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HYMENOPTERA OF  
AMERICA NORTH OF MEXICO  
SYNOPTIC CATALOG  
(Agriculture Monograph No. 2)

FIRST SUPPLEMENT

Prepared by the staff and collaborators of the Hymenoptera Unit,  
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## Family FORMICIDAE

**Morphology:** Wilson, 1953. *Quart. Rev. Biol.* 28: 136-156, 10 figs. (polymorphism).

**Taxonomy:** W. M. Wheeler, 1920. *Psyche* 27: 46-55, fig. 3 (subfamilies).  
—W. L. Brown and Nutting, 1950. *Amer. Ent. Soc. Trans.* 75: 113-132, 2 pls. (wing venation).—W. L. Brown, 1954. *Insectes Sociaux* 1: 21-31, 1 fig.

**Economics:** O'Rourke, 1956. *Insectes Sociaux* 3: 107-118.

### Subfamily DORYLINAЕ

**Biology:** Schneirla, 1943. *N. Y. Ent. Soc. Jour.* 51: 236.—Schneirla, 1944. *Op. cit.* 52: 153-192, 2 figs.—Schneirla, 1944. *Amer. Phil. Soc. Proc.* 87: 438-457, 3 figs.—Schneirla, 1945. *Biol. Bul.* 88: 166-193.—Schneirla, 1947. *Amer. Mus. Novitates* 1336: 1-20, 2 figs.—Schneirla, 1948. *Zoologica (New York)* 33: 89-112, 4 figs.—Schneirla, 1948. *Sci. American* 178: 16-23.—Schneirla, 1949. *Amer. Mus. Nat. Hist. Bul.* 94: 1-82, 6 figs., 2 pls.—Schneirla, (1949) 1950. (Mex.) *Inst. de Biol. An.* 20: 371-384, 2 figs.—Schneirla and R. Z. Brown, 1950. *Amer. Mus. Nat. Hist. Bul.* 95: 269-353, 8 figs., 1 pl.—Schneirla and R. Z. Brown, 1952. *Zoologica (New York)* 37: 5-32.—Schneirla, R. Z. Brown, and F. C. Brown, 1954. *Ecol. Monog.* 24: 269-296. (New World.) Schneirla, 1956. *Insectes Sociaux* 3: 49-69, illus.

**Revisions:** Borgmeier, 1953. *Studia Entomologica* 2: 1-51, 35 figs.—Borgmeier, 1955. *Op. cit.* 3: 1-716, 87 pls. (New World).

### Genus NOMAMYRMEX Borgmeier

(= *Eciton* Subg. *Nomamyrmex* Borgmeier of Catalog, p. 779)

Raised to generic rank by Borgmeier, 1953 (*Studia Entomologica* 2: 4). Change type designation to *Eciton crassicornis* F. Smith = *Labidus esenbeckii* Westwood.

*crassicornis* (F. Smith). Delete.

\**crassicornis mordax* (Santschi). Syn. of *esenbeckii wilsoni* (Santschi).

*esenbeckii* (Westwood). Delete.

*esenbeckii wilsoni* (Santschi). Tex.; Mexico, Costa Rica. Typical *esenbeckii* (Westwood) is South American.

*Eciton (Nomamyrmex) esenbeckii* Westwood of Catalog, in part. *E. esenbeckii wilsoni* is a subsp. of *esenbeckii* not a syn. (*teste* Borgmeier, 1953. *Studia Entomologica* 2: 13).

*Eciton (Holopone) crassicornis mordax* Santschi, 1928. *Deut. Ent. Ztschr.*, p. 415. (Syn. by Borgmeier, 1955. *Entomologica* 3: 139.)

### Genus LABIDUS Jurine

(= *Eciton* subg. *Labidus* Jurine of Catalog, p. 779)

Change type designation to "by monotypy."

*coecus* (Latreille). Change *um* to *us* in sp. heading.

**Taxonomy:** G. C. Wheeler, 1943. *Ent. Soc. Amer. Ann.* 36: 332, figs. 24-28 (larva).

### Genus NEIVAMYRMEX Borgmeier

(= *Eciton* subg. *Neivamyrmex* Borgmeier of Catalog, p. 780)

Raised to generic rank by Borgmeier, 1950 (*Rev. de Ent.* 21: 624.)

\**Woitkowskia* Enzmann, 1952. *Iowa Acad. Sci. Proc.* 59: 443.

Type: *Woitkowskia connectens* Enzmann = *Labidus walkeriei* (Westwood). Orig. desig. (Syn. by Borgmeier, 1955. *Studia Entomologica* 3: 277.)

- \*andrei** (Emery). Ariz., N. Mex.; Mexico.  
*Eciton andrei* Emery, 1901. Soc. Ent. Ital. Bol. 33: 53. ♂.  
*Eciton (Neivamyrmex) oslari* W. M. Wheeler (syn. by Borgmeier, 1953. Studia Entomologica 2: 19).
- arizonense** (W. M. Wheeler). Syn. of *swainsonii* (Shuckard).
- astecus** (Forel). Syn. of *pilosus mexicanum* (F. Smith).
- californicus** (Mayr). Change **um** to **us** in sp. heading.  
*Eciton (Neivamyrmex) californicum* var. *obscura* Forel (syn. by Borgmeier, 1955. Studia Entomologica 3: 517). Preocc.  
 Biology: Mallis, 1938. Sci. Monthly 47: 220-226.
- carolinensis** (Emery). ? Ariz., N. Mex. Change **se** to **sis** in sp. heading.
- commutatum** of authors not Emery. Replaced by *fallax* Borgmeier.
- \*fallax** Borgmeier. Ariz., Kans., La., Tex.; Mexico.  
*Neivamyrmex fallax* Borgmeier, 1953. Studia Entomologica 2: 48, figs. 31, 33. ♀.  
*Eciton (Neivamyrmex) commutatum* of authors, not Emery of Catalog.
- fuscipennis** (W. M. Wheeler). Change **ne** to **nis** in sp. heading.
- leonardi** (W. M. Wheeler). Calif.; Lower Calif.  
*\*Eciton (Acamatus) peninsulare* Mann, 1926. Psyche 33: 98. ♀. (Syn. by Borgmeier, 1953. Studia Entomologica 2: 10).
- melanocephalus** (Emery). Guatemala. Change **um** to **us** in sp. heading.
- \*microps** Borgmeier. Ariz. (Phoenix).  
*Neivamyrmex microps* Borgmeier, 1955. Studia Entomologica 3: 298, 635, pl. 56, figs. 6, 10; pl. 80, fig. 4. ♂.
- minor** (Cresson). N. Mex., Calif.; Lower Calif. Change **us** to **or** in sp. heading.
- nigrescens** (Cresson). Mexico.  
 Biology: Cole, 1953. Tenn. Acad. Sci. Jour. 28: 84.  
 Taxonomy: G. C. Wheeler, 1943. Ent. Soc. Amer. Ann. 36: 331, figs. 29-33 (larva).
- opacithorax** (Emery). Ariz., Calif.; Mexico, Costa Rica.  
*Eciton (Neivamyrmex) opacithorax castaneum* Borgmeier, 1948. Rev. de Ent. 19: 191-194, figs. 1-9. ♀. (Syn. by Borgmeier, 1955. Studia Entomologica 3: 502.)  
 Biology: Cole, 1953. Tenn. Acad. Sci. Jour. 28: 84.
- oslari** (W. M. Wheeler). Syn. of *andrei* (Emery).
- pauillus** (W. M. Wheeler). Tex.; Mexico. Change **um** to **us** in sp. heading.
- peninsulare** (Mann). Syn. of *leonardi* (W. M. Wheeler).
- pilosus mandibularis** (M. R. Smith). Ariz. (Kits Peak in Baboquivari Mts., 4050 ft. and San Bernardino Ranch in Cochise County, 3750 ft.)  
 Change **um** to **us** in sp. heading and **re** to **ris** in ssp. heading.
- pilosus mexicanus** (F. Smith), changed status. Miss. to Ark., Okla., Tex. south to Centr. Amer. A syn. of *pilosus* in Catalog.  
*Eciton clavicornis* Norton.  
*Eciton subsulcatum* Mayr.  
*\*Eciton (Acamatus) astecum* Forel, 1901. Mitt. Nat. Mus. Hamburg 18: 49. ♀. (Syn. by Borgmeier, 1936. Inst. Biol. Veg. Arq. 3: 60).
- pilosus pilosus** F. Smith. Delete from Catalog; exotic subspecies.  
*Labidus Mexicanus* F. Smith. A subsp. of *pilosus* F. Smith (*teste* Borgmeier, 1953. Studia Entomologica 2: 17).
- \*swainsonii** (Shuckard). Ariz., Calif., N. Mex., Tex. to Argentina.  
*Labidus swainsonii* Shuckard, 1840. Ann. Nat. Hist. 5: 201. ♂.  
*Eciton (Neivamyrmex) arizonense* W. M. Wheeler (syn. by Borgmeier, 1955. Studia Entomologica 3: 454.)

Unrecognized Forms of *Eciton* subgenus *Neivamyrmex* Borgmeier, p. 781

Delete from Catalog and replace with Unrecognized Forms of Dorylinae. Place *Eciton californicum* var. *obscura* (Forel) as syn. of *californicum* (Mayr), p. 780, leaving *Myrmica* (*Monomarium* (!)) *coeca* Buckley under above new heading.

## Subfamily CERAPACHYINAE

**Taxonomy:** W. M. Wheeler, 1920. *Psyche* 27: 50-51.—Donisthorpe, 1921. *London Ent. Soc. Proc.*, pp. 45-47.—W. M. Wheeler, 1922. *Amer. Mus. Nat. Hist. Bul.* 45: 51.—Morley, 1939. *Soc. Ent. de France Bul.* 44: 114-118, figs. 1, 5.—Reid, 1941. *Roy. Ent. Soc. London, Trans.* 91: 421-422.—Creighton, 1950. *Harvard Univ., Mus. Compar. Zool. Bul.* 104: 58.—G. C. Wheeler, 1950. *Psyche* 57: 102-113, 2 figs., 1 pl. (larvae).—Kuznezov, 1952. *Dusenya* 3: 115.—W. L. Brown, 1954. *Insectes Sociaux* 1: 26.

**CERAPACHYS** subgenus **PARASYSCIA** Emery, p. 782

*augustae* W. M. Wheeler.

**Taxonomy:** G. C. Wheeler, 1950. *Psyche* 57: 106-107, fig. 1 (larva).

**ACANTHOSTICHUS** subgenus **CTENOPYGA** Ashmead, p. 782

Change type designation to read *Ctenopyga townsendi* Ashmead) = *Acanthostichus texanus* Forel. Monob.

*texanus* Forel. Mexico.

\**Ctenopyga townsendi* Ashmead, 1906. *Ent. Soc. Wash. Proc.* 8: 29-30, fig. 4. ♀ ♂. (Syn. by M. R. Smith, 1955. *Brooklyn Ent. Soc. Bul.* 50: 49.)

*townsendi* (Ashmead). Syn. of *texanus* Forel.

## Subfamily PONERINAE

**Biology:** W. M. Wheeler, 1926. *Ants, Their Structure, Development and Behavior*, pp. 225-245, illus.

**Taxonomy (larvae):** G. C. and J. Wheeler, 1952. *Amer. Midland Nat.* 48: 111-144, 2 figs., 5 pls.—Op. cit., 48: 604-672, 2 figs., 6 pls.

**Genus STIGMATOMMA** Roger, p. 782

**Taxonomy:** W. L. Brown, 1949. *Psyche* 56: 81-88; fig. 1.

*pallipes pallipes* (Haldeman). Ariz., N. Mex., Tex.

**Biology:** Cole, 1953. *Tenn. Acad. Sci. Jour.* 28: 84.

**Taxonomy:** G. C. and J. Wheeler, 1952. *Amer. Midland Nat.* 48: 114; text fig. 1, pl. 1, figs. 8-11 (larva).

*pallipes subterranea* Creighton. Tex.

\**trigonignatha* (W. L. Brown). N. C. (Concord).

*Amblyopone* (*Stigmatomma*) *trigonignatha* W. L. Brown, 1949. *Psyche* 56: 81-84, fig. 1. ♂.

**Genus PLATYTHYREA** Roger, p. 783

*punctata* (F. Smith)

**Taxonomy:** G. C. and J. Wheeler, 1952. *Amer. Midland Nat.* 48: 119 (larva).

**ECTATOMMA** subgenus **ECTATOMMA** F. Smith, p. 783

*tuberculatum* (Olivier)

**Taxonomy:** G. C. and J. Wheeler, 1952. *Amer. Midland Nat.* 48: 129-133, pl. 4, figs. 15-26 (larva).

**ECTATOMMA** subgenus **PARECTATOMMA** Emery, p. 783

**Taxonomy:** G. C. and J. Wheeler, 1952. *Amer. Midland Nat.* 48: 133-134, pl. 5, figs. 13-16 (larvae).

**Genus PROCERATIUM Roger, p. 784**

- californicum** Cook. Calif. (Glenwood, Santa Cruz Mts.).  
*Proceratium* (!) **californicum** Cook, 1953. The Ants of California. Palo Alto, pps. 45-46, figs. ♂.
- crassicorne** Emery. Syn. of **silaceum** Roger.
- crassicorne** var. **vestitum** Emery. Syn. of **silaceum** Roger.
- croceum** (Roger)  
 Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 135, pl. 5, figs. 20-27 (larva).
- silaceum** Roger, changed status. Mass.  
*Proceratium silaceum silaceum* Roger. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 40).  
*Proceratium crassicorne* Emery (syn. by Creighton, *loc. cit. supra*).  
*Proceratium crassicorne* var. **vestitum** Emery (syn. by Creighton, *loc. cit. supra*).  
*Proceratium silaceum rugulosum* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).  
 Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 137, pl. 5, figs. 17-19 (larva).
- silaceum rugulosum** W. M. Wheeler. Syn. of **silaceum** Roger.
- silaceum silaceum** Roger. Raised to sp. rank.

**Genus DISCOTHYREA Roger, pp. 784-785**

- Taxonomy: Borgmeier, 1949. Rev. Brasil de Biol. 9: 205.
- testacea** Roger. Fla., Ga., N. C.  
 Taxonomy: M. R. Smith and Wing, 1954. N. Y. Ent. Soc. Jour. 62: 110-112, figs. 1, 2. ♀ ♀.

**NEOPONERA subgenus NEOPONERA Emery, p. 785**

- villosa** (Fabricius).  
 Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 615, pl. 3, figs. 11, 12, 14, 18 (larva).

**PACHYCONDYLA subgenus PACHYCONDYLA F. Smith, p. 785**

- harpax** (Fabricius), changed status. So. Amer. Delete sentence "*Harpax harpax* (Fabricius), 1804, occurs in the Neotropical Region."  
*Pachycondyla (Pachycondyla) harpax montezumia* F. Smith. A syn. of **harpax** (*teste* W. L. Brown, 1950. Wasmann Jour. Biology 8: 247).  
 Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 617-618 (larva).
- harpax montezumia** F. Smith. Syn. of **harpax** (Fabricius).

**EUPONERA subgenus BRACHYPONERA Emery, pp. 785-786**

- solitaria** (F. Smith).  
 Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 49: 629 (larva).

**EUPONERA subgenus TRACHYMESOPUS Emery, p. 786**

- gilva** (Roger).  
 Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 625-627, pl. 4, figs. 8-16 (larva).
- stigma** (Fabricius).  
 Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 627 (larva).

**Genus PONERA Latreille, pp. 786-787**

- coarctata pennsylvanica** Buckley. Colo., N. Dak.  
 Biology: Headley, 1952. Ent. Soc. Amer. Ann. 45: 436-438.  
 Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 631, pl. 5, figs. 18-21, 28-32 (larva).

**ergatandria** Forel. Ariz., Colo., N. Mex.

**opaciceps** Mayr. Argentina.

Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 634 (larva).

**trigona opacior** Forel, changed status.

*Ponera trigona* var. *opacior* Forel. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 48; pl. 8, figs. 1-4).

**LEPTOGENYS subgenus LOBOPELTA Mayr, p. 787**

**elongata** (Buckley).

Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 641, pl. 6, figs. 8-10 (larva).

**Genus ODONTOMACHUS Latreille, pp. 787-788**

Biology: W. M. Wheeler, 1922. Amer. Mus. Nat. Hist. Bul. 45: 99-103.

Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 646, pl. 6, figs. 22-29 (larvae).

**haematoda clarus** Roger.

Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 648-650 (larva).

**haematoda insularis** Guérin. Ala.

**\*Subfamily PSEUDOMYRMECINAE**

(= Subfamily *Leptaleinae* of Catalog)

**\*Genus PSEUDOMYRMEX Lund**

(= *Leptalea* Erichson, p. 788)

*Pseudomyrmex* Lund, (Latreille, ms.), 1831 (Nov.). Notizen aus dem Gebiete der Natur and Heilkunde 32 (7): 106.

Type: *Formica gracilis* Fabricius. Desig. by M. R. Smith, 1952. Change a to us in sp. headings.

Taxonomy: Creighton, 1955. N. Y. Ent. Soc. Jour. 63: 19-20 (workers).  
—G. C. and J. Wheeler, 1956. Ent. Soc. Amer. Ann. 49: 379 (larvae).

**\*apache** Creighton. Ariz., Calif., Tex.; Mexico.

*Pseudomyrmex apache* Creighton, 1953 (1952). Psyche 59: 134-139, pl. 12, figs. 1-7. ♂ ♀ ♂.

Biology: Creighton, 1954. Psyche 61: 9-15, fig. 1.

Taxonomy: G. C. and J. Wheeler, 1956. Ent. Soc. Amer. Ann. 49: 380 (larva).

**elongatus** (Mayr). Tex.; Mexico.

Taxonomy: G. C. and J. Wheeler, 1956. Ent. Soc. Amer. Ann. 49: 384 (larva).

**flavidulus** (F. Smith)

Taxonomy: Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 80-82.

**pallidus** (F. Smith)

Taxonomy: Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 80-82.—G. C. and J. Wheeler, 1956. Ent. Soc. Amer. Ann. 49: 386 (larva).

**Unrecognized Forms of Genus *Leptalea* Erichson, p. 788**

Delete this heading from Catalog and also the first line under it and replace with a new heading, Unrecognized Forms of Subfamily Pseudomyrmecinae.

## Subfamily MYRMICINAE

**MYRMICA subgenus MYRMICA Latreille, pp. 789-791**

Taxonomy: Weber, 1950. Ent. Soc. Amer. Ann. 43: 189-226, fig. 1.—  
G. C. and J. Wheeler, 1952. Psyche 59: 112-123, figs. 1-15.  
(larvae).—Yarrow, 1955. Roy. Ent. Soc. London, Proc., Ser. B,  
24: 113-115 (genotype).

- brevinodis brevinodis** Emery. Rocky Mt. Region south to N. Mex.  
Taxonomy: G. C. and J. Wheeler, 1952. Psyche 59: 116 (larva).
- brevinodis brevispinosa** W. M. Wheeler. Mont., Utah, S. Dak., Wyo.  
Taxonomy: G. C. and J. Wheeler, 1952. Psyche 59: 117 (larva).
- brevinodis discontinua** Weber. N. Mex., Utah.
- brevinodis kuschei** W. M. Wheeler. Quebec (James Bay).
- brevinodis sulcinodoides** Emery. N. Mex.
- laevinodis** Nylander. Maine, (introduced).  
Taxonomy: G. C. and J. Wheeler, 1952. Psyche 58: 119 (larva).
- lobicornis fracticornis** Emery.  
Taxonomy: G. C. and J. Wheeler, 1952. Psyche 59: 117 (larva).—Cole,  
1953. Tenn. Acad. Sci. Jour. 28: 242-243.
- punctiventris pinetorum** W. M. Wheeler. Mass.
- sabuleti americana** Weber.  
Taxonomy: G. C. and J. Wheeler, 1952. Psyche 59: 116 (larva).
- sabuleti hamulata** Weber. Mts. of Colo., Utah and N. Mex.
- scabrinodis mexicana** W. M. Wheeler. ? Utah.
- schencki emeryana** Forel.  
Taxonomy: G. C. and J. Wheeler, 1952. Psyche 59: 114, 117, figs. 1-3,  
4-5, 6-15 (larva).—M. R. Smith, 1954. Brooklyn Ent. Soc. Bul.  
49: 138-140. ♀ ♀.
- schencki tahoënsis** W. M. Wheeler. Mont., Wyo., Utah and Ariz. to B. C.  
and Calif.
- \***striolagaster** Cole. Ariz., N. Mex., Tex.  
*Myrmica striolagaster* Cole, 1953. Tenn. Acad. Sci. Jour. 28: 81. ♀.

Unrecognized Forms of *Myrmica* subgenus *Myrmica* Latreille, p. 791

Delete this heading from Catalog, and also the first line under it.  
Transfer *Myrmica dimidiata* Say to p. 833 under Unrecognized Forms of  
*Myrmicinae*.

**Genus MANICA Jurine****(= *Myrmica* subg. *Manica* Jurine of Catalog, p. 791)**

- Taxonomy: G. C. and J. Wheeler, 1952. Psyche 59: 123 (larvae).  
Raised to generic rank (*teste* Weber, 1947. Ent. Soc. Amer. Ann. 40:  
439).
- aldrichi** (W. M. Wheeler). Syn. of **hunteri** (W. M. Wheeler)
- hunteri** (W. M. Wheeler).  
*Myrmica (Manica) aldrichi* W. M. Wheeler (syn. by Cole, 1956. Tenn.  
Acad. Sci. Jour. 31: 262).
- mutica** (Emery).  
Biology: Cole, 1953. Tenn. Acad. Sci. Jour. 28: 243.

**POGONOMYRMEX subgenus POGONOMYRMEX Mayr, pp. 791-794**

Taxonomy: G. C. and J. Wheeler 1952. Psyche 59: 106-111, pl. 11, figs.  
1-22 (larvae).—Cole, 1954. Tenn. Acad. Sci. Jour. 29: 117-119.

- \***anergismus** Cole. N. Mex. (15 miles east of Silver City). Host: *Pogonomyrmex barbatus rugosus* Emery.  
*Pogonomyrmex (Pogonomyrmex) anergismus* Cole, 1954. Tenn. Acad. Sci. Jour. 29: 115-116. Alate ♀ ♂.
- apache** W. M. Wheeler.  
*Pogonomyrmex (Pogonomyrmex) sancti-hyacinthi* W. M. Wheeler (syn. by Cole, 1954. Tenn. Acad. Sci. Jour. 29: 266-267, (first description of ♀ ♂).
- badius** (Latreille).  
 Biology: Van Pelt, 1953. Tenn. Acad. Sci. Jour. 28: 164-168.
- barbatus barbatus** (F. Smith).  
*Pogonomyrmex (Pogonomyrmex) barbatus* var. *molefaciens* (Buckley) syn. by McCook, 1879. The Natural History of the Agricultural Ant of Texas, p. 208.  
 Taxonomy: Creighton, 1950, Harvard Univ., Mus. Compar. Zool. Bul. 104: 116-119.—G. C. and J. Wheeler, 1952. Psyche 59: 107, pl. 11, figs. 14-22 (larva).  
 Economics: Cassidy, Romney, et al. 1950. U. S. Dept. Agr. Cir. 842, p. 15.
- barbatus curvispinosus** Cole. Syn. of *barbatus fuscatus* Emery.
- barbatus fuscatus** Emery.  
*Pogonomyrmex (Pogonomyrmex) barbatus curvispinosus* Cole (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 119).  
*Pogonomyrmex (Pogonomyrmex) barbatus* var. *marfensis* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).  
*Pogonomyrmex (Pogonomyrmex) barbatus* var. *nigrescens* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).
- barbatus rugosus** Emery.  
*Pogonomyrmex (Pogonomyrmex) similis* Olsen (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 120).
- \***barbatus spadix** Cook. N. Mex. (25 miles east of Deming).  
*Pogonomyrmex barbatus spadix* Cook, 1953. The Ants of California, pp. 98-99, 3 figs., ♀, no description. Palo Alto.
- barbatus** var. *marfensis* W. M. Wheeler. Syn. of *barbatus fuscatus* Emery.
- barbatus** var. *molefaciens* (Buckley). Syn. of *barbatus barbatus* (F. Smith).
- barbatus** var. *nigrescens* W. M. Wheeler. Syn. of *barbatus fuscatus* Emery.
- californicus barnesi** M. R. Smith. A subsp. of *maricopa* W. M. Wheeler.
- californicus estebanius** Pergande, changed status.  
*Pogonomyrmex (Pogonomyrmex) californicus* var. *estebanius* Pergande. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 127).
- californicus longinodis** Emery. Raised to sp. rank.
- californicus maricopa** W. M. Wheeler. A subsp. of *maricopa* W. M. Wheeler.
- \***californicus nitratus** Cook. Ariz. (Douglas).  
*Pogonomyrmex californicus nitratus* Cook, 1953. The Ants of California, pp. 99-100, 3 figs. ♀. Palo Alto.
- \***californicus sinaloanus** Olsen. Syn. of *maricopa maricopa* W. M. Wheeler.
- californicus** var. *estebanius* Pergande. A subsp. of *californicus* (Buckley).
- californicus** var. *hindleyi* Forel. Raised to sp. rank.
- comanche** W. M. Wheeler. A subsp. of *occidentalis* (Cresson).
- desertorum** *desertorum* W. M. Wheeler, changed status.  
*Pogonomyrmex (Pogonomyrmex) desertorum* W. M. Wheeler. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 124).



*desertorum ferrugineus* Olsen, changed status.

*Pogonomyrmex (Pogonomyrmex) desertorum* var. *ferrugineus* Olsen. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 124).

*desertorum tenuispina* Forel, changed status.

*Pogonomyrmex (Pogonomyrmex) desertorum* var. *tenuispina* Forel. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 124).

*desertorum* var. *ferrugineus* Olsen. A subsp. of *desertorum* W. M. Wheeler.

*desertorum* var. *tenuispina* Forel. A subsp. of *desertorum* W. M. Wheeler.

*hindleyi* Forel, changed status.

*Pogonomyrmex (Pogonomyrmex) californicus* var. *hindleyi* Forel. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 125).

*huachucanus* W. M. Wheeler. N. Mex.

Biology: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 119.

Taxonomy: Creighton, 1952. Psyche 59: 76-81, pl. 8, 6 figs. ♀ ♀ ♂.

*longinodis* Emery, changed status.

*Pogonomyrmex (Pogonomyrmex) californicus longinodis* Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 126).

*maricopa barnesi* M. R. Smith, changed status.

*Pogonomyrmex (Pogonomyrmex) californicus barnesi* M. R. Smith. A subsp. of *maricopa*, not of *californicus* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 127).

*maricopa maricopa* W. M. Wheeler, changed status.

*Pogonomyrmex (Pogonomyrmex) californicus maricopa* W. M. Wheeler. A subsp. of *maricopa*, not of *californicus* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 126).

\**Pogonomyrmex californicus sinaloanus* Olsen, 1934. Harvard Univ., Mus. Compar. Zool. Bul. 77: 504, ♀ (syn. by Cole 1954. Tenn. Acad. Sci. Jour. 29: 120).

*occidentalis comanche* W. M. Wheeler, changed status.

*Pogonomyrmex (Pogonomyrmex) comanche* W. M. Wheeler. A subsp. of *occidentalis* (Cresson) (*teste* Creighton 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 128).

*Pogonomyrmex (Pogonomyrmex) occidentalis* var. *utahensis* Olsen (syn. by Creighton, *loc. cit. supra*).

*occidentalis occidentalis* (Cresson).

*Pogonomyrmex (Pogonomyrmex) salinus* Olsen (syn. by M. R. Smith, 1953. Brooklyn Ent. Soc. Bul. 48: 131).

Taxonomy: G. C. and J. Wheeler, 1952. Psyche 59: 110, pl. 11, figs. 1-13 (larva).

*occidentalis owyheeii* Cole. Raised to sp. rank.

*occidentalis* var. *utahensis* Olsen. Syn. of *occidentalis comanche* W. M. Wheeler.

*owyheeii* Cole, changed status.

*Pogonomyrmex (Pogonomyrmex) occidentalis owyheeii* Cole. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 130).

*salinus* Olsen. Syn. of *occidentalis occidentalis* (Cresson).

*sancti-hyacinthi* W. M. Wheeler. Syn. of *apache* W. M. Wheeler.

*similis* Olsen. Syn. of *barbatus rugosus* Emery.

**POGONOMYRMEX subgenus EPHEBOMYRMEX W. M. Wheeler, p. 794**

Biology: Creighton, 1956. Psyche 63: 61-63.

Taxonomy: G. C. and J. Wheeler, 1952. Psyche 59: 111-112 (larvae).

**imberbiculus** W. M. Wheeler. Ariz., Calif.; Mexico.

*Pogonomyrmex (Epebomyrmex) townsendi* W. M. Wheeler. (Syn. by Creighton, 1956. Psyche 63: 54.)

Taxonomy: G. C. and J. Wheeler, 1952. Psyche 59: 111 (larva.)—Creighton, 1956. Psyche 63: 63, fig. 1. ♀.

**pima** W. M. Wheeler. Mexico.

**Genus STENAMMA Westwood, pp. 794-795**

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 50-52, pl. 1, figs. 1-13 (larvae). M. R. Smith, 1957. Amer. Midland Nat. 57: 133-174, 4 pls., (rev.).

**brevicorne** (Mayr), changed status. N. S., Que., Ont. to Va. and west to Minn., Nebr.

*Stenamma brevicorne brevicorne* (Mayr). Raised to sp. rank (*teste* M. R. Smith, 1957. Amer. Midland Nat. 57: 163).

*Stenamma nearcticum* Mayr. (syn. by M. R. Smith, *loc. cit. supra*). ♀. (♀ ♂ misdet.).

**brevicorne brevicorne** (Mayr). Raised to sp. rank.

**brevicorne diecki** Emery. Raised to sp. rank.

**brevicorne heathi** W. M. Wheeler. Raised to sp. rank.

**brevicorne impar** Forel. Raised to sp. rank.

**brevicorne impressum** Emery. Syn. of *diecki* Emery.

**brevicorne schmittii** W. M. Wheeler. Raised to sp. rank.

**brevicorne sequoiarum** W. M. Wheeler. Raised to sp. rank.

\***carolinense** M. R. Smith. N. C. (Hoffman).

*Stenamma carolinense* M. R. Smith, 1951. Ent. Soc. Wash. Proc. 53: 156-158, figs. 1, 2. ♀.

**diecki** Emery, changed status. Canada and most of U. S. except extreme Central States and a few of the Southern States.

*Stenamma brevicorne diecki* Emery. Raised to sp. rank (*teste* M. R. Smith, 1957. Amer. Midland Nat. 57: 158).

*Stenamma brevicorne impressum* Emery (syn. by M. R. Smith, *loc. cit. supra*).

Biology: Cole, 1950. Tenn. Acad. Sci. Jour. 25: 297.

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 50, pl. 1, figs. 1-13 (larva).

**heathi** W. M. Wheeler, changed status. Calif., Nev.

*Stenamma brevicorne heathi* W. M. Wheeler. Raised to sp. rank (*teste* M. R. Smith, 1957. Amer. Midland Nat. 57: 154).

\***huachuacanum** M. R. Smith. Ariz.

*Stenamma huachuacanum* M. R. Smith, 1957. Amer. Midland Nat. 57: 153. ♀.

**impar** Forel, changed status. Mass. to Ga. west to N. Dak. and Mo.

*Stenamma brevicorne impar* Forel. Raised to sp. rank (*teste* M. R. Smith, 1957. Amer. Midland Nat. 57: 150).

\***meridionale** M. R. Smith. Va., Mo., Ill., south to S. C. and Ark.

*Stenamma meridionale* M. R. Smith, 1957. Amer. Midland Nat. 57: 169. ♀, ♀.

**nearcticum** Mayr. Syn. of *brevicorne* (Mayr).

\***occidentale** M. R. Smith. B. C. to Baja Calif., east to Idaho, Colo., N. Mex.

*Stenamma occidentale* M. R. Smith, 1957. Amer. Midland Nat. 57: 146. ♀, ♀, ♂.

**schmittii** W. M. Wheeler, changed status. Maine to N. C. west to Minn. and Mo.

*Stenamma brevicorne schmittii* W. M. Wheeler. Raised to sp. rank (*teste* M. R. Smith, 1957. Amer. Midland Nat. 57: 142).

*sequoiarum* W. M. Wheeler, changed status.

*Stenamma brevicorne sequoiarum* W. M. Wheeler. Raised to sp. rank (*teste* M. R. Smith, 1957. Amer. Midland Nat. 57: 156).

**APHAENOGASTER subgenus ATTOMYRMA Emery, pp. 795-798**

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 54-62, pl. 2, figs. 1-20 (larvae).

*ashmeadi* Emery, changed status. Ala.

*Aphaenogaster (Attomyrma) treatae ashmeadi* Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus., Compar. Zool. Bul. 104: 142).

*Aphaenogaster (Attomyrma) treatae harnedi* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

*boulderensis boulderensis* M. R. Smith. Tex.

*flemingi* M. R. Smith, changed status.

*Aphaenogaster (Attomyrma) texana flemingi* M. R. Smith. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 143).

*floridana* M. R. Smith. Ala.

*fulva* Roger, changed status.

*Aphaenogaster (Attomyrma) fulva fulva* Roger. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 143).

*fulva aquia* (Buckley). Transf. to Unrecognized Forms of Myrmicinae, p. 833, as *Myrmica (Monomarium (!)) aquia* Buckley.

*fulva aquia* var. *picea* (Emery). A subsp. of *rudis* (Emery).

*fulva fulva* Roger. Raised to sp. rank. Colo., Fla.

*fulva rudis* Emery. A subsp. of *rudis* Emery.

\**huachucana crinimera* Cole. N. Mex. (Bandelier Natl. Mon.).

*Aphaenogaster (Allomyrma (!)) huachucana crinimera* Cole, 1953. Tenn. Acad. Sci. Jour. 28: 82, fig. 1, a-d. ♀ ♀ ♂.

*huachucana huachucana* Creighton, changed status.

*Aphaenogaster (Attomyrma) huachucana* Creighton. Reduced to subsp. rank (*teste* Cole, 1953. Tenn. Acad. Sci. Jour. 28: 82).

Biology and Taxonomy: Creighton, 1951. Psyche 58: 89-99, pl. 7, figs. 1-6. ♀ ♀ ♂.

*lamellidens* Mayr.

*Aphaenogaster (Attomyrma) lamellidens* var. *nigripes* M. R. Smith. (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 144).

*macrospina* M. R. Smith, changed status.

*Aphaenogaster (Attomyrma) texana macrospina* M. R. Smith. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 145).

*miamiana* W. M. Wheeler, changed status.

*Aphaenogaster (Attomyrma) texana* var. *miamiana* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 145).

*patruelis bakeri* (W. M. Wheeler). Delete statement concerning *A. patruelis patruelis*.

\**patruelis patruelis* Forel. Guadeloupe Is., Lower Calif.; Coastal Islands of Calif.

*Aphaenogaster patruelis* Forel, 1886. Soc. Ent. de Belg. Ann. 30:41.

*Aphaenogaster (Attomyrma) patruelis willowsi* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 146).

- patruelis willowsi* W. M. Wheeler. Syn. of *patruelis patruelis* Forel.
- rudis rudis* Emery, changed status. Ala., Fla., Colo.  
*Aphaenogaster (Attomyrma) fulva rudis* Emery. A subsp. of *rudis*, not of *fulva* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 147-148).  
 Biology: Talbot, 1951. Ent. Soc. Amer. Ann. 44: 302-307.  
 Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 56, pl. 2, figs. 1-20 (larva).
- rudis picea* Emery, changed status.  
*Aphaenogaster (Attomyrma) fulva aquia* var. *picea* (Emery). A subsp. of *rudis* not a var. of *fulva aquia* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 148).  
 Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 57-60 (larva).
- subterranea borealis* W. M. Wheeler. Syn. of *subterranea occidentalis* (Emery).
- subterranea occidentalis* (Emery).  
*Aphaenogaster (Attomyrma) subterranea borealis* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 150).  
*Aphaenogaster (Attomyrma) subterranea valida* var. *manni* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).  
 Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 61 (larva).
- subterranea valida* W. M. Wheeler. Rocky Mt. Region from Colo. to B. C. and west to mts. of Utah.
- subterranea valida* var. *manni* W. M. Wheeler. Syn. of *subterranea occidentalis* Emery.
- tennesseensis* (Mayr). Ala., Fla., S. Dak.  
*Aphaenogaster (Attomyrma) tennesseensis* var. *ecalcarata* (Emery) (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 151).  
 Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 61-62 (larva).
- texana carolinensis* W. M. Wheeler, changed status.  
*Aphaenogaster (Attomyrma) texana* var. *carolinensis* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 153).
- texana flemingi* M. R. Smith. Raised to sp. rank.
- texana macropsina* M. R. Smith. Raised to sp. rank.
- texana texana* (Emery). Tenn.  
*Aphaenogaster (Attomyrma) texana* var. *furvescens* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 152).  
*Aphaenogaster (Attomyrma) texana* var. *silvestrii* Menozzi (syn. by Creighton, *loc. cit. supra*).  
 Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 62 (larva).
- texana* var. *carolinensis* W. M. Wheeler. A subsp. of *texana* (Emery).
- texana* var. *furvescens* W. M. Wheeler. Syn. of *texana texana* (Emery).
- texana* var. *miamiana* W. M. Wheeler. Raised to sp. rank.
- texana* var. *silvestrii* Menozzi. Syn. of *texana texana* (Emery).
- treatae ashmeadi* Emery. Raised to sp. rank.
- treatae harnedi* W. M. Wheeler. Syn. of *ashmeadi* Emery.

- treatae pluteicornis** G. C. and E. W. Wheeler.  
*Aphaenogaster (Attomyrma) treatae pluteicornis* var. *oklahomensis* G. C. and E. W. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 154).  
 Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 62 (larva).
- treatae pluteicornis** var. *alabamensis* G. C. and E. W. Wheeler. Syn. of *treatae treatae* Forel.
- treatae pluteicornis** var. *oklahomensis* G. C. and E. W. Wheeler. Syn. of *treatae pluteicornis* G. C. and E. W. Wheeler.
- treatae treatae** Forel. Fla.  
*Aphaenogaster (Attomyrma) treatae pluteicornis* var. *alabamensis* G. C. and E. W. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 153).  
*Aphaenogaster (Attomyrma) treatae wheeleri* Mann (syn. by Creighton, *loc. cit. supra*).  
 Biology: Talbot, 1954. Mich. Univ., Contrib. Lab. Vertebr. Biol. 69: 1-9.
- treatae wheeleri** Mann. Syn. of *treatae treatae* Forel.
- uinta** W. M. Wheeler. Nev.

Unrecognized Forms of *Aphaenogaster* subgenus *Attomyrma* Emery, p. 798

Delete this heading from Catalog, and also the first line under it. Transfer *Myrmica opposita* Say to Unrecognized Forms of Myrmicinae, p. 833.

Genus **NOVOMESSOR** Emery, pp. 798-799

- Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 79, pl. 1, figs. 26-31 (larvae).
- albisetosus** (Mayr). Mexico.  
 Biology: Creighton, 1955. Psyche 62: 89-97.  
 Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 70, pl. 2, figs. 26-31 (larva).
- cockerelli** (André). Nev., Tex.  
 Biology: Cole, 1953. Tenn. Acad. Sci. Jour. 28: 243.—Creighton, 1955. Psyche 62: 89-97.

Genus **VEROMESSOR** Forel, p. 799

- Biology: Creighton, 1953. Amer. Mus. Novitates 1612: 1-18.  
 Taxonomy: M. R. Smith, 1956. Pan-Pacific Ent. 32: 36-37 (key to workers of U. S. spp.).
- andrei** (Mayr), changed status. Oreg.; Lower Calif.  
*Veromessor andrei andrei* (Mayr). Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 158).  
*Veromessor andrei flavus* W. M. Wheeler and Creighton (syn. by Creighton op. cit., p. 159 under *andrei castaneus*).  
*Veromessor andrei castaneus* W. M. Wheeler and Creighton (syn. by Creighton, 1953. Amer. Mus. Novitates 1612: 3).  
 Biology: Creighton, 1953. Amer. Mus. Novitates 1612: 2-4.
- andrei andrei** (Mayr). Raised to sp. rank.
- andrei castaneus** W. M. Wheeler and Creighton. Syn. of **andrei** (Mayr).
- andrei flavus** W. M. Wheeler and Creighton. Syn. of **andrei** (Mayr).
- chamberlini** (W. M. Wheeler). Calif. and coastal islands of Calif.
- \***lariversi** M. R. Smith. Calif., Nev.  
*Veromessor lariversi* M. R. Smith, 1951. Great Basin Nat. 11: 94-96. ♂.  
 Biology: Creighton, 1953. Amer. Mus. Novitates 1612: 5-6.  
 Taxonomy: Cole, 1955. Tenn. Acad. Sci. Jour. 30: 51-52. ♀.
- lobognathus** (Andrews). ? Mo., Nev.  
 Biology: Gregg, 1955. Psyche 62: 45-51.

**pergandei** (Mayr). Nev.; Lower Calif.

Biology: Creighton, 1953. Amer. Mus. Novitates 1612: 7-17.

\***stoddardi chicoensis** M. R. Smith. Calif. (Chico).

*Veromessor stoddardi chicoensis* M. R. Smith, 1956. Pan-Pacific Ent. 32: 36-38. ♀.

**stoddardi stoddardi** (Emery), changed status.

*Veromessor stoddardi* (Emery). Reduced to subsp. rank (*teste* M. R. Smith, 1956. Pan-Pacific Ent. 32: 37).

Biology: Creighton, 1953. Amer. Mus. Novitates 1612: 17-18.

#### **PHEIDOLE subgenus PHEIDOLE Westwood, pp. 799-806**

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 70-80, pl. 3, figs. 1-14 (larvae).—Creighton and Gregg, 1955. Univ. Colo. Studies, Biol. Ser. 3: 1-46, 10 figs.

**bahai** (Forel). N. C. (Faisons). Transf. from Unrecognized Forms of Myrmicinae, p. 833.

**barbata** W. M. Wheeler. Ariz.

Taxonomy: Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3: 1-3, fig. 1. ♀ 2♂.

**bicarinata bicarinata** Mayr. Ariz., Colo., Nev., ? N. Mex., Utah.

*Pheidole hayesi* M. R. Smith (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 170).

**bicarinata buccalis** W. M. Wheeler, changed status. South. Utah each to Tex.

*Pheidole (Pheidole) vinelandica buccalis* W. M. Wheeler. A subsp. of *bicarinata*, not of *vinelandica* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 171).

*Pheidole (Pheidole) vinelandica longula* var. *castanea* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

*Pheidole (Pheidole) vinelandica longula* var. *huachucana* M. R. Smith (a substitute name for *castanea* W. M. Wheeler).

Biology: Cole, 1953. Tenn. Acad. Sci. Jour. 28: 297.

**bicarinata longula** Emery, changed status. N. Mex.

*Pheidole (Pheidole) vinelandica longula* Emery. A subsp. of *bicarinata* not of *vinelandica* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 171).

**bicarinata vinelandica** Forel, changed status. Fla.

*Pheidole (Pheidole) vinelandica vinelandica* Forel. A subsp. of *bicarinata* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 172).

*Pheidole (Pheidole) vinelandica laeviuscula* Emery (syn. by Creighton, *loc. cit. supra*).

**californica californica** Mayr.

*Pheidole (Pheidole) californica* var. *satura* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ. Mus., Compar. Zool. Bul. 104: 173).

*Pheidole (Pheidole) californica* var. *incenata* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

**californica oregonica** Emery.

*Pheidole (Pheidole) californica* var. *hagermani* Cole (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 173).

**californica shoshoni** Cole, changed status.

*Pheidole (Pheidole) californica* var. *shoshoni* Cole. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 174).

*californica* var. *hagermani* Cole. Syn. of *californica oregonica* Emery.

*californica* var. *incenata* W. M. Wheeler. Syn. of *californica californica* Mayr.

*californica* var. *satura* W. M. Wheeler. Syn. of *californica californica* Mayr.

- californica* var. *shoshoni* Cole. A subsp. of *californica* Mayr.
- \**carbonaria* Pergande. Syn. of *tepicana* Pergande.
- cerebrosior* W. M. Wheeler, changed status. Ariz., Calif., N. Mex.; Mexico, Lower Calif.
- Pheidole (Pheidole) vinelandica cerebrosior* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 175).
- Taxonomy: Creighton and Gregg, 1955. Univ. of Colo. Studies, Series 3: 3-5, fig. 2. 2f.
- ceres* W. M. Wheeler.
- Biology: Cole, 1953. Tenn. Acad. Sci. Jour. 28: 297.
- cockerelli* W. M. Wheeler. Tex.
- crassicornis crassicornis* Emery.
- Pheidole (Pheidole) crassicornis* var. *diversipilosa* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 175).
- crassicornis porcula* W. M. Wheeler. Raised to sp. rank.
- crassicornis porcula* var. *tetra* W. M. Wheeler. A subsp. of *crassicornis* Emery.
- crassicornis tetra* W. M. Wheeler, changed status. Tex. to Ariz.
- Pheidole (Pheidole) crassicornis porcula* var. *tetra* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 176).
- crassicornis vallicola* W. M. Wheeler. Raised to sp. rank.
- crassicornis* var. *diversipilosa* W. M. Wheeler. Syn. of *crassicornis crassicornis* Emery.
- \**creightoni* Gregg. (In subarmata group.) Oreg. (3 miles east of Applegate), Nev.
- Pheidole creightoni* Gregg, 1955. Psyche 62: 19-28, pl. 2, figs. a-c, pl. 3, figs. a-c. ♀ ♀ ♂.
- dentata* Mayr.
- Pheidole (Pheidole) dentata* var. *faisonsica* Forel (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 178).
- Pheidole (Pheidole) dentata* var. *commutata* Mayr (syn. by Creighton, *loc. cit. supra*).
- Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 71, pl. 3, figs. 1-14 (larva).
- dentata* var. *commutata* Mayr. Syn. of *dentata* Mayr.
- dentata* var. *faisonsica* Forel. Syn. of *dentata* Mayr.
- dentigula* M. R. Smith. Tenn.
- desertorum* W. M. Wheeler.
- Pheidole (Pheidole) desertorum* var. *comanche* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 178).
- Pheidole (Pheidole) desertorum* var. *maricopa* W. M. Wheeler (syn. by Creighton, *op. cit.*, p. 179).
- desertorum* var. *comanche* W. M. Wheeler. Syn. of *desertorum* W. M. Wheeler.
- desertorum* var. *maricopa* W. M. Wheeler. Syn. of *desertorum* W. M. Wheeler.
- floridana lauta* W. M. Wheeler, changed status. Texas to Ala.
- Pheidole (Pheidole) lauta* W. M. Wheeler. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 178).

- gilvescens** W. M. Wheeler, changed status. Ariz., Calif.  
*Pheidole (Pheidole) xerophila tucsonica* var. *gilvescens* W. M. Wheeler.  
 Raised to sp. rank (*teste* Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3: 5-7, 40, fig. 8, c-d. ♀ 2f).
- hayesi** M. R. Smith. Syn. of *bicarinata* Mayr.
- hyatti hyatti** Emery. Colo.  
*Pheidole (Pheidole) hyatti* var. *ecitonodora* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 180).  
 Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 74 (larva).
- hyatti** var. *ecitonodora* W. M. Wheeler. Syn. of *hyatti hyatti* Emery.
- \*kingi** E. André. Syn. of *tepicana* Pergande.
- kingi instabilis** Emery. Syn. of *tepicana* Pergande.
- kingi torpescens** W. M. Wheeler. Syn. of *tepicana* Pergande.
- lamia** W. M. Wheeler. Ga.
- lauta** W. M. Wheeler. A subsp. of *floridana* Emery.
- macclendoni** W. M. Wheeler. Tex. to Ariz.
- megacephala** (Fabricius).  
 Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 75 (larva).
- metallescens metallescens** Emery. Fla. to Tex.
- metallescens spendidula** W. M. Wheeler. Delete all records for this subspecies except Tex.
- militicida** W. M. Wheeler. Ariz., N. Mex.  
 Biology: Cole, 1953. Tenn. Acad. Sci. Jour. 28: 298.  
 Taxonomy: Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3: 9-12, fig. 3, a-b. ♀ ♂.
- morrisii morrisii** Forel  
*Pheidole (Pheidole) morrisii* Forel. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 183).  
*Pheidole (Pheidole) morrisii* var. *vanceae* Forel (syn. by Creighton, 1950, *loc. cit. supra*).
- morrisii impexa** W. M. Wheeler, changed status. Okla., Tex.  
*Pheidole (Pheidole) morrisii* var. *impexa* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 184).
- morrisii** var. *impexa* W. M. Wheeler. A subsp. of *morrisii* Forel.
- morrisii** var. *vanceae* Forel. Syn. of *morrisii morrisii* Forel.
- \*pilifera anfracta** Cole. Syn. of *senex* Gregg.
- pilifera artemisia** Cole. Ariz.  
 Taxonomy: Cole, 1952. Tenn. Acad. Sci. Jour. 27: 280. 2f.—Gregg, 1955. Psyche 62: 22-23. ♀ 2f.
- pilifera coloradensis** Emery. Colo. and N. Mex. to the Dakotas.  
*Pheidole (Pheidole) pilifera coloradensis* var. *neomexicana* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 187).  
 Taxonomy: Cole, 1952. Tenn. Acad. Sci. Jour. 27: 279. 2f.—Gregg, 1955. Psyche 62: 22-23. ♀ 2f.
- pilifera coloradensis** var. *neomexicana* W. M. Wheeler. Syn. of *pilifera coloradensis* Emery.



- pilifera pacifica** W. M. Wheeler, changed status. Nev.  
*Pheidole (Pheidole) xerophila pacifica* W. M. Wheeler. A subsp. of *pilifera* not of *xerophila* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 187).  
 Taxonomy: Cole, 1952. Tenn. Acad. Sci. Jour. 27: 279. 2f.—Gregg, 1955. Psyche 62: 22-23. ♀ 2f.
- pilifera pilifera** (Roger). Fla.  
*Pheidole (Pheidole) pilifera* var. *simulans* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 106).  
*Pheidole (Pheidole) pilifera septentrionalis* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).  
 Taxonomy: Cole, 1952. Tenn. Acad. Sci. Jour. 27: 280, 2f.—G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 79 (larva).—Gregg, 1955. Psyche 62: 22-23. ♀ 2f.
- pilifera septentrionalis** W. M. Wheeler. Syn. of *pilifera pilifera* (Roger).  
**pilifera** var. *simulans* W. M. Wheeler. Syn. of *pilifera pilifera* (Roger).
- pinealis** W. M. Wheeler. Tex.; Mexico.  
 Taxonomy: Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3: 12-14. ♀ 2f.
- porcula** W. M. Wheeler, changed status. Tex. to Colo.  
*Pheidole (Pheidole) crassicornis porcula* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 187).
- proserpina** W. M. Wheeler. Syn. of *sciophila* W. M. Wheeler.
- \*psammophila** Creighton and Gregg. Ariz., Calif., Mexico.  
*Pheidole psammophila* Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3: 15-19, fig. 4, fig. 5, a-b. ♀ 2f.
- \*rugifrons** Pergande. Syn. of *tepicana* Pergande.
- \*sciara** Cole. (In *fallax* group). N. Mex. (Lordsburg), Tex.  
*Pheidole sciara* Cole, 1955. Tenn. Acad. Sci. Jour. 30: 47-49. ♀ 2f.
- sciophila** W. M. Wheeler. Ariz., Tex.; Mexico.  
*Pheidole (Pheidole) proserpina* W. M. Wheeler (syn. by Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3: 19).  
*Pheidole (Pheidole) sciophila* var. *semilaevicephala* M. R. Smith (syn. by Creighton and Gregg, *loc. cit. supra*).
- sciophila** var. *semilaevicephala* M. R. Smith. Syn. of *sciophila* W. M. Wheeler.
- \*senex** Gregg. (In subarmata group) Colo., N. Mex., Tex.  
*Pheidole senex* Gregg, 1952. Amer. Mus. Novitates 1557: 1-4. ♀ 2f.  
 \**Pheidole pilifera anfracta* Cole, 1952. Tenn. Acad. Sci. Jour. 27: 278. ♀, 2f. (Syn. by Cole, 1953, *op. cit.* 28: 298).  
 Taxonomy: Gregg, 1955. Psyche 62: 22-23. ♀ 2f.
- \*sitarches littoralis** Cole. (In subarmata group) Fla. (Lido Beach, Sarasota).  
*Pheidole sitarches littoralis* Cole, 1952. Ent. Soc. Amer. Ann. 45: 443-444. ♀ 2f.
- sitarches rufescens** W. M. Wheeler. Syn. of *soritis* W. M. Wheeler.
- sitarches rufescens** var. *campestris* W. M. Wheeler. Syn. of *soritis* W. M. Wheeler.
- sitarches sitarches** W. M. Wheeler. Ariz., N. Mex., Utah.  
*Pheidole (Pheidole) sitarches* var. *transvarians* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 189). Generic name misspelled *Pheidloe* in orig. cit. in Catalog.  
 Taxonomy: Cole, 1952. Ent. Soc. Amer. Ann. 45: 444. ♀.
- sitarches** var. *transvarians* W. M. Wheeler. Syn. of *sitarches sitarches* W. M. Wheeler.
- spadonia** W. M. Wheeler. Ariz.; Mexico.  
 Taxonomy: Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3: 22-24, fig. 6. ♀.

**soritis** W. M. Wheeler.

*Pheidole (Pheidole) sitarches rufescens* var. *campestris* W. M. Wheeler (syn. by Cole, 1953, Tenn. Acad. Sci. Jour. 28: 298).

*Pheidole (Pheidole) sitarches rufescens* W. M. Wheeler (syn. under *campestris* by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 189). Generic name misspelled *Pheidloe* in orig. cit. in Catalog.

Taxonomy: Cole, 1952. Ent. Soc. Amer. Ann. 45: 444. ♀.

\***tepicana** Pergande. Ariz., Tex.; Mexico.

\**Pheidole tepicana* Pergande, 1895. Calif. Acad. Sci. Proc. 5: 878. ♀ 2f. (teste Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3:24).

\**Pheidole rugifrons* Pergande 1895. Calif. Acad. Sci. Proc. 5: 880. 2f. (Syn. by Creighton and Gregg, loc. cit. supra.)

\**Pheidole carbonaria* Pergande, 1895. Calif. Acad. Sci. Proc. 5: 881. ♀ 2f. (Syn. by Creighton and Gregg, loc. cit. supra.)

\**Pheidole kingi* E. André, 1898. Soc. Ent. de France Bul., p. 244. ♀ 2f. (Syn. by Creighton and Gregg, loc. cit. supra.)

\**Pheidole townsendi* E. André, 1898. Soc. Ent. de France Bul., p. 246. ♀ 2f. (Syn. by Creighton and Gregg, loc. cit. supra.)

*Pheidole (Pheidole) kingi instabilis* Emery (syn. by Creighton and Gregg, loc. cit. supra.)

*Pheidole (Pheidole) kingi torpescens* W. M. Wheeler (syn. by Creighton and Gregg, loc. cit. supra.)

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 74 (larva).

**titanis** W. M. Wheeler. Ariz., Tex.

Taxonomy: Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3: 35-37. ♀ 2f.

\***townsendi** E. André. Syn. of *tepicana* Pergande.

**vallicola** W. M. Wheeler, changed status.

*Pheidole (Pheidole) crassicornis vallicola* W. M. Wheeler. Raised to sp. rank (teste Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 191).

**vasliti arizonica** Santschi, changed status.

*Pheidole (Pheidole) vasliti subdentata* var. *arizonica* Santschi. A subsp. of *vasliti*, not a var. (teste Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 192).

*vasliti subdentata* var. *arizonica* Santschi. A subsp. of *vasliti* Pergande.

*vinelandica buccalis* W. M. Wheeler. A subsp. of *bicarinata* Mayr.

*vinelandica cerebrosiior* W. M. Wheeler. Raised to sp. rank.

*vinelandica laeviuscla* Emery. Syn. of *bicarinata vinelandica* Forel.

*vinelandica longula* Emery. A subsp. of *bicarinata* Mayr.

*vinelandica longula* var. *huachucana* M. R. Smith. Syn. of *bicarinata buccalis* W. M. Wheeler.

*vinelandica vinelandica* Forel. A subsp. of *bicarinata* Mayr.

**virago** W. M. Wheeler. Tex.

*xerophila pacifica* W. M. Wheeler. A subsp. of *pilifera* (Roger).

**xerophila tucsonica** W. M. Wheeler. Calif., N. Mex., Tex.; Mexico, Lower Calif.

Taxonomy: Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3: 40-42, fig. 9. 2f ♀.

*xerophila tucsonica* var. *gilvescens* W. M. Wheeler. Raised to sp. rank.

**xerophila xerophila** W. M. Wheeler. N. Mex.

Taxonomy: Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3: 40. 2f.

\***yaqui** Creighton and Gregg. (In subarmata group.) Calif.; Lower Calif.  
*Pheidole yaqui* Creighton and Gregg, 1955. Univ. Colo. Studies, Series  
 in Biol. 3: 43-46, fig. 10. ♀ 2.

Unrecognized Forms of Genus *Pheidole* Westwood, p. 806

Delete from Catalog. Tranf. *Atta pennsylvanica* Buckley and *Atta picea*  
 Buckley to p. 833 under Unrecognized Forms of Myrmicinae.

**PHEIDOLE subgenus CERATOPHEIDOLE Pergande, p. 806**

**clydei** Gregg. Ariz., south. Calif., Nevada.

Taxonomy: Gregg, 1953. Amer. Mus. Novitates 1637: 1-7, figs. 1-2. 2.

\***grundmanni** M. R. Smith. Utah (Ashley Creek near Vernal).

*Pheidole (Ceratopheidole) grundmanni* M. R. Smith, 1953. N. Y. Ent.  
 Soc. Jour. 61: 144-146, fig. 1. ♀.

**Genus CARDIOCONDYLA Emery, p. 807**

Taxonomy: G. C. and J. Wheeler, 1953. Wash. Acad. Sci. Jour. 43:  
 188-189, figs. 1-9 (larvae).

**nuda minutior** Forel, changed status.

*Cardiocondyla nuda* var. *minutior* Forel. Raised to subsp. rank (*teste*  
 Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104:  
 198).

**nuda** var. *minutior* Forel. A subsp. of *nuda* (Mayr).

**wroughtoni bimaculata** W. M. Wheeler, changed status. Ga.

*Cardiocondyla wroughtoni* var. *bimaculata* W. M. Wheeler. Raised to  
 subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar.  
 Zool. Bul. 104: 199).

**wroughtoni** var. *bimaculata* W. M. Wheeler. A subsp. of *wroughtoni* (Forel).

**CREMATOGASTER subgenus ORTHOCREMA Santschi, pp. 807-808**

Taxonomy: G. C. and J. Wheeler, 1952. Wash. Acad. Sci. Jour. 42:  
 258-261, fig. 5, 6-8, 9-18 (larvae).

**minutissima missouriensis** Emery.

Taxonomy: G. C. and J. Wheeler, 1952. Wash. Acad. Sci. Jour. 42:  
 260-261, fig. 5, 6-8 (larva).

**CREMATOGASTER subgenus CREMATOGASTER Lund, pp. 808-810**

Taxonomy: G. C. and J. Wheeler, 1952. Wash. Acad. Sci. Jour. 42:  
 249-250, 252-254, fig. 1, 14-20, fig. 2, 1-8 (larvae).

Omit last sentence in the paragraph under the subgeneric heading on  
 p. 808.

**ashmeadi** Mayr. Southeast. U. S. from Va. to Fla. and west to Tex. Strictly  
 arboreal; nests in twigs and branches.

*Crematogaster (Crematogaster) ashmeadi* var. *matura* W. M. Wheeler  
 (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool.  
 Bul. 104: 206).

**ashmeadi** var. *matura* W. M. Wheeler. Syn. of *ashmeadi* Mayr.

**californica** Emery. Ariz. Nests in the soil in desert or semi-desert habitats.  
 Males are unusually large for this genus.

**cerasi** (Fitch), changed status. Common in south. Canada and Northern  
 States, south to Ga. in the Appalachians, west to Ozarks and  
 Black Hills and south through the eastern Rockies to N. Mex.  
 Nests in logs and stumps or in the ground under objects.

*Crematogaster (Crematogaster) lineolata cerasi* (Fitch). Raised to sp.  
 rank (*teste* W. F. Buren in unpubl. thesis).

*Crematogaster (Crematogaster) kennedyi* W. M. Wheeler (B form ♀ and typical ♂) (syn. by W. F. Buren in unpubl. thesis). Delete—Parasitic in nest of *Crematogaster lineolata* var. near *cerasi* (Fitch).

*Crematogaster (Acrocoelia) lineolata cerasi* var. *punctinodis* J. Enzmann (syn. by W. F. Buren in unpubl. thesis). Transf. from Unrecognized Forms of Subgenus *Crematogaster* Lund, p. 810.

*clara* Mayr, changed status. Common in lower Miss. Valley States, north and east to Ind., N. J., and Fla., and west to Tex. Nests in flat woods, swamps, and marshes, in rotten logs and stumps, hollow trees, branches, cane stems, etc.

*Crematogaster (Crematogaster) laeviuscula* var. *clara* Mayr. Raised to sp. (teste W. F. Buren in unpubl. thesis).

*Oecodoma (Atta) arborea* Buckley, transf. to *laeviuscula* Mayr. (teste W. F. Buren in unpublished thesis).

*creightoni* W. M. Wheeler. Syn. of *pilosa* Emery.

*coarctata* Mayr. Nev., ? Oreg. Nests under rocks and boulders.

Taxonomy: Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 207-208.

*coarctata mormonum* Emery. Raised to sp. rank.

\**dentinodis* Forel. Ariz.; Mexico. Nests under stones in open grasslands and chaparral, or grass and mesquite, or among shrubs in succulent desert.

*Crematogaster opaca* var. *dentinodis* Forel, 1901. Soc. Ent. Belg. Ann. 45: 130. ♀.

*depilis* W. M. Wheeler, changed status. Arboreal; frequently nests in cactus, and also known to nest in mesquite. Occurs in desert or semi-desert regions.

*Crematogaster (Crematogaster) opaca depilis* W. M. Wheeler. Raised to sp. rank (teste W. F. Buren in unpubl. thesis).

Taxonomy: Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 204. ♀ not ♀).

*kennedyi* W. M. Wheeler. Syn. of *cerasi* (Fitch).

*laeviuscula* Mayr. Common in central Tex. extending north and east into Kans., Mo. and La. south into Mexico. No authentic record east of the Miss. River. Incipient colonies in twigs and oak galls. Larger colonies in hollow trees and logs. Heterogonic growth strongly exhibited by the species.

*Oecodoma (Atta) arborea* Buckley (syn. by W. F. Buren in unpubl. thesis). Transf. from syn. of *laeviuscula* var. *clara* Mayr.

Taxonomy: G. C. and J. Wheeler, 1952. Wash. Acad. Sci. Jour. 42: 255-256, fig. 1, 5-7 (larva).

*laeviuscula* var. *clara* Mayr. Raised to sp. rank.

*lineolata cerasi* (Fitch). Raised to sp. rank.

*lineolata cerasi* var. *punctinodis* J. Enzmann. Syn. of *cerasi* (Fitch).

*lineolata cerasi* var. *wheldeni* J. Enzmann. Syn. of *lineolata lineolata* (Say).

\**lineolata emeryana* Creighton. Mts. of Ariz., Colo., N. Mex. and Utah. Nests mostly under stones in grassy places of over 6,000 ft. alt. Apparently sometimes constructs carton nests under stones.

*Crematogaster lineolata lineolata* var. Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 282. ♀ ♀ ♂. (Var. descr. but not named).

*Crematogaster (Acrocoelia) lineolata emeryana* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 213-214. ♀.

*lineolata lineolata* (Say). Common in south. Canada and Northern States, becoming less common southward but probably present in every state east of the Miss. River, extending west to the Rocky Mts. Nests in the ground under objects, or in logs and stumps.

- Crematogaster (Crematogaster) lineolata* var. *lutescens* Emery (syn. by W. F. Buren in unpubl. thesis).
- Crematogaster (Crematogaster) lineolata cerasi* var. *wheldeni* J. Enzmann (syn. by Buren, *loc. cit. supra*). Transf. from Unrecognized Forms of subgenus *Crematogaster*, p. 810.
- Taxonomy: G. C. and J. Wheeler, 1952. Wash. Acad. Sci. Jour. 42: 250-252, fig. 1, 1-4 (larva).
- lineolata subopaca* Emery. Syn of *punctulata* Emery.
- \**lineolata subpilosa* W. M. Wheeler. *N. nudum* for *pilosa* Emery.
- lineolata* var. *lutescens* Emery. Syn of *lineolata lineolata* (Say).
- mormonum* Emery, changed status. Apparently confined to the Great Basin area; Nev., Utah, Idaho, and probably eastern Oreg. Lives in large colonies under rocks in semi-desert.
- Crematogaster (Crematogaster) coarctata mormonum* Emery. Raised to sp. rank (*teste* W. F. Buren in unpubl. thesis).
- \**opaca* Mayr. Ariz. and Mexico. Only one authentic Ariz. record. (Tumacacori Mts. under stone among oaks, 3,900 ft.).
- Crematogaster opaca* Mayr, 1870. Zool—Bot. Gesell. Wien, Verh. 20: 989. ♀.
- opaca depilis* W. M. Wheeler. Raised to sp. rank.
- opaca punctulata* Emery. Raised to sp. rank.
- opaca* var. *texana* Santschi. Syn. of *punctulata* Emery.
- pilosa* Emery. Coastal plains of Atlantic States from N. J. probably to Ga. Nests in the ground or under logs in humid situations near marshes or bogs. Delete—Host of the parasitic ant, *C. creightoni* Whlr.
- \* ? *Crematogaster lineolata subpilosa* W. M. Wheeler, 1913. Psyche 20: 115. *N. nudum*. (*teste* W. F. Buren in unpubl. thesis).
- Crematogaster (Crematogaster) creightoni* W. M. Wheeler (B-form ♀ and typical ♂), (syn. by W. F. Buren in unpubl. thesis). Delete—Parasitic in nest of *Crematogaster pilosa* Emery.
- punctulata* Emery, changed status. Great Plains of east. Colo. and Kans., south into Ariz., N. Mex., Tex. and Mexico, and east through southern States to Va. and Fla. The species exhibits some clinal tendencies in this large range but subspeciation is not clearly marked. Nests in the ground or occasionally under logs and stumps. More xerophilous than *cerasi* (Fitch) or *lineolata lineolata* (Say).
- Crematogaster (Crematogaster) opaca punctulata* Emery. Raised to sp. rank (*teste* W. F. Buren, in unpubl. thesis).
- Crematogaster (Crematogaster) lineolata subopaca* Emery (syn. by W. F. Buren, *loc. cit. supra*).
- Crematogaster (Acrocoelia) opaca* var. *texana* Santschi (syn. by Buren, *loc. cit. supra*). Transf. from Unrecognized Forms of Subgenus *Crematogaster*, p. 810.
- vermiculata* Emery. Known from only one or a few records each in Calif., La., Ark., Miss., Fla., Ga., S. C. Strictly arboreal; found almost exclusively in cypress swamps, although not necessarily in cypress trees.

Unrecognized Forms of Subgenus *Crematogaster* Lund, p. 810

- Delete this heading from Catalog. Transf. *Crematogaster (Acrocoelia) lineolata cerasi* var. *punctinodis* J. Enzmann to *cerasi* (Fitch), p. 808.
- Transf. *Myrmica novaeboracensis* Buckley and *Crematogaster (Acrocoelia) sanguinea coachellai* J. Enzmann to Unrecognized Forms of Myrmicinae, p. 833.
- Transf. *Crematogaster (Acrocoelia) opaca* var. *texana* Santschi to *punctulata* Emery, p. 810, of which it is a synonym.
- Transf. *Crematogaster (Acrocoelia) lineolata cerasi* var. *wheldeni* J. Enzmann to *lineolata lineolata* (Say), p. 809.

**MONOMORIUM subgenus MONOMORIUM Moyr, pp. 810-811**

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 121-122, pl. 1, figs. 8-15 (larvae).

**floricola** (Jerdon).

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 121 (larva).

**minimum emersoni** Gregg. Syn. of **minimum minimum** (Buckley).**minimum ergatogyna** W. M. Wheeler. Syn. of **minimum minimum** (Buckley)**minimum minimum** (Buckley).

**Monomorium (Monomorium) minimum ergatogyna** W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 219).

**Monomorium (Monomorium) minimum emersoni** Gregg (syn. by Creighton, *loc. cit. supra*).

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 122 (larva).

**peninsulatum** Gregg. A subsp. of **viridum** W. L. Brown. Gulf Coast States.**pharaonis** (Linnaeus).

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 121, pl. 1, figs. 8-15 (larva).

Biology: Peacock and Baxter, 1949. Ent. Monthly Mag. 85: 256.—Peacock, 1950. *Op. cit.* 86: 129.—Peacock and Baxter, 1950. *Op. cit.* 86: 171-178.—Peacock, 1950. *Op. cit.* 86: 294.—Peacock, 1951. *Op. cit.* 87: 185-191.—Sudd, 1953. Advancement of Sci. (Brit.) 10: 17.—Peacock, Smith, Hall, and Baxter, 1954. Ent. Monthly Mag. 90: 154.—Peacock, Sudd and Baxter, 1955. *Op. cit.* 91: 125, 130.

Morphology: Hall and Smith, 1951. Ent. Monthly Mag. 87: 217, figs. 1-9.—Hall and Smith, 1952. *Op. cit.* 88: 97, figs. 1-7.—Hall and Smith, 1953. Evolution 7: 127, figs. 1-18.—Hall and Smith, 1954. Ent. Monthly Mag. 90: 176, figs. 1-3, 4-11, 12-15.

**viridum peninsulatum** Gregg, changed status.

**Monomorium (Monomorium) peninsulatum** Gregg. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 223).

**MONOMORIUM subgenus PARHOLCOMYRMEX Emery, p. 811**

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 123 (larvae).

**Genus XENOMYRMEX Forel, p. 811**

**\*stollii cubanus** W. M. Wheeler. Syn. of **stollii floridanus** Emery.

**stollii floridanus** Emery.

**Xenomyrmex stollii rufescens** W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 226).

**\*Xenomyrmex stollii cubanus** W. M. Wheeler, 1931. Rev. de Ent. 1: 134-135, fig. 2. ♀. (Syn. by Creighton, 1953. Amer. Mus. Novitates 1634: 2).

**Xenomyrmex stollii floridanus** var. **lucayanus** W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 87. ♀. (Syn. by Creighton, 1953, *loc. cit. supra*).

**\*stollii floridanus** var. **lucayanus** W. M. Wheeler. Syn. of **stollii floridanus** Emery.

**stollii rufescens** W. M. Wheeler. Syn. of **stollii floridanus** Emery.

**SOLENOPSIS subgenus SOLENOPSIS Westwood, pp. 812-813**

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 131-132 (larvae).

*aurea amblychila* W. M. Wheeler, changed status.

*Solenopsis (Solenopsis) xyloni amblychila* W. M. Wheeler. A subsp. of *aurea*, not of *xyloni* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 230).

*aurea aurea* W. M. Wheeler, changed status.

*Solenopsis (Solenopsis) xyloni aurea* W. M. Wheeler. A subsp. of *aurea*, not of *xyloni* McCook (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 230).

*geminata geminata* (Fabricius)

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 132-133, pl. 3, figs. 14-24 (larva).

\**pylades* var. *quinquecuspis* Forel. Syn. of *saevissima richteri* Forel.

*saevissima richteri* Forel, changed status. Introduced. All States with infestations from N. C. to Ark. and Tex. and south. Largest areas in Ala., Miss., La.

*Solenopsis (Solenopsis) saevissima* var. *richteri* Forel. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 232).

\**Solenopsis pylades* var. *quinquecuspis* Forel, 1913. Soc. Vaud des Sci. Nat. Bul. 49: 224. ♀. (Syn. by Wilson, 1952. Mem. do Inst. Oswaldo Cruz (Rio de Janeiro) 50: 66.)

Biology: Green, 1952. Jour. Econ. Ent. 45: 593.—Culpepper, 1953. U. S. Dept. Agr., Bur. Ent. and Pl. Quar., E-867.

Economics: Anonymous, 1954. U. S. D. A. Leaflet 350 (illus.).

Taxonomy: Wilson, 1951. Evolution 5: 68-79, 5 figs.

*saevissima* var. *richteri* Forel. A subsp. of *saevissima* (F. Smith).

*xyloni* McCook, changed status. Calif.

*Solenopsis (Solenopsis) xyloni xyloni* McCook. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 232).

*Solenopsis (Solenopsis) xyloni* var. *maniosa* W. M. Wheeler (syn. by Creighton, *loc. cit. supra.*)

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 133 (larva).

*xyloni amblychila* W. M. Wheeler. A subsp. of *aurea* W. M. Wheeler.

*xyloni aurea* W. M. Wheeler. A subsp. of *aurea*, not of *xyloni* McCook.

*xyloni xyloni* McCook. Raised to sp. rank.

*xyloni* var. *maniosa* W. M. Wheeler. Syn. of *xyloni* McCook.

#### SOLENOPSIS subgenus EUOPHTHALMA Creighton, p. 813

*huachucana* W. M. Wheeler.

Taxonomy: Creighton, 1930. Amer. Acad. Arts and Sci. Proc. 66: 118-120. ♀ ♀.

#### SOLENOPSIS subgenus DIPLORHOPTRUM Mayr, pp. 813-814

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 133-136, pl. 3, figs. 25-31.

*carolinensis* Forel, changed status. Tenn. to south. New England.

*Solenopsis (Diplorhoptrum) texana carolinensis* Forel. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 236).

*krockowi* W. M. Wheeler. Mexico.

*molesta molesta* (Say). Canada, eastern and central U. S.

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 134-135, pl. 3, figs. 25-27 (larva).

*molesta validiuscula* Emery.

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 135 (larva).

- molesta* var. *castanea* W. M. Wheeler. Syn. of *texana truncorum* Forel.
- picta* Emery. Fla. to Tex.  
*Solenopsis (Diplorhoptrum) picta* var. *moerens* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 237).
- picta* var. *moerens* W. M. Wheeler. Syn. of *picta* Emery.
- rosella* Kennedy. Syn. of *texana texana* Emery.
- salina* W. M. Wheeler. Tex. to Calif. and Mexico.
- texana carolinensis* Forel. Raised to sp. rank.
- texana texana* Emery. Ont. to Tex. and southeast. U. S.  
*Solenopsis (Diplorhoptrum) rosella* Kennedy (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 238).  
 Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 136 (larva).
- texana truncorum* Forel. Southeast. U. S., west to Rocky Mts.  
*Solenopsis (Diplorhoptrum) molesta* var. *castanea* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 239).

Unrecognized Form of Subgenus *Diplorhoptrum* Mayr, p. 814

Delete from Catalog. Transf. *Solenopsis madara* Roger to p. 833 under Unrecognized Forms of Myrmicinae.

Genus **ANERGATES** Forel, p. 815

- Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 128 (larvae).
- atratus* (Schenck)  
*Anergates friedlandi* Creighton (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 243).  
 Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 128-130, pl. 2, figs. 22-30 (larva).
- friedlandi* Creighton. Syn. of *atratus* (Schenck).

Genus **EREBOMYRMA** W. M. Wheeler, p. 815

Taxonomy: G. C. and J. Wheeler, 1953. Psyche 60: 141, fig. 1, G-I (larvae).

Genus **MYRMECINA** Curtis, pp. 815-816

- Taxonomy. W. L. Brown, 1951. Brooklyn Ent. Soc. Bul. 46: 103-106.—  
 G. C. and J. Wheeler, 1954. Ent. Soc. Wash. Proc. 56: 129-131, pl. 2, figs. 17-21 (larvae).
- americana* Emery, changed status.  
*Myrmecina americana americana* Emery. Raised to sp. rank (*teste* W. L. Brown, 1949. Psyche 56: 44).  
*Myrmecina americana texana* W. M. Wheeler (syn. by W. L. Brown, 1951. Brooklyn Ent. Soc. Bul. 46: 103).  
 Taxonomy: G. C. and J. Wheeler, 1954. Ent. Soc. Wash. Proc. 56: 130, pl. 2, figs. 17-21 (larva).
- americana texana* W. M. Wheeler. Syn. of *americana* Emery.

Genus **MACROMISCHA** Roger, p. 816

Taxonomy: G. C. and J. Wheeler, 1955. Ent. Soc. Amer. Ann. 48: 17-18, pl. 1, figs. 1-7 (larvae).

**LEPTOTHORAX** subgenus **NESOMYRMEX** W. M. Wheeler, pp. 816-817

Taxonomy: G. C. and J. Wheeler, 1955. Ent. Soc. Amer. Ann. 48: 25 (larvae).



**LEPTOTHORAX subgenus MYRAFANT M. R. Smith, pp. 817-819**

Taxonomy: M. R. Smith, 1952. N. Y. Ent. Soc. Jour. 60: 96-106 (tricarinatus—texanus complex).—W. L. Brown, 1955. Ent. News 66: 43.—G. C. and J. Wheeler, 1955. Ent. Soc. Amer. Ann. 48: 22-25, fig. 1, H-N (larvae).—Cole, 1956. Tenn. Acad. Sci. Jour. 31: 30-31 (tricarinatus—texanus complex).

- ambiguus ambiguus** Emery, changed status. N. Dak.  
*Leptothorax (Myrafant) curvispinosus ambiguus* Emery. A subsp. of *ambiguus* not of *curvispinosus* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 261-263).  
 Taxonomy: G. C. and J. Wheeler, 1955. Ent. Soc. Amer. Ann. 48: 22-23, fig. 1, H-N (larva).
- ambiguus foveatus** M. R. Smith, changed status.  
*Leptothorax (Myrafant) foveata* M. R. Smith. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 263).
- ambiguus pinetorum** L. G. and R. G. Wesson, changed status.  
*Leptothorax (Myrafant) curvispinosus ambiguus* var. *pinetorum* L. G. and R. G. Wesson. A subsp. of *ambiguus* not a var. (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 263).
- \***angustinodus** Cole. Preocc. New name, *stenotyle* Cole.
- bradleyi** W. M. Wheeler. Ala.  
 Taxonomy: Wilson, 1952. Ent. News 63: 68-71. ♀ ♀ ♂.
- curvispinosus** Mayr, changed status.  
*Leptothorax (Myrafant) curvispinosus curvispinosus* Mayr. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 263-264).
- curvispinosus ambiguus** Emery. A subsp. of *ambiguus* Emery.  
**curvispinosus ambiguus** var. *pinetorum* L. G. and R. G. Wesson. A subsp. of *ambiguus* Emery.
- eldoradensis** W. M. Wheeler. A subsp. of *nevadensis* W. M. Wheeler.
- fortinodis** Mayr. Syn. of *schaumi* Roger.
- fortinodis** var. *gilvus* W. M. Wheeler. Syn. of *schaumi* Roger.
- fortinodis** var. *melanoticus* W. M. Wheeler. Syn. of *schaumi* Roger.
- foveata** M. R. Smith. A subsp. of *ambiguus* Emery. ? Iowa.
- longispinosus** Roger, changed status.  
*Leptothorax (Myrafant) longispinosus longispinosus* Roger. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 264).  
*Leptothorax (Myrafant) longispinosus iowensis* Buren (syn. by Creighton, *loc. cit. supra*).  
 Taxonomy: G. C. and J. Wheeler, 1955. Ent. Soc. Amer. Ann. 48: 24 (larva).
- longispinosus iowensis** Buren. Syn. of *longispinosus* Roger.
- melanderi** W. M. Wheeler. A subsp. of *nevadensis* W. M. Wheeler.
- neomexicanus** W. M. Wheeler. A subsp. of *tricarinatus* Emery.
- nevadensis eldoradensis** W. M. Wheeler, changed status.  
*Leptothorax (Myrafant) eldoradensis* W. M. Wheeler. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 266).
- nevadensis melanderi** W. M. Wheeler, changed status.  
*Leptothorax (Myrafant) melanderi* W. M. Wheeler. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ. Mus. Compar. Zool. Bul. 104: 266).

- nevadensis nevadensis** W. M. Wheeler. Calif., Oreg., Wash.
- nitens heathii** W. M. Wheeler, changed status.  
*Leptothorax (Myrafant) nitens* var. *heathii* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 265).
- nitens nitens** Emery. Tex.  
*Leptothorax (Myrafant) nitens* var. *mariposa* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 265).  
*Leptothorax (Myrafant) nitens occidentalis* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).
- nitens occidentalis** W. M. Wheeler. Syn. of **nitens nitens** Emery.
- nitens** var. *heathii* W. M. Wheeler. Raised to subsp. rank.
- nitens** var. *mariposa* W. M. Wheeler. Syn. of **nitens nitens** Emery.
- \***obliquicanthus** Cole. Colo., N. Mex. (In *tricarinatus*—*texanus* complex.).  
*Leptothorax (Myrafant) obliquicanthus* Cole, 1953. Ent. Soc. Wash. Proc. 55: 28-30, figs. 1, 2. ♀.  
 Taxonomy: Gregg, 1953. *Breviora* 22: 1-3, fig. 1. ♀.
- obturator** W. M. Wheeler.  
 Taxonomy: G. C. and J. Wheeler, 1955. Ent. Soc. Amer. Ann. 48: 24 (larva).
- rugatulus annectens** W. M. Wheeler. Syn. of **rugatulus rugatulus** Emery.
- rugatulus brunnescens** W. M. Wheeler.  
*Leptothorax (Myrafant) rugatulus dakotensis* G. C. and E. W. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 269).  
 Taxonomy: G. C. and J. Wheeler, 1955. Ent. Soc. Amer. Ann. 48: 25 (larva).
- rugatulus dakotensis** G. C. and E. W. Wheeler. Syn. of **rugatulus brunnescens** Wheeler.
- rugatulus rugatulus** Emery.  
*Leptothorax (Myrafant) rugatulus annectens* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ. Mus., Compar. Zool. Bul. 104: 269).  
*Leptothorax (Myrafant) rugatulus* var. *cockerelli* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).  
*Leptothorax (Myrafant) rugatulus* var. *mediorufus* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).  
 Biology: Cole, 1954. *Tenn. Acad. Sci. Jour.* 29: 240.
- rugatulus** var. *cockerelli* W. M. Wheeler. Syn. of **rugatulus rugatulus** Emery.
- rugatulus** var. *mediorufus* W. M. Wheeler. Syn. of **rugatulus rugatulus** Emery.
- schaumi** Roger. Maine, Tenn.  
*Leptothorax (Myrafant) fortinodis* Mayr (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 271).  
*Leptothorax (Myrafant) fortinodis* var. *gilvus* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).  
*Leptothorax (Myrafant) fortinodis* var. *melanoticus* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).
- silvestrii** (Santschi). Ariz. Nests in evergreen oaks at altitudes of 3,500 ft. or more. *Transf. from Unrecognized Forms of Myrmicinae*, p. 833 (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 271).  
 Taxonomy: Creighton, 1953. *Amer. Mus. Novitates* 1635: 1-7, figs. 1-6.  
 ♀ ♀ ♂.
- \***stenotyle** Cole. Ariz. (near Rustler's Park, Chiricahua Mts.). (In *tricarinatus* - *texanus* complex.).

- Leptothorax (Leptothorax) angustinodus* Cole, 1956. *Tenn. Acad. Sci. Jour.* 31: 28-30. ♀ ♀. Preocc.
- Leptothorax (Leptothorax) stenotyle* Cole, 1956. *Tenn. Acad. Sci. Jour.* 31: 214. N. name.
- texanus davisii* W. M. Wheeler. Fla.  
Taxonomy: M. R. Smith, 1951. *N. Y. Ent. Soc. Jour.* 60: 104-106. ♀.
- texanus texanus* W. M. Wheeler. Ala., Ind., Ga.  
Taxonomy: M. R. Smith, 1952. *N. Y. Ent. Soc. Jour.* 60: 102-104. ♀.
- tricarinatus neomexicanus* W. M. Wheeler, changed status. Utah.  
*Leptothorax (Myrafant) neomexicanus* W. M. Wheeler. Reduced to subsp. rank (*teste* Creighton, 1950. *Harvard Univ., Mus. Compar. Zool. Bul.* 104: 273).  
Biology: Cole, 1953. *Ent. Soc. Wash. Proc.* 55: 28.  
Taxonomy: M. R. Smith, 1952. *N. Y. Ent. Soc. Jour.* 60: 100-102. ♀.
- tricarinatus tricarinatus* Emery, changed status. Colo., Utah, Wyo.  
*Leptothorax (Myrafant) tricarinatus* Emery. Reduced to subsp. rank (*teste* Creighton, 1950. *Harvard Univ., Mus. Compar. Zool. Bul.* 104: 273).  
Taxonomy: M. R. Smith, 1952. *N. Y. Ent. Soc. Jour.* 60: 98-100. ♀ ♂.
- \**tuscaloosae* Wilson. Ala. (Tuscaloosa).  
*Leptothorax (Myrafant) tuscaloosae* Wilson, 1950. *Psyche* 57: 128-130.  
♀ ♀.
- wheeleri* M. R. Smith.  
Taxonomy: Wilson, 1952. *Ent. News* 60: 67-68, 70. ♀ ♂.

**LEPTOTHORAX subgenus DICHOTHORAX Emery, p. 820**

- pergandei flavus* M. R. Smith. Syn. of *pergandei floridanus* Emery.
- pergandei floridanus* Emery. N. J.  
*Leptothorax (Dichothorax) pergandei floridanus* var. *spinosus* M. R. Smith (syn. by Creighton, 1950. *Harvard Univ., Mus. Compar. Zool. Bul.* 104: 260).  
*Leptothorax (Dichothorax) pergandei flavus* M. R. Smith (syn. by Creighton, *loc. cit. supra*).
- pergandei floridanus* var. *spinosus* M. R. Smith. Syn. of *pergandei floridanus* Emery.

**LEPTOTHORAX subgenus LEPTOTHORAX Mayr, pp. 820-822**

- Taxonomy: W. L. Brown, 1955. *Ent. News* 66: 43-50.—G. C. and J. Wheeler, 1955. *Ent. Soc. Amer. Ann.* 48: 21-22 (larvae).
- acervorum canadensis* Provancher. Syn. of *muscorum* (Nylander).
- acervorum canadensis* var. *calderoni* Forel. Syn. of *muscorum* (Nylander).
- acervorum canadensis* var. *convivialis* W. M. Wheeler. Syn. of *muscorum* (Nylander).
- acervorum canadensis* var. *kincaidi* Pergande. Syn. of *muscorum* (Nylander).
- acervorum canadensis* var. *yankee* Emery. Syn. of *muscorum* (Nylander).
- acervorum crassipilis* W. M. Wheeler. Raised to sp. rank.
- crassipilis* W. M. Wheeler, changed status. Ariz., Nev., N. Mex., Utah, Wyo.  
*Leptothorax (Leptothorax) acervorum crassipilis* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. *Harvard Univ., Mus. Compar. Zool. Bul.* 104: 278).  
Biology: Cole, 1953. *Ent. Soc. Wash. Proc.* 55: 27.  
Taxonomy: Cole, 1954. *Tenn. Acad. Sci. Jour.* 29: 240-241.
- diversipilosus* M. R. Smith.  
Taxonomy: M. R. Smith, 1956. *Ent. Soc. Wash. Proc.* 58: 271-275, fig. 1, ♀ ergatoid ♂.

*duloticus* L. G. Wesson. Mich., ? Ill.

*emersoni emersoni* W. M. Wheeler. Syn. of *provancheri* Emery.

*emersoni glacialis* W. M. Wheeler. Syn. of *provancheri* Emery.

*emersoni hirtipilis* W. M. Wheeler. Syn. of *provancheri* Emery.

*hirticornis* Emery.

\**Leptothorax (Mychothorax) hirticornis formidosus* W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 415. ♂ ♀. (Syn. by M. R. Smith, 1939. Ent. Soc. Wash. Proc. 41: 177.)

\**hirticornis formidosus* W. M. Wheeler. Syn. of *hirticornis* Emery.

\**muscorum* (Nylander). Eurasia, and America north of Mexico.

*Myrmica muscorum* Nylander, 1846. Acta Soc. Sci. Fenn. 2: 1054.

♂ ♀ ♂.

*Leptothorax (Leptothorax) acervorum canadensis* Provancher (syn. by W. L. Brown, 1955. Ent. News 66: 47.

*Leptothorax (Leptothorax) acervorum canadensis* var. *convivialis* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 276).

*Leptothorax (Leptothorax) acervorum canadensis* var. *calderoni* Forel (syn. by W. L. Brown, *loc. cit. supra*).

*Leptothorax (Leptothorax) muscorum* var. *septentrionalis* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

*Leptothorax (Leptothorax) acervorum canadensis* var. *yankee* Emery (syn. by W. L. Brown, *loc. cit. supra*).

*Leptothorax (Leptothorax) muscorum* var. *sordidus* W. M. Wheeler (syn. by Creighton, *loc. cit., supra*, p. 277).

*Leptothorax (Leptothorax) acervorum canadensis* var. *kincaidi* Pergande (syn. by W. L. Brown, *loc. cit. supra*).

Taxonomy: G. C. and J. Wheeler, 1955. Ent. Soc. Amer. Ann. 48: 21 (larva).

Ecology: W. L. Brown, 1955. Ent. News 66: 47-50.

*muscorum* var. *septentrionalis* W. M. Wheeler. Syn. of *muscorum* (Nylander).

*muscorum* var. *sordidus* W. M. Wheeler. Syn. of *muscorum* (Nylander).

*provancheri* Emery. Mich., N. Dak., N. Mex.

*Leptothorax (Leptothorax) emersoni emersoni* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 279).

*Leptothorax (Leptothorax) emersoni hirtipilis* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

*Leptothorax (Leptothorax) emersoni glacialis* W. M. Wheeler (syn. by Cole, 1954. Tenn. Acad. Sci. Jour. 29: 241).

#### Genus HARPAGOXENUS Forel, p. 822

Taxonomy: G. C. and J. Wheeler, 1955. Ent. Soc. Amer. Ann. 48: 26-28, figs. 24-29 (larvae).

*americanus* (Emery). Mo.

Taxonomy: G. C. and J. Wheeler, 1955. Ent. Soc. Amer. Ann. 48: 26-27, pl. 1, figs. 24-29 (larva).

#### Genus TRIGLYPHOTHRIX Forel, p. 823

Taxonomy: G. C. and J. Wheeler, 1954. Amer. Midland Nat. 52: 451 (larva of *areolatus* Stitz).

#### Genus TETRAMORIUM Mayr, pp. 823-824

Taxonomy: G. C. and J. Wheeler, 1954. Amer. Midland Nat. 52: 445 (larvae).

*caespitum* (Linnaeus). Ont.

Taxonomy: G. C. and J. Wheeler, 1954. Amer. Midland Nat. 52: 445-447, pl. 1, figs. 1-11 (larva).

**guineense** (Fabricius).

Taxonomy: G. C. and J. Wheeler, 1954. Amer. Midland Nat. 52: 449-450 (larvae).

**Genus XIPHOMYRMEX** Forel, p. 824

Taxonomy: G. C. and J. Wheeler, 1954. Amer. Midland Nat. 52: 450 (larvae).

**Genus WASMANNIA** Forel, pp. 824-825

Taxonomy: G. C. and J. Wheeler, 1954. Amer. Midland Nat. 52: 444 (larvae).

**europunctata** (Roger)

Taxonomy: M. R. Smith, 1954. Amer. Mus. Novitates 1671: 7-8.—G. C. and J. Wheeler, 1954. Amer. Midland Nat. 52: 444 (larva).

**PARACRYPTOCERUS** subgenus **HARNEDIA** M. R. Smith, p. 825

Taxonomy: Kempf, 1951. Rev. de Ent. (Rio de Janeiro) 22: 156, 157, 233.—G. C. and J. Wheeler, 1954. Wash. Acad. Sci. Jour. 44: 156-157, figs. 39-40, 42-44 (larvae).

**texanus** Santschi.

Biology: Creighton, 1954. Psyche 61: 41-57, 2 pls., 3 text figs.

**PARACRYPTOCERUS** subgenus **CYATHOMYRMEX** Creighton, p. 825

Taxonomy: Kempf, 1951. Rev. de Ent. (Rio de Janeiro) 22: 156-157.

**varians** (F. Smith).

Taxonomy: G. C. and J. Wheeler, 1954. Wash. Acad. Sci. Jour. 44: 156 (larva).

**STRUMIGENYS** subgenus **STRUMIGENYS** F. Smith, pp. 825-826

\**Proscopomyrmex* Patrizi, 1946. Bol. Inst. Ent. R. Univ. Bologna 15: 294.

Type: *Proscopomyrmex londianensis* Patrizi. By monotypy.

\**Eneria* Donisthorpe, 1947. Ann. Mag. Nat. Hist. 14: 598.

Type: (*Eneria excisa* Donisthorpe) = *Strumigenys Loriae* Emery. By monotypy.

Biology: W. L. Brown, 1950. Brooklyn Ent. Soc. Bul. 45: 87-89.

Taxonomy: W. L. Brown, 1948. Amer. Ent. Soc. Trans. 74: 108.—G. C. and J. Wheeler, 1954. Psyche 61: 135 (larvae).

The extralimital genera listed above have been synonymized by W. L. Brown, 1949. Mushi 20: 14.

**louisianae** Roger. Mexico, South America.

Biology: Wilson, 1950. Brooklyn Ent. Soc. Bul. 45: 85-86.

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 28-31, fig. 1. ♀.

**SMITHISTRUMA** subgenus **WESSONISTRUMA** W. L. Brown, p. 826

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 50-55, text fig. 1, pl. 3, fig. 28.—G. C. and J. Wheeler, 1954. Psyche 61: 144-145 (larvae).

**angulata** (M. R. Smith).

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 54-55. ♀ ♀.

**pergandei** (Emery).

Biology: W. L. Brown, 1952. Psyche 59: 12.—Wilson, 1953. Ent. Soc. Amer. Ann. 46: 487-488.

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 51-54, text fig. 5, pl. 3, fig. 29. ♀ ♀ ♂.

**SMITHISTRUMA** subgenus **SMITHISTRUMA** W. L. Brown, pp. 826-828

Biology: W. L. Brown, 1950. Brooklyn Ent. Soc. Bul. 45: 87-89.—Wilson, 1953. Ent. Soc. Amer. Ann. 46: 485-487.

- Taxonomy:** W. L. Brown, 1953. Amer. Midland Nat. 50: 55-92, 4 text figs, 3 pls.—G. C. and J. Wheeler, 1954. Psyche 61: 141-144, pl. 9, figs. 11-18 (larvae).
- abdita** (L. G. and R. G. Wesson).  
**Taxonomy:** W. L. Brown, 1953. Amer. Midland Nat. 50: 89-90, pl. 1, fig. 3. ♂ ♀.
- bimarginata** (L. G. and R. G. Wesson).  
**Taxonomy:** W. L. Brown, 1953. Amer. Midland Nat. 50: 62-63. ♂ ♀.
- brevisetosa** (M. R. Smith).  
**Taxonomy:** W. L. Brown, 1953. Amer. Midland Nat. 50: 59-60. ♂ ♀.
- bunki** W. L. Brown.  
**Taxonomy:** W. L. Brown, 1953. Amer. Midland Nat. 50: 82-84, pl. 1, figs. 6-10. ♂ ♀.
- californica** W. L. Brown.  
**Taxonomy:** W. L. Brown, 1953. Amer. Midland Nat. 50: 85-86. ♀.
- \*cloydi** Pfitzer. Tenn. (Knoxville).  
*Smithistruma cloydi* Pfitzer, 1951. Tenn. Acad. Sci. Jour. 26: 198-200, pl. 1, figs. 1-3. ♂.
- clypeata** (Roger). Va. (in cave, Luray Caverns).  
**Biology:** M. R. Smith, 1955. Brooklyn Ent. Soc. Bul. 50: 28.  
**Taxonomy:** W. L. Brown, 1953. Amer. Midland Nat. 50: 58-59, pl. 2, fig. 16. ♂ ♀ ♂.
- creightoni** (M. R. Smith). Fla., Ga., Tenn.  
**Taxonomy:** W. L. Brown, 1953. Amer. Midland Nat. 50: 80-81, pl. 1, fig. 1. ♂ ♀.
- dietrichi** (M. R. Smith).  
**Taxonomy:** W. L. Brown, 1953. Amer. Midland Nat. 50: 67-68, fig. 8. ♂ ♀.
- filirrhina** W. L. Brown  
**Taxonomy:** W. L. Brown, 1953. Amer. Midland Nat. 50: 63-64. ♂.
- flitalpa** W. L. Brown.  
**Taxonomy:** W. L. Brown, 1953. Amer. Midland Nat. 50: 79-80, pl. 1, fig. 8. ♂.
- laevinasis** (M. R. Smith).  
**Taxonomy:** W. L. Brown, 1953. Amer. Midland Nat. 50: 61-62, fig. 6. ♂ ♀.
- margaritae** (Forel). Ga.; Mexico, Colombia.  
**Taxonomy:** W. L. Brown, 1953. Amer. Midland Nat. 50: 108-110, pl. 2, fig. 20. ♂ ♀ ♂.
- missouriensis** (M. R. Smith).  
**Taxonomy:** W. L. Brown, 1953. Amer. Midland Nat. 50: 72-73, text fig. 9, pl. 1, fig. 7. ♂ ♀.
- ohioensis** (Kennedy and Schramm). Ala., Del., Md.  
**Taxonomy:** W. L. Brown, 1953. Amer. Midland Nat. 50: 87-89, pl. 1, fig. 4; pl. 2, fig. 19; pl. 3, fig. 30. ♂ ♀ ♂.
- ornata** (Mayr).  
**Taxonomy:** W. L. Brown, 1953. Amer. Midland Nat. 50: 65-67, text fig. 7, pl. 1, fig. 2. ♂ ♀.
- pilinasis** (Forel).  
**Taxonomy:** W. L. Brown, 1953. Amer. Midland Nat. 50: 60-61. ♂ ♀.
- pulchella** (Emery).  
**Taxonomy:** W. L. Brown, 1953. Amer. Midland Nat. 50: 70-72. ♂ ♀ ♂.
- reflexa** (L. G. and R. G. Wesson).  
**Taxonomy:** W. L. Brown, 1953. Amer. Midland Nat. 50: 73-75. ♂ ♀ ♂.

*rohweri* (M. R. Smith).

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 57-58. ♀.

*rostrata* (Emery). N. J. to Ill. south to Gulf of Mex., also La., Mo.

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 84-85, text. figs. 2, 4, pl. 2, fig. 26, pl. 3, figs. 28, 32. ♀ ♀ ♂.—G. C. and J. Wheeler, 1954. Psyche 61: 144 (larva).

*talpa* (Weber). La.

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 76-78, pl. 1, fig. 5; pl. 3, fig. 31. ♀ ♀ ♂.—G. C. and J. Wheeler, 1954. Psyche 61: 141, pl. 9, figs. 11-18 (larva).

*wrayi* W. L. Brown.

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 78-79, pl. 1, fig. 9. ♀.

#### Genus TRICHOSCAPA Emery, p. 829

Biology: Wilson, 1953. Ent. Soc. Amer. Ann. 46: 483-485.—G. C. and J. Wheeler, 1954. Psyche 61: 145 (larvae).

*membranifera* (Emery).

Biology: Weber, 1952. Amer. Mus. Novitates 1554: 7.  
Taxonomy: W. L. Brown, 1949. Mushi 20: 7, 22.

#### Genus QUADRISTRUMA W. L. Brown, p. 829

*emmae* (Emery).

\**Epitritus wheeleri* Donisthorpe, 1916. Ent. Rec. 28: 121. ♀ (syn. by W. I. Brown, 1949. Amer. Ent. Soc. Trans. 75: 48).  
Biology: W. L. Brown, 1949. Mushi 20: 21.

*wheeleri* (Donisthorpe). Syn. of *emmae* (Emery).

#### CYPHOMYRMEX subgenus CYPHOMYRMEX Mayr, pp. 829-830

Biology: Weber, 1955. Sci. 121: 109.

Taxonomy: G. C. Wheeler, 1948. Amer. Midland Nat. 40: 668-670, pl. 2, figs. 1-8 (larvae).

*rimosus* (Spinola).

*Cyphomyrmex (Cyphomyrmex) rimosus* var. *comalensis* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 316) under *minutus* Mayr, which is a syn. of *rimosus*.  
Biology: Weber, 1947. Bol. de Ent. Venezolana 6: 144.—Weber, 1955. Wash. Acad. Sci. Jour. 45: 275-281, 2 figs.  
Taxonomy: G. C. Wheeler, 1948. Amer. Midland Nat. 40: 668, pl. 2, figs. 1-6 (larva).

*rimosus* var. *comalensis* W. M. Wheeler. Syn. of *rimosus* (Spinola).

#### Genus TRACHYMYRMEX Forel, pp. 830-831

Biology: Weber, 1955. Sci. 121: 109.

Taxonomy: Weber, 1945. Rev. de Ent. (Rio de Janeiro) 16: 44, figs. 1, 2.—G. C. Wheeler, 1948. Amer. Midland Nat. 40: 673-674, pl. 2, figs. 14-19 (larvae).

*jamaicensis* (André).

Biology: M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 860.

\**nogalensis* Byars. Ariz. (Nogales). (In *arizonensis-saussurei* complex).

*Trachymyrmex nogalensis* Byars, 1951. Ent. Soc. Wash. Proc. 53: 109-111, figs. 1, 2. ♀ ♀.

*septentrionalis obscurior* (W. M. Wheeler).

*Trachymyrmex septentrionalis obscurior* var. *crystallina* (W. M. Wheeler) (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 324).

*Trachymyrmex septentrionalis obscurior* var. *irrorata* (W. M. Wheeler) (syn. by Creighton, *loc. cit. supra*).

Taxonomy: G. C. Wheeler, 1948. Amer. Midland Nat. 40: 673, pl. 2, figs. 14-19 (larva).

*septentrionalis obscurior* var. *crystallina* (W. M. Wheeler). A syn. of *septentrionalis obscurior* (W. M. Wheeler).

*septentrionalis obscurior* var. *irrorata* (W. M. Wheeler). A syn. of *septentrionalis obscurior* (W. M. Wheeler).

*septentrionalis obscurior* var. *seminole* (W. M. Wheeler). A subsp. of *septentrionalis* (McCook).

*septentrionalis seminole* (W. M. Wheeler), changed status.

*Trachymyrmex septentrionalis obscurior* var. *seminole* (W. M. Wheeler). raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 324).

Biology: Cole, (1950) 1951. Ent. Soc. Amer. Ann. 43: 499-500.—Weber, 1956. Ecology 37: 197-199.

*septentrionalis septentrionalis* (McCook).

*Trachymyrmex septentrionalis* var. *vertebrata* (W. M. Wheeler) (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 323).

Biology: Weber, 1956. Ecology 37: 150-161, figs. 1-4.

*septentrionalis* var. *vertebrata* (W. M. Wheeler). Syn. of *septentrionalis septentrionalis* (McCook).

\**smithi neomexicanus* Cole. N. Mex. (5 miles north of Las Cruces).

*Trachymyrmex smithi neomexicanus* Cole, 1952. Tenn. Acad. Sci. Jour. 27: 159-162, fig. 1, a-c. ♂.

Taxonomy: Cole, 1953. Tenn. Acad. Sci. Jour. 28: 300-301. ♀ ♂.

#### Unrecognized Forms of Genus *Trachymyrmex* Forel, p. 831

Delete from Catalog. *Transf. Oecodoma tardigrada* Buckley to Unrecognized Forms of Myrmicinae, p. 833.

#### ACROMYRMEX subgenus MOELLERIUS Forel, p. 832

Taxonomy: Weber, 1945. Rev. de Ent. (Rio de Janeiro) 16: 61-62, figs. 1, 2.—G. C. Wheeler, 1948. Amer. Midland Nat. 40: 674-676, pl. 3, figs. 1-9 (larvae of *Acromyrmex*).

#### Genus ATTA Fabricius, pp. 832-833

Taxonomy: G. C. Wheeler, 1948. Amer. Midland Nat. 40: 676-683, pl. 3, figs. 10-16 (larvae).—Borgmeier, 1950. Inst. Oswaldo Cruz, Mem. 48: 239-263, 64 illustrations.

*mexicana* (F. Smith). Central America.

Taxonomy: Borgmeier, 1950. Inst. Oswaldo Cruz, Mem. 48: 260-261, figs. 53, 55, 59, 62 (male).

*texana* (Buckley).

Taxonomy: Borgmeier, 1950. Inst. Oswaldo Cruz, Mem. 48: 260-261, figs. 54, 57, 60, 61 (male).

#### Unrecognized Forms of Myrmicinae, p. 833

*Myrmica* (*Monomarium* (!)) *aquia* Buckley. *Transf. from Aphaenogaster* (*Attomyrma*), p. 796.

*Tetramorium* (*Cephalomorium*) *bahai* Forel. *Transf. to Pheidole* (*Pheidole*), p. 800.

*Crematogaster* (*Acrocoelia*) *sanguinea coachellai* J. Enzmann. *Transf. from Unrecognized Forms of Subgenus Crematogaster*, p. 810.

*Myrmica dimidiata* Say. *Transf. from Unrecognized Forms of Myrmica* (*Myrmica*), p. 791.

*Solenopsis madara* Roger. *Transf. from Unrecognized Forms of Subgenus Diplorhoptrum*, p. 814.



- Myrmica novaeboracensis* Buckley. Transf. from Unrecognized Forms of Subgenus *Crematogaster*, p. 810.
- Myrmica opposita* Say. Transf. from Unrecognized Forms of *Aphaenogaster* Subgenus *Attomyrma*, p. 798.
- Atta pennsylvanica* Buckley. Transf. from Unrecognized Forms of Genus *Pheidole*, p. 806.
- Atta picea* Buckley. Transf. from Unrecognized Forms of Genus *Pheidole*, p. 806.
- Tetramorium silvestrii* Santschi. Transf. to *Leptothorax* (*Myrafant*), p. 819.
- Oecodoma tardigrada* Buckley. Transf. from Unrecognized Forms of *Trachymyrmex*, p. 831.
- \**Pheidole pubiventris* r. *timmi* Forel, 1901. Mitt. Naturh. Mus. Hamburg 18: 62. ♀ 2f. ("Probably of Mexican origin—Dr. R. Timm.")

## Subfamily DOLICHODERINAE

## DOLICHODERUS subgenus HYPOCLINEA Mayr, pp. 833-835

Taxonomy: W. L. Brown, 1950. Wasmann Jour. Biology 8: 249—G. C. and J. Wheeler, 1951. Wash. Ent. Soc. Proc. 53: 172 (larvae).

*mariae* Forel.

*Dolichoderus (Hypoclinea) mariae davisii* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 334).

*Dolichoderus (Hypoclinea) mariae* var. *blatchleyi* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

*mariae davisii* W. M. Wheeler. Syn. of *mariae* Forel.

*mariae* var. *blatchleyi* W. M. Wheeler. Syn. of *mariae* Forel.

*plagiatus* (Mayr). N. Dak.

*Dolichoderus (Hypoclinea) plagiatus* var. *inornatus* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 335).

*plagiatus pustulatus* var. *beutenmuelleri* W. M. Wheeler. Syn. of *pustulatus* Mayr.

*plagiatus* var. *inornatus* W. M. Wheeler. Syn. of *plagiatus* (Mayr).

*pustulatus* Mayr.

*Dolichoderus (Hypoclinea) plagiatus pustulatus* var. *beutenmuelleri* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 335).

*taschenbergi* (Mayr).

*Dolichoderus (Hypoclinea) taschenbergi* var. *aterrimus* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 336).

*taschenbergi* var. *aterrimus* W. M. Wheeler. Syn. of *taschenbergi* (Mayr).

## Genus LIOMETOPUM Mayr, p. 835

Taxonomy: G. C. and J. Wheeler, 1951. Wash. Ent. Soc. Proc. 53: 172, 181 (larvae).

*apiculatum* Mayr, changed status.

*Liometopum apiculatum apiculatum* Mayr. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 339).

Taxonomy: G. C. and J. Wheeler, 1951. Wash. Ent. Soc. Proc. 53: 181, pl. 1, figs. 23-24 (larva).

*apiculatum luctuosum* W. M. Wheeler. A subsp. of *occidentale* Emery.

*occidentale* Emery. Reduced to subsp. rank.

*occidentale luctuosum* W. M. Wheeler, changed status. Wyo.

*Liometopum apiculatum luctuosum* W. M. Wheeler. A subsp. of *occidentale* not of *apiculatum* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 339).

*occidentale occidentale* Emery, changed status.

*Liometopum occidentale* Emery. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 339).

Unrecognized Species of *Liometopum* Mayr, p. 835

Delete from Catalog. Transf. *Formica masonia* Buckley to Unrecognized Forms of Dolichoderinae, p. 838.

Genus IRIDOMYRMEX Mayr, pp. 835-836

Biology: G. C. and J. Wheeler, 1951. Wash. Ent. Soc. Proc. 53: 172, 184.

*analis* (E. André). A subsp. of *pruinus* (Roger).

*humilis* (Mayr).

Biology: Gallardo, 1915. Buenos Aires Mus. Nac. de Hist., Nat. An. 27: 23-25.—Mallis, 1942. Sci. Monthly 55: 536-545.

Taxonomy: G. C. and J. Wheeler, 1951. Wash. Ent. Soc. Proc. 53: 186 (larva).

*iniquus nigellus* Emery, changed status.

*Iridomyrmex iniquus* var. *nigellus* Emery. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 342).

*iniquus* var. *nigellus* Emery. Raised to subsp. rank.

*pruinus* (Roger). Reduced to subsp. rank.

*pruinus analis* (E. André), changed status.

*Iridomyrmex analis* (E. André). Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 343).

*Iridomyrmex pruinus* var. *testaceus* Cole, (syn. by Creighton, *loc. cit. supra*).

*pruinus pruinus* (Roger), changed status.

*Iridomyrmex pruinus* (Roger). Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 342).

Biology: W. M. Wheeler, 1911. Harvard Univ., Mus. Compar. Zool. Bul. 54: 497.

Taxonomy: Santschi, 1930. Soc. Roy. Ent d'Égypte Bul. 23: 81, figs. 2-3.—G. C. and J. Wheeler, 1951. Wash. Ent. Soc. Proc. 53: 185, pl. 3, figs. 1-6 (larva).

*pruinus* var. *testaceus* Cole. A syn. of *pruinus analis* (E. André).

DORYMYRMEX subgenus CONOMYRMA Forel, p. 837

\**Conomyrma* subg. *Biconomyrma* Kusnezov, 1952. Acta Zool. Lilloana (Tucuman) 10: 429-430. Invalid. No genotype designated.

Taxonomy: Santschi, 1922. Soc. Vaud. des Sci. Nat. Bul. 54: 365.—Kusnezov, 1952. Acta Zool. Lilloana 10: 427, 429, 438-448, fig. 1, nos. 9-12.

*pyramicus bicolor* W. M. Wheeler, changed status.

*Dorymyrmex (Conomyrma) pyramicus* var. *bicolor* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 349).

*pyramicus flavopectus* M. R. Smith. Ala., Ga., Miss.

*pyramicus pyramicus* (Roger). Oreg.

*Dorymyrmex (Conomyrma) pyramicus* var. *flavus* McCook (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 348).

*Dorymyrmex (Conomyrma) pyramicus* var. *niger* Pergande (syn. by Creighton, *op. cit. supra*, p. 349).

*Dorymyrmex (Conomyrma) pyramicus* var. *smithi* Cole (syn. by Creighton, *loc. cit. supra*).

Taxonomy: G. C. and J. Wheeler, 1951. Wash. Ent. Soc. Proc. 53: 183, pl. 2, figs. 11-18 (larva).

*pyramicus* var. *bicolor* W. M. Wheeler. Raised to subsp. rank.

*pyramicus* var. *flavus* McCook. A Syn. of *pyramicus pyramicus* (Roger).

*pyramicus* var. *niger* Pergande. Syn. of *pyramicus pyramicus* (Roger).

*pyramicus* var. *smithi* Cole. Syn. of *pyramicus pyramicus* (Roger).

\**wheeleri* (Kusnezov). Ariz. (Tucson).

*Conomyrma* (? *Biconomyrma*) *wheeleri* Kusnezov, 1952. Acta Zool. Lilloana (Tucuman) 10: 438. ♀.

#### Genus TAPINOMA Foerster, pp. 837-838

Taxonomy: G. C. and J. Wheeler, 1951. Wash. Ent. Soc. Proc. 53: 172, 195 (larvae).

Delete "Preocc." and "N. syn." after original citation of *Micromyrma* Dufour; *Tapinoma Dufourii* Donisthorpe was unnecessarily proposed as a replacement name for *Micromyrma pygmaea* Dufour.

*melanocephalum* (Fabricius). Ont.

Taxonomy: G. C. and J. Wheeler, 1951. Wash. Ent. Soc. Proc. 53: 197 (larva).

*sessile* (Say).

Biology: Weber, 1941. Canad. Ent. 73: 140-141.

Taxonomy: G. C. and J. Wheeler, 1951. Wash. Ent. Soc. Proc. 53: 196, pl. 4, figs. 8-12 (larva).

#### Unrecognized Form of *Tapinoma* Foerster, p. 838

Delete from Catalog. Transf. *Bothriomyrmex dimmocki* W. M. Wheeler to Unrecognized Forms of Dolichoderinae, p. 838.

#### Unrecognized Forms of Dolichoderinae, p. 838

*Bothriomyrmex dimmocki* W. M. Wheeler. Transf. from Unrecognized Form of *Tapinoma*, p. 838.

*Formica masonia* Buckley. Transf. from Unrecognized Species of *Liometopum*, p. 835.

### Subfamily FORMICINAE

Taxonomy: W. M. Wheeler, 1920. Psyche 27: 51.—G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Pt. 1, 46: 126-171, pl. 1, figs. 1-23; pl. 2, figs. 1-27; pl. 3, figs. 1-28; pl. 4, figs. 1-22 (larvae).—G. C. and J. Wheeler, *op. cit.*, 46: 175-217, pl. 5, figs. 1-20; pl. 6, figs. 1-28; also text figs. 1-2 (larvae).

#### BRACHYMYRMEX subgenus BRACHYMYRMEX Mayr, pp. 838-839

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 47: 129, 139 (larvae).

*depilis* Emery. Calif., Idaho, N. Dak., N. Mex.

*Brachymyrmex (Brachymyrmex) nanellus* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 359).

\**Brachymyrmex depilis flavescens* Grundmann, 1952. Kans. Ent. Soc. Jour. 25: 117. ♀. (Syn. by Cole, 1953. Ent. News. 64: 266).

Biology: Cole, 1940. Amer. Midland Nat. 24: 65-66.—Headley, 1952. Ent. Soc. Amer. Ann. 45: 436, 439.

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 47: 139, pl. 2, figs. 10-15 (larva).

\**depilis flavescens* Grundmann. Syn. of *depilis* Emrey.

*nanellus* W. M. Wheeler. Syn. of *depilis* Emery.

**CAMPONOTUS subgenus CAMPONOTUS Mayr, pp. 839-842**

Taxonomy: W. M. Wheeler, 1921. *Psyche* 28: 17.—International Comn. Zool. Nomencl. 1950. *Bul. Zool. Nomencl.* 4: 408.—G. C. and J. Wheeler, 1953. *Ent. Soc. Amer. Ann.* 46: 181, pl. 5, figs. 1-20, text fig. 1 (larvae).

*acutirostris* W. M. Wheeler. Transf. to *Camponotus* subg. *Tanaemyrmex* Ashmead, p. 843.

*acutirostris* var. *clarigaster* W. M. Wheeler. Transf. to *Camponotus* subg. *Tanaemyrmex* Ashmead, p. 843, and syn. under *acutirostris*.

*americanus* Mayr, changed status. Mich.

*Camponotus (Camponotus) castaneus americanus* Mayr. Raised to sp. rank (*teste* Creighton, 1950. *Harvard Univ., Mus. Compar. Zool. Bul.* 104: 365).

*Camponotus (Camponotus) castaneus rufinasis* Santschi (syn. by Creighton, *loc. cit. supra*).

Taxonomy: G. C. and J. Wheeler, 1953. *Ent. Soc. Amer. Ann.* 46: 185, text fig. 1 (larva).

*castaneus americanus* Mayr. Raised to sp. rank.

*castaneus castaneus* (Latreille). Transf. to *Camponotus* subg. *Tanaemyrmex* Ashmead, p. 843.

*castaneus rufinasis* Santschi. Syn. of *americanus* Mayr.

*ferrugineus* (Fabricius), changed status. Conn., Mass., Mich.

*Camponotus (Camponotus) herculeanus pennsylvanicus* var. *ferrugineus* (Fabricius). Raised to sp. rank (*teste*, W. L. Brown, 1950. *Ent. News* 61: 158-159).

Taxonomy: G. C. and J. Wheeler, 1953. *Ent. Soc. Amer. Ann.* 46: 188 (larva).

\**herculeanus herculeanus* (Linnaeus). N. H.

*Camponotus (Camponotus) herculeanus* var. *whymperi* Forel (syn. by Creighton, 1950. *Harvard Univ., Mus. Compar. Zool. Bul.* 104: 367).

Ecology: W. L. Brown, 1949. *Ent. News* 60: 99.—Weber, 1950. *Amer. Ent. Soc. Trans.* 76: 188.—W. L. Brown, 1955. *Ent. News* 66: 47-48.

Taxonomy: G. C. and J. Wheeler, 1953. *Ent. Soc. Amer. Ann.* 46: 185-187 (larva).

*herculeanus ligniperdus* var. *noveboracensis* (Fitch). Raised to sp. rank.

*herculeanus modoc* W. M. Wheeler, changed status.

*Camponotus (Camponotus) herculeanus* var. *modoc* W. M. Wheeler. Raised to subsp. rank (*teste* W. L. Brown, 1950. *Ent. News* 61: 158).

*herculeanus pennsylvanicus* (DeGeer). Raised to sp. rank.

*herculeanus pennsylvanicus* var. *ferrugineus* (Fabricius). Raised to sp. rank.

*herculeanus* var. *modoc* W. M. Wheeler. Raised to subsp. rank.

*herculeanus* var. *whymperi* Forel. Syn. of *herculeanus herculeanus* (Linnaeus).

*noveboracensis* (Fitch), changed status.

*Camponotus (Camponotus) herculeanus ligniperdus* var. *noveboracensis* (Fitch). Raised to sp. rank (*teste* Creighton, 1950. *Harvard Univ., Mus. Compar. Zool. Bul.* 104: 369).

Taxonomy: G. C. and J. Wheeler, 1953. *Ent. Soc. Amer. Ann.* 46: 182-185, pl. 5, figs. 1-13 (larva).

- ocreatus ocreatus* Emery. Transf. to *Camponotus* subg. *Tanaemyrmex* Ashmead, p. 843.
- ocreatus primipilaris* W. M. Wheeler. Transf. to *Camponotus* subg. *Tanaemyrmex* Ashmead, p. 843, as a syn. of *ocreatus ocreatus* Emery.
- pennsylvanicus* (DeGeer), changed status.  
*Camponotus (Camponotus) herculeanus pennsylvanicus* (DeGeer). Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ. Mus. Compar. Zool. Bul. 104: 367).  
 Morphology: Forbes, 1952. N. Y. Ent. Soc. Jour. 60: 157-171, pl. 15, figs. 1-6; pl. 16, figs. 7-10; pl. 17, figs. 11-18 (male genitalia).—Forbes, 1954. Jour. Morph. 95: 523-548, pl. 1, figs. 1-4; pl. 2, figs. 5-6; pl. 3, figs. 7-14; pl. 4, figs. 15-19 (male reproductive system).—Forbes, 1956. Insectes Sociaux 3: 505-511, figs. 1-6 (male digestive tract).  
 Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 187-188 (larva).
- \**quercicola* M. R. Smith. Calif. (Tanbark Flat, Los Angeles Co.).  
*Camponotus (Camponotus) quercicola* M. R. Smith, 1953. N. Y. Ent. Soc. Jour. 61: 211-214. ♀ 2f.
- sansabeanus bulimosus* W. M. Wheeler. Transf. to *Camponotus* subg. *Tanaemyrmex* Ashmead, p. 843.
- sansabeanus maccooki* Forel. Transf. to *Camponotus* subg. *Tanaemyrmex* Ashmead, p. 843.
- sansabeanus sansabeanus* (Buckley). Transf. to *Camponotus* subg. *Tanaemyrmex* Ashmead, p. 843.
- sansabeanus sansabeanus* var. *torrefactus* W. M. Wheeler. Transf. to *Camponotus* subg. *Tanaemyrmex* Ashmead, p. 843.
- sansabeanus vicinus* Mayr. Transf. to *Camponotus* subg. *Tanaemyrmex* Ashmead, p. 843.
- schaefferi* W. M. Wheeler. Transf. from *Camponotus* subg. *Myrmentoma* Forel, p. 845 (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 371).
- texanus* W. M. Wheeler. Transf. from *Camponotus* subg. *Myrmentoma* Forel, p. 845 (*teste* Creighton, 1950, *loc. cit. supra.*)

Unrecognized Forms of Subgenus *Camponotus* Mayr, p. 842

Delete from Catalog. Transf. *Camponotus herculeanus herculeanus herculeano-pennsylvanicus* Forel, *Camponotus herculeanus ligniperdus* var. *rubens* Wheeler and *Formica semi-punctata* Kirby to Unrecognized Forms of Subfamily Formicinae, p. 875.

**CAMPONOTUS subgenus TANAEMYRMEX Ashmead, p. 843**

- Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 196 (larvae).
- acutirostris* W. M. Wheeler. Transf. from *Camponotus* subg. *Camponotus* Mayr, p. 839 (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 375).  
*Camponotus (Camponotus) acutirostris* var. *clarigaster* W. M. Wheeler (syn. by Creighton, *loc. cit. supra.*)
- acutirostris* var. *clarigaster* W. M. Wheeler. Syn. of *acutirostris* W. M. Wheeler.
- castaneus* (Latreille), changed status. Transf. from *Camponotus* subg. *Camponotus* Mayr, p. 839.  
*Camponotus (Camponotus) castaneus castaneus* (Latreille). Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 375).

- fumidus festinatus** (Buckley), changed status.  
*Camponotus (Tanaemyrmex) fumidus* var. *festinatus* (Buckley). Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 376).
- Camponotus (Tanaemyrmex) fumidus* var. *spurcus* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).
- fumidus* var. *spurcus* W. M. Wheeler. Syn. of *fumidus festinatus* (Buckley).
- **maccooki** Forel, changed status. Transf. from *Camponotus* subg. *Camponotus* Mayr, p. 841.  
*Camponotus (Camponotus) sansabeanus maccooki* Forel. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 377).
- Camponotus (Camponotus) sansabeanus vicinus* var. *semitestaceus* Emery (syn. by Creighton, *loc. cit. supra*).
- Camponotus (Camponotus) sansabeanus dumetorum* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).
- ocreatus** Emery, changed status. Ariz., N. Mex. Transf. from *Camponotus* subg. *Camponotus* Mayr, p. 841.  
*Camponotus (Camponotus) ocreatus ocreatus* Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 378).
- Camponotus (Camponotus) ocreatus primipilaris* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).  
 Biology: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 272.
- ocreatus primipilaris* W. M. Wheeler. Syn. of *ocreatus* Emery.
- sansabeanus bulimosus** W. M. Wheeler. N. Mex. Transf. from *Camponotus* subg. *Camponotus* Mayr, p. 841 (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 379).
- sansabeanus dumetorum** W. M. Wheeler. Syn. of *maccooki* Forel.
- sansabeanus maccooki** Forel. Raised to sp. rank.
- sansabeanus sansabeanus** (Buckley). Transf. from *Camponotus* subg. *Camponotus* Mayr, p. 841 (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 378).  
 Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 196 (larva).
- sansabeanus sansabeanus** var. *torrefactus* W. M. Wheeler. A subsp. of *sansabeanus* (Buckley).
- sansabeanus torrefactus** W. M. Wheeler, changed status. Transf. from *Camponotus* subg. *Camponotus* Mayr, p. 841.  
*Camponotus (Camponotus) sansabeanus sansabeanus* var. *torrefactus* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 379).
- sansabeanus vicinus** Mayr. Raised to sp. rank.
- sansabeanus vicinus** var. *infernalis* W. M. Wheeler. Syn. of *vicinus* Mayr.
- sansabeanus vicinus** var. *luteangulus* W. M. Wheeler. Syn. of *vicinus* Mayr.
- sansabeanus vicinus** var. *maritimus* W. M. Wheeler. Syn. of *vicinus* Mayr.
- sansabeanus vicinus** var. *nitidiventris* Emery. Syn. of *vicinus* Mayr.
- sansabeanus vicinus** var. *plorabilis* W. M. Wheeler. Syn. of *vicinus* Mayr.
- sansabeanus vicinus** var. *semitestaceus* Emery. Syn. of *maccooki* Forel.
- socius** Roger.  
*Camponotus (Tanaemyrmex) socius* var. *osceola* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Comp. Zool. Bul. 104: 379).
- socius** var. *osceola* W. M. Wheeler. Syn. of *socius* Roger.

*vicinus* Mayr, changed status. Transf. from *Camponotus* subg. *Camponotus* Mayr, p. 841.

*Camponotus (Camponotus) sansabeanus vicinus* Mayr. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 381).

*Camponotus (Camponotus) sansabeanus vicinus* var. *nitidiventris* Emery (syn. by Creighton, *loc. cit. supra*).

*Camponotus (Camponotus) sansabeanus vicinus* var. *infernalis* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

*Camponotus (Camponotus) sansabeanus vicinus* var. *luteangulus* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

*Camponotus (Camponotus) sansabeanus vicinus* var. *maritimus* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

*Camponotus (Camponotus) sansabeanus vicinus* var. *plorabilis* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

**CAMPONOTUS subgenus MYRMOTHRIX Forel, pp. 843-844**

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 196 (larvae).

*abdominalis floridanus* (Buckley). Ala.

**CAMPONOTUS subgenus MYRMENTOMA Forel, pp. 844-846**

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 193, pl. 5, figs. 15-16 (larvae).

*caryae caryae* (Fitch). Mich.

*nearcticus* Emery. Colo., N. Dak., Utah.

Taxonomy. G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 193, pl. 5, figs. 15-16 (larva).

*rasilis* W. M. Wheeler. Colo., Utah.

*schaefferi* W. M. Wheeler. Transf. to *Camponotus* subg. *Camponotus* Mayr, p. 841.

*subbarbatus* Emery. Mich., N. C., N. Dak.

*texanus* W. M. Wheeler. Transf. to *Camponotus* subg. *Camponotus* Mayr, p. 841.

Unrecognized Forms of Subgenus *Myrmentoma* Forel, p. 846

Delete from Catalog. Transf. *Formica atra* Buckley and *Formica septentrionale* Buckley to Unrecognized Forms of Subfamily Formicinae, p. 875.

**CAMPONOTUS subgenus COLOBOPSIS Mayr, p. 846**

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 188, fig. 2 (larvae).

*cerberulus* Emery.

Taxonomy: Creighton, 1952. Psyche 59: 148-153.

*hunteri* W. M. Wheeler, changed status.

*Camponotus (Colobopsis) pylartes* var. *hunteri* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 393).

*impressus* Roger.

Taxonomy: M. R. Smith, 1955. Brooklyn Ent. Soc. Bul. 50: 98. ♀.

*mississippiensis* M. R. Smith. Fla.

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 188-190, fig. 2, a-g (larva).

\**papago* Creighton. Ariz. (Baboquivari Mts.)

*Camponotus (Colobopsis) papago* Creighton, 1952. Psyche 59: 153-162, pl. 13, figs. 1-3, text. figs. 1, 2. ♀ 2 ♀ ♂.

*pylartes* var. *hunteri* W. M. Wheeler. Raised to sp. rank.

**CAMPONOTUS subgenus MANNIELLA W. M. Wheeler, p. 847**

Delete from Catalog. No representatives in the United States.

*ulcerosus* W. M. Wheeler. Transf. to *Camponotus* subg. *Myrmaphaenus* Emery, p. 847.

**CAMPONOTUS subgenus MYRMAPHAENUS Emery, p. 847**

*bruesi* W. M. Wheeler. Syn. of *ulcerosus* W. M. Wheeler.

*ulcerosus* W. M. Wheeler. Transf. from *Camponotus* subg. *Manniella*, p. 847.  
*Camponotus (Myrmaphaenus) bruesi* W. M. Wheeler (syn. by Creighton, 1951. *Psyche* 58: 47).

Biology and Taxonomy: Creighton, 1951. *Psyche* 58: 47-64, pl. 5, figs. 1-5, text figs. 1-3.

Biology: Creighton, 1953. *Psyche* 60: 82-84.

**CAMPONOTUS subgenus MYRMOBRACHYS Forel, p. 847**

Taxonomy: G. C. and J. Wheeler, 1953. *Ent. Soc. Amer. Ann.* 46: 194-195 (larvae).

\**planatus* Roger. Cuba, So. Fla., Brownsville area of Tex. and north. Mexico.  
*Camponotus planatus* Roger, 1863. *Berlin. Ent. Ztschr.* 7: 148. ♀ ♀ ♂.  
Taxonomy: G. C. and J. Wheeler, 1953. *Ent. Soc. Amer. Ann.* 46: 194 (larva).

*planatus* var. *continentis* Forel. Delete from Catalog and transf. refs. on Biology and Taxonomy to *planatus* Roger.

**Unrecognized Form of *Camponotus* Mayr, p. 847**

Delete from Catalog. Transf. *Formica lauta* Say to Unrecognized Forms of Subfamily Formicinae, p. 875.

**PARATRECHINA subgenus PARATRECHINA Motschoulsky, pp. 847-848**

Taxonomy: G. C. and J. Wheeler, 1953. *Ent. Soc. Amer. Ann.* 46: 143 (larvae).

**PARATRECHINA subgenus NYLANDERIA Emery, pp. 848-849**

*arenivaga* (W. M. Wheeler). Subsp. of *melanderi* W. M. Wheeler.

*arenivaga* var. *faisonensis* (Forel). Syn. of *melanderi arenivaga* (Forel).

*bruesii* (W. M. Wheeler). ? Ariz., Fla.

\**fulva* (Mayr). South. Texas to Argentina. In greenhouses farther north in the U. S., especially in States along the Atlantic Seaboard.  
*Prenolepis fulva* Mayr, 1862. *Zool. Bot. Gesell. Wien, Verh.* 12: 698.  
♂ ♀.

Taxonomy: Creighton, 1950. *Harvard Univ., Mus. Compar. Zool. Bul.* 104: 406-407.

*fulva pubens* (Forel). Delete from Catalog and replace with *fulva* (Mayr).

*melanderi arenivaga* (W. M. Wheeler), changed status. Fla.

*Paratrechina (Nylanderia) arenivaga* W. M. Wheeler. Reduced to subsp. rank (*teste* Creighton, 1950. *Harvard Univ., Mus. Compar. Zool. Bul.* 104: 408-409).

*Paratrechina (Nylanderia) arenivaga* var. *faisonensis* (Forel) (syn. by Creighton, *loc. cit. supra*).

*melanderi melanderi* (W. M. Wheeler), changed status. Ariz.

*Paratrechina (Nylanderia) vividula melanderi* (W. M. Wheeler). Incorrectly placed under *vividula* (*teste* Creighton 1950. *Harvard Univ., Mus. Compar. Zool. Bul.* 104: 407).

Taxonomy: G. C. and J. Wheeler, 1953. *Ent. Soc. Amer. Ann.* 46: 144, pl. 2, figs. 16-20 (larva).



*parvula* (Mayr). Mass., Mich.

*Paratrechina* (*Nylanderia*) *parvula* var. *grandula* (Forel), (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 409).

*parvula* var. *grandula* (Forel). Syn. of *parvula* (Mayr).

*vividula melanderi* (W. M. Wheeler). Subsp. of *melanderi* (W. M. Wheeler).

**Genus PRENOLEPIS Mayr, pp. 849-850**

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 142 (larvae).

*imparis arizonica* W. M. Wheeler, changed status.

*Prenolepis imparis* var. *arizonica* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 414).

*imparis californica* W. M. Wheeler, changed status.

*Prenolepis imparis* var. *californica* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 414).

*imparis coloradensis* W. M. Wheeler, changed status.

*Prenolepis imparis* var. *coloradensis* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 415).

*imparis imparis* (Say), changed status. Fla., N. Mex.

*Prenolepis imparis* (Say). Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 413).

*Prenolepis imparis* var. *minuta* Emery (syn. by Creighton, 1950, *op. cit.*, p. 414).

*Prenolepis imparis* var. *testacea* Emery (syn. by Creighton, *loc. cit. supra*).

*Prenolepis imparis* var. *pumila* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 142-143, pl. 2, figs. 21-27 (larva).

*imparis* var. *arizonica* W. M. Wheeler. Raised to subsp. rank.

*imparis* var. *californica* W. M. Wheeler. Raised to subsp. rank.

*imparis* var. *coloradensis* W. M. Wheeler. Raised to subsp. rank.

*imparis* var. *minuta* Emery. Syn. of *imparis imparis* (Say).

*imparis* var. *pumila* W. M. Wheeler. Syn. of *imparis imparis* (Say).

*imparis* var. *testacea* Emery. Syn. of *imparis imparis* (Say).

**LASIUS subgenus LASIUS Fabricius, pp. 850-851**

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 147-150, pl. 3, figs. 1-8 (larvae).

Revision: Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 11-13, 26-111, text figs. 1-10, pl. 1, figs. 1-9.

Delete Fabricius 1804 and replace with Fabricius [1804-1805].

\**alienus* (Foerster). Eurasia and N. Amer. In N. Amer. from N. S. and south. B. C. to north. Fla. and the mts. of Durango, Mexico.

*Formica aliena* Foerster, 1850. Hymenopt. Studien 1: 36-38. ♀ ♂.

*Lasius* (*Lasius*) *niger alienus* var. *americanus* Emery (syn. by Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 77).

\**Lasius niger alienus* var. *alieno-americanus* W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 525-526. ♀. (Syn. by Wilson, *loc. cit. supra*.)

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 147-148, pl. 3, figs. 1-8 (larva).—Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 77-89, text. figs. 1, 6-8, pl. 1, fig. 5.

♀ ♀ ♂.

- \***crypticus** Wilson. Alta. and N. Dak. to N. Mex., west to Idaho, Oreg., Utah, and Calif. Abundant in Great Plains and common in Rocky Mts. and the Great Basin.  
*Lasius (Lasius) crypticus* Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 104-108, text fig. 10. ♀ ♀ ♂.
- neoniger** Emery, changed status. Que. and Fla. west to Idaho and N. Mex. Uncommon in south. Rocky Mts. and unknown from Pacific Northwest.  
*Lasius (Lasius) niger* var. *neoniger* Emery. Raised to sp. rank (*teste* Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 97).  
 Taxonomy: Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 97-104, text fig. 9, pl. 1, fig. 3. ♀ ♀ ♂.
- \***niger** (Linnaeus). Eurasia and N. Amer. In N. Amer. from Pacific Northwest through most of the Great Basin, the Rocky Mts., and north. Sierra Nevada.  
*Formica nigra* Linnaeus, 1758. Syst. Nat. Ed. 10, 1: 580. ♀.  
 Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 148-150 (larva).—Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 59-77, text figs. 6-8, pl. 1, figs. 6-7. ♀ ♀ ♂.
- \***niger alienus** var. *alieno-americanus* W. M. Wheeler. Syn. of *alienus* (Foerster).
- niger alienus** var. *americanus* Emery. Syn. of *alienus* (Foerster).
- niger sitkaënsis** Pergande. Raised to sp. rank.
- niger** var. *neoniger* Emery. Raised to sp. rank.
- \***sitiens** Wilson. Ariz., Colo., N. Mex.; Mexico (Durango).  
*Lasius (Lasius) sitiens* Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 108-111, text fig. 10. ♀ ♀ ♂.
- sitkaënsis** Pergande, changed status. East. Que. to Mass., west to southeast. Alaska, Ariz., and Calif., and an isolated area in mts. of N. C., Va., W. Va.  
*Lasius (Lasius) niger sitkaënsis* Pergande. Raised to sp. rank (*teste* Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 36).  
 Taxonomy: Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 36-47, text figs. 3, 4; pl. 1, figs. 1, 4. ♀ ♀ ♂.
- \***LASIUS** subgenus **CAUTOLASIUS** Wilson  
 (= *Lasius* subg. *Chthonolasius* Ruzsky, in part, p. 851)
- Lasius* subg. *Cautolasius* Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 13.  
 Type: *Formica flava* Fabricius. Orig. desig.  
 Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 151-154, pl. 3, figs. 17-21 (larvae).—Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 13-14, 111-138, text figs. 11-14.
- brevicornis brevicornis** Emery. Syn. of *flavus* (Fabricius).
- brevicornis microps** W. M. Wheeler. Syn. of *flavus* (Fabricius).
- \***fallax** Wilson. Mont. and Wash. to Utah, Colo., and Ariz.  
*Lasius (Cautolasius) fallax* Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 130-133. ♀ ♀ ♂.
- \***flavus** (Fabricius). Eurasia and N. Amer. In N. Amer. abundant through most of the eastern half, less abundant in south. Rocky Mts. and rare or absent in north. Rocky Mts. and Pacific Northwest.  
*Formica flava* Fabricius, 1781. Species Insectorum 1: 491. ♀.  
*Lasius (Chthonolasius) brevicornis brevicornis* Emery (syn. by Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 112).  
*Lasius (Chthonolasius) brevicornis microps* W. M. Wheeler (syn. by Wilson, *loc. cit. supra*).

*Lasius (Chthonolasius) flavus claripennis* W. M. Wheeler (syn. under *microps* by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 422).

\**Lasius (Chthonolasius) (?) helveolus* (as *helvus* in fig. 326) Cook, 1950. Ants of Calif., Palo Alto, p. 327. ♀.

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 152-154 (larva).—Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 112-130, text figs. 11-14. ♀ ♀ ♂.

*flavus claripennis* W. M. Wheeler. Syn. of *flavus* (Fabricius).

*flavus nearcticus* W. M. Wheeler. Raised to sp. rank.

*helveolus* Cook. Syn. of *flavus* (Fabricius).

*nearcticus* W. M. Wheeler, changed status. Common throughout most of forested area from southeast. Canada to south. Appalachian Mts., occasional as far west as S. Dak and Wyo.

*Lasius (Chthonolasius) flavus nearcticus* W. M. Wheeler. Raised to sp. rank (*teste* Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 133).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 151-152 (larva).—Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 133-136, text figs. 11-13. ♀ ♀ ♂.

#### LASIUS subgenus CHTHONOLASIUS Ruzsky, pp. 851-852

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 150-151, pl. 3, figs. 9-16 (larvae).—Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 13-14, 150-192, text figs. 15-17; pl. 2, figs. 1, 3-5.

Delete "Type: *Formica flava*" and all references pertaining to it. Replace with "Type: *Formica umbrata* Nylander. Desig. by Emery, 1925."

*brevicornis brevicornis* Emery. Transf. to subg. *Cautolasius* as a syn. of *flavus* (Fabricius), p. 850.

*brevicornis microps* W. M. Wheeler. Transf. to subg. *Cautolasius* as a syn. of *flavus* (Fabricius), p. 850.

*flavus claripennis* W. M. Wheeler. Transf. to subg. *Cautolasius* as a syn. of *flavus* (Fabricius), p. 850.

*flavus nearcticus* W. M. Wheeler. Transf. to subg. *Cautolasius*, p. 850. Raised to sp. rank.

*humilis* W. M. Wheeler. Colo., Nev., N. Mex.

Taxonomy and Ecology: Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 185-187. ♀ ♀.

*minutus* Emery, changed status. East. N. Amer. from N. S. to Va., west to Minn. and Iowa.

*Lasius (Chthonolasius) umbratus minutus* Emery. Raised to sp. rank (*teste* Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 180).

Taxonomy: Wilson, 1955. *Op. cit.*, pp. 180-182, pl. 2, fig. 4.

\**nevadensis* Cole. Nev. (Kyle Canyon in Charleston Mts., near Las Vegas).

*Lasius (Chthonolasius) nevadensis* Cole, 1956. Tenn. Acad. Sci. Jour. 31: 26-27. ♀ ♀ ♂.

*pilosus* M. R. Smith. Syn. of *vestitus* W. M. Wheeler.

*speculiventris* Emery, changed status. Pa. and N. J. to Minn. and Kans.

*Lasius (Chthonolasius) umbratus speculiventris* Emery. Raised to sp. rank (*teste* Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 171).

Taxonomy: Wilson, 1955. *Op. cit.*, pp. 171-173. ♀ ♀ ♂.

*subumbratus* Viereck, changed status. N. S. and Maine to Sask. and all States west of Mont. to Ariz.

*Lasius (Chthonolasius) umbratus subumbratus* Viereck. Raised to sp. rank (*teste* Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 175).

Taxonomy: Wilson, 1955. *Op. cit.*, pp. 175-180, text fig. 17. ♀ ♀ ♂.

\**umbratus* (Nylander). Eurasia and N. Amer. In east. N. Amer. from N. S. to Gulf States, rare in the latter, fairly common in the southern Rocky Mts. but sparse or absent over most of west. N. Amer. No records from north. Calif. to B. C. or north. Idaho.

*Formica umbrata* Nylander, 1846. Acta. Soc. Sci. Fenn. 2: 1048-1050. ♀ ♂.

*Lasius (Chthonolasius) umbratus mixtus* var. *aphidicola* (Walsh) (syn. by Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 150).

*Lasius (Chthonolasius) umbratus epinotalis* Buren (syn. by Wilson, 1955, *op. cit.*, p. 152).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 150-151, pl. 3, figs. 9-16 (larva).—Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 150-167, text figs. 1, 15-17, pl. 1, fig. 1. ♀ ♀ ♂.

*umbratus epinotalis* Buren. Syn. of *umbratus* (Nylander).

*umbratus minutus* Emery. Raised to sp. rank.

*umbratus mixtus* var. *aphidicola* (Walsh). Syn. of *umbratus* (Nylander).

*umbratus speculiventris* Emery. Raised to sp. rank.

*umbratus subumbratus* Viereck. Raised to sp. rank.

*umbratus vestitus* W. M. Wheeler. Raised to sp. rank.

*vestitus* W. M. Wheeler, changed status. Idaho and Calif. to B. C.

*Lasius (Chthonolasius) umbratus vestitus* W. M. Wheeler. Raised to sp. rank (*teste* Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 173).

*Lasius (Chthonolasius) pilosus* M. R. Smith (syn. by Wilson, 1955, *loc. cit. supra*).

Taxonomy: Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 173-175. ♀ ♀.

#### Genus ACANTHOMYOPS Mayr

(= *Lasius* subg. *Acanthomyops* pp. 852-854 Mayr)

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 154-156, pl. 3, figs. 22-28 (larvae).

Place author names of all valid species and subspecies in parentheses.

*claviger californicus* (W. M. Wheeler), changed status.

*Lasius (Acanthomyops) interjectus californicus* W. M. Wheeler. A subspecies of *claviger*, not of *interjectus* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 430).

*claviger claviger* (Roger).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 155-156, pl. 3, figs. 27-28 (larva).

*claviger coloradensis* (W. M. Wheeler), changed status.

*Lasius (Acanthomyops) interjectus coloradensis* W. M. Wheeler. A subsp. of *claviger*, not of *interjectus* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 429).

Taxonomy: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 284.

*claviger subglaber* Emery. Raised to sp. rank.

*clavigeroides* Buren. Syn. of *subglaber* (Emery).

*interjectus californicus* (W. M. Wheeler). Subsp. of *claviger* (Roger).

*interjectus coloradensis* (W. M. Wheeler). A subsp. of *claviger* (Roger).

**interjectus interjectus** (Mayr).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 156 (larva).

**occidentalis** (W. M. Wheeler). N. Dak.

**plumopilosus** (Buren). Mich.

**subglaber** (Emery), changed status. Tenn.

**Lasius** (*Acanthomyops*) **claviger subglaber** Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 433).

**Lasius** (*Acanthomyops*) **clavigeroides** Buren (syn. by Creighton, *loc. cit. supra*).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 155, pl. 3, figs. 22-26 (larva).

#### Unrecognized Forms of *Lasius* Fabricius, p. 854

Delete from Catalog. Transf. *Formica monticola* Buckley and *Formica saxicola* Buckley to p. 875 under Unrecognized Forms of Subfamily Formicinae.

#### Genus MYRMECOCYSTUS Wesmael, pp. 854-857

**comatus** W. M. Wheeler, changed status. Ariz., N. Mex.

**Myrmecocystus melliger mendax** var. **comatus** W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 442).

Taxonomy: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 284. ♀.

**flaviceps** W. M. Wheeler, changed status.

**Myrmecocystus yuma** var. **flaviceps** W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 443).

**idahoensis** Cole. Syn. of **mojave** W. M. Wheeler.

**lugubris** W. M. Wheeler. Lower Calif. (Mex.), Mexico.

**Myrmecocystus yuma** W. M. Wheeler (syn. by Creighton, 1956. Amer. Mus. Novitates No. 1807, p. 1).

**melliger californicus** Cole, changed status.

**Myrmecocystus melliger mimicus** var. **californicus**. A subsp. not a var. of **mimicus** (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 445).

**melliger lomaënsis** W. M. Wheeler. Syn. of **mimicus** W. M. Wheeler.

**melliger melliger** Forel.

**Myrmecocystus melliger orbiceps** W. M. Wheeler (syn. by Creighton and Crandall, 1954. Biol. Rev., City College N. Y. 16: 2).

Biology: Creighton and Crandall, 1954. *Op. cit.*, pp. 2-6, figs. 1-4.

**melliger mendax** W. M. Wheeler. Raised to sp. rank.

**melliger mendax** var. **comatus** W. M. Wheeler. Raised to sp. rank.

**melliger mimicus** W. M. Wheeler. Raised to sp. rank.

**melliger mimicus** var. **californicus** Cole. Subsp. of **melliger** Forel.

**melliger mimicus** var. **depilis** Forel. The status of **depilis** is uncertain and it is questionable whether **depilis** occurs in the U. S. or not (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 440).

**melliger mimicus** var. **jesuita** W. M. Wheeler. Syn. of **mimicus** W. M. Wheeler.

**melliger orbiceps** W. M. Wheeler. Syn. of **melliger melliger** Forel.

**melliger semirufus** Emery. Raised to sp. rank.

**melliger semirufus** var. **testaceus** Emery. Syn. of **semirufus** Emery.

- mendax** W. M. Wheeler, changed status. N. Mex.  
*Myrmecocystus melliger mendax* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool 104: 445).  
 Taxonomy: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 284. ♀.
- mexicanus hortideorum** McCook, changed status.  
*Myrmecocystus mexicanus* var. *horti-deorum* McCook. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 446).
- mexicanus mexicanus** Wesmael, changed status. N. Mex.  
*Myrmecocystus mexicanus* Wesmael. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 446).
- mexicanus** var. *horti-deorum* McCook. Raised to subsp. rank.
- mimicus** W. M. Wheeler, changed status.  
*Myrmecocystus melliger mimicus* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 446).  
*Myrmecocystus melliger mimicus* var. *jesuita* W. M. Wheeler (syn. by Creighton *op. cit. supra*, p. 447).  
*Myrmecocystus melliger lomaënsis* W. M. Wheeler (syn. by Creighton, 1950, *loc. cit. supra*).
- mojave** W. M. Wheeler. South. Calif. to south. Idaho.  
*Myrmecocystus idahoensis* Cole (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 448).
- \*pyramicus** M. R. Smith. Nev. (Nev. Dominion Mine, Pyramid Mining Dist., 5 miles west of Mullen Gap).  
*Myrmecocystus pyramicus* M. R. Smith, 1951. Great Basin Nat. 11: 91-94, figs. 1-3. ♀.
- semirufus** Emery, changed status. Oreg.  
*Myrmecocystus melliger semirufus* Emery. Raised to sp. rank. (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 449).  
*Myrmecocystus melliger semirufus* var. *testaceus* Emery (syn. by Creighton, *loc. cit. supra*).
- yuma** W. M. Wheeler. ? Idaho. Syn. of *lugubris* W. M. Wheeler.
- yuma** var. *flaviceps* W. M. Wheeler. Raised to sp. rank.

#### FORMICA subgenus PROFORMICA Ruzsky, pp. 857-858

- Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 158-159, pl. 4, figs. 8-10 (larvae).—W. L. Brown and E. O. Wilson, 1955. Psyche 62: 108-129, pl. 2, figs. 1-8.
- bradleyi** W. M. Wheeler. Transf. from *Formica* subg. *Formica* Linnaeus (*sanguinea* group), p. 860 (*teste* W. L. Brown and E. O. Wilson, 1955. Psyche 62: 126).  
*Formica (Proformica) neogagates neogagates* var. *morbida* W. M. Wheeler (syn. by W. L. Brown and E. O. Wilson, *loc. cit. supra*).  
 Biology: Beamer and Michener, 1950. Kans. Ent. Soc. Jour. 23: 110-113, fig. 1.  
 Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 168-169, pl. 4, figs. 11-14 (larva).
- lasioides** Emery, changed status. Ariz., Mich., N. Mex.  
*Formica (Proformica) neogagates lasioides* Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 457).  
*Formica (Proformica) neogagates lasioides* var. *vetula* W. M. Wheeler (syn. by Creighton, *op. cit. supra*, p. 458).

*limata* W. M. Wheeler, changed status. N. Mex.

*Formica (Proformica) neogagates lasioides* var. *limata* W. M. Wheeler raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 458).

*neogagates* Emery, changed status. Ariz., N. Mex.

*Formica (Proformica) neogagates neogagates* Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 459).

*Formica (Proformica) neogagates neogagates* var. *vinculans* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 158-159, pl. 4, figs. 8-10 (larva).

*neogagates lasioides* Emery. Raised to sp. rank.

*neogagates lasioides* var. *limata* W. M. Wheeler. Raised to sp. rank.

*neogagates lasioides* var. *vetula* W. M. Wheeler. Syn. of *lasioides* Emery.

*neogagates neogagates* Emery. Raised to sp. rank.

*neogagates neogagates* var. *morbida* W. M. Wheeler. Syn. of *bradleyi* W. M. Wheeler.

*neogagates neogagates* var. *vinculans* W. M. Wheeler. Syn. of *neogagates* Emery.

**FORMICA subgenus NEOFORMICA W. M. Wheeler, pp. 858-860**

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 159-160, pl. 4, figs. 15-17 (larvae).

*archboldi* M. R. Smith, changed status. Ala.

*Formica (Neoformica) pallide-fulva archboldi* M. R. Smith. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 549).

*pallide-fulva archboldi* M. R. Smith. Raised to sp. rank.

*pallide-fulva delicata* Cole. Syn. of *pallide-fulva nitidiventris* Emery.

*pallide-fulva nitidiventris* Emery.

*Formica (Neoformica) pallide-fulva nitidiventris* var. *fuscata* Emery (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 551).

*Formica (Neoformica) pallide-fulva schaufussi* var. *incerta* Emery (syn. by Creighton, *loc. cit. supra*).

*Formica (Neoformica) pallide-fulva delicata* Cole (syn. by Creighton, *loc. cit. supra*).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 159-160, pl. 4, figs. 15-17 (larva).

*pallide-fulva nitidiventris* var. *fuscata* Emery. Syn. of *pallide-fulva nitidiventris* Emery.

*pallide-fulva pallide-fulva* Latreille.

*Formica (Neoformica) pallide-fulva* var. *succinea* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 550).

*pallide-fulva schaufussi* Mayr. A subsp. of *schaufussi* Mayr.

*pallide-fulva schaufussi* var. *dolosa* W. M. Wheeler. A subsp. of *schaufussi* Mayr.

*pallide-fulva schaufussi* var. *incerta* Emery. Syn. of *pallide-fulva nitidiventris* Emery.

*pallide-fulva* var. *succinea* W. M. Wheeler. Syn. of *pallide-fulva pallide-fulva* Latreille.

*schaufussi dolosa* W. M. Wheeler, changed status.

*Formica (Neoformica) pallide-fulva schaufussi* var. *dolosa* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 551).

*schaufussi schaufussi* Mayr, changed status.

*Formica (Neoformica) pallide-fulva schaufussi* Mayr. A subsp. of *schaufussi*, not of *pallide-fulva* (teste Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 551).

**FORMICA subgenus FORMICA Linnaeus, pp. 860-873**

Taxonomy: Yarrow, 1950. Internatl. Comn. Zool. Nomencl., Bul. Zool. Nomencl. 4: 408.—G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 160, (larvae).—E. O. Wilson and W. L. Brown, 1955. Psyche 62: 108-129, pl. 2, figs. 1-8.—Yarrow, 1955. Internatl. Comn. Zool. Nomencl., Bul. Zool. Nomencl. 9: 313-318 (genotype).

*altipetens* W. M. Wheeler, changed status.

*Formica (Formica) cinerea* var. *altipetens* W. M. Wheeler. Raised to sp. rank (teste Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 531).

Taxonomy: Gregg, 1953. Ent. Soc. Wash. Proc. 55: 326-328, fig. 2. ♀.—G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 160, 162, pl. 4, figs. 1-5 (larva).

*bradleyi* W. M. Wheeler. Transf. to *Formica* subg. *Proformica* Ruzsky, p. 857.

\**calviceps* Cole. N. Mex. (Capulin Mt. Natl. Mon.). (In *rufa* group.)

*Formica (Formica) calviceps* Cole, 1954. Tenn. Acad. Sci. Jour. 29: 164-165. ♀.

*cinerea lepida* W. M. Wheeler, changed status. Dakotas to Wash., Calif., Colo., N. Mex.

*Formica (Formica) cinerea* var. *lepida* W. M. Wheeler. Raised to subsp. rank (teste Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 531).

Biology: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 166.

Taxonomy: Gregg, 1953. Ent. Soc. Wash. Proc. 55: 326, fig. 2. ♀.

*cinerea montana* Emery, changed status. N. Mex.

*Formica (Formica) cinerea* var. *montana* Emery. Raised to subsp. rank (teste Gregg, 1953. Ent. Soc. Wash. Proc. 55: 326, fig. 2. ♀.)

*Formica (Formica) cinerea* var. *neocinerea* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 534).

*Formica (Formica) cinerea* var. *rutilans* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

Taxonomy: Gregg, 1953. Ent. Soc. Wash. Proc. 55: 326, fig. 2. ♀.

*cinerea* var. *altipetens* W. M. Wheeler. Raised to sp. rank.

*cinerea* var. *lepida* W. M. Wheeler. Raised to subsp. rank.

*cinerea* var. *montana* Emery. Raised to subsp. rank.

*cinerea* var. *neocinerea* W. M. Wheeler. Syn. of *cinerea montana* Emery.

*cinerea* var. *rutilans* W. M. Wheeler. Syn. of *cinerea montana* Emery.

*dakotensis dakotensis* Emery, changed status.

*Formica (Formica) dakotensis* Emery. Reduced to subsp. rank (teste Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 484).

*Formica (Formica) dakotensis* var. *specularis* Emery (syn. by Creighton, *loc. cit. supra*).

*Formica (Formica) dakotensis* var. *saturata* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

*dakotensis montigena* W. M. Wheeler, changed status.

*Formica (Formica) dakotensis* var. *montigena* W. M. Wheeler. Raised to subsp. rank (teste Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 484).

*dakotensis* var. *montigena* W. M. Wheeler. Raised to subsp. rank.



- dakotensis* var. *saturata* W. M. Wheeler. Syn. of *dakotensis dakotensis* Emery.
- dakotensis* var. *specularis* Emery. Syn. of *dakotensis dakotensis* Emery.
- densiventris* Viereck, changed status. (In *microgyna* group).  
*Formica (Formica) fusca densiventris* Viereck. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 499).
- Formica (Formica) microgyna rasilis* var. *spicata* W. M. Wheeler (syn. by Cole, 1955. Tenn. Acad. Sci. Jour. 30: 50).
- Formica (Formica) microgyna rasilis* var. *pinetorum* W. M. Wheeler (syn. of *rasilis spicata teste* Creighton, 1950, *op. cit.*, p. 507).  
 Biology: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 165.
- difficilis* Emery. Tenn., Va. (4,000 ft.).  
 Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 164 (larva).
- emeryi* W. M. Wheeler. Syn. of *subnuda* Emery.
- exsectoides* Forel, changed status. Colo., Kans., N. Mex., Tenn.  
*Formica (Formica) exsectoides exsectoides* Forel. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 513).
- Formica (Formica) exsectoides* var. *davisi* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).
- Formica (Formica) exsectoides* var. *hesperia* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).
- Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 164 (larva).—Cole, 1954. Tenn. Acad. Sci. Jour. 29: 166.
- exsectoides exsectoides* Forel. Raised to sp. rank.
- exsectoides opaciventris* Emery. Raised to sp. rank.
- exsectoides* var. *davisi* W. M. Wheeler. Syn. of *exsectoides* Forel.
- exsectoides* var. *hesperia* W. M. Wheeler. Syn. of *exsectoides* Forel.
- foreliana* W. M. Wheeler. Syn. of *rufibarbis gnava* Buckley.
- fusca* Linnaeus, changed status.  
*Formica (Formica) fusca fusca* Linnaeus. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 532).
- Formica (Formica) fusca* var. *subsericea* Say (syn. by Creighton, *loc. cit. supra*).
- Formica (Formica) fusca* var. *subaenescens* Emery (syn. by Creighton, *loc. cit. supra*).
- Formica (Formica) fusca* var. *argentea* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).
- Formica lecontei* Kennedy and Dennis (syn. by Creighton, *loc. cit. supra*).  
 Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 164-165 (larva).
- fusca densiventris* Viereck. Raised to sp. rank.
- fusca pruinosa* W. M. Wheeler. Raised to sp. rank.
- fusca pruinosa* var. *lutescens* W. M. Wheeler. Syn. of *neoclara* Emery.
- fusca* var. *algida* W. M. Wheeler. A subsp. of *neorufibarbis* Emery.
- fusca* var. *argentea* W. M. Wheeler. Syn. of *fusca* Linnaeus.
- fusca* var. *gelida* W. M. Wheeler. A subsp. of *neorufibarbis* Emery.
- fusca* var. *marcida* W. M. Wheeler. Raised to sp. rank.
- fusca* var. *neoclara* Emery. Raised to sp. rank.
- fusca* var. *neorufibarbis* Emery. A subsp. of *neorufibarbis* Emery.
- fusca* var. *subaenescens* Emery. Syn. of *fusca* Linnaeus.

- fusca* var. *subsericea* Say. Syn. of *fusca* Linnaeus.
- hewitti W. M. Wheeler. Colo., Idaho, Nev., N. Mex., Utah, Wash., Wyo.
- impexa W. M. Wheeler. Minn.
- integra haemorrhoidalis* Emery, changed status. B. C.  
*Formica (Formica) rufa haemorrhoidalis* Emery. A subsp. of *integra*, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 488).
- integra integra* Nylander, changed status.  
*Formica (Formica) rufa integra* Nylander. A subsp. of *integra*, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 487).
- integra tahoensis* W. M. Wheeler, changed status.  
*Formica (Formica) rufa tahoensis* W. M. Wheeler. A subsp. of *integra*, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 488).  
 Taxonomy: Cole, 1956. Tenn. Acad. Sci. Jour. 31: 260. ♀ ♂.
- integroides coloradensis* W. M. Wheeler, changed status.  
*Formica (Formica) rufa coloradensis* W. M. Wheeler. A subsp. of *integroides*, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 489).
- integroides integroides* Emery, changed status. B. C.  
*Formica (Formica) rufa integroides* Emery. A subsp. of *integroides*, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 488).  
*Formica (Formica) rufa subcaviceps* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).
- integroides planipilis* Creighton, changed status.  
*Formica (Formica) rufa planipilis* Creighton. A subsp. of *integroides*, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 490).  
 Taxonomy: Cole, 1956. Tenn. Acad. Sci. Jour. 31: 259. ♀.
- integroides propinqua* W. M. Wheeler, changed status. Calif. to Wash., along east. slopes Sierra and Cascade Mts.  
*Formica (Formica) rufa propinqua* W. M. Wheeler. A subsp. of *integroides*, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 490).  
 Taxonomy: Cole, 1956. Tenn. Acad. Sci. Jour. 31: 257-259. ♀ ♂.
- integroides subfasciata* W. M. Wheeler, changed status.  
*Formica (Formica) rufa subfasciata* W. M. Wheeler. A subsp. of *integroides*, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 490).
- laeviceps* Creighton, changed status.  
*Formica (Formica) rufa laeviceps* Creighton. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 491).
- lecontei* Kennedy and Dennis. Syn. of *fusca* Linnaeus.
- manni W. M. Wheeler. Oreg.
- marcida* W. M. Wheeler, changed status. N. Mex., Utah, Wyo.  
*Formica (Formica) fusca* var. *marcida* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 534).
- microgyna* W. M. Wheeler, changed status.  
*Formica (Formica) microgyna microgyna* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 502).  
*Formica (Formica) microgyna* var. *recidiva* W. M. Wheeler (syn. by Creighton, *op. cit.*, p. 504).

- microgyna californica* W. M. Wheeler. A subsp. of *whymperi* Forel.
- microgyna californica* var. *hybrida* W. M. Wheeler. Syn. of *whymperi californica* W. M. Wheeler.
- microgyna rasilis* W. M. Wheeler. Raised to sp. rank.
- microgyna rasilis* var. *pinetorum* W. M. Wheeler. Syn. of *densiventris* Viereck.
- microgyna rasilis* var. *pullula* W. M. Wheeler. Syn. of *whymperi whymperi* Forel.
- microgyna rasilis* var. *spicata* W. M. Wheeler. Syn. of *densiventris* Viereck.
- microgyna scitula* W. M. Wheeler. Raised to sp. rank.
- microgyna spatulata* Buren. Raised to sp. rank.
- microgyna* var. *recidiva* W. M. Wheeler. Syn. of *microgyna* W. M. Wheeler.
- mucescens* W. M. Wheeler, changed status.  
*Formica (Formica) rufa mucescens* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 491).
- neoclara* Emery, changed status. Kans.  
*Formica (Formica) fusca* var. *neoclara* Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 535).  
*Formica (Formica) fusca pruinosa* var. *lutescens* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).  
 Biology: La Berge 1952. Kans. Ent. Soc. Jour. 25: 59.  
 Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 165, pl. 4, figs. 6-7 (larva).
- neurufibarbis algida* W. M. Wheeler, changed status.  
*Formica (Formica) fusca* var. *algida* W. M. Wheeler. A subsp. of *neurufibarbis*, not of *fusca* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 537).  
 Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 165 (larva).
- neurufibarbis gelida* W. M. Wheeler, changed status.  
*Formica (Formica) fusca* var. *gelida* W. M. Wheeler. A subsp. of *neurufibarbis*, not of *fusca* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 537).
- neurufibarbis neurufibarbis* Emery, changed status. Ariz., ? Mich., N. Mex.  
*Formica (Formica) fusca* var. *neurufibarbis* Emery. A subsp. of *neurufibarbis*, not of *fusca* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 536).
- nevadensis* W. M. Wheeler. After orig. cit. change ♂ to ♀.  
 Taxonomy: Cole, 1956. Tenn. Acad. Sci. Jour. 31: 256-257.
- obscuripes obscuripes* Forel, changed status. Mich., N. Mex.  
*Formica (Formica) rufa obscuripes* Forel. A subsp. of *obscuripes*, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 492).  
*Formica (Formica) rufa melanotica* Emery (syn. by Creighton, *loc. cit. supra*).  
 Biology: Sallee and King. 1947. Iowa Acad. Sci. Proc. 54: 349-352.—King and Walters, 1950. *Op. cit.* 57: 469-473, fig. 1.—King and Sallee, 1953. *Op. cit.*, 60: 656-659.  
 Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 165-166 (larva).
- obscuripes ravida* W. M. Wheeler, changed status.  
*Formica (Formica) rufa ravida* W. M. Wheeler. A subsp. of *obscuripes*, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 493).

- obscuriventris clivia** Creighton, changed status.  
*Formica (Formica) rufa clivia* Creighton. A subsp. of **obscuriventris**, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 494).  
 Morphology: King, 1955. Iowa Acad. Sci. Proc. 62: 509-513.
- obscuriventris obscuriventris** Mayr, changed status. ? N. Dak.  
*Formica (Formica) rufa obscuriventris* Mayr. A subsp. of **obscuriventris**, not *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 493).  
*Formica (Formica) rufa gymnomma* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).
- obtusopilosa alticola** W. M. Wheeler, changed status.  
*Formica (Formica) obtusopilosa* var. *alticola* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 466).
- obtusopilosa** var. *alticola* W. M. Wheeler. Raised to subsp. rank.
- opaciventris** Emery, changed status. N. Mex.  
*Formica (Formica) exsectoides opaciventris* Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 514).  
 Biology: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 166.  
 Taxonomy: Gregg, 1952. Psyche 59: 14-16. ♀.
- oreas comptula** W. M. Wheeler, changed status. Alta., Iowa, N. Dak.  
*Formica (Formica) oreas* var. *comptula* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 494).
- oreas oreas** W. M. Wheeler, changed status. Mont., Wyo.  
*Formica (Formica) oreas* W. M. Wheeler. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 494).  
 Biology: Cole, 1954. Tenn., Acad. Sci. Jour. 29: 165.
- oreas** var. *comptula* W. M. Wheeler. Raised to subsp. rank.
- pergandei** Emery. Syn. of **subintegra** Emery.
- perpilosa** W. M. Wheeler. Kans.  
 Biology: LaBerge, 1952. Kans. Ent. Soc. Jour. 25: 59.
- pilicornis** Emery.  
 Taxonomy: Gregg, 1953. Ent. Soc. Wash. Proc. 55: 326, fig. 2. ♂.
- postoculata** Kennedy and Dennis. Ill., Iowa.
- pruinosa** W. M. Wheeler, changed status.  
*Formica (Formica) fusca pruinosa* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 538).
- puberula** Emery, changed status.  
*Formica (Formica) sanguinea puberula* Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 468).
- querquetulana** Kennedy and Dennis. Ohio to New England.
- rasilis** W. M. Wheeler, changed status.  
*Formica (Formica) microgyna rasilis* W. M. Wheeler. Raised to sp. rank (*teste* Creighton 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 506).
- rubicunda** Emery, changed status. N. Mex.  
*Formica (Formica) sanguinea rubicunda* Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 468).
- rufa clivia** Creighton. Subsp. of **obscuriventris** Mayr.

- rufa coloradensis* W. M. Wheeler. Subsp. of *integroides* Emery.
- rufa gymnomma* W. M. Wheeler. Syn. of *obscuriventris obscuriventris* Mayr.
- rufa haemorrhoidalis* Emery. Subsp. of *integra* Nylander.
- rufa integra* Nylander. A subsp. of *integra* Nylander.
- rufa integroides* Emery. A subsp. of *integroides* Emery.
- rufa laeviceps* Creighton. Raised to sp. rank.
- rufa melanotica* Emery. Syn. of *obscuripes obscuripes* Forel.
- rufa mucescens* W. M. Wheeler. Raised to sp. rank.
- rufa obscuripes* Forel. A subsp. of *obscuripes* Forel.
- rufa obscuriventris* Mayr. A subsp. of *obscuriventris* Mayr.
- rufa planipilis* Creighton. A subsp. of *integroides* Emery.
- rufa propinqua* W. M. Wheeler. A subsp. of *integroides* Emery.
- rufa ravidata* W. M. Wheeler. A subsp. of *obscuripes* Forel.
- rufa subcaviceps* W. M. Wheeler. Syn. of *integroides integroides* Emery.
- rufa subfasciata* W. M. Wheeler. A subsp. of *integroides* Emery.
- rufa subnitens* Creighton. Raised to sp. rank.
- rufa tahoensis* W. M. Wheeler. A subsp. of *integra* Nylander.
- rufibarbis gnava* Buckley, changed status.  
*Formica (Formica) rufibarbis* var. *gnava* Buckley. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 539).
- Formica (Formica) foreliana* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).
- rufibarbis occidua* W. M. Wheeler, changed status.  
*Formica (Formica) rufibarbis* var. *occidua* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 539).
- rufibarbis* var. *gnava* Buckley. A subsp. of *rufibarbis* Fabricius.
- rufibarbis* var. *occidua* W. M. Wheeler. A subsp. of *rufibarbis* Fabricius.
- sanguinea aserva* Forel. Syn. of *subnuda* Emery.
- sanguinea puberula* Emery. Raised to sp. rank.
- sanguinea rubicunda* Emery. Raised to sp. rank.
- sanguinea rubicunda* var. *sublucida* W. M. Wheeler. Raised to sp. rank.
- sanguinea subintegra* Emery. Raised to sp. rank.
- sanguinea subintegra* var. *gilvescens* W. M. Wheeler. Syn. of *subintegra* Emery.
- sanguinea subnuda* Emery. Raised to sp. rank.
- scitula* W. M. Wheeler, changed status.  
*Formica (Formica) microgyna scitula* W. M. Wheeler. Raised to sp. rank. (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 507).
- spatulata* Buren, changed status. B. C., Mont., N. Dak.  
*Formica (Formica) microgyna spatulata* Buren. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 508).
- subintegra* Emery, changed status. N. Dak.  
*Formica (Formica) sanguinea subintegra* Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 470).

- Formica (Formica) pergandei* Emery (Syn. by Wilson and Brown, 1955. Psyche 62: 120).
- Formica (Formica) sanguinea subintegra* var. *gilvescens* W. M. Wheeler syn. by Creighton, *loc. cit. supra*).
- sublucida* W. M. Wheeler, changed status.  
*Formica (Formica) sanguinea rubicunda* var. *sublucida* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 471).
- subnitens* Creighton, changed status. B. C., N. Mex., ? Wyo.  
*Formica (Formica) rufa subnitens* Creighton. Raised to sp. rank (*teste* Cole, 1955. Tenn. Acad. Sci. Jour. 30: 50).  
 Biology: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 165.
- subnuda* Emery, changed status.  
*Formica (Formica) sanguinea subnuda* Emery. Raised to sp. rank (*teste* Wilson and W. L. Brown, 1955. Psyche 62: 118).  
*Formica (Formica) sanguinea aserva* Forel (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 469).  
*Formica (Formica) emeryi* W. M. Wheeler (syn. by Wilson and Brown, *loc. cit. supra*).  
 Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 170 (larva).
- subpolita camponoticeps* W. M. Wheeler, changed status. Oreg., Nev.  
*Formica (Formica) subpolita* var. *camponoticeps* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 542).
- subpolita ficticia* W. M. Wheeler, changed status. ? B. C., Utah, Wyo.  
*Formica (Formica) subpolita* var. *ficticia* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 542).
- subpolita* var. *camponoticeps* W. M. Wheeler. Raised to subsp. rank.
- subpolita* var. *ficticia* W. M. Wheeler. Raised to subsp. rank.
- ulkei* Emery. Mich., Mont.  
*Formica (Formica) ulkei* var. *hebescens* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. 104: 515).  
 Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 168 (larva).
- ulkei* var. *hebescens* W. M. Wheeler. Syn. of *ulkei* Emery.
- wheeleri* Creighton. Ariz., Colo., N. Mex. Slaves: *Formica fusca* L., *Formica neorufibarbis neorufibarbis* Emery.  
 Biology: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 164.—Wilson, 1955. Psyche 62: 130-133.
- whymperi adamsi* W. M. Wheeler, changed status.  
*Formica (Formica) whymperi* var. *adamsi* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 509).
- whymperi alpina* W. M. Wheeler, changed status. N. Mex., Utah.  
*Formica (Formica) whymperi* var. *alpina* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 509).  
 Biology: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 165-166.
- whymperi californica* W. M. Wheeler, changed status. Calif. and Wash. to Idaho and Mont.  
*Formica (Formica) microgyna californica* W. M. Wheeler. A subsp. of *whymperi*, not of *microgyna* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 510).  
*Formica (Formica) microgyna californica* var. *hybrida* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

*whymperi whymperi* Forel, changed status. Mont. to B. C. and Wash.

*Formica (Formica) whymperi* Forel. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 508).

*Formica (Formica) microgyna rasilis* var. *pullula* W. M. Wheeler (syn. by Creighton, 1950, *op. cit.*, p. 509).

*whymperi* var. *adamsi* W. M. Wheeler. Raised to subsp. rank.

*whymperi* var. *alpina* W. M. Wheeler. Raised to subsp. rank.

#### Unrecognized Forms of *Formica* Linnaeus, p. 873

Delete from Catalog. Transf. *Formica Connecticutensis* Buckley, *Formica Nortonii* Buckley, *Formica Nova Anglae* Buckley, *Formica politurata* Buckley and *Formica Virginiana* Buckley to p. 875 under Unrecognized Forms of Subfamily Formicinae.

#### Genus POLYERGUS Latreille, pp. 873-875

*lucidus lucidus* Mayr. N. Mex.

*Polyergus lucidus montivagus* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 557).

*lucidus montivagus* W. M. Wheeler. Syn. of *lucidus lucidus* Mayr.

*rufescens breviceps* Emery.

*Polyergus rufescens breviceps* var. *silvestrii* Santschi (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 558).

*Polyergus rufescens breviceps* var. *fusciventris* W. M. Wheeler (syn. by Creighton, *op. cit. supra*, p. 559).

*rufescens breviceps* var. *fusciventris* W. M. Wheeler. Syn. of *rufescens breviceps* Emery.

*rufescens breviceps* var. *silvestrii* Santschi. Syn. of *rufescens breviceps* Emery.

*rufescens breviceps* var. *umbratus* W. M. Wheeler. A subsp. of *rufescens breviceps* (Latreille).

*rufescens umbratus* W. M. Wheeler, changed status. Utah, Nev.

*Polyergus rufescens breviceps* var. *umbratus* W. M. Wheeler. A subsp. of *rufescens*, not a var. of *breviceps* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 560).

#### Unrecognized Forms of Subfamily Formicinae, p. 875

*Camponotus herculeanus herculeanus herculeano-pennsylvanicus* Forel. Transf. from Unrecognized Forms of Subgenus *Camponotus*, p. 842.

*Camponotus herculeanus ligniperdus* var. *rubens* W. M. Wheeler. Transf. from Unrecognized Forms of Subgenus *Camponotus*, p. 842.

*Formica atra* Buckley. Transf. from Unrecognized Forms of Subgenus *Myrmecotoma*, p. 846.

*Formica connecticutensis* Buckley. Transf. from Unrecognized Forms of *Formica*, p. 873.

*Formica lauta* Say. Transf. from Unrecognized Forms of *Camponotus*, p. 847.

*Formica monticola* Buckley. Transf. from Unrecognized Forms of *Lasius*, p. 854.

*Formica Nortonii* Buckley. Transf. from Unrecognized Forms of *Formica*, p. 873.

*Formica Nova Anglae* Buckley. Transf. from Unrecognized Forms of *Formica*, p. 873.

*Formica politurata* Buckley. Transf. from Unrecognized Forms of *Formica*, p. 873.

*Formica saxicola* Buckley. Transf. from Unrecognized Forms of *Lasius*, p. 854.

*Formica semipunctata* Kirby. Transf. from Unrecognized Forms of Subgenus *Camponotus*, p. 842.

*Formica septentrionale* Buckley. Transf. from Unrecognized Forms of Subgenus *Myrmentoma*, p. 846.

*Formica Virginiana* Buckley. Transf. from Unrecognized Forms of *Formica*, p. 873.

## Superfamily VESPOIDEA

### Family VESPIDAE

#### VESPULA subgenus VESPULA Thomson, pp. 875-877

Change Thompson to Thomson in generic and subgeneric headings.

*pennsylvanica* (Saussure).

Biology: F. K. Smith, 1956. Ent. News 67: 141-146, 1 fig.

*rufa consobrina* (Saussure). N. Mex., Ariz.

*squamosa* (Drury). Change Southwest. to Southeast. in range.

*sulphurea* (Saussure). Baja Calif.

#### Genus POLISTES Lotreille, pp. 878-879

\**carnifex carnifex* (Fabricius). Ariz. (Nogales); Mexico to Argentina.

*Vespa carnifex* Fabricius, 1775. Syst. Ent., p. 365. ♀.

*Polistes onerata* Lepeletier, 1836. Hist. Nat. Ins. Hym. 1: 524. ♂.

*Polistes valida* Say, 1837. Boston Jour. Nat. Hist. 1: 389. ♀ ♂.

*Polistes transverso-strigata* Spinola, 1851. Accad. Sci. Torino Mem. (2) 18: 78. ♀.

*Polistes transversosignatus* (!) Saussure, 1853. Études sur la famille des Vespides, v. 2, p. 90.

\**exclamans arizonensis* Snelling. Ariz., Calif.; Mexico (Sonora).

*Polistes exclamans arizonensis* Snelling, 1954. Kans. Ent. Soc. Jour. 27: 152. ♀ ♂.

*exclamans exclamans* Viereck.

*Polistes exclamans louisianus* Bequaert (syn. by Snelling, 1955. Amer. Mus. Novitates 1701: 5).

*exclamans louisianus* Bequaert. Syn. of *exclamans exclamans* Viereck.

*fuscatus aurifer* Saussure.

Biology: Snelling, 1954. Kans. Ent. Soc. Jour. 27: 154.

\**fuscatus connectens* Bequaert. Syn. of *fuscatus variatus* Cresson.

*fuscatus variatus* Cresson.

\**Polistes fuscatus connectens* Bequaert, 1940. N. Y. Ent. Soc. Jour. 48: 21. ♀ ♂. N. syn. (*Teste* R. M. Bohart who has seen type.)

*major major* Palisot de Beauvois. Fla. (Miami).

\**pacificus pacificus* Fabricius. South. Tex. to South America.

*Polistes pacifica* Fabricius, 1805. Systema Piezatorum, p. 274. ♀.

Taxonomy: Bequaert, 1937. Inst. Biol. Veget. Arch. 3: 196.

#### MISCHOCYTTARUS subgenus KAPPA Saussure, p. 880

*flavitarsis flavitarsis* (Saussure).

Biology: Snelling, 1953. Kans. Ent. Soc. Jour. 26: 143-145.

#### ZETHUS subgenus ZETHUSCULUS Saussure, p. 881

*slossonae* Fox. In orig. cit., change Ent. News 2 to Ent. News 3.

*spinipes spinipes* Say. Mass. (Cape Cod).