Nylanderia (=Paratrechina) pubens **System:** Terrestrial

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Insecta	Hymenoptera	Formicidae

Common name Caribbean crazy ant (English), Rasberry crazy ant (English), hairy crazy ant (English)

Synonym *Paratrechina* , sp. nr. *pubens*

Similar species *Prenolepis imparis, Paratrechina guatemalensis*

Summary Nylanderia (=Paratrechina) pubens, or the hairy crazy ant, is an invasive pest which infests residences and businesses with vast colonies. Thought native to either South America or parts of the Caribbean, *N. pubens* establishes population explosions that are extremely problematic. It is known to accumulate in electrical equipment causing short circuits, clogging switching mechanisms, and causing equipment failure. Reports have also implicated it as an agricultural pest due to high densities of plant feeding Hemiptera that are tended by the ants.

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Species Description
Nylanderia pubens is a medium-small, 2.6-3 mm long, monomorphic, golden-brown to reddish-brown ant. Its body surface is smooth and glossy, and covered with dense hairs. Worker ants have long legs and antennae and their bodies have numerous, long, coarse hairs. Their heads are shiny, sparsely pubescent, and subcordate. The antenna have 12-segments with no club, and their antennal scape is nearly twice the width of the head. After feeding, the ant's gaster, rear portion of the abdomen, will appear to be striped due to stretching of the light-colored membrane connecting segments of the gaster. Its thorax is densely pubescent with long, abundant light-brown hairs. There is a small circle of hairs, called the acidopore, present at tip of the abdomen, as opposed to the typical stinger found in most ants, a characteristic of formicine ants found within the Formicinae subfamily. *N. pubens* is a social insect that is usually found in extremely large numbers and lives in large colonies or groups of colonies that seem to be indistinguishable from one another (Warner & Scheffrahn; Trager, 1984; AgriLife, 2008).

Notes
Nylanderia pubens (Forel) was originally described as *Paratrechina pubens* Forel from St. Vincent, Lesser Antilles, and has been found on other West Indian islands, including Anguilla, Guadeloupe, and Puerto Rico (Trager 1984). The species was renamed *Nylanderia pubens* in 2010 (LaPolla *et al.* 2010)

Lifecycle Stages
Little is known about the life cycle of *Nylanderia pubens.* Colonies may have several hundred thousand to millions of individuals and appear to be polydomous, nesting in several locations, and polygamous, having multiple queens (Warner & Scheffrahn, 2008; Vazquez, undated)

Habitat Description
Nylanderia pubens is a semi-tropical ant and potential northern distribution will be limited by cooler weather conditions. They have been found to emerge as temperatures reach 60°F. *N. pubens* does not build centralized nests, beds, or mounds, and does not emerge to the surface from nests through central openings. Colonies can be found under or within almost any object and may occur under landscape objects like rocks, timbers, piles of debris, stumps, soil, concrete, potted plants, etc. Introduced populations of *N. pubens* are found to be closely associated with urban, industrial, and disturbed areas. In urban environments worker ants forage indoors, into homes and other structures. Few worker ants forage during cooler winter months. In spring foraging activity begins and colonies grow, producing millions of workers that increase dramatically by mid-summer. Ant numbers remain high through fall. *N. pubens* has been observed emerging from soffits, between railroad ties used in landscaping, under wooden debris, underground electrical conduits, and cracks in cement (Warner & Scheffrahn, 2008; AgriLife, 2008; Deyrup, 2000).

Reproduction
\Colonies contain many queen ants. Broods consist of larval and pupal stages. Pupae are \"naked\" or without cocoons. They periodically produce winged male and female forms called sexual, alates or reproductives. Colonies are thought to spread or propagate by \"budding\" with breeding occurring at or near the edge of the nest, creating new colonies at the periphery. Distribution rates ~20 and ~30 m per month have been observed for residential and an industrial areas, respectively (AgriLife, 2008; Meyers, 2008).

Nutrition
Nylanderia pubens is omviorous and consumes almost anything. Worker ants commonly \"tend\" sucking hemipterous insects such as aphids, scale insects, whiteflies, mealy bugs, and others that excrete a sugary liquid called \"honeydew\" extracted from host plants when stimulated by the ants. Workers are attracted to sweet parts of plants including nectaries, damaged and over-ripe fruit. Worker ants also consume other insects and other small vertebrates for protein. *N. pubens* forms loose foraging trails as well as forage randomly non-trailing and crawl rapidly and erratically (AgriLife, 2008; Warner & Scheffrahn, 2008).

General Impacts
Nylanderia pubens establishes vast colonies of up to millions of individuals that infest residences and businesses. In Houston, Texas and the surrounding areas large numbers of *N. pubens* have caused great annoyance to residents and businesses. Another population explosion of *P pubens* has occurred in St. Croix where the ants have overrun several properties and home owners have reported having to sweep dust pans full of dead ants daily. Similar reports have come from home and business owners in Florida as well. They are irritating to people and domestic animals and seem to displace other animals in infested areas. *N. pubens* also accumulates in electrical equipment causing short circuits, clogging switching mechanisms, and causing equipment failure. It has caused electrical shortages in a variety of apparatuses including phone lines, air conditioning units, chemical-pipe valve computers, and sewage lift pump stations. In some cases the ants have caused several thousand dollars in damage and remedial costs. St. Croix agriculturalists have blamed *N. pubens* for crop damages due to high densities of plant feeding Hemiptera that are tended by the ants.
The ecological impacts of *N. pubens* have not yet been evaluated. Observations suggest they cause a homogenization of ant fauna and/or a reduction or displacement of native ant populations. In areas where it is well established in Florida, another invasive, the red imported fire ant (*Solenopsis invicta*), has been completely displaced. Although it is not a native species, such a displacement by *N. pubens* indicates a substantial threat to native ants (Warner& Scheffrahn, 2008; Meyers, 2008; Meyers & Gold, 2006; Drees *et al*, undated; AgriLife, 2008; Wetterer & Keularts, 2008)

Management Info
Chemical: There are treatments available for this ant that offer temporary \"buffer zones\" using contact insecticides applied to surfaces, such as those containing acephate, pyrethroid insecticides (bifenthrin, cypermethrin, cyfluthrin, deltamethrin, lambda-cyhalothin, permethrin, s-fenvalerate, and others) or fipronil. These treatments are often breeched within 2-3 months post application. Effective products involved with the treatments are not readily available to the consumer. If you suspect your house or property is infested with these ants, call a professional pest control provider. After treatment, or when making multiple applications over time, piles of dead ants must be swept or moved out of the area in order to treat the surface(s) underneath. Termidor and Talstar have received expanded use approval through a Section 18 Quarantine Exemption from the Texas Department of Agriculture (TDA) and the Environmental Protection Agency (EPA) for the control of these ants. These are only available for use in counties with confirmed infestations of the Rasberry crazy ant. See product labels and supplemental labels for specific use directions: This exemption will expire on October 21, 2012 (AgriLife, 2008).
Dinotefuran exhibited high laboratory efficacy against *Nylanderia pubens*, while treatments using novaluron were inconclusive. The use of expanded-use Termidor® demonstrated trends in these data that suggest it as the treatment of choice. Other field treatments, such as Termidor and Top Choice®, Termidor and Advance Carpenter Ant BaitTM, and Transport® and Talstar® G, did not attain the success found in the expanded-use Termidor treatment. Most treatments examined were determined ineffective against high populations of *N. pubens*. Additional and more intensive population management regimes should be investigated. Abating further population proliferation to other regions will only be realized from additional control research supplemented with state and federal interdiction policies (Meyers, 2008; Drees *et al*, undated).
Sweet liquid ant bait was fed upon when placed directly on an active trail, but recruitment to the bait was not observed. Sprays and granular applications of residual insecticides seemingly have had little or no effect in controlling this non-biting nuisance ant. The use of contact residual insecticides sprayed along active trails and nest sites is recommended to reduce ant populations, followed a few days later by sweet ant baits placed at numerous locations along trails and frequently replaced with fresh bait (Warner & Scheffrahn, 2008).

Pathway
Parachina pubens shows the likelihood of being transported through movement of almost any infested container or material. The movement of infested garbage, yard debris, bags or loads of compost, potted plants, bales of hay, can transport these ant colonies by truck, railroad, and airplane (AgriLife, 2008).

Principal source: Warner, John and Rudolph H. Scheffrahn, 2008. Caribbean Crazy Ant (proposed common name), *Paratrechina pubens* Forel (Insecta: Hymenoptera: Formicidae: Formicinae) EENY-284 series of Featured Creatures from the Entomology and Nematology Department, Florida.
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ALIEN RANGE

[1] ANGUILLA **[1]** ARGENTINA

[1] BERMUDA
[1] COLOMBIA
[1] GUADELOUPE
[1] MEXICO
[1] PUERTO RICO
[2] UNITED STATES
[1] BRAZIL
[1] CUBA
[1] MARTINIQUE
[1] PANAMA
[1] SAINT VINCENT AND THE GRENADINES
[1] VIRGIN ISLANDS, U.S.

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Summary: This compilation of information sources can be sorted on keywords for example: Baits & Lures, Non Target Species, Eradication, Monitoring, Risk Assessment, Weeds, Herbicides etc. This compilation is at present in Excel format, this will be web-enabled as a searchable database shortly. This version of the database has been developed by the IUCN SSC ISSG as part of an Overseas Territories Environmental Programme funded project XOT603 in partnership with the Cayman Islands Government - Department of Environment. The compilation is a work under progress, the ISSG will manage, maintain and enhance the database with current and newly published information, reports, journal articles etc.

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