GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: ***Paratrechina longicornis***

Paratrechina longicornis **System:** Terrestrial

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Insecta	Hymenoptera	Formicidae

Common name higenaga-ameiro-ari (English), hairy ant (English), crazy ant (English), slender crazy ant (English), long-horned ant (English)

Synonym
Formica longicornis , Latreille (1802)
Prenolepis longicornis , Roger (1863)
Prenolepis (Nylanderia) longicornis , Emery (1910)
Formica vagans , Jerdon (1851)
Formica gracilescens , Nylander (1856)
Tapinoma gracilescens , F. Smith (1858)
Paratrechina currens , Motschoulsky (1863)
Paratrechina longicornis , (Latreille) (1925)

Similar species

Summary

Paratrechina longicornis (the crazy ant) is a tramp ant, which, by definition, is an ant that is widely dispersed through commerce and other human-assisted avenues. It is extremely easy to identify by observing its rapid and erratic movements. Paratrechina longicornis is highly adaptable to various environments and can be a major pest. It occurs in large numbers in homes or outdoors and is capable of displacing other ants and possibly other invertebrates. Paratrechina longicornis forages over long distances away from its nest, making the nest hard to find and the ants difficult to control.

view this species on IUCN Red List

Species Description
Crazy ant (*Paratrechina longicornis*) is extremely easy to identify by observing its rapid and erratic movements. The antennae have 12-segments without a club and the scape, the basal segment of the antenna, is extraordinarily long with the apex surpassing the posterior border of the head by at least one-half the scape length. Workers are relatively small (2.3-3mm). Head, thorax, petiole and gaster are dark brown to blackish and the body often has a faint bluish iridescence. All workers in a colony are monomorphic and have only one node between the propodeum and the gaster. Eyes are elliptical, strongly convex, and placed close to the posterior border of the head. Legs are extraordinarily long. The head is elongate and the mandibles narrow. Each mandible has five teeth. A stinger is lacking but *P. longicornis* may bite an intruder and curve its abdomen forward to inject a formic acid secretion from its acidopore onto the wound. Confirmation of identification may be made with the aid of a hand lens, through which the extremely long antennal scape, long legs and erect setae are very apparent. (Creighton, 1950; Harris and Berry, 2005; Nickerson and Barbara, 2000; and Onoyama and Morisita, 2003).
Please click on AntWeb: *Paratrechina longicornis* for more images and assistance with identification. The AntWeb image comparison tool lets you compare images of ants at the subfamily, genus, species or specimen level. You may also specify which types of images you would like to comare: head, profile, dorsal, or label.
Please see PaDIL (Pests and Diseases Image Library) Species Content Page Ants: Crazy ant for high quality diagnostic and overview images.
Please follow this link for a fully illustrated Lucid key to common invasive ants [Hymenoptera: Formicidae] of the Pacific Island region [requires the most recent version of Java installed]. The factsheet on *Paratrechina longicornis* contains an overview, diagnostic features, comparision charts, images, nomenclature and links. (Sarnat, 2008)

Notes
The common name \"crazy ant\" arises from the ants characteristic erratic and rapid movement, not following trails as often as other ants. *P. longicornis* is morphologically distinctive and is one of the few Paratrechina species that is not consistently mis-identified in collections (Harris and Berry, 2005; and Nickerson and Barbara, 2000).

Lifecycle Stages
Crazy ant (*Paratrechina longicornis*) colonies range from moderate to heavily populous. The colonies may raise sexuals at any time of the year in warmer regions, but in the seasonal climate of north Florida, alate production is apparently limited to the warm rainy months of spring through late summer. On warm, humid evenings, large numbers of males gather outside nest entrances and may mill about excitedly. Workers patrol vegetation and other structures nearby. Periodically, a dealate queen emerges. Trager (1984) has suggested that mating occurs in such groupings around the nest entrance. Wings of queens are removed while still callow and males were never observed to fly or use their wings in any way. However, in several cases it has been observed that males frequently appear at lights (Nickerson and Barbara, 2000).

Uses
Paratrechina longicornis is involved in an important mutualistic relationship with the eggs of the lizard *Mabuya longicaudata* in its native range of Taiwan. In high moisture enviroments reptile eggs are able to condense water on their surfaces. These small water droplets are collected by *P. longicornis*. When water droplets and *P. longicornis* were experimentally removed from the eggs of *M. longicaudata* the eggs were attacked by the egg predator ant *Pheidole taivanensis*. Both ant species actively searched for the reptilian eggs, with *P. taivanensis* usually finding eggs first. In the absence of *P. longicornis*, *P. taivanensis* predation dramatically reduced lizard egg survival. However when *P. longicornis* found nests later they were usually able to displace the egg predator ant (Huang, 2008).

Habitat Description
Crazy ant (*Paratrechina longicornis*) is highly adaptable, living in both very dry and rather moist habitats. It often nests some distance away from its foraging area and is usually associated with disturbance. They are a common pest ant in houses and seem peculiarly adapted to the interior and immediate vicinity of human habitations. It nests in such places as trash, refuse, cavities in plants and trees, rotten wood, in soil under objects and also have been found under debris left standing in buildings for long periods of time. A crazy ant nest site can be found by looking for workers carrying food back to the nest. *P. longicornis* can also be found in other environments such as beaches, dry tortugas, geothermal areas, farms and even ships. It is also present in some native vegetation in the tropics, such as in conservation areas on offshore islands. In cold climates, the ants nest in centrally heated buildings. On beaches at high tide, nests can be found submerged underwater and are probably protected from flooding by air trapped in the nest galleries (Harris and Berry, 2005; Longino, 2004; and Nickerson and Barbara, 2000).

Reproduction
Crazy ant (*Paratrechina longicornis*) colonies are polygyne. Nests contain up to 2000 workers and 40 queens. Reproduction is throughout the year in warm climates but more restricted in cooler climates. Workers are probably sterile. Colonies occur in temporary nests, are highly mobile, and will move if disturbed. These ants can nest in a variety of locations from dry to moist environments (Harris and Berry, 2005).

Nutrition
Crazy ant (*Paratrechina longicornis*) foragers are opportunistic omnivores, feeding on live and dead insects, seeds, honeydew, fruits, plant exudates and many household foods. *P. longicornis* thrive in places such as shops and cafes, where workers may be seen transporting crumbs and insects. They apparently have a seasonal preference for a high-protein diet and during the summer months may refuse honey or sugar baits. They are attracted to honeydew producing homopterans in spring and autumn/fall. Honeydew is obtained by tending plant lice, mealy bugs and scales. Foragers will also collect seeds. Large prey items, such as a lizard, are carried by a highly concerted group action. Workers feed on many household foods, such as meat, grease, sweets, fruits, vegetables and liquids (Smith 1965)\" (Harris and Berry, 2005; and Nickerson and Barbara, 2000).

General Impacts
Crazy ant (*Paratrechina longicornis*) is an extremely hardy species. Its ability to invade a varying degree of habitats makes it serious threat. It occurs in large numbers in homes or outdoors. They forage long distances away from the nest, making them hard to find and subsequently make it difficult to control. *P. longicornis* is a common tramp that invades houses and heated buildings. It is known to transport pathogenic microbes in hospitals. *P. longicornis* is capable of displacing other ants and possibly other invertebrates. It is also difficult to control with current commercially available chemical controls because they show limited effectiveness. Nests can be in cracks in concrete or around wharf piles, which makes nests often difficult to locate and control. (Harris and Berry, 2005; and Nickerson and Barbara, 2000).

Management Info
Preventative measures: Early detection by active surveillance and subsequent nest treatment is the best way to prevent any ant species from establishing in novel environments. Pitfalls and attractant baits are both methods that can yield good results (Simon O'Connor pers.comm).
The Pacific Ant Prevention Programme is a proposal prepared for the Pacific Plant Protection Organisation and Regional Technical Meeting for Plant Protection. This plan aims to prevent the red imported fire ant and other invasive ant species with economic, environmental or social impacts from establishing within or spreading between countries in the Pacific.
A detailed pest risk assessment for the eight species ranked as having the highest potential risk to New Zealand (*Anoplolepis gracilipes*, *Lasius neglectus*, *Monomorium destructor*, *Paratrechina longicornis*, *Solenopsis geminata*, *Solenopsis richteri*, *Tapinoma melanocephalum*, *Wasmannia auropunctata*) was prepared as part of 'The invasive ant risk assessment project', Harris *et al.* 2005., for Biosecurity New Zealand by Landcare Research. The invasive ant risk assessment for *Paratrechina longicornis* can be viewed at *Paratrechina longicornis risk assessment*
Please see *Paratrechina longicornis* information sheet for more information on biology, distribution, pest status and control technologies. \r\n
Cultural: Non-chemical control is based on exclusion through good housekeeping practices and cleanliness, eliminating food sources. Crazy ants often nest outdoors so prevention of their entrance by caulking exterior penetrations and weather-stripping may aid in their control (Nickerson and Barbara, 2000).
Chemical: Inside buildings, chemical controls are based on baits, dusts and spot treatments with residual sprays. Outdoor treatments include chemical formulations such as baits, granules, dusts, and sprays (Nickerson and Barbara, 2000).
Please follow this link for more detailed information on the management of *Paratrechina longicornis* compiled by the ISSG.

Pathway
On 26 October 1990, Greg Mayer, Tina Kuklenski, and Scott Miller sampled invertebrates from a large shipment (an entire barge) of potted plants being unloaded at Guana Island, British Virgin Islands (BVI). The shipment was infested with large numbers of insects and snails, and included *P. longicornis* (Miller, 1994).On 26 October 1990, Greg Mayer, Tina Kuklenski, and Scott Miller sampled invertebrates from a large shipment (an entire barge) of potted plants being unloaded at Guana Island, British Virgin Islands (BVI). The shipment was infested with large numbers of insects and snails and included *P. longicornis* (Miller, 1994).Human-mediated dispersal has helped the spread of *P. longicornis* at local, regional, national and international scales (Harris *et al.* 2005). It can be associated with any commodity and transport mode from countries with established populations and is commonly intercepted on air and sea cargo, including fresh produce, timber, empty sea containers and personal baggage (Simon O'Connor pers comm).

Principal source: Harris, R.; Abbott, K.; Barton, K.; Berry, J.; Don, W.; Gunawardana, D.; Lester, P.; Rees, J.; Stanley, M.; Sutherland, A.; Toft, R. 2005: Invasive ant pest risk assessment project for Biosecurity New Zealand. Nickerson and Barbara, 2000 *Paratrechina longicornis*

Compiler: National Biological Information Infrastructure (NBII) & IUCN/SSC Invasive Species Specialist Group (ISSG)
Updates with support from the Overseas Territories Environmental Programme (OTEP) project XOT603, a joint project with the Cayman Islands Government - Department of Environment

Review: Simon O'Connor Coordinator, Pacific Ant Prevention Programme Secretariat of the Pacific Community New Zealand

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ALIEN RANGE

[1] ALGERIA
[1] ANTIGUA AND BARBUDA
[1] ARGENTINA
[8] AUSTRALIA
[1] BAHRAIN
[1] BARBADOS
[3] BERMUDA
[1] BRITISH INDIAN OCEAN TERRITORY
[1] BRUNEI DARUSSALAM
[3] CANADA
[1] CAYMAN ISLANDS
[2] CHILE
[1] CHRISTMAS ISLAND
[1] COMOROS
[1] COOK ISLANDS
[1] CUBA
[1] DENMARK
[1] DOMINICAN REPUBLIC
[3] ECUADOR
[1] EL SALVADOR
[1] ERITREA
[1] ETHIOPIA
[1] FRANCE
[5] FRENCH POLYNESIA
[1] GAMBIA
[1] GHANA
[1] GREECE
[1] GUADELOUPE
[1] GUINEA
[1] HAITI
[1] IBERIAN PENINSULA
[1] INDONESIA
[1] IRAQ
[1] ISRAEL
[2] JAMAICA
[1] KENYA
[1] LEBANON
[2] MALAWI
[1] MALDIVES
[1] MALTA
[1] MARTINIQUE
[1] MEXICO
[1] MONTSERRAT
[1] MYANMAR
[1] NEPAL
[1] NEW CALEDONIA
[1] NICARAGUA
[1] NIUE
[1] NORTHERN MARIANA ISLANDS
[1] PAKISTAN
[2] PANAMA
[1] PARAGUAY
[1] PHILIPPINES
[5] PORTUGAL
[1] ANGUILLA
[1] ARABIAN PENINSULA
[1] ARUBA
[1] BAHAMAS
[1] BANGLADESH
[1] BELIZE
[4] BRAZIL
[1] BRITISH ISLES
[1] CAMEROON
[1] CAPE VERDE
[1] CENTRAL AFRICAN REPUBLIC
[1] CHINA
[1] COLOMBIA
[1] CONGO, THE DEMOCRATIC REPUBLIC OF THE
[1] COSTA RICA
[1] CZECH REPUBLIC
[1] DOMINICA
[1] DUTCH LEEWARD ISLANDS
[1] EGYPT
[1] EQUATORIAL GUINEA
[1] ESTONIA
[1] FIJI
[1] FRENCH GUIANA
[1] FRENCH SOUTHERN TERRITORIES
[1] GERMANY
[1] GIBRALTAR
[1] GRENADA
[1] GUATEMALA
[1] GUYANA
[1] HONDURAS
[1] INDIA
[1] IRAN, ISLAMIC REPUBLIC OF
[1] IRELAND
[1] ITALY
[1] JAPAN
[4] KIRIBATI
[1] MADAGASCAR
[1] MALAYSIA
[1] MALI
[1] MARSHALL ISLANDS
[2] MAURITIUS
[1] MICRONESIA, FEDERATED STATES OF
[1] MOROCCO
[1] NAURU
[1] NETHERLANDS
[6] NEW ZEALAND
[1] NIGERIA
[1] NORFOLK ISLAND
[1] OMAN
[1] PALAU
[1] PAPUA NEW GUINEA
[1] PERU
[1] PITCAIRN
[23] PUERTO RICO

[1] REUNION
[1] SAINT KITTS AND NEVIS
[1] SAINT MARTIN (FRENCH PART)
[1] SAMOA
[1] SAUDI ARABIA
[1] SEYCHELLES
[1] SINGAPORE
[1] SOMALIA
[3] SPAIN
[1] SUDAN
[1] SWEDEN
[1] SYRIAN ARAB REPUBLIC
[1] TANZANIA, UNITED REPUBLIC OF
[1] TIMOR-LESTE
[1] TONGA
[1] TURKS AND CAICOS ISLANDS
[1] UNITED ARAB EMIRATES
[31] UNITED STATES
[1] VANUATU
[1] VIET NAM
[2] VIRGIN ISLANDS, U.S.
[1] YEMEN
[2] SAINT HELENA
[1] SAINT LUCIA
[1] SAINT VINCENT AND THE GRENADINES
[1] SAO TOME AND PRINCIPE
[1] SENEGAL
[1] SIERRA LEONE
[1] SOLOMON ISLANDS
[1] SOUTH AFRICA
[1] SRI LANKA
[1] SURINAME
[1] SWITZERLAND
[1] TAIWAN
[1] THAILAND
[2] TOKELAU
[1] TRINIDAD AND TOBAGO
[1] TUVALU
[1] UNITED KINGDOM
[1] UNITED STATES MINOR OUTLYING ISLANDS
[1] VENEZUELA
[1] VIRGIN ISLANDS, BRITISH
[1] WALLIS AND FUTUNA

BIBLIOGRAPHY

46 references found for **Paratrechina longicornis**

Managment information

AntWeb, 2006. *Paratrechina longicornis*

Summary: AntWeb illustrates ant diversity by providing information and high quality color images of many of the approximately 10,000 known species of ants. AntWeb currently focusses on the species of the Nearctic and Malagasy biogeographic regions, and the ant genera of the world. Over time, the site is expected to grow to describe every species of ant known. AntWeb provides the following tools: Search tools, Regional Lists, In-depth information, Ant Image comparision tool PDF field guides maps on AntWeb and Google Earth and Ant genera of the world slide show.
AntWeb is available from: http://antweb.org/about.jsp [Accessed 20 April 2006]
The species page is available from:
http://antweb.org/getComparison.do?rank=species&genus=paratrechina&name=longicornis&project=&project= [Accessed 2 May 2006]

Graham, R. 2006. Crazy Ant (*Paratrechina longicornis*) Pest and Diseases Image Library. Updated on 29/08/2006 10:34:14 AM.

Summary: PaDIL (Pests and Diseases Image Library) is a Commonwealth Government initiative, developed and built by Museum Victoria s Online Publishing Team, with support provided by DAFF (Department of Agriculture, Fisheries and Forestry) and PHA (Plant Health Australia), a non-profit public company. Project partners also include Museum Victoria, the Western Australian Department of Agriculture and the Queensland University of Technology. The aim of the project is: 1) Production of high quality images showing primarily exotic targeted organisms of plant health concern to Australia. 2) Assist with plant health diagnostics in all areas, from initial to high level. 3) Capacity building for diagnostics in plant health, including linkage developments between training and research organisations. 4) Create and use educational tools for training undergraduates/postgraduates. 5) Engender public awareness about plant health concerns in Australia. PaDIL is available from : http://www.padil.gov.au/aboutOverview.aspx, this page is available from:
http://www.padil.gov.au/viewPestDiagnosticImages.aspx?id=186 [Accessed 6 October 2006]

Harris, R.; Abbott, K.; Barton, K.; Berry, J.; Don, W.; Gunawardana, D.; Lester, P.; Rees, J.; Stanley, M.; Sutherland, A.; Toft, R. 2005: Invasive ant pest risk assessment project for Biosecurity New Zealand. Series of unpublished Landcare Research contract reports to Biosecurity New Zealand. BAH/35/2004-1.
Summary: The invasive ant risk assessment project, prepared for Biosecurity New Zealand by Landcare Research, synthesises information on the ant species that occur in New Zealand (native and introduced species), and on invasive ants that pose a potential threat to New Zealand.
There is a great deal of information in this risk assessment on invasive ant species that is of global interest, including; biology, distribution, pest status, control technologies.
The assessment project has five sections.1) The Ants of New Zealand: information sheets on all native and introduced ants established in New Zealand 2) Preliminary invasive ant risk assessment: risk scorecard to quantify the threat to New Zealand of 75 ant species. 3) Information sheets on invasive ant threats: information sheets on all ant species scored as medium to high risk (n = 39). 4) Pest risk assessment: A detailed pest risk assessment for the eight species ranked as having the highest potential risk to New Zealand (*Anoplolepis gracilipes*, *Lasius neglectus*, *Monomorium destructor*, *Paratrechina longicornis*, *Solenopsis geminata*, *Solenopsis richteri*, *Tapinoma melanocephalum*, *Wasmannia auropunctata*) 5) Ranking of high risk species: ranking of the eight highest risk ant species in terms of the risks of entry, establishment, spread, and detrimental consequences.
NB. The red imported fire ant (*Solenopsis invicta*) is considered to be the worst ant pest in the world. However, *Solenopsis invicta* was specifically excluded from consideration in this risk assessment as this species has already been subject to detailed consideration by Biosecurity New Zealand
(This invasive ant pest risk assessment was funded by Biosecurity New Zealand and Foundation for Research, Science and Technology. Undertaken by Landcare Research in collaboration with Victoria University of Wellington and Otago Museum)
Available from: http://www.landcareresearch.co.nz/research/biocons/invertebrates/Ants/ant_pest_risk.asp [Accessed 20 May 2007]
Harris, R.J. & Barker, G. (2007). Relative risk of invasive ants (Hymenoptera: Formicidae) establishing in New Zealand. *New Zealand Journal of Zoology 34*: 161-178.
Hoffmann, Benjamin D and O Connor, Simon., 2004. Eradication of two exotic ants from Kakadu National Park. Ecological Management & Restoration, August 2004, vol. 5, no. 2, pp. 98-105(8)
IUCN/SSC Invasive Species Specialist Group (ISSG)., 2010. A Compilation of Information Sources for Conservation Managers.
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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Nickerson, J. C., and K. A. Barbara. 2000. Crazy ant: scientific name: *Paratrechina longicornis* (Latreille) (Insecta: Hymenoptera: Formicidae). Featured Creatures: University of Florida Institute of Food and Agricultural Sciences.
Summary: Available from: http://entomology.ifas.ufl.edu/creatures/urban/ants/crazy_ant.htm [Accessed 17 March 2009]
Pacific Ant Prevention Programme, March 2004. Pacific Invasive Ant Group (PIAG) on behalf of the IUCN/SSC Invasive Species Specialist Group (ISSG).
Summary: A proposal prepared for the Pacific Plant Protection Organisation and Regional Technical Meeting For Plant Protection. This plan aims to prevent the red imported fire ant and other invasive ant species with economic, environmental and/or social impacts, entering and establishing in or spreading between (or within) countries of the Pacific Region.
Sarnat, E. M. (December 4, 2008) PIAkey: Identification guide to ants of the Pacific Islands, Edition 2.0, Lucid v. 3.4. USDA/APHIS/PPQ Center for Plant Health Science and Technology and University of California &#65533; Davis.
Summary: PIAkey (Pacific Invasive Ant key) is an electronic guide designed to assist users identify invasive ant species commonly encountered in the Pacific Island region. The guide covers four subfamilies, 20 genera and 44 species.
The primary tool offered by PIAkey is an interactive key designed using Lucid3 software. In addition to being fully illustrated, the Lucid key allows users to enter at multiple character points, skip unknown characters, and find the most efficient path for identifying the available taxa. Each species is linked to its own web page. These species pages, or factsheets, are linked to an illustrated glossary of morphological terms, and include the following seven sections: 1) Overview of the species; 2) Diagnostic chart illustrating a unique combination of identification characters; 3) Comparison chart illustrating differences among species of similar appearance; 4) Video clip of the species behavior at food baits (where available); 5) Image gallery that includes original specimen images and live images (where available); 6) Nomenclature section detailing the taxonomic history of the species, and 7) Links and references section for additional literature and online resources.
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Blard, F. 2006. Les fourmis envahissantes de l��le de la R�union�: Interaction comp�titives et facteurs d�invasion. Th�se de doctorat. Universit� de la R�union. 97 pp
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Summary: A comprehensive review about invasive ants in general.
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Summary: An online database that provides taxonomic information, common names, synonyms and geographical jurisdiction of a species. In addition links are provided to retrieve biological records and collection information from the Global Biodiversity Information Facility (GBIF) Data Portal and bioscience articles from BioOne journals.
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