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AN UPDATED LIST OF FLORIDA ANTS (HYMENOPTERA: FORMICIDAE)

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ABSTRACT

A list of ants of Florida published in 1989 is replaced to accommodate 49 additional species now known from Florida, and 34 name changes in species already on the 1989 list. Currently, 218 species of ants are reliably reported from Florida.

Key Words: exotic species, faunistics

RESUMEN

Se presenta una nueva lista de las hormigas de Florida para reemplazar una lista publicada en 1989. La nueva lista incluye 49 más especies y 34 cambios de nomenclatura. Al presente, 218 especies de hormigas son sabidas a hallarse en Florida.

In 1989 Deyrup et al. published a list of the ants of Florida. In the ensuing thirteen years there has been considerable myrmecological activity, both survey work in Florida, and taxonomic descriptions and revisions. Consequently, the 1989 list is drastically out of date: there are 49 additional species to be added to the list, 34 name changes that apply to species already on the 1989 list, and 4 species that have been removed from the list because the records are probably based on misidentifications.

These advances do not mean that there is no need for further work in the inventory and taxonomy of Florida ants. Included in the list are a number of species that are awaiting description by various specialists. The species epithets in the entire genus *Brachymyrmex* are suspect, although it is clear that at least five species of *Brachymyrmex* occur in Florida. It is probable that there are additional species of ants still to be found in Florida. This can be deduced from the fact that there are a number of species on the list that are known from only one or two collections, or from one or two sites; there are probably other equally rare species that nobody has been lucky enough to find. There is reason to suppose that exotic ants will continue to become established in Florida (Deyrup et al. 2000); even now there are likely to be some species of localized exotics that have not yet been reported. On the other hand, there are four species of ants on the list that have not been found for many years and may have been extirpated. These are the native species *Formica subsericea* and *Solenopsis xyloni*, and the exotic species *Myrmelachista ramulorum* and *Tetramorium lanuginosum*.

The 49 species that have been added to the list were overlooked before for various reasons. They are not, fortunately, primarily exotics that have invaded Florida since 1989, although there are

nine exotic species that have been added to the list. Most of the added Florida records are either native species whose Florida populations have been recently discovered, or native species that have recently been described or are awaiting description.

The number of species listed below, 218, is the largest ant fauna known from any state in eastern North America, and is likely to remain so, even after other large states have received as much attention as Florida. The reasons for this lie in the convergence of various faunal elements. There is a set of Antillean species, such as *Leptothorax alldardycei* and *L. torreyi* in the southern Peninsula. There are many tropical exotics, including both Old World species, such as *Technomyrmex albipes* and *Strumigenys emmae*, and New World species, such as *Wasmannia auropunctata* and *Pseudomyrmex gracilis*. There are southeastern coastal plain species such as *Camponotus socius* and *Paratrechina arenivaga*. There are, mostly in north Florida, species probably derived from the southern Appalachians, such as *Pyramica rostrata* and *P. pulchella*. There are species representing western lineages, such as *Pogonomyrmex badius* and *Neivamyrmex texanus*. All this diversity, however, still cannot compare with that of southwestern states such as Arizona, where an almost intact, pre-ice age, dryland fauna (Madrotertiary) is augmented at higher elevations by north temperate species.

The following alphabetical list generally follows the nomenclature in Barry Bolton's catalog (1995), combined with the nomenclature in his revision of the Dacetini (2000). These two works are currently the foundations of North American ant nomenclature. Numbers in parentheses following a name in the list usually refer to variances from the nomenclature or from the lists of species in Bolton 1995 and 2000. These variances are ex-

plained in the section following the list. In cases in which a name appearing in the 1989 list has been changed and the changes are referenced in one of the two works by Bolton mentioned above, the 1989 usage is noted but the original source of the change in nomenclature may be omitted.

An asterisk (*) denotes a species that was absent from the 1989 list.

Florida specimens of all but seven species are deposited in the collection of Archbold Biological Station.

LIST OF FLORIDA ANTS

Acanthomyops claviger (Roger).* Okaloosa Co. Rare.

Acanthomyops interjectus (Mayr).* Liberty Co. Rare.

Amblyopone pallipes (Haldeman). Widespread.
Anochetus mayri Emery. Dade and Palm Beach Cos. Introduced.

Aphaenogaster ashmeadi (Emery). Widespread in north FL, south into Highlands Co.

Aphaenogaster carolinensis Wheeler. North FL; distribution unclear: confounded with *miamiana*. (1)

Aphaenogaster flemingi M. R. Smith. Widespread.

Aphaenogaster floridana M. R. Smith. Widespread in north FL, south into Highlands Co.

Aphaenogaster fulva Roger. Widespread in north FL, south into Orange and Volusia Cos.

Aphaenogaster lamellidens Mayr. Widespread in north FL, south into Highlands and St. Lucie Cos.

Aphaenogaster mariae Forel. Liberty Co. Rare.

Aphaenogaster miamiana Wheeler.* South FL; distribution unclear: confounded with *carolinensis*.

Aphaenogaster tennesseensis (Mayr). Northernmost counties of peninsular Florida.

Aphaenogaster treatae Forel. Widespread.

Aphaenogaster umphreyi Deyrup & Davis.* Scattered sites in north FL, south into Highlands Co. (2).

Brachymyrmex brevicornis Emery?*(Genus in disarray). Columbia Co. Rare. Introduced.

Brachymyrmex depilis Emery? (Genus in disarray). Widespread.

Brachymyrmex minutus Forel?*(Genus in disarray). Dade and Monroe Cos. Introduced.

Brachymyrmex musculus Forel?*(Genus in disarray). Widespread. Introduced.

Brachymyrmex obscurior Forel? (Genus in disarray). Widespread.

Camponotus caryae (Fitch). Liberty Co. Rare.

Camponotus castaneus (Latreille). Widespread.

Camponotus decipiens Emery. Widespread.

Camponotus discolor (Buckley).* Scattered sites in peninsular Florida, Alachua into High-

lands Cos. Records in 1989 list under *sayi* Emery apparently refer to this species.

Camponotus floridanus (Buckley). Widespread.

Camponotus impressus (Roger). Widespread. Listed under *Colobopsis* in 1989 list.

Camponotus nearcticus Emery. Widespread.

Camponotus pennsylvanicus (DeGeer). Northernmost FL, including Panhandle.

Camponotus planatus Roger. South FL, north into Hillsborough and Orange Cos. Introduced.

Camponotus pylartes Wheeler.* North-central Peninsula.

Camponotus sexguttatus (Fabricius).* Dade Co. Rare. Introduced.

Camponotus snellingi Bolton. Widespread. Records under *C. pavidus* Wheeler in 1989 list refer to this species.

Camponotus socius Roger. Widespread, south into Broward Co.

Camponotus tortuganus Emery. South FL, north into Volusia Co.

Cardiocondyla emeryi Forel. Widespread. Introduced.

Cardiocondyla nuda (Mayr). Widespread. Introduced.

Cardiocondyla venustula Wheeler. Widespread. Introduced.

Cardiocondyla wroughtonii (Forel). Widespread in peninsular FL. Introduced.

Cardiocondyla sp.* Widespread in peninsular FL. Introduced. (3)

Cephalotes varians (F. Smith). Dade and Monroe Cos. (4)

Crematogaster agnita Wheeler.* Monroe Co. Rare. Introduced.

Crematogaster ashmeadi Mayr. Widespread.

Crematogaster atkinsoni Wheeler. Widespread.

Crematogaster cerasi (Fitch). Widespread in north FL, south into Highlands Co.

Crematogaster lineolata (Say). Widespread in north FL, south into Hernando and Sumter Cos.

Crematogaster minutissima Mayr. Widespread.

Crematogaster missouriensis Emery.* Panhandle. (5)

Crematogaster pilosa Emery. Widespread.

Crematogaster vermiculata Emery. Scattered sites in north FL, south into Hillsborough Co.

Crematogaster sp. A (pine species).* Widespread in north and central FL, south into Lee and Palm Beach Cos.

Crematogaster sp. B (large species in mangroves).* Monroe Co. Rare.

Cryptopone gilva (Roger). Widespread in north FL, south into Highlands Co.

Cyphomyrmex minutus Mayr. Widespread in south FL, north into Hillsborough and Volusia Cos.

Cyphomyrmex rimosus (Spinola). Widespread. Introduced.

- Discothyrea testacea* Roger. Widespread.
- Dolichoderus mariae* Forel.* Leon Co. Rare.
- Dolichoderus pustulatus* Mayr.* Scattered sites throughout FL. Records in 1989 list under *D. plagiatus* Mayr refer to this species.
- Dorymyrmex bossutus* (Trager).* Widespread in peninsular FL, west into Leon Co. (6)
- Dorymyrmex bureni* (Trager).* Widespread. Records in 1989 list under *Conomyrma insana* (Buckley) refer to this species. (6)
- Dorymyrmex elegans* (Trager).* Central peninsular ridges. (6)
- Dorymyrmex flavopectus* M. R. Smith. Central peninsular FL, south Highlands Co. into Marion Co. Listed under *Conomyrma* in 1989 list. (6)
- Dorymyrmex grandulus* (Forel).* North FL, south into Citrus Co. (6)
- Dorymyrmex medeis* (Trager).* Scattered sites in north FL, south into Highlands Co. (6)
- Dorymyrmex reginicula* (Trager).* Central peninsular FL, southern Highlands Co. north into Volusia Co. (6)
- Eurhopalothrix floridana* Brown & Kempf. Widespread in peninsular FL.
- Forelius pruinosus* (Roger). Widespread.
- Forelius* sp.* Scattered sites in north FL, south into Citrus Co.
- Formica archboldi* M. R. Smith. Widespread in peninsular FL, west into Liberty Co.
- Formica pallidefulva* Latreille. Widespread in north FL, south into Highlands Co.
- Formica schaufussi dolosa* Wheeler. North FL, south into Lake Co.
- Formica subsericea* Say. Liberty Co. Rare, not seen in recent decades.
- Gnamptogenys triangularis* (Mayr). Isolated records from Dade, Broward and Escambia Cos. Rare. Introduced. Record in 1989 list under *G. aculeaticoxae* (Santschi) refers to this species.
- Hypoponera inexorata* (Wheeler). Widespread.
- Hypoponera opaciceps* (Mayr). Widespread.
- Hypoponera opacior* (Forel). Widespread.
- Hypoponera punctatissima* (Roger). South FL, north into Alachua and Bradford Cos. Introduced.
- Lasius alienus* (Foerster). North FL, south into Marion Co.
- Lasius neoniger* Emery. Scattered sites in north FL.
- Lasius umbratus* (Nylander). A few sites in Panhandle.
- Leptogenys manni* Wheeler. Highlands Co., north and west into Leon Co. Records in 1989 list under *L. elongata* (Buckley) refer to this species.
- Leptothorax allardycei* (Mann). Monroe and Lee Cos. Listed under *Macromischa* in 1989 list.
- Leptothorax bradleyi* Wheeler. North FL, south into Highlands Co.
- Leptothorax curvispinosus* Mayr. Northern-most FL.
- Leptothorax pergandei* Emery. Widespread.
- Leptothorax schaumii* Roger. North FL, south into Highlands Co.
- Leptothorax smithi* Baroni Urbani. Scattered sites in north FL, south into Highlands Co. Records under *L. wheeleri* in 1989 list refer to this species.
- Leptothorax texanus* Wheeler. Widespread. (7)
- Leptothorax torrei* (Aguayo). Dade, Monroe, Martin Cos. Listed under *Macromischa* in 1989 list.
- Leptothorax* sp.* Undescribed. Liberty and Leon Cos. (7)
- Linepithema humile* (Mayr). Scattered sites throughout FL. Introduced. Listed under *Iridomyrmex* in 1989 list.
- Monomorium destructor* (Jerdon). Scattered sites in south FL, chiefly in Key West. Introduced.
- Monomorium ebeninum* Forel. Monroe Co. Introduced.
- Monomorium floricola* (Jerdon). South FL, north into Pinellas Co. Introduced.
- Monomorium pharaonis* (Linnaeus). Widespread. Introduced.
- Monomorium trageri* DuBois.* Scattered sites throughout FL. Records listed under *M. minimum* (Buckley) in 1989 list refer to this species.
- Monomorium viride* Brown. Widespread.
- Myrmecina americana* Emery. Widespread.
- Myrmecina* sp.* Undescribed. Bradford Co. Rare.
- Myrmelachista ramulorum* Wheeler. Polk Co. Rare or extirpated. Introduced.
- Myrmica punctiventris* Roger.* Walton, Sta. Rosa, Escambia Cos. Rare.
- Neivamyrmex carolinensis* (Emery). Scattered sites in north FL, south into Highlands Co.
- Neivamyrmex opacithorax* (Emery). Scattered sites throughout FL.
- Neivamyrmex texanus* Watkins. Scattered sites in north FL, south into Highlands Co.
- Ochetellus glaber* (Mayr). Orange and Volusia Cos. Introduced. Listed under *Iridomyrmex* in 1989 list.
- Odontomachus brunneus* (Patton). Widespread in Peninsula, in Panhandle west into Leon Co.
- Odontomachus ruginodis* M. R. Smith. South FL, north into Orange and Co. Introduced.
- Odontomachus* sp. Undescribed. Highlands into Orange, Citrus Cos. Records listed under *O. clarus* in 1989 list refer to this species.
- Pachycondyla stigma* (Fabricius). South FL, north into Orange and Volusia Cos. Introduced.
- Paratrechina arenivaga* (Wheeler). Widespread.
- Paratrechina bourbonica* (Forel). South FL, north into Orange and Hillsborough Cos. Introduced.
- Paratrechina concinna* Trager. Widespread.
- Paratrechina faisonensis* (Forel). Widespread in north FL, south into Highlands Co.

Paratrechina guatemalensis (Forel). South FL, north to Sarasota and Indian River Cos. Introduced.

Paratrechina longicornis (Latreille). South FL, north to St. Johns and Columbia Cos. Introduced.

Paratrechina parvula (Mayr). North FL, south to Volusia Co.

Paratrechina phantasma Trager. Peninsular FL, Alachua Co. south into Palm Beach Co.

Paratrechina pubens (Forel). Dade, Sarasota and Palm Beach Cos. Introduced.

Paratrechina vividula (Nylander). North FL, south into Highlands Co.

Paratrechina wojciki Trager. Widespread.

Paratrechina sp. A.* Undescribed. Workerless parasite of *wojciki*. Highlands Co.

Paratrechina sp. B.* Undescribed. Workerless parasite of *faisonensis*. Hamilton Co.

Pheidole adrianoi Naves. Widespread.

Pheidole bicarinata vinelandica Forel.* North FL, south into Citrus Co.

Pheidole carrolli Naves. Scattered sites in north FL, south into Citrus Co. Rare.

Pheidole crassicornis Emery. Scattered sites in north FL, south into Alachua Co.

Pheidole dentata Mayr. Widespread.

Pheidole dentigula M. R. Smith. Widespread.

Pheidole diversipilosa Wheeler.* A few sites in Panhandle, east into Columbia Co. Rare.

Pheidole flavens Roger.* South FL, north into Martin Co. Introduced.

Pheidole floridana Emery. Widespread.

Pheidole lamia Wheeler. Leon and Jackson Cos. Rare.

Pheidole littoralis Cole. Peninsular FL, west into Franklin Co., south into Highlands Co.

Pheidole megacephala (Fabricius). Scattered sites in south FL, north into Hillsborough Co. Introduced.

Pheidole metallescens Emery. Widespread in north FL, south into Highlands Co.

Pheidole moerens Wheeler. Widespread. Introduced.

Pheidole morrisi Forel. Widespread.

Pheidole obscurithorax Naves*. Panhandle, east into Leon Co. Introduced. (8)

Pheidole tysoni Forel. Alachua and Madison Cos.

Platythyrea punctata (F. Smith). South FL, north into Highlands Co.

Pogonomyrmex badius (Latreille). Widespread.

Polyergus lucidus Mayr. Alachua, Columbia, Leon, Sta. Rosa Cos. Rare.

Ponera exotica M. R. Smith. Scattered sites in north FL, south into Highlands Co.

Ponera pennsylvanica Buckley. North FL, south into Marion Co.

Prenolepis imparis (Say). North FL, south into Orange Co.

Prionopelta antillana Forel. Marion Co. Introduced.

Proceratium crassicorne Emery.* Sta. Rosa and Liberty Cos. Rare. (9)

Proceratium croceum (Roger). Scattered sites in north FL, south into Levy Co.

Proceratium pergandei (Emery). North FL, south into Pinellas and Highlands Cos.

Proceratium silaceum Roger. North FL, south into Highlands Co.

Proceratium sp. A.* Undescribed. Leon and Lafayette Cos. Rare.

Proceratium sp. B.* Undescribed. Liberty Co. Rare.

Pseudomyrmex cubaensis (Forel). South FL, north into Polk Co.

Pseudomyrmex ejectus (F. Smith). Widespread.

Pseudomyrmex elongatus (Mayr). South FL, north to Highlands Co.

Pseudomyrmex gracilis (Fabricius). South FL, north into Alachua Co. Introduced. Records listed under *P. mexicanus* in 1989 list refer to this species.

Pseudomyrmex leptosus Ward. A few sites in Peninsula, north into Alachua Co.

Pseudomyrmex pallidus (F. Smith). Widespread.

Pseudomyrmex seminole Ward. Widespread in south FL, Orange and Bay Cos. in north FL.

Pseudomyrmex simplex (F. Smith). South FL, north into Orange Co.

Pyramica abdita (Wesson & Wesson)* Alachua and Leon Cos. Rare.

Pyramica angulata (M. R. Smith)* A few sites in north FL. Rare.

Pyramica apalachicolensis Deyrup & Lubertazzi.* Leon Co. Rare. (10)

Pyramica archboldi (Deyrup & Cover)* North FL, south into Volusia Co., west into Jefferson Co.

Pyramica bunki (Brown). Scattered sites in north FL, south into Highlands Co. Under *Smithistruma* in 1989 list.

Pyramica carolinensis (Brown). A few sites in north FL. Rare. Under *Smithistruma* in 1989 list.

Pyramica cloydi (Pfitzer)* Lake Co. Rare.

Pyramica clypeata (Roger). North FL, south into Highlands Co. Under *Smithistruma* in 1989 list.

Pyramica creightoni (M. R. Smith). North peninsular FL, south into Highlands Co. Under *Smithistruma* in 1989 list.

Pyramica deyrupei Bolton.* Marion Co.

Pyramica dietrichi (M. R. Smith). Widespread. Under *Smithistruma* in 1989 list.

Pyramica eggarsi (Emery). South FL, north into Alachua Co. Introduced. Under *Strumigenys* in 1989 list.

Pyramica gundlachi Roger. Dade, Monroe, Collier Cos. Introduced. Under *Strumigenys* in 1989 list.

Pyramica hexamera (Brown). Marion and Hernando Cos. Rare. Introduced. Under *Epitritus* in 1989 list.

- Pyramica inopina* (Deyrup & Cover).^{*} Alachua, Marion, Putnam Cos. Rare.
- Pyramica laevinasis* (M. R. Smith). Walton Co. Rare. Under *Smithistruma* in 1989 list.
- Pyramica margaritae* (Forel). Scattered sites in north FL, south into Marion Co. Introduced. Under *Smithistruma* in 1989 list.
- Pyramica membranifera* (Emery). Widespread. Introduced. Under *Trichoscapa* in 1989 list.
- Pyramica missouriensis* (M. R. Smith).^{*} Alachua and Highlands Cos. Rare.
- Pyramica ohioensis* (Kennedy & Schramm). Scattered sites in north FL, south into Alachua Co. Under *Smithistruma* in 1989 list.
- Pyramica ornata* (Mayr). North FL, south into Highlands and Sarasota Cos. Under *Smithistruma* in 1989 list.
- Pyramica pilinasis* (Forel).^{*} Scattered sites in north FL, south into Highlands Co.
- Pyramica pulchella* (Emery). North FL, west into Bay Co., south into Highlands Co. Under *Smithistruma* in 1989 list.
- Pyramica reflexa* (Wesson & Wesson). North FL, south into Polk Co. Under *Smithistruma* in 1989 list.
- Pyramica rostrata* (Emery).^{*} Northern tier of FL counties. Under *Smithistruma* in 1989 list.
- Pyramica talpa* (Weber). North FL, south into Highlands Co. Under *Smithistruma* in 1989 list.
- Pyramica wrayi* (Brown).^{*} Leon and St. Johns Cos. Rare.
- Solenopsis abdita* Thompson.^{*} Widespread.
- Solenopsis carolinensis* Forel. Widespread.
- Solenopsis corticalis* Forel. Monroe Co.
- Solenopsis geminata* (Fabricius). Widespread.
- Solenopsis globularia littoralis* Creighton. South FL, north into Alachua and Franklin Cos.
- Solenopsis invicta* Buren. Widespread. (11)
- Solenopsis nickersoni* Thompson. Collier Co. north into Leon Co.
- Solenopsis pergandei* Forel. Widespread.
- Solenopsis picta* Emery. Widespread.
- Solenopsis tennesseensis* M. R. Smith. Widespread.
- Solenopsis tonsa* Thompson.^{*} North FL, Leon Co. east to Alachua Co., south to Orange Co.
- Solenopsis truncorum* Forel.^{*} Alachua Co. Rare.
- Solenopsis xyloni* McCook. Western Panhandle. Not seen in recent decades, possibly extirpated.
- Solenopsis* sp.^{*} Undescribed parasite of *Pheidole dentata*. Gilchrist Co. Rare.
- Stenammina foveolocephalum* M. R. Smith.^{*} Walton Co. Rare.
- Strumigenys emmae* (Emery). South FL, north into Hillsborough and Volusia Cos. Under *Quadristruma* in 1989 list.
- Strumigenys lanuginosa* Wheeler. Dade, Lee and Monroe Cos. Rare. Introduced.
- Strumigenys louisianae* Roger. Widespread.
- Strumigenys rogeri* Emery. South FL, north into Orange Co. Introduced.
- Strumigenys silvestrii* Emery. A few sites, from Monroe into Gadsden Cos. Rare. Introduced.
- Tapinoma litorale* Wheeler. South FL, north into Pinellas Co.
- Tapinoma melanocephalum* (Fabricius). South FL, north into Brevard Co. Introduced.
- Tapinoma sessile* (Say). Widespread.
- Technomyrmex albipes* (F. Smith).^{*} Widespread. Introduced.
- Tetramorium bicarinatum* (Nylander). Widespread. Introduced.
- Tetramorium caldarium* (Roger). South FL, north into Lake Co. Introduced.
- Tetramorium lanuginosum* Mayr. Hernando, Holmes, Jackson Cos. Rare, extirpated? Introduced. Under *Triglyphothrix* in 1989 list.
- Tetramorium simillimum* (F. Smith). South FL, north into St. Johns Co. Introduced.
- Trachymyrmex jamaicensis* (André). Martin and Monroe Cos. Rare.
- Trachymyrmex septentrionalis* (McCook). Widespread.
- Wasmannia auropunctata* (Roger). South FL, north into Orange Co. Introduced.
- Xenomyrmex floridanus* Emery. South FL, north into Orange Co.

(1). *Aphaenogaster carolinensis* is listed as a subspecies of *A. texana* Wheeler in Bolton 1995. It was raised to species level by Gary Umphrey (1996). *Aphaenogaster carolinensis* is difficult to separate from *A. miamiana*.

(2). *Aphaenogaster umphreyi* is a recently described species (Deyrup and Davis 1998).

(3). There are at least five species of *Cardiocondyla* in Florida, differentiated by structural character states, coloration and habitat preferences. There is also some variation in color and sculpture within apparent species. This could denote additional species, but I have kept in mind that members of this genus are fully capable of founding inbred populations from the introduction of a single female, so variation could result from the introduction of a species from more than one source. If this occurred, there might be variant forms, even sympatric variant forms, that reflected geographic variation within the natural range of the species, or genetic drift. The persistence of these forms would reflect the degree of inbreeding in the population. I have resorted to using Creighton (1950), which leaves one species without a name. There are several names that might be applied to this species, or to other Florida species that I have identified using the Creighton key. These names include *obscurior* Wheeler, *ectopia* Snelling, *mauritanica* Forel, and *minutior* Forel. Inconvenient though it might seem, the most sensible approach to understand-

ing the taxonomy of exotic *Cardiocondyla* would be to begin by looking at specimens from the native ranges of the species.

(4). *Cephalotes varians* was, until recently, placed in the genus *Zacryptocerus*, now synonymized with *Cephalotes* (Andrade and Baroni Urbani 1999).

(5). *Crematogaster missouriensis* (the original description lacks the "o" in Missouri), was considered a subspecies of *C. minutissima* by Creighton (1950). Although the two species are similar, they differ in nest site, in the sculpture of the mesopleuron (Creighton 1950), and are sympatric in a large part of their ranges. A paper on the subgenus *Orthocrema* in eastern North America is in preparation.

(6). Species of *Dorymyrmex* were listed under the genus *Conomyrma* in the 1989 list. In the 1989 list, several species of *Dorymyrmex* reported from Florida by James Trager (1988) were excluded from the list. This was a mistake, and an injustice to Trager's excellent work. Of the seven species known to occur in Florida, four made their way into Bolton's catalog, three did not. Extensive field work in Florida since 1989 has confirmed that there are at least seven species in Florida. Whether any of these are identical with species known from the southwestern U.S. is an open question until the southwestern species have been studied as intensively as those in the Southeast. In 2001, I did a little collecting of *Dorymyrmex* during a short stay in Arizona. The results of even so brief an exposure have convinced me that the southwestern *Dorymyrmex* are as complex and challenging as they are fascinating.

(7). The subspecies *Leptothorax texanus davisii* Wheeler, listed in the 1989 list, was raised to species rank by Mackay (2000). In Florida and elsewhere *davisii* does not seem to be recognizable either as a species or subspecies; a paper dealing with this and the undescribed Florida *Leptothorax* listed above is in preparation.

(8). *Pheidole obscurithorax* is listed in Bolton (1995) as a subspecies of *P. fallax* Mayr. Deyrup et al. (2000) treated *obscurithorax* as a species.

(9). *Proceratium crassicornis* was synonymized with *P. silaceum* by Creighton (1950), but Maria de Andrade will be reviving this species in a forthcoming revision of the genus; she has sent me a

series of identified Florida specimens of both species that seem to justify this treatment.

(10). *Pyramica apalachicolensis* is a recently described species (Deyrup and Lubertazzi 2001).

(11). *Solenopsis invicta* is listed as *S. wagneri* Santschi in the 1995 catalog; the former name has been conserved.

ACKNOWLEDGMENTS

Many of the species added to the 1989 list were found for the first time in Florida by various entomologists, who recognized them as new records and kindly sent or brought specimens to me. These collectors I gratefully list below; the parenthesis after each name denotes the number of species that each person discovered: Lloyd Davis (7), Stefan Cover (3), Clifford Johnson (3), David Lubertazzi (3), Zachary Prusak (1), Vincent Golia (1), Paul Skelley (1). I thank Lloyd Davis and Hilary Swain for detailed and thoughtful comments on the first draft of this paper.

REFERENCE CITED

- ANDRADE, M. L. DE, AND C. BARONI URBANI. 1999. Diversity and adaptation in the ant genus *Cephalotes*, past and present. Stuttgartar Beit. Naturkunde, Ser. B 271: 1-889.
- BOLTON, B. 1995. A new general catalogue of the ants. Harvard University Press, Cambridge. 504 pp.
- BOLTON, B. 2000. The ant tribe Dacetini. Mem. American Entomol. Inst. 65: 1-1028.
- CREIGHTON, W. S. 1950. The ants of North America. Bull. Mus. Comparative Zool. Harvard 104: 1-585, + 57 plates.
- DEYRUP, M., AND L. DAVIS. 1998. A new species of *Aphaenogaster* from upland habitats in Florida. Entomol. News 109: 88-94.
- DEYRUP, M., L. DAVIS, AND S. COVER. 2000. Exotic ants in Florida. Trans. American Entomol. Soc. 126: 293-326.
- DEYRUP, M., C. JOHNSON, G. C. WHEELER, AND J. WHEELER. 1989. A preliminary list of the ants of Florida. Florida Entomol. 72: 91-101.
- DEYRUP, M., AND D. LUBERTAZZI. 2001. A new species of ant (Hymenoptera: Formicidae) from North Florida. Entomol. News 112: 15-21.
- TRAGER, J. C. 1988. A revision of *Conomyrma* (Hymenoptera: Formicidae) from the southeastern United States, especially Florida, with keys to the species. Florida Entomol. 71: 11-29.
- UMPHREY, G. J. 1996. Morphometric discrimination among sibling species in the *fulva-rudis-texana* complex in the ant genus *Aphaenogaster* (Hymenoptera: Formicidae). Canadian J. Zool. 74: 528- 559.