

Invasive Ant Threat



INFORMATION SHEET Number 13 • *Monomorium monomorium*

Risk: Medium

Monomorium monomorium Bolton

Taxonomic Category

Family:	Formicidae
Subfamily:	Myrmicinae
Tribe:	Solenopsidini
Genus:	<i>Monomorium</i>
Species:	<i>monomorium</i>

Common name(s): none known

Original name: *Monomorium minutum* Mayr

Synonyms or changes in combination or taxonomy: replacement name for *Monomorium minutum* Mayr

General Description

Identification

Size: monomorphic, 1.5–1.7 mm, head width of largest worker less than 0.65 mm

Colour: even dark reddish brown to black with mandibles, antennae (except club), and articulations of the legs and tarsi yellowish.

Surface sculpture: shiny and smooth except for the meso-epinotal suture, which is coarsely and longitudinally striate.

General description: antennae 12-segmented; club 3-segmented; terminal antennal segment distinctly longer than next two together. The scape not quite reaching posterior margin of head. Eyes moderate in size, containing more than 10 ommatidia. Mandibles with 4 strong teeth. Clypeus with a pair of longitudinal carinae present. Metanotal groove not impressed. Propodeum without spines, posterodorsal border rounded. Two nodes (petiole and postpetiole) present. Petiole (in lateral view) about as long as deep. All dorsal surfaces of head and body with erect setae.

Source: Mayr 1870; Wilson & Taylor 1967

There appears to be uncertainty with the identification and hence distribution of *M. monomorium*. Bolton (1987) examined Pacific type samples of *M. liliuokalanii* Forel and *M. samoanum* Santschi (from Hawaii and Samoa) that had been assigned to *Monomorium minutum* by Wilson and Taylor (1967) and concluded they were not conspecific and may be synonymous with *M. chinense*.

Behavioural and Biological Characteristics

Feeding and foraging

Nothing found.

Colony characteristics

Nothing found.

Dispersal

Found in potted plants being transported between islands in the Pacific (Lester & Travite 2004).

Habitats occupied

M. monomorium is found mainly in disturbed habitats in the Pacific (Wilson & Taylor 1967), and in irrigated lowland habitats (rice fields) in the Philippines (Way et al. 1998).

Global distribution (See map)

Native to

Europe (Mediterranean).

Introduced to

The Pacific region including Australia (Taylor 2002, but not listed in www4 or Heterick 2001), Philippines (Way et al. 1998), Hawaii (www46), French Polynesia (Morrison 1996a), America and Western Samoa (Wilson & Taylor 1967). Given its small size and relatively wide distribution it is probably established beyond the distribution reported in the Pacific.

Caribbean records (Bermuda – Wetterer & Wetterer 2004; Barbados – Kempf 1972) probably refer to *M. minimum* (Buckley), as there has been some confusion in the past between these two taxa (Smith 1965). In Florida records listed as *M. minimum* (Buckley) refer to *Monomorium trageri* DuBois (Deyrup 2003).

History of spread

No information.

Interception history at NZ border

There has been one interception of *M. monomorium* in cut flowers from Fiji at Auckland airport, although there are no records of its presence in Fiji (D. Ward pers. comm.). There have been 12 interceptions of *M. minutum* (= *M. monomorium*) (including a nest and eggs) at Auckland, all originating from Pacific Islands. Interceptions were mostly in fresh produce (10) with the remaining two in cut flowers and seed. There have also been at least 24 interceptions (including 2 queens and eggs) of unidentified *Monomorium* species in Auckland and Canterbury. Most of the material (including the queens) was intercepted from countries known to have *M. monomorium*.

Justification for Inclusion as a Threat

M. monomorium is native to Europe but has become established widely in disturbed habitats in the Asia Pacific region (Wilson & Taylor 1967; Way et al. 1998), and there is therefore a high risk of arrival here. There have been interceptions (including a nest and eggs) at the New Zealand border originating from the Pacific.

Mitigating factors

The global distribution in tropical and Mediterranean locations may indicate low climate overlap with New Zealand. Not considered among the significant pest species established in Hawaii (Reimer 1994), and very little information found on this ant (despite its having spread widely beyond its native range), which may indicate few impacts.

Control Technologies

Commonly collected on peanut butter baits in Hawaii (Gruner 2000).

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