

Checklist of the Ants of Fiji (Hymenoptera: Formicidae)¹

DARREN F. WARD

*School of Biological Sciences, Tamaki Campus, Private Bag 92019, University of Auckland,
Auckland, New Zealand: email: d.ward@auckland.ac.nz*

JAMES K. WETTERER

*Wilkes Honors College, Florida Atlantic University, 5353 Parkside Dr., Jupiter, FL 33418: email:
wetterer@fau.edu*

Abstract. We present a checklist of the ants of Fiji that includes 138 currently valid species and subspecies: 91 Fijian endemics, 22 wide-ranging Pacific natives, and 25 exotics. We collected five exotic ant species not previously reported from Fiji: *Platythyrea parallela* (F. Smith), *Monomorium destructor* (Jerdon), *Monomorium sechellense* Emery, *Tetramorium lanuginosum* (Mayr), and *Cardiocondyla obscurior* Wheeler. The native Fijian fauna appears to descend from migrants from the Papuan and the Western Melanesian region. There has been subsequent radiation in several genera, particularly *Camponotus*, *Cerapachys*, *Leptogenys*, *Lordomyrma*, *Pheidole*, and *Strumigenys*. There is one endemic genus, *Poecilomyrma*. The native fauna predominates in intact forest; exotic species are most common in disturbed ecosystems, including towns, villages, and agricultural areas. The ever-increasing number of invasive ant species in Fiji has potential long-term impacts for the conservation of the unique biota of Fiji.

INTRODUCTION

In Oceania, the ancestors of most species came from the west, carried by prevailing currents from Australia, New Guinea, and Southeast Asia (Wilson 1961; Carlquist 1965). The observed pattern of a steady decline in the number of genera and species found on islands as one moves from west to east across Oceania points to a dispersal mechanism whereby islands geographically closer to the source region have received more colonists than islands farther from the source region (Carlquist 1965). For example, the islands of Melanesia in western Oceania have a rich native ant fauna with many endemic species (Wilson 1961; Wilson & Taylor 1967). In contrast, the smaller and more distant islands of eastern Micronesia and Polynesia have a depauperate native ant fauna. In fact, Wilson & Taylor (1967) concluded that “prior to the coming of man, few if any native [ant] species ranged east of New Zealand, Rotuma, Samoa, and Tonga.”

From the mid 1800s to the early 1900s, several authors (primarily Mayr, Emery, Forel, and Santschi) described much of the ant fauna of Oceania based on specimens accumulated from many sources. Towards the end of this period, Mann (1919, 1921) conducted major ant surveys in Fiji and the Solomon Islands. Wheeler (1935) summarized the knowledge in his checklist of the ants of Oceania.

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In the 1950s and 1960s the ant fauna of the Pacific region was again the subject of attention. Wilson revised the subfamily Ponerinae (Wilson 1958a, 1958b, 1959a, 1959b) of Melanesia and used this group of ants to examine biogeographical patterns of dispersal and speciation. Wilson (1959c) further used the ant fauna of Melanesia to illustrate patterns of adaptive radiation, dispersal and taxon cycling. Wilson & Taylor (1967) provided an identification guide and summary of the Polynesian fauna that remains the major reference and identification guide for Polynesian ants.

Recently, there has been a new surge of interest in the ant fauna of the Pacific region (e.g., Dlussky 1993, 1994; Terayama *et al.* 1994; Morrison 1996a, 1996b, 1997; Wetterer 1997a, b, 1998, 2002, in press; Collingwood & van Harten 2001; Wetterer & Vargo 2003; Lester & Tavite 2004). Much of the renewed interest concerns the distribution and impact of invasive ant species, primarily in Polynesia and Micronesia, both of which are regions with a very limited endemic ant fauna. In Melanesia, which has a very diverse endemic ant fauna, most recent research has concerned the impact of the invasive Neotropical little fire ant, *Wasmannia auropunctata*, in New Caledonia (e.g., Jourdan 1997; Jourdan *et al.* 2001, 2002; LeBreton *et al.* 2003, 2005). In the present paper, we provide a comprehensive checklist of ants recorded from Fiji, the eastern limit of the Melanesian region.

Fiji has been at the margins of much of the Pacific ant work (Wilson 1958a, 1958b, 1959a, 1959b; Wilson & Hunt 1967; Dlussky 1994). However, there has not been a comprehensive overview of the Fijian ant fauna since Mann (1921, 1925). The ant species list from Fiji in Mann (1921, 1925) and Wheeler (1935) are now outdated as a result of numerous changes in nomenclature and descriptions of many additional species. In the present paper, we summarise the literature on the ant fauna of Fiji, assess the archipelago's species composition in relation to neighboring island groups, examine biogeographical affinities and species radiations within Fiji, and compile the distribution records of all known exotic ant species in Fiji.

METHODS

We compiled past records of Fijian ants from published literature. Due to the large number of Fijian islands, and the difficulty of reaching many of these, ant collections have generally concentrated on the most accessible islands, particularly the largest island, Viti Levu. Wetterer examined exotic ant species from Fiji in the collections at the Natural History Museum in London (BMNH), the Smithsonian Institution's National Museum of Natural History (USNM), and Harvard University's Museum of Comparative Zoology (MCZ). We obtained specimen records from the Australia National Insect Collection (ANIC) in the Global Biodiversity Information Facility database (see www.gbif.net/portal/index.jsp). Ward obtained information on specimens in the New Zealand Arthropod Collection (NZAC).

We collected ants in Fiji primarily by visual search and breaking open logs. Wetterer collected ants for 11 days in Fiji between 6 and 23 July 1997, primarily on Viti Levu, but with short trips to three small satellite islands: two resorts (Nananu-i-Ra, Toberua) and one a wildlife refuge (Mabualau). On Viti Levu, Wetterer collected in Suva, Ellington Wharf, Nadarivatu tree plantation, Navai Forestry Camp, Udu, Wailoa Power Station, Colo-i-Suva Forest Park, Waivaka, and Waisoi Forest Camp.

Ward collected ants in Fiji from 18 June – 30 July 2004 from throughout Viti Levu. Ward collected in urban and industrial areas (Suva, Tavua, Ba, Lautoka, Vuda Point,

Table 1. The taxonomic composition of endemic and native species in Fiji

Subfamily	Genera	Species/subspecies	% species total
Myrmicinae	17	51	45.13
Formicinae	3	29	25.66
Ponerinae	5	15	13.27
Dolichoderinae	5	8	7.08
Cerapachyinae	1	7	6.19
Proceratiinae	1	2	1.77
Ectatomminae	1	1	0.88

Nadi, Denerau Island, Sigatoka, Lami, and Pacific Harbour), rural areas (Navai village, Ellington wharf, Bukuya Rd-Inland Nadi, Rewa Delta, Korotogo beach, Lomolomo Guns, Momi Guns Rd., Nadarivatu, Koronivia Research Station, Rakiraki, Sigatoka Valley, Natadola beach, Vatia Point wharf, Vatukonia mine, Vaturu Dam Rd, Inland Rakiraki, Kula EcoPark), plantation forests (Galoa Mahogany forest, Lololo Pine forest, Nadarivatu forest, Colo-i-Suva Forest Park), and native forests (Mt. Korobaba, Mt. Victoria, Abaca Park, Koro'o Ridge, Vatia Point, Namosi Highland Rd. and the Sigatoka Sand Dunes).

RESULTS AND DISCUSSION

Species Richness and Composition

We found records for one 138 species and subspecies from Fiji (Appendix). Ninety one taxa (66%) are Fijian endemic (restricted to Fiji only), 22 taxa (16%) are native or regional endemics, and 25 taxa (18%) are exotic. The endemic and native taxa (113) are represented by 33 genera and seven subfamilies (Table 1). Although Fiji has many more endemic species than Polynesian islands, there is a strong correlation between the number of endemic and native species and the island area for Pacific islands (Log – log plot, $y = 0.43x + 0.13$, $R^2 = 0.91$, Table 2). There is also a good correlation between the number of endemic and native species and the island area for the five largest islands (Log – log plot, $y = 0.23x + 0.85$, $R^2 = 0.72$). Although many native species are widespread among the island groups of Fiji, a large proportion of endemics are recorded from only one island group. For example, 65 (71%) of Fijian endemics are restricted to only one island group, suggesting high levels of speciation has occurred within island groups, as well as the overall Fijian archipelago.

Biogeographical Origins and Diversification of Native Species

Wilson (1959c) extensively summarised the biogeographical origins and dispersal patterns of Ponerine ants throughout Melanesia. Based on Wilson's interpretations, Papua New Guinea is seen as the centre of origin for the native Fijian ant fauna. This is in concordance with other arthropod taxa (Evenhuis & Bickel 2005). Ancient stocks of ants dispersed into Papua New Guinea from the Oriental region, and to a lesser extent from Australia, then some stocks dispersed from Papua New Guinea outward into Melanesia in a unidirectional flow. Wilson (1959c) describes this as a classic 'filter-effect' with islands

Table 2. Number of ant species from Fiji and surrounding Pacific island groups

Island Group	Land area (km ²)	Species			Total
		Endemic	Native	Exotic	
Tuvalu	25	0	4	8	12
Niue	259	0	17	16	33
Wallis & Futuna	274	0	21	16	37
Tonga	699	10	21	22	53
Samoa	3132	15	27	25	67
Vanuatu	12189	11	30	18	59
Fiji	18272	91	22	25	138
New Caledonia	18576	72	20	18	110
Solomon Islands	27556	121	38	20	179

closest to Papua New Guinea receiving a higher proportion of dispersing stocks, with a diminishing effect outward across Melanesia and ultimately to Fiji.

Bolton (1995a) provides a taxonomic and zoogeographical census of the ant taxa, from which this filter-effect can be illustrated. Of the approximately 126 genera in the Indo-Australian region, only 33 (26%) have naturally reached Fiji. Of particular note is the absence of army ants from Fiji, including Aenictinae, Dorylinae and Leptanillinae. Wheeler (1935) comments on the lack of army ants in Oceania and suggests that their absence is because army ants have large bodied queens, and they need workers to assist the queen in establishing a new colony. Such characteristics are not favourable for long distance dispersal across oceans. However, Fiji is also missing several genera (*Crematogaster*, *Pseudolasius*, *Myopias*, and *Myrmoteras*) found in the Indo-Australian region that are very species-rich (Bolton 1995a). Interestingly, *Polyrhachis rotumana*, the only representative of this very common genus in the Indo-Australian region, is found on the island of Rotuma, to the far north of the main Fijian islands, but appears not to present on the main Fijian islands.

Although few stocks dispersed outwards from Papua New Guinea, there has been subsequent radiation in Fiji, particularly within several genera: *Camponotus* (Formicinae); *Cerapachys* (Cerapachyinae); *Leptogenys* (Ponerinae); and *Pheidole*, *Strumigenys* and *Lordomyrma* (Myrmicinae) (Mann 1921, Wheeler 1935). The Myrmicinae fauna contributes >40% of the native and endemic fauna, with *Strumigenys* (14 species), *Pheidole* (10 species) the most diverse. These two genera also make a significant contribution to the diversity in the Indo-Australian region. For example, Fiji has 29% of all described species of *Strumigenys*, and 10% of all described species of *Pheidole* in the Indo-Australian region (data in Bolton 1995a). Additionally there are six endemic species of *Lordomyrma* in Fiji, of only 16 described species in the genus worldwide (Bolton 1995a).

Wilson (1958a) considered the extensive radiation within the genus *Leptogenys* as remarkable for such a small land mass. He suggests that this radiation is possibly due to less competitive pressure from the relatively depauperate endemic ponerine-myrmicine fauna in Fiji. There are five genera, and only 15 native or endemic species of Ponerinae in Fiji, although the number of species is likely to increase with further intensive sampling of forest litter. Fiji also has a particularly diverse fauna of Cerapachyinae, represented by seven species in the genus *Cerapachys* (Wilson 1959b). The diversity of both *Leptogenys*

and *Cerapachys* may perhaps be attributed to the lack of army ants in Fiji. Both *Leptogenys* and *Cerapachys* show the army ant behaviour of group raiding and are predators of other ants, albeit less sophisticated than true army ants (Hölldobler & Wilson 1990, Fisher 1997). Fisher (1997) has recently suggested the absence of army ants in Madagascar has spurred the diversification of Cerapachyinae.

Another reason for the success of *Cerapachys* in Fiji could be related to their ability to nest in plant cavities, this has been suggested to greatly assist in the 'rafting' of colonies across ocean currents (Wheeler 1935; Fisher 1997). The inclination to nest in plant cavities may have also contributed to the diversity of *Camponotus* in Fiji. *Camponotus* is the most species rich genus in Fiji and contributes 25 of 29 (86%) species of the native and endemic Formicidae. Fiji also has 16% of all described species of *Camponotus* in the Indo-Australian region (data in Bolton 1995a).

Published Records

Mayr (1866, 1870) reported ten ant species from Fiji, all collected on Ovalau; *Camponotus cristatus* Mayr, *Colobopsis dentatus* Mayr (= *Camponotus dentatus* (Mayr)), *Camponotus laminatus* Mayr, *Colobopsis oceanicus* Mayr (= *Camponotus oceanicus* (Mayr)), *Colobopsis carinatus* Mayr (= *Camponotus polynesianus* Emery), *Colobopsis rufifrons* (F. Smith) (= *Camponotus rufifrons* (F. Smith)), *Camponotus schmeltzii* Mayr, *Leptothorax nuda* Mayr (= *Cardiocondyla nuda* (Mayr)), *Odontomachus angulatus* Mayr, and *Pheidole oceanica* Mayr. Mayr (1870) listed nine of the above species in Fiji, adding one more record, *Plagirolepis gracilipes* F. Smith (= *Anoplolepis gracilipes* (F. Smith)), and omitting two, *C. nuda* and *P. oceanica*.

Mann (1920, 1921) collected ants in Fiji for ten months in 1915–1916, and Mann (1925) reported ants collected by D. Stoner. In total, Mann (1920, 1921, 1925) reported 96 ant taxa including subspecies and varieties, most of them new descriptions. These included all those reported by Mayr (1866, 1870) except *C. rufifrons* plus the following: *Adelomyrmex hirsutus* Mann, *Anochetus graeffei* Mayr, *Plagirolepis longipes* (Jerdon) (= *A. gracilipes*), *Camponotus cristatus nagasau* Mann, *Camponotus cristatus sadina* Mann, *Camponotus maculatus pallidus* F. Smith (= *Camponotus chloroticus* Emery), *Camponotus janus* Mann (= *Camponotus janussus* Bolton), *Camponotus laminatus levuanus* Mann, *Camponotus lauensis* Mann, *Camponotus maafui* Mann, *Camponotus maudella* Mann, *Camponotus maudella seemanni* Mann, *Camponotus mayriella* Mann (= *C. polynesianus*), *Camponotus schmeltzii kadi* Mann, *Camponotus schmeltzii loloma* Mann, *Camponotus schmeltzii trotteri* Mann, *Camponotus vitiensis* Mann, *Cerapachys cryptus* Mann, *Cerapachys cryptus fuscior* Mann (= *Cerapachys fuscior* Mann), *Cerapachys majusculus* Mann, *Cerapachys vitiensis* Mann, *Cerapachys vitiensis sculpturatus* Mann (= *Cerapachys sculpturatus* Mann), *Rhopalothrix elegans* Mann (= *Eurhopalothrix emeryi* (Forel)), *Wheeleripone aterrima* Mann (= *Gnamptogenys aterrima* (Mann)), *Ponera biroi rugosa* Mann (= *Hypoponera eutrepta* (Wilson)), *Ponera monticola* Mann (= *Hypoconera monticola* (Mann)), *Ponera turaga* Mann (= *Hypoconera turaga* (Mann)), *Ponera vitiensis* Mann (= *Hypoconera vitiensis* (Mann)), *Iridomyrmex anceps ignobilis* Mann, *Leptogenys foveopunctata* Mann, *Leptogenys fugax* Mann, *Leptogenys humiliata* Mann, *Leptogenys letilae* Mann, *Leptogenys navua* Mann, *Leptogenys vitiensis* Mann, *Rogeria rugosa* Mann (= *Lordomyrma rugosa* (Mann)), *Rogeria tortuosa stoneri* Mann (= *Lordomyrma tortuosa stoneri* (Mann)), *Rogeria striatella* Mann (= *Lordomyrma striatella* (Mann)), *Rogeria tortuosa* Mann (= *Lordomyrma tortuosa* (Mann)), *Rogeria tortuosa levifrons* Mann (=

Lordomyrma tortuosa levifrons (Mann), *Rogeria tortuosa polita* Mann (= *Lordomyrma tortuosa polita* (Mann)), *Monomorium floricole* (Jerdon), *Monomorium pharaonis* (Linnaeus.), *Monomorium vitiensis* Mann (= *Monomorium vitiense* Mann), *Archaeomyrmex cacabau* Mann (= *Myrmecina cacabau* (Mann)), *Iridomyrmex sororis* Mann (= *Ochetellus sororis* (Mann)), *Odontomachus haematoda* (Linnaeus) (= *Odontomachus simillimus* (F. Smith)), *Euponera stigma quadridentata* (F. Smith) (= *Pachycondyla stigma* (Fabricius)), *Prenolepis bourbonica bengalensis* Forel (= *Paratrechina bourbonica* (Forel)), *Prenolepis longicornis* (Latreille) (= *Paratrechina longicornis* (Latreille)), *Prenolepis oceanica* (Mann) (= *Paratrechina oceanica* (Mann)), *Prenolepis vividula* (Nylander) (= *Paratrechina vaga* (Nylander)), *Prenolepis vitiensis* (Mann) (= *Paratrechina vitiensis* (Mann)), *Pheidole caldwelli* Mann, *Pheidole colaensis* Mann, *Pheidole knowlesi* Mann, *Pheidole knowlesi extensa* Mann, *Pheidole megacephala* (Fabricius), *Pheidole onifera* Mann, *Pheidole roosevelti* Mann, *Pheidole umbonata* Mayr, *Pheidole vatu* Mann, *Pheidole wilsoni* Mann, *Iridomyrmex nagasau* Mann (= *Philidris nagasau* (Mann)), *Iridomyrmex nagasau agnatus* Mann (= *Philidris nagasau agnatus* (Mann)), *Iridomyrmex nagasau alticola* Mann (= *Philidris nagasau alticola* (Mann)), *Plagiolepis foreli* Mann (= *Plagiolepis alluaudi* Emery), *Poecilomyrma senirewae* Mann, *Poecilomyrma senirewae myrmecodiae* Mann, *Ponera colaensis* Mann, *Pristomyrmex mandibularis* Mann, *Proceratium relictum* Mann, *Strumigenys vitiensis* Mann (= *Pyramica membranifera* (Emery)), *Rogeria stigmatica sublevinodis* Emery (= *Rogeria sublevinodis* Emery), *Solenopsis cleptes vitiensis* Mann, (= *Solenopsis papuana* Emery), *Strumigenys godeffroyi* Mayr, *Strumigenys jepsoni* Mann, *Strumigenys nidifex* Mann, *Strumigenys scelestus* Mann, *Strumigenys wheeleri* Mann (= *Strumigenys tumida* Bolton), *Tapinoma melanocephalum* (Fabricius), *Technomyrmex albipes vitiensis* Mann (= *Technomyrmex albipes* (F. Smith)), *Triglyphothrix pacifica* Mann (= *Tetramorium manni* Bolton), *Tetramorium pacificum wilsoni* Mann (= *Tetramorium insolens* (F. Smith)), *Tetramorium guineense* (Fabricius) (= *Tetramorium bicarinatum* (Nylander)), *Tetramorium pacificum* Mayr, *Tetramorium simillimum* (Nylander) (= *Tetramorium simillimum* (F. Smith)), and *Tetramorium tonganum* Mayr. Mann (1921) also described the only endemic genus, *Poecilomyrma*.

Since Mann (1920, 1921, 1925) a number of authors have recorded additional species from Fiji. Stitz (1925) described *Odontomachus politus* Stitz (= *O. angulatus*) from Fiji. Santschi (1928) reported on ants collected in Fiji's Lau group by EH Bryan Jr. in 1924, describing two new taxa, *Tetramorium scrobiferum liogaster* Santschi (= *Romblonella scrobifera liogaster* (Santschi)) and *Camponotus bryani* Santschi, and listing in 22 other forms: *P. monticola* (= *H. monticola*), *P. colaensis* (= *H. colaensis*), *O. haematoda* (= *O. simillimum*), *C. nuda*, *M. floricole*, *P. megacephala*, *T. guineense* (= *T. bicarinatum*), *T. guineense macra* (= *T. insolens*), *T. pacificum*, *T. simillimum insulare* Santschi (= *T. simillimum*), *S. godeffroyi*, *I. sorosis* (= *O. sorosis*), *I. nagasau* (= *P. nagasau*), *T. albipes rufescens* Santschi (= *T. albipes*), *T. albipes vitiensis* Santschi (= *T. albipes*), *T. melanocephalum*, *A. longipes* (= *A. gracilipes*), *P. longicornis*, *P. vaga crassipilis* (= *P. vaga*), *C. irritans chloroticus samoensis* (= *C. chloroticus*), *C. laminatus*, and *C. lauensis*.

Tothill *et al.* (1930) mentioned observations of *P. megacephala*, *P. vividula* (= *P. vaga*), *T. melanocephalum*, *T. guineense* (= *T. bicarinatum*), and *T. albipes vitiensis* (= *T. albipes*) in Fiji. Tothill *et al.* (1930), in considering methods to control the coconut moth, *Levuana iridescens*, considered introducing the weaver ant *Oecophylla smaragdina* to Fiji. "The Levuana Committee was not particularly anxious to introduce this ant to Fiji on account of its bite. However, the bite is not nearly as painful as that of the so-called Buli ant in Fiji, and it was decided to find out as an initial step whether the ant would feed upon

Levuana larvae” However, it appears that there were no attempts to introduce *Oecophylla smaragdina* to Fiji.

Wheeler (1934) described three new *Camponotus*, *C. dentatus humeralis* Wheeler, *C. manni* Wheeler, and *C. manni umbratilis* Wheeler, based on material originally collected by Mann in 1915–1916. Wheeler’s (1935) checklist included all previously reported ant taxa from Fiji except *C. polynesticus* and *L. tortuosa stoneri*, omitted apparently by mistake. Wheeler’s (1935) also listed *Pheidole oceanica nigriscapa* Santschi (= *Pheidole fervens* F. Smith) from Viti Levu. Taylor (1937) recounted *M. floricole* in Fiji attacking the larvae, pupae, and adults of the coconut leaf-mining beetle. Donisthorpe (1946) described the queen, male, and soldier of *C. vitiensis* from Fiji based on specimens collected by Lever. Smith (1953) described a new endemic species, *Romblonella vitiensis* M. Smith from Wakaya island, in the Ovalau group based on specimens collected by Bryan in 1924.

In his revisions of the ant fauna from Melanesia, Wilson (1958) raised *Ponera biroi rugosa* Mann to full species status as *Ponera eutrepta* (= *Hypoponera eutrepta* (Wilson)), and also listed *P. colaensis*, *H. monticola*, *H. turaga*, and *H. vitiensis* in Fiji. Wilson (1959b) described *Cerapachys lindrothi* Wilson and *Cerapachys zimmermani* Wilson from Fiji, and also listed *C. crypta* (= *C. cryptus*), *C. fuscior*, *C. majuscula*, *C. sculpturata*, and *C. vitiensis*.

Wilson & Taylor (1967) described three new species from Fiji: *Camponotus rotumanus* Wilson & Taylor, *Polyrhachis rotumana* Wilson & Taylor, and *Strumigenys mailei* Wilson & Taylor. Wilson & Taylor (1967) also published the first records from Fiji of *Oligomyrmex atomus* Emery (collected by Taylor in 1962) and *Tapinoma minutum* Mayr. Wilson & Taylor (1967) wrote that they had seen the first records of *Iridomyrmex anceps* (Roger) from Fiji, collected in 1956, though Mann (1921) reported *I. anceps ignobilis*. Wilson & Taylor (1967) synonymized *T. guineense* (= *T. bicarinatum*) with *T. guineense macra* (= *T. insolens*), though they are now considered separate species. Finally, Wilson & Taylor (1967) mentioned in passing a number of ant species in Fiji: *A. longipes* (= *A. gracilipes*), *C. bryani*, *C. chloroticus*, *C. dentatus*, *P. vaga*, *P. fervens*, *P. oceanica*, *P. umbonata*, *P. aluaudi*, *Trichoscapa membranifera* (Emery) (= *P. membranifera*), *R. sublevinodis*, and *S. papuana*, *T. pacificum*, and *P. megacephala*.

Wilson & Hunt (1967) listed 88 ant species from Fiji, including the earliest published record of *Hypoconerops punctatissima* (Roger). Wilson & Hunt (1967) omitted all subspecific designations used by earlier authors, truncating the subspecific designation of *R. scrobifera liogastefor* to *Romblonella scrobifera* (Emery) and *Ponera biroi rugosa* (= *H. eutrepta*) to *Ponera rugosa* (= *Diacamma rugosum*). Wilson & Hunt (1967) listed *L. tortuosa stoneri* as *L. stoneri* (as did Dlussky 1994, but not Bolton 1995a). Wilson & Hunt (1967) did not include *C. rotumanus* and *P. rotumana* in their checklist, presumably considering Rotuma as separate from Fiji. Finally, Wilson & Hunt (1967) omitted *C. lauensis*, *T. insolens*, and *C. fuscior*, taxa of which Wilson & Taylor (1967) had raised to full species.

Taylor (1967) described *Ponera manni* Taylor from Fiji based on specimens he collected in 1962, and also listed *P. colaensis*. Bolton (1977) listed Fijian records for *T. insolens*, *T. bicarinatum*, *T. simillimum*, *T. pacificum*, *Tetramorium tenuicrinis* (Emery), and *T. tonganum*. Bolton (1987) listed Fijian records for *M. floricole* and *M. pharoanis*. Taylor (1980a) described *Eurhopalothrix insidiatrix* from Fiji based on Mann specimens and also listed *E. emeryi*. Taylor (1980b) briefly reports on collections of *Myrmecina cacabau* from forest litter at Nadarivatu by G. Kuschel.

Dlussky (1993) listed several dacetine ant species from Fiji: *T. membranifera* (= *P. membranifera*), *S. godeffroyi*, *S. mailei*, *S. jepsoni*, *S. nidifex*, *S. scelestus* (= *S. scelesta*),

S. wheeleri (= *S. tumida*), and described *Strumigenys chernovi* Dlussky. Dlussky (1994) listed 93 ant species from Fiji based published records as well as specimens of 20 species collected by YI Chernov in 1977 and 12 species collected by G.M. Dlussky in 1980. The Chernov specimens included the first Fijian records of six species: *Cardiocondyla emeryi* Forel, *Hypoponera opaciceps* (Mayr), *Paratrechina chernovi* Dlussky, *Paratrechina minutula* (Forel), *Strumigenys ursulus* Dlussky, and *Vollenhovia denticulata* Emery. Like Wilson & Hunt (1967), Dlussky (1994) omitted all subspecific designations, thus listing *R. scrobifera* instead of *R. scrobifera liogaster* and omitting *T. insolens*. Dlussky (1994) also omitted *Ca. bryani*, *Ca. dentatus*, *Ce. fuscior*, and *E. emeryi*, apparently by mistake. Dlussky (1994) erroneously listed that *S. rogeri* had been reported in Fiji by Wilson & Taylor (1967).

Recently, Waterhouse (1997) noted the presence of the invasive tropical fire ant, *Solenopsis geminata*. Bolton (2000) included 16 dacetine species from Fiji: *Strumigenys basiliska* Bolton, *S. chernovi*, *Strumigenys daithma* Bolton, *Strumigenys ekasura* Bolton, *Strumigenys frivola* Bolton, *S. jepsoni*, *S. nidifex*, *Strumigenys panaulax* Bolton, *Strumigenys praefecta* Bolton, *S. scelestia*, *Strumigenys sulcata* Bolton, *S. tumida*, *S. godffroyi*, *S. mailei*, *Strumigenys rogeri* Emery, *Pyramica membranifera* and *P. trauma* Bolton. Finally, Baroni Urbani & de Andrade (2003) described *Proceratium oceanicum* from from Viti Levu.

There are several additional ant species with erroneous records from Fiji. Nishida & Evenhuis (2000) noted the presence of the highly invasive *Wasmannia auropunctata* from Fiji, but this was an error, and should have referred to its presence in Vanuatu. *Tetramorium guineense*, of African origin, has often been recorded from the Pacific (Wilson & Taylor 1967) but these records consist of a mix of the exotic *T. bicarinatum* and the Pacific native *T. insolens* (Wetterer & Vargo 2003). Mann (1921) listed *Prenolepis* (= *Paratrechina*) *viduidula*, but Wilson & Taylor (1967) found these specimens were *Paratrechina vaga*. Wilson & Hunt (1967) list *Romblonella scrobiferum* from Fiji, but we believe this was meant to represent the subspecies *R. scrobifera liogaster* described by Santschi (1928) as *Tetramorium scrobifera liogaster*. Wetterer & Vargo (2003) list *Rogeria stigmatica* from Fiji on the basis of notes from Wilson & Taylor (1967). However, Wilson & Taylor (1967) actually refer to *R. stigmatica sublevinodis* (= *R. sublevinodis*), and stated it is widespread in Fiji. There is one record of the Argentine ant, *Linepithema humile*, being intercepted at in New Zealand in a shipment from Fiji (Ward, unpub. data), but we can find no evidence that it has become established in Fiji.

In our checklist, we omitted two new species (*Paratrechina chernovi*, *Strumigenys ursulus*) from Dlussky (1994) because we could find no published descriptions. Dlussky (1994) synonymized five Fijian endemic species with other taxa with broader distributions: *H. eutrepta* = *Hypoponera opaciceps* (Mayr), *H. vitiensis* = *Hypoponera confinis* (Roger), *M. vitiense* = *Monomorium talpa* Emery, *P. oceanica* = *Paratrechina minutula* (Forel), and *P. vitiensis* = *P. vaga*. Although all these synonymies were plausible, we view them as tentative, deserving review. The records of *Hypoponera confinis* (Roger), and *Monomorium talpa* Emery (= *M. australicum* Forel) were based only on these synonymies and not apparently based on viewing any specimens from Fiji, because only Mann's records are listed, so we have omitted these records.

New records. Both authors collected numerous ant species in Fiji, including a number of previously unreported and/or undescribed native species (e.g., the first record of *Prionopelta* from Fiji), and well as new specimens of some rare endemic species (e.g., several

complete *Poecilomyrma* colonies with the first recorded males from this genus). Evaluation of these specimens, however, will require additional work. Here, we present site record data only for exotic ant species.

Exotic Species

Twenty five exotic species from 14 genera are recorded from Fiji (Appendix). Four genera have no native or endemic relatives from Fiji. Exotic species are predominantly from Myrmicinae (14 spp., 56%), with less representation from other subfamilies; Formicinae (5 spp., 20%), Ponerinae (5 spp., 20%) and Dolichoderinae (1 spp., 4%). Many of these species were present and were already widespread when Mann (1921) completed the first survey of Fiji. Furthermore, many of these exotic species are also widely distributed throughout the Pacific (Wilson & Taylor 1967; Wetterer 2002, 2005, in press; Wetterer & Vargo 2003).

We collected five exotic ant species not previously reported from Fiji: *Platythyrea parallela* (F. Smith), *Monomorium destructor* (Jerdon), *Monomorium sechellense* Emery, *Tetramorium lanuginosum* (Mayr), and *Cardiocondyla obscurior* Wheeler.

Exotic species are found predominantly in disturbed habitats, and particularly areas associated with humans (Wilson & Taylor 1967; Morrison 1998; Wetterer 2002). Preliminary analyses from Ward's 2004 survey on Viti Levu indicate that exotic species are very common in disturbed habitats. Over 92% and 86% of the species found in urban (n = 41) and rural (n = 92) sites respectively, are exotic. In semi-native habitats (n = 24) the proportion of exotics is 35% indicating exotics have not invaded native vegetation to the same degree as disturbed habitats.

Sites records for exotic ant species in Fiji. For museum records, we list information (when available) in the following order: collection date; collector; museum repository; published record of the specimen. Abbreviation for major collectors: WM = WM Mann (collected 1915–1916), EB = EH Bryan Jr (collected 1924; published in Santschi 1928), DS = D Stoner (published in Mann 1925), NK = NLH Krauss (collected 1949–1976), YC = YI Chernov (collected 1977; published in Dlussky 1994), JW = JK Wetterer (collected 1997), DW = DF Ward (collected 2004, with East-South decimal degrees, held at the NZAC). BMHN = the Natural History Museum, London; LACM = Museum of Natural History of Los Angeles County, Los Angeles; USNM = National Museum of Natural History, Washington, D.C., MCZ = Museum of Comparative Zoology, Cambridge, Massachusetts; NZAC = New Zealand Arthropod Collection; ANIC = Australian National Insect Collection, Canberra.

1. *Anoplolepis gracilipes* (F. Smith)

KADAVU: Vunisea (WM; LACM; Mann 1920; Mann 1921), Matasawalevu (WM; USNM).

LAU: Munia (WM; USNM; Mann 1920), Kabara (WM; USNM; Mann 1920), Lakeba (Mann 1920), Ono Lua (= Ono-i-Lau) (WM; MCZ), Magokai (= Mago) (1921; HS Evans; BMNH), Vanua Balavu; Loma Loma (1921; HS Evans; BMNH), Cikobia-i-lau (EB), Tuvutua (= Tuvutha?) (EB), Mago (EB), Namuka (EB), Makuluva Is (DS), Aiwa (EB), Oneata (EB).

OVALAU: no site data (Mayr 1876).

ROTUMA: Saluaka (1938; H St. John; Wilson & Taylor 1967), Paho (1938; H St. John; Wilson & Taylor 1967), Solkope (1938; H St. John; Wilson & Taylor 1967).

TAVEUNI: Somosomo (WM; USNM; Mann 1920), Waiyevo (1972; NK; USNM).

VANUA LEVU: Labasa (WM; MCZ), Suene (= Sueni) (WM; MCZ), Galoa I; North tip (gbif database; ANIC), Savusavu (gbif database; ANIC), Kontiki; 19 km E Savusavu (gbif database; ANIC).

VITI LEVU: Saiaro (Mann 1920), Suva (WM; USNM), Nausori (WM; USNM), Suva (EB), Suva (A Agassiz; MCZ), Lautoka (1919; Greenwood & Evans; BMNH), Makaluva (DS), Suva (DS), Nukulau (DS), Lami (1951; NK; MCZ), Nadi (1974; NK; USNM), Lami (1976; NK; USNM), Lagalevu (gbif database; ANIC), Nananu-i-Ra (JW), Ellington Wharf (JW), Colo-i-Suva Forest Park (JW). DW collected from: Bukuya Rd 177.55 -17.80, 177.69 -17.77, 177.65 -17.80, Colo-i-Suva Forest Park 178.47 -18.05, Colonial Plaza-Nadi 177.43 -17.77, Garden of the Sleeping Giant 177.47 -17.70, Kings Rd to Tavua 178.00 -17.38, Kings Rd to Rakiraki 178.55 -17.87, Korotogo Beach 177.54 -18.17, Lami Industrial 178.40 -18.10, Lautoka Port 177.45 -17.60, Lololo Forest 177.55 -17.58, Lololo-Vakabuli Rd 177.53 -17.59, Momi Guns Rd 177.30 -17.90, Mt Korobaba 178.38 -18.08, Nadarivatu Rd to Tavua 177.95 -17.55, Natadola beach 177.32 -18.09, Newtown Beach 177.42 -17.77, Queens Rd 177.63 -18.18, Queens Rd to Sigatoka 177.32 -17.95, Rewa Delta 178.60 -17.97, Royal Palm Rd-Lautoka 177.42 -17.62, Sigatoka 177.52 -18.10, Sigatoka Sand Dunes 177.48 -18.17, Sigatoka Valley-Naliko Rd 177.55 -18.17, Uciwai Landing 177.28 -17.95, Vatia Point 177.82 -17.39, Vatia Point Rd Junction 177.80 -17.40, Vatia Point Wharf 177.75 -17.39, Vatukonia Rd-Vatukonia Mine 177.85 -17.49, Volivoli Rd-Ellington Wharf 178.18 -17.32.

UNKNOWN LOCALES: Vanua Sami (= Vanua Masi?) (EB), Lesma (WM; MCZ, probably Lasema (Vanua Levu)), Marova L. (WM; MCZ) (= Marovo Lagoon; Solomons Islands?), Sakela (WM; MCZ), Wainganitu (WM; MCZ).

Note: Mann (1921) wrote that this species was “abundant throughout the islands, especially in the cultivated districts,” but mentioned only one specific site, Vunisea. Widespread Asian native; exotic to Fiji.

2. *Cardiocondyla emeryi* Forel

VITI LEVU: DW collected from: Abaca Village 177.53 -17.67, Bukuya Rd 177.72 -17.75, Denerau Island 177.37 -17.77, Kings Rd to Rakiraki 178.33 -17.68, Koronivia Farm 178.52 -18.04, Korotogo Beach 177.54 -18.17, Lami Cement Works 178.38 -18.11, Lewa Rd-Nadarivatu 177.95 -17.57, Lololo Forest HQ Picnic ground 177.57 -17.57, North of Navai Village 177.97 -17.62, Queen Elizabeth Drive-Suva 178.43 -18.15, Queens Rd 177.63 -18.18, Rewa Delta 178.59 -18.05, USP Campus 178.43 -18.15, Vatia Point Wharf 177.75 -17.39, Vatukonia Town-Vatukonia Mine 177.84 -17.50, Vaturu Dam 177.59 -17.75, 177.55 -17.74, Volivoli Rd-Ellington Wharf 178.18 -17.32, Vuda Point Marina 177.38 -17.67.

UNKNOWN LOCALES: no site data (YC).

3. *Cardiocondyla obscurior* Wheeler

VITI LEVU: Suva (JW).

4. *Hypoconera gleadowi* (Forel)

VITI LEVU: Nadarivatu (WM; Wilson 1958b).

5. *Hypoconera opaciceps* (Mayr)

UNKNOWN: no site data (YC).

Note: Dlussky (1994) synonymized the Fijian endemic *H. eutrepta* with *H. opaciceps*. All records may be *H. opaciceps*, but it is possible that the old records are *H. eutrepta* and only the new records of Chernov are *H. opaciceps*.

6. *Hypoponera punctatissima* (Roger)

UNKNOWN: no site data (Wilson & Hunt 1967).

7. *Monomorium destructor* (Jerdon)

VITI LEVU: Lautoka Park 177.45 -17.60 (DW), Marine Drive – Lautoka 177.45 -17.60 (DW).

8. *Monomorium floricole* (Jerdon)

LAU: Cicia (WM; USNM; Mann 1921), Vanua Masi (EB), Vakai (EB).

OVALAU: Levuka (WM; Mann 1921).

TAVEUNI: Somosomo (WM; USNM), Waiyeve (1923; HS Evans; BMNH; Bolton 1987), Una (1933; RW Paine; BMNH).

VANUA LEVU: Lasema (WM; USNM; Mann 1921).

VITI LEVU: Nadarivatu (WM; USNM; Mann 1921), Waiyanitu (WM; Mann 1921), Nausori (WM; USNM; Mann 1921), Nausori (1921; R Veitch; BMNH), Nananu-i-Ra (JW). DW collected from: Bukuya Rd 1 177.72 -17.75, 177.55 -17.80, Denerau Island 177.38 -17.78, Galoa plantation 177.83 -18.20, Garden of the Sleeping Giant 177.47 -17.70, Kula EcoPark 177.55 -18.17, Lautoka Park 177.45 -17.60, Lololo Forest HQ Picnic ground 177.57 -17.57, Lomolomo Guns 177.42 -17.68, Naviti Hotel 177.55 -18.17, Newtown Beach 177.42 -17.77, Ran Lakhani Park-Suva 178.44 -18.12, Rarawai Mill-Ba 177.68 -17.55, Rewa Delta 178.59 -18.05, Rewa Delta-Saweni Rd 178.45 -18.03, Thurston Gardens-Suva 178.42 -18.15, Vatukonia Town-Vatukonia Mine 177.84 -17.50, Vuda Point Junction 177.38 -17.67, Warrick Hotel 177.73 -18.22.

UNKNOWN LOCALES: Nabavatu (= Nataviatu?) (1934; THC Taylor; BMNH; Bolton 1987), Kalana (WM; USNM); no site data (YC).

9. *Monomorium pharaonis* (L.)

VITI LEVU: Nausori (WM; Mann 1921), Suva (RA Lever; Bolton 1987), DW collected from: Tavua Hotel 177.85 -17.43, Nadarivatu Rd to Tavua 177.95 -17.55.

Note: Mann (1921) wrote that this species was “common in cane-fields,” but mentioned only one specific site. This species is typically most common inside houses.

10. *Monomorium sechellense* Emery

VITI LEVU: Savura Creek, (1976; P. Maddison; NZAC), DW collected from: Bukuya Rd 177.70-17.75, Lewa Rd-Nadarivatu 177.95 -17.57.

LAU: Moce (1977; J.S. Dugdale; NZAC).

11. *Pachycondyla stigma* (Fabricius)

VANUA LEVU: Lasema (WM; Mann 1921; Wilson 1958).

VITI LEVU: Waiyanitu (WM; Mann 1921), Waisoi Forest Camp in log (JW), Udu, by forest waterfall; in log (JW), Naiva Forestry Camp; in log (JW).

12. *Paratrechina bourbonica* (Forel)

OVALAU: Levuka (WM; USNM; Mann 1921).

TAVEUNI: Somo Somo (WM; USNM; Mann 1921).

VANUA LEVU: Lasema (WM; Mann 1921), Wainunu (WM; Mann 1921), Waisu (Mann; USNM).

VITI LEVU: Tai Levu Coast (WM; Mann 1920), Koro Vatu (WM; Mann 1920; 1921), Nadarivatu (WM; USNM; Mann 1921), Suva (WM; USNM; Mann 1921), Waiyanitu (WM; Mann 1921), Nananu-i-Ra (JW), Nadarivatu (JW), Waisoi Forest Camp nr Namosi (JW), Suva (JW), Naiva Forestry Camp (JW), Udu (JW). DW collected from: Galoa plantation 177.83 -18.20, Lami Fishing Wharf 178.39 -18.10, Namosi Highland Road 178.17 -18.10.

UNKNOWN LOCALES: Maiyanita (WM; USNM), no site data (YC).

Note: Mann (1921) wrote that this species was “exceedingly abundant throughout the larger islands.”

13. *Paratrechina longicornis* (Latreille)

LAU: Vekai (WM; Mann 1921), Yangaga Cluster (EB), Oneata (EB).

VANUA LEVU: Lasema (1924?; WM; USNM).

VITI LEVU: Dravuni (WM; USNM), Nausori (1920; HS Evans; BMNH), Nananu-i-Ra (JW), Ellington Wharf (JW), Mabualau I. (JW), Suva; by hotel (JW), Suva; near USP campus (JW). DW collected from: Denerau Island 177.37 -17.77, Ellington Wharf 178.22 -17.33, Flagstaff Park-Suva 178.43 -18.13, Garden of the Sleeping Giant 177.47 -17.70, Karvika St-Tavua 177.85 -17.44, Kings Rd junction-Tavua to Navai 178.88 -17.43, Kings Rd to Rakiraki 178.54 -17.84, Kings Wharf-Suva 178.42 -18.13, Koronivia Farm 178.52 -18.04, Korotogo Beach 177.54 -18.17, Kula EcoPark 177.55 -18.17, Lami Industrial 178.40 -18.10, Laucala Industrial Park, Suva 178.47 -18.12, Lautoka Park 177.45 -17.60, Lololo Forest HQ Picnic ground 177.57 -17.57, Lomolomo Guns 177.42 -17.68, Marine Drive-Lautoka 177.45 -17.60, Mavoa Rd-Suva 178.43 -18.12, Natadola beach 177.32 -18.10, Naviti Hotel 177.55 -18.17, Cemetery-Suva 178.43 -18.12, Newtown Hostels 177.42 -17.75, Queens Wharf Rd-Lautoka 177.45 -17.60, Rakiraki Hotel 178.25 -17.37, Ran Lakkan Park-Suva 178.44 -18.12, Rarawai Mill-Ba 177.68 -17.55, Rewa Delta 178.57 -18.07, 178.52 -18.02, Sigatoka 177.50 -18.13, Sigatoka Sand Dunes 177.47 -18.15, City Market-Suva 178.42 -18.12, Thurston Gardens-Suva 178.42 -18.15, Queen Elizabeth Drive-Suva 178.43 -18.15, USP Campus 178.43 -18.15, Vatia Point 177.82 -17.39, Vatukonia Rd-Vatukonia Mine 177.85 -17.47, Vuda Point Marina 177.38 -17.67, Warrick Hotel 177.73 -18.22.

UNKNOWN LOCALES: Navatu-i-lom (EB), Ofurua (EB), no site data (GM Dlussky; Dlussky 1994).

Note: Mann (1921) wrote that this species was “Abundant in all localities visited,” but mentioned only one specific site.

14. *Paratrechina vaga* (Nylander)

KADAVU: Vanua Ava (WM; Mann 1921).

LAU: Munia (WM; Mann 1921), Tuvuca (WM; Mann 1921), Vanua Mbalavu; Loma Loma (WM; Mann 1921).

OVALAU: Levuka (WM; Mann 1921).

TAVEUNI: Somo Somo (WM; Mann 1921), Nagasau (WM; Mann 1921).

VANUA LEVU: Lasema (WM; Mann 1921), Wainunu (WM; Mann 1921), Suene (Sueni) (WM; Mann 1921).

VITI LEVU: Nadarivatu (WM; Mann 1921), Waiyanitu (WM; Mann 1921), Koro Vatu (WM; Mann 1921), Nausori (WM; Mann 1921), Tai Levu (WM; Mann 1921), Waivaka; forest (JW); Waisoi Forest Camp (JW); Suva, near USP campus; on tree by beach (JW), Nadarivatu tree plantation (JW), Udu, by forest waterfall and by road (JW), Naiva Forestry Camp (JW), Colo-i-Suva Forest Park (JW). DW collected from: Bukuya Rd 177.57 -17.80, 177.70 -17.75, Colo-i-suva Forest Park (Lower Pools) 178.47 -18.05, 178.45 -18.05, Denerau Marina 177.37 -17.77, Ellington Wharf 178.22 -17.33, Ellington Wharf Rd Junction 178.20 -17.34, Galoa 177.83 -18.20, Karvika St-Tavua 177.85 -17.44, Kings Rd to Rakiraki 178.25 -17.37, 178.49 -17.79, 178.35 -17.68, 178.33 -17.68, 178.28 -17.65, Kings Rd to Tavua 177.87 -17.43, Koronivia Farm 178.52 -18.04, Kula EcoPark 177.55 -18.17, Lami Industrial 178.40 -18.10, Lautoka Port 177.45 -17.60, Lololo Forest 177.54 -17.58, Mt Korobaba 178.38 -18.08, Nadarivatu Rd to Tavua 177.95 -17.55, Namosi Highland Road 178.17 -18.10, 178.20 -18.12, 178.22 -18.14,

Naviti Hotel 177.55 -18.17, Newtown Beach 177.42 -17.77, North of Navai Village 177.97 -17.62, Queens Rd 177.63 -18.18, Rakiraki Hotel 178.25 -17.37, Rewa Delta 178.60 -17.97, 178.54 -18.03, Sigatoka 177.54 -17.97, Sigatoka Sand Dunes 177.47 -18.15, Sigatoka Valley-Naliko Rd 177.55 -18.15, South of Navai Village (Junction to Dam) 177.98 -17.65, Suva 178.43 -18.12, 178.43 -18.15, USP Campus 178.43 -18.15, Vatukonia Rd- Vatukonia Mine 177.85 -17.49, Vaturu Dam 177.59 -17.75, Warrick Hotel 177.73 -18.22.

UNKNOWN LOCALES: no site data (Tothill *et al.* (1930), no site data (YC).

Note: Mann (1921) listed this species as *Paratrechina vividula*.

15. *Pheidole fervens* Smith

VITI LEVU: Suva; city waterfront (JW), Suva; near USP campus; on mangrove (JW), Suva, by hotel; cliff face, Nadarivatu tree plantation (JW), Mabalau (JW), Waisoi Forest Camp (JW). DW collected from: Ba 177.70 -17.54, Bukuya Rd 177.69 -17.77, Colo-i-suva Forest Park HQ 178.45 -18.05, Flagstaff Park-Suva 178.43 -18.13, Navai Village 177.98 -17.62, Kings Rd to Rakiraki 178.49 -17.79, Koronivia Farm 178.52 -18.04, Lewa Rd-Nadarivatu 177.95 -17.57, Lololo Forest 177.54 -17.58, Nadarivatu Forest HQ 177.95 -17.55, Nadarivatu Rd to Tavua 177.95 -17.55, Namosi Highland Road 178.17 -18.10, 178.22 -18.14, North of Navai Village 177.97 -17.62, Suva 178.44 -18.15, Queens Rd to Sigatoka 177.32 -17.95, Raintree Lodge 178.45 -18.05, Rewa Delta 178.59 -18.05, 178.54 -18.03, 178.52 -18.02, Sigatoka Valley-Naliko Rd 177.55 -18.17, Thurston Gardens-Suva 178.42 -18.15, Vatukonia Town-Vatukonia Mine 177.84 -17.50, Vaturu Dam 177.59 -17.75, Warrick Hotel 177.73 -18.22.

UNKNOWN LOCALES: no site data (Wilson & Hunt 1967), no site data (YC).

16. *Pheidole megacephala* (Fabricius)

ROTUMA: Melisa (1938; H St. John; MCZ; Wilson & Taylor 1967).

VANUA LEVU: Labasa (WM; MCZ).

LAU: Wailangilala Is.,(EB), Yathata Is. (EB).

OVALAU: no site data (EB).

VITI LEVU: Suva (DS), Nadroga Sigatoka R. (1921; HS Evans & L Louse; BMNH), Nadi (EB), Karolevu (1976; P Maddison; BMNH), Waisoi Forest Camp nr Namosi (JW), Toberua (JW), Suva; city waterfron; base of coconut tree (JW), Suva; hotel yard (JW). DW collected from: Bukuya Rd 177.72 -17.75, City Market-Suva 178.42 -18.12, Ellington Wharf 178.22 -17.33, Ellington Wharf Rd Junction 178.20 -17.34, Kings Rd-Tavua 178.07 -17.37, Koronivia Station 178.52 -18.04, Koro'o Ridge Track 177.93 -17.57, Korotogo Beach 177.54 -18.17, Lami Fishing Wharf 178.39 -18.10, Lami Industrial 178.40 -18.10, Lower USP Campus-Suva 178.45 -18.14, Laucala Industrial Park-Suva 178.47 -18.12, Naria Rd-Rakiraki 178.17 -17.35, Natadola beach 177.32 -18.10, Naviti Hotel 177.55 -18.17, Newtown Hostels 177.42 -17.75, Queens Wharf Rd-Lautoka 177.45 -17.60, Sigatoka Sand Dunes 177.47 -18.15, Suva Industrial 178.42 -18.12, Swaeni Beach-Lautoka 177.38 -17.64, USP Campus 178.43 -18.15.

Note: Mann (1925) wrote that he accidentally omitted this species from his 1921 paper, "but on the larger islands, especially in cultivated districts, it is one of the commonest ants."

17. *Plagiolepis alluaudi* Emery

VITI LEVU: Suva (WM; Mann 1921; Wilson & Taylor 1967), Suva (1949 & 1950; NK; Wilson & Taylor 1967), Waisoi Forest Camp; inside epiphyte (JW).

Note: Mann (1921) described this as a new species, *Plagiolepis foreli*, but Smith (1958) synonymized *P. foreli* with *P. alluaudi*.

18. *Platythyrea parallela* (F. Smith)

VITI LEVU: DW collected from: Koronivia Farm 178.52 -18.04, Sigatoka Sand Dunes 177.47 -18.15, Thurston Gardens – Suva 178.42 -18.15.

19. *Pyramica membranifera* (Emery)

KADAVU: Mt Korogatule nr Matasawalevu (Monteith; Bolton 2000).

LAU: Lakeba (WM; Mann 1921).

VANUA LEVU: Lasema (WM; Mann 1921; Bolton 2000).

VITI LEVU: Saiaro (WM; Mann 1921).

20. *Solenopsis geminata* (Fabricius)

VITI LEVU: Ellington Wharf; on cliff face (JW), Nananu-i-Ra; by beach; around hotel; and interior forest (JW), Nadarivatu; tree plantation (JW), Legalega Research Station-Nadi (NZAC). DW collected from: Bukuya Rd 177.57 -17.80, 177.70 -17.75, 177.67 -17.78, 177.65 -17.80, Colonial Plaza-Nadi 177.43 -17.77, Denerau Island 177.37 -17.77, Ellington Wharf Rd Junction 178.20 -17.34, Garden of the Sleeping Giant 177.47 -17.70, Kings Rd to Tavua 178.02 -17.37, Kings Rd junction-Tavua to Navai 178.88 -17.43, Koro'o Ridge Track, Korotogo Beach 177.54 -18.17, Lewa Rd-Nadarivatu 177.95 -17.57, Lololo Forest 177.55 -17.58, Marine Drive-Lautoka 177.45 -17.60, Navai village 178.00 -17.65, Nadarivatu Rd to Tavua 177.95 -17.55, Natadola Beach 177.32 -18.09, Naviti Hotel 177.55 -18.17, Newtown Hostels 177.42 -17.75, Rarawai Mill-Ba 177.68 -17.55, Sigatoka Sand Dunes 177.47 -18.15, Sigatoka Valley-Naliko Rd 177.55 -18.17, Vatia Point Rd Junction 177.80 -17.40, Vatia Point Wharf 177.75 -17.39, Vatukonia Rd-Vatukonia Mine 177.85 -17.47, Vatusesiyasani Rd-Rakiraki 178.14 -17.38, Volivoli Rd-Ellington Wharf 178.20 -17.32, Vuda Point Junction 177.38 -17.67, Warrick Hotel 177.73 -18.22.

UNKNOWN LOCALES: no site data (Waterhouse 1997).

21. *Strumigenys rogeri* Emery

VANUA LEVU: Kontiki; 19 km E Savusavu (Monteith & Cook; Bolton 2000).

VITI LEVU: Colo-i-Suva Forest Park (Monteith; Bolton 2000), 7km NW Korovisolou (Monteith; Bolton 2000), Udu, by forest waterfall, under and in log (JW). DW collected from: Colo-i-suva Forest Park (Upper Pools) 178.47 -18.05, Koronivia Farm 178.52 -18.04.

KADAVU: Lagalevu (Monteith; Bolton 2000).

UNKNOWN LOCALES: Navai Viti (Taylor; Bolton 2000), (Brown 1948).

22. *Tapinoma melanocephalum* (Fabricius)

KADAVU: no site data (Mann 1921).

LAU: Vekai (WM; Mann 1921), Kimbobo (EB), Vanua Mbalavu (EB), Mango (EB), Navitu-i-lona (= Navatu?) (EB), Vaku (EB), Valangilala (EB).

OVALAU: no site data (Mann 1921), Lovoni (1953; AC Smith; USNM), Levuka (1975; NK; USNM).

TAVEUNI: Nagasau (WM; USNM).

VITI LEVU: Nukulau (DS), Nasese (1926; Tothill *et al.* 1930), Suva (1926; CT McNamara; MCZ), Nasese (1926; RW Paine; MCZ), Thalo-i-Suva (= Colo-i-Suva) (1950; NK; MCZ), Lami (1976; NK; USNM), Nananu-i-Ra (JW), Viti Levu, Ellington Wharf (JW), Nadarivatu; tree plantation (JW), Waisoi Forest Camp nr Namosi (JW), Waivaka (JW), Udu (JW), Naiva Forestry Camp (JW), Suva (JW). DW collected from: Abaca Park 177.53 -17.67, Bukuya Rd 177.72 -17.75, 177.69 -17.77, 177.65 -17.81, Colo-i-suva Forest Park (Upper Pools) 178.47 -18.05, Denerau Rd 177.38 -17.78, Galoa 177.83 -18.20, Garden of the Sleeping Giant 177.47

-17.70, Navai Village 177.98 -17.62, Karvika St-Tavua 177.85 -17.44, Kings Rd-Tavua 178.02 -17.37, 178.88 -17.43, Kings Rd to Rakiraki 178.55 -17.87, 178.54 -17.84, 178.43 -17.77, 178.37 -17.70, 178.35 -17.68, 178.33 -17.68, Kings Wharf-Suva 178.42 -18.13, Koronivia Research Station 178.52 -18.04, Koro'o Ridge Track 177.93 -17.57, 177.95 -17.57, Korotogo Beach 177.54 -18.17, Kula EcoPark 177.55 -18.17, Lami Cement Works 178.38 -18.11, Lami Fishing Wharf 178.39 -18.10, Lower USP Campus-Suva 178.45 -18.14, Lautoka Park 177.45 -17.60, Lewa Rd-Nadarivatu 177.95 -17.57, Lololo Forest HQ Picnic ground 177.57 -17.57, Marine Drive-Lautoka 177.45 -17.60, Mt Korobaba 178.39 -18.08, Nadarivatu Forest HQ 177.95 -17.55, Nadarivatu Rd to Tavua 177.95 -17.55, 177.94 -17.62, Namosi Highland Road 178.17 -18.10, 178.20 -18.12, 178.22 -18.14, Naria Road-Rakiraki 178.17 -17.35, Natadola beach 177.32 -18.10, Naviti Hotel 177.55 -18.17, Cemetary-Suva 178.43 -18.12, Newtown Hostels 177.42 -17.75, North of Navai Village 177.97-17.62, Pacific Harbour 178.07 -18.25, Raintree Lodge 178.45 -18.05, Rakiraki Hotel 178.25 -17.37, Ran Lakhani Park -Suva 178.44 -18.12, Rarawai Mill-Ba 177.68 -17.55, Rewa Delta-Saweni Rd 178.40 -18.00, 178.45 -18.03, Sigatoka Sand Dunes 177.47 -18.15, Sigatoka Valley-Naliko Rd 177.55 -18.17, 177.57 -18.13, USP Campus 178.43 -18.15, Vatia Point 177.82 -17.39, Vatia Point Wharf 177.75 -17.39, Vatukonia Rd-Vatukonia Mine 177.85 -17.49, Vaturu Dam 177.59 -17.75, Volivoli Rd-Ellington Wharf 178.18 -17.32, Vuda Point Marina 177.38 -17.67, Warrick Hotel 177.73 -18.22, Yadra Cattle Ranch Rd 177.95 -17.43.

UNKNOWN LOCALES: no site data (GM Dlussky; Dlussky 1994).

Note: Mann (1921) wrote that this species was “throughout the islands” and “in practically every locality visited,” but mentioned only one specific site.

23. *Tetramorium bicarinatum* (Nylander)

KADAVU: no site data (Mann 1921).

LAU: Vanua Balava (WM; Mann 1921); Lomaloma (Bolton 1977), Kimbombo (EB; as *T. guineense*), Vanua (EB; as *T. guineense*); Vanua Balava (HS Evans; Bolton 1977).

OVALAU: Levuka (WM; USNM).

TAVEUNI: Somosomo (Mann 1921).

VANUA LEVU: Labasa (WM; USNM), Suene (Sueni) (Mann; USNM; Bolton 1977).

VITI LEVU: Nadarivatu (Mann; USNM; Bolton 1977), Nasoqo (= Nasonggo) (Mann; USNM; Bolton 1977), Nadi (1974; NK; USNM), Lami (1976; NK; USNM), Suva (HW Simmonds; BMNH; Bolton 1977), Suva (WM Wheeler; Bolton 1977), no site data (NK; Bolton 1977), Mabualau (JW), Suva (DL Stoner; USNM), Naiva Forestry Camp (JW), Nadarivatu; tree plantation (JW), Suva; near USP campus; on tree by beach (JW). DW collected from: Denerau Island 177.37 -17.77, Galoa plantation 177.83 -18.20, Garden of the Sleeping Giant 177.47 -17.70, Kings Rd to Rakiraki 178.54 -17.84, 178.49 -17.79, Koronivia Research Farm 178.52 -18.04, Korotogo Beach 177.54 -18.17, Kula EcoPark 177.55 -18.17, Lami Industrial 178.40 -18.10, Lautoka Park 177.45 -17.60, Lololo Forest 177.54 -17.58, Mt Korobaba 178.38 -18.08, Namosi Highland Rd 178.17 -18.10, 178.20 -18.12, 178.22 -18.14, Naria Rd-Rakiraki 178.17 -17.35, Pacific Harbour 178.07 -18.25, Suva 178.43 -18.15, Rakiraki Hotel 178.25 -17.37, Rewa Delta 178.60 -17.97, 178.57 -18.07, 178.59 -18.05, USP Campus 178.43 -18.15, Vatia Point 177.82 -17.39, Vatukonia Town-Vatukonia Mine 177.84 -17.50, Vaturu Dam 177.58 -17.75, 177.59 -17.75, 177.58 -17.75, Vatusesiyasani Rd-Rakiraki 178.14 -17.38, Warrick Hotel 177.73 -18.22.

UNKNOWN LOCALES: Lakela (WM; USNM), Ongea (WM; USNM), Nausori (1921; R Veitch; BMNH; Bolton 1977), Vivia (1922; Stoner; USNM).

Note: Mann (1921) wrote that this species was “throughout the islands, most commonly in cultivated districts,” but mentioned no specific sites.

24. *Tetramorium lanuginosum* Mayr

VITI LEVU: DW collected from: Kings Rd to Rakiraki 178.54 -17.84, Vuda Point Junction 177.38, -17.67, Yadra Cattle Ranch Rd 177.95, -17.43.

25. *Tetramorium similimum* (F. Smith)

LAU: Tuvutha (= Tuvuca) (EB), Avea (EB), Latei Tonga (EB).

VITI LEVU: Makaluva (DS), no site data (WL Brown; Bolton 1977); Suva (JW), Nananu-i-Ra (JW), Mabualau (JW). DW collected from: Ba township 177.73 -17.45, Colonial Plaza-Nadi 177.43 -17.77, Denerau Island 177.37 -17.77, Denerau Marina 177.37 -17.77, Flagstaff Park-Suva 178.43 -18.13, Kings Rd to Rakiraki 178.25 -17.37, Kings Wharf-Suva 178.42 -18.13, Koronivia Station 178.52 -18.04, Korotogo Beach 177.54 -18.17, Kula EcoPark 177.55 -18.17, Lautoka Park 177.45 -17.60, Lololo Forest 177.54 -17.58, Newtown Hostels 177.42 -17.75, Pacific Harbour 178.07 -18.25, Queen Elizabeth Drive-Suva 178.44 -18.15, Rakiraki Hotel 178.25 -17.37, Sigatoka Sand Dunes 177.47 -18.15, Sigatoka Valley 177.55 -18.15, USP Campus 178.43 -18.15, Vatia Point 177.82 -17.39, Vatukonia Mine 177.84 -17.50, Yadra Cattle Ranch Rd 177.95 -17.43.

TAVEUNI: Somosomo (WM; Mann 1921).

CONCLUSIONS

Although collections have been made on several major islands over a >100 year period, the knowledge of the Fijian ant diversity, distribution and ecology is still largely rudimentary. Future collecting efforts on unsurveyed islands are likely to uncover many undescribed species and broaden the known distribution of many described species. The endemic fauna largely inhabits forests, with exotic species common in towns, rural villages, and agricultural and disturbed ecosystems. Threats to the ant diversity of Fiji include habitat loss through deforestation (Evenhuis & Bickel 2005) and invasive ant species. Two major invasive species of future concern are *Wasmannia auropunctata* and *Solenopsis invicta*, which have not yet arrived in Fiji. Invasive ant species will have long-term detrimental impacts for the conservation of a unique island biota.

As further sampling is undertaken and the fauna is examined in greater detail, many new species and additional locality records of known species will be revealed. Of particular interest are the Yasawa's, a western island group which to our knowledge remains unsurveyed. The highland forests of Viti Levu, Vanua Levu, and particularly Taveuni are also of great interest as they represent some of the last remaining near-pristine forests of Fiji. Intensive sampling of litter habitats will likely reveal many new taxa, in similar a vein to what has recently occurred in Madagascar (Fisher 1997).

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APPENDIX

Checklist of ant taxa recorded from different parts of Fiji. F = unknown locality in Fiji; V = Viti Levu; v = Vanua Levu; K = Kadavu; T = Taveuni; O = Ovalau; L = Lau group; R = Rotuma.

Taxon	F	V	v	K	T	O	L	R
Endemic								
<i>Camponotus bryani</i> Santschi 1928: 72		V						
<i>Camponotus cristatus</i> Mayr 1866: 489		V				O		
<i>Camponotus cristatus nagasau</i> Mann 1921: 482					T			
<i>Camponotus cristatus sadinus</i> Mann 1921: 482		V	v		T			
<i>Camponotus dentatus</i> (Mayr) 1866: 492		V	v	K	T	O		
<i>Camponotus dentatus humeralis</i> Wheeler 1934: 416		V						
<i>Camponotus janussus</i> Bolton 1995b: 106				K				
<i>Camponotus laminatus levuanus</i> Mann 1921: 479			v					
<i>Camponotus laminatus</i> Mayr 1866: 489		V	v	K		O	L	
<i>Camponotus lauensis</i> Mann 1921: 488							L	
<i>Camponotus maafui</i> Mann 1921: 482			v					
<i>Camponotus manni umbratilis</i> Wheeler 1934: 420		V						
<i>Camponotus manni</i> Wheeler 1934: 418					T			
<i>Camponotus maudella</i> Mann 1921: 496		V			T			
<i>Camponotus maudella seemanni</i> Mann 1921: 498		V						
<i>Camponotus oceanicus</i> (Mayr) 1870: 943						O		
<i>Camponotus polynesianus</i> Emery 1896: 374		V	v			O		
<i>Camponotus rotumanus</i> Wilson & Taylor 1967: 98								R
<i>Camponotus schmeltzi kadi</i> Mann 1921: 485			v					
<i>Camponotus schmeltzi loloma</i> Mann 1921: 486							L	
<i>Camponotus schmeltzi</i> Mayr 1866: 490		V				O		
<i>Camponotus schmeltzi trotteri</i> Mann 1921: 486					T			
<i>Camponotus vitiensis</i> Mann 1921: 490		V						
<i>Cerapachys cryptus</i> Mann 1921: 408		V						
<i>Cerapachys fuscior</i> Mann 1921: 410					T			
<i>Cerapachys lindrothi</i> Wilson 1959b: 52		V						
<i>Cerapachys majusculus</i> Mann 1921: 408		V						
<i>Cerapachys sculpturatus</i> Mann 1921: 407		V						
<i>Cerapachys vitiensis</i> Mann 1921: 406			v					
<i>Cerapachys zimmermani</i> Wilson 1959b: 54		V						
<i>Eurhopalothrix emeryi</i> (Forel) 1912: 58		V	v			O		
<i>Eurhopalothrix insidiatrix</i> Taylor 1980: 238		V	v			O		
<i>Gnamptogenys aterrima</i> (Mann) 1921: 411		V	v	K	T			
<i>Hypoponera eutrepta</i> (Wilson) 1958: 344		V						
<i>Hypoponera monticola</i> (Mann) 1921: 418		V				O	L	
<i>Hypoponera turaga</i> (Mann) 1921: 416		V		K	T			
<i>Hypoponera vitiensis</i> (Mann) 1921: 414		V						
<i>Iridomyrmex anceps ignobilis</i> Mann 1921: 472		V						
<i>Leptogenys foveopunctata</i> Mann 1921: 421			v					

Taxon	F	V	v	K	T	O	L	R
Endemic (continued)								
<i>Leptogenys fugax</i> Mann 1921: 422		V						
<i>Leptogenys humiliata</i> Mann 1921: 421		V						
<i>Leptogenys letilae</i> Mann 1921: 419		V						
<i>Leptogenys navua</i> Mann 1921: 423		V						
<i>Leptogenys vitiensis</i> Mann 1921: 424		V						
<i>Lordomyrma rugosa</i> (Mann) 1921: 455		V						
<i>Lordomyrma striatella</i> (Mann) 1921: 454		V		K				
<i>Lordomyrma tortuosa</i> (Mann) 1921: 452			v			O		
<i>Lordomyrma tortuosa levifrons</i> (Mann) 1921: 453		V						
<i>Lordomyrma tortuosa polita</i> (Mann) 1921: 453		V						
<i>Lordomyrma tortuosa stoneri</i> (Mann) 1925: 5		V						
<i>Monomorium vitiense</i> Mann 1921: 444					T			
<i>Myrmecina cacabau</i> (Mann) 1921: 449		V						
<i>Ochetellus sororis</i> (Mann) 1921: 469		V					L	
<i>Odontomachus angulatus</i> Mayr 1866: 500		V				O		
<i>Paratrechina oceanica</i> (Mann) 1921: 476		V						
<i>Paratrechina vitiensis</i> (Mann) 1921: 474				K				
<i>Pheidole caldwelli</i> Mann 1921: 434		V						
<i>Pheidole colaensis</i> Mann 1921: 441		V						
<i>Pheidole knowlesi extensa</i> Mann 1921: 438		V						
<i>Pheidole knowlesi</i> Mann 1921: 436			v					
<i>Pheidole onifera</i> Mann 1921: 427		V			T	O		
<i>Pheidole roosevelti</i> Mann 1921: 438		V				O		
<i>Pheidole vatu</i> Mann 1921: 431		V						
<i>Pheidole wilsoni</i> Mann 1921: 433				K				
<i>Philidris nagasau agnata</i> (Mann) 1921: 472			v					
<i>Philidris nagasau alticola</i> (Mann) 1921: 472					T			
<i>Philidris nagasau</i> (Mann) 1921: 470					T		L	
<i>Poecilomyrma senirewae</i> Mann 1921: 446		V						
<i>Poecilomyrmasenirewae myrmecodiae</i> Mann 1921: 448		V						
<i>Polyrhachis rotumana</i> Wilson & Taylor 1967: 99								R
<i>Ponera colaensis</i> Mann 1921: 417		V					L	
<i>Ponera manni</i> Taylor 1967: 86		V						
<i>Pristomyrmex mandibularis</i> Mann 1921: 444		V			T	O		
<i>Proceratium oceanicum</i> de Andrade 2003: 310		V						
<i>Proceratium relictum</i> Mann 1921: 413					T			
<i>Pyramica trauma</i> Bolton 2000: 408				K				
<i>Romblonella scrobifera liogaster</i> (Santschi) 1928: 69							L	
<i>Romblonella vitiensis</i> Smith 1953: 79							O	
<i>Strumigenys basiliska</i> Bolton 2000: 750		V						
<i>Strumigenys chernovi</i> Dlussky 1993: 57		V	v	K				
<i>Strumigenys daithma</i> Bolton 2000: 756		V						
<i>Strumigenys ekasura</i> Bolton 2000: 807			v					
<i>Strumigenys frivola</i> Bolton 2000: 817		V						
<i>Strumigenys jepsoni</i> Mann 1921: 462			v					

Taxon	F	V	v	K	T	O	L	R
Endemic (continued)								
<i>Strumigenys nidifex</i> Mann 1921: 464		V	v	K				
<i>Strumigenys panaulax</i> Bolton 2000: 811			v					
<i>Strumigenys praefecta</i> Bolton 2000: 826		V			T			
<i>Strumigenys scelestia</i> Mann 1921: 463					T			
<i>Strumigenys sulcata</i> Bolton 2000: 828		V	v					
<i>Strumigenys tumida</i> (Bolton) 2000: 830		V	v					
<i>Tetramorium manni</i> Bolton 1985: 247		V						
Native								
<i>Adelomyrmex hirsutus</i> Mann 1921: 458			v					
<i>Anochetus graeffei</i> Mayr 1870: 961		V	v	K	T			
<i>Camponotus chloroticus</i> Emery 1897: 574		V	v	K		O	L	R
<i>Camponotus rufifrons</i> (F. Smith) 1860: 95						O		
<i>Cardiocondyla nuda</i> (Mayr) 1866: 508		V	v			O	L	
<i>Iridomyrmex anceps</i> (Roger) 1863: 164		V						
<i>Odontomachus simillimus</i> Smith 1858: 80		V	v	K	T	O	L	R
<i>Oligomyrmex atomus</i> Emery 1900: 328	F							
<i>Paratrechina minutula</i> (Forel) 1901: 25	F							
<i>Pheidole oceanica</i> Mayr 1866: 510		V	v	K	T	O	L	R
<i>Pheidole umbonata</i> Mayr 1870: 978		V	v	K	T	O	L	
<i>Rogeria sublevinodis</i> Emery 1914: 415		V	v	K	T	O	L	
<i>Solenopsis papuana</i> Emery 1900: 330		V						
<i>Strumigenys godeffroyi</i> Mayr 1866: 516		V	v	K	T		L	
<i>Strumigenys mailei</i> Wilson & Taylor 1967: 38		V	v	K				
<i>Tapinoma minutum</i> Mayr 1862: 703	F	V						
<i>Technomyrmex albipes</i> (F. Smith) 1861: 38		V	v	K	T	O	L	
<i>Tetramorium insolens</i> (F. Smith) 1861: 47		V	v	K	T		L	
<i>Tetramorium pacificum</i> Mayr 1870: 976		V	v	K	T	O	L	R
<i>Tetramorium tenuicrine</i> (Emery) 1914: 416		V						
<i>Tetramorium tonganum</i> Mayr 1870: 976		V	v		T			
<i>Vollenhovia denticulata</i> Emery 1914: 405	F							
Exotic								
<i>Anoplolepis gracilipes</i> (F. Smith) 1857: 55		V	v	K	T	O	L	R
<i>Cardiocondyla emeryi</i> Forel 1881: 5	F	V						
<i>Cardiocondyla obscurior</i> Wheeler 1929: 44		V						
<i>Hypoponera gleadowi</i> (Forel) 1895: 60		V						
<i>Hypoponera opaciceps</i> (Mayr) 1887: 536	F							
<i>Hypoponera punctatissima</i> (Roger) 1859: 246	F							
<i>Monomorium destructor</i> (Jerdon) 1851: 105		V						
<i>Monomorium floricole</i> (Jerdon) 1851: 107		V	v		T	O	L	
<i>Monomorium pharaonis</i> (Linnaeus) 1758: 580		V						
<i>Monomorium sechellense</i> Emery 1894: 69		V						
<i>Pachycondyla stigma</i> (Fabricius) 1804: 400		V	v					
<i>Paratrechina bourbonica</i> (Forel) 1886: 210		V	v		T	O		

Taxon	F	V	v	K	T	O	L	R
Exotic (continued)								
<i>Paratrechina longicornis</i> (Latreille) 1802: 11		V	v	K	T	O	L	
<i>Paratrechina vaga</i> (Forel) 1901: 26		V	v	K	T	O	L	
<i>Pheidole fervens</i> Smith 1858: 176		V						
<i>Pheidole megacephala</i> (Fabricius) 1793: 361		V	v	K	T	O	L	R
<i>Plagiolepis alluaudi</i> Emery 1894: 71		V						
<i>Platythyrea parallela</i> (F. Smith) 1859: 143		V						
<i>Pyramica membranifera</i> (Emery) 1869: 24		V	v	K			L	
<i>Solenopsis geminata</i> (Fabricius) 1804: 423	F	V						
<i>Strumigenys rogeri</i> Emery 1890: 68		V	v	K				
<i>Tapinoma melanocephalum</i> (Fabricius) 1793: 353		V	v	K	T	O	L	
<i>Tetramorium bicarinatum</i> (Nylander) 1846: 1061		V	v	K	T	O	L	
<i>Tetramorium lanuginosum</i> Mayr 1870: 976		V						
<i>Tetramorium simillimum</i> (F. Smith) 1851: 118		V			T		L	

