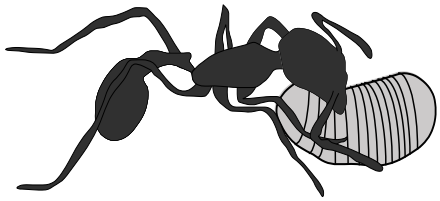
Key to Ants of Central Park

This key is based on a survey of ant fauna in Central Park, Staten Island, and Long Island performed by Donat Agosti. Diagnostic characters were adapted from existing keys and taxonomic descriptions, as well as from novel observations of digitally imaged specimens. While this is a species level key, it was not possible to accurately and confidently produce a key for two groups of ants. The first, referred to here as the "*Lasius claviger/latipes* complex" could not be further resolved simply because reliable digital images could not be obtained. The second, dubbed "*Myrmica* complex" is a group of three species within the genus *Myrmica* that cannot be reliably broken down to the species level because, at the time of the initial survey, a species designation could not be obtained for some specimens.



1. Head very large, comprising nearly one half of entire body mass. Two distinct lobes present dorsally on head..... **2** *Pheidole* (major)
— Head not as above **3**

2(1). Dorsal lobes on head with horizontal rugosity ..... *Pheidole pilifera* (major)
— Dorsal lobes without sculpturing defined above, however, punctate sculpturing may be present. ..... *Pheidole tysoni* (major)

3(1). Petiole with no distinct posterior face (broadly fused with subsequent abdominal segment) or is concealed and situated beneath the gaster giving the appearance of complete absence.. **4**
— Petiole appears as one or a series of nodes with distinct anterior and posterior faces..... **9**

4(3). Eyes present **5**
— Eyes absent ..... *Amblyopone pallipes*

5(4). Posterior end of metasoma with no acidopore, instead a small horizontal slit may be visible ..... *Tapinoma sessile*
— Acidopore present as a ring of hairs at the posterior end of the metasoma.....
.....6 Formicinae (part)

6(5). Antenna with 9 segments ..... *Brachymyrmex depilis*
— Antenna with 12 segments..... **7** *Lasius* (part)

7(6). Eyes larger with length one forth or greater than that of head ..... *Lasius umbratus*
— Eyes smaller with length one sixth or less than that of head **8**

8(7). Terminal segment of maxillary palp longer than previous segment ..... *Lasius nearcticus*
— Terminal segment of maxillary palp equal to or shorter than previous segment .....
..... *Lasius flavus*

9(3). Petiole comprised of single node..... **10**
Petiole comprised of two nodes ..... **23** Myrmicinae

10(9). Clear impression between first and second segment on gaster..... *Ponera pennsylvanica*
— No such impression between segments ..... **11** Formicinae (part)

11(10). Acidopore without ring of erect hairs surrounding, antenna situated well above clypeus, metaplural gland not present ..... **12** *Camponotus*
— Acidopore surrounded by ring of erect hairs, antennal sockets located on clypeal suture, metaplural gland visible **14**

12(11). Reddish brown coloration, variable throughout body but consistent on clypeus .....
..... *Camponotus americanus*
— Not as above, clypeus definitively black..... **13**

13(12). Setae coating entire metasoma dorsally ..... *Camponotus pennsylvanicus*
Setae only present on metasoma as horizontal bands along fusions of tergites .....
.....*Camponotus neacticus*

14(11). Numerous sparse, thick, paired setae throughout entire body, especially on head .....
.....*Paratrechina flavipes*
— No setae present, setae unpaired, and/or setae lacking on head..... **15**

15(14). Unpaired long sparse setae coating metosoma and head while mesosoma remains hairless or nearly so.....*Prenolepis impairs*
— Setae not present or not as above **16**

16(15). Petiolar scale same height as metasoma or nearly so..... **17** *Formica*
— Petiolar scale half of metasoma height or less..... **21** *Lasius* (part)

17(16). Silver pubescence coating body.....*Formica subsericea*
— No such hair patterning **18**

18(17). Concave impression on lower-most portion of clypeus ..... *Formica subintegra*
— Clypeus gradually rounds off anteriorly..... **19**

19(18). Brownish black in overall coloration ..... *Formica lasioides*
— Light orange/red coloration.....**20** Pallidefulva group

20(19). Pronotum coated in setae..... *Formica incerta*
Pronotum bare ..... *Formica nitidiventris*

21(16). Palp count of 3,3. Strong citrus odor .....*Lasius claviger/latipes* complex
— Palp count of 5,3 ..... **22**

22(21). Second most-basal tooth smaller than those surrounding it.....*Lasius neoniger*
— Basal teeth of equal size ..... *Lasius alienus*

23(9). Mandibles lacking teeth..... *Harpagoxenus americanus*
— Mandibles possess teeth..... **24**

24(23). Clypeus bicarnate with two sharp teeth projecting anteriorly **25**
—Clypeus without such teeth **26**

25(24). Antennae 10-segmented with two-segment club..... *Solenopsis molesta*
—Antennae 11-segmented with three-segment club..... *Monomorium emarginatum*

26(24). Antennal sockets emerge from pit formed at clypeus suture.. *Tetramorium emarginatum*
—No such pit found or, if a pit appears visible, antennae do not emerge from inside but rather above or around..... **27**

27(26). Heart-shaped gaster. Petiole flattened dorsally, fusing with gaster very high .....
..... Crematogaster linolata
— Gaster and petiole not as above **28**

28(27). Cylindrical petiole nodes with nearly no dorsal projection, carina running laterally on head..... *Myrmecina Americana*
— Petiole with dorsal projections and/or carina absent..... **29**

29(28). Antenna 11-segmented ..... **30** *Leptothorax*
— Antenna with 12 segments..... **31**

30(29). Reddish-yellow coloration..... *Leptothorax curvispinosus*
— Dark black or brown in color..... *Leptothorax longispinosus*

31(29). Antenna terminating as club..... **32**
— Antenna with no club.....**34** *Aphaenogaster*

32(31). Antenna club comprises three segments .....**33** *Pheidole* (minor)
— Antennal club comprises four segments **35**

33(32). Body clearly rugose ..... *Pheiole pilifera*
Body with no sculpturing other than light punctation..... *Pheidole tysoni*

34(31). Mesonotum with small dorsal structure, concave in shape, which extends above the height of the pronotum at its peak..... *Aphaenogaster fulva*
— Mesonotum with no such concave structure ..... *Aphaenogaster rudis*

35(32). Propodeum possesses two long, sharp spines ..... *Myrmica* complex
Two small, blunt spines on propodeum .....**36** *Stenamma*

36(35). Setae occur in groups such that a single seta of medium size is always located between two longer setae ..... *Stenamma brevicorne*
— Setae appear to occur with no such pattern..... *Stenamma impar*

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AntWeb Image and Taxonomic Database: http://www.antweb.org

Japanese Ant Image Database: http://ant.edb.miyakyo-u.ac.jp/