

Since properly identified specimens are restricted to only a few institutions, a more functional key is desirable. The key given here groups the characters in a hopefully less arbitrary fashion and is supported by descriptions and figures.

The generic placement for the North American forms has been questioned. Mayr (1886) established the subgenus *Hypoclinea* including the North American forms, and the possibility of raising that name to a full genus has subsequently appeared in the literature. Lattke (1986) recently recognized the group as a distinct genus in a study concerned with neotropical ants. However, no formal revision or description of *Hypoclinea* as a genus exists and the species Lattke treats are quite unlike our northern fauna. This paper retains the genus *Dolichoderus* for the North American forms and, with this usage, the type species of the subgenus *Hypoclinea* is *Dolichoderus quadripunctatus* Linnaeus of Europe.

The great majority of specimens coming to entomologists' attention are workers. Queens are typically taken in association with workers and the key is designed to identify the worker caste. Males are rarely collected and too incompletely known for treatment in a key. Workers of *Dolichoderus* in North America may be recognized by the following characters. Total body lengths range from about 3.5 to 4.5 mm. or rarely less with no differences between species. The gaster and alitrunk are separated by a single segment, the petiole. The orifice of the cloaca is a horizontally-oriented slit, not a circular opening. The surrounding hairs do not form a distinct fringe of rather stiff erect bristles about the opening. The posterior or declivous face of the propodeum is distinctly concave in lateral view and the propodeum cuticle is thick, inflexible, and strongly sculptured. These ants occur mainly in the East with the western-most records in North Dakota and Oklahoma.

Materials and Methods

Specimens of the four known species have been studied from the George C. and J. Wheeler Collection, including material determined by well-recognized authorities on North American ants, namely M.W. Wheeler, M. R. Smith and W. S. Creighton. D. R. Smith of the U.S. National Museum kindly confirmed the determination of recently-collected Florida material of *D. pustulatus*. The undescribed form is known only by a small nest series taken recently by J.C. Trager in Massachusetts. Definitions of morphological terms appear in Torre-Bueno (1962) or most standard insect references.

A diagnostic worker description and geographic distribution for each species precedes the key. Hairs portrayed in the figures are drawn slightly thicker than true proportions so they would not become indistinct on reduction; this treatment in no way affects the use of the key. The reader should compare specimens with both the description and key in reaching determinations.

Data on nests other than observations reported for *D. pustulatus* in the South were taken from the cited literature.

Species Diagnoses

Dolichoderus mariae

Worker Diagnosis: The species is basically bicolored. The mandibles, antennae, head, alitrunk, legs, and petiole are brownish-orange and the first segment of the gaster has a variable, anterior band of this lighter color. The remainder of the gaster is dark brown to black. Intensity of color varies from callow age to maturity in ants and somewhat through time for museum specimens. I have seen museum specimens of *Dolichoderus* over 50 years of age, however, with essentially the same color as found in recently collected material. Also color interpretation varies. Wheeler (1905a) described this species as "... yellowish blood-red, and gaster black", and also as "...bright-red and blue-black bodies".

Structurally, a fine granulation sculpts the integument of head, pro- and mesothorax, and faint depressions or foveolae also occur on the head. This sculpture is weak, leaving a superficially smooth, shining surface under low to moderate magnification. A more distinct granulation sculpts the propodeum where a network of delicate ridges enclose shallow polygon-like depressions. This sculpture is weak leaving a shining propodeum in strong light. The integument of petiole and especially the gaster is smooth and reflective. No erect hairs exist on head, scapes, or body, one of the more distinctive attributes of this species. In dorsal view, the length of the propodeum distinctly exceeds its width, Fig. 1a. The lateral profile of alitrunk as in Fig. 2a. The integument within the concavity of the declivous face of propodeum with a series of fine vertical ridges or striations; some specimens have a distinct, centrally-located vertical ridge. A delicate granulation within the concavity reduces reflectivity often to a near-opaque state.

Geographic Distribution: The type locality is Vineland, New Jersey. It has been reported from Massachu-