

***Paramigas goodmani***, new species

(Figs. 33, 34A–E, 35D, 65, 68)

Type.—Holotype female collected at 80m elevation in Forêt de Vohibasia, 59 km NE Sakaraha (22°27.5'N, 44°50.5'E), Toliara Province, Madagascar, 10–16 January 1996 by S. Goodman, deposited in FMNH.

Etymology.—The specific name honors Steve Goodman, whose extraordinary collecting efforts in Madagascar discovered the type and numerous other new species.

Diagnosis.—Distinguished from all other *Paramigas* that have a dense vestiture of long, silky hairs beneath patellae-metatarsi I and II by having dorsal thorns at the apices of metatarsi I and II (Fig. 33).

Description.—Female (holotype): Total length 20.5. Carapace (Fig. 33) dark red-brown with a dark brown band surrounding its margin; caput light red-brown along lateral margin; ocular area dark red-brown, dusky between AME and black mesad of ALE and PLE; chelicerae dark red-brown; sternum, coxae, and trochanters orange-brown (Fig. 34B); legs and pedipalpi dark red-brown, except orange-brown tarsi, with orange-brown setal bases giving a mottled pattern; abdomen dark purple-brown including book lungs and epigastric furrow; spinnerets dark red-brown (Fig. 34B).

Carapace 8.9 long, 8.2 wide, height at thoracic fovea  $0.31 \times$  carapace width; smooth. Caput inclined (Fig. 34A), height  $1.30 \times$  that at thoracic fovea, width  $0.73 \times$  carapace width; median ocular seta situated anteriorly of AME and twelve setae positioned anteriorly to this; clypeus  $0.30 \times$  length OAL, margin straight. Thoracic fovea recurved and tripartite, width  $0.21 \times$  that of carapace,  $1.8 \times$  wider than long; with pair of prefoveal setae (Fig. 33).

Ocular area width  $0.50 \times$  caput,  $2.30 \times$  wider than long; AER 3.0 wide,  $1.09 \times$  width PER. Ratio of eyes: AME: ALE: PME: PLE: 1.0: 0.66: 0.66: 0.5, diameter AME 0.6; AME separated by  $0.33 \times$  their diameter, PME by  $2.25 \times$  their diameter. Ocular quadrangle  $1.48 \times$  wider than long, posterior width  $1.68 \times$  anterior.

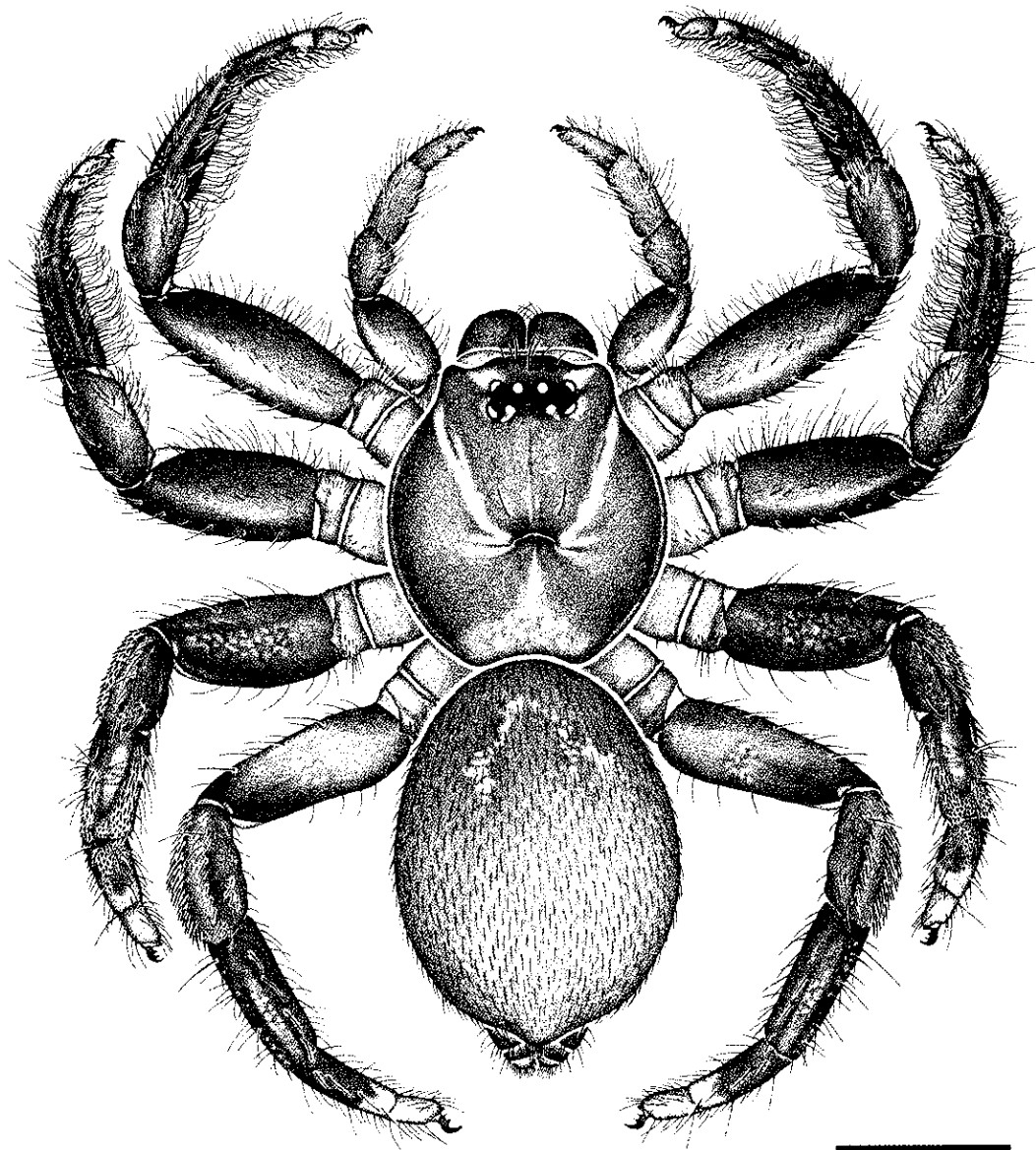
Sternum 8.0 long, 5.3 wide, widest behind coxa II and narrowed anteriorly, setose along lateral margin and sparsely setose on surface; sigilla indistinct, shallow, irregularly oval, adjacent to coxa II,  $0.13 \times$  width sternum, distance between  $0.57 \times$  distance from margin (Fig. 34B). Labium with 41, pedipalpal coxae with 46–48 cuspules; labium 1.3 long, 1.65 wide, pedipalpal coxae 3.0 long, 1.65 wide, apex produced to a blunt point. Chelicerae 2.0 long, promargin of fang furrow with 4 teeth, retromargin with 6 teeth, pro- and retromargin interspersed with 1–3 denticles (Fig. 34D).

Femur I 0.84, tibia I 0.53, femur IV 0.85, and tibia IV  $0.54 \times$  carapace width. Ventral surfaces of patellae, tibiae, metatarsi, and tarsi of legs I and II densely covered by long filiform setae (Fig. 33). Spination: pedipalpus: tibia p 1-0-0, tarsus p 1-1-1, r 1-0-1; leg I: tibia p 1-2-3-3, r 2-3-3-6, d 12 thorns, metatarsus p 2-6-2, r 3-3-3-3, d 26 thorns, tarsus p 1-1-1, r 1-1-0; leg II: tibia p 2-3-3, r 1-3-4-2-3, d 15 thorns, metatarsus p 3-3-3-2-1a, r 3-3-1a, d 28 thorns, tarsus p 2-1-1-1, r 1-1-0; leg III: patella with approximately 69, tibia with approximately 75, metatarsus with approximately 40, and tarsus with approximately 12 spinules; leg IV: patella with approximately 80 slender spinules. STC teeth (pro-retro): I (3-2), II (3-3), III, IV (1-1); ITC simple, pedipalpal claw with 1 tooth (Fig. 34E). Leg measurements (Femur + Patella + Tibia + Metatarsus + Tarsus = [Total]): I:  $6.9 + 4.0 + 4.4 + 3.0 + 2.0 = [20.3]$ ; II:  $6.2 + 3.8 + 4.0 + 2.9 + 1.9 = [18.8]$ ; III:  $5.0 + 3.1 + 3.2 + 2.6 + 2.1 = [16.0]$ ; IV:  $7.0 + 4.0 + 4.5 + 3.9 + 2.5 = [21.9]$ ; pedipalpus:  $4.0 + 2.1 + 2.6 + (\text{absent}) + 2.2 = [10.9]$ .

Abdomen 11.6 long, 8.7 wide, sparsely covered with short setae. Spermathecae with narrow head and long stalk, length spermathecae  $0.78 \times$  distance between them and  $1.85 \times$  head diameter, diameter head  $1.81 \times$  diameter stalk, head length  $0.90 \times$  length stalk (Figs. 34C, 35D).

Material Examined.—Only the type.

Distribution.—Known only from the type locality, an isolated montane forest in south-western Madagascar (Fig. 68).



5.0mm

FIGURE 33. *Paramigas goodmani*, new species, holotype female, dorsal. Illustration by JS.

[From Griswold, C. E. & J. Ledford, 2001. A monograph of the migid trap door spiders of Madagascar and review of the world genera (Araneae, Mygalomorphae, Migidae). Occas. Pap. Calif. Acad. Sci. 151: 83].

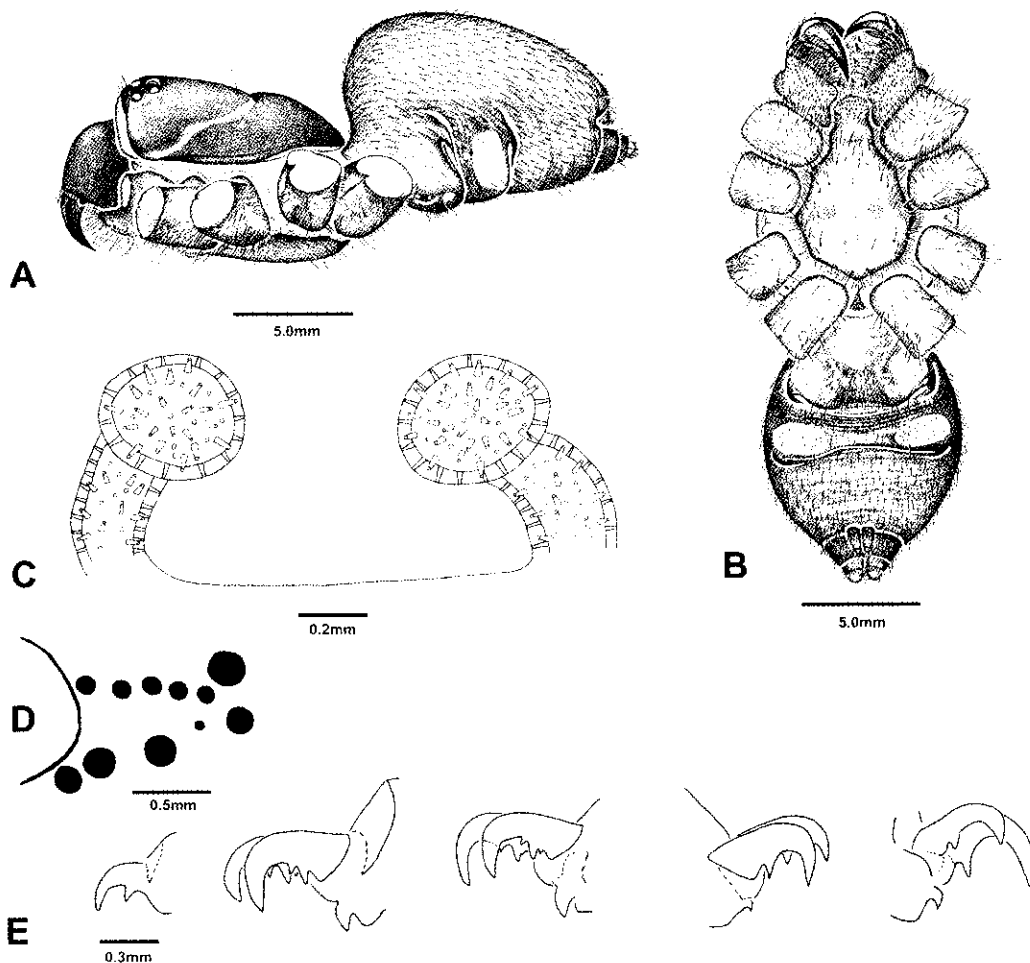


FIGURE 34. *Paramigas goodmani*, new species, holotype female. A. Lateral. B. Ventral. C. Spermathecae, dorsal. D. Denticulation of right chelicera. E. Left tarsal claws: pedipalp, leg I retrolateral, leg II retrolateral, leg III prolateral, leg IV prolateral. Illustrations A, B by JS, C, D by JL, E by CG.

[From Griswold, C. E. & J. Ledford, 2001. A monograph of the migid trap door spiders of Madagascar and review of the world genera (Araneae, Mygalomorphae, Migidae). Occas. Pap. Calif. Acad. Sci. 151: 84].



FIGURE 35. Spermathecae of *Paramigas* spp., dorsal. D. *P. goodmani*, holotype. HS – spermathecal head, SS – spermathecal stalk. Scale bars: = 0.4 mm.

[From Griswold, C. E. & J. Ledford, 2001. A monograph of the migid trap door spiders of Madagascar and review of the world genera (Araneae, Mygalomorphae, Migidae). Occas. Pap. Calif. Acad. Sci. 151: 85].

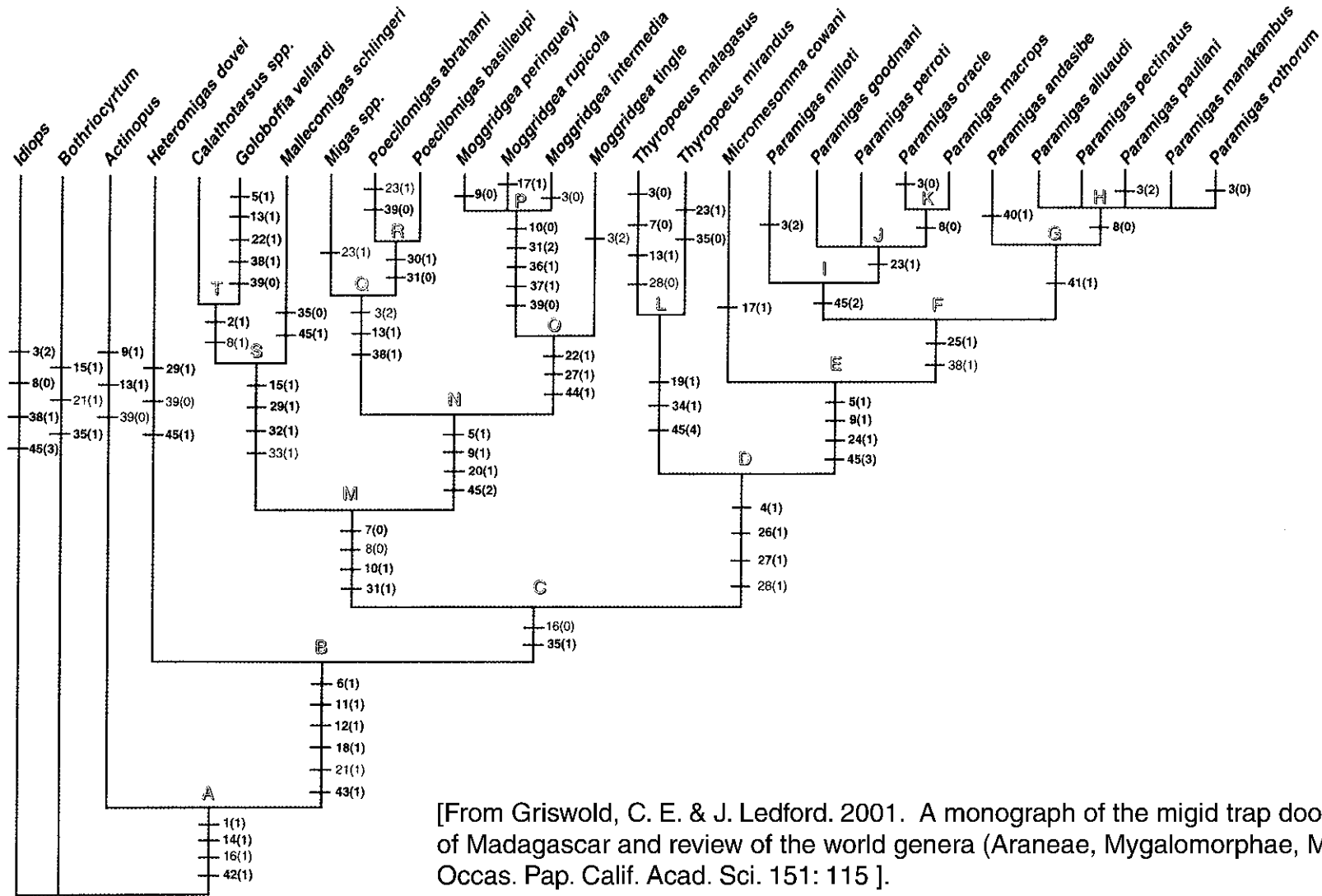


FIGURE 65. Preferred cladogram for Migidae, 96 steps, c.i. = 0.52, r.i. = 0.76. Character changes are marked on branches [character (state)]; those in bold represent unambiguous optimizations. Bremer support (decay indices) for the nodes are A (2), B (3), C (1), D (4), E (5), F (1), G—K (0), L (4), M (2), N (>5), O (4), P (4), Q (3), R (1), S (2) and T (1).

A *Thyropoeus malagasus*

B *Thyropoeus mirandus*

C *Paramigas alluaudi*

D *Paramigas andasibe*

E *Paramigas goodmani*

F *Paramigas macrops*

G *Paramigas manakambus*

H *Paramigas milloti*

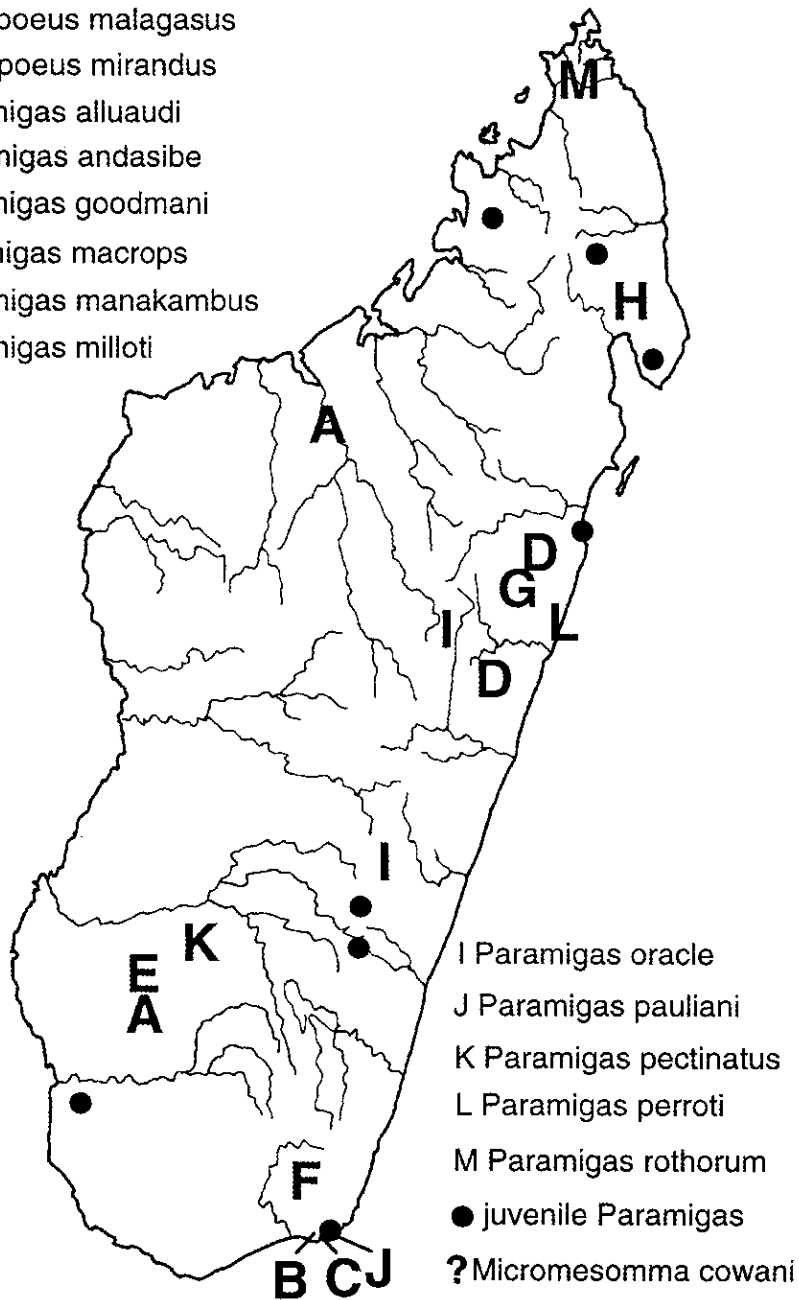


FIGURE 68. Map of Madagascar showing records of Migidae. Locality data for juvenile *Paramigas* are listed in Table 1

[From Griswold, C. E. & J. Ledford. 2001. A monograph of the migid trap door spiders of Madagascar and review of the world genera (Araneae, Mygalomorphae, Migidae). Occas. Pap. Calif. Acad. Sci. 151: 117].