

ANTS OF INDIANA

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The following is an annotated checklist of the 110 ant species of Indiana, known from literature and from contemporary collections made by the author and indicated by a collection number (#). The taxonomy and nomenclature of ants has changed much over the last century. Names currently in use or interpreted by the author to be applicable to the ant species of Indiana are shown in **bold** type face. Names shown in standard type face are either synonyms, included with other species, or misapplied by authors who have attributed ants to Indiana: Wheeler (1916), Morris (1943), Gregg (1944), Munsee (1967), and Munsee, Jansma, & Schrock (1986). Non-native species are shown in SMALL CAPS.

The species are organized by family, subfamily, tribe, and genus. Within each genus, the species are listed alphabetically. The names and concepts deployed here are gleaned from an interpretation of contemporary literature. Nomenclatural authorities are not presented for non-recognized names, because there is no evidence that the authors of these taxa were applying distinct types species to Indiana.

Although the distribution of ants in Indiana is still poorly known, I have ranked the ants based upon my knowledge of this group of insects in Indiana and nearby states such as Illinois, Iowa, Michigan, and Wisconsin. Many of the ants are conservative to high-quality remnant natural areas and their associated soils and unique substrates in prairie, savanna, and fen systems. Ant species Red-listed by the IUCN are signified by superscript^G. Ants that are likely to be threatened by habitat destruction in Indiana are signified by superscript^T. Ants that are so rare as to be represented by endangered populations are designated with superscript^E.

The specific concepts delineated below are formed from the works of Creighton (1950), but with *Aphaenogaster*, Umphrey's work (1996) is the primary source; Francoeur (2007, 2008, and in prep.) is the source for *Myrmica*; Francoeur (1973) for *Formica fusca* group; Smith (1957) for *Stenamma*; Snelling *et. al.* (1985) for *Formica sanguinea* group; and Trager *et al.* (2007) for *Formica pallidefulva* group. Nomenclature approximates Bolton (1995, 2003, and 2007) and geographic distribution data from Coover (2005), in part.

FAMILY FORMICIDAE

Subfamily Amblyoponinae

Tribe Amblyoponini

Genus *Amblyopone* Erichson

Amblyopone pallipes (Haldeman): Munsee, Jansma, & Schrock (1986)

Stigmatomma pallipes: Wheeler (1916); Morris (1943); Gregg (1944); Munsee (1967)

Ontario, Quebec south to Florida, west to Wisconsin, Iowa, Oklahoma, Colorado, Texas, Arizona

Rare. Scattered throughout the state. Wheeler (1916) reports it from Crawford County; Gregg (1944) from Porter and Starke counties.

This species occurs only in remnant mesic-dry-mesic woodland, under stones, in leaf litter, and in decomposed logs.

Subfamily Proceratiinae

Tribe Proceratiini

Genus *Proceratium* Roger

^E*Proceratium pergandei* (Emery): Munsee (1967); Munsee, Jansma, & Schrock (1986)

Massachusetts to Florida, west to Illinois, Iowa, Arkansas, Louisiana.

Rare. Munsee (1967) collected it in Vermillion County from an undisturbed woodland location adjacent to a spoil bank study area. Just over the Indiana state line in Palos Park, Illinois, Rericha (#2239) collected it in dry-mesic White Oak savanna, on the morainic bluffs of the Sag Valley, in soft decomposed wood of a stage-6 Red Oak trunk. The decomposed oak trunk was in full sun during the day.

^T*Proceratium silaceum* Roger: Morris (1943); Munsee (1967); Munsee, Jansma, & Schrock (1986)

Proceratium silaceum subsp. *rugulosum*: Wheeler (1916)

Proceratium croceum: Gregg (1944)

Massachusetts, southern Ontario, Michigan, south to northern Florida, west to Illinois, Arkansas, Oklahoma

Rare. Wheeler (1916) reports it from Crawford County; Gregg (1944) from Hamlet, in Starke County. This taxon was misidentified as *Proceratium croceum* in the Robert Gregg collection, which is housed at the Field Museum of Natural History.

This species occurs in mesic-dry-mesic oak savanna, in logs in the latter stages of decomposition. It also is collected occasionally during leaf litter extraction. This species, like the preceding, occur only in moist substrata that sustain full sun exposure during the growing season. This requirement is a rare feature in today's fire-suppressed, remnant oak savannas.

Subfamily Ponerinae
Tribe Ponerini

Genus *Ponera* Latreille

Ponera pennsylvanica Buckley: Munsee & Schrock (1983), Munsee, Jansma, & Schrock (1986)

Ponera coarctata pennsylvanica: Wheeler (1916); Morris (1943); Gregg (1944); Munsee (1967)

Nova Scotia, Quebec south to Florida, west to Ontario, Michigan, North Dakota, Colorado, Utah, New Mexico

Frequent throughout the state. Reported by Wheeler (1916) in Grand Chain and Crawford County; Morris (1943) from Clinton, Jefferson, Lake, and Washington counties; Munsee and Schrock (1983) from Vermillion County; Gregg (1944) from Porter, LaPorte, and Starke counties.

This species occurs wherever there is rich organic soil, whether shaded or open, and moist to dry-mesic. It especially is frequent in fens where it nests shallowly in soil, in sedge hummocks of *Carex stricta* and *Carex haydenii*. In prairie, it nests shallowly in soil in the root-zone of sedges or grasses. In woodland, it often nests in wood that is in the mid to latter stages of decomposition, and often in >1-year old acorns, occasionally other tree nuts.

Genus *Hypoponera* Santschi

Hypoponera opacior (Forel): Munsee & Jansma (1986)

Ponera trigona opacior: Munsee (1967)

Virginia to Florida, west to Ohio, Indiana, Illinois, Iowa, Colorado, Texas, Nevada; Oregon, California; Mexico south to Chile, Argentina, West Indies.

Uncommon. Munsee (1967) recorded this species from Vermillion county in soil from a young spoil bank. This species may be more frequent in the southern portion of the state.

This species occurs in mesic-dry-mesic woodland and prairie. It nests in wood that is in the latter stages of decomposition and in soil, embedded in the fibrous root-zone of graminoids and forbs.

Subfamily Ecitoninae

Tribe Ecitonini

Genus *Neivamyrmex* Borgmeier

Neivamyrmex nigrescens (Cresson): Munsee (1967); Munsee & Jansma (1986)
Eciton schmitti: Morris (1943)

West Virginia, Kentucky, Tennessee south to Georgia, Alabama, Mississippi, Louisiana, west to southern Illinois, Iowa, Nebraska, Kansas, Oklahoma, Texas, Colorado, New Mexico, Arizona, California; Mexico.

According to Watkins (1985), this species has not been recorded from the state of Indiana. Morris (1943) stated that M. R. Smith collected it. If the ant exists in the state, it surely is extremely rare, and if present, may occur in its southern portion.

In Illinois, DuBois & LaBerge (1988) recorded it from shaded areas near the “edges of forest.” In Tennessee, Cole (1940) records it from “grassy areas.”

Subfamily Myrmicinae Tribe Myrmicini

Genus *Myrmica* Latreille

The taxonomy of this genus is currently under revision by André Francoeur. His taxonomic key of the *Myrmica* of Northeastern North America has clarified the names of species that occur in Indiana. The geographic range data of each taxon is not included since the taxonomic nomenclature has been much confused in past literature records and collections. I have extensively studied the *Myrmica* specimens in the Robert Gregg collection, which is housed at the Field Museum of Natural History and have recorded many inconsistencies and misidentifications. Four taxa misidentified by Gregg and labeled, *Myrmica schencki emeryana*, are a combination of these four species: *Myrmica fracticornis*, *M. detritinodis*, *M. sculptilis*, and *M. smithana*.

Myrmica americana Weber

Myrmica scabrinodis sabuleti: Wheeler (1916) in part; Morris (1943) in part

Myrmica americana: Munsee & Schrock (1983) in part; Munsee, Jansma, & Schrock (1986) in part

Myrmica sabuleti americana: Munsee (1967) in part; Gregg (1944) in part

Northeastern North America.

No specimens exist for the state of Indiana. In the Robert Gregg collection, at the Field Museum of Natural History, there are several collections that have workers with slightly enlarged spoon-shaped processes at the bend of the antennal scape. This morphological feature, however, is not present for the majority of the workers in each of these nest

collections, and although rare, occurs in nest series of *Myrmica evanida* in the lake plain districts of Glacial Lakes Chicago, Wauponsee and Watseka. The lamina at the bend of the scape of *Myrmica americana* is robust and spoon-shaped and sits on top or is aligned with the horizontal axis of the scape. The lamina at the bend of the scape for *Myrmica evanida* is small, and obliquely positioned lower on the bend or below the horizontal axis of the scape.

This species is rare. I have several collections from south central Iowa, in Decatur County, from an interstitial dry-mesic prairie in a White Oak savanna. There, it nests in the root-zone of *Schizachyrium scoparium*. In Waushara County, Wisconsin, Hamerstrom collected several specimens from prairie.

^E*Myrmica detritinodis* Emery

Myrmica schencki emeryana: Gregg (1944), in part

Northeastern North America. Northeastern Illinois and Northwestern Indiana are the farthest south of which we have collections.

Rare. In the state, known only from Porter County, in a hydromesophytic swamp forest, where it nested in a *Carex seorsa* tussock (#1655-183). In Berrien County, Michigan, it occurs in fens.

In northern Indiana and southwestern Michigan, this species nests in soil in the root-zone of bunch-forming sedges. North of Indiana, it nests in soil that surrounds living, woody root caudices of young trees, such as *Betula alleghaniensis* and *B. papyrifera*, and in wood that is in the latter stages of decomposition. In the driftless region of Wisconsin, in Jackson County, its soil nests have been recorded in dry-mesic White Oak woodland.

Myrmica emeryana Forel

Myrmica e. emeryana: Munsee, Jansma, & Schrock (1986), in part

Myrmica scabrinodis sabuleti: Wheeler (1916), in part

Myrmica scabrinodis brevinodis brevinodis: Morris (1943), in part

Northeastern North America

There are no good records that exist for the state of Indiana. Just over the state line, in Illinois, however, this species is occasional in mesic-dry-mesic prairie and old fields planted to prairie. It occurs rarely in >40-year old post-agriculture fields. *Myrmica emeryana* may be one of the species that Wheeler (1916) included in his list of ants from Vawter Park, in Kosciusko County. This species is the least conservative of the *Myrmica* species that occur in the region. It is probable that either *Myrmica emeryana* or *Myrmica evanida* is the species that Morris (1943) recorded from a cornfield.

Myrmica evanida Francoeur, in prep

Myrmica scabrinodis sabuleti: Wheeler (1916), in part; Morris (1943)

Myrmica scabrinodis brevinodis brevinodis: Morris (1943), in part

Myrmica americana: Munsee & Schrock (1983), in part; Munsee, Jansma, & Schrock (1986), in part

Myrmica sabuleti americana: Munsee (1967), in part; Gregg (1944), in part

Northeastern North America. Distributed throughout the state.

Occasional to frequent. The habitat description described by Wheeler (1916) from Vawter Park, in Kosciusko County, partially matches the type of habitat in which this species is found throughout the glaciated Midwest. Gregg (1944) collected it from Lake and Porter counties. Rericha collected it from Starke County (#1810-266) and Lake County (#1858-302) from dry-mesic sand prairie. This may be the species that Morris (1943) recorded from a cornfield; see *Myrmica emeryana*.

It occurs in dry-mesic prairie remnants and old fields, rarely in mesic prairie. It nests in soil, where it concentrates its nest around the root-zone of the grass, *Schizachyrium scoparium*. Occasionally, its nests occur in the root-zone of *Carex pensylvanica* and *Andropogon gerardii*.

Myrmica fracticornis Emery

Myrmica lobicornis fracticornis: Gregg (1944), in part; Munsee (1967), in part; Munsee, Jansma, & Schrock (1986), in part

Myrmica scabrinodis sabuleti americana: Morris (1943)

Myrmica schencki emeryana: Gregg (1944), in part; Munsee (1967), in part

Northeastern North America

Uncommon throughout the state in appropriate wetland habitat. Rericha has collected it from LaPorte (#1013), Lake (#1272), and Brown (#2470-512) counties.

This is the characteristic *Myrmica* of remnant wet and wet-mesic prairie lands and sedge meadows in Indiana that receive water through discharge and not by surface flooding or runoff. It nests most frequently in well-developed *Carex stricta* and *Carex haydenii* hummocks. This species does not occur in woodland habitats as recorded in Gregg (1944), or in cornfields as recorded by Morris (1943). The species that Gregg (1944) coined as *Myrmica fracticornis* is really of two taxa: *Myrmica sculptilis* and *Myrmica smithana*. The name, *Myrmica scabrinodis sabuleti americana*, reported by Morris (1943), as occupying "low ground meadows" is *Myrmica fracticornis*.

^E*Myrmica lobifrons* Pergande

Myrmica brevinodis brevinodis: Gregg (1944), Munsee (1967)

Myrmica brevinodis brevispinosa: Gregg (1944)

Myrmica brevinodis sulcinodoides: Munsee (1967)

Myrmica incompleta incompleta: Munsee, Jansma, & Schrock (1986)

Myrmica incompleta sulcinodoides: Munsee, Jansma, & Schrock (1986)

Northeastern North America. I have collected this species as far west as Johnson County, Iowa.

Rare and local. It has been recorded only in the northwestern corner of the state. Gregg (1944) has collected it from Lake and Porter Counties. Rericha has collected it from LaPorte County (#1334).

In Indiana, Illinois, and Iowa, this species occurs in fens, or those wetlands fed by discharge and not by an inherently high water table alone. It nests in well-developed hummocks of *Carex stricta* and *Carex haydenii*, and in the root-zone of plants that grow in *Sphagnum*. In northern Wisconsin, Minnesota, and Michigan, it occurs in *Sphagnum* flats, in ice-contact depressions.

Myrmica pineorum Wheeler: Munsee and Schrock (1983), Munsee, Jansma, & Schrock (1986)

Northeastern North America.

Infrequent to scarce. Recorded from Vermillion County by Munsee & Schrock (1983) and Munsee, Jansma, and Schrock (1986) from a stripmine study site. Rericha has collected it from White Oak/Beech/Sugar Maple savanna in Brown County (#2443-516), sandy Black Oak savanna in Porter County (#1639), and mesic sand prairie in Lake County (#2017-356B).

This species occurs in mesic and dry-mesic oak savanna and its interstitial prairie openings. It nests in soil, in the root-zone of bunch-forming grasses and sedges, and occasionally forbs. Rarely, its nests occur in >1-year old acorns.

Myrmica punctiventris Roger: Gregg (1944); Munsee (1967); Munsee, Jansma, & Schrock (1986)

Northeastern North America

Occasional. Gregg (1944) collected this species in LaPorte County. Munsee (1967) collected it in Vermillion County. Rericha collected it from Brown County (#2442-516).

This species occurs in mesic and dry-mesic remnant woodland, where it nests in wood that is in the mid to latter stages of decomposition, and occasionally in >1-year old acorns.

Myrmica sculptilis Francoeur, in prep

Myrmica e. emeryana: Munsee, Jansma, & Schrock (1986), in part

Myrmica scabrinodis brevinodis sulcinodoides: Morris (1943), in part

Myrmica scabrinodis schencki emeryana: Morris (1943), in part

Myrmica scabrinodis lobicornis fracticornis: Morris (1943), in part

Myrmica lobicornis fracticornis: Gregg (1944), in part; Munsee (1967), in part; Munsee, Jansma, & Schrock (1986), in part

Myrmica schencki emeryana: Gregg (1944), in part; Munsee (1967), in part

Northeastern North America. I have collected this species as far west as southeastern Missouri.

Occasional. Gregg has specimens of this species in the Gregg Collection at the Field Museum of Natural History from the following areas: Chesterton, Dune Acres, and Ogden Dunes, in Porter County. Rericha has a collection from Porter County (1897-310), in dry-mesic sand prairie. It is of a nest in the root-zone of *Carex pensylvanica*.

Myrmica sculptilis has well-developed frontal lobes that completely obscure the antennal socket torulus in frontal view, whereas the opposite is true for *Myrmica sculptilis*. The frontal lobes of *Myrmica smithana* is of three types: nest series that have nearly absent frontal lobes, nest series that have well-developed frontal lobes, and nest series with mixed frontal lobe development. The frontal lobes, however, even for those with well-developed frontal lobe development, do not completely cover the antennal socket torulus. In addition, there are usually one or two vertical ridges that longitudinally run in the space between the frontal lobe and torulus.

This species and *Myrmica smithana* are the *Myrmica* of open, remnant dry-mesic woodland in the state. *Myrmica sculptilis* also nests occasionally in dry-mesic prairie, with no particular preference for prairies formed on sand or silt-clay loams. It regularly nests in the root-zone of *Carex pensylvanica*, whether in open or closed habitats, and in early spring inside decomposed wood.

Interestingly, this species and *Myrmica smithana* tend to disappear from remnant woodland when the graminoid ground layer is significantly diminished when light levels drop below 5-percent of ambient during the growing season.

Myrmica semiparasitica Francoeur

Quebec, New York, Ohio, Northeastern Illinois (Francoeur and Ivanov 2008).

Very rare. In Grundy County, in northeastern Illinois, Rericha (#505) collected this species from a dry-mesic White Oak savanna bluff along the Mazon River, southeast of Morris. One weakly ergatogynal female and several workers were collected above grade. This species is included in this work because of the geographic nearness of this significant collection site to the state of Indiana.

From what little information exists on the ecology of this rare species, it is known to be a temporary social parasite of *Myrmica punctiventris*. Interestingly, neither the host nor the closely related *Myrmica pinetorum* have been recorded at the Grundy County location, even after nine years of collecting at this site.

Myrmica smithana Francoeur, in prep.

Myrmica e. emeryana: Munsee, Jansma, & Schrock (1986), in part

Myrmica scabrinodis brevinodis sulcinodoides: Morris (1943), in part

Myrmica scabrinodis schencki emeryana: Morris (1943), in part

Myrmica scabrinodis lobicornis fracticornis: Morris (1943), in part

Myrmica lobicornis fracticornis: Gregg (1944), in part; Munsee (1967), in part; Munsee, Jansma, & Schrock (1986), in part

Myrmica schencki emeryana: Gregg (1944), in part; Munsee (1967), in part

Myrmica spatulata: Munsee & Schrock (1983); Munsee, Jansma, & Schrock (1986)

Northeastern North America. I have collected this species as far west as south-central Iowa.

Occasional. Gregg has specimens of this species in the Gregg Collection at the Field Museum of Natural History from the following areas: Chesterton, Dune Acres, and Ogden Dunes, in Porter County. Rericha has collected this species from Newton (#2341) and Porter (#2342) counties nectaring from the extra-floral glands of *Pteridium aquilinum latiusculum*; in Gary, in Lake County (#2526-567 & #2519), in remnant dune and swale; at Calumet Prairie, in Lake County (#1123f), a nest was recorded inside a large *Carex stricta* hummock in sedge meadow; in Brown County, near Fruitdale, a nest (#2467-511) was recorded in the root-zone of *Festuca elatior*, in a >40-year old post-agriculture high water table field; in LaPorte County (#1883-181), a nest was recorded in a *Carex pensylvanica* tussock that grew on the ecotone of a Pin Oak flatwoods and sedge meadow. The species referred to as *Myrmica spatulata* in Munsee, *et. al.* (1983 & 1986) is this species. See the *Myrmica sculptilis* treatment for discussion on the differences between *Myrmica smithana* and *Myrmica sculptilis*.

This species nests in dry-mesic oak savanna, and in all hydrologic regimes of remnant prairie, very rarely in sedge meadow and >40-year old post-agriculture field. Its soil nests often are concentrated around the fibrous root-zone of *Carex pensylvanica*, whether in open or closed habitats, and frequently in >1-year old acorns. In sunny remnant woodland, in the absence of *Carex pensylvanica*, it nests in soil beneath oak bark slabs and thick leaf litter.

Myrmica spatulata Smith

Michigan, Tennessee, Mississippi, Illinois, Indiana, Missouri.

Rare, but possibly more frequent in the state; it has been misidentified historically. Most reports are referable either to *Myrmica sculptilis* or *M. smithana*. Rericha collected it in Lake County (#2460-535) in remnant dune and swale in a high quality mesic Black Oak savanna. Two workers were collected.

Tribe Stenammini

Genus *Stenammina* Westwood

Stenammina brevicorne (Mayr): Morris (1943); Gregg (1944); Morris (1967); Munsee, Jansma, and Schrock (1986)

Nova Scotia, Quebec south to Virginia, west to Ontario, Minnesota, Nebraska; Colorado.

Scarce. Its distribution is concentrated in the northern portion of the state. Morris (1943) lists Parke County, in Indiana, but this reference is from Talbot's (1934) paper. She did not specify that she collected this species from Parke County. What she did specify was the fact that she collected ants from Turkey Run State Park, in Parke County, and used that site as a comparison of a Beech-Maple climax location with other such sites that she chose to study

in northeastern Illinois and southwestern Michigan for her paper. Until a specimen is produced of this species, *Stenamma brevicorne* has been collected only in the northern portion of Indiana. Gregg (1944) has collected it from Miller, in Lake County and from Ogden Dunes, in Porter County.

This species occurs in remnant mesic and dry-mesic woodland. It is occasional in the hydromesophytic swamp forests that occur uniquely near the shoreline of Lake Michigan, in Porter County, at Dune Acres. Its nests are small and difficult to detect, but occur in soil and in decayed wood in the latter stages of decomposition. Rericha (#2458-535) collected it from Lake County, in a mesic Black Oak savanna, in remnant dune and swale. For this collection, it was recorded caching the perigynia of *Carex albicans* beneath a Black Oak leaf fragment on the soil's upper surface. The perigynia of this plant are ant-dispersed and have a fleshy, basal elaiosome attractive to ants. In northeast Illinois, in Cook County, this species occurs in prairie fen.

Stenamma diecki Emery: Munsee (1967); Munsee, Jansma, & Schrock (1986)

Quebec, Maine, west across southern Canada and the northern states to British Columbia, Washington, Oregon, California, south to North Carolina, Tennessee, Indiana, Illinois, Iowa.

Rare, but probably more frequent than records indicate. This species was collected in Vermillion County, by Munsee (1967), in an undisturbed woodland tract adjacent to a spoil bank study area and from a "flat grassy stand in the spoil bank area."

This is a woodland species, occurring in mesic woodland remnants. It, as well as others in the genus, is collected most often during leaf litter analysis and Berlese Funnel extraction. North of the state of Indiana, it is uncommon in swampy mixed woodland, where specimens have been procured from decomposed wood of fallen trees and branches that are in the latter stages of decomposition.

Stenamma impar Forel

Quebec, Massachusetts south to North Carolina, west to Michigan, Illinois, Missouri, North Dakota.

Rare. Even though no collections exist for the state of Indiana, this species is included in this work due to it being collected just over the state line, in southeastern Cook County, in northeast Illinois.

This is a woodland inhabiting ant, where it occurs in remnant, sun-drenched oak savanna with a well-developed graminoid ground cover, and where fire is frequent. It nests very shallowly in soil, rarely in decomposed wood. One nest was recorded <1-cm below the soil's upper surface, the entrance hidden by an oak leaf fragment. The nest occupied the space equal to the interior diameter of an almond nut and contained no fewer than twenty workers.

^E*Stenamma meridionale* Smith: Munsee (1967); Munsee, Jansma, & Schrock (1986)

Virginia south to South Carolina, Georgia, west to Illinois, Missouri, Arkansas.

Very rare. This species was collected in Vermillion County by Munsee (1967) from an undisturbed wooded area adjacent to a spoil mine study area.

This is a southeastern species in North America and care should be taken to identify extant populations still surviving in the state, since very little is known of its ecology.

^T*Stenamma schmitti* Wheeler

Stenamma brevicorne schmitti: Gregg (1944)

Quebec, Main south to North Carolina, west to Minnesota, Iowa, Missouri, Tennessee.

Rare. Gregg (1944) collected this species in “wooded dunes” from Miller, in Lake County and from Ogden Dunes, in Porter County. Rericha (#2439) collected several workers from leaf litter, in remnant dry-mesic oak/maple/beech woodland, southwest of Fruitdale, in Brown County.

This species is conservative to open, remnant dry-mesic woodland. In south central Iowa, it is frequent in annually burned, dry-mesic oak woodland.

Tribe Pheidolini

Genus *Aphaenogaster* Mayr

Aphaenogaster fulva Roger: Morris (1943); Gregg (1944); Munsee (1967); Munsee, Jansma, & Schrock (1986)

Vermont south to Florida, west to Michigan, Indiana, Nebraska, Missouri, Louisiana

Occasional. Morris (1943) collected it from Scott, Tippecanoe, and Washington counties; Gregg (1944) from Dune Acres and Tremont, in Porter County, and from Smith, in LaPorte County; Rericha (#1576) collected it from Starke County.

This species occurs in remnant oak and beech/oak/maple savanna in the state. It nests both in soil and in wood that is in the mid to latter stages of decomposition.

^E*Aphaenogaster mariae* Forel: Munsee (1967); Munsee, Jansma, & Schrock (1986)

New York south to northern Florida, west to Michigan, Iowa, Kansas.

Extremely rare. One worker was collected in a pitfall trap from a west-facing spoil bank, by Munsee (1967), in Vermillion County. If this is the same area in Vermillion County where

Munsee & Schrock (1983) studied the ant fauna from a stripmine site, then this area, as he described it, is adjacent to an undisturbed forest. This is the only record that exists for the state of Indiana. It is likely that this species will be collected in other locations in the state, such as Turkey Run State Park, Hoosier National Forest, and other similarly high-quality remnant woodland natural areas.

This species is conservative to remnant oak savanna. I have studied two populations of this ant: one in northeastern Illinois, in Grundy County, and the other in south-central Iowa, in Decatur County. In both locations, the ant is a denizen of high-quality remnant oak woodland where the native herbaceous ground-cover is well-developed and light levels exceed 5-percent of ambient. I have collected workers only from living, large-diameter White Oak trunks, even when there is a high diversity of other large-diameter hardwood species in the ambient vicinity. The gait of this ant is very distinctive in that it slowly and methodically travels up and down the oak boles. Its coloration is very deep burnet with a slight tincture of russet. The nests of this species occur in the tree crown of oaks, such as *Quercus alba*, in decayed heartwood of diseased branches or in the trunk.

Aphaenogaster **N16** Umphrey: Umphrey (1996)

Ontario south to New Jersey, Pennsylvania, west to Ohio, Missouri (Umphrey, 1996), Indiana, Illinois, Wisconsin, Iowa.

Rericha (#301) has recorded this species from a west-facing slope of a dry-mesic black soil prairie, in Lake County. The nest was embedded in the root-zone of a well-developed, 0.25 m diameter *Sporobolus heterolepis* tussock. Also in Lake County, Rericha (#2655-521) collected samples from a nest in a dry-mesic sand prairie restoration that was adjacent to a high quality remnant Black Oak savanna. The nest consisted of a low, 0.40 m diameter soil mound that was embedded in the root-zone of *Poa pratensis*, *Eryngium yuccifolium*, *Solidago altissima*, and *S. juncea*.

Scarce. This is a dry-mesic prairie species, where it nests deeply in soil, in the root-zone of perennial graminoids and forbs. Rarely it nests in >40-year old post-agriculture prairie restorations.

Aphaenogaster **N22b** Umphrey: Umphrey (1996)

Southern Ontario south to Maryland, Indiana, Missouri. (Umphrey, 1996)

Rare, but populations are too poorly known to rank. Umphrey (1996) reports this large-headed *Aphaenogaster* species from Perry County, in the Hoosier National Forest area, 3 km SE of Oriole.

Aphaenogaster picea (Wheeler) Complex

Aphaenogaster fulva aquia picea: Morris (1943); Gregg (1944)

Aphaenogaster rudis picea: Munsee (1967)

Aphaenogaster N17: Umphrey

Aphaenogaster N18: Umphrey

Connecticut, Ontario south to North Carolina, Georgia, west to Ohio, West Virginia (Umphrey, 1996)

Occasional throughout the state. Morris (1943) reports it from Lake and Parke Counties according to Talbot's work (1934). In Talbot's paper, it cannot be confirmed if she definitely did collect this species from those counties. Her paper is an ecological monograph, not a checklist. Additionally, Gregg (1944) collected it from Ogden Dunes and Smith, in LaPorte County. Most of the ants in the complex in Indiana are likely to be *Aphaenogaster* N17; it is, however, morphologically indistinct from *A.* N18, which may be in the eastern purview of the state.

This species occurs in remnant oak and mixed woodland in the region. It particularly is frequent in mesic, remnant beech/oak/maple woodland that has a well-developed leaf litter and humus layer. It nests in wood that is in the mid to latter stages of decomposition and in soil beneath it. It is locally common in Black Oak savanna behind the foredunes at Chesterton, in Porter County.

Aphaenogaster rudis (Enzmann) Complex

Aphaenogaster rudis rudis: Munsee & Schrock (1983); Munsee, Jansma, & Schrock (1986)

Aphaenogaster fulva aquia: Wheeler (1916); Morris (1943); Gregg (1944)

Aphaenogaster texana var. *carolinensis*: Morris (1943); Munsee (1967); Munsee, Jansma, & Schrock (1986)

Aphaenogaster N22a: Umphrey (1996)

New Jersey, Georgia, Alabama, Indiana, Missouri, (Umphrey, 1996), Illinois, Wisconsin, Iowa.

Occasional. Wheeler (1916) reports it from Mt. Vernon, and Crawford and Knox counties. Morris additionally (1943) reports it from Adams, Boone, Clark, Delaware, Lake, Scott, Tippecanoe, and Washington counties; Gregg (1944) from Dunes Acres and Chesterton, in Porter County and from Smith in LaPorte County; Munsee & Schrock (1983) from Vermillion County; Umphrey (1996) from Perry County, in the Hoosier National Forest area, 3 km SE of Oriole, and in Bartholomew County, 20 km SW of Columbus. In mesic Black Oak savanna in Lake County, Rericha (#2586-525) collected a mixed nest of this species with *Aphaenogaster tennesseensis*. The nest occurred in a Black Oak log that was in various stages of decomposition. A large proportion of the nest occurred in a soil-embedded section of the log and radiated out into the surrounding soil area away from the wood nest nucleus.

This species is locally common in remnant dry-mesic and mesic woodland habitats throughout the state. It also nests in interstitial prairie openings of oak savanna and in adjacent prairie areas where woodland populations of this ant are well-established. It nests in soil, in the root-zone of bunch-forming sedges, such as *Carex pensylvanica*, and beneath rocks and decomposed wood. It also nests inside wood that is in the mid to latter stages of decomposition.

There are two distinct forms of this complex in Indiana: one that is medium-brown and long-spined and another that is short-spined and yellowish. Until this species complex is revised, we cannot call meaningfully either or both populations *Aphaenogaster* N22a of Umphrey.

Aphaenogaster tennesseensis Mayr: Wheeler (1916); Morris (1943); Gregg (1944); Munsee (1967); Munsee, Jansma, & Schrock (1986)

Quebec, Ontario south to Florida, west to Minnesota, South Dakota, Nebraska, Kansas, Oklahoma.

Occasional throughout the state. Wheeler (1916) reports it from Shoals, and Vincennes, and Crawford County; Morris (1943) from Scott, Tippecanoe, and Washington counties; Gregg (1944) from Miller, in Lake County, and Smith, in Porter County.

This species occurs in remnant oak and oak/beech woodland that have over 5-percent ambient light levels during the growing season. It nests in decayed wood that is in the early to mid stages of decomposition. It occasionally nests in rotting heartwood of living oaks. Its nests in this circumstance penetrate deep into soil and surround the tree's woody root caudex. In fens and mesic and dry-mesic prairie, it respectively nests in decomposed wood of fallen trees or branches of *Populus deltoides* and *Quercus velutina*. Additionally, it nests in the decomposed heartwood of living specimens of the latter two trees species.

Aphaenogaster treatae Forel: Morris (1943); Gregg (1944); Munsee, Jansma, & Schrock (1986)

Ontario south to Florida, west to Michigan, Ohio, Illinois, Alabama.

Occasional. Recorded only from the northwestern portion of Indiana, but most likely occurs throughout the state. Gregg (1944) reports it from Dune Acres, in Porter County and from Miller, in Lake County; Rericha collected it from LaPorte (#1885-178) and Starke (#1575) counties.

This species occurs in dry-dry-mesic sand prairie, very rarely in sandy, >40-year old post-agriculture field. It nests deeply in soil, in the root-zone of bunch-forming graminoids, especially *Schizachyrium scoparium*.

Genus *Pheidole* Westwood

Pheidole bicarinata Mayr: Morris (1943); Gregg (1944);

Pheidole bicarinata bicarinata: Munsee (1967); Munsee & Schrock (1983); Munsee, Jansma, & Schrock (1986)

New Jersey to Florida, Michigan, Tennessee, west to North Dakota, Wyoming, Colorado, and Texas, to Utah and Nevada.

Occasional. This species probably occurs throughout the state, but has only been vouchered in the northern and central portions of it. Morris (1943) reports it from Lake and Porter County; Gregg (1944) from Lake, Porter, and St. Joseph counties; Munsee and Schrock (1983) from a spoil bank study area in Vermillion County; Rericha collected it from Starke County (#1805-270).

This species occurs in dry-dry-mesic sand prairie and sandy old field, especially in sparsely vegetated sections of those habitats. It builds small crater mounds similar to those built by *Lasius neoniger*.

^E*Pheidole morrisii* Forel
Pheidole morrisi: Gregg (1944)

New York to Florida, west to Illinois, Louisiana, Missouri, Oklahoma, and Texas.

Rare. Gregg (1944) reports it from Miller, in Lake County and from Dune Acres, in Porter County.

This species occurs in sparsely vegetated sections of dry sand prairie and antedunal sand prairie along Lake Michigan. It nests in soil and builds small crater mounds. Just over the Indiana border at Hopkins Park, in Kankakee County, Illinois, it occurs in dry-mesic sand prairie, on Holocene-aged aeolian sand deposits. Its soil nests occur in the root-zone of well-developed clumps of *Schizachyrium scoparium*.

Pheidole pilifera (Roger): Morris (1943); Gregg (1944)
Pheidole pilifera pilifera: Munsee (1967); Munsee, Jansma, & Schrock (1986)

New York, Massachusetts south to Georgia, west to North Dakota, Nebraska, Kansas.

Occasional to infrequent. Morris (1943) reports it from Martin, Tippecanoe, and Washington counties. Although this species has not been vouchered from the northern portion of the state, it occurs in the lake plain districts of glacial lakes Chicago, Wauponsee, and Watseka, in remnant dune and swale in northeastern Illinois. Additionally in this same geographic region, it occurs in prairie that has developed on glacial kames.

This species occurs in dry-dry-mesic prairie and prairie openings in dry-mesic oak savanna. It has a preference for sandy soils where it builds small crater mounds.

Tribe Crematogastrini

Genus *Crematogaster* Lund

Crematogaster cerasi (Fitch): Munsee (1967); Munsee, Jansma, & Schrock (1986)
Crematogaster lineolata cerasi: Wheeler (1916); Morris (1943); Gregg (1944)
Crematogaster kennedyi: Morris (1943)

Quebec south to Georgia and Florida, west to Michigan, South Dakota, Arkansas, New Mexico.

Occasional to frequent throughout the state. Wheeler (1916) reports it from Crawford, Fountain, and Knox counties; Morris (1944) from Kosciusko, Lake, Marshall, Martin, Rush, Starke, Tippecanoe, and Washington counties; Gregg (1944) from LaPorte and Porter counties.

This species occurs in woodland, whether remnant or *de novo*, and in all wetness permutations of prairie and old field. It nests in wood in the early to mid stages of decomposition, in soil beneath rocks, and in the fistulose interior of last season's forb stems.

Crematogaster lineolata (Say): Wheeler (1916); Morris (1943); Gregg (1944); Munsee & Schrock (1983); Munsee, Jansma, & Schrock (1986)

Crematogaster lineolata lineolata: Munsee (1967)

Quebec, Ontario south to Florida, west to Michigan, North Dakota, Colorado, Texas.

Occasional to frequent. Widespread throughout the state.

This species nests in soil beneath slabs of thick bark and beneath loose bark on erect dead oak boles in oak savanna. In dry-mesic sand prairie, it nests beneath rocks and fallen, small diameter oak branches.

^G*Crematogaster pilosa* Emery

Crematogaster laeviuscula clara: Morris (1943)

Crematogaster clara: Munsee (1967); Munsee, Jansma, & Schrock (1986)

New Jersey south to Georgia, Florida, west to Indiana, Kansas, Missouri, Texas.

Status as an Indiana species is uncertain, because early reports are based on unvouchered literature reports. According to Morris (1943), it was reported for Indiana by M. R. Smith. No collection data is known for it in the state. If it exists in Indiana, it should be sought south of the glaciated districts. This species has IUCN Red List status of VU D2. Populations are considered very vulnerable.

According to Johnson (1988), "the species is mainly arboreal preferring mesic forests, overgrown fields, orchards, landscaped areas, and will nest in trees, grasses, reeds, etc."

Tribe Solenopsidini

Genus *Monomorium* Mayr

Monomorium minimum (Buckley): Wheeler (1916); Morris (1943); Munsee (1967); Munsee & Schrock (1983); Munsee, Jansma, & Schrock (1986)

Pennsylvania and District of Columbia, south to Georgia and Texas, west to Michigan, North Dakota, Idaho, Colorado, New Mexico (DuBois, 1986).

Common. Throughout the state. Wheeler (1916) reports it from Martin County and Grand Chain; Morris from Harrison, Posey, Tippecanoe, and Washington counties; Gregg (1944) from Porter County; Munsee & Schrock (1983) from a stripmine study site in Vermillion County. In Lake County, Rericha (#2530-562) collected it from a small crater nest that occurred on a south-facing dune slope.

This species occurs in open *de novo* systems and dry-mesic prairie. It has a preference for sandy soils and nests in sparsely vegetated sections of those habitats where it builds a small crater mound.

MONOMORIUM PHARAONIS (Linnaeus): Morris (1943); Munsee (1967); Munsee, Jansma, & Schrock (1986)

Throughout North America. Non-native, from Africa or tropical Asia.

Scarce. Morris (1943) reports this species from Marion County.

In the north, this species lives in dwellings and is scattered in its distribution. It especially is frequent in apartment buildings in the city of Chicago. Occasionally it is collected in greenhouses. It is known colloquially as the Pharaoh Ant.

Genus *Solenopsis* Westwood

Solenopsis molesta (Say): Wheeler (1916); Morris (1943); Gregg (1944); Munsee & Schrock (1983); Munsee, Jansma, & Schrock (1986)

Solenopsis molesta molesta: Munsee (1967)

Quebec, Ontario south to Florida, west to Washington, California.

Common. Widespread throughout the state. Wheeler (1916) reports it from Crawford, St. Joseph, and Fountain counties; Morris (1943) from Clark, Tippecanoe, and Washington counties; Gregg (1944) from Porter County; Munsee and Schrock (1983) from Vermillion County, in a stripmine study site.

Known as the Thief Ant. Due to its extreme smallness in size (1.5-1.8 mm in size), it is able to steal food from within other ant's nests. Its nests often occur in the mound nests of these ants species: *Formica exsectoides*, *F. dolosa*, *F. incerta*, *F. glacialis*, *F. montana*, *F. pallidefulva*, and *F. subsericea*. Morris (1943) reported that it was often collected in "corn fields." It occurs in wetlands that do not receive floodwater, open woodland, prairie, and old field.

^E*Solenopsis texana texana* Emery

Ontario south to Florida, west to Indiana, Illinois, Oklahoma, Texas.

Very rare. This species was recorded only in the northwestern corner of the state. In Lake County, Rericha (#2179-357) collected a nest from the lip of a south-facing sand ridge in remnant dune and swale. This nest was collected from the periphery of a well-developed soil nest of the ant, *Pheidole bicarinata*. The nests of both species were embedded in the fibrous root-zone of a large, 30-cm diameter tussock of *Schizachyrium scoparium*.

Tribe *Formicoxenini*

Genus *Leptothorax* Mayr

^E*Leptothorax muscorum* (Nylander) Complex: Munsee (1967); Munsee, Jansma, & Schrock (1986)

Holarctic. Throughout Canada and Alaska, south to Connecticut, Michigan, Wisconsin, and south in the Rocky Mountains to Nevada, New Mexico, Arizona, California; northern Eurasia.

Very rare. Munsee (1967) reports this species from Vermillion County from “two most heavily wooded undisturbed sites as well as from one south-facing slope of a spoil bank.” The *L. muscorum* complex is currently under revision (Francoeur, in prep.).

Genus *Temnothorax* Mayr

Temnothorax ambiguus ambiguus (Emery)

Leptothorax curvispinosus ambiguus: Morris (1943)

Leptothorax ambiguus ambiguus: Munsee (1967); Munsee, Jansma, & Schrock (1986);

Quebec to Virginia, west to Michigan, North Dakota, South Dakota, Iowa, Nebraska.

Infrequent. This species was vouchered from the northwestern corner of the state by Rericha (1164), in wet sand prairie in Lake County.

This species is conservative to remnants. It occurs in fens, in all wetness permutations of prairie, and dry-mesic oak savanna. It nests shallowly in organic rich soil, in the root-zone of native plants. In fens, throughout the glaciated Midwest, it nests in well-developed hummocks of *Carex stricta* and *Carex haydenii*. It also nests in the mound nests of *Formica glacialis*. Very rarely its nests occur in decomposed wood and in >1-year old acorns.

Temnothorax curvispinosus (Mayr)

Leptothorax curvispinosus: Wheeler (1916); Morris (1943); Gregg (1944); Munsee (1967); Munsee & Schrock (1983); Munsee, Jansma, & Schrock (1986)

Maine south to Florida, west to Michigan, Iowa, Kansas, Oklahoma, Texas, Arizona.

Frequent throughout the state. Wheeler (1916) reports this species from Arlington, Vawter Park, Fountain, and Kosciusko counties; Morris (1943) from LaPorte and Rush counties; Gregg (1944) from Porter County; Munsee and Schrock (1983) from Vermillion County, in a stipmine study site. Rericha (#1441) records it from mesic Black Oak savanna in Lake County. Its nest was recorded in a >1-year old Black Oak acorn.

This species is a woodland inhabitant, in those woodlands that are open or densely shaded, and most often in remnants, whether high quality or degraded. It nests in >1-year old acorns and other tree nuts, such as hickory and walnut. It occasionally nests in narrow diameter (<2-cm) hollow twigs.

Temnothorax minutissimus (Smith)

Washington, D. C., New York, West Virginia, Ohio, Indiana, Michigan.

Rare. It was collected in Bloomington at the Griffy Preserve, in October 2005 by C.A. Johnson, *et al.*

It has been recorded as a workerless parasite in nests of *Temnothorax curvispinosus* (Smith, 1942; MacKay, 2000), but little is known of its ecology. The female is distinctive and differs from *Temnothorax curvispinosus* in that its propodeal spines are set far apart and as long as the distance by which they are separated. This is a feature also shared with *Temnothorax ambiguus*, but is differentiated from that species by its blunt propodeal spines that are the same diameter throughout their length.

^T*Temnothorax longispinosus* (Roger)

Leptothorax longispinosus: Morris (1943); Gregg (1944); Munsee (1967); Munsee, Jansma, & Schrock (1986)

Quebec, Ontario south to Georgia, Alabama, west to Michigan, Iowa.

Scarce. This species was collected only in the northwest corner of the state. Morris's (1943) report of this species in Porter County is from Talbot (1934). Even though this species may occur in that county, it is inconclusive from Talbot's paper if in fact she did collect it there. Rericha (#2672), however, collected one worker at the base of *Quercus velutina* in sandy, dry-mesic Black Oak savanna in Porter County. Gregg (1944) reported it from LaPorte County.

This species nests in remnant dry-mesic-mesic oak and oak/beechn/maple woodland in the region. In northeast Illinois in dry-mesic oak savanna, its nests occur in very thick, corky bark of living *Quercus alba*. The intricate gallery system pervades the cork only, and the entrance/exit hole is perfectly circular and 1-mm in diameter. Rarely, it nests in decomposed wood and in acorns.

Temnothorax pergandei (Emery)

Leptothorax pergandei: Wheeler (1916); Morris (1943)

Leptothorax pergandei pergandei: Munsee (1967); Munsee, Jansma, & Schrock (1986)

District of Columbia south to Georgia, Tennessee, west to Illinois, Iowa, Missouri, Nebraska, Texas.

Wheeler (1916) reports this species from Crawford County.

Uncommon. This is a southern species. It nests in dry-mesic prairie and oak savanna, in soil, in the root-zone of graminoids. Careful attention should be made in the southern counties for the presence of the closely related and morphologically similar *Temnothorax floridanus*.

Temnothorax schaumii (Roger)

Leptothorax fortinodis melanoticus: Wheeler (1916); Morris (1943)

Leptothorax fortinodis: Morris (1943); Gregg (1944)

Leptothorax schaumii: Munsee (1967); Munsee, Jansma, & Schrock (1986)

Maine to Georgia, west to Michigan, Iowa, Kansas, Texas.

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Infrequent. Wheeler (1916) reports it from Crawford and Marion counties; Gregg (1944) from Porter and LaPorte counties. In Lake County, in mesic Black Oak savanna, Rericha (#2634-528) collected several workers on the living bole of a 76 cm dbh *Quercus velutina*.

This species occurs in dry-mesic-mesic oak savanna. Rarely, it nests in decomposed wood. Its nests occur most often in the thick corky bark of *Quercus alba* in the region. The nest entrance/exit hole is similar to that described for *Temnothorax longispinosus*.

^T*Temnothorax texanus* (Wheeler)

Leptothorax texanus: Gregg (1944)

Michigan, Ohio, south to North Carolina, Georgia, west to Oklahoma, Texas.

Rare. This species has been recorded from only the northwestern corner of the state. Gregg (1944) reports it from Porter County; Rericha (#1808-267) collected it from Starke County, in dry-mesic sand prairie.

In Illinois and Indiana, behind the foredunes along the Lake Michigan lakeshore, it occurs in the interstitial dry sand prairies of remnant Black Oak savanna. It also occurs in sparsely vegetated sections of dry-mesic sand prairie. Where it does occur, it nests in soil, in the fibrous root-zone of *Schizachyrium scoparium*.

Genus *Protomognathus* Wheeler

^E*Protomognathus americanus* (Emery)

Harpagoxenus americanus: Munsee, Jansma, & Schrock (1986)

Massachusetts, Ontario, Michigan, south to North Carolina, Ohio, Indiana, Illinois, Iowa, Missouri.

Very rare. Munsee, *et al* (1986) reports this species from Vermillion County, where it was “taken once in each of three adjacent spoilbank stands.” This species has IUCN Red List status of VU D2. Populations are considered very vulnerable.

This species has a disjunct or spotty distribution throughout its range. It is dulotic or enslaves workers of *Temnothorax curvispinosus* and *T. longispinosus*. Munsee, *et al.* (1986) commented on the frequency of *Temnothorax curvispinosus* at the Vermillion County collection site. In Iowa in high-quality annually burned (>12-years) dry-mesic White Oak savanna, Rericha recorded it from several *Temnothorax curvispinosus* nests, in >1-year White Oak acorns.

Tribe Myrmecini

Genus *Myrmecina* Curtis

Myrmecina americana Emery: Munsee (1967); Munsee & Schrock (1983); Munsee, Jansma, & Schrock (1986)

Myrmecina graminicola americana: Wheeler (1916); Morris (1943); Gregg (1944)

Quebec, Michigan, south to Georgia, west to Iowa, Colorado, New Mexico, Arizona, California.

Occasional. Wheeler (1916) reports it from Crawford County; Munsee & Schrock (1983) from Vermillion County from a spoilbank study site; Gregg (1944) from Porter and LaPorte counties. In Lake County, Rericha (#1290) recorded it from wet sand prairie.

This species is conservative to remnant woodland, but also occurs in fens and all wetness permutations of prairie. In woodland, it nests in wood that is in the mid to latter stages of decomposition, rarely beneath stones. In fens, it nests in soil, in well-developed sedge hummocks of *Carex stricta* and *C. haydenii*. In prairie, it nests shallowly in soil, in the fibrous root-zone of native plants, especially graminoids.

Tribe Tetramoriini

Genus *Tetramorium* Mayr

TETRAMORIUM SP. E

Tetramorium caespitum (Linnaeus): Morris (1943); Munsee (1967); Munsee, Jansma, & Schrock (1986)

Quebec, Ontario, Michigan, Atlantic coastal region of northeastern United States, west to Tennessee, Nebraska, Missouri, Washington, Nevada, California; Eurasia, Africa. Adventive from the western Palearctic.

Common. Morris (1943) recorded it from Wayne County. Rericha (#1654-185) collected it from Porter County.

Known formerly as *Tetramorium caespitum* (Linnaeus), but redefined as *Tetramorium* sp. E by Steiner *et. al.* (2005, 2006, 2006a, & 2008), via mitochondrial DNA sequencing and classificatory discriminant analysis of morphometric data. This is the species colloquially known as the Pavement Ant. It is ubiquitous in *de novo* environs, whether open or closed. It frequently nests in soil beneath heat conductive media such as rocks and pavement. Rarely, it nests in decomposed wood in woodland remnants. In old fields, it nests in soil, in the root-zone of non-native plants such as *Festuca elatior*, *Bromus inermis*, *Poa compressa*, and *Poa pratensis*.

Tribe Dacetini

Genus *Pyramica* Roger

Pyramica abdita (Wesson & Wesson)

Smithistruma abdita: Munsee, Jansma, & Schrock (1986)

Pennsylvania, Virginia, North Carolina, Ohio, Indiana, Illinois, Iowa.

Rare, but probably more frequent than the records indicate. Munsee, et al. (1986) recorded this species from a spoil bank study site in Vermillion County. The only specifics of its habitat at this location were that it occurred only in the “open areas.” Brown (1953) reports this species from Turkey Run State Park, in Parke County, collected by Mary Talbot.

Wesson and Wesson (1939) found the type series of this insect beneath boards and pieces of slate in a back yard.

^E*Pyramica filitalpa* (Brown)

Smithistruma filitalpa: Munsee (1967); Munsee & Schrock (1983); Munsee, Jansma, & Schrock (1986)

Indiana, Arkansas.

Rare. Munsee (1967) collected this species from a spoil bank study area in Vermillion County. Munsee and Schrock (1983), from this same location, collected it both in 1964 and 1981. Munsee (1967) alludes to William Brown collecting it from Brown County State Park. No collection data is available for this statement.

According to Brown (1953), this species is possibly a “grass sod dweller (and) best collected with the Berlese funnel.”

Pyramica pergandei (Emery)
Strumigenys pergandei: Gregg (1944)

Massachusetts, New York, Ontario south to North Carolina, Tennessee, west to Michigan, Iowa, Missouri, Kansas.

Rare, but probably more frequent than our records indicate. Gregg (1944) reports it from Coffee Creek natural area, in Porter County. The nest was recorded on the upper side of a decomposed log, in “floodplain forest.”

This species occurs in open remnant woodland. Its nests and singleton workers are often associated with the nests of other ant species.

Pyramica pulchella (Emery)

New York, Pennsylvania south to Florida, west to Michigan, Ohio, Indiana, Illinois, Louisiana.

Very rare. Rericha (#2520-566) collected this species from remnant dune and swale in the Clarke section of Gary, in Lake County. One worker was collected several millimeters below grade, in moist, organic sandy soil, on the cusp of a low, north-facing sand ridge above a swale holding discharge water.

This is a very significant collection of this species, due to it typically occurring in woodland habitats.

Tribe Attini

Genus *Trachymyrmex* Forel

Trachymyrmex septentrionalis (McCook): Morris (1943); Munsee (1967); Munsee, Jansma, & Schrock (1986)

New York south to Florida, west to Louisiana, north to Ohio, Illinois, Indiana Illinois; Texas.

Morris (1943) reports this species from Indiana from a report from M.R. Smith. Unfortunately, there is no collection data.

Wheeler (1907) reports it from open woods throughout its range. This species is one of the most northerly-occurring fungus-growing ants and it closely is related to the leaf-cutter ants of the genus, *Atta*. Its preference is for sandy soils, where it builds a distinct crescent-shaped crater mound, the entrance/exit hole being at the base of the above grade soil buildup.

Subfamily Dolichoderinae

Genus *Dolichoderus* Lund

Dolichoderus mariae Forel: Morris (1943); Munsee (1967); Munsee, Jansma, & Schrock (1986)

Dolichoderus mariae blatchleyi: Wheeler (1916); Morris (1943)

Massachusetts to Georgia, west to Michigan, Minnesota, Indiana, Illinois, Oklahoma, Louisiana.

Locally frequent in the northern portion of the state, otherwise rare. Wheeler (1916) reports it from Lake and Starke counties. In Laporte County, Rericha (#1882-179) collected it from dry-mesic sand prairie.

This species occurs in fen and dry-mesic-mesic prairie. It occurs in prairie remnants on clay-silt loams in Illinois, but has a preference for sandy soils throughout its range. It builds a spherical dome mound nest, which consists entirely of coarsely shredded plant fibers. The colony occupies a central, singular cavity in the mound's interior that is connected to a large below-grade cavity. The ambient roots of the local plants pervade the cavity and provide structure for the open space occupied by the below-grade portion of the nest. The brood mainly occurs in the thatch portion of the nest. Since the mound nest consists entirely of combustible plant material, the soil cavity may be an adaptation for fire escape during the non-growing season.

^T*Dolichoderus plagiatus* (Mayr): Munsee (1967); Munsee, Jansma, & Schrock (1986)

Dolichoderus plagiatus inornatus: Gregg (1944)

New Brunswick, Quebec, Ontario, south to Georgia, Tennessee, west to Michigan, North Dakota, Illinois, Indiana, Ohio

Rare. Gregg (1944) reports it from Porter County; Munsee (1967) from "an undisturbed stand of oak" in Vermillion County. Rericha (#2457-537) collected it from Lake County in mesic Black Oak savanna.

This species occurs in remnant, open oak woodland, and in northern Illinois in fens. In Porter and Lake counties, it is occasional, in high-quality Black Oak sand savanna. In woodland, it builds a small nest in curled oak leaves, which is lined with finely shredded plant fibers glued together with soil.

Dolichoderus pustulatus Mayr: Munsee (1967); Munsee, Jansma, & Schrock (1986)

Dolichoderus plagiatus pustulatus bentenmulleri: Wheeler (1916); Morris (1943)

Nova Scotia, Quebec, south to Florida, west to Michigan, Illinois, Oklahoma, Texas.

Infrequent. Wheeler (1916) reports it from Lake County. Rericha collected it from Porter (#1894-197) and from LaPorte (#1878-180) counties.

Recorded only in the northwest portion of the state, this species is conservative to remnant wetlands that receive water by discharge, an inherently high water table, or a combination of the two. It nests in moss clumps and in leaf sheaths on well-developed sedge hummocks of *Carex haydenii*, *C. stricta*, and *Scirpus cyperinus*. Occasionally it nests in the >1-year old fistulose culm interior of *Scirpus cyperinus*, *Helianthus grosseserratus*, and *Solidago gigantea*. It also nests in curled over last season's fronds of *Thelypteris palustris* and *Onoclea sensibilis*, and other leaf detritus. In our region, this species does not nest in soil, a fact that is contrary to Wheeler's (1916) assertion. Instead, the nest occupies a cavity where individual nest components, such as wide and narrow leaves form a roof and floor, and held there by an interwoven fabric of finely shredded plant fibers mixed with fresh soil globules. The diameter of each soil globule matches the gape width diameter of the worker ants. Because of this ant's adherence to nest only in discharge wetlands, such as fens, wet-wet-mesic prairie, and sedge meadow, the soil used as the glue for these nests has a high organic content and low mineral content. When the organic component of the soil globule oxidizes, it leaves behind a glistening patina of mineral residue on the interwoven plant fiber creation. The morphology of this nest structure can be best appreciated with a good stereo microscope.

Genus *Forelius* Emery

Forelius pruinosus (Roger)

Iridomyrmex pruinosus analis: Morris (1943); Gregg (1944); Munsee (1967); Munsee & Schrock (1983); Munsee, Jansma, & Schrock (1986)

Iridomyrmex pruinosus pruinosus: Munsee (1967); Munsee, Jansma, & Schrock (1986)

Morris (1943) reports it from Daviess County; Gregg (1944) reports it from Porter County; Munsee and Schrock (1983) from a stripmine study site, in Vermillion County. In Lake County, in the Clarke section of Gary, Rericha (2538-569) collected a nest of this species on a south-facing dune slope. The nest was embedded in the fibrous root-zone of *Schizachyrium scoparium*.

Occasional. Throughout the region, this species occurs in sparsely vegetated sections of dry prairie, rarely in >40-year old post-agriculture field. Along Lake Michigan, it occurs in stabilized foredunes, either in the open or sections of it where scattered copses of *Pinus banksiana* and *Quercus velutina* grow.

Genus *Dorymyrmex* Mayr

Dorymyrmex grandulus (Forel)

Dorymyrmex pyramicus: Morris (1943); Munsee (1967)

Conomyrma insana: Munsee, Jansma, & Schrock (1986)

Rare. Morris (1944) reports this species from the state from a report by M. R. Smith. No collection information was acquired for this supposition. All other reports are based upon Morris's report.

In northeast Illinois, in Lake and Kankakee counties, it occurs in remnant dune and swale, and in northern Cook County on a glacial kame. In both locations, it nests in dry-mesic prairie, in sections of it that are free from vegetation. It builds a small crescent-shaped soil mound that surrounds a large diameter (0.5-cm) entrance/exit hole.

Genus *Tapinoma* Foerster 1

^E*Tapinoma* sp. #1

Glaciated Midwest. Southern Wisconsin, northeastern Illinois, northwestern Indiana

Very rare. Rericha (#1436) collected it from a sedge meadow in Lake County.

This is a very rare insect for the region and occurs only in the highest quality of wetlands. It also occurs in a woodland marsh in Illinois, in Cook County, at Lemont. It nests in the amassed previous growing season's prostrate, decumbent sedge and forb culms, on well-developed sedge hummocks, most notably *Carex haydenii* and *Carex stricta*. This is a large and black *Tapinoma* species, which differs from *Tapinoma sessile* by its distinctive mandibular dentition pattern, which see footnote.

Tapinoma sp. #2

Illinois and Missouri

This species is included in this work due to the close proximity of the Illinois collection site, in Will County at Wilmington in dry-mesic prairie.

Tapinoma sp. #3

1

Key to Midwestern *Tapinoma* species:

- 1.) Large coarse teeth running nearly the length of each mandible.
 - Concolorous; worker large, >3.1 mm in body length. sp. #1
 - Bicolored; worker small, <3.1 mm in body length. sp. #2
- 1.) Large teeth concentrated anteriorly and very rarely exceed beyond the mid-length of each mandible.
 - Queens relatively large, >2.5 mm. sp. #3
 - Queens tiny, <2.5 mm. sp. #4

Tapinoma sessile (Say): Wheeler (1916); Morris (1943); Gregg (1944); Munsee (1967); Munsee & Schrock (1983); Munsee, Jansma, & Schrock (1986)

Transcontinental. Nova Scotia, Quebec south to Florida, west to Washington, California; Mexico.

This is the ubiquitous *Tapinoma* of the Midwest. It has no fidelity to remnant or *de novo* environs. Until the type specimens can be studied of this species, it is unknown which *Tapinoma* species is the real *Tapinoma sessile*. The type collection location, however, is in Indiana.

Tapinoma sp. #4

Indiana

Rare. Rericha collected this species in Lake County, in Griffith.

A nest of this diminutive species was recorded in a decomposed, >1-year old *Quercus palustris* acorn, in mesic Black Oak savanna. This species is noted for its small queens, which measure 2.5 mm or less in length. The queens of *Tapinoma* sp. #3 are 4.6-5 mm in length. Except for the size difference of the queen caste, the worker caste is essentially identical in morphology in species #3 and #4.

Subfamily Formicinae Tribe Plagiolepidini

Genus *Brachymyrmex* Mayr

Brachymyrmex depilis Emery: Munsee (1967); Munsee, Jansma, & Schrock (1986)

Brachymyrmex heeri depilis: Wheeler (1916); Morris (1943); Gregg (1944)

Nova Scotia south to Florida, west to British Columbia, California; central Mexico.

Infrequent. Wheeler (1916) reports it from Knox County; Morris (1943) from Washington County; Gregg (1944) from Porter County. Rericha (#1304) collected it from Lake County.

This species occurs in dry-mesic oak savanna, where it nests shallowly in well-developed organic-rich soil, in the root-zone of *Carex pensylvanica*. In densely shaded woodland remnants, where light levels are less than 5-percent of ambient, this species nests occasionally beneath rocks and in moss hummocks, such as those formed by *Leucobryum glaucum* and *Atrichum angustatum*. It also nests shallowly in soil in mesic-dry-mesic prairie and in sedge hummocks in fens. Its shallow nests also occur in active soil mound nests of *Formica montana*, *F. glacialis*, and *F. subsericea*.

Genus *Paratrechina* Motschulsky

Paratrechina arenivaga (Wheeler): Munsee, Jansma, & Schrock (1986)

Paratrechina melanderi arenivaga: Munsee & Schrock (1983)

New Jersey south to Florida, west to Arkansas and Texas, north to Illinois, Iowa, Nebraska, Indiana.

Rare, but probably more frequent than the records indicate. Munsee & Schrock (1983) report this species from a strip mine study site in Vermillion County.

This species occurs in dry-mesic sand prairie. East of St. Louis, Missouri, it has been collected in an area where sand was extensively mined, at a site that was once remnant sand prairie and Blackjack Oak-Mockernut Hickory savanna (Trager, pers. comm.). The Vermillion County site where this species was collected is evocative of *Paratrechina terricola* (Buckley) habitat. Until specimens from this location can be studied, the taxon, *Paratrechina arenivaga*, remains for the state of Indiana. Interestingly, Munsee (1967) does not list *Paratrechina arenivaga* in his list of Indiana ants, even though the initial portion of his strip mine study in Vermillion County was completed at the time the list was published.

PARATRECHINA LONGICORNIS (Latreille): Morris (1943); Gregg (1944); Munsee (1967); Munsee, Jansma, & Schrock (1986)

South Carolina south to Florida, west to Texas; California; Pantropical. Adventive from the tropics.

Rare. Morris (1944) reports it from Indianapolis, from specimens collected by Dietz.

In the northern portion of its range, this species occurs in heated buildings, but in the United States it is restricted to Florida and the Gulf Coast region outdoors (Trager, 1984).

Paratrechina parvula (Mayr): Wheeler (1916); Morris (1943); Gregg (1944); Munsee (1967); Munsee, Jansma, & Schrock (1986)

Massachusetts south to northern Florida, west to Michigan, Illinois, North Dakota, Nebraska, Kansas, eastern Oklahoma, eastern Texas (Trager, 1984).

Occasional throughout the state. Wheeler (1916) reports it from Lake County; Morris (1943) from Washington and Tippecanoe counties; Gregg (1944) from Porter County.

This species occurs in open oak savanna, dry-dry-mesic prairie, rarely in old field. It nests in soil, often in the root-zone of *Schizachyrium scoparium*.

Genus *Prenolepis* Mayr

Prenolepis imparis imparis (Say): Morris (1943); Gregg (1944); Munsee (1967);
Munsee, Jansma, & Schrock (1986)

Prenolepis imparis minuta: Wheeler (1916); Morris (1943);

Prenolepis imparis pumila: Morris (1943)

Prenolepis imparis testacea: Gregg (1944)

Connecticut, Ontario south to Florida, west to Wisconsin, Iowa, Missouri, Oklahoma, Texas,
New Mexico, Arizona.

Common. Wheeler (1916) reports it from Crawford and Lake counties; Morris (1943) from
Clark, Kosciusko, Tippecanoe, and Washington counties; Gregg (1944) from Porter County.
This ant is the harbinger of spring in the region. It occurs in remnants and *de novo* habitats,
whether open or closed. It nests deeply in soil and builds a small crater mound. It is most
active outside of the confines of its nest during cool weather of spring and the latter portion
of the growing season.

Tribe Lasiini

Genus *Lasius* Fabricius

Subgenus *Lasius* Fabricius

Lasius alienus (Foerster)

Lasius niger americanus: Morris (1943)

Lasius niger alienus americanus: Wheeler (1916); Gregg (1944)

Lasius niger: Munsee (1967); Munsee, Jansma, & Schrock (1986)

Nova Scotia, New Brunswick south to Florida, west to southeastern Manitoba, North
Dakota, South Dakota, Nebraska, Kansas, Arkansas, Mississippi; disjunct populations from
the main geographic range: British Columbia, Montana, Idaho, Washington, Oregon,
northern California; southern Arizona; west central Mexico; Eurasia (Wilson, 1955).

Common. Occurs throughout the state.

This species occurs in remnants and *de novo* habitats, whether open or closed. It nests
frequently in moist soil, in the root-zone of a diversity of plant species independent of an
external covering. In the central geographic portion of the glaciated Midwest, it occurs in
mesic old field, fens, all wetness permutations of prairie, and dry-mesic woodland.
Additionally throughout its range, whether glaciated or non-glaciated, it nests frequently
beneath rocks and beneath and/or inside decomposed wood that is in various stages of
decomposition. In Indiana, it often nests in >1-year old acorns.

Lasius neoniger Emery: Munsee (1967); Munsee & Schrock (1983); Munsee, Jansma, &
Schrock (1986)

Lasius niger var. *neoniger*: Wheeler (1916); Morris (19143); Gregg (1944)

Quebec, Maine south to northern Florida, across southern Canada west to Idaho, Wyoming, Colorado, New Mexico; disjunct populations in California (Sierras); Alaska.

Common. This species is more common than voucher records indicate. Wheeler (1916) reports it from Martin County and Arlington; Morris (1943) from Benton, Lake, Tippecanoe, and Washington counties; Gregg (1944) from Porter and St. Joseph counties; Munsee & Schrock (1983) from Vermillion County. Rericha (#1802-270) collected it in Starke County.

This species occurs in dry and dry-mesic open areas, whether remnant or *de novo*. It particularly is common in sparsely vegetated sections of the habitat in which it is nesting. It prefers a sandy or silty soil and regularly nests in soil beneath concrete slabs and sidewalks. Exclusive of an external covering, it builds a small crater nest.

Subgenus *Chthonolasius* Ruzsky

^E*Lasius minutus* Emery: Munsee (1967); Munsee, Jansma, & Schrock (1986)
Lasius umbratus minutus: Morris (1943)

Nova Scotia, Quebec, Maine south to Virginia, west to Indiana, Michigan, Minnesota, Iowa.

Very rare. Occurs only in the northern portion of the state. Morris (1943) reports it from Steuben County, from a Tamarack bog. Rericha collected it from Lake (#1295) and LaPorte (#1010) counties.

Hypogaecic. In the glaciated Midwest, this species occurs in high-quality wetlands that receive water through a combination of discharge and a high water table. In northwest Indiana and northeast Illinois, it occurs in fens and wet prairie, where it builds a large dome mound that consists of an upwelling of rich, black organic soil.

^E*Lasius speculiventris* Emery
Lasius umbratus mixtus speculiventris: Gregg (1944)

Quebec, New Jersey, Pennsylvania, Ohio, Michigan, Illinois west to Minnesota, Iowa, Kansas.

Rare. Gregg (1944) collected it from LaPorte County. Rericha collected it from Lake (#1211) and Newton (#950) counties.

Our records indicate that this species is restricted to the lake plain districts of northwest Indiana and northeast Illinois, which includes glacial lakes Chicago, Wauponsee, and Watseka. In wet, open woodland, it nests in soil beneath logs that are in the early to mid stages of decomposition. Additionally, it builds large soil mounds in wet-mesic sand prairie. In White Oak flatwoods in Newton County, a nest was recorded within a massive *Carex haydenii* hummock.

Lasius umbratus (Nylander): Munsee (1967); Munsee, Jansma, & Schrock (1986)
Lasius umbratus mixtus aphidicola: Wheeler (1916); Morris (1943); Gregg (1944)

Nova Scotia, New Brunswick, Quebec south to Florida, west to Idaho, Utah, Nevada, Arizona; Eurasia.

Frequent. Morris (1943) reports it from Clinton and Tippecanoe counties; Gregg (1943) from Lake, Porter, and LaPorte counties.

Hypogaecic. This species occurs throughout the state, but has only been collected in scattered locations. It occurs with regularity in the lake plain district of Lake Michigan in moist sand prairie, and occasionally in mesic >40-year old post-agriculture field. Additionally, it nests in remnant open woodland, and rarely in very shaded woods. In open areas, it builds a large soil dome mound, whereas in woodland, it banks soil up and around decomposed wood in the mid to latter stages of decomposition.

Subgenus *Cautolasius* Wilson

^T*Lasius flavus* (Fabricius)
Lasius brevicornis: Gregg (1944)

Nova Scotia, New Brunswick, Quebec south to North Carolina, Alabama, west to Alberta, Washington, Oregon, California; Eurasia.

Rare. Recorded only from the northwest corner of the state. It probably occurs elsewhere in suitable habitat, in other areas in the northern portion of the state. Gregg (1944) reports it from Porter County. Rericha (#1209) collected it from Lake County.

Hypogaecic. This species occurs only in remnants. In fens, wet-wet-mesic prairie, and dry-mesic oak savanna, it nests shallowly in soil, in the root-zone of native graminoids. A frequent associate is the ant, *Brachymyrmex depilis*.

^T*Lasius nearcticus* Wheeler
Lasius flavus nearcticus: Wheeler: Gregg (1944)

Quebec, Ontario south to North Carolina, Tennessee, west to Michigan, South Dakota, Wyoming, Colorado.

Scarce. This species probably is scattered throughout the state, but only has been collected in the far northwestern counties. Gregg (1944) reports it from Porter and LaPorte counties.

Hypogaecic. This species occurs in dry-mesic-mesic remnant woodland, where it nests in soil beneath rocks and in both soil and decomposed wood in the mid to latter stages of decomposition. In northeastern Illinois, it is occasional in oak savanna and remnant Sugar Maple woodland.

Subgenus *Acanthomyops* Mayr

Lasius claviger (Roger): Wheeler (1916); Morris (1943)

Acanthomyops claviger: Munsee (1967); Munsee, Jansma, & Schrock (1986)

Massachusetts, New York south to Georgia, west to Michigan, Montana, Idaho, Utah, New Mexico.

Frequent. Wheeler (1916) records it from Starke County; Morris (1943) from Clinton, Fulton, Hancock, Knox, Miami, Tippecanoe, Tipton, and Washington counties. Rericha collected it from Lake (#1438) and Porter (#1879-177) counties.

Hypogaecic. This species occurs in remnant and *de novo* habitats, whether open or closed. It is common in recently fallow and >40-year old post-agriculture field, where it builds large mound nests that consist of a conspicuous upwelling of soil. In dry-mesic-mesic woodland, it nests in wood that is in the mid to latter stages of decomposition and beneath rocks. It is a frequent inhabitant in defunct mound nests of *Formica montana* and *F. subsericea* in the region.

Lasius interjectus Mayr: Morris (1943)

Acanthomyops interjectus: Munsee (1967); Munsee, Jansma, & Schrock (1986)

Massachusetts, New York south to Georgia, west to Michigan, Montana, Idaho, Utah, New Mexico.

Morris (1943) reports this species from Fayette, Lake, Rush, Tippecanoe, and Washington counties. He reports that it is very common throughout the state. That may have been the case in 1943, but today, this ant is uncommon. Of the subgenus, *Acanthomyops*, *Lasius claviger* is by far the commoner taxon.

Hypogaecic. This species occurs in wet-mesic and mesic prairie, and occasionally in high water table >40-year old post agriculture field, where it nests in soil and creates irregular upwellings of organic soil for its nest.

^T*Lasius latipes* (Walsh): Wheeler (1916); Morris (1943); Gregg (1944)

Acanthomyops latipes: Munsee (1967); Munsee, Jansma, & Schrock (1986)

Quebec, Maine, west to British Colombia, south to South Carolina, Tennessee, Illinois, Iowa, Oklahoma, New Mexico, Arizona, California.

Rare. Wheeler (1916) reports it from Fulton County; Gregg (1944) from Lake County. Rericha (#1803-270) collected it from Starke County.

Hypogaecic. This species occurs in dry-mesic-mesic prairie, and rarely in high water table

pasture and >40-year old post-agriculture field. It nests in soil and creates an irregular mound nest evocative of the type created by *Lasius claviger* and *L. interjectus*.

Tribe Formicini

Genus *Formica* Linnaeus

NEOGAGATES GROUP

Formica lasioides Emery:

Formica neogagates lasioides vetula: Gregg (1944):

Nova Scotia, Quebec west to British Columbia, south to Massachusetts, Michigan, northern Ohio, South Dakota, Colorado, New Mexico, Arizona, California.

Infrequent. This species is more common than records indicate. Gregg (1944) reports it from Porter County.

This species occurs in dry prairie, occasionally in dry-mesic oak savanna. It nests in soil, in the root-zone of native graminoids.

Formica neogagates Emery: Wheeler (1916); Morris (1943); Munsee (1967); Munsee, Jansma, & Schrock (1986)

Formica neogagates neogagates: Gregg (1944)

Nova Scotia, Quebec, west to Alaska, south to North Carolina, Illinois, Iowa, Nebraska, New Mexico, Nevada, Arizona, California.

Infrequent. This species is more common than records indicate. Wheeler (1916) reports it from Kosciusko County; Morris (1943) from a cornfield in Lake County. It is highly dubious that the Morris record pertains to this species, but instead to a dark-colored *Formica pallidefulva*. Gregg (1944) reports it from Porter County. Rericha (#2461-535) collected a nest in Lake County, from mesic Black Oak savanna.

This species occurs in remnant dry-mesic-mesic woodland. In annually burned oak savanna, it nests in soil and builds a large crater mound. In densely shaded, unburned woodland, it nests in both thick leaf litter and soil.

PALLIDEFULVA GROUP

Formica dolosa Buren

Formica schaufussi schaufussi: Munsee (1967), in part; Munsee, Jansma, & Schrock (1986), in part

Formica pallidefulva schaufussi: Wheeler (1916), in part; Morris (1943), in part; Gregg (1944), in part

New England across the Great Lakes region, west to Wisconsin and Iowa, south to northern Florida (Trager, et al., 2007)

Rare, but probably more frequent than records indicate. Rericha collected it from Porter (#1886-175) and Lake (#2014-356B) counties. There are copious misidentifications of this taxonomic group in major collections. The taxonomic revision by Trager *et. al.* (2007), however, has clarified the northeastern species in this group. The usage of past names cannot be trusted until further studied.

This species occurs in remnant, regularly burned dry-mesic oak savanna in the glaciated Midwest, occasionally in dry-mesic-mesic prairie. Its nests occur in soil and often beneath bark slabs or fallen branches that are in the early to mid stages of decomposition. It builds a low soil crater mound.

Formica incerta Buren

Formica schaufussi schaufussi: Munsee (1967), in part; Munsee, Jansma, & Schrock (1986), in part

Formica pallidefulva schaufussi: Wheeler (1916), in part; Morris (1943), in part; Gregg (1944), in part

Formica pallidefulva schaufussi incerta: Morris (1943); Gregg (1944)

New England and the Great Lakes States west to Minnesota, Nebraska and low elevation grasslands of Colorado (Trager, *et al.*, 2007).

Occasional to frequent. Rericha collected this species from Lake (#2533-564), Porter (#1642-159), and Starke (#1806-269) counties. Trager et al. (2007), has revised the Pallidefulva Group; older literature reports of this species, unless specimens are verified, cannot be trusted. Wheeler (1915) stated that *Formica pallidefulva schaufussi* is “one of our commonest of ants.” That statement refers to this species.

In northwest Indiana, it occurs in the interstitial prairie openings of regularly burned oak sand savanna. It is relatively frequent on the sandy ridges of remnant dune and swale in the older lake plain sections of Lake Michigan. It also occurs in dry-dry-mesic sand prairie, occasionally in >40-year old post-agriculture field, and areas planted as prairie. It builds a low crater mound nest, regularly in the fibrous root-zone of *Schizachyrium scoparium*.

Formica pallidefulva Latreille

Formica pallidefulva nitidiventris: Wheeler (1916); Morris (1943); Gregg (1944); Munsee (1967); Munsee, Jansma, & Schrock (1986)

Formica pallidefulva nitidiventris fuscata: Morris (1943); Gregg (1944)

Eastern United States and southeastern Canada, west across the US Great Plains to the lower-elevation Rocky Mountains from Wyoming to New Mexico (Trager *et al.*, 2007).

Common. Wheeler (1916) reports this species from Lake, Kosciusko, and Marion counties; Morris (1943) from LaPorte, Martin, and Washington counties; Gregg (1944) from Porter county.

This species occurs in dry-dry-mesic prairie and old field. Its nests frequently occur in lawns and occasionally beneath sidewalks, within which it builds a well-developed crater mound nest, which typically is embedded in the root-zones of local plants. In very shaded woodland or chronically unburned oak savanna, it nests in soil beneath decayed wood that is in the early to mid stages of decomposition. In regularly burned oak savanna, it nests in soil, in the root-zone of native graminoids. In northwest Indiana, it regularly is enslaved by the dulotic species, *Formica pergandei*.

FUSCA GROUP

^T*Formica glacialis* Wheeler

Formica fusca: Munsee, Jansma, & Schrock (1986), in part

Newfoundland (insular), Quebec, south to New York, west to Manitoba, eastern North Dakota, northern Illinois.

Uncommon. Northern Indiana is at the southern limit of this species geographic range. Francoeur (1973) reports it from Kosciusko and Lagrange counties. Rericha collected it in Lake (#1271), LaPorte (#1009), and Porter (#2067) counties.

In northern Illinois and Indiana, this is the *Formica* of high water table and discharge-fed remnant wetlands, such as wet-wet-mesic prairie and fen systems. In these habitats, it nests within well-developed sedge hummocks of *Carex stricta* and *Carex haydenii*. Occasionally, its mound nest surrounds a portion of a fallen branch, such as one from *Populus deltoides*. It additionally occurs in remnant swampy woodland, very rarely in open, dry-mesic remnant woodland. In wooded systems, it constructs a dome mound around a decayed branch or trunk that is in the early to mid stages of decomposition.

Formica montana Wheeler: Munsee, Jansma, & Schrock (1986)

Formica cinerea montana: Munsee (1967)

Formica cinerea neocinerea: Wheeler (1916); Morris (1943)

Formica cinerea cinerea neocinerea: Gregg (1944)

Central Ohio, west to Manitoba, North Dakota, South Dakota, Nebraska, Kansas

Uncommon. This is a Great Plains species. Indiana is on the eastern fringe of its geographic range. Wheeler (1916) reports it from LaPorte County. Rericha (#935) also has collected it from LaPorte County in wet peaty sand prairie, as well as has Gregg (1944).

This species occurs in fens and wet-wet-mesic prairie. Occasionally, in northeast Illinois, it

nests in dry-mesic, rolling >40-year old post-agriculture fields. It builds a soil mound that is thickly covered with vegetable detritus. Its nests occasionally are parasitized by the dulotic, *Polyergus breviceps*, which see.

^T*Formica subaenescens* Emery

Formica fusca subaenescens: Morris (1943)

Formica fusca fusca subaenescens: Gregg (1944)

Formica fusca: Munsee, Jansma, & Schrock (1986), in part

Newfoundland (insular) west to Yukon, south to South Carolina (in mountains), Michigan, Wisconsin, northern Illinois, northwestern Indiana, Iowa, South Dakota, New Mexico, Nevada, Arizona, California; Holarctic.

Rare. This species has only been collected in the northwest portion of the state. It is a northern ant, which in northern Indiana reaches the southern limit of its geographic range. Gregg (1944) collected it at Ogden Dunes, in Porter County.

In the region, this species is conservative to remnant, wet woodland or shaded margins of upland morainic depressions. It nests in soil beneath and/or within decomposed wood that is in the mid to early-latter stages of decomposition. It also nests in well-developed moss hummocks of *Atrichum angustatum* in these same habitats. It is frequent in northern Michigan, Minnesota, and Wisconsin, in swampy mixed woodland. Collection of the rare *Polyergus bicolor* with its sole host, *Formica subaenescens* should be submitted to an academic institution that houses significant regional collections.

Formica subsericea Say

Formica fusca subsericea: Wheeler (1916); Morris (1943)

Formica fusca fusca subsericea: Morris (1943); Gregg (1944)

Formica fusca argentata: Morris (1943)

Formica fusca: Munsee (1967); Munsee & Schrock (1983); Munsee, Jansma, & Schrock (1986), in part

New Brunswick, Quebec south to northern Florida, west to Manitoba, Montana, Iowa, Kansas, Missouri, Mississippi.

Common. This species is widely distributed throughout the state. Morris (1943) reported *Formica fusca argentata* (*Formica argentea*), but I must exclude it from this report until specimens can be studied; it is very rare in the northeastern glaciated states, which I have studied only one population in Walworth County, Wisconsin, in dry prairie.

This species occurs in dry-mesic woodland, mainly in remnants, rarely in *de novo* wooded systems. It also occurs in dry-mesic prairie and old field and lawns where it builds a soil dome mound. In northern Indiana, it is replaced in the wetter hydrologic catenas, whether open or closed, by the closely related and morphologically similar, but much more conservative, *Formica glacialis*. In open, remnant woodland, it builds a large soil mound, the soil typically banked up and around a small diameter branch. It disappears in chronically

shaded woodland, if there are no sunny openings or paths that transect through these areas and provide suitable light levels for groundcover sedges, such as *Carex pensylvanica*, to grow.

EXSECTA GROUP

Formica exsectoides Forel: Morris (1943); Gregg (1944); Munsee (1967); Munsee, Jansma, & Schrock (1986)

Nova Scotia, Ontario south to Georgia, west to Wisconsin, Iowa, Kansas, Colorado, New Mexico.

Infrequent. Morris (1943) reports this species from Clark, Morgan and Vigo counties; Gregg (1944) from Porter County.

This species occurs in dry-mesic prairie, particularly on slopes in northern Illinois, very rarely in well-drained pasture or old field. Its nests also occurs on elevated outwash benches of fens, and in northeastern Illinois, in Will County, Rericha recorded a nest in sedge meadow, in a massive *Carex haydenii* hummock. It builds a low dome mound that is covered with a thick indument of vegetable thatch. The majority of the nests recorded in this region occur where there are well-developed swards of open-grown *Carex pensylvanica*.

^E*Formica ulkei* Emery: Wheeler (1916); Morris (1943); Gregg (1944); Munsee (1967); Munsee, Jansma, & Schrock (1986)

Formica ulkei hebescens: Wheeler (1916); Morris (1943)

Nova Scotia, Quebec, west to Manitoba, south to Ohio, Indiana, Illinois, Iowa, North Dakota, Wyoming.

Rare. Northern Indiana is at the southern limits of this species' geographic range. Wheeler (1916) reports it from Kosciusko and Starke counties; Gregg (1944) from Porter County. Rericha (#2273) has a collection from Elkhart Bog, in Elkhart County, collected by John Ervin of the Indiana Department of Natural Resources. The var. *hebescens* was originally described by Wheeler from specimens from Bass Lake, in Starke County.

This species nests in raised ground in fens and in remnant oak woodland, just above the point of discharge on gentle slopes. In the southern portion of its range, it additionally nests in what is vernacularly coined as a "southern bog." It builds a low dome mound that is decorated thickly with vegetable thatch on its upper surface.

RUFA/MICROGYNA GROUP

Formica dakotensis Emery: Morris (1943); Munsee (1967); Munsee, Jansma, & Schrock (1986)

Nova Scotia, Ontario west to Alaska, British Columbia, south to Ohio, Indiana, Iowa, New Mexico, Nevada.

Very rare. Morris (1943) reports this species from Indiana from a report by M.R. Smith.

This species occurs in dry-mesic prairie remnants in the region. In northern Wisconsin and Michigan, however, it nests in massive *Sphagnum fuscum* hummocks in ice-contact sphagnum flats. It builds a giant dome mound that consists of vegetable thatch or detritus. In prairie systems, its nest consists of soil that is mounded up and forms the basal foundation for the outer thatch layer.

^E*Formica indianensis* Cole: Creighton (1950)

Indiana

Rare. This species is known only from the type locality: Jasper County, Indiana.

According to Creighton (1950), Buren's (1944) report of this species from Iowa was based upon a collection of *Formica postoculata*.

Formica integra Nylander: Munsee, Jansma, & Schrock (1986)

Formica truncicola integra: Wheeler (1916); Morris (1943)

Formica integra integra: Munsee (1967)

Nova Scotia, Quebec, south to Georgia, west to Michigan, Wisconsin, South Dakota, Illinois, Mississippi.

Rare. This species has only been collected in the far southern tip of the State. Wheeler (1916) collected it in Crawford County and Camelton.

This beautiful species occurs in dry-mesic oak savanna, or in the interstitial prairie areas of these systems. Its nests are usually extensive and simultaneously occur beneath large fallen bark slabs, decomposed wood in the early to mid stages of decomposition, and occasionally beneath rocks. It banks a considerable amount of vegetable detritus up and around these external objects.

Formica obscuripes Forel: Munsee, Jansma, & Schrock (1986)

Formica obscuripes obscuripes: Munsee (1967)

Quebec, Michigan, Illinois, Manitoba west to British Columbia, south to New Mexico, Nevada, Utah, California.

Rare. Munsee (1967) and Munsee *et. al* (1986) report this species from Indiana, but no collection data are known. It has a spotty distribution in northern Illinois where it occurs in dry-mesic prairie remnants.

This species occurs in dry-dry-mesic prairie, rarely in dry abandoned pasture. It builds massive thatch mounds, which consist of soil and vegetable detritus. The mounds are typically built up around objects such as saplings and glacial boulders.

Formica obscuriventris obscuriventris Mayr: Munsee (1967); Munsee, Jansma, & Schrock (1986)

Formica truncicola obscuriventris: Wheeler (1916); Morris (1943); Gregg (1944)

Quebec, Maine south to Virginia, west to North Dakota, Iowa, Colorado, Nevada.

Scarce. Wheeler (1916) records this species from Kosciusko County; Gregg (1944) from Porter County. Rericha collected it in Starke County (#1800-270).

This species occurs in oak savanna and its interstitial prairie openings. It rarely occurs in pasture. It builds a large dome mound that consists of thatch or vegetable detritus banked up and around rocks and fallen branches.

Formica postoculata Kennedy & Dennis: Morris (1943); Munsee (1967); Munsee, Jansma, & Schrock (1986)

Pennsylvania, Ohio, Indiana, Illinois, Iowa

Rare, but probably more frequent than our records indicate. Described by Kennedy and Dennis (1937) from the type location in Ohio County. It was recorded “in grassy pasture on shoulder of high hill facing the Ohio River on the road between Aurora and Rising Sun . . .,” May 2, 1931. The nest was described as a thatch mound between two boulders.

Formica querquetulana Kennedy and Dennis: Morris (1943); Munsee (1967); Munsee, Jansma, & Schrock (1986)

New England to Ohio, Michigan, Illinois, Indiana, Iowa, west to Montana, Nevada, California

Rare, but probably more frequent than our records indicate. According to Morris (1943), this species was collected by “Dr. Kennedy and Dr. Talbot in Spencer County.”

This species occurs in oak savanna and its associated prairie openings. In northeast Illinois, in Will County, at Wilmington, Rericha (#2622) collected it from a remnant dry-mesic sand prairie.

SANGUINEA GROUP

Formica aserva Forel

Formica sanguinea aserva: Morris (1943)

Formica sanguinea subnuda: Gregg (1944)

Formica subnuda: Munsee (1967); Munsee, Jansma, & Schrock (1986)

Newfoundland west to Yukon, central Alaska, south to New York, northern Ohio, Indiana, Illinois, Minnesota, North Dakota, Colorado, New Mexico, Arizona, Nevada, California.

Morris (1943) reports this species from Porter County from a reference in Talbot's (1934) work. It is unclear if indeed she collected it from this county, since her paper does not pinpoint the counties from where each species was collected. I have never collected it in Illinois or Indiana. It is the most frequently occurring species of the *Sanguinea* Group, however, in northern Wisconsin and Michigan.

Formica pergandei Emery

Formica puberula: Morris (1943); Munsee (1967); Munsee, Jansma, & Schrock (1986)

Quebec, New Hampshire, south to North Carolina, west to Michigan, North Dakota, South Dakota, Iowa, Colorado.

Uncommon. Rericha collected it in Lake County (#2449-519) in dry-mesic sandy old field, from a nest of *Formica pallidefulva*. This species is more frequent than records indicate. Morris (1943) reports *Formica puberula* from Lake County, from a collection by Dr. H. O. Deay, in 1937. Although I have not studied this specimen, *Formica pergandei* is probably the species to which Morris alludes.

It occurs in dry-mesic prairie and old field and pasture, occasionally in dry-mesic woodland remnants. In the region, it regularly enslaves these ant species: *Formica dolosa*, *F. glacialis*, *F. incerta*, *F. montana*, *F. neogagates*, *F. pallidefulva*, and *F. subsericea*.

Formica rubicunda Emery: Munsee (1967); Munsee, Jansma, & Schrock (1986)

Formica sanguinea rubicunda: Morris (1943)

Formica sanguinea rubicunda: Gregg (1944)

Quebec, Ontario south to North Carolina, Tennessee, west to Michigan, Montana, Colorado, New Mexico.

Uncommon. Gregg (1944) reports it from Porter County. Rericha collected it from Brown County (#2468-511). It is more frequent than records indicate.

This species occurs in dry-mesic prairie, old field and pasture, and dry-mesic woodland. It mainly enslaves *Formica subsericea* in the region, even though mixed nests do occur, which contain the workers of additional species from slave-raids.

Formica subintegra Wheeler: Munsee (1967); Munsee, Jansma, & Schrock (1986)
Formica sanguinea subintegra: Morris (1943)

Newfoundland, Nova Scotia, Ontario south to South Carolina, Tennessee, west to North Dakota, Iowa, Kansas.

Uncommon. Morris (1943) states that this species was reported by Dr. Smith for Indiana, but there is no collection data. Rericha collected it from Starke County (#1799-271) from a nest of *Formica subsericea*.

This species occurs in dry-mesic-mesic prairie, occasionally in old field, pasture, and oak savanna. It is dulotic on nests of *Formica subsericea* and *F. glacialis* in the region.

Genus *Polyergus* Latreille

^T*Polyergus breviceps* Emery: Munsee, Jansma, & Schrock (1986)
Polyergus rufescens breviceps: Morris (1943); Munsee (1967)

Rare. Morris (1943) reports this species from Crawford County collected by W. S. Blatchley. This genus is currently under revision by Dr. James Trager (pers. comm.). There are three clearly differentiated species in this complex in Indiana: *Polyergus breviceps breviceps*, which is dulotic on *Formica montana*, *Polyergus umbratus*, which is dulotic on *Formica subsericea*, and *Polyergus bicolor*, which is dulotic on *Formica subaenescens*. It cannot be ruled out that what Blatchley referred to as *Polyergus rufescens breviceps* may in fact be *Polyergus umbratus*, since this collection occurred at the far southern geographic range of *Formica montana*.

See habitat information for *Formica montana* and *F. subsericea*.

This species has IUCN Red List status of VU D2. Populations are considered very vulnerable.

^T*Polyergus lucidus* Mayr: Wheeler (1916); Morris (1943); Munsee (1967); Munsee, Jansma, & Schrock (1986)

Rare. Wheeler (1916) reports this species from St. Joseph County.

This species occurs in dry and dry-mesic prairie and oak savanna. It is dulotic on the nests of species in the *Pallidefulva* Group of the genus *Formica*.

This species has IUCN Red List status of VU D2. Populations are considered very vulnerable.

Tribe Camponotini

Genus *Camponotus* Mayr

Subgenus *Camponotus*

Camponotus americanus Mayr: Munsee (1967); Munsee, Jansma, & Schrock (1986)

Camponotus castaneus americanus: Wheeler (1916); Morris (1943)

Ontario south to Florida, west to Michigan, Iowa, Missouri, Oklahoma, Texas.

Occasional. It is widespread throughout the state.

This species occurs in dry and dry-mesic prairie and oak savanna. It nests deeply in soil independently of an external covering, but occasionally beneath stones, bark slabs, and wood in the early to mid stages of decomposition.

Camponotus chromaiodes Bolton

Camponotus herculeanus pennsylvanicus ferrugineus: Wheeler (1916); Morris (1943); Gregg (1944)

Camponotus ferrugineus: Munsee (1967); Munsee, Jansma, & Schrock (1986)

New York south to Georgia, west to Michigan, Illinois, Nebraska, Kansas

Occasional. This species is widespread throughout the state.

This species occurs in remnant oak woodland where it nests deeply in soil and concentrates its nest around a stump or log in various stages of decomposition. It also nests in diseased wood of living trees. Its nest in this situation penetrates into the soil and surrounds the woody root caudex of the tree in which it is nesting.

Camponotus pennsylvanicus De Geer: Munsee (1967); Munsee, Jansma, & Schrock (1986)

Camponotus herculeanus pennsylvanicus: Wheeler (1916); Morris (1943); Gregg (1944)

New Brunswick, Quebec south to Florida, west to North Dakota, Texas.

Common. This species is widespread throughout the state.

This is a common household pest that can cause extensive structural damage. It is a resident in habitats as diverse as *de novo* and remnant woodland, brushy pasture and post-agriculture old field and parks. It nests in the diseased wood of living trees, but additionally in wood in the early to mid stages of decomposition. Its nests often penetrate deep into soil.

Camponotus novaeboracensis (Fitch): Munsee, Jansma, & Schrock (1986)
Camponotus herculeanus ligniperda noveboracensis: Wheeler (1916); Morris (1943); Gregg (1944);
Camponotus noveboracensis: Munsee (1967)

Nova Scotia, Quebec south to Virginia, west to British Columbia, Oregon, Utah, Colorado.

Occasional in the northern portion of the state. Wheeler (1916) reported it from Kosciusko, Lake, and St. Joseph counties; Gregg (1944) from Porter and Newton counties.

This is a wetland species. It occurs in hydromesophytic swamp forest in Lake, Porter, and LaPorte counties, and additionally nests in mesic Black Oak savanna in Lake County. It is common locally in sedge meadow, fen, and wet prairie where it nests in decayed wood in the mid to latter stages of decomposition. It additionally nests inside well-developed *Carex stricta* hummocks within which it constructs a large singular nest cavity that nearly fills the sedge hummock's diameter.

Subgenus *Tanaemyrmex* Ashmead

Camponotus castaneus (Latreille): Wheeler (1916); Morris (1943); Gregg (1944); Munsee (1967); Munsee & Schrock (1983); Munsee, Jansma, & Schrock (1986)

New York south to Florida, west to Illinois, Iowa, Oklahoma, Texas.

Uncommon. This species is widespread throughout the state.

It occurs in dry-mesic sand prairie and dry-mesic oak savanna. It is found very rarely in old fields adjacent to remnants. It nests deeply in soil, occasionally beneath large bark slabs and stones. It also nests in wood in the early to mid stages of decomposition.

Subgenus *Myrmentoma* Forel

Camponotus caryae (Fitch): Munsee (1967); Munsee, Jansma, & Schrock (1986)
Camponotus caryae cnemidatus: Morris (1943)
Camponotus caryae discolor clarithorax: Gregg (1944)

Quebec, New York south to Florida, west to Michigan, Ohio, Indiana, Illinois.

Rare. This species is probably more widespread in Indiana. Gregg (1944) reported it from Porter County.

This species occurs in dry-mesic oak savanna. It nests in twigs, bark, and plant cavities, occasionally in wood in the mid to early-latter stages of decomposition.

^E*Camponotus decipiens* Emery
Camponotus caryae decipiens: Wheeler (1916); Morris (1943)

Georgia and Florida west to Texas and eastern Mexico and north to North Dakota.

Historic collection. This species was cited by Emery (1893, page 676) from Indiana. Wheeler (1910) studied a cotype worker (minor) from Emery's collection. The actual location is unknown, but is most likely from the southern portion of the state.

Camponotus discolor (Buckley)

Camponotus caryae discolor: Morris (1943); Munsee (1967); Munsee, Jansma, & Schrock (1986)

Ohio, South Carolina, Florida west to North Dakota, Iowa, Kansas, Texas.

Rare. Morris (1943) reports this species from Porter County from a collection of Mary Talbot. In Talbot's (1934) paper she lists this species as nesting in the Poplar dunes along Lake Michigan. It is unclear if she did in fact collect it from Porter County, since Poplar Dunes also occur in Lake County where her study also occurred.

This species occurs in dry-mesic oak savanna. In northeast Illinois, it occurs in wet-mesic sand prairie, where it has been recorded to nectar the vesicular hairs on the petioles of *Helianthus grosseserratus*.

Camponotus nearcticus (Fitch): Munsee (1967); Munsee, Jansma, & Schrock (1986)

Camponotus caryae: Wheeler (1916); Morris (1943)

Camponotus caryae minutus: Wheeler (1916)

Camponotus caryae caryae nearcticus: Gregg (1944)

Camponotus caryae caryae tanquaryi: Gregg (1944)

Quebec, Ontario south to Florida, west to British Columbia, Washington, Nevada, Utah; California (?).

Occasional throughout the state.

This species occurs in oak savanna and dry-mesic prairie. It is a species of the tree crown fauna where it nests in decayed/diseased wood of the trunk and upper canopy branches. It rarely nests in decomposed, fallen branches or trunks, and if so, then it is in wood in the early to mid stages of decomposition. It also nests in galls and the fistulose interior of herbaceous vascular plant stems and fallen twigs. Rarely does this species nest in structural wood of dwellings.

Camponotus subbarbatus Emery: Munsee (1967); Munsee, Jansma, & Schrock (1986)

Camponotus caryae subbarbatus: Morris (1943); Gregg (1944)

New England south to North Carolina, Georgia, Mississippi, west to Michigan, Ohio, Illinois, Iowa.

Rare, but this species is probably more common than records indicate. Morris (1943) reported this species from Parke County; Gregg (1944) from LaPorte County.

This species occurs in dry-mesic oak savanna, very rarely in deeply shaded, overgrown woodland. It nests in decayed wood that is in the mid to latter stages of decomposition. Its nests often penetrate deeply into soil. Rarely, it nests in soil exclusive of an external covering such as decomposed wood. It additionally nest in >1-year old acorns.

Subgenus *Colobopsis* Mayr

^E*Camponotus mississippiensis* (Smith): Munsee, Jansma, & Schrock (1986)

Maryland south to Florida, west to Ohio, Indiana, Illinois, Tennessee, Oklahoma, Mississippi, Louisiana.

Rare. This species was recorded by Munsee *et.al.* (1986) in Vermillion County, and consists of a collection of a dealate female in a strip mine study site. This is a southern species that is very rare in the northern portion of its geographic range.

This species occurs in open, dry-mesic woodland. It nests in twigs and branches. The quadrate head of the worker caste fits the diameter of the entrance/exit orifice of the nest. This anatomical adaptation guards against intruders into the nest's interior.

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Names shown in Bold type face are the names recognized as applicable to Indiana. Names shown in standard type face are either synonyms, included with other species, or misapplied by authors who have attributed ants to Indiana: Wheeler (1916), Morris (1943), Gregg (1944), Munsee (1967), Munsee & Schrock (1983), and Munsee, Jansma, & Schrock (1986).

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Leptothorax fortinodis melanoticus	19	Pyramica pergandei	21
Leptothorax muscorum	17	Pyramicapulchella	21
Leptothorax longispinosus	18	Smithistruma abdita	21
Leptothorax pergandei	18	Smithistruma filitalpa	21
Leptothorax pergandei pergandei	18	Solenopsis molesta	16
Leptothorax schaumii	19	Solenopsis molesta molesta	16
Leptothorax texanus	19	Solenopsis texana	16
Monomorium minimum	15	Stenamma brevicorne	9
Monomorium pharaonis	16	Stenamma brevicorne schmittii	10
Myrmecina americana	20	Stenamma diecki	9
Myrmecina graminicola americana	20	Stenamma impar	10
Myrmica americana	4, 5	Stenamma meridionale	10
Myrmica brevinodis brevinodis	6	Stenamma schmitti	10
Myrmica brevinodis brevispinosa	6	Stigmatomma pallipes	2
Myrmica brevinodis sulcinodoides	6	Strumigenys pergandei	21
Myrmica detritinodis	5	Tapinoma sessile	24
Myrmica e. emeryana	8	Tapinoma sp. #1	24
Myrmica emeryana	5	Tapinoma sp. #2	24
Myrmica evanida	6	Tapinoma sp. #3	24
Myrmica fracticornis	6	Tapinoma sp. #4	24
Myrmica incompleta incompleta	6	Temnothorax ambiguus ambiguus	17
Myrmica incompleta sulcinodoides	6	Temnothorax curvispinosus	17
Myrmica lobicornis fracticornis	8	Temnothorax longispinosus	18
Myrmica lobifrons	6	Temnothorax pergandei	18
Myrmica pinetorum	7	Temnothorax schaumii	18
Myrmica punctiventris	7	Temnothorax texanus	19
Myrmica sabuleti americana	5	Tetramorium caespitum	20
Myrmica scabrinodis brevinodis brevinodis	5, 6	Tetramorium sp. E	20
Myrmica scabrinodis brevinodis sulcinodoides	7	Trachymyrmex septentrionalis	22
Myrmica scabrinodis lobicornis fracticornis	7		