Hyattsville, Maryland; a daughter, Mrs. Daniel Dillon, the wife of the naval port inspector at Kodiak, Alaska; and by three grandchildren.

A NEW FUNGUS-GROWING ANT FROM ARIZONA
(HYMENOPTERA, FORMICIDAE)

A. B. GAHAN LOUISE M. RUSSELL CARL H. HEINRICH

# CARL II. HEINRICH

By L. F. Byars, Bureau of Entomology and Plant Quarantine, United States Department of Agriculture

While living in Nogales, Arizona, the writer discovered several ants of the genus *Trachymyrmex* on the porch of his residence. No nest was found, only single foraging workers, until one night when a number of workers appeared from a crack between the porch and the sidewalk, so that a series of specimens was secured. M. R. Smith, of this Bureau, determined them as belonging to an undescribed species of *Trachymyrmex* near *T. arizonensis*, and suggested that they be described as a new species.

### Trachymyrmex nogalensis, new species

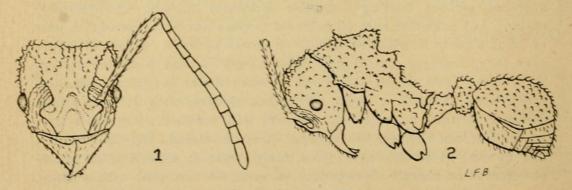
Worker (figs. 1 and 2). Length 5.0 mm. Head hardly broader than long excluding the mandibles, subquadrate, broadest just behind the eyes, with sides nearly straight and parallel; posterior border straight, with faint median impression and bluntly rectangular corners. Mandibles with external borders making obtuse angles with sides of head; apical borders each with two large apical teeth and twelve or thirteen smaller basal teeth. Clypeus flattened, its anterior border sinuately convex, with a narrow semicircular median excision. Lobes of frontal carinae large, with bluntly angular external borders; carinae continued posteriorly as sinuate ridges which curve laterad, then turn toward posterior border of head before disappearing. Preorbital carinae curving mesad across antennal scrobes to join frontal carinae; anterior part of antennal scrobes bearing irregular striations parallel to preorbital carinae, but posterior part of antennal scrobes not well defined. A pair of faint sinuate longitudinal ridges on vertex of head. Antennal scapes very long, reaching almost half their length beyond posterior corners of the head, and slightly thickened in their distal one-third; funiculus symmetrical, without a club. Prothorax slender, with inferior spines directed forward as well as downward and outward. Pronotum with superior spines slender, tuberculate, directed laterad, slightly forward, and upward at an angle of about forty degrees; anteromedian spines obsolescent or absent. Mesonotum on each side in front with a large, stout, rounded protuberance, and behind with two progressively smaller blunt protuberances, all tuberculate. Meso-epinotal constriction prominent. Base of epinotum on each side with a distinct longitudinal ridge, terminating posteriorly in a short, slender spine which is directed upward and backward, very slightly outward. A longitudinal row of tubercles at the base of the pronotal spine on each side becomes consolidated posteriorly to form a ridge parallel and lateral to the epinotal ridge, but less distinct. Petiole with a short, slender peduncle; node from above as broad as long, with parallel sides, bearing lateral tubercles and a dorsal ridge on each side, each of the latter produced midway into a short spine or tubercle. Postpetiole more than twice as broad as petiole, broader behind than in front, its posterior border with a small lobe on each side and a broad rounded excision in the middle. Gaster oval, broadest slightly behind the middle, with a shallow longitudinal impression on the anterior one-third of the dorsum of its first segment. This impression forms the posterior unit of a marked dorsal groove which extends from pro-mesonotum to gaster. Legs and body long and slender.

Mandibles and clypeal border shining, the former finely striate, even more finely punctulate between striations, the latter punctulate only; antennal funiculus faintly shining in some aspects, subopaque in others. Remainder of body, legs, and antennal scapes opaque or subopaque, densely and finely punctate. The spines and protuberances, the front, posterior corners and occiput of the head, the thoracic pleura and dorsum (except the mid-dorsal groove from mesonotum to postpetiole), the lateral and dorsal surfaces of petiole, postpetiole, and gaster beset with numerous rather acute tubercles. These are largest on the protuberances and corners of the head, very numerous on the gaster, and small or vestigial on the legs and antennal scapes.

Hairs reddish-golden, pointed, curved, suberect, at the tips of the tubercles; on the legs and antennal scapes suberect to reclinate. Pubescence of the antennal funiculi pale golden, reclinate.

Color light ferruginous brown; teeth of mandibles black, external borders dark brown; vertex of head with a large circular infuscation; ridges and tips of tubercles dark brown.

Female (dealate). Length 6.1 mm. Similar to the worker, but larger, with sculpture coarser, more distinct; pro-mesonotum longitudinally



TEXT FIGURES, TRACHYMYRMEX NOGALENSIS. Fig. 1, worker head; fig. 2, worker, lateral view.

rugulose, without protuberances. Pronotal superior spines directed laterad or slightly upward. Meso-metanotal suture, vertex, borders of mandibles, and carinae dark brown to black, so that the female has a darker aspect than the worker.

Described from holotype No. 60411 in the U. S. National Museum, and numerous paratypes in the Museum and in the writer's collection. Type locality: Nogales, Arizona. The workers were collected at the nest entrance at night, October 1, 1946; the female was found near the nest entrance on July 10, 1947, and an alate female was taken in a nearby house August 5, 1948. The males are still unknown; the nest was under a house and could not be excavated.

In Dr. W. M. Wheeler's key to species of Trachymyrmex (1911), this species belongs in the arizonensis-saussurei complex, but is distinct from both those species. The third couplet of Dr. W. S. Creighton's key to North American species (1950) offers a choice of a pro-mesonotum with spines or with flattened cones, but the pro-mesonotum of T. nogalensis has a pair of large rounded protuberances, and the humeral angles of its pronotum have distinct spines. T. nogalensis can also be distinguished from T. arizonensis by the longer antennal scapes, the sinuate posterior ridges of the frontal carinae which are joined by the preorbital carinae, the pronounced dorsal groove extending from the pro-mesonotum to the gaster, and the more slender body.

#### LITERATURE CITED

Creighton, W. S., 1950. The ants of North America. Harvard Univ. Mus. Compar. Zool. Bul. 104:1-585, illus.

Wheeler, W. M., 1911. Descriptions of some new fungus-growing ants from Texas, with Mr. C. G. Hartman's observations on their habits. N. Y. Ent. Soc. Jour. 19(4):245-255, illus.

## ENTOMOLOGICAL SOCIETY OF WASHINGTON 604TH REGULAR MEETING, DECEMBER 7, 1950

The 604th regular meeting of the Society was called to order at 8 P.M., Thursday, December 7, 1950, by President W. B. Wood, in Room 43 of the U. S. National Museum. Twenty members and 16 visitors were present. The minutes of the preceding meeting were read and approved.

The Society elected the following to membership:

Frederick Stansbury Haydon, 7208 Ramsgate Road, Washington 16, D. C.

Alan Stone, First Vice President of the Society took the Chair while President W. B. Wood read a summary report on the state of the Society and the activities of the officers. This report was accepted as read.



1951. "A new fungus-growing ant from Arizona (Hymenop-tera, Formicidae)." *Proceedings of the Entomological Society of Washington* 53, 109–111.

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