The component names assigned to this complex by Creighton were arranged as follows:

M. comatus Wheeler, 1908

M. melliger melliger Forel, 1886

M. melliger californicus Cole, 1936

M. melliger orbiceps Wheeler, 1908

M. mendax Wheeler, 1908

The subspecies *M. m. californicus* was known only from the type material, which Creighton had not seen, and was only tentatively placed with *M. melliger*. As I have shown elsewhere (Snelling, The identity of *Myrme-cocystus melliger mimicus* var. *californicus* Cole, unpublished), this species must be transferred to the genus *Formica*. Creighton predicted that *M. m. orbiceps* would prove to be a synonym of the nominate form and in 1954 Creighton and Crandall were able to verify this. The only recent change was by Gregg (1963), who proposed returning *M. mendax* to the status originally given it by Wheeler, a subspecies of *M. melliger*.

My own investigation of this genus, based on type material of all forms, has convinced me that drastic changes are necessary within this complex and I propose to arrange the species as follows:

M. mendax Wheeler, 1908

M. melliger Forel, 1886

M. semirufus Emery, 1893

M. placodops Forel, 1908

Each of these component species is discussed in detail below.

Myrmecocystus mendax Wheeler

Myrmecocystus melliger var. semirufus Emery, 1893. Zoologische Jahrbuch, Abt. für Systematik, 7:667 (in part).

Myrmecocystus melliger subsp. mendax Wheeler, 1908. Bull. Amer. Mus. Nat. Hist., 24:351, fig. 4, 9 \$? Wheeler, 1912, Psyche, 19:173; Gregg, 1963, Univ. Colo. Press, pp. 645-648.

Myrmecocystus mendax Creighton, 1950. Bull. Mus. Comp. Zool., 104: 442, 445.

This species, originally described from Colorado, ranges westward as far as California, through New Mexico and Arizona. It is closely related to M. semirufus and even more closely to M. melliger. I believe, however, all are distinct species, even though the differences which separate them are slight. When Emery described M. melliger var. semirufus, he had before him a mixed series of specimens from San Jacinto, California, and from Denver and Pueblo, Colorado; each series represents a different species. The Denver specimens are M. mendax, the Pueblo specimens are M. melliger and the series from San Jacinto (which includes the type) are M. semirufus. From the related species, M. mendax may be separated by the characters given in the key below.