

STRUMIGENYS PHILIPORUM species nov.

Insecta: Hymenoptera: Formicidae:
Myrmicinae: Dacetini

DIAGNOSIS, WORKER: Distinguished from all other species of the genus except *S. sisyrata* of New Guinea by the thick cover of spongiform tissue on notum of alitrunk; from *S. sisyrata* it differs in much more slender build and narrow head, in having the pronotum free of spongiform tissue and its surface flat and bounded in front and laterad by a distinct margin, and other characters as shown in figures and noted below.

WORKER, HOLOTYPE: TL 3.7, HL 0.87, HW 0.52 (CI 60), ML 0.40 (MI 46), SL 0.57 (SI 110), EL 0.11, WL 1.00 mm.

Characteristic is the slender head, with large eyes that can be seen from dorsal full-face view. Vertex gently convex in the middle, but moderately depressed in the posterior part, including lobes, which have lateral and posterior borders rounded into the sides and posterior surfaces of the head. Mandibles very feebly bowed, almost straight, without a translucent lamelliform margin on mesal surfaces; apical teeth moderate in length, with one intercalary tooth. Antennal scapes slender, only slightly curved in basal half. Apical antennomere slender, fusiform, tapered basad and equal to or slightly longer than rest of funiculus.

Promesonotal disc nearly plane, seen from above subpentagonal, with humeri obtusely subangulate; distinctly marginate anterolaterad and laterad, but margin indistinct anteromesad; lateral margins bluntly angled or curved and convergent behind, terminating at the abruptly narrowed part of mesonotum. Promesonotal suture obsolete, its position shown by a slight median convexity, visible in certain lights, marking the beginning of the mesonotum. Posterior mesonotum and remainder of alitruncal dorsum covered by a thick,

William L. Brown, Jr.
Department of Entomology
Cornell University,
Ithaca NY 14853, USA

dingy white mass of spongiform tissue that appears to originate as a pair of lateral sheets from the upper pleura meeting to fuse on the dorsal midline, as judged from a deep, narrow cleft extending anteriorly from propodeal declivity and another median cleft over posterior mesonotum; three angular lobes of spongiform material extend forward from the main mass to posterior limit of promesonotal disc, leaving the disc itself free. Deep oval pits in the anterior part of the mass over posterior mesonotum evidently mark bilateral points of attachment. No propodeal teeth are visible; if present, they are completely buried in the thick, rounded spongiform propodeal lobes that extend caudad on each side of petiolar insertion.

Petiole with a slender, laterally compressed peduncle that bears a broad, median crest of paired, approximate lamellae the length of its dorsal surface and a deep, voluminous lobe of the same material ventrad, extending to sternum of node. Petiolar node abruptly expanded behind peduncle and with a nearly vertical anterior face, abruptly rounded into the gently convex and downsloping posterodorsal face; free surface of node narrow because enveloped in a large spongiform mass that covers sides and almost the posterior half of node, and appears to make up more than half the petiolar bulk. Free disc of postpetiole about twice as wide as petiolar disc, and surrounded by spongiform tissue forming a thick anterior collar, very broad posterior and posterolateral masses, and a voluminous ventral lobe on each side. Gastric tergum with a thick basal spongiform margin, from which close-set costulae extend caudad for about 1/5 or a little more of the tergal length; base of gastric sternum

Pilot Register of Zoology
Card No. 38
Issued 15 November 1988.

with a fringe of delicate reclinate hairs. Gastric surface otherwise smooth and shining.

Head, promesonotum, nodal discs, peduncle, legs and scapes reticulate-punctulate as usual for the genus, most boldly so on dorsum of head. Anteromedian clypeus with a smooth, shining convexity; fore coxae and mandibles nearly smooth, subopaque. Sides of alitrunk below spongiform masses glassy smooth and shining throughout. Median sponge-free clefts of mesonotum and propodeal declivity nearly smooth, shining at bottom.

Color light to medium ferruginous; first gastric segment slightly tinged with brownish.

HOLOTYPE (MCZ) from northern Queensland, Australia: type colony with dealate queen from Mt. Lewis, near Mossman, about 900 m, rain forest, leg. Darlington, 26 Dec. 1957.

WORKER, PARATYPES (n = 38 from 6 colonies; MCZ, CUIC, ANIC, BMNH). Size range narrow, from holotype, which is the largest worker seen, to the smallest, a specimen from the Mt. Alexander series: TL 3.1, HL 0.77, HW 0.44 (CI 57), ML 0.35 (MI 45), SL 0.53 (SI 120), EL 0.10, WL 0.82 mm. North Queensland: Mt. Alexander, nw Daintree, rain forest, 20-23 Dec. 1957 (Darlington). Lake Eacham, Atherton Tableland, rain forest, Feb. 1958 (Darlington). Lake Eacham National Park, rain forest, leg. R. W. Taylor, acc. nos. 1423 and 1603. Danbullah Forest, near Atherton, (Taylor, no. 1662); the Taylor samples are from rotten logs.

This species is dedicated to the memory of the original collectors, the late father and son, Philip J., Jr. and Philip S. Darlington, who added so much to the knowledge of Australian ants.

A report of research from the Cornell Agricultural Experiment Station. Research supported in part by a National Science Foundation grant. Edited by W. L. Brown, Jr.

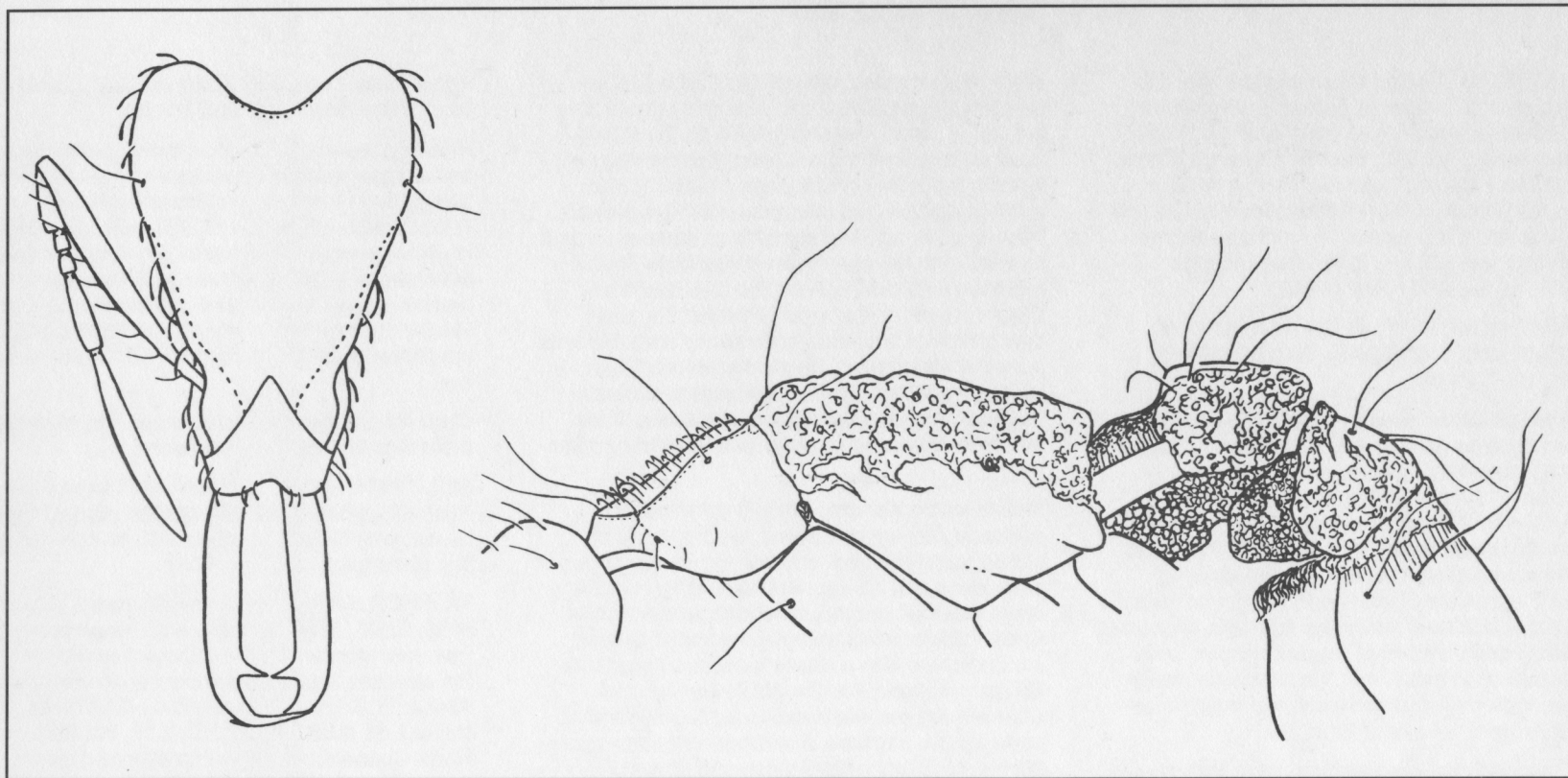


Fig. 1 (left), *Strumigenys philiporum* worker paratype from Mt. Lewis, Queensland, Australia, head in full-face dorsal view, showing only the principal fringing hairs of the pilosity. Right, same, alitrunk, petiole, postpetiole and base of gaster in side view. Drawn by Susan Poulakis.