

# Interactive Key to the Ants of Gothic, Colorado

Compiled by William Petry with key  
from J. D. Evans and Gregg

Updated: April 2013

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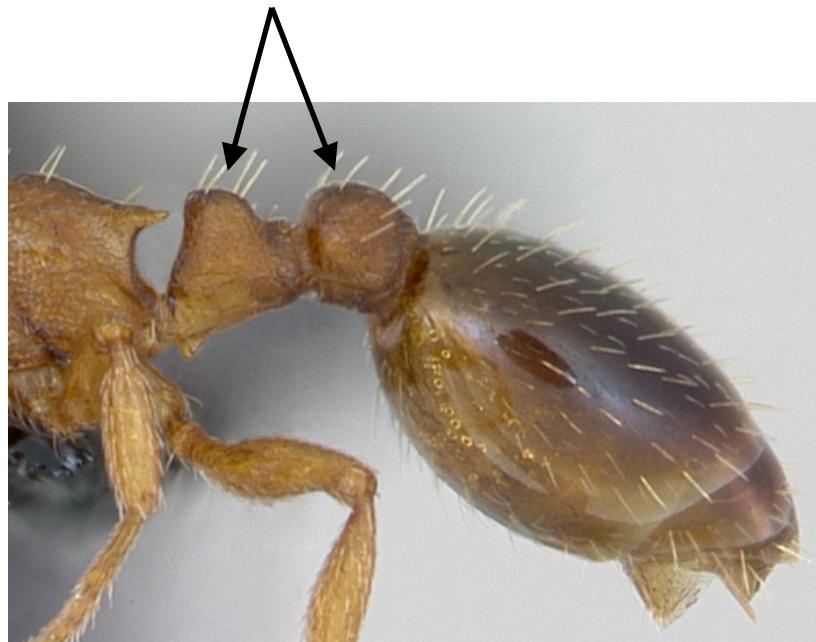
# Key to Subfamilies 1

Pedicel of two segments

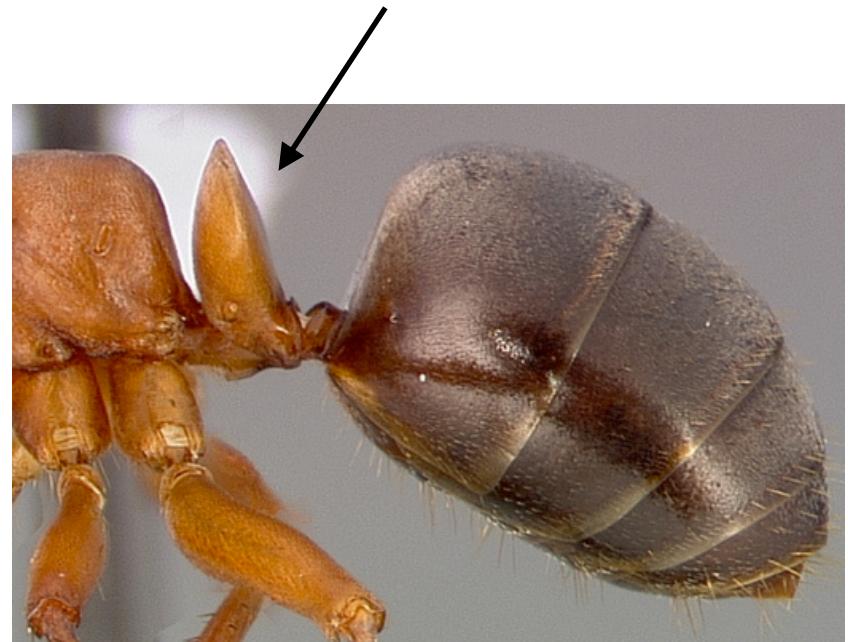
[Myrmicinae](#)

Pedicel of one segment

[2](#)



Myrmicinae (*Leptothorax muscorum*)



2 (*Formica aserva*)

# Key to Subfamilies 2(1)

Anus terminal, circular and fringed with hairs

[Formicinae](#)

Anus subterminal (ventral), slit-shaped and not  
fringed with hairs

[Dolichoderinae](#)



Formicinae (Image: [Claude Lebas](#))

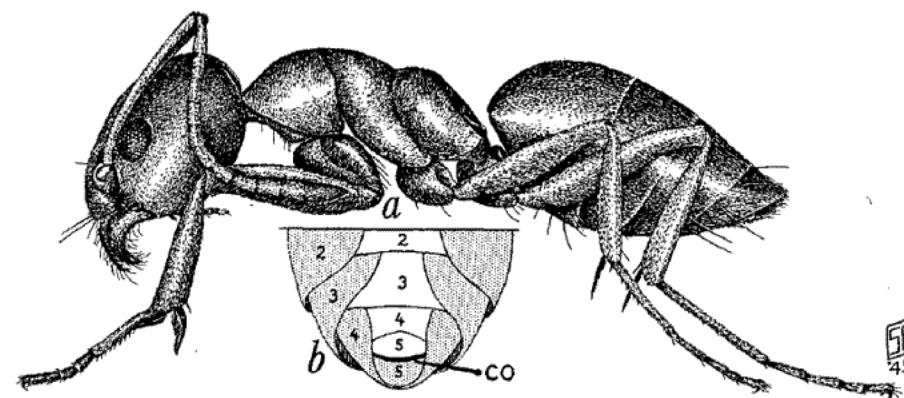


Figure 31.—*Tapinoma sessile* (Say), odorous house ant: a, Lateral view of worker; b, ventral surface of apex of gaster; co, the transverse, slit-shaped cloacal orifice.

Dolichoderinae (*Tapinoma sessile*)

# Myrmicinae Key to Genera 1

Antennae have 12 segments; the last 3 antennal segments together much smaller than the rest of the antenna (not including the scape)

[Myrmica](#)

Antennae have 11 segments; the last 3 antennal segments form an abrupt club, together are nearly as long as the rest of the antenna (not including the scape); usually smaller in size than Myrmica

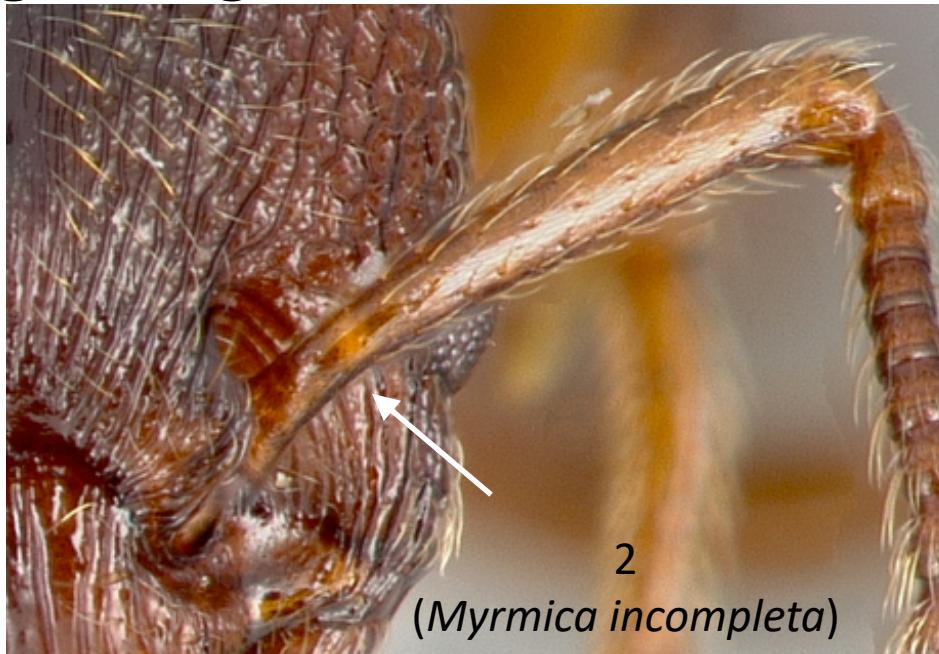
[Leptothorax](#)



# *Myrmica* Key to Species 1

Scape gradually and evenly bent at base, upper area does not form right angle at bend [2](#)

Scape sharply bent at base, upper area forms right angle [3](#)



# *Myrmica* Key to Species 2([1](#))

Lateral margin of frontal carina thick and deflected toward base of antenna    *incompleta*

Lateral margin of frontal carina rounded and thin, deflected upward                      *discontinua*



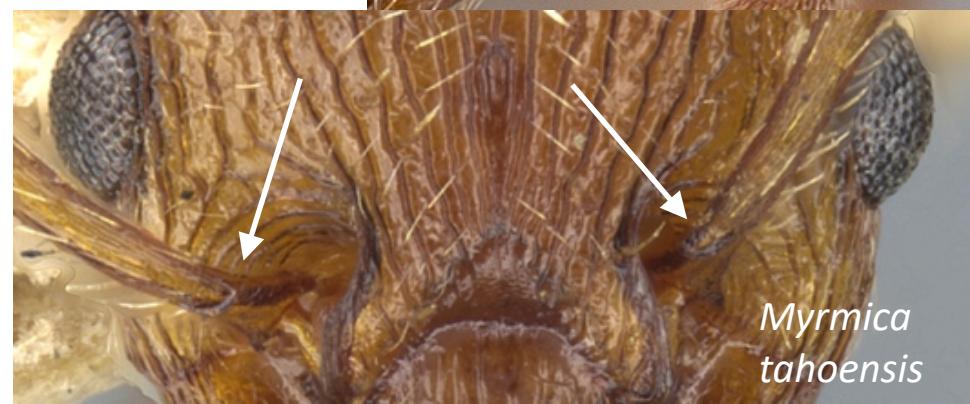
# *Myrmica* Key to Species 3([1](#))

Bend of scape has large, thick lobed plate that extends backward along basal third of scape

*monticola*

Bend of scape has small transverse plate, or thin scale, which surrounds bend like a collar and does not extend backward

[4](#)



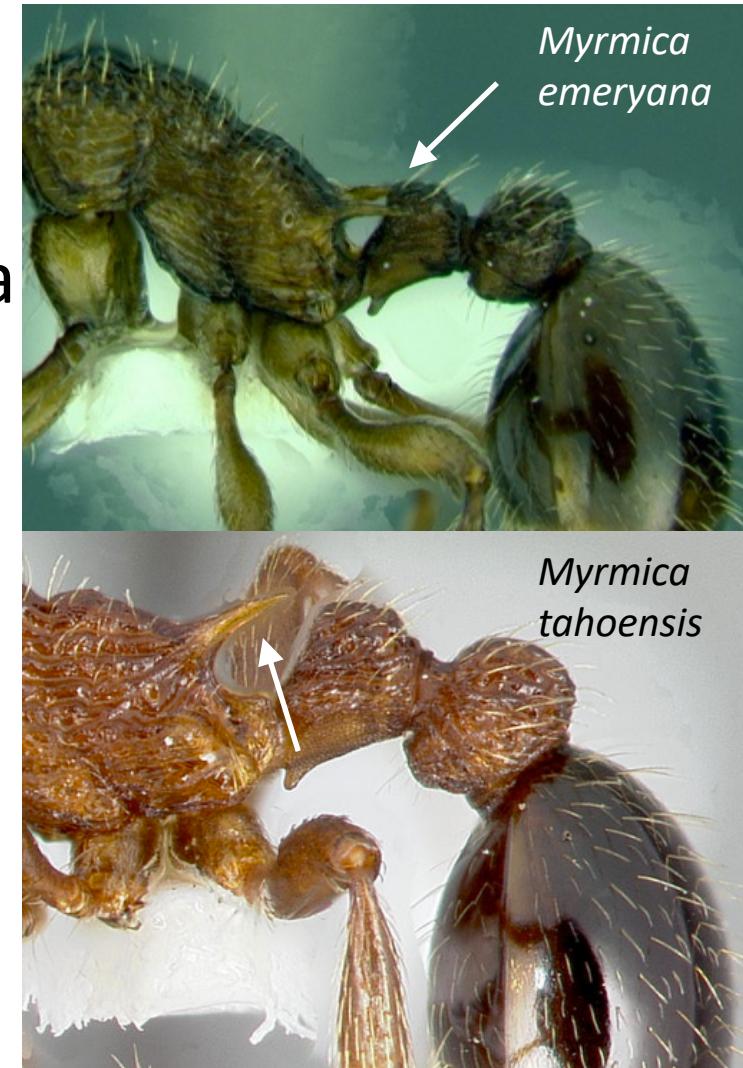
# *Myrmica* Key to Species 4(3)

Epinotal spines bent downward,  
thorax reddish yellow, head and  
gaster black with reddish tinge;  
scale of scape small and diagonal  
transverse on upper surface of  
scape, continues as prominent  
transparent flange along inner  
surface of scape below bend

*emeryana*

Epinotal spines straight, color  
combination and scale of scape  
not as above

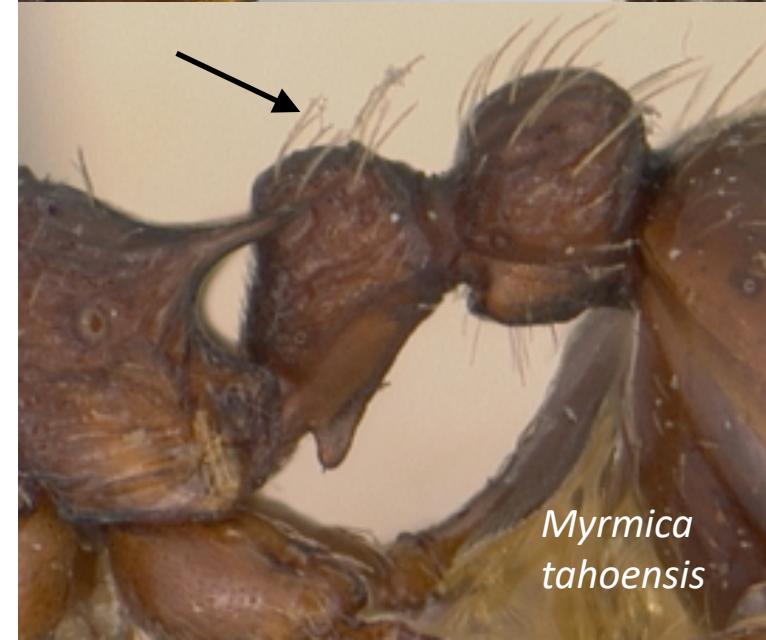
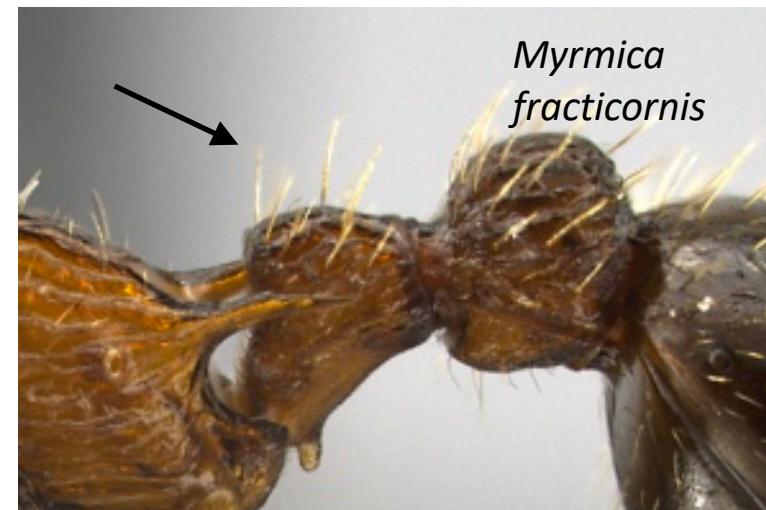
5



# *Myrmica* Key to Species 5(4)

Antennal lamina small,  
transverse, and forming an  
angular tooth on the insides  
of the bend; thick hairs on  
petiole node                    *fracticornis*

Antennal lamina forms a  
spoonlike, symmetrical flange  
and does not form angular  
tooth on the inner side of the  
bend; thin/delicate hairs on  
petiole node                    *tahoensis*



# *Leptothorax* Key to Species 1

Erect body hairs long, numerous, usually pointed *crassipilis*

Erect body hairs short, sparse, usually thickened at top *muscorum*



*Leptothorax crassipilis*



*Leptothorax muscorum*

# Dolichoderinae Key to Genera 1

Only one in this area

*Tapinoma*



*Tapinoma sessile*

# *Tapinoma* Key to Species 1

A very small, dark brown to black ant; very distinctive, sweetly pungent odor when aspirated or crushed

*sessile*



*Tapinoma sessile*

0.2 mm



0.5 mm

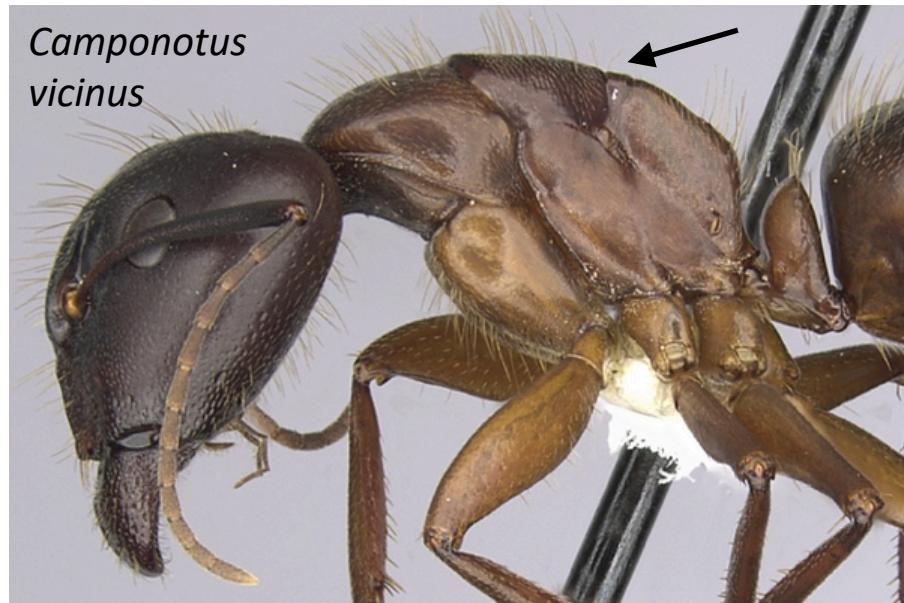
# Formicinae Key to Genera 1

Dorsum of thorax in profile evenly convex

*Camponotus*

Dorsum of thorax depressed behind level of mesonotum

2



# Formicinae Key to Genera 2(1)

Mandibles sickle shaped, tips sharply pointed

*Polyergus*

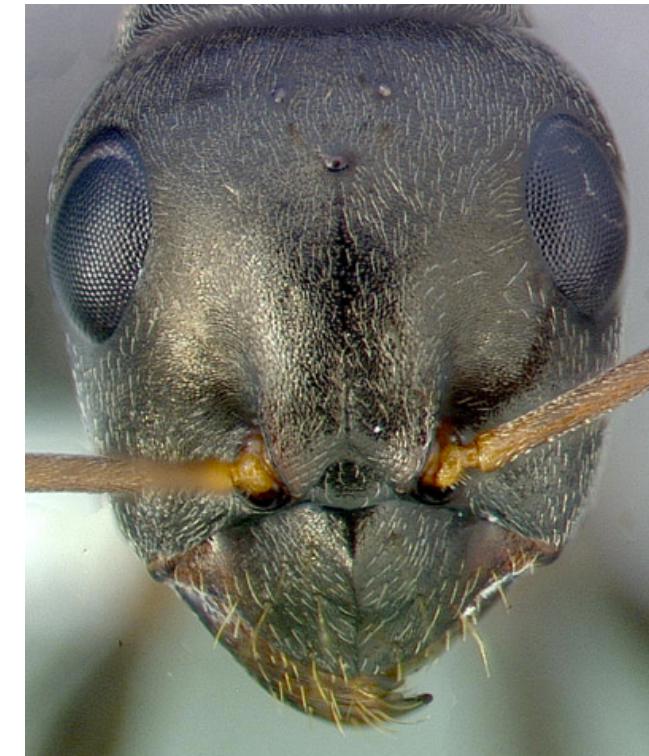
Mandibles triangular

3



<< *Polyergus breviceps*

*Formica fusca* >>



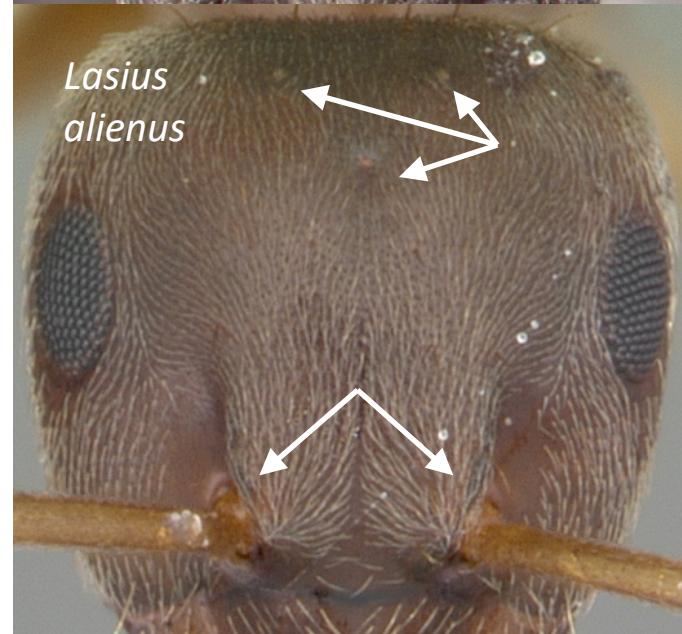
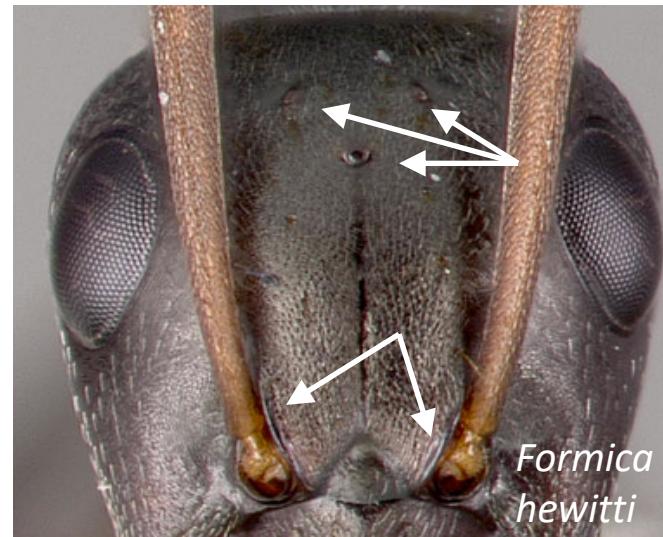
# Formicinae Key to Genera 3(2)

Ocelli large and conspicuous;  
frontal carinae prominent,  
their lateral margins deflected  
upward

*Formica*

Ocelli small, indistinct or  
absent, frontal carinae poorly  
marked, their lateral margins  
flat

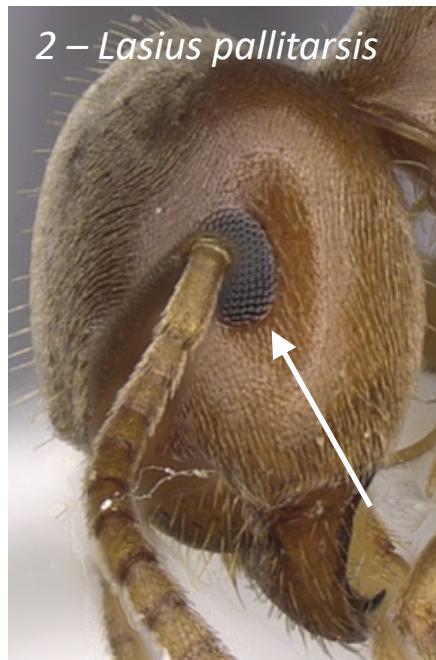
*Lasius*



# *Lasius* Key to Species 1

Eyes large, their length 0.2 times or more width of head; eyes have around 200 facets 2

Eyes small, their length 0.17 times or less than width of head; eyes have 100 or less facets 4



# *Lasius* Key to Species 2(1)

Antennal scapes and tibia with numerous erect or suberect hairs, body hairs very abundant      3

Antennal scapes and tibia with less than 10 erect or suberect hairs      *alienus*



# *Lasius* Key to Species 3(2)

Ocelli very indistinct; petiolar scale flat and thin, its crest usually slightly emarginate; body hairs moderate

*neoniger*

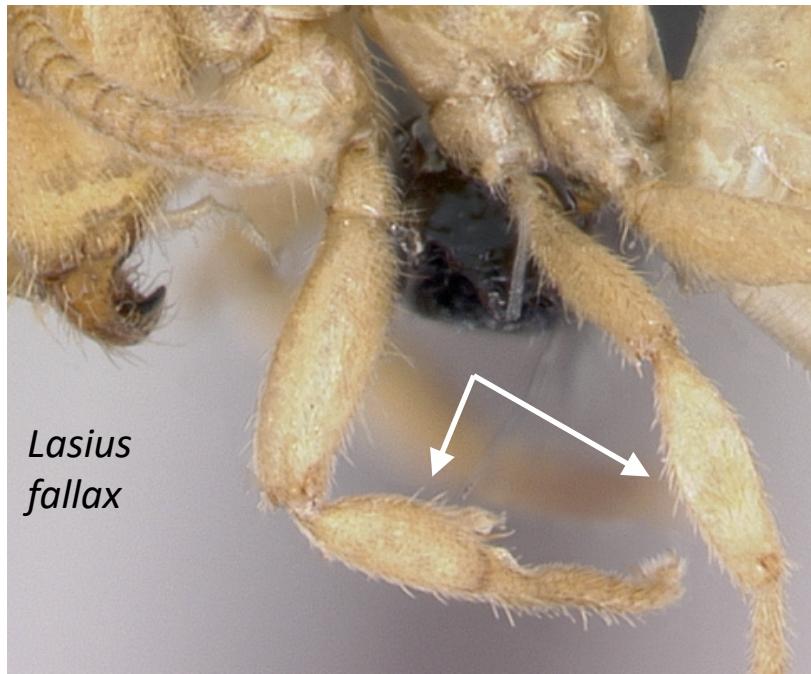
Ocelli always distinct; petiolar scale thicker, crest almost always arched and convex; never emarginate; body hairs dense    *pallitarsis*



# *Lasius* Key to Species 4(1)

Outer surface of tibia has numerous erect or  
suberect hairs *fallax*

Outer surface of tibia has only two suberect  
hairs *nearcticus*



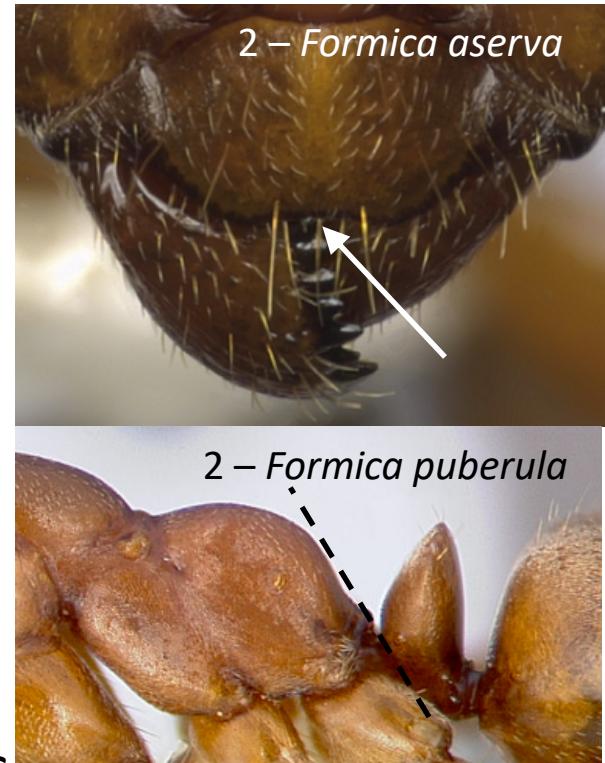
# *Formica* Key to Species 1

Ventral margin of clypeus (near where mandibles meet) has median notch; short hairs on gaster dense; body bicolored with head and thorax reddish brown or reddish yellow, gaster brown or black; in side profile dorsomedian area of the epinotum between mesoepinota suture and petiole angled, not broadly curved

2

Lacks combination of all above characters

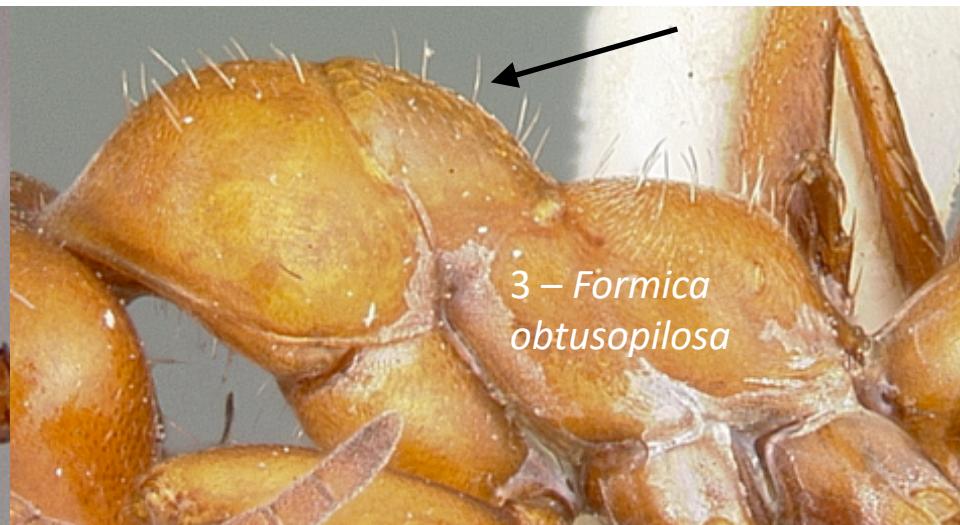
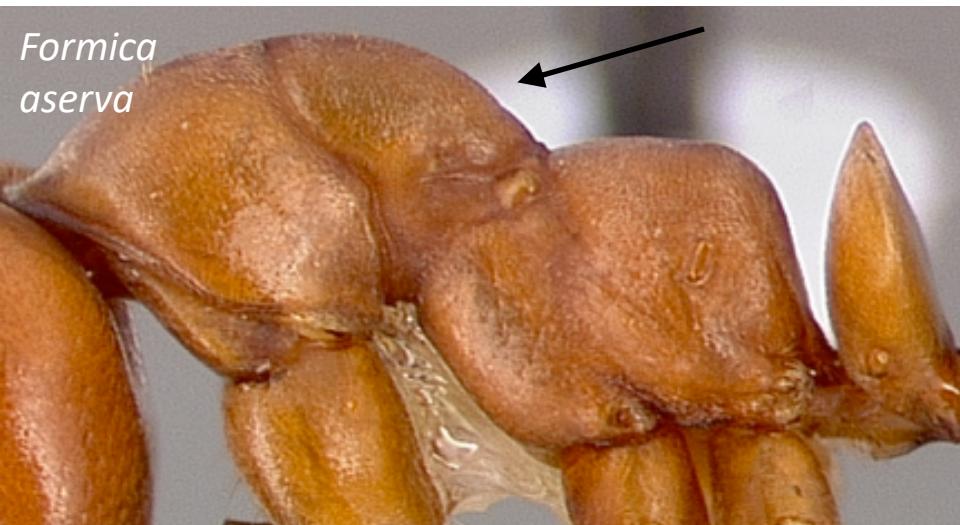
4



# *Formica* Key to Species 2([1](#))

Dorsum of thorax lacks erect hairs, or has few fine short inconspicuous ones only on pronotum  
*aserva*

Dorsum of pronotum and mesonotum has conspicuous erect hairs [3](#)



# *Formica* Key to Species 3(2)

Gaster has long, stout, silvery, erect hairs blunt at tip; erect hairs on other parts of body about as abundant as those on gaster

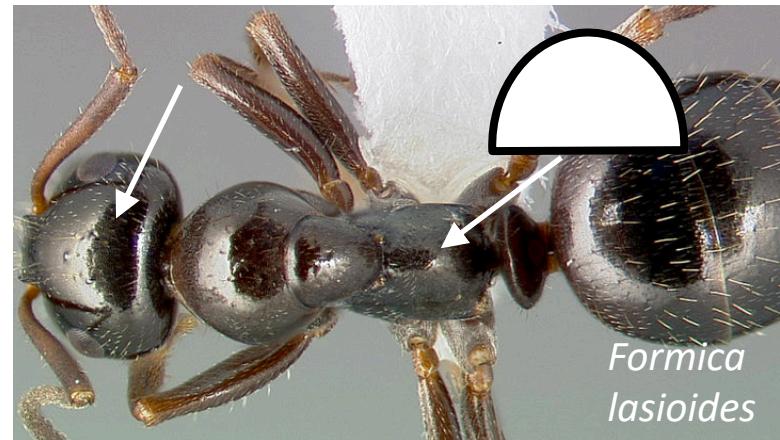
*obtusopilosa*

Erect hairs on gaster yellow, not blunt at tip; erect hairs on other parts of the body much more sparse than on gaster      *puberula*

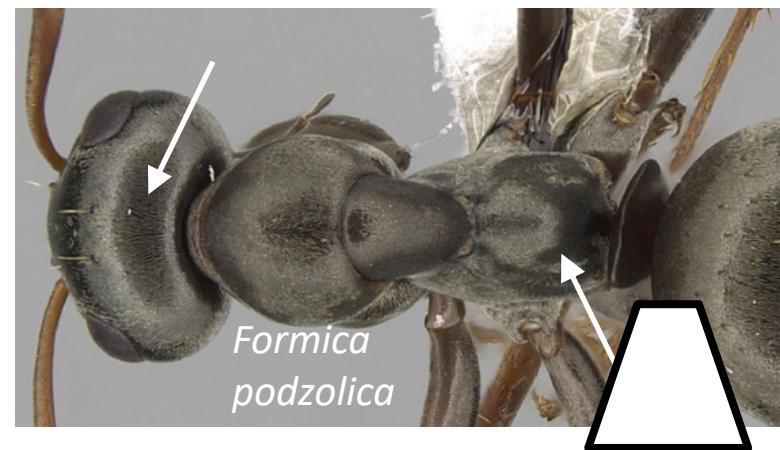


# *Formica* Key to Species 4([1](#))

From posterior profile, upper surface of side of epinotum evenly curved to base; body surface shining and uniformly brown or black [5](#)



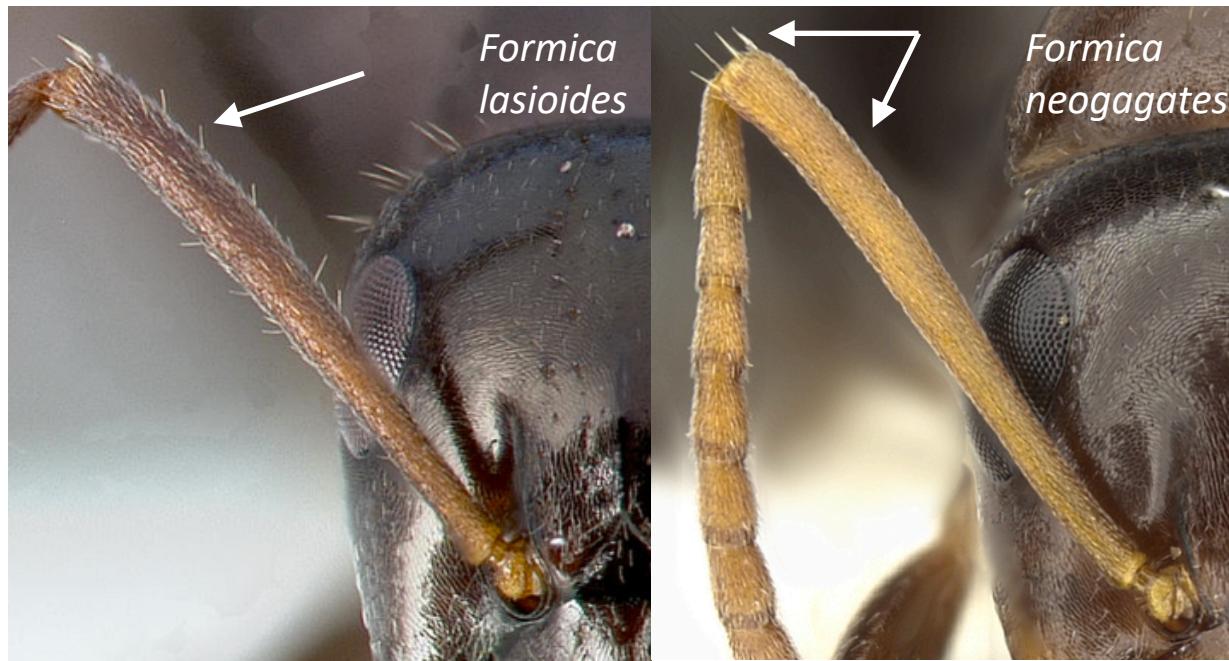
From posterior profile, upper surface of side of epinotum angled before its base; body surface dull and either uniformly or bi-colored [6](#)



# *Formica* Key to Species 5([4](#))

Scape has short, delicate, whitish erect hairs  
*lasioides*

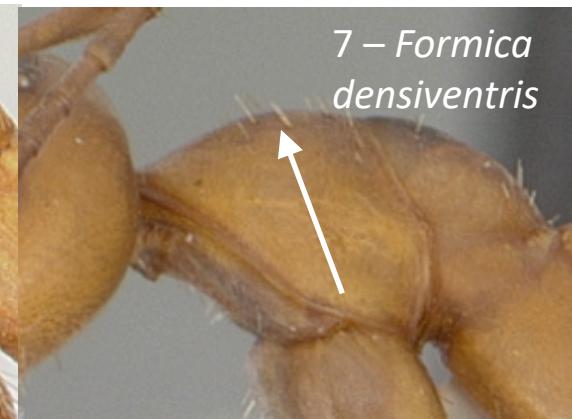
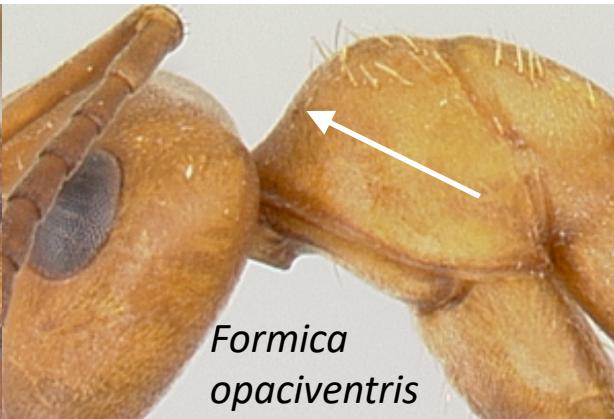
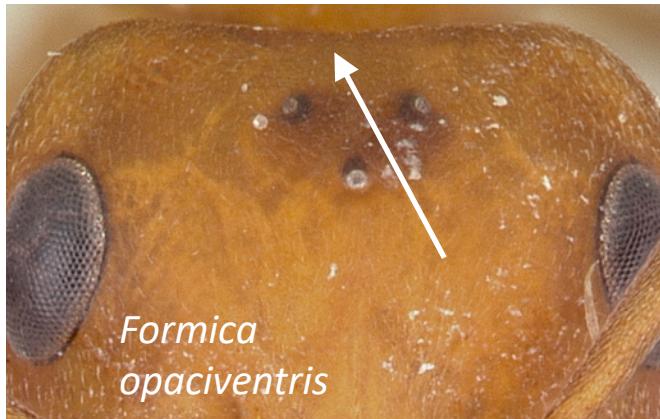
Scape lacks erect hairs except for small cluster at  
extreme tip  
*neogagates*



# *Formica* Key to Species 6([4](#))

Dorsal border of head of larger workers strongly concave; pronotum in profile angled between base and upper surface                    *opaciventris*

Dorsal border of head of larger workers straight or only slightly concave; pronotum in profile evenly convex    [7](#)



# *Formica* Key to Species 7([6](#))

Erect hairs on pronotum distinctly broader at tip than at base [8](#)

Erect hairs on pronotum absent, or, if present, taper from base to pointed tip or of equal width throughout [10](#)



# *Formica* Key to Species 8(7)

Crest of petiole lacks erect hairs; gaster pubescence thin                            *adamsi alpina*

Crest of petiole has erect hairs; gaster pubescence (dorsal side) dense    *densiventris*



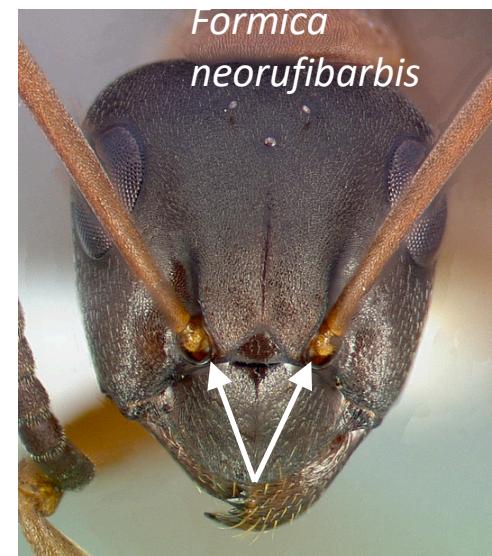
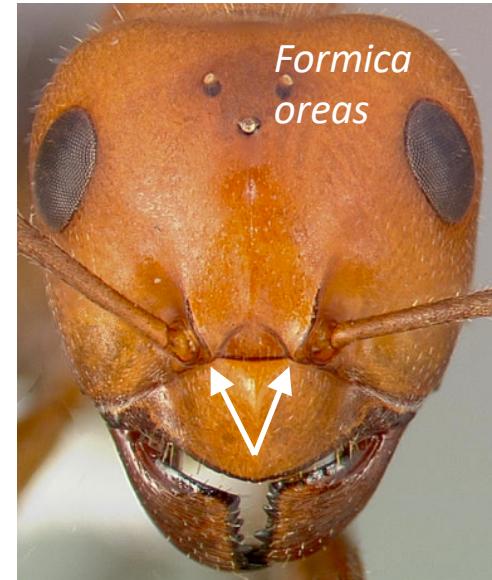
# *Formica* Key to Species 10(7)

Body bicolored, head and thorax reddish or yellowish red, both lighter than dark gaster; front of head shining; frontal carinae strongly divergent

[11](#)

Body uncolored or bicolored, if bicolored then only thorax lighter than gaster; front of head opaque; frontal carinae parallel or moderately divergent dorsally

[16](#)



# *Formica* Key to Species 11([10](#))

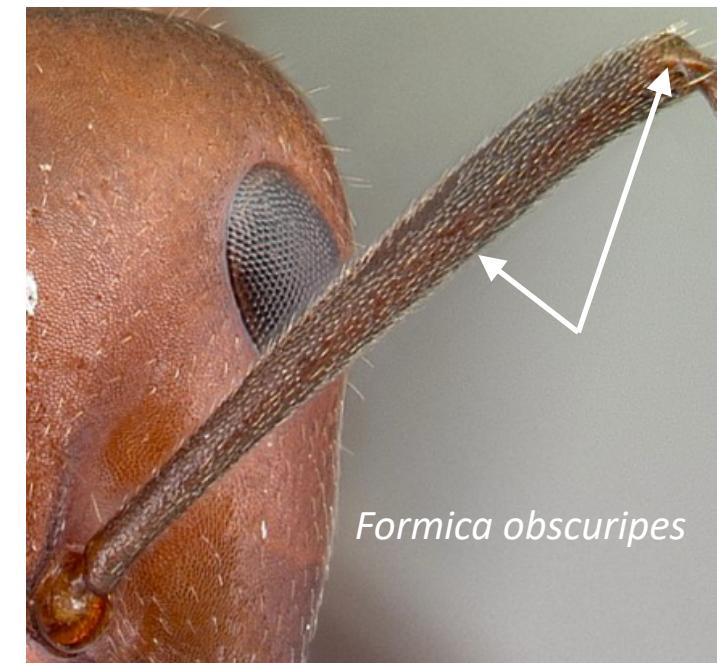
Antennal scapes covered with delicate erect or  
suberect hairs *oreas*

Scapes lack hairs, except at the extreme tip

[12](#)



*Formica oreas*



*Formica obscuripes*

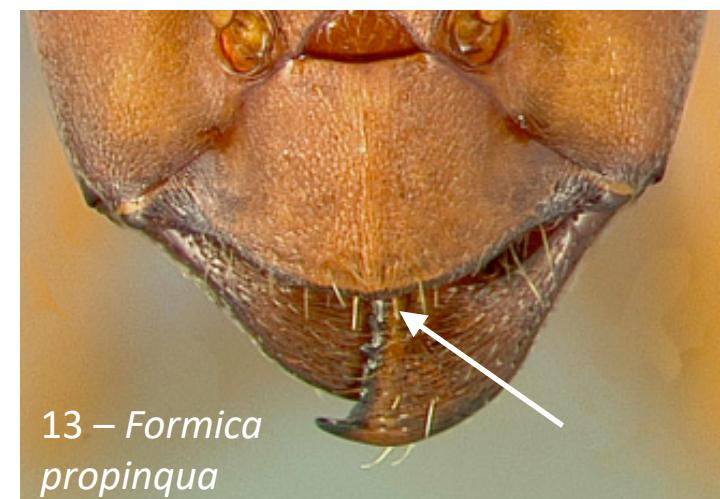
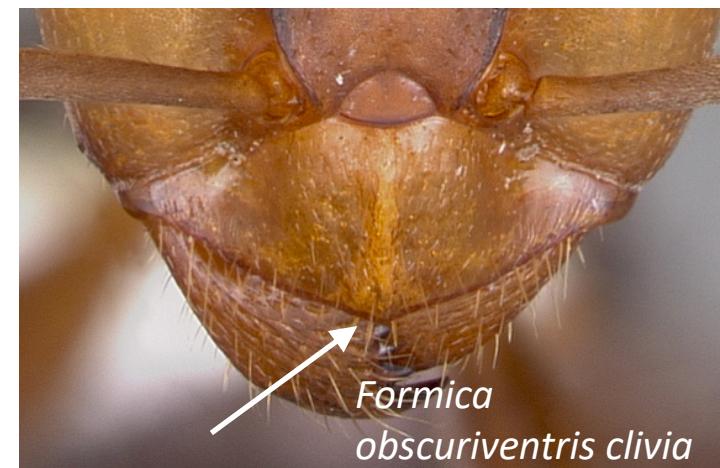
# *Formica* Key to Species 12([11](#))

In ventral profile, median face of clypeus on each side of keel almost flattened to form an abrupt curve or angle between keel and fossa; clypeus has flattened diamond shape

*obscuriventris clivia*

In ventral profile, upper face of clypeus not flattened, face forms a gradual curve from keel to fossa; clypeus irregularly shaped

[13](#)



# *Formica* Key to Species 13([12](#))

Head of largest worker as broad as long  
*obscuripes*

Head of largest worker longer than broad [14](#)



*Formica  
obscuripes*



14 (*Formica propinqua*, *F. coloradensis*)

0.5 mm



# *Formica* Key to Species 14([13](#))

Erect hairs on middle and hind tibia abundant

[15](#)

Erect hairs on tibia confined to a double row on  
the flexor surface *propinqua*



15 (*Formica coloradensis*)

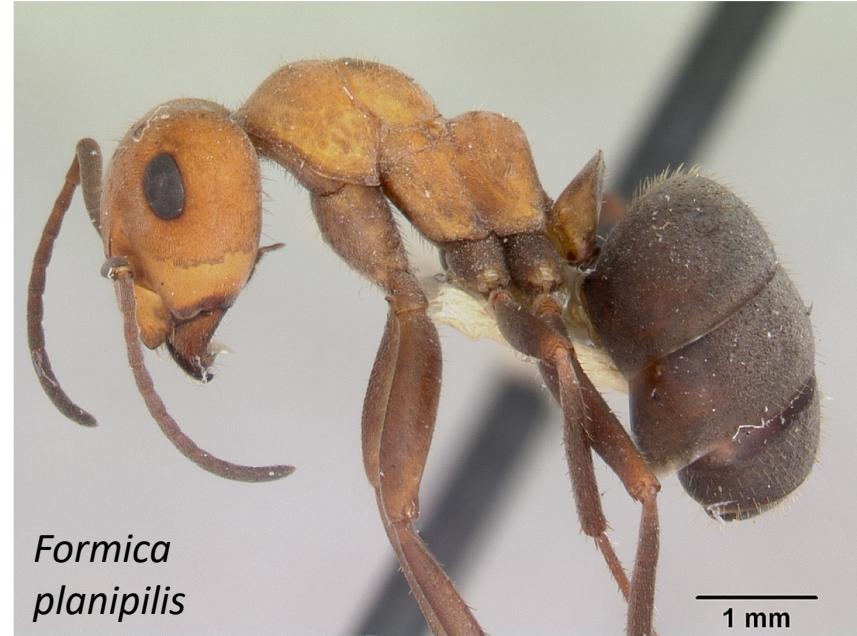


*Formica*  
*propinqua*

# *Formica* Key to Species 15([14](#))

Head and thorax clear red, legs about same color as thorax *coloradensis*

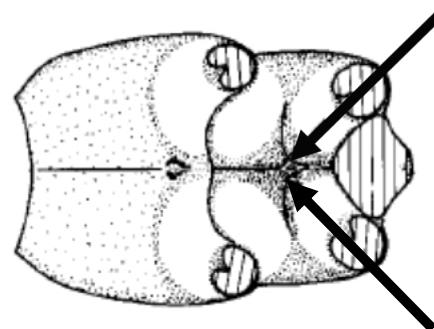
Head and thorax of smaller workers marked with brown, legs brownish black *planipilis*



# *Formica* Key to Species 16([10](#))

Metasternum has two distinct hairy lobes that arise on each side of the spinasternal cavity [17](#)

Metasternum lacks such lobes [18](#)



17



18

# *Formica* Key to Species 17([16](#))

Cheek and side of prothorax have erect hairs  
*canadensis*

Cheek and side of prothorax lack erect hairs  
*altipetens*



*Formica  
canadensis*



*Formica  
altipetens*

# *Formica* Key to Species 18([16](#))

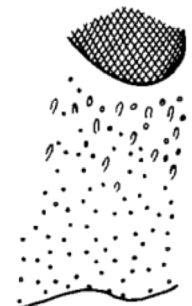
Cheek between eye and mandible has coarse,  
elongata puncta widely spaced on upper half  
  [hewitti](#)

Cheek between eye and mandible lacks coarse,  
elongata puncta, if present, concentrated mostly  
on upper half  
  [19](#)

*Formica hewitti*



19



# *Formica* Key to Species 19([18](#))

Head and body of uniform color [20](#)

Head and body each bicolored, thorax lighter  
than head and gaster, perhaps only slightly  
*neorufibarbis*



20 – *Formica*  
*fusca*

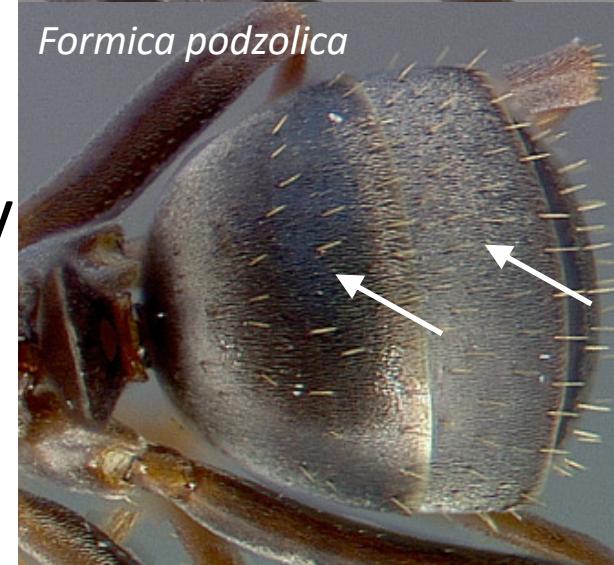
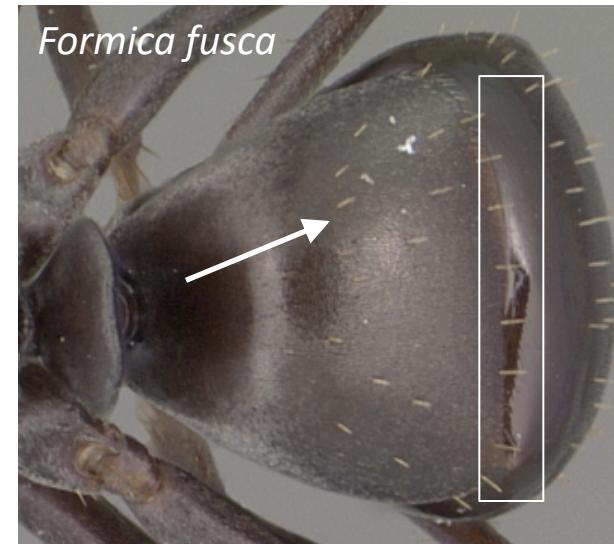


*Formica*  
*neorufibarbis*

# *Formica* Key to Species 20([19](#))

Hairs on dorsum of first segment of gaster (exclusive of posterior row) usually less than ten; spinasternal cavity surrounded by hairs; gaster surface matte but not silvery  
*fusca*

Hairs on dorsum of first segment of gaster (exclusive of posterior row) usually more than ten; spinasternal cavity not surrounded by hairs; body – especially gaster – silvery luster from many small, flattened hairs



# *Formica* Key to Species 21([20](#))

Cheek and dorsum of first four gaster segments have dense pubescence producing silvery luster                    *argentea*



Cheek and dorsum of first four gaster segments have normal to thin pubescence, not silvery, but may have silky luster                    *podzolica*

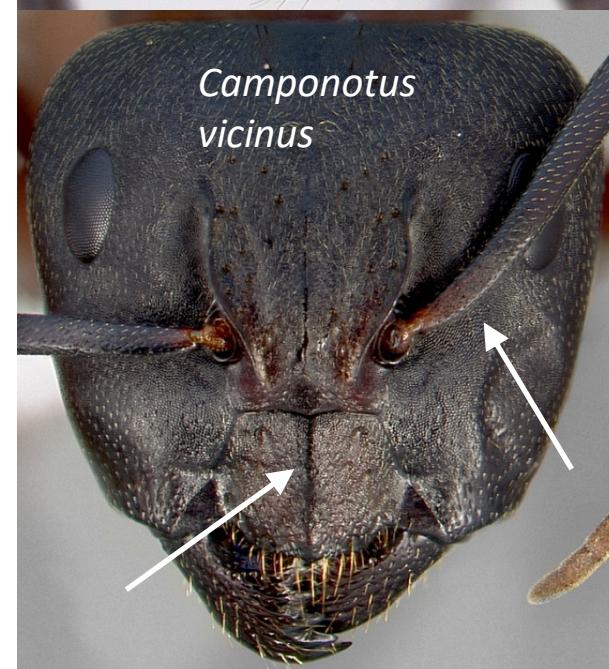
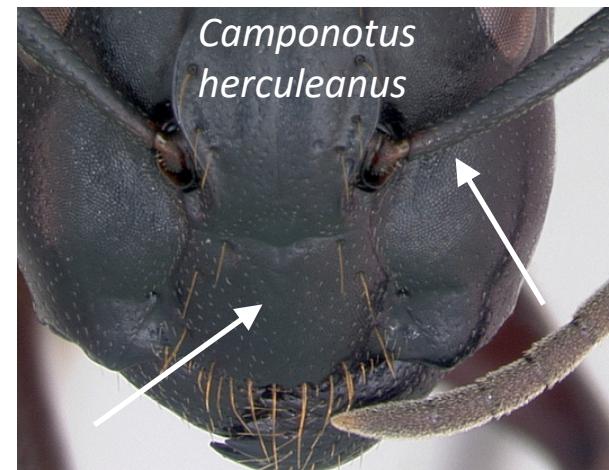


# *Camponotus* Key to Species 1

Clypeus lacks distinct ridge or keel,  
but sometimes has a slight one;  
scape not flattened at base; head  
broader than long/tall      [2](#)

Clypeus has distinct ridge or keel,  
sometimes reduced; if reduced,  
scape flattened at base; head as  
long or longer than broad

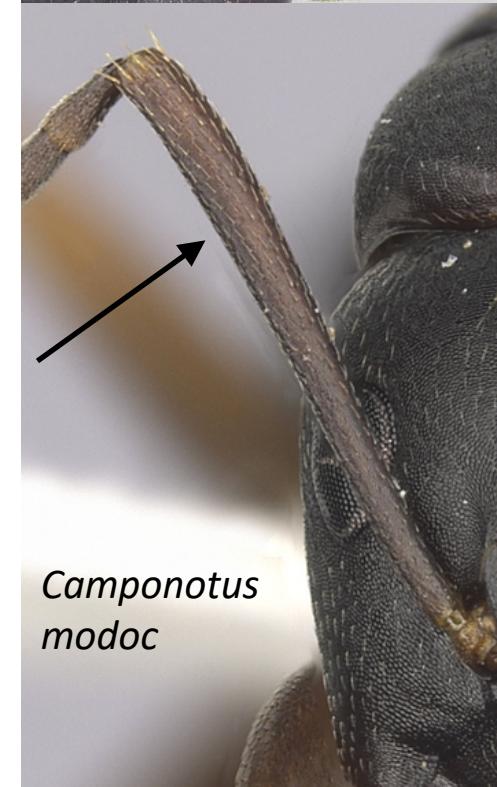
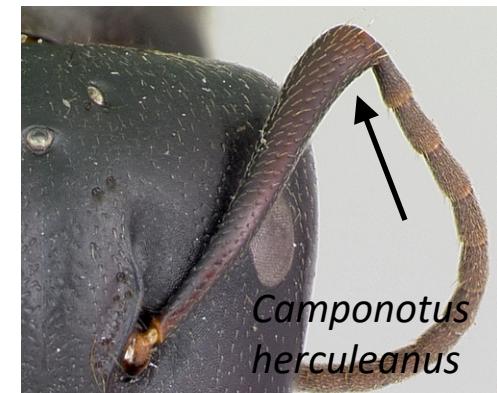
*vicinus*



# *Camponotus* Key to Species 2([1](#))

Scape, when tucked all the way to the top corner of the head, reaches only to or barely extends beyond corner of head; **HUGE**  
*herculeanus*

Scape, when tucked all the way to the top corner of the head, extends beyond corner of head by an amount greater than the maximum diameter of the scape  
*modoc*



# *Polyergus* Key to Species 1

One species in area, *Polyergus breviceps*; sickle shaped mandibles are unique

