie et des Iles Loyalty. F. Sarasin & J. Roux: Nova Caledonia, Zoology 3(2): 159-255.

Forster, R.R., 1970. The Spiders of New Zealand, Part III. Bulletin of the Otago Museum 3: 1-184.

Forster, R.R. & C.L. Wilton, 1973. The Spiders of New Zealand, Part IV. Bulletin of the Otago Museum 4: 1-309.

Gray, M.R., 1981. A revision of the spider genus *Baiami* Lehtinen from southern Australia. Records of the Australian Museum 33: 779-802.

Lehtinen, P.T., 1967. Classification of the cribellate spiders and some allied families, with notes on the evolution of the suborder Araneomorpha. Annales Zoologicae Fennici 4: 199-468.

Simon, E., 1908. Araneae. Ire partie. Fauna Südwest-Australiens 1(12): 359-466.

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