N O T E

First Record of the Invasive *Poneracantha triangularis* (Hymenoptera: Formicidae) in Georgia (USA)[1]

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The ant *Poneracantha triangularis* (Mayr) has a native range that extends from Costa Rica to northern Argentina (MacGown and Wetterer 2012, Psyche 2012: 1–4). The first North American record for this distinctive species was from Florida in 1985 (Deyrup et al. 1989, Fla. Entomol. 72: 91–101; as *Gnamptogenys aculeaticoxae* (Santschi)). Most literature refers to this species as *G. triangularis*, but a recent phylogenetic analysis (Camacho et al. 2022, Insect Syst. Divers. 6: 1–20) resurrected the genus *Poneracantha* from synonomy to include the species previously contained in the *Gnamptogenys rostrata* group (sensu Lattke 1995, J. Hymenopt. Res. 4: 137–193). *Poneracantha triangularis* subsequently has been reported from Alabama, Louisiana, Mississippi, Texas, and South Carolina (MacGown and Forster 2005, Entomol. News 116: 61–74; MacGown and Wetterer 2012; Wang et al. 2021, Trans. Am. Entomol. Soc. 147: 819–825), but the current record is the first for the state of Georgia.

On 2 May 2022, I conducted a field experiment on a colony of the invasive ant *Pheidole obscurithorax* Naves. The site was a foundation bed, planted with occasional yaupon hollies (*Ilex vomitoria* Aiton), along the southeastern side of the Education Building on Georgia Southern University's Statesboro campus. The bed was almost entirely covered with a thick layer of pine straw, except for three patches of bare dirt, roughly 1 m^2 each, where the experiment was being conducted. During the course of the experiment, I observed individuals of an unfamiliar species of ant occasionally wandering along the edge of the bed. I eventually collected four specimens and later identified them as *P. triangularis*. Subsequent visits to the site failed to locate either a nest or additional workers, most likely due to the thick layer of pine straw combined with the small colonies (80–150 workers; Lattke 1990, Acta Terramaris 2: 1–47) that characterize this species.

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Fig. 1. *Poneracantha triangularis*. Dorsal view, live specimen. Collected from Georgia Southern University, Statesboro, GA.

Poneracantha triangularis is one of two ectatommine ant species known from north of Mexico; the other is *Gnamptogenys hartmani* (Wheeler). Both species are easily recognized by the deep grooves that cover their entire head and body. *Poneracantha triangularis* workers are dark brown, 5 mm total length, and possess two small spines on the posterolateral corners of the propodeum (Figs. 1, 2). In living specimens, the apex of the gaster points downward and somewhat anteriorly in a manner superficially similar to *Proceratium* spp. (A.W.H. pers. obs.). *Gnamptogenys hartmani*, whose known U.S. distribution is limited to Texas and Louisiana, is noticeably smaller than *P. triangularis* (3.5–4 mm total length), pale reddish orange, lacks propodeal spines, and based on photographs does not direct the apex of its gaster anteriorly.

Given the wide distribution of *P. triangularis* throughout the southeastern United States, its occurrence in Georgia is not surprising. In its introduced range, the species has been recorded from a wide range of habitats, but despite its distinctive appearance is seldom encountered.

Poneracantha triangularis is a specialized predator on millipedes. In the laboratory, *P. triangularis* is especially fond of the invasive Asian millipede *Oxidus gracilis* (Koch), which is abundant on the Statesboro campus. Like many millipedes, *O. gracilis* defends itself against predators with a foul-smelling cocktail of toxic chemicals, including hydrogen cyanide (Taira et al. 2003, Appl. Entomol. Zool. 38: 401–404). These defenses, however, are apparently ineffective against *P. triangularis*, which has been recorded attacking *O. gracilis* in the field and can survive for hours in cyanide killing jars that killed other ants within a few minutes (Lattke 1990). *Poneracantha triangularis* workers emit an odor similar to that of *O.*

Fig. 2. *Poneracantha triangularis*. Lateral view, deceased specimen. Collected from Georgia Southern University, Statesboro, GA.

gracilis (Wang et al. 2021), suggesting that this ant can not only tolerate the millipede's chemical weapons but perhaps also co-opt them for its own protection.

Although *P. triangularis* is an invasive species (i.e., introduced by humans to a new area, from which it has subsequently spread; Simberloff 2013, Invasive Species: What Everyone Needs to Know; Oxford University Press, Oxford, England), its apparent scarcity and specialized diet suggest that it is not likely to become a serious pest, as MacGown and Wetterer (2012) and Wang et al. (2021) have noted.