

A Revision of the Genus *Romblonella* W. M. Wheeler
(Hymenoptera: Formicidae)

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In 1935 Wheeler established the monotypic genus *Romblonella*, basing it on the species, *grandinodis*, which he described from four workers collected by Señor L. Marato on Romblon Island, the Philippines. The genus was assigned by him to the tribe Meranoplini. *Romblonella* is distinguished from other genera of this tribe by the following characters: Antenna short, 12-segmented, with a distinct 3-segmented club; frontal carinae prolonged posteriorly to form the mesial borders of pronounced scrobes; thorax without promesonotal and mesoepinotal sutures; mesonotum not unusually large and neither dominating the epinotum nor bearing teeth or other appendages at its posterior border; epinotum bearing a pair of very distinct to well developed spines; petiole and post-petiole unusually voluminous; body length exceeding 2 mm.

Recently three additional species of *Romblonella* have been received for determination, each of which is new; one is from the island of Yap, another from the Fiji Islands, and the third from the island of Tinian. It appears that the ants of this group are confined to the Oriental and Australian regions. Unfortunately nothing is known of their biology.

Below are presented Wheeler's original characterization of the genus, his description and figures of the worker of *grandinodis*, my key for determining the workers of the various forms, and also my descriptions of the three new species. I have been fortunate in being able to study two imperfect cotype workers of *grandinodis* (the equivalent of one perfect cotype) given to the United States National Museum by the Museum of Comparative Zoology, Cambridge, Massachusetts.

Genus *Romblonella* W. M. Wheeler (Tribe Meranoplini)

Romblonella W. M. Wheeler, 1935, Proc. New England Zool. Club
15:5-9.

Worker: "Monomorphic, stout and thickset; integument hard, thick, very coarsely sculptured. Head subrectangular, with moderately large, convex eyes at the middle of the sides. Ocelli absent. Mandibles short, subtriangular, with strong, subequal teeth. Clypeus short and depressed on the sides, with broad, antero-posteriorly convex median portion, extending back between the frontal carinae, the anterior border without teeth. Frontal carinae widely separated, somewhat lobular and horizontal anteriorly, continued back to within a short distance of the posterior corners of the head as a pair of sharp, diverging ridges which form the mesial borders of distinct but shallow scrobes. Frontal area distinct but

shallow; frontal groove absent. Antenna short, 12-jointed; funiculi enlarged toward the tip, forming a very distinct 3-jointed club which is as long as the remainder of the funiculus, first funicular joint enlarged, nearly twice as long as broad, joints 2-8 short and transverse.

"Thorax stout, evenly convex above, without promesonotal and mesoepinotal sutures. Epinotum armed with a pair of long spines, which are placed rather low. Petiole and postpetiole very large, nodiform, the former narrow and subpedunculate anteriorly. Gaster broadly elliptical, formed very largely by the first segment. Sting small. Coxae small, legs stout, middle and hind tibiae spurless; tarsal claws simple."

Genotype: *Romblonella grandinodis* W. M. Wheeler (Fig. 1).

KEY FOR THE IDENTIFICATION OF THE WORKERS

1. Dorsal surface of first gastric segment densely and finely reticulate; epinotal spines approximately one-third of a millimeter in length..... 2
Dorsal surface of first gastric segment largely smooth and shining except for small scattered groups of fine reticulae which are without any definite pattern of arrangement*vitiensis*, n. sp.
2. Petiole, from above, not subpyriform, scarcely longer than broad (one-fifth longer than broad); dorsal surface of head with irregular reticulae; mandibles, antennae, legs and epinotal spines not remarkably lighter in color than body and therefore not forming a distinct, bicolored appearance.....
.....*grandinodis* W. M. Wheeler (fig. 1).
3. Petiole, from above, subpyriform, very distinctly longer than broad; dorsal surface of head with prominent longitudinal rugulae which have a longitudinal trend; bicolored in appearance..... 3
3. Thorax, petiole and postpetiole light brown or yellowish brown; thoracic sculpture very fine, consisting largely of dense and very fine reticulae.....*townesi*, n. sp.
Thorax, petiole and postpetiole black; thoracic sculpture much coarser than that of *townesi*; largely rugulose-reticulate, with the longitudinal rugulae predominating*yapensis*, n. sp.

***Romblonella grandinodis* W. M. Wheeler**

Romblonella grandinodis W. M. Wheeler, 1935, Proc. New England Zool. Club 15:7-9, worker, fig. 2.; Chapman and Capco, 1952 (1951) Rep. of Philippines Inst. Sci. and Tech. Monogr. 1, p. 114.

Worker: "Length 4-4.5 mm.

"Head as broad as long, subquadrate, slightly broader behind than in front, with broadly and feebly concave posterior border, rounded posterior and anterior corners and rather straight sides. Eyes oval, rather convex, antero-inferiorly angular or bluntly pointed, situated about twice their length from the anterior corners of the clypeus. Mandibles stout, convex, with rounded external borders, the masticatory borders armed with six stout, but rather blunt, subequal teeth. Anterior clypeal border sinuate at the sides, in the middle with broad, straight and slightly projecting lobe. Frontal area rather large, triangular, rugulose. Antennal scapes about twice as long as the distance of their tips from the posterior corners of the head, curved at the base and not quite reaching the ends of the scrobes. First funicular joint nearly twice as long as broad, joints 2-8 nearly twice as broad as long, 9 and 10 subequal, distinctly longer than broad, together equaling the more enlarged terminal joint. Thorax about two and one-half times as long as broad, broadest through the pronotum, its dorsal outline in profile evenly convex; pronotum broad, slightly broader in front than behind, rising rather abruptly from the strong neck, with rectangular humeri and similar but blunter posterior angles at its lateral junctions with the mesonotum. Mesonotum distinctly concave at the sides, as long as the base of the epinotum which is shorter than the steep, concave declivity, the spines somewhat longer than their distance apart at the base and as long as the epinotum, directed backward and outward and distinctly curved inward. Being

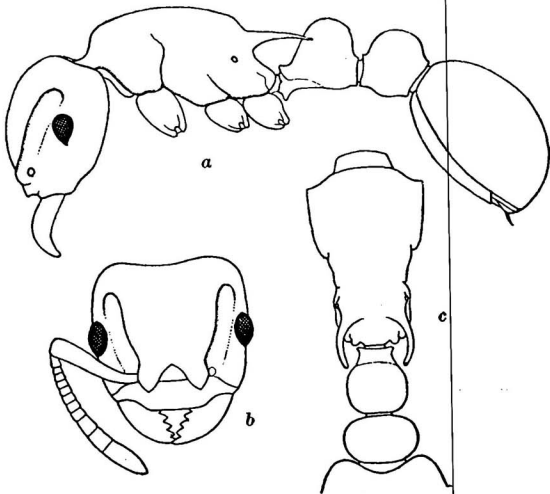


Figure 1. *Romblonella grandinodis* Wheeler. Worker: a. lateral aspect; b. head, dorsal aspect; c. thorax and petiole, dorsal aspect (after Wheeler).

somewhat flattened dorso-ventrally, they appear more tapering and more acute in profile than when seen from above. Metasternal lobes distinct. Petiole nearly two-thirds as broad as the epinotum, about one-third longer than broad, broader behind than in front, where it is subrectangular, with the sides rounded behind; in profile it is nearly as high as long, with an acute antero-ventral tooth and the node, which is as high as the epinotum, strongly rounded—cuboidal, from above more hemispherical. Post-petiole about one-third broader than the petiole, nearly twice as broad as long, elliptical and strongly convex but lower than the petiolar node. Gaster about as large as the head, broadly and regularly elliptical, anterior border of first segment concave. Femora incrassated in the middle, tibiae stout and clavate.

"Sub-opaque; mandibles, antennae, coxae and legs distinctly shining. Mandibles coarsely longitudinally striate and sparsely punctate; remainder of body very finely and sharply reticulate, with the minute spaces between the reticulations shining under a high magnification and with the following superimposed rugosity: Head reticulate-rugose, the main rugae between the frontal carinae and on the broad median portion of the clypeus regular and longitudinal; scrobes reticulate, crossed by a few delicate rugules and bounded laterally by a longitudinal ruga; occiput, cheeks and sides of head more coarsely reticulate-rugose. Neck coarsely reticulate, thoracic dorsum reticulate-rugose, very coarsely on the pronotum, less sharply and less regularly on the mesonotum and base of epinotum; meso- and metapleurae, especially below, longitudinally rugose; declivity of epinotum sharply reticulate; nodes of petiole and postpetiole even more coarsely reticulate-rugose than the pronotum; gaster sharply but minutely reticulate throughout; scapes and legs with similar but less pronounced sculpture.

"Pilosity glistening white, moderately abundant, short, coarse, obtuse, erect, even and uniformly distributed over the body and appendages, somewhat longer on the abdomen than on the head and thorax, more oblique on the legs, on the antennae

somewhat finer, sub-erect on the scapes, sub-appressed on the funiculi. Pubescence undeveloped.

"Brown-black or very dark brown; mandibles, antennae and legs, including the coxae, and tip of gaster slightly paler, castaneous; tarsi more reddish.

"Described from four specimens taken May 6, 1928 by Senor L. Marato on Romblon Island, Philippines, and received from Dr. J. W. Chapman."

Romblonella yapensis, new species

Worker: Length 3.9 mm.

Head subquadrate, only very slightly longer than wide, with weakly convex or subparallel sides, rounded posterior corners and straight, or non-emarginate posterior border. Eye moderately large, oval, convex, not angular or bluntly pointed anteroventrally, with approximately 16 ommatidia in its greatest length; placed closer to the posterior than the anterior border of the head. Mandible about normal in size, subtriangular, the masticatory border with six teeth, the apical three of which are very distinct. Clypeus extended posteriorly between the frontal carinae, the anterior border sinuate laterally, in the middle forming a broad, projecting lobe which is almost straight transversely. Frontal area poorly defined, subtriangular, largely hidden by the rugulose sculpturing. Antenna short, 12-segmented; scape lacking approximately one-fifth of a millimeter of attaining the posterior border of the head, lying in a scrobe about the length of the scape, the mesial border of which is formed by the posteriorly diverging frontal carina, exterior border of scrobe without a carina; funiculus bearing a distinct 3-segmented club, which is clearly longer than the remainder of the funiculus, the second through the seventh funicular segments broader than long. Thorax dorsally without promesonotal and mesoepinotal sutures, widest at the pronotum which is distinctly angular anterolaterally and posterolaterally. Epinotum bearing a pair of dorsoventrally flattened spines which are about one-third of a millimeter in length, divergent basally and then becoming subparallel toward the apex, their tips not noticeably acute. Thorax, in profile, very noticeably arched anteroposteriorly, with the epinotal spines not strongly directed dorsally. Epinotal declivity beneath the spines with a pair of distinct, longitudinal carinae. Legs with incrassated femora, middle and hind tibiae without spurs, tarsal claws simple. Petiole, in profile, voluminous, the node somewhat subquadrate, with nearly perpendicular posterior face, rounded dorsal border, and long, inclined, almost straight anterior face; from above, the petiole is distinctly longer than broad, subpyriform. Postpetiole also voluminous; from above, transversely elliptical, about two-thirds as long as broad, and convex dorsally. Gaster elliptical, without basal humeri, the first segment occupying most of the dorsal surface.

Mandibles longitudinally striate and also sparsely punctate. Clypeus with a distinct median and a number of lateral carinae which are longitudinal in trend. Dorsal surface of head, especially the space between the frontal carinae with prominent, longitudinal rugulae. Antennal scrobes finely reticulate for the most part. Cheeks and sides of head rather coarsely rugulose-reticulate. Dorsal surface of thorax rugulose-reticulate, with the rugulae not especially coarse and usually with a longitudinal trend and dominating the reticulae. Sides of prothorax with coarse, longitudinal rugulae. Dorsal surfaces of petiolar and postpetiolar nodes finely reticulate with superimposed longitudinal rugulae. Dorsal surface of gaster finely and densely reticulate.

Hair moderately abundant, rather uniformly distributed on the body, white, short, coarse, erect, obtuse and nearly of equal length except at the apex of the gaster. Hairs on legs and scapes apparently shorter and more oblique. Pubescence on body very sparse or lacking.

Black, with reddish brown mandibles, antennae, and legs, the two colors being in strong contrast to each other. Epinotal spines also largely reddish brown, especially in some lights.

Type locality — Yap Island, R. J. Goss collector.

Described from a holotype and five paratype workers. All workers except one bear the label, "Centr. Yap Id., Yap Group, Jul.-Au. 50, R. J. Goss," the remaining specimen, a paratype worker, has a label that reads, "Tomil Dist., Yap Group, Jul.-Au. 50, R. J. Goss." The holotype and a single paratype worker have been assigned U. S. N. M. No. 61632

and placed in the collection of the United States National Museum. Two paratype workers each have been deposited in the Museum of Comparative Zoology, Cambridge, Massachusetts, and the Bishop Museum, Honolulu, Hawaii.

Paratypes are very similar to the holotype except for variations in the coarseness of the major sculpturing.

Romblonella vitiensis, new species

Worker: Length 4.1 mm.

Head subquadrate, only very slightly longer than broad, with weakly convex or subparallel sides, rounded posterior corners and faintly emarginate posterior border. Eye moderately large, oval, convex, placed closer to the posterior than the anterior border of the head. Mandible about normal in size, subtriangular, with such badly worn teeth that it is impossible to discern the exact original number. Clypeus extended posteriorly between the frontal carinae, the anterior border sinuate laterally, in the middle forming a broad projecting lobe which is almost straight transversely, the lobe with an impression near the center of the anterior border. Frontal area small, subtriangular, impressed, not clearly defined. Antenna short, 12-segmented; scape lacking approximately one-fifth of a millimeter of attaining the posterior border of the head, lying in a scrobe about the length of the scape, the mesial border of which is formed by the posteriorly diverging frontal carina, the exterior border of the scrobe without a carina; funiculus bearing a distinct 3-segmented club, which is clearly longer than the remainder of the funiculus, the second through the seventh funicular segments broader than long. Thorax dorsally without promesonotal and mesoepinotal sutures, widest at the pronotum which is distinctly angular anterolaterally and posterolaterally. Epinotum bearing a pair of spines which are about one-fifth of a millimeter in length and are directed lateroposteriorly and also somewhat dorsally, the spines not subparallel toward the apex as in *yapensis*. Epinotal declivity with a pair of longitudinal carinae beneath the spines. Legs with incrassated femora and tibiae, the middle and hind tibiae without spurs, the tarsal claws simple. Petiole in profile voluminous, the node subrectangular, with rounded dorsal border, short, sloping posterior face and long, inclined, almost straight anterior face; from above, the petiole is scarcely longer than broad, and with a node which is about one-fourth broader than long and subhemispherical. Postpetiole, in profile, not as high or as voluminous as the petiole; from above, the postpetiolar node is transversely elliptical, approximately one and one-third times as broad as long, with rather straight anterior and posterior face and rounded sides. Gaster elliptical, without basal humeri, the first segment occupying most of the dorsal surface.

Mandibles longitudinally striate and also sparsely punctate. Clypeus laterally with a number of longitudinal carinae but lacking the median carina of *yapensis*. Surface of head between the frontal carinae coarsely rugulose-reticulate, the rugulae with a general longitudinal trend, the interspaces finely reticulate. Antennal scrobe largely reticulate but also with a few, transverse rugulae. Cheeks and sides of head rather coarsely reticulate with finely reticulate interspaces. Pronotum rather coarsely reticulate, the mesonotum and epinotum more finely so, the interspaces also finely reticulate. Propleuron and mesopleuron largely longitudinally rugulose with reticulate interspaces. Dorsal surface of petiolar and postpetiolar nodes rugulose-reticulate with finely reticulate interspaces, the sculpturing somewhat intermediate in character between that of the head and thorax. Dorsal surface of gaster largely smooth and shiny, with small groups of fine reticulae scattered here and there, which do not seem to form a definite pattern and are not readily observed upon superficial examination.

Hair of about the same character and abundance as with *yapensis*.

Body dark brown, with lighter mandibles, antennae and legs.

Type locality — Wakaya, Fiji Islands, E. H. Bryan.

Described from a holotype worker collected October 17, 1924. The holotype has been placed in the Bishop Museum, Honolulu, Hawaii.

Romblonella townesi, new species

Worker: Length 4 mm.

Head subquadrate, slightly longer than broad, with weakly convex or subparallel sides and almost straight posterior border. Eye moderately large, oval, convex, placed almost equidistant from the anterior and posterior border of the head. Mandible about normal in size, subtriangular, the masticatory border with six teeth. Clypeus extending posteriorly between the frontal carinae, the anterior border sinuate laterally, in the middle forming a broad, projecting lobe which is almost straight transversely. Frontal area poorly defined, subtriangular, somewhat obscured by the rugulose sculpturing. Antenna short, 12-segmented, scape lacking approximately one-fifth of a millimeter of attaining the posterior border of the head, lying in a scrobe about the length of the scape, the mesial border of which is formed by the posteriorly diverging frontal carina, exterior border of scrobe without a lateral carina; funiculus bearing a distinct 3-segmented club, which is clearly longer than the remainder of the funiculus; the second through the seventh funicular segments broader than long. Thorax dorsally without promesonotal and mesoepinotal sutures, widest at the pronotum which is angulate anterolaterally and posterolaterally. Epinotum bearing a pair of well developed spines which are approximately one-third of a millimeter in length, curved outwardly at the base and becoming more subparallel apically; in profile the spines are almost horizontal and the basal half of each spine is much wider than the apical half. Thorax, in profile, noticeably and rather evenly arched anteroposteriorly. Legs with incrassated femora, middle and hind tibiae without spurs, tarsal claws simple. Petiole, in profile, voluminous, the node somewhat subquadrate, with long, inclined, almost straight anterior face, rounded dorsal border and sloping posterior face; from above, the petiole is subpyriform, approximately three-fifths as broad as long. Postpetiole also voluminous; from above transversely elliptical, about two-thirds as long as broad, convex dorsally. Gaster elliptical, without basal humeri; the first segment occupying most of the dorsal surface.

Mandibles longitudinally striate, also sparsely punctate. Clypeus with several distinct, longitudinal carinae, the interspaces finely reticulate. Dorsal surface of head, especially the space between the frontal carinae largely longitudinally rugulose, the interspaces finely reticulate. Most of the antennal scrobe reticulate. Cheeks rugulose-reticulate. Dorsal surface of thorax weakly sculptured, the ground surface consisting of very fine and dense reticulae. Through much of the promesonotum there are also some weakly developed longitudinal rugulae which are not easily discernible because of the nature of the color of the thorax. Petiole and postpetiole very feebly sculptured, the sculpture also not easily discernible because of the color of the two. Dorsal surface of first gastric segment densely and finely reticulate, sub-opaque in some lights, more shining in others.

Pilosity in general, similar to that of the other species.

Thorax, petiole and postpetiole light brown or yellowish brown; head, gaster and appendages darker, almost blackish, especially the head and gaster, the two colors in decided contrast. Posterior corners of the head lighter than the remainder of the dorsal surface.

Type locality — Mt. Lasso, Tinian Island.

Described from a holotype and two paratype workers collected June 12, 1946, by H. K. Townes, which bear his collection number 646. The holotype and paratypes have been placed in the United States National Museum and assigned No. 61633. The species is named in honor of Dr. Townes. The paratypes differ from the holotype mainly in size, one is 3.8 mm. long, the other 4.4 mm.

Belonging to this same species but not designated as types are three workers collected on Tinian, June 8, 1946, by Townes and bearing collection number 488; also a single worker collected in Marpo Valley, Tinian Island, June 8, 1946, by R. G. Oakley, bearing the number 517. These have not been included in the description because they belong to different series from the types. All these specimens have been placed in the United States National Museum.