

## **First Record of a Florida Population of the Neotropical Carpenter Ant *Camponotus novogranadensis* (Hymenoptera: Formicidae)**

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# FIRST RECORD OF A FLORIDA POPULATION OF THE NEOTROPICAL CARPENTER ANT *CAMPONOTUS NOVOGRANADENSIS* (HYMENOPTERA: FORMICIDAE)

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Florida specimens of *Camponotus novogranadensis* Mayr were first collected by Shawn Hole in May, 2012, in a residential development adjacent to Koreshan State Park in Estero, Lee County. The ants had entered and temporarily infested a relatively new residence near the park. These specimens were recognized as a previously unrecorded species for Florida by Robert Belmont, and sent to the Archbold Biological Station for identification. A subsequent visit to the area by Mark and Nancy Deyrup produced a small series of specimens from the vicinity of Koreshan State Park and enough observations within the park to confirm an established population of *C. novogranadensis*. Preliminary identification was made by comparison with specimens from Trinidad in the Archbold Biological Station (ABS) collection, and by photographs in the on-line species account for *C. novogranadensis* provided by Longino (2002). This identification was confirmed by Stefan Cover, who compared Estero specimens with series of identified specimens in the Museum of Comparative Zoology (MCZ), Harvard University. Florida specimens have been deposited in the ABS and MCZ collections.

In the field *C. novogranadensis* (Fig. 1) is easily mistaken for *C. planatus* Roger (Fig. 2). Both species are dark-colored, non-glossy, and small (majors are about 5mm long). *Camponotus novogranadensis* is black, with brown or yellowish brown antennae, clypeus, and the sides of the face above the mandibles. *Camponotus planatus* is usually bicolored, dark red with a black gaster, but occasionally completely black. Under the microscope these two species are conspicuously different. The clypeus of *C. novogranadensis* has a strong, sharp, median ridge, absent in *C. planatus* (Figs. 1 and 2). The mesosoma of *C. novogranadensis* is covered with small, semi-appressed hairs and large, sparse, curved, proclinate hairs (Fig. 1), that of *C. planatus* moderately densely covered with short, sub-erect hairs (Fig. 2). Color photographs of both species are available on the AntWeb site, [www.antweb.org](http://www.antweb.org), by entering the species name in the "Search for" box, or in Longino 2002. It is unlikely that *C. novogranadensis* is closely related to any other *Camponotus* species living in Florida. It has been placed in the subgenus *Myrmaphaenus* (Kempf

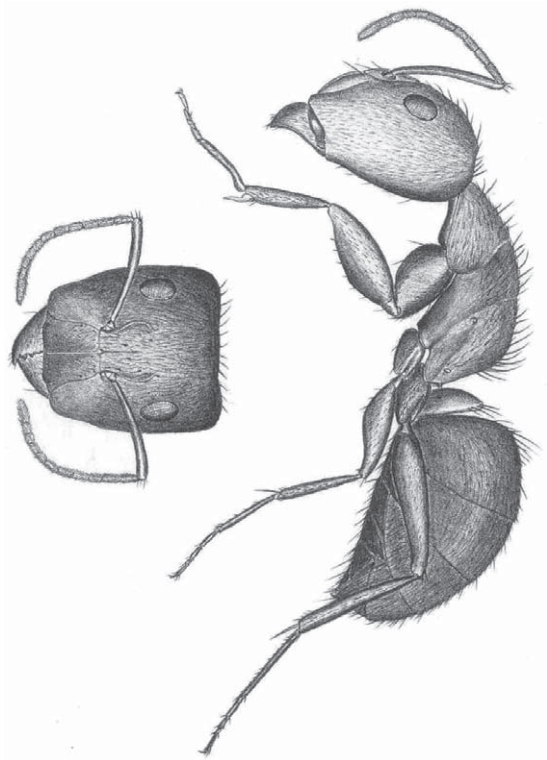


Fig. 1. Major worker of *Camponotus novogranadensis*; length of ant about 5 mm.

1972), which includes no other species in eastern North America, although this and most other subgenera of *Camponotus* should probably be considered in abeyance until the genus has been more thoroughly analyzed.

The presumed native range of *C. novogranadensis* includes Mexico (Garcia Moreno et al. 2003), Guatemala (Branstetter & Saenz 2012), Honduras, Costa Rica, Panama, Colombia, Guyana, Surinam, French Guiana, Brazil, Peru (Kempf 1972), Ecuador (Ryder Wilkie et al.), and Paraguay (Wild 2007). Discontinuities in this known distribution might result from insufficient collecting data, but it is also possible that a species that has been introduced to

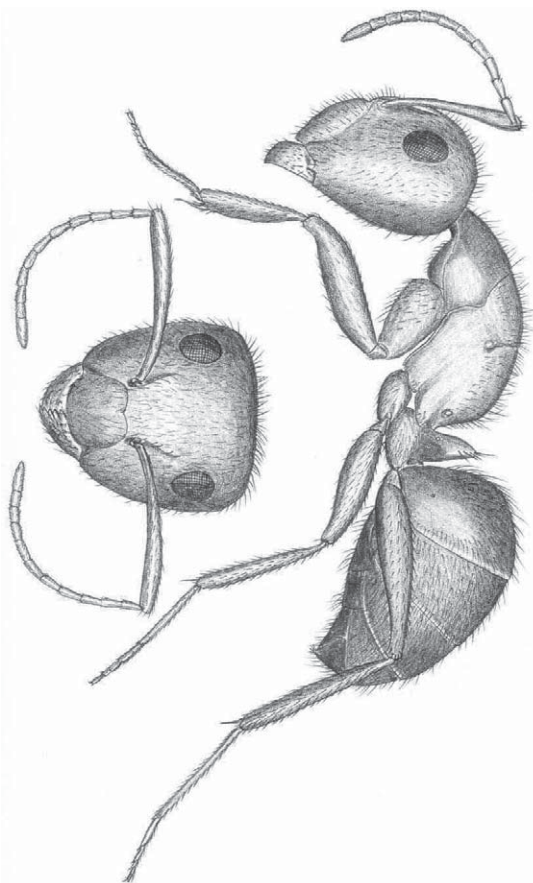


Fig. 2. Major worker of *Camponotus planatus*; length of ant about 5 mm.

Florida has also been relocated to some of the Neotropical areas where it now occurs.

It is probable that *C. novogranadensis* was introduced into Florida in plant material, such as pseudobulbs of orchids, or hollow stems. This might have occurred recently, or long ago, before extensive regulation of plant importation. This is the first record of establishment of *C. novogranadensis* outside its home range. This species, which is relatively easily identified, does not appear in the most recent list of ants that have been the subjects of long-range transport and have established populations in new areas (McGlynn 1999). The only other record of importation of *C. novogranadensis* refers to workers found in 1912 in Brazilian orchids imported into Kew Gardens in England (Donisthorpe 1915).

The ecology of *C. novogranadensis*, like that of most species of *Camponotus*, has not been studied in detail. Nests are in dead wood or hollow stems, usually in disturbed areas (Vasconcelos 1999, Longino 2002; Sanabria-Blandon & Chacon de Ulloa 2009; Ribas et al. 2012). It also

occurs in the canopy of primary forest (Longino 2002). This species is listed as an indicator ant species of disturbed habitats (Ribas et al. 2012). In a study of effects of disturbance on ants in central Amazonia, Vasconcelos (1999) found ground-foraging *C. novogranadensis* in no mature forest plots, in 25% of plots in both old regrowth and new regrowth, and in 100% of plots in abandoned pasture. The diet of *C. novogranadensis* includes honeydew from Membracidae and Aetalionidae (Letourneau & Choe 1987), and nectar from extrafloral nectaries of orchids, which this species aggressively defends (Damon & Perez-Soriano 2005), and animal protein (in baits) (Vasconcelos 1999).

There is no indication from the literature that *C. novogranadensis* is a significant household or agricultural pest in its native range, and no reason to believe that it is likely to become either an economic pest or ecological problem in Florida. Many species of introduced ants established in Florida cause no documented commercial or ecological damage (Deyrup et al. 2000). On the other hand, the effects of any introduced insect in Florida may escape notice until the species has been established and observed for a period of years.

A tally of Florida ant species in the ABS collection shows that with the addition of *C. novogranadensis* 227 species of ants are known to occur in Florida, including several species awaiting descriptions.

#### SUMMARY

An established population of a Neotropical carpenter ant, *Camponotus novogranadensis* Mayr, is reported from Estero, Lee County, Florida. This species is similar in general appearance to *C. planatus* Roger, differing in color, pilosity, and clypeal shape. *Camponotus novogranadensis* is known from disturbed sites in Mexico, Central and South America; it has not previously been reported established outside its presumed native range. It is not known to cause economic or ecological problems.

#### RESUMEN

Se informa de la presencia de una población de la hormiga carpintero Neotropical, *Camponotus novogranadensis* Mayr establecida en Estero, en el condado Lee de la Florida. Esta especie tiene una apariencia general similar a *C. planatus* Roger, que se diferencia por el color, la pilosidad y la forma del clipeo. Se conoce *Camponotus novogranadensis* de sitios perturbados en América Central y del Sur, pero no ha sido reportado anteriormente de estar establecida fuera de su rango de distribución nativa. No se conoce que cause problemas económicos o ecológicos.

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