

A NEW SPECIES AND TWO NEW NAMES OF THE
POLYRHACHIS ANTS (Hymenoptera : Formicidae)By Akey C. F. Hung¹

The formicine genus *Polyrhachis* is a large group confined mostly to the tropics of the Old World. It was first established by Billberg in 1820 under the generic name *Myrma* (Wheeler 1911), but the current generic name *Polyrhachis* was introduced by Fr. Smith in 1858. The validity of these two generic names and the taxonomic status of the 19 subgenera in this genus will be discussed elsewhere by the author. A new species from Australia is described in this paper. Besides, two new names are also proposed. There are several other homonyms noticed in this genus. However, since their taxonomic statuses are not verified, the proposal of new names is not yet necessary. The measurements and indices used here are essentially derived from Brown (1953) with some modifications:-

Head width (HW)- maximum width of the head, measured from gena to gena immediately below the eyes with the face in full view.

Head length (HL)- length of the head, held in perfect full face, measured from the anteriormost point of the clypeal border to the posteriormost point of the occipital border.

Scape length (SL) - maximum length of the scape with the basal "neck" excluded.

Cephalic index (CI) - $HW \times 100 / HL$.

Scape index (SI) - $SL \times 100 / HW$.

Pronotal width (PW) - maximum width of the pronotum measured between points of the humeral angles.

Propodeal width - maximum width of the propodeum measured along its anterior border.

Propodeal length - maximum length of the propodeum measured from its anterior border to the posterior border between the teeth.

***Polyrhachis pseudothrinax* sp. nov.** (Figs. 1-6)

Holotype worker: HW 1.84 mm, HL 2.09 mm, SL 2.17 mm, CI 88, SI 118, PW 1.67

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mm, propodeal width 1.09 mm, propodeal length 0.67 mm.

Head suboblong with occipital border flat on each side and somewhat convex in the middle; genae parallel; truncate behind the eyes; angulate at the occipital corners. Eyes close to the occipital corners; maximum diameter 0.49 mm. Frontal carinae subparallel. Clypeus truncate and dentate at the anterior border; carina poorly marked. Antennal scape a little longer than head, surpassing occipital corners by an amount greater than the length of the first two funicular joints. Mandibles 5-dentate.

Alitrunk robust, more or less convex and arched in profile, sides angulately margined, and slightly laminate on the prothorax. Pronotum broader than long; humeral angles slightly dentate. Promesonotal suture very distinct, with the sides of the conjunction sinuate. Mesonotum longer than broad. Metanotum indicated by a distinct transverse carina. Propodeum broader than long, with two tubercular teeth; declivous face perpendicular. Petiolar node with a short spine on each side and a long middle spine which is as high as the mesonotum in profile, and bent slightly backward. Legs slender. Gaster short, dorsum of the first segment with a transverse ridge at the basal third of the segment.

Subopaque. Mandibles finely and densely rugulose. Head with longitudinal rugae, passing through frontal area, becoming rather obscure on the clypeus, curved around the antennal fossa. Pronotum with several transverse rugae immediately behind the "neck" and a few longitudinal rugae continuing onto the propodeum, with only a few transverse and some irregular rugae at the center immediately behind the promesonotal suture. Basal two-thirds of the pleura with wavy rugae which extend from the propleuron onto the declivous face of the propodeum; remainder of pleura smooth. Petiolar node with transverse rugae on both faces. Gaster very finely and densely striate, opaque dorsally and moderate shining ventrally.

Black. Mandibles reddish brown; mandibular teeth black. Antennae dark red, scape darker than funiculus. Legs brown. Fore coxae black. The first quarter of the tibia darker than the remainder. Gaster black dorsally and dark red ventrally; dorsal ridge dark red.

Antennae, head, legs and the dorsum of the alitrunk with erect hairs. Pleura hairless. Petiolar node with some erect hairs on the crest. Gaster with erect hairs mostly on the dorsum. Acidopore (i. e. cloacal orifice of other authors; cf. Hung and Brown, 1966) with fringe of hairs.

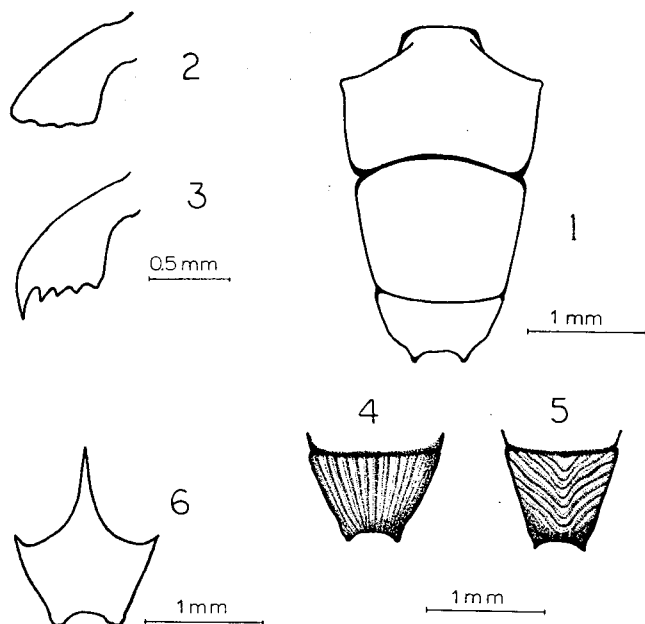
Described from a unique worker collected by H. Wesselman at Daly River, Northern Territory, Australia. No date was recorded.

Paratype worker: HW 1.75 mm, HL 2.09 mm, SL 2.17 mm, CI 84, SI 123, PW 1.67 mm, propodeal width 0.92 mm, propodeal length 0.75 mm.

Mandibular teeth worn. Propodeum longer than broad, with V-shaped rugae. Gastric ridge as black as the dorsum of the gaster.

A single worker collected by Dr. P. J. Darlington at Coen, Cape York Peninsula, Australia, July, 1932.

This species belongs to the *clypeatus* group (=subgenus *Campomyrma*) and is near *Polyrhachis schwiedlandi* Forel, from Sydney, which, however, has no spines on the scale-shaped petiolar node. It is distinguishable from all other species of *Polyrhachis* by the three rather flat spines produced upward from the crest of the



Figs. 1-6. *Polyrhachis pseudothrinax* sp. nov.

1. Dorsum of the alitrunk with pro- and mesonotum in full view.
2. Mandible of the paratype-worker.
3. Mandible of the holotype worker.
4. Propodeum of the holotype worker.
5. Propodeum of the paratype worker.
6. Petiole in front view.

scale-like petiolar node. In the *thrinax* group (= subgenus *Myrmothrinax*), there are also three spines on the petiole, but both the node and the spines are columnar.

The holotype and the paratype were collected from widely separated localities. Their main differences are mentioned in the foregoing paragraph. But the systematic significance of these variations can be determined only after enough material and ecological data have been collected from these two localities.

Holotype and paratype are deposited in Creighton collection in the American Museum of Natural History.

Nomenclatural Changes

Polyrhachis horacei nom. nov.

= *Polyrhachis cheesmanae* Donisthorpe, 1943, Ann. Mag. Nat. Hist., (11) 10: 459. Nec Donisthorpe, 1937.

Polyrhachis kellyi nom. nov.

= *Polyrhachis hirta* Donisthorpe, 1949, Ann. Mag. Nat. Hist., (12) 2: 418. Nec Viehmeyer, 1913.

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