

**ANTS OF THE GENUS *CRYPTOCERUS* F., IN THE UNITED STATES**

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*Cryptocerus* is one of the most easily recognized genera of North American ants. The soldier and worker are readily distinguished from those of other groups by their 11-segmented antenna, flattened body, short incrassated legs, margined thorax bearing angles, spines or tubercules, and the scalelike, appressed hairs of the body. The soldier is especially characterized by a very striking, concave, cephalic disk, the border of which is either entire or else broken anteriorly.

The ants are Neotropical in distribution, occurring in South and Central America, Mexico, southern United States, and the Antilles. In the United States only three forms have been recorded, *Cryptocerus* (*Cyathomyrmez*) *varians* F. Smith of Florida, *C. (Cryptocerus) texanus* Santschi of Texas, and *C. (Cryptocerus) rohweri* Wheeler of Arizona. These three have been collected so infrequently that there is very little information available concerning their distribution and biology. It is generally known, however, that the ants of the genus *Cryptocerus* are arboreal in habit, forming small colonies in the cavities of plants and feeding largely on honeydew and the flesh of small arthropods. The soldier is believed to keep intruders from the nest by blocking the entrance hole with its head.

It is the purpose of this article to offer keys and descriptions for identifying our forms, as well as to give the known facts concerning distribution and biology.

Attention is called to the intraspecific variability in these ants with reference to color, and also to the number, arrangement, and form of the spines and tubercules. Often such variability may occur even in individuals from the same colony.

With the exception of specimens loaned the author by W. M. Mann and Wm. F. Buren, all material studied is in the collection of the National Museum. For the sake of brevity a lower-case letter is used to indicate the caste of each species examined; thus "s" for soldier, "w" for worker, "f" for female, and "m" for male.

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## KEY TO SUBGENERA

## SOLDIERS

Cephalic disk deeply concave, with elevated, entire margin. Gaster unusually elongate, the first segment usually 1.4 times as long as broad. Florida..... subgenus, *Cyathomyrmex* Creighton

Cephalic disk weakly concave and much less pronounced, the margin broken anteriorly in the vicinity of the mandibles. Gaster not unusually elongate, the first segment approximately 1.25 times as long as broad. Texas and Arizona

subgenus, *Cryptocerus* Fabricius

## WORKERS

Gaster unusually elongate, the first segment usually 1.4 times as long as broad. Mesoepinotal suture pronounced. Lateral border of thorax with obtuse angles. Florida

subgenus, *Cyathomyrmex* Creighton

Gaster not unusually elongate, the first segment seldom more than 1.25 times as long as broad. Mesoepinotal suture absent or obsolescent. Lateral border of thorax with acute spines or tubercles. Texas and Arizona ..... subgenus, *Cryptocerus* Fabricius

**CRYPTOCERUS**, subgenus **CYATHOMYRMEX** Creighton

*Cryptocerus*, subgenus *Cyathoccephalus* Emery, 1915, Soc. Ent. de France Bul., p. 192. (*Cyathoccephalus* preoccupied by Kessler, 1868.)

*Cyathomyrmex* Creighton, 1933, Psyche 40: 100.

Subgenotype, *Cryptocerus pallens* Klug (by original designation).

**Cryptocerus (Cyathomyrmex) varians** F. Smith

*Cryptocerus varians* F. Smith, 1876, Lond. Ent. Soc. Trans., p. 606, pl. 11, fig. 6, *worker*; Emery, 1894, Soc. Ent. Ital. Bul. 26: 211, pl. 4, fig. 33, *worker*; 1895, Zool. Jahrb., Abt. f. System. 8: 325; Wheeler, 1905, Amer. Mus. Nat. Hist. Bul. 21: 102, pl. 7, figs. 1-6, *worker, soldier, female, male*; 1910, Ants, Columbia Univ. Press, pp. 17 (fig. 3 M, head of *soldier*), 90 (fig. 53, *worker, soldier*, head of *soldier, female, male*), 151, 426, 567; 1926, ibidem, 2d edit.; Emery, 1915, Soc. Ent. de France Bul., p. 192; Mann, 1922, U. S. Natl. Mus. Proc. 61: 34; Weber, 1934, Rev. de Ent. (Rio de Janeiro) 4: 57, fig. 1.

*Cryptocerus (Cyathomyrmex) varians* Wheeler, 1937, Mus. Compar. Zool. Bul. 81: 459.

*Cryptocerus (Cyathoccephalus) varians* Wheeler, 1942, Mus. Compar. Zool. Bul. 90: 212, pl. 54, *soldier*, head of *soldier, worker*.

*Soldier*.—Length 5-6 mm.

Cephalic disk elliptical, deeply concave, the border entire except for a scarcely perceptible longitudinal cleft in the middle of the anterior border, the cleft approximately one-sixth the length of the disk; border crenulate posteriorly; floor of disk with a distinct convexity, the main area of which lies slightly anterior to the center of the floor. From above, entire head concealed by the disk, except the prominent, angular, somewhat upturned posterior corners. Mesoeipinotal suture very distinct, the promesonotal suture less so. Pronotum with a prominent anterolateral angle or spine. Transverse pronotal crest rather sharp but not high, interrupted in the middle. Mesonotum approximately twice as broad as long, each side bluntly angular. Each side of epinotum with a short, blunt, usually upturned spine, anterior to which there are usually two less distinct protuberances. Legs short, femora incrassated. Petiolar and postpetiolar nodes subequal, the side of each bearing a short spine; the spine of the postpetiolar node larger, more anteriorly placed. Gaster elongate elliptical, with very distinct basal emargination and definite anterolateral margins.

Subopaque. Head and thorax covered with numerous subcircular, pit-like impressions, those on the head being large and deep, those on the thorax small and shallow. Sides of thorax, posterior surface of epinotum, and gaster granulate.

Hairs rather inconspicuous, short, silvery, scalelike, appressed, each borne in an impression. Apex and ventral surface of gaster with a few short, erect, single hairs.

Black or brownish black; gaster, legs, and antennae often lighter.

*Worker*.—Length 3-4.25 mm.

Posterior border of head nearly straight, posterolateral corners distinct, each forming an angle less than a right angle. Eye visible through an excision on head, the excision being anterior to the posterolateral corner. Anterior border of head with a distinct median emargination exposing much of the mandibles. Thorax with a very definite mesoeipinotal suture but no promesonotal suture, sharply marginate on each side throughout its length. Each side of pronotum with a very prominent anterolateral (humeral) angle and another blunt angle in the area where the promesonotal suture should be, if it were present; side of pronotum between the angles often entire but occasionally with a few irregularities. Mesonotum on each side usually with a distinct angle. Epinotum with an angle on each side slightly anterior to the midlength of the epinotum; sides of epinotum strongly converging posteriorly behind the lateral angles. Legs short, femora incrassated.

Petiolar and postpetiolar nodes of nearly equal breadth, each with a lateral spine the apex of which is often more or less obliquely truncate. Gaster elliptical, with very distinct basal emargination, rather sharply marginate on each side throughout most of its length, but especially anterolaterally.

Body subopaque. Sides of thorax, legs, posterior surface of epinotum, and gaster finely granulate. Head and thorax with very much smaller and more irregular, pitlike impressions than those of soldier.

Pilosity similar to that of soldier.

Brownish black to almost black, appendages often lighter. Immature specimens more yellowish red, especially the gaster.

*Female*.—Length 6.5-7.5 mm.

Resembling soldier. Cephalic disk of same general shape but very shallow; the cleft at the middle of the anterior border of the head shorter, succeeded by a smooth, fused, longitudinal area; one large convexity on the floor of the disk. Ocelli extremely small, scarcely perceptible. Border of disk crenulate, especially posteriorly. Pronotum with a single anterolateral (humeral) spine. Pronotal crest present but not well developed as in soldier. Mesoepesternum with a prominent spine. Anterior wing brownish; a distinct stigma, a cubital, a discoidal, and an appendiculate radial cell. Legs short, femora incrassated. Epinotum concave posteriorly, with a rather short, blunt, posterolateral spine. Petiolar node without a spine on each side. Postpetiolar node broadest anteriorly. Gaster oblong, sides subparallel, the base broadly emarginate, anterolateral margins not thin and sharp as in worker; first gastric segment approximately twice as long as broad.

Sculpture similar to soldier, except that the pitlike impressions on the cephalic disk are larger, coarser, and more abundantly distributed.

Short, erect hairs sparsely distributed on the dorsal surface of the thorax and on all of the gaster. The hairs around the cephalic disk more clavate. The short, silvery, scalelike, appressed hairs very inconspicuous or absent from the pitlike impressions on the head and thorax.

Color similar to that of worker.

*Male*.—Length 4-4.5 mm.

“Head broader behind than in front, decidedly broader than long; cheeks concave, eyes and ocelli very prominent; mandibles well developed, dentate; clypeus short and broad, its anterior border straight. Frontal area large, triangular, impressed. Frontal groove pronounced, extending from the frontal area to the anterior ocellus. Antenna long, 13-jointed, joints 3-13 subequal in length, but increasing very gradually in thickness towards the tip. First joint thick, hardly half the length of the third, second joint very small, not incrassated, lot longer than broad. Thorax with deep Mayrian furrows. Scutellum flattened. Epinotum somewhat rounded in profile, its basal and declivous surfaces of about equal length. Petiole and postpetiole subequal, seen from above about as long as broad, angular in front, with straight sides slightly converging behind. In profile the petiole is somewhat more convex than the postpetiole. Gaster slender, first segment occupying a little over half its length, the remaining segments subequal. Genitalia exerted. Legs rather short.

“Mandibles, head, thorax, and pedicel opaque, finely granular, or punctate. Occipital portion of head sparsely foveolate and somewhat

reticulate-rugose. Dorsal and pleural surfaces of thorax finely and obscurely longitudinally striated, most clearly on the scutellum, metanotum, and basal epinotal surfaces. Gaster and legs smooth and shining.

“Hairs yellow, longest and suberect on the head, thorax, and gaster; very short and appressed on the antennae and legs.

“Head, thorax and pedicel black; base of mandibles, antennae, coxae, and gaster dark brown. Tips of mandibles, palpi, legs, posterior edges of gastric segments, and genitalia pale yellow. Wings whitish hyaline with yellow veins and conspicuous brown stigma.”

Wheeler's description of the male (Amer. Mus. Nat. Hist. Bul. 21: 103, 1905) based on Bahama specimens is quoted above. Males collected at Miami, Fla., by Wm. F. Buren differ from Wheeler's description as follows:

Anterior border of clypeus with a median emargination, frontal area not well defined, segments 4-12 of funiculus subequal in length, scutellum moderately convex, declivous surface of epinotum greater than the base, posterior edges of gastric segments, and genitalia reddish brown.

*Type locality*.—Antilles; no specific locality cited.

Cotypes presumably in the British Museum of Natural History.

*Other localities*.—FLORIDA: Miami Beach, Thos E. Snyder, *Tillandsia* sp. on red mangrove, *Rhizophora mangle* L., Hopkins U. S. No. 15291 (s, w); Miami, Wm. F. Buren, in dead twigs and small branches of red mangrove, *Rhizophora mangle* L. (s, w, f, m); Cards Point, W. M. Wheeler, in *Tillandsia*; Coconut Grove, Nancy Fairchild, in twigs of sea grape, *Coccolobis uvifera* L.; same locality, J. P. Linduska, in wood of *Bauhinia* sp., Bur. Ent. and Plant Quar. No. 44-16865 (f); Key West, collector (?), in burrows in wood, foraging only at night (w); same locality, E. A. Schwarz (s, w); Homestead, Wm. F. Buren, in red mangrove, *Rhizophora mangle* L. (s, w, f); Saddle Bunch Keys, Wm. F. Buren, in red mangrove, *Rhizophora mangle* L. (s, w, f).

*C. varians* has been collected too infrequently in Florida for one to know its exact distribution. At present the species is recorded from Miami southward to Key West. Outside of the United States *varians* has been collected in the Bahamas (W. M. Wheeler), Honduras (W. M. Mann), Cuba (E. A. Schwarz, N. A. Weber, W. M. Mann, and others). A subspecies, *marginatus*, was described from Haiti by Wheeler and Mann and the variety, *jamaicensis*, from Jamaica by Forel.

Buren took winged females and males at Miami on June 23 and July 4, 1945.

**CRYPTOCERUS**, subgenus **CRYPTOCERUS** Fabricius  
*Cryptocerus* Fabricius, 1804, Syst. Piez., p. 418.

Subgenotype, *Cryptocerus umbraculatus* Fabricius (by designation of Emery, 1914).

## KEY TO SPECIES

## SOLDIERS

- Gaster entirely black. Head and thorax with numerous, large, pitlike impressions, but only those of the epinotum bearing a prominent, silvery or grayish hair as in *texanus*. Gaster with longitudinal rugulae in addition to other sculpture, the rugulae most evident near the base. Arizona.....*rohweri* Wheeler.
- Each side of gaster with a yellowish basal spot. Head and thorax with numerous pitlike impressions, each of which bears a prominent, silvery or grayish hair. Gaster lacking the longitudinal rugulae present in *rohweri*. Texas.....*texanus* Santschi.

## WORKERS

- Gaster entirely black, with longitudinal rugulae in addition to other sculpture. Petiolar and postpetiolar node each with an extremely acute, lateral spine. Part of the thoracic sculpture with a distinct longitudinal trend. Arizona.....*rohweri* Wheeler.
- Each side of gaster with a yellowish basal spot, no longitudinal rugulae in addition to the other sculpture. Lateral spine on petiolar and postpetiolar node not extremely acute. Thoracic sculpture without a definite longitudinal trend. Texas.....*texanus* Santschi.

**Cryptocerus (Cryptocerus) rohweri** Wheeler

*Cryptocerus (Cyathocephalus) rohweri* Wheeler, 1916, New England Zool. Club Proc. 6:32, *soldier, worker*, fig. 2 (a) *soldier*, (b) *worker*.

*Soldier*.—Length 6 mm.

Cephalic disk with the posterior border transverse, approximately straight, the posterolateral corners oblique, sides subparallel, the front rounded and bearing a distinct median emargination, which exposes much of the mandibles. Disk deepest anteriorly, with a convexity near the center. Border weakly or not crenulate. Pronotum as broad as head, sharply declivous anteriorly, each lateral border usually bearing two spines, the anterior of which is always present and is the more prominent. Transverse, pronotal crest sharp and well defined but interrupted in the middle, crenate. Promesonotal and mesoepinotal sutures varying from indistinct to well defined. Lateral border of mesonotum usually bluntly rounded, occasionally with a blunt spine or tubercle. Lateral border of epinotum with a spine, which is often acute. Each side of petiolar and postpetiolar nodes with an acute,

moderately long spine, which is directed posterolaterally or posterodorsally. Node of postpetiole widest anteriorly, somewhat constricted posteriorly. Legs short, femora incrassated. Gaster oblong-elliptical, emarginate basally, without indication of anterolateral margins.

Opaque. Dorsal surface of head, thorax, petiole, and postpetiole with numerous coarse, pitlike impressions, some of which are rather large and almost circular on the head and thorax. Gaster very densely and finely granulate, with minute, almost indistinct longitudinal rugulae, the rugulae best defined toward the base.

Body and legs with short, sparse, scattered, suberect to erect, grayish hairs. A short, appressed, silvery hair present in each of the pitlike impressions on the epinotum, petiole and postpetiole; indistinct or absent elsewhere.

Black; apex of each femur and terminal segments of the tarsi reddish brown; antennae and mandibles sometimes reddish brown.

*Worker*.—Length 4.3 mm.

Head trapezoidal, posterior border transverse and nearly straight, most of dorsal surface convex except the frontal carinae and clypeus; clypeus declivous, subtriangular, distinct. Pronotum marginate on each side. Thorax narrower than head and without promesonotal and mesoepinotal sutures, rather convex through promesonotum; in profile, noticeably sloping posteriorly from the region where the promesonotal suture should be, if present. Spines arranged on each side of thorax in the following order: Two prominent spines on pronotum, a bluntly angular one in the region where the promesonotal suture should be, if present, and an acute, posteriorly directed spine on the epinotum. Petiolar and postpetiolar nodes similar to soldiers', the side of each with an acute, posterodorsally directed spine. Gaster as in soldier but less emarginate basally.

Thorax differing from that of soldier in its more rugulose-reticulate sculpturing instead of subcircular, pitlike impressions. Gaster as in soldier, but the longitudinal rugulae apparently more distinct.

Erect hairs more abundant than in soldier. The silvery, appressed hairs distinct in the impressions on the dorsal surface of the thorax, petiole, and postpetiole, as well as on the posterior surface of the head.

Black; mandibles, frontal carinae, apex of each femur and tibia, and terminal segments of tarsi reddish brown.

*Female*.—Length 7.3 mm.

Cephalic disk differing from that of soldier in that the border is less elevated, especially in the posterior half; posterior border and posterolateral corners less defined; most of disk convex except anterolaterally. Transverse pronotal crest not strongly developed as in soldier. Anterior wing brown, with a distinct stigma, a cubital and discoidal cell, and also an appendiculate radial cell. Petiolar and postpetiolar nodes differing from those of soldier, in that the lateral spine is absent on the petiolar node and is indicated on the postpetiolar node by a weak anterolateral spine or tubercle.

Sculpture, pilosity, and color similar to that of soldier.

*Male*.—Unknown.

*Type locality*.—Buehman Canyon near Redington, 3,300 feet, Santa Catalina Mountains, Arizona, M. Chrisman. In galleries excavated at the base of a dead limb and against the green wood of "palo-verde," *Cercidium torreyanum* Sarg., Hopkins U. S. No. 10193. Five soldiers and seven workers of the original nest series are in the collection of the United States National Museum. (Wheeler's article cites the canyon as Buckman, which is undoubtedly a misspelling.)

Cotypes in the Museum of Comparative Zoology, Cambridge, Mass.

*Other localities*.—ARIZONA: Pima County, E. D. Algert, buprestid burrow in hackberry, *Celtis* sp., Bur. Ent. and Plant Quar. No. 45-15993 (s, w, f); Catalina Springs, approximately 9 miles northeast of Tucson, H. G. Hubbard and E. A. Schwarz (w); Sabino Canyon at least 12 miles northeast of Tucson, W. D. Edmonston (w); Brush Corral Station near Redington, M. Chrisman, in dead unbroken "palo-verde" limb, *Cercidium torreyanum* Sarg., Hopkins U. S. No. 12647 d (s, w, f).

In describing *rohweri*, Wheeler called attention to the ant's close relationship to *wheeleri* Forel. He remarked as follows: "*C. rohweri* can be readily distinguished from *C. wheeleri*, which I found many years ago nesting in epiphytes (*Tillandsia*) near Cuernavaca, Mexico, by its somewhat larger size (the soldier of *wheeleri* measures only 5-5.5 mm., the worker only 3.2-3.6 mm.), and by several peculiarities of structure, sculpture, pilosity, and color. Most of the structural differences will be apparent from a comparison of the figures (fig. 2, a-d). In the soldier of *wheeleri* (fig. 2, c) the border of the cephalic saucer is much lower laterally and posteriorly than in *rohweri*, but the anterior translucent portion is somewhat more extensive, and the top of the head forming the floor of this structure is flattened behind and transversely convex in front. The pronotal crest is more distinctly interrupted in the middle, the surface of the body and especially of the gaster is distinctly smoother and more shining, and the foveolae are smaller and sparser on the head, thorax, and pedicel. In the worker *wheeleri* (fig. 2, d), besides the structural differences shown in the figures, the mesoepinotal suture is seen to be obsolete, the expanded frontal carinae are larger, thinner and whitish yellow, and the antennae, knees, tibiae, and tarsi are red. The foveolae of the head have appressed silvery hairs like those on the thorax and pedicel,



and the erect hairs are much longer and more conspicuous than in the worker *rohweri*."

The author has examined cotypes of *wheeleri* Forel, and he finds that the differences between the soldier and workers of *rohweri* and those of *wheeleri* are substantially the same as given by Wheeler. The author, however, has not been able to detect a distinct mesoepinotal suture in any of the workers of *rohweri* as described and figured for this species, and he therefore does not believe the workers of the two species can be satisfactorily separated on the basis of this character. He also does not detect a distinct promesonotal suture in *rohweri*.

*C. rohweri* is the only species recorded from Arizona. To date, specimens have been collected mostly in the canyons of the Santa Catalina Mountains in Pima County, northeast of Tucson. Winged females were collected at the Brush Corral Station near Redington on May 25, 1914.

#### **Cryptocerus (Cryptocerus) texanus Santschi**

*Cryptocerus texanus* Santschi, 1915, Soc. Ent. de France Bul., p. 208, soldier, worker, fig. 2 (a) soldier, (b) worker, (c) head of soldier.

*Cryptocerus angustus* Wheeler, not Mayr, 1910, Ants, Columbia Univ. Press, pp. 151, 567; 1926, Ibid., Ed.2, pp. 151, 567.

*Cryptocerus angulosus* Wheeler, not F. Smith, 1916, New England Zool. Club Proc. 6:35 (lapsus for *C. angustus* Mayr).

*Soldier*.—Length 4.5-5.4 mm.

Cephalic disk proportionately broader than in *rohweri*, approximately as broad as long, with posterior border usually weakly emarginate, occasionally straight, posterolateral corners oblique, sides less subparallel and front rounded, bearing a distinct median emargination which exposes much of the mandibles. A convexity near the center of the disk. Border weakly or not erenulate. Pronotum as broad as head. Transverse pronotal crest well developed, sharp but interrupted in the middle, somewhat erenate; lateral border of pronotum usually spineless, except for a very feeble indication of an anterolateral spine. Promesonotal and mesoepinotal sutures weakly to moderately well indicated, the mesoepinotal suture usually the more distinct of the two. Mesonotum projecting laterally as a short, angular lobe. Epinotum concave posteriorly, each lateral margin with three lobes, if one includes the anterolateral and posterolateral corners, the median lobe larger than the other two. Each side of petiolar and postpetiolar nodes with a short spine, that on the postpetiolar node usually larger and more strongly reflexed posteriorly. Gaster oblong, with a very distinct basal emargination, and with weakly developed anterolateral margins.

Pitlike impressions on the head and thorax much smaller, finer and apparently less circular than in *rohweri*. Gaster very finely granulate, but lacking the rugulae of *rohweri*.

Gaster beneath and apically with short, erect hairs; rest of body and appendages apparently devoid of hair except a few on the pronotal crest. Body and appendages with short, appressed, silvery hairs, the pitlike impressions on head and thorax each bearing only one of these hairs.

Black; mandibles, antennae, frontal carinae, occasionally the entire border of the cephalic disk, apex of each femur, tibiae, tarsi, and sometimes a spot on each side near the posterior border of the first gastric segment reddish brown, in addition there is always a whitish-yellow basal spot on each side of the gaster.

*Worker*.—Length 3.6-4 mm.

Posterior border of head weakly emarginate, posterolateral corners not excised, dorsal surface largely convex except toward the sides, anterior border with a distinct emargination exposing much of the mandibles. Promesonotal suture lacking or very poorly indicated, mesoepinotal suture present but not strongly developed. Thorax marginate on each side, bearing spines arranged in the following order: Two on pronotum, one on mesonotum, and two on epinotum (the anterior one lying near the mesoepinotal suture and sometimes feebly developed). Petiolar and postpetiolar nodes and also their spines similar to those of the soldier but smaller, the postpetiolar spines usually less reflexed apically. Gaster as in soldier.

Pitlike impressions on head and thorax smaller and more irregular than in soldier, the sculpturing on the thorax especially with a reticulate-rugose trend. Sculpture on gaster similar to soldier's.

Pilosity similar to that of soldier in nature and arrangement.

Black; mandibles, frontal carinae, antennae, apex of each femur, tibiae, and all tarsal segments except the metatarsal reddish brown. Frontal carinae and a basal spot on each side of gaster whitish yellow. The spot on each side near the posterior border of the first gastric segment, which is sometimes present in the soldier, apparently missing in the worker.

*Female*.—Length 6-6.6 mm.

Smaller than *rohweri*. Impressions on head and thorax smaller, finer and less circular. Mandibles, frontal carinae, antennae, tibiae, and all of tarsal segments except the metatarsal, reddish brown; basal spot on each side of gaster whitish yellow (body of *rohweri* entirely black). Silvery, appressed hairs conspicuous over the body and appendages, these lacking in *rohweri*. Anterolateral corners of pronotum not so acute. Epinotum concave posteriorly (straight in *rohweri*). Postpetiolar node more compressed anteroposteriorly and with much larger and more prominent spine. Differing from soldier and worker (of *texanus*) in having sparse, short, suberect to erect hairs on thorax, postpetiole, and gaster.

Description based on a wingless female.

*Male*.—Length 4-4.7 mm.

Eye convex, longer than broad. Posterior border of head rounded, with the ocelli borne on summit. Antenna 13-segmented, the segments enlarging toward the apex but not forming a definite club; scape short, first funicular segment annular. Mesonotum with well-developed Mayrian furrows. Epinotum with coarse longitudinal rugulae. Venation similar to that of *rohweri* female. Side of petiolar and postpetiolar node each with a small tubercle; the tubercles not very noticeable under the low power of a binocular. Gaster from above, subelliptical, broadest at base. Pronotum and mesonotum especially, with coarse impressions in addition to the other sculpturing.

Body subopaque. Sides of thorax, petiole, postpetiole, coxae, trochanters, femora, and gaster shining.

Head, thorax, petiole, and postpetiole with rather rather long, grayish, erect, simple hairs; hairs on legs less abundant and more appressed.

Body black. Antenna yellow except for a slight infuscation on scape and first funicular segment. Wings hyaline, legs and genital appendages lighter than body.

*Type locality*.—Texas, J. Bondroit; no precise locality cited.

Location of cotypes (if still in existence) not known.

...*Other localities*.—Texas: Victoria, J. D. Mitchell, in live oak twig gall (s, w, f); Victoria County, J. D. Mitchell (s, w); Keeran's Ranch in Victoria County, J. D. Mitchell (s, w); San Antonio, E. S. Ross, on Mexican persimmon, *Brayodendron texanum* Scheele (s, w, f); Five miles north of San Antonio, Wilda S. Ross (s, w, f); Columbus, Wm. F. Buren, in prickly ash, *Xanthoxylum clava-herculis* L. (s, w, f, m); San Benito, T. F. McGehee (w); San Juan, T. F. McGehee (w); Beeville, collector (?), (w); Corpus Christi, R. A. Cushman, on ebony, *Zygia flexicaulis* Sudw. (w); Sabinal, F. C. Pratt, in dead persimmon (s, w, f, m); Sinton, collector (?), in gallery of *Hypothenemus* in hackberry, *Celtis pallida* Torr. (w); Arroyo, collector (?), in mesquite, *Prosopis* sp. (w); Lavaca County, collector (?), (w); Brownsville, H. S. Barber (s, w); Esperanza Ranch, Brownsville, C. Schaeffer (s, w); Los Borregos Ranch, Brownsville, H. S. Barber (bearing label "*texanus* Santschi, det. Wheeler") (s, w, f).

This is the only *Cryptocerus* known to occur in Texas. Examination of numerous specimens, especially soldiers and workers, show little variation in the species. Unfortunately, the ant was confused with *angustus* Mayr for a long time. In the 1910 edition of his well-known book "Ants," Wheeler listed the Texas species as *angustus* and did not change the name even as late as the second edition of the book in 1926. In the National Museum there are specimens collected by R. A. Cushman in Corpus Christi which bear a determination label showing that Wheeler at one period considered the ant

as a new variety of *angustus*. There are also specimens from the Esperanza Ranch, Brownsville, collected by Charles Schaeffer which Wheeler still later considered a new species, and which he proposed to name in honor of the collector. Nothing was done about the matter, however, and in 1915 Santschi described the ant as *texanus*. Santschi apparently had a lapse of memory in describing the ant when he remarked, "Très voisin du *C. angulosus* F. Sm. dont il diffère surtout par le disposition des taches, la pubescence et le pédicule plus étroit." He undoubtedly meant *angustus* Mayr, as this is the species with which *texanus* has been commonly confused.

The author finds that the worker of *texanus* can be distinguished from that of *angustus* by the fact that each side of the pronotum bears three instead of four spines, and also by the fact that the most anterior of the spines is at the end of the pronotal crest rather than behind it, as in *angustus*; each side of the epinotum usually has two or rarely three spines, whereas that of *angustus* has three and often four spines; *texanus* lacks the prominent, thin, upturned anterolateral margin at the base of the gaster; there is also an important color difference, the gaster of *texanus* being black with a prominent, whitish-yellow basal spot on each side, that of *angustus* entirely except for the narrow, whitish-yellow, anterolateral margin.

Present records indicate that *texanus* is distributed throughout southern Texas from at least as far west as Sabinal (approximately 99.5 degree of longitude) northward and eastward to at least Columbus (approximately 29.5 degree of latitude). The author seriously doubts that this or any other species of *Cryptocerus* will be found in Louisiana. He has seen what he considers to be typical specimens of *texanus* from Mexico, exact locality unknown but believed to be near Brownsville, Tex.

*Actual date of publication January 15, 1947*