

***Paratrechina pubens* (FOREL, 1893) (Hymenoptera: Formicidae), a candidate for the plague ant of 19th century Bermuda**

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Abstract

Previously overlooked specimens of the hairy crazy ant, *Paratrechina pubens* (FOREL, 1893), collected in 1905, represent the only known record of this species from Bermuda. Published accounts of an unidentified ant that underwent a great population explosion in 19th century Bermuda match the general appearance of *P. pubens*, which is currently undergoing a similar outbreak on St. Croix, US Virgin Islands. Thus, *P. pubens* appears to be a good candidate for the plague ant of 19th century Bermuda. It will be interesting to track whether *P. pubens* becomes a major long-term pest on St. Croix or whether the populations collapse, as apparently happened in Bermuda.

Key words: Atlantic islands, Bermuda, exotic ants, *Paratrechina pubens*, pest ants.

Myrmecol. News 10: 39-40

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In January 2007, I found in the Museum of Comparative Zoology at Harvard University ant specimens that WETTERER & WETTERER (2004) overlooked in their review of Bermuda ants. Trevor Kincaid collected the specimens on the Bermuda Islands on 16 July 1905. WHEELER (1906) identified them as *Prenolepis* sp.: "seven workers, apparently all from the same colony, but varying much in size (from 2-3 mm). They are very pilose and pubescent, with subopaque surface and finely punctate mesonotum." In January 2007, Stefan Cover identified the specimens as the hairy crazy ant, *Paratrechina pubens* (FOREL, 1893). This is the only known record of *P. pubens* from Bermuda, and the highest latitude record for this species (32.3° N), except for one record from a greenhouse in Washington DC (38.9° N; EMERY 1893).

Paratrechina pubens has been reported from sites scattered across the New World tropics and subtropics, and is known as a localized pest in Florida, as far north as Jacksonville (30.3° N; TRAGER 1984, DEYRUP & al. 2000, WARNER & SCHEFFRAHN 2004). *Paratrechina pubens* is currently undergoing a great outbreak on St. Croix, US Virgin Islands (17.7 - 17.8° N), where it occupied ~12 km² of the island in March 2006 (J.K. Wetterer & J.L.W. Keularts, unpubl.). At many sites on St. Croix, *P. pubens* occurred at extremely high densities, particularly in trees. Locals blamed *P. pubens* for serious crop damage due to high densities of plant-feeding Hemiptera tended by the ants.

WETTERER (2006) recently evaluated published reports of 19th century ant plagues in Bermuda and, based on accounts of the ants' appearance, behavior, ecology, and impact, proposed that the plague ants may have been a temperate *Lasius* species, possibly *Lasius niger* (LINNAEUS, 1758), *Lasius grandis* FOREL, 1909, or *Lasius neglectus* VAN LOON & al., 1990. *Paratrechina pubens* is similar to these *Lasius* species in appearance, behavior, ecology, and impact.

Based on the early *P. pubens* specimens from Bermuda and the recent outbreak of this species on St. Croix, I now

believe that *P. pubens* is the most likely candidate for the 19th century plague ant of Bermuda. If *P. pubens* was the plague ant that HURDIS (1897) reported, this could explain why high populations only occurred in summers, when the climate was better suited for this largely tropical species. It will be interesting to track the progress of *P. pubens* on tropical St. Croix to see whether it becomes a major long-term economic and ecological pest or whether the populations collapse as apparently happened in Bermuda.

Acknowledgements

I thank A. Wetterer and M. Wetterer for comments on this manuscript; Florida Atlantic University and the National Science Foundation for financial support.

Zusammenfassung

Bislang übersehene, 1905 gesammelte Individuen von *Paratrechina pubens* (FOREL, 1893), stellen den einzigen bekannten Fund dieser Art auf Bermuda dar. Veröffentlichte Berichte einer nicht identifizierten Ameisenart, die sich im neunzehnten Jahrhundert explosionsartig auf Bermuda ausgebreitet hat, passen zum generellen Erscheinungsbild von *P. pubens*, welche sich aktuell auf ähnliche Weise auf St. Croix, US Virgin Islands, ausbreitet. *Paratrechina pubens* erscheint also insgesamt, ein guter Kandidat für die Ameisenplage auf Bermuda im neunzehnten Jahrhundert zu sein. Es wird interessant sein nachzuverfolgen, ob sich *P. pubens* auf St. Croix zu einem langfristigen Lästling entwickelt oder ob die Populationen kollabieren, wie es offenbar auf Bermuda der Fall war.

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