

from Deep Canyon by Wheeler and Wheeler (1973) as *placodops* are based on specimens which I misidentified as that species. In my paper (Snelling 1969) on the *melliger* group I attempted to separate the two by the broader head and more obscurely punctate frontal lobes of *placodops*. The result is far from satisfactory, for some workers of *semirufus* do have the head wider than long, though the percentage of such individuals is much lower in *semirufus* than in *placodops*. That character, at least, is not to be relied upon.

The sculpturation of the frontal lobes is another matter, and I am forced to rely upon it, even though it is not wholly satisfactory.

In most workers of *semirufus* the frontal lobes are shiny and the surface is beset with numerous sharply defined, round punctures, the largest of which are about one-third greater than the smallest. The interspaces vary from as little as one-fourth a puncture diameter to slightly more than a puncture diameter. Similar, but more widely spaced, punctures are usually present on the face between the frontal lobe and the eye; these punctures are less sharp than those of the frontal lobes and the interspaces are distinctly tessellate and less shiny. From these facial punctures emerge short (about 0.06 mm long) stiff, erect hairs. The malar area has scattered coarse punctures which are clearly several times greater in diameter than the hairs arising from them. This is, in fact, generally true: the cephalic hairs arise from punctures conspicuously greater in diameter than the hairs. Between the ocelli of *semirufus* the surface is closely micropunctate; these punctures extend up onto the occiput, continuing back nearly to the foramen. On the occipital summit they occupy the middle one-third or more of the dorsum.

From the above conditions *placodops* differs. The surface of the frontal lobes is dull, often very closely tessellate. When punctures are sharp, their presence is greatly obscured by dense tessellation. Often, however, the punctures are shallow and not well defined. The face, between the eye and the frontal lobe is dull, finely tessellate; as a rule, the only punctures present are the micropunctures from which the pubescence emerges. A few coarse punctures may be present near the inner eye margin and in an arc laterad from the top of the frontal lobe.

The erect hairs of the malar area often arise from poriform punctures. Some of the hairs may emerge from punctures which hardly exceed the diameter of the hairs. In large workers the erect cephalic hairs, except those of the clypeus and frontal lobes, may all arise from such poriform punctures. In small workers these punctures may be present on the occiput.

The area between the ocelli is often not micropunctate in *placodops*. When micropunctures are present, as in *semirufus*, they usually are limited to the ocellar area. Seldom do they extend back to the summit of the occiput and seldom, or never, approach the foramen. When they are present they usually are found only

immediately behind the ocelli, not extending laterad as in *semirufus*.

The most common variations of *semirufus* include more tessellate frontal lobes, a sporadic nest variant, weakening of facial punctures (Morongo Valley and some Deep Canyon samples) and weakening of occipital micropunctures (Morongo Valley and sporadic nidovariants elsewhere). In general these cephalic characters, even though they must be studied with care, seem to be the only effective means of separating workers. In color the two are similar, but *semirufus* often lacks dark areas on the thorax. Some samples, especially those from Deep Canyon and Independence, are fully as dark as *placodops*.

The distribution of *semirufus* appears to lie wholly to the west of that of *placodops*. They may become sympatric in the mountain ranges of the central Mojave Desert.

MIMICUS GROUP

Myrmecocystus (Endiiodictes) depilis Forel

Figures 73–82, 158, 170, 182, 190

Myrmecocystus melliger var. *depilis* Forel 1901. Ann. Soc. Entomol. Belg. 45:135. ♀; Cole 1934. Ann. Entomol. Soc. Amer. 27:402.

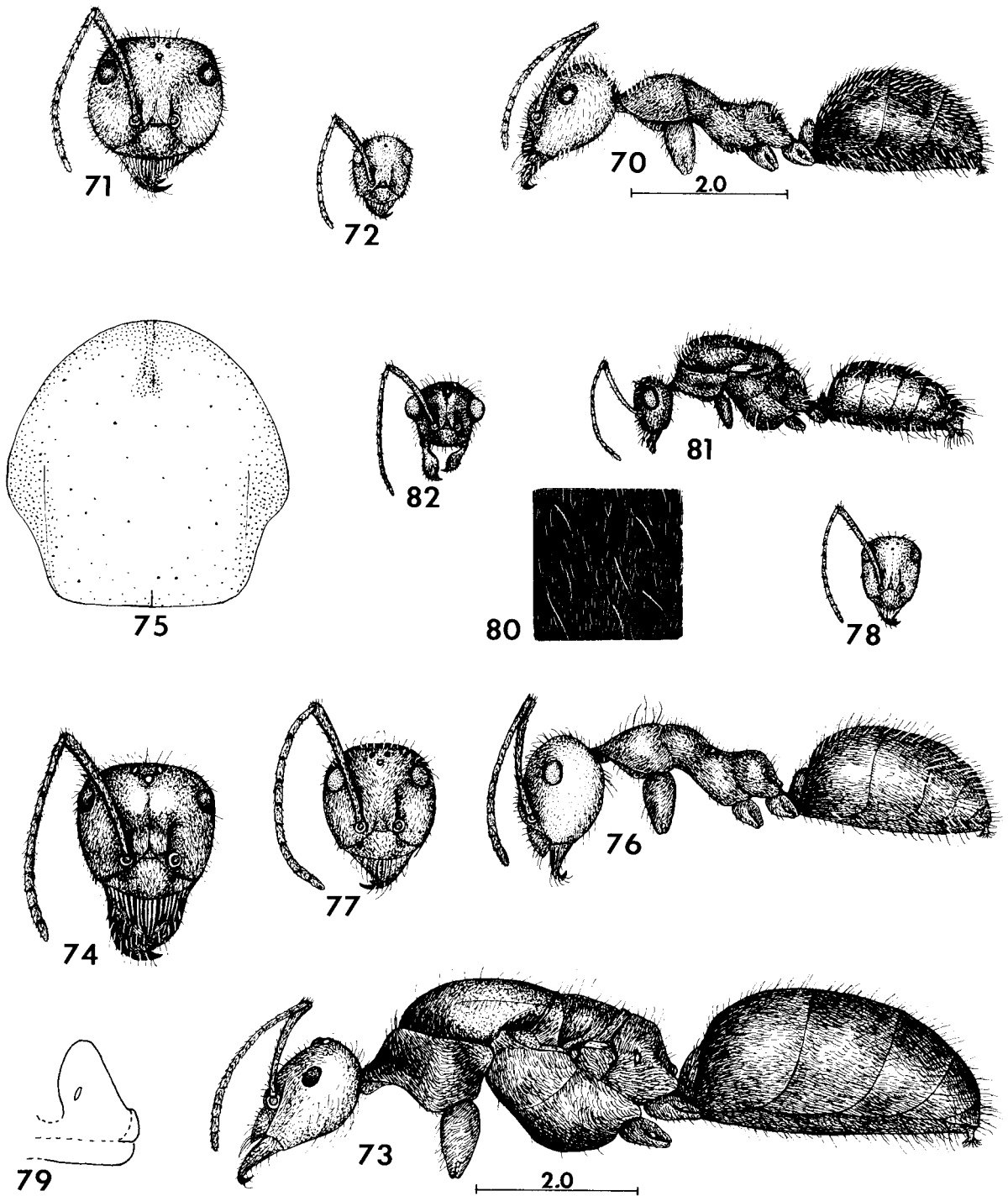
Myrmecocystus melliger subsp. *mimicus* var. *depilis*, Wheeler 1908. Bull. Amer. Mus. Nat. Hist. 24:354. ♀ (*in part*); Wheeler 1913. Psyche 19:173; Cook. 1953. The ants of California 342–343 (*in part*).

Myrmecocystus mimicus, Creighton 1950. Bull. Mus. Comp. Zool. 104:446–448 (*in part*); Cazier and Statham 1962. Jour. N. Y. Entomol. Soc. 70:125–149 (*in part*); Cazier and Mortenson 1965. Jour. Kans. Entomol. Soc. 38:19–44 (*in part*).

Diagnosis. Worker: Malar area with few or no erect hairs in frontal view; gaster blackish, head and thorax extensively infuscated; some pronotal hairs longer than EL in large workers; large workers with abundant, medias and minors with scattered, pubescence on disc of third tergum. *Female:* OMD 1.6 or more \times EL; longest occipital hairs about equal MOD, longest scutal hairs about 0.5 \times MOD; parapsis closely, uniformly punctate; malar area with fewer than eight erect hairs. *Male:* Posterior half of mesoscutum very superficially tessellate; gastric pubescence very sparse; longest occipital hairs about 0.75 \times MOD; longest scutal hairs less than 0.75 \times MOD; OMD 1.13–1.54 \times EL.

WORKER. Measurements. HL 0.90–1.53; HW 0.77–1.50; SL 1.10–1.67; WL 1.3–2.3; PW 0.6–1.0.

Head: Distinctly to slightly longer than broad, CI 80–98 (89), shorter than scape, SI 105–128 (120); sides of head, in frontal view, straight in small workers, slightly convex in large workers, slightly convergent toward mandibular base. Occiput, in frontal view, gently and evenly convex in small, medially flattened in large workers. Eye small, 0.89–1.36 \times first flagellomere; OMD 1.45–2.00 \times EL. Mandible with seven teeth.



FIGURES 70-72. *M. intonsus*. 70, major worker, lateral view; 71, head of major worker, frontal view; 72, head of minor worker, frontal view. Figs. 73-82. *M. depilis*. 73, female, lateral view; 74, head of female, frontal view; 75, mesoscutum of female, distribution of punctures; 76, major worker, lateral view; 77, head of major worker, frontal view; 78, head of minor worker, frontal view; 79, petiole of major worker, lateral view; 80, major worker, vestiture of third tergum; 81, male, lateral view; 82, head of male, frontal view.

Thorax: Slender, PW 0.40–0.46 (0.43) \times WL. Propodeum, in profile, with basal face flat or slightly convex, juncture with posterior face narrowly rounded.

Petiole: In profile, thickly cuneate, summit bluntly rounded; in frontal view, crest evenly rounded, rarely with shallow median notch.

Vestiture: Pubescence sparse on head, abundant on thorax and first three terga (sparse or absent on third tergum in media and minor worker).

Cephalic hairs numerous on frons and occiput, some on occiput exceptionally long, slender and flexuous, subequal to EL; malar area, in frontal view, with at most three widely spaced, erect, short hairs, often none. Promesonotum with numerous erect hairs, some long, slender, flexuous (in large workers equal to or exceeding EL, in small workers usually about equal to MOD); base and side of propodeum with abundant erect hairs, some of which may equal or exceed $0.5 \times$ MOD. Side and crest of petiole with numerous erect hairs, some of which may equal longest of propodeum. Terga with numerous long, erect hairs, longest on disc of second segment more than $0.5 \times$ MOD; longer on apical segments and on sterna. Scape with erect hairs short, sparse, hairs mostly separated by more than twice their length; more abundant on femora and tibiae, but still sparse (those of any row on tibiae mostly separated by about twice their length).

Integument: Head moderately shiny, lightly shagreened, with scattered fine punctures in malar area and on face below vertex; occiput behind ocelli densely, finely punctate; frontal lobes closely, more coarsely punctate. Thorax slightly shiny, lightly shagreened and closely micropunctate, more coarsely so on propodeum. First two terga slightly shiny, lightly shagreened and closely micropunctate; third tergum similar (majors and most mediae) or subpolished and very sparsely punctate (minors and some mediae).

Color: Head, thorax, petiole and appendages medium ferruginous, often almost entirely brownish, but with brownish infuscation at least on vertex, propodeum, petiole and legs; gaster medium brown to blackish brown.

FEMALE: Measurements. HL 1.77–1.97; HW 1.83–2.04; SL 1.63–1.73; WL 4.0–4.5; PW 2.2–2.6.

Head: Usually slightly broader than long, CI 100–107, longer than scape, SI 88–93. In frontal view, margins nearly straight, slightly convergent toward mandibular base. Occiput, in frontal view, flattened in middle, sides evenly rounded onto lateral head margins. Eye small, 1.0–1.27 times length of first flagellomere, OMD 1.62–1.93 \times EL. IOD 2.9–3.7 \times OD; OOD 4.3–5.7 \times OD. Penultimate segment of maxillary palp narrow, spindle-shape, narrower at apex than at base. Mandible usually with eight, sometimes with seven, teeth.

Thorax: Robust, PW 0.52–0.59 \times WL. Posterior half of mesoscutum and anterior two-thirds of scutellum flattened, scutellum convex behind. Propodeum, in pro-

file, with base narrow, poorly defined, broadly rounded onto posterior face.

Petiole: In profile, compressed-cuneate, crest narrowly rounded; crest, from front, distinctly angularly notched; from above about twice wider than long.

Vestiture: Erect hairs general on head, least abundant on malar area, where fewer than six are present on each side; occipital hairs variable in length, longest about equal to MOD; longest hairs on clypeal disc equal to about $0.5 \times$ MOD. Mesoscutal hairs sparse, short, longest about $0.5 \times$ MOD; scutellar hairs more variable, some about equal to EL; longest pleural hairs about equal to MOD; propodeum with numerous erect hairs on side and across base, longest equal to about $0.5 \times$ MOD. Petiole with numerous short, erect hairs on side and crest. Terga with numerous erect hairs, progressively longer on succeeding segments, longest on disc of second segment about equal to MOD. Fore femur without long erect hairs on inner face, a few short, erect hairs near lower margin. Tibiae with numerous suberect hairs which are about as long as minimum thickness of hind tibia. Scape with numerous fine erect hairs on outer and lower faces. Fore and hind wings without fringe hairs.

Pubescence sparse on head, most conspicuous on malar area and occiput; moderately long and dense on most of thorax, inconspicuous on scutum (except on parapsis and along anterior margin), sparse on scutellum; dense on first four terga.

Integument: Head moderately shiny, surface microreticulate; frontal lobes densely punctate, punctures of several sizes; clypeus duller, with scattered coarse punctures; face more sparsely and coarsely punctate than frontal lobes; malar area similar, but punctures denser; occiput finely and densely punctate. Mesoscutum shiny, center of disc impunctate, otherwise disc sparsely punctate, punctures of two sizes, parapsis with uniformly dense fine and irregularly scattered coarse punctures. Scutellum finely punctate, punctures evenly spaced, separated by about a puncture diameter. Mesopleura slightly shiny, with fine punctures separated by one-fourth to one-half a puncture diameter, those of anepisternum a little finer and more uniformly spaced than of katepisternum; metapleura and propodeum dull, roughened, with close, fine punctures and scattered coarse punctures. First four terga densely, finely piligerously punctate, without areas of sparse punctation of discs.

Color: Head light ferruginous, thorax and gaster medium to dark brownish, mesoscutal disc sometimes lighter; antennae and legs light brownish. Wings whitish, subcostal vein dark brownish, remaining veins and stigma yellowish brown.

MALE: Measurements. HL 0.83–0.93; HW 0.83–0.97; SL 0.93–1.03; WL 1.83–2.34; PW 1.13–1.30.

Head: Slightly longer than broad to slightly broader than long, CI 96–104, shorter than scape, SI 107–119; in frontal view, sides straight, evenly convergent below;

occiput, in frontal view, evenly convex from side to side, without perceptible lateral angles. OMD 1.13–1.54 × EL; OOD 2.4–3.0 × OD; IOD 2.3–3.0 × OD. Mandible without preapical notch or basal denticles.

Thorax: Robust, PW 0.53–0.64 × WL. Propodeum with narrow basal face broadly rounded onto posterior face.

Petiole: Cuneate in profile, summit narrowly rounded; crest, in frontal view, weakly notched to broadly, shallowly concave.

Vestiture: Pubescence everywhere sparse, more conspicuous on pleurae and sides and base of propodeum.

Pilosity short on frons, longer on malar area and behind eye, longest on occiput, longest occipital hairs about equal to MOD. Mesonotum with numerous erect hairs, longest less than 0.75 × MOD; some scutellar hairs longer, subequal to EL; longest pleural hairs about equal to MOD; side of propodeum with long, flexuous hairs, basal face with shorter hairs. Petiole with short, erect hairs on sides and crest. Gaster with long, flexuous hairs, longer and more abundant caudad. Scape, femora and tibiae with abundant erect to suberect short, stiff, acuminate hairs. Wings without fringe hairs on apical or posterior margins.

Integument: Head moderately shiny, distinctly shagreened, more distinctly so on malar area and gena; with scattered, obscure, piligerous punctures. Discs of scutum and scutellum shiny, very superficially shagreened, parapsis duller, more sharply shagreened. Pronotum, pleurae and propodeal base and sides duller, distinctly shagreened; disc of propodeum shiny and smooth. Most of dorsum of first tergum and narrow discal areas of second and third terga, nearly smooth, shiny and very superficially shagreened; remainder of these and other segments duller, more distinctly shagreened; all segments with scattered piligerous punctures.

Color: Blackish brown; mandibles, antennae and legs medium brown. Wings whitish, veins and stigma pale brownish.

Terminalia: Figures 170, 182, 190.

Type Material. Two cotypes from Pacheco, Zacatecas, Mexico, no date, collected by W. M. Wheeler. One, without gaster, selected as Lectotype, is in the MNHG; the other is in the AMNH.

Distribution. Western Texas to southern Nevada, south to central Mexico (Fig. 363).

Localities: UNITED STATES. Texas: *El Paso Co.:* El Paso, 11 July 1917 (LACM); Sierra Blanca, 8 July 1917 (LACM). *Ward Co.:* Monahans, 4 Dec. 1901 (W. M. Wheeler; AMNH, LACM, MCZ). *Pecos Co.:* Ft. Stockton, 8 July 1917 (Cornell Univ. Exped.; CU); same locality, 9 Dec. 1901 (W. M. Wheeler, AMNH). *Brewster Co.:* Garden Spring, Marathon, 12, 14 July 1933 (W. S. Creighton; LACM); Chisos Mts., 4000', no date, (W. B. Phillips; AMNH); 37 mi SW Alpine, 4000', 19 Aug. 1967 (R. R. Snelling, No. 67–248; LACM); 5 mi E Alpine, 15 May 1965 (A. E. Lewis; LACM). *Val Verde Co.:* Del Rio, 2 June 1902 (W. M. Wheeler; AMNH, GCW); same locality, 3 July 1917 (Cornell Univ. Exped.; CU). *New Mexico: Sierra Co.:* Truth or Consequences, 4240', 31 Mar.

1962 (LACM). *Otero Co.:* Alamogordo, 4320', 1–2 July 1917 (W. M. Wheeler; MCZ); same locality, no date (G. von Krockow; AMNH, MCZ); White Sands, 3 May 1960 (J. Durkin; USNM). *Doña Ana Co.:* Aden, 12 July 1917 (Cornell Univ. Exped.; CU); same locality and date (W. M. Wheeler; MCZ); Jornada Experimental Range, 4000', various dates and collectors (CAK, LACM); Mesilla Park, 12 July 1917 (W. M. Wheeler, J. Bequaert; MCZ). *Luna Co.:* Deming, 10 July (T. D. A. Cockerell, No. 1354; AMNH); 23 mi S Deming, 24 Aug. 1959 (G. C. & J. Wheeler, N. Mex. No. 2; GCW). *Grant Co.:* Lordsburg, 13 July 1917 (LACM); same locality, 1 May 1942 (A. L. Melander; LACM). *Hidalgo Co.:* 22 mi N Rodeo, 4500', 13 Aug. 1967 (R. R. Snelling; LACM); Rodeo, 3900', 13 Apr. 1910 (S. J. Hunter, No. 1885; MCZ). *Arizona. Cochise Co.:* Bowie, 14 July 1917 (W. M. Wheeler; MCZ); Benson, 3600', 9, 20 Nov. 1910 (W. M. Wheeler; AMNH); Portal, 30 Mar. 1973 (R. Duffield; LACM); same locality, 5 Aug. 1955 (W. Gertsch & E. Ordway; AMNH); 2.5 mi NE Portal, 4–19 Aug. 1959 (M. Cazier & M. Statham; AMNH, LACM); 5.3 mi NE Portal, 9 Mar. 1962 (M. Cazier; AMNH, LACM); 6.1 mi NE Apache, 4550', 14–15 Aug. 1967 (R. R. Snelling, No. 67–225; LACM); nr. Douglas, 11 Oct. 1964 (R. R. Snelling; LACM); 25 mi E Douglas, 4000', 24 Sept. 1951 (W. S. Creighton; LACM). *Pima Co.:* Pantano, 6 July 1950 (W. S. Creighton; LACM); Tucson, numerous dates and collectors (AMNH, GCW, LACM, MCZ). *Maricopa Co.:* Phoenix, May 1905 (W. M. Wheeler; AMNH). *Nevada: Clark Co.:* Sandy, 2600', 13 Mar. 1960 (G. C. & J. N. Wheeler, No. Nev. 625; GCW). *MEXICO. Coahuila:* 11 mi W Rosa, 4000', 14 Mar. 1953 (W. S. Creighton; LACM); 47 mi W Rosa, 4200', same date and collector (LACM); 20 mi N Saltillo, 4000', 5 Feb. 1952 (W. S. Creighton; LACM). *Nuevo León:* Las Margaritas, km. 689, Hwy. 57, 11 Aug. 1965 (Cornell Univ. Mex. Field Party; CU). *San Luis Potosí:* El Huizache, 4500', 25 Apr. 1953 (W. S. Creighton; LACM); Hwy. 80, 6 mi W Ciudad del Maiz, 5000', 11 July 1973 (R. R. Snelling, No. 73–80; LACM). *Chihuahua:* 2 mi S Parral, 5500', 2 May 1953 (W. S. Creighton; LACM); 12 mi S Samalayuca, 10 July 1964 (J. A. Chemsak & J. Powell; UCB). *Sonora:* 4 mi S Sasabe, 3300', 13 Sept. 1951 (W. S. Creighton; LACM); Rancho Bamori, 1400', 18 Apr. 1957 (W. S. Creighton; LACM); 24 mi W Los Vidrios, 900', 1 Jan. 1963 (W. S. Creighton; LACM); 16 mi N Punta Peñasco, 300', 1 Nov. 1952 (W. S. Creighton; LACM); Cholla Bay, Punta Peñasco, same date and collector (LACM); Cabo Tepoca, 4 Feb. 1972 (E. M. Fisher; LACM). *Durango:* 18 mi S Lerdo, 4300', 15 Mar. 1953 (W. S. Creighton; LACM); 26 mi S Lerdo, 4700', same date and collector (LACM). *Zacatecas:* "Pacheco," no date (W. M. Wheeler; cotypes of *M. melliger* var. *depilis* Forel; AMNH, MHNG). *Jalisco:* 5 mi N Encarnación, 6200', 31 Mar. 1953 (W. S. Creighton; LACM).

Ecology. Known habitats for this species range from Creosote bush Desert to Trans-Pecos shrub savannah in the United States, with the bulk of the records in Grama-Tobosa Shrubsteppe. Since many records attributed to *mimicus* by Wheeler (1908, 1913) and Creighton (1950) are actually based on this species, it follows that many of their behavioral observations refer to *depilis*. The notes on "*mimicus*" by Cazier and Statham (1962) are also based on *depilis*. These investigators studied *depilis* in southeastern Arizona. Their study area was on an alluvial fan comprised primarily of silt, sand and soil up to a depth of 12 inches underlaid by caliche. The principal cover was tarbush, *Flourensia cernua* D.C., with an open stand of creosote bush, *Larrea tridentata* (D.C.) in the northern half of the plot.

In the study plot (about 50,184 sq. yds.) more than 60 nests were present. Distances between individual colonies ranged from 14 to 132 feet, the average being 49 feet. Of 42 colonies studied, 19 had asymmetrical entrance holes; the average east-west diameter was 1.30 in. and the average north-south diameter 0.92 in. The 23 with more symmetrical entrances averaged 0.93 and 0.84 in. respectively. Of those with measurable tumuli 10 of the asymmetrical nests had tumuli averaging 7.17 in. in diameter. The tumuli were found to be rounded craters consisting of small or medium sized pebbles and soil, surrounded by discarded bits of plants, insects and miscellaneous debris.

Maximum foraging activity during the observation period (2 Aug.–12 Sept. 1959) took place when there had been a rain on the preceding night and daytime temperatures were between 80° and 98° F. or on warm, overcast days threatening rain. Both individual wandering and directional column foraging were noted. Ants were not found visiting flowers for nectar during August and September, but were found to bring back large amounts of dead and living arthropods. By contrast, during October and November, they were seen to be "... feeding on or gathering the pollen and nectar from at least two plants, *Parthenium incanum* H.B.K. and *Euphorbia albomarginata* Englm. and may have been getting honey-dew from a species of Aphid . . . on the latter plant."

These authors show that the scarabaeid beetle *Cremastocheilus stathamae* Cazier is regularly associated with this *Myrmecocystus*; and *C. constricticollis* Cazier was found once. Bombyliid flies were seen to apparently oviposit at the nest entrances and an unidentified dipterous larva was present in material excavated from a nest. Case-bearing chrysomelid beetle larvae, possibly of the genus *Saxinus*, were found just inside the nest entrance on 11 Sept.

Cazier and Statham found repletes present in the colonies which they studied. The author has collected them from a nest excavated 6.1 mi NE of Apache, Arizona. Known activity of the reproductive forms is summarized in Table 2.

Discussion. This ant has been repeatedly confused with *mimicus*. Curiously, Wheeler (1908) listed this as a variety of *mimicus*, although *depilis* had a priority of seven years! The two ants are superficially similar, but media and major workers of *depilis* always possess long, slender flexuous hairs on the pronotum, some of which equal or exceed EL. Also, the third gastric tergum usually has conspicuous appressed pubescence, except in the smallest workers. The minor workers are more difficult to separate, but those of *depilis* possess hairs of very variable length on the pronotal dorsum, a few of which are exceptionally long, about three times as long as the shortest hairs. In *mimicus* minors the pronotal hairs are uniform in length.

Much more vexatious is the problem of distinguishing between this and *nequazcatl* for the two appear to be closely related. The head and thorax are consistently and uniformly light ferruginous in *nequazcatl* workers, light to dark brownish in *depilis*. Erect hairs are less abundant on the scape of *depilis* workers, those of any row for the most part separated by more than their own lengths; the hairs are more numerous and closer in *nequazcatl*. The longest pronotal hairs are as long as, or exceeding, the eye length in *depilis*, about as long as the minimum eye diameter in *nequazcatl*.

The sexual forms of the two species are very similar, but those of *depilis* have shorter occipital hairs in the female and the mesoscutal hairs of both sexes are shorter. In females of *depilis* the eye is smaller, EL 1.00–1.27 × IF (EL 1.40 × IF in *nequazcatl*). Males of *depilis* also have somewhat smaller eyes, OMD 1.13–1.54 × EL (OMD 0.78–1.00 × EL in *nequazcatl*). These differences, although slight, appear to be consistent. The ranges of the two species become quite close in coastal areas of Sonora, Mexico, and there is no evidence to suggest that the characters tend to break down in these areas.

Myrmecocystus (Endiodioctes) mimicus Wheeler

Figures 83–91, 159, 179, 183, 191

Myrmecocystus melliger subsp. *mimicus* Wheeler 1908. Bull. Amer. Mus. Nat. Hist. 24:353. ♀♀♂♂ (*in part*); Wheeler 1912. Psyche 19:174, 176 (*in part*); Wheeler 1917. *Ibid.* 24:180–132; Cole 1934. *Ibid.* 41:401–402; Smith 1936. Journ. N. Y. Entomol. Soc. 44:170; Mallis 1941, So. Calif. Acad. Sci., p. 20; Cook 1953. Ants of California, p. 344 (*in part*).

Myrmecocystus melliger mimicus var. *jesuita* Wheeler 1908. Bull. Amer. Mus. Nat. Hist. 24:354. ♀; Wheeler 1912. Psyche 19:174; Smith 1936. Journ. N. Y. Entomol. Soc. 44:170.

Myrmecocystus melliger subsp. *lomaensis* Wheeler 1912. Psyche 19:174, 175; Mallis 1940. Bull. So. Calif. Acad. Sci. 20; Cook 1953. The Ants of Calif., 343.

Myrmecocystus mimicus, Creighton 1950 Bull. Mus. Comp. Zool. 104:446–447. (*in part*); Cole 1954. Journ. Tenn. Acad. Sci. 29:285 (*in part*); Cole 1966. Sci. Bull., Brigham Young Univ. 7:22; Wheeler and Wheeler 1968. Ann. Entomol. Soc. Amer. 61:213 (larva); Wheeler and Wheeler 1973. Ants of Deep Canyon, pp. 124–125.

Diagnosis. Worker: Malar area with fewer than ten erect hairs, usually on lower half only; frons and vertex smooth, shiny, with little or no pubescence; third tergum with sparse pubescence only; pronotal hairs short, stiff, blunt. *Female.* Malar area with few or no standing hairs; first three terga uniformly, densely micropunctate; parapsis variably bipunctate; punctures of vertex sparse; alitrunk brownish ferruginous. *Male.* First three terga smooth, shiny, without conspicuous pubescence; mesoscutum polished and shiny, at least