

## SYNOPTIC LIST OF ANTS REPORTED

By M

KEY	Family FORMICIDAE (Hetero-)
A1—A distinct constriction between 1st and 2nd segments of gaster Pedicel consisting of a single segment Pupae always in cocoons .....	P O N E R I N A E Mayr.
a1—Antennae 12 jointed. Eyes present though small .....	
b1—Mandibles triangular with broad dentate masticatory margin.....	(Tribe P O N E R I I) P O N E R A Latr.
c1—Dark brown or reddish.....	
d1—Median frontal groove extending to top of occiput. With hand lens head appears somewhat shiny .....	P. kalakauea Forel
d2—Median frontal grove extending about half way to occiput. Head dull and lusterless.....	P. perkinsi Forel
c2—Light, testaceous yellow; thorax above flat and depressed .....	P. gleadowii Forel r. decipiens Forel
b2—Mandibles edentate, long, slender curved, without distinct masticatory border .....	LEPTOGENYS Roger L. falcigera Roger v. insularis Smith
a2—Antennae 9-jointed. Eyes absent....	(Tribe C E R A P A C H Y S I) C E R A P A C H Y S Smith C. silvestrii Wheeler
AII—No marked constriction between 1st & 2nd segments of gaster .....	B (I and II)
BI—Pedicel consisting of 2 segments. Pupae naked .....	M Y R M I C I N A E Mayr.
a1—Antennae 12-jointed .....	
b1—Antennae without distinct club....	
c1—Thoracic dorsum without any traces of suture or impression.....	(Tribe M Y R M I C I I) P O G O N O M Y R M E X Mayr. [P. occidentalis Cresson]
c2—Thoracic dorsum impressed at the meso-epinotal suture.....	S T E N A M M A Westwood [S. longiceps Smith]
b2—Flagellum of antennae with distinct club .....	
c1—Metanotum without spines; clypeus bicarinate .....	M O N O M O R I U M Mayr.
d1—2mm. or less in length .....	

\*1—Collection of United States Exp. Sta.; 2—Collection of Territorial Board of Agriculture and Forestry; 3—Collection of Planters' Exp. Station; 4—Bishop Museum; F—Identified by A. Forel; W—Identified by W. M. Wheeler.

FROM THE HAWAIIAN ISLANDS.  
JOSE GULICK.

Collections in which specimens found*	Reported From the Hawaiian Islands in Following Publications.	Literature in Honolulu Giving Species De- scription, and Libraries Where Found.**
3	Fauna Haw. Vol. 1, Pt. I, p. 116.	1, 2, 3 and 4, Fauna Haw. 1899, vol. I, Pt. I, p. 116.—(See Note 1.)
2, 3, 4 F	Fauna Haw. Vol. 1, Pt. I, p. 117. Boll. d. Lab. Zool. et Agr. d. Portici Vol. III. p. 271.	1, 2, 3, and 4 Fauna Haw. 1899, p. 117; 2, 3, Boll. d. Lab. Zool. et Agr. d. Portici, 1909, vol. III, p. 271.
F	Fauna Haw. Vol. I, Pt. I, p. 118.	3, Fauna Brit. India, Bingham, 1903, vol II, p. 91; (r. decipiens: Fauna Haw.)
2, 3, 4F	Fauna Haw. p. 118. Ent. Mon. Mag. 1880, p. 88; (under name <i>L. insularis</i> )	3 Fauna Brit. India. Bingham, 1903, vol. II, pp. 52 and 53.
	Boll. d. Lab. Zool. et Agr. d. Portici. Vol. III, p. 269.	2, 3, Boll. d. Lab. Zool. et Agr. d. Portici, 1909, vol. III, p. 269.
	Fauna Haw. p. 119.	(See Note 2.)
	Fauna Haw. p. 118.	

\*\*1—United States Experiment Station Library; 2—Territorial Board of Agriculture Library; 3—Planters' Experiment Station Library; 4—Bishop Museum Library.

## SYNOPTIC LIST OF ANTS REPORTED

By M. J. M.

KEY	Family FORMICIDAE (Hetero-
e1—Head and thorax chestnut brown; abdomen black. Hairs sparse 2nd node of pedicel broader than 1st node.....	<i>M. minutum</i> Mayr. <i>v. lilioukalani</i> Forel
e2—Head and gaster dark. Thorax yellow to reddish brown. Hairs very sparse. 2nd node of pedicel broader than 1st node..	<i>M. floricola</i> Jerdan.
d2—More than 2mm. in length....	
e1—Head and thorax reddish yellow; whole gaster dark brown.	<i>M. gracillimum</i> Smith
e2—Head, thorax and base of abdomen reddish yellow; apical 2-3 of gaster nearly black.....	
f1—Head more or less smooth and shining .....	<i>M. destructor</i> Jerdan
f2—Head more or less regu-lose, opaque .....	<i>M. pharaonis</i> Linn.
c2—Metanotum armed with well developed spines. Clypeus not bicarinate .....	
d1—Workers highly dimorphous. Back of occiput smooth.....	PHEIDOLE Westwood <i>P. megacephala</i> Fab.
d2—Workers monomorphous. Whole occiput regulose .....	
e1—Less than 2.5mm. in length..	CARDIOCONDYLA Emery
f1—Yellowish brown .....	<i>C. wroughtonii</i> Forel <i>v. hawaiiensis</i> Forel
f2—Dark brown .....	<i>C. nuda</i> Mayr. <i>v. minutior</i> Forel
e2—3mm. or more in length.....	(Tribe TETRAMORII) TETRAMORIUM Mayr. <i>T. guineense</i> Fab.
a2—Antennae 10-jointed .....	(Tribe SOLENOPSISIDII) SOLENOPSIS Westwood <i>S. geminata</i> Fab.

## FROM THE HAWAIIAN ISLANDS.

LUISE GULICK.

Collections in which specimens were Found*	Reported From the Hawaiian Islands in Following Publications.	Literature in Honolulu Giving Species Description, and Libraries Where Found.**
2, 4F	Fauna Haw. p. 119.	3 Novara Reise Mayr, 1865, p. 91; 2 Hymen d'Europe et d'Algerie Andre, 1881, p. 332; 3, Fauna Brit. India, 1903, vol. II, p. 210; (v. liliuokalani; Fauna Haw.)
v 3, 4F	Fauna Haw. p. 119.	3, Ann. and Mag. of Nat. Hist., 1854, vol. XIII, p. 49, Jerdon (under <i>Atta floricola</i> ); 3 Fauna Brit. India, 1903, vol. II, p. 211.
2w		3 Fauna Brit. India, 1903, vol. II, p. 210.
4F	Fauna Haw. p. 119, (under name <i>M. vastator</i> Sm.)	3 Ann. and Mag. of Nat. Hist., 1854, vol. XIII, p. 47, Jerdon (under name <i>Atta destructor</i> ); 3 Fauna Brit. India, 1903, vol. II, p. 209.
v, 3	No published report. Identified by Wheeler.	3 Novara Reise Mayr, 1865, p. 90; 3 Ann. and Mag. Nat. Hist. 1854, vol. XIII, p. 47, Jerdon (under name <i>Atta minuta</i> ); 3 Fauna Brit. India, 1903, vol. II, p. 202.
3, 4F	Fauna Haw. p. 118. Boll. d. Lab. Zool. et Agr. d. Portici, vol. III, p. 272. Ent. Mon. Mag. 1880, p. 89, (under name <i>P. pusilla</i> .)	(Property of Mr. Ehrhorn) Hist. Nat. d. Fourmis. Latr. 1802, p. 232 (under name <i>Form. megacephala</i> ) also fig. 67; 3 Cat. Hymen. Ins. Brit. Museum, Smith (under name <i>P. Janus</i> ) 1858, Pt. VI, p. 175; 2 Hymen d'Europe el d'Algerie, Andre, 1881, p. 383; 3 Fauna Brit. India, 1903, vol. II, p. 242.—(See Note 3.)
3, 4F	Fauna Haw. p. 119.	3 Fauna Brit. India, 1903, vol. II, p. 287 (v. hawaiiensis; Fauna Haw.)
w 4F	Fauna Haw. p. 120.	3 Fauna Brit. India, 1903, vol. II, p. 287, (v. minutior; Fauna Haw.)—See Note 4.)
w 4F	Fauna Haw. p. 118. Boll. d. Lab. Zool. et Agr. d. Portici, vol. III, p. 272. Ent. Mon. Mag. 1880, p. 88.	Prop. of Mr. Ehrhorn) Hist. Nat. d. Fourmis, Latr. 1802, p. 285 (under name <i>Formica guineensis</i> ); 2 Hymen. d'Europe et d'Algerie, Andre, 1881, vol. II, p. 287; 3 3 Fauna Brit. India, 1903, vol. II, p. 184.
2, 3, 4F	Fauna Haw. p. 119; Ent. Mon. Mag. 1880, p. 89.	3 Ann. and Mag. Nat. Hist., 1854, vol. XIII, p. 48, Jerdon (under name <i>Atta rufa</i> ); 3 Cat. Hymen. Ins. Brit. Museum Smith, (under name <i>Myrmica virulens</i> ); 3 Fauna Brit. India, 1903, vol. II, p. 158.

# SYNOPTIC LIST OF ANTS REPORT

By MI

KEY	Family FORMICIDAE (Hetero
BII—Pedicel consisting of 1 segment. No constriction between 1st and 2nd segments of gaster .....	C(I and II)
CI—Anal orifice slit-shaped unciliated.....	DOLICHODERINAE For
Anal orifice inferior not apical.....	TAPINOMA Forster <i>T. melanocephalum</i> Fab.
Anal orifice apical .....	TECHNOMYRMEX Mayr. <i>T. albipes</i> Smith.
C-II—Anal orifice terminal, circular, surrounded by a fringe of hairs.....	CAMPONOTINAE Forel (Tribe PLAGIOLEPIDII
a1—Antennae 11-jointed .....	PLAGIOLEPIS Mayr.
b1—Antennal scapes reaching a little beyond posterior border of occiput..	<i>P. exigua</i> Forel
b2—Antennal scapes reaching considerably beyond posterior border of occiput .....	<i>P. mactavishi</i> Wheeler
a2—Antennae 12-jointed .....	(Tribe FORMICII)
b1—Less than 4mm. in length .....	PRENOLEPIS Mayr.
c1—Scape of antennae extending beyond posterior edge of occiput by more than half its length.....	<i>P. longicornis</i> Latr.
c2—Scape not so long. Extending beyond posterior edge of occiput by less than half its length.....	
d1—Dark brown, 2.5 or more mm. in length .....	<i>P. bourbonica</i> Forel
d2—Abdomen brown, head and thorax brownish yellow 2.3 or less mm. in length .....	<i>P. sharpii</i> Forel
b2—More than 6mm. in length.....	(Tribe CAMPONOTII) CAMPONOTUS Mayr. <i>C. maculatus</i> Fab.

Note 1—Blackburn and Kirby report *P. contracta* (Ent. Mon. Mag., 1880, p. 88). Dr. Perkins believes this to be a misidentification for *P. kalakauae* or *P. perkinsi*.

Note 2—*Pogonomyrmex* appears not to be present in the islands now.

Note 3—There may be more than one *Pheidole* sp. here.

Note 4—Dr. Perkins reports that a *Cremastogaster* sp., probably from Japan, is established here. In *Cremastogaster* the apex of the

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Locations which specimens were found*	Reported From the Hawaiian Islands in Following Publications.	Literature in Honolulu Giving Species Description, and Libraries Where Found.**
w, 3, 4F	Fauna Haw. p. 120; Boll. d. Lab. Zool. et Agr. d. Portici, vol. III, p. 272.	(Prop. of Mr. Ehrhorn) Hist. Nat. d. Fourmis, Latr., 1802, p. 261 (under name <i>Formica melanocephala</i> ); 3 Ann. and Mag. Nat. Hist., 1854, vol. XIII, p. 108, Jerdon (under name <i>Formica nana</i> ); 3 Fauna Brit. India, 1903, vol. II, p. 304. (See Note 5.)
w		3 Fauna Brit. India, 1903, vol. II, p. 301.
12w	No published report. Identified by Wheeler.	3 Fauna Brit. India, 1903, vol. II, p. 323.
2, 3	No published report. Identified by Wheeler.	2 Bull. Am. Museum Nat. Hist., 1908, vol. XXIV, p. 166.
2, 4F	Fauna Haw. p. 120.	(Prop. of Mr. Ehrhorn) Hist. Nat. d. Fourmis. Latr., 1802, p. 113, (under name <i>Formica longicornis</i> ); 3 Novara Reise. Mayr., 1865, p. 50; 2 Hymen. d'Europe et d'Algerie Andre, 1881, vol. II, p. 203; 3 Fauna Brit. India, 1903, vol. II, p. 326.
2, 3, 4F	Fauna Haw. p. 120; Boll. d. Lab. Zool. et Agr. d. Portici, vol. III, p. 272.	3 Fauna Brit. India, 1903, vol. II, p. 328 (under name <i>P. bengalensis</i> ) (r. hawaiiensis: Fauna Haw.)—(See Note 6.)
4F	Fauna Haw. p. 121.	1, 2, 3 and 4 Fauna Haw. 1899, p. 121.
2, 3, 4F	Fauna Haw. p. 122; Boll. d. Lab. Zool. et Agr. d. Portici, vol. III, p. 272.	3 Fauna Brit. India, 1903, vol. II, p. 355 (v. hawaiiensis: Fauna Haw.)—(See Note No. 7.)

pedicel is attached to the dorsal surface of 1st abdominal segment.

Note 5—There may be another *Tapinoma* sp. established here.

Note 6—Blackburn and Kirby report *P. clandestina* (Ent. Mon. Mag., 1880, p. 88). Blackburn and Cameron report *P. obscura*. (See Fauna Haw.). These are both misidentifications for *P. bourbonica* according to Dr. Perkins.

Note 7—Blackburn and Kirby report *C. sexguttatus* (Ent. Mon. Mag. 1880, p. 89). This probably should have been *C. maculatus*.