

KEY TO THE SPECIES OF THE UMBROSUS GROUP
ADULT FEMALES

From PLATE 6: Hindtarsomere 5 dark-scaled

Palpus with pale bands, apical segment usually entirely pale-scaled

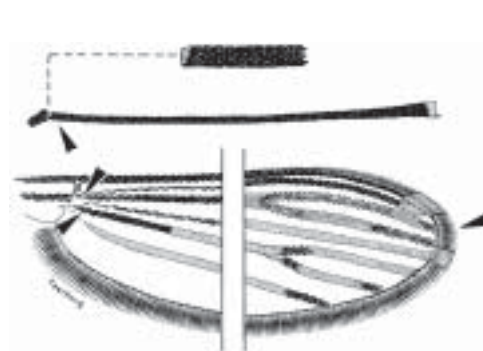
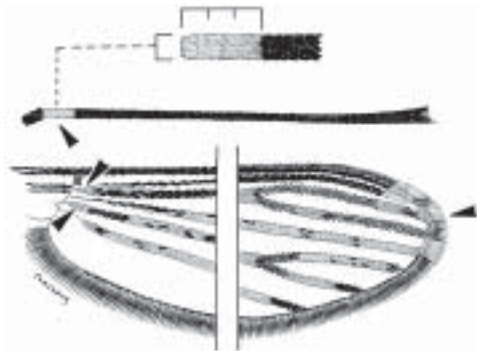
Palpus entirely dark-scaled



An. separatus

1. Base of hindtibia with distinct pale band, usually 1.5-4.0 times as long as segment width
2. Base of veins R and CuA usually with scattered pale scales
3. Wing apex with 3 pale fringe spots, middle pale fringe spot at vein R_2

1. Base of hindtibia dark-scaled or with small pale spot
2. Base of veins R and CuA with dark scales
3. Wing apex with 2 pale fringe spots, without pale fringe spot at vein R_2



An. roperi

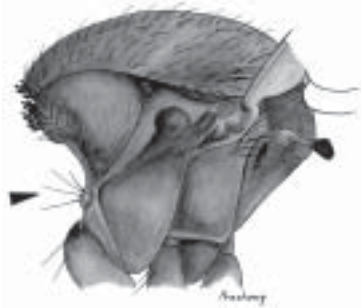
➤ To PLATE 10

PLATE 10

From PLATE 9: Base of hindtibia dark-scaled or with small pale spot; base of veins R and CuA with dark scales; wing apex with 2 pale fringe spots, without pale fringe spot at vein R₂.

Upper proepisternal setae present on both sides (1-6)

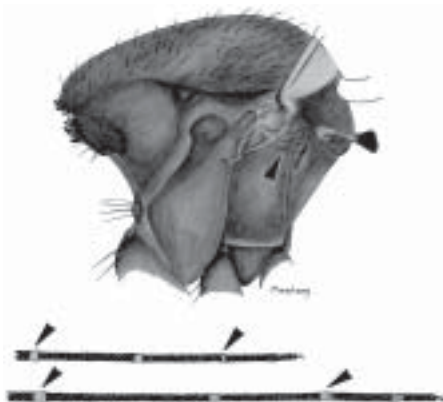
Upper proepisternal setae absent on both sides (rarely with one small seta on one side)



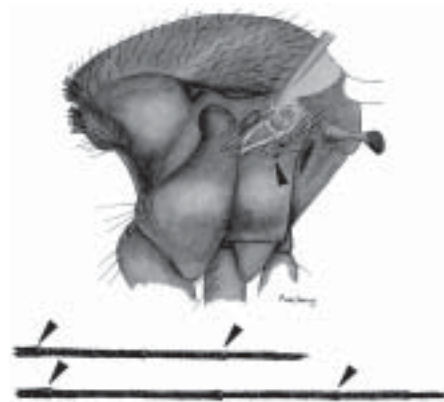
➤ To PLATE 11

1. Upper mesepimeron with 1-6 setae and no associated scales
2. Fore- and hindtarsomeres with small apical pale bands

1. Upper mesepimeron with 9-19 setae and a few inconspicuous dark scales
2. Fore- and hindtarsomeres all dark or with minute apical dorsal spots at joints



An. umbrosus



An. baezai

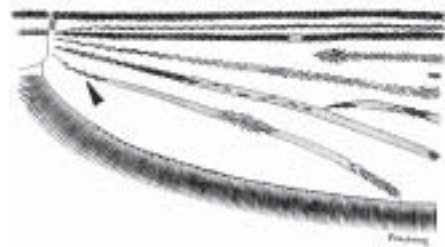
From PLATE 10: Upper proepisternal setae absent on both sides (rarely with one small seta on one side)

Vein 1A with pale scales proximal to median dark mark, or infrequently with 2 or 3 dark scales near base

Vein 1A with 5 or more dark scales at base, or base infrequently nearly all dark-scaled



An. letifer



An. whartoni

KEY TO THE SPECIES OF THE BARBIROSTRIS GROUP
ADULT FEMALES

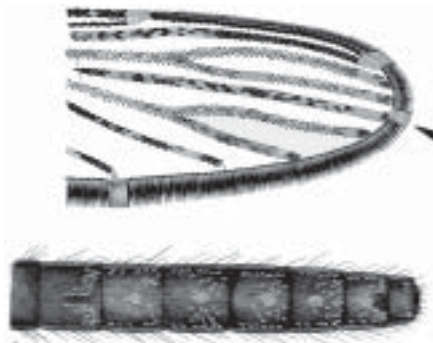
From PLATE 6: Sternum VII with tuft of black scales

1. Wing with broad pale apical fringe spot extending at least from vein R_{4+5} to vein M_1
2. Abdominal sterna without pale scales^a

1. Wing with narrow pale apical fringe spot at vein R_{4+5}
2. Abdominal sterna with pale scales

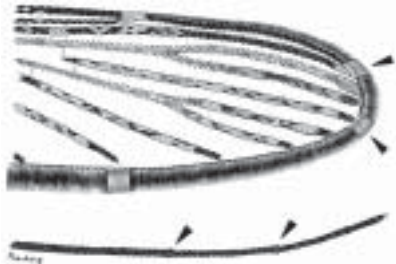


An. barbumbrosus



1. Wing apex with only 2 narrow pale fringe spots, no pale spot at vein R_2
2. Midtarsomeres usually unbanded

1. Wing apex with 3 narrow pale fringe spots, middle spot at vein R_2 , or with only 2 pale fringe spots, but upper spot wide with pale scales to include vein R_2
2. Midtarsomeres usually with narrow apical pale bands



↳ To PLATE 13 (Above)

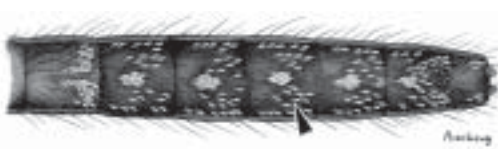
↳ To PLATE 13 (Below)

^a One or two pale scales are rarely found on sternum III.

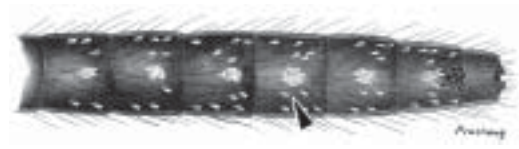
From PLATE 12: Wing apex with only 2 narrow pale fringe spots, no pale fringe spot at vein R_2 ; midtarsomeres usually unbanded

Abdominal sterna with many white scales scattered between median patch and lateral rows

Abdominal sterna with few scattered white scales between median patch and lateral rows



An. campestris^a

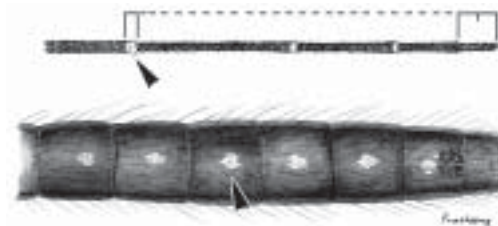


An. barbirostris^a
(A, B, and C)

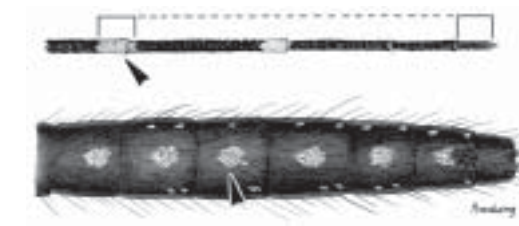
From PLATE 12: Wing apex with 3 narrow pale fringe spots, middle spot at vein R_2 , or with only 2 pale fringe spots, but upper spot wide with pale scales to include vein R_2 ; midtarsomeres usually with narrow apical pale bands

1. First foretarsal pale band short, 0.5 or less as long as tarsomere 5, rarely crossing joint onto tarsomere 2
2. Usually 0-20 median pale scales on abdominal sterna II-VI

1. First foretarsal pale band long, more than 0.5 as long as tarsomere 5, usually crossing joint onto tarsomere 2
2. More than 20 median pale scales on abdominal sterna II-VI



An. hodgkini



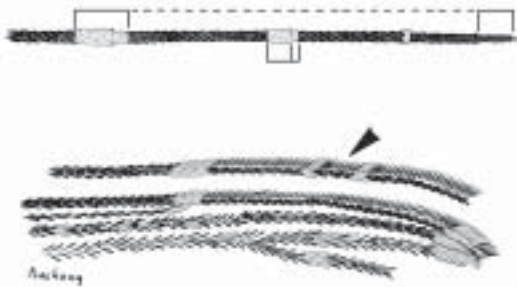
➤ To PLATE 14

^aAssociated larval and pupal exuviae are best used to identify adult females of these species.

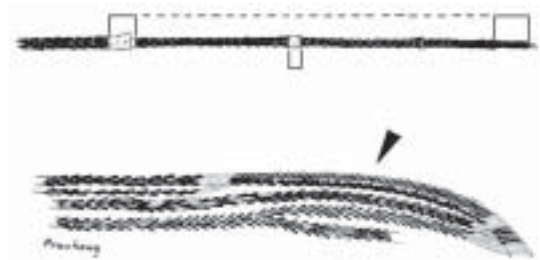
From PLATE 13: First foretarsal pale band long, more than 0.5 as long as tarsomere 5, usually crossing joint onto tarsomere 2; more than 20 median pale scales on abdominal sterna II-VI

1. First pale band of foretarsus longer than tarsomere 5
2. Second pale band of foretarsus extends onto base of tarsomere 3
3. Costa often with dark scales on preapical pale (PP)

1. First pale band of foretarsus seldom longer than tarsomere 5
2. Second pale band of foretarsus rarely extends onto base of tarsomere 3
3. Costa without preapical pale (PP)



An. pollicaris



An. donaldi

KEY TO THE SPECIES OF THE HYRCANUS GROUP
ADULT FEMALES

From PLATE 6: Clypeus with patch of dark scales on each side; basal 4-8 antennal flagellomeres with pale scales

Hindtarsomeres with basal and apical pale bands, at least one tarsomere (4) with basal pale band or patch

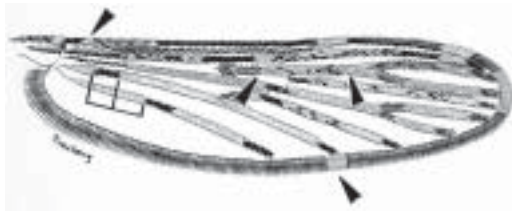
Hindtarsomeres with apical pale bands only



└─▶ To PLATE 17

1. Basal dark mark^a on vein CuA short, separated by own length or more from upper dark mark on vein 1A
2. Base of costa just distal to humeral crossvein with scattered pale scales, frequently with small humeral pale (HP) spot
3. Dark mark at origin of vein R_S well defined, scales between dark mark and fork mostly white
4. Vein CuA with pale fringe spot

1. Basal dark mark^a on vein CuA long, approaching within own length or less of upper dark mark on vein 1A
2. Base of costa just distal to humeral crossvein dark scaled, or with few scattered pale scales, no humeral pale (HP) spot
3. Dark mark at origin of vein R_S poorly defined, scales between dark mark and fork mostly dark
4. Vein CuA with or without pale fringe spot



An. nitidus

└─▶ To PLATE 16

^aVein CuA sometimes with several dark scales at very base and then pale scales followed by "short" basal dark mark.

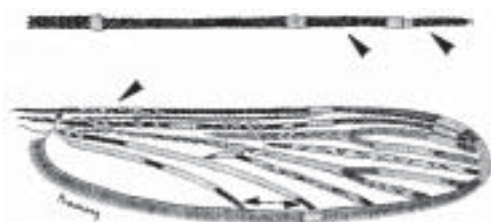
From PLATE 15: Basal dark mark on vein CuA long, approaching within own length or less of upper dark mark on vein 1A; base of costa just distal to humeral crossvein dark scaled, or with few scattered pale scales, no humeral pale (HP) spot; dark mark at origin of vein R_5 poorly defined, scales between dark mark and fork mostly dark; vein CuA with or without pale fringe spot

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Humeral crossvein without scales 2. Remigium mostly pale-scaled 3. Basal 0.33 and preapical dark (PD) mark on vein $R-R_1$ usually with many pale scales | <ol style="list-style-type: none"> 1. Humeral crossvein with patch of dark scales 2. Remigium mostly dark-scaled 3. Basal 0.33 and preapical dark (PD) mark on vein $R-R_1$ dark-scaled, or with very few pale scales |
|--|---|



An. peditaeniatus

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Hindtarsomere 4 with broad dark band, at least 0.6 length of segment 2. Hindtarsomere 5 with or without very narrow basal pale band (0.25 or less of segment) 3. Costa just distal to humeral crossvein usually with several scattered pale scales 4. Apical dark mark on vein CuA short, rarely as long as apical dark mark on vein 1A | <ol style="list-style-type: none"> 1. Hindtarsomere 4 with narrow dark band, 0.5 or less length of segment 2. Hindtarsomere 5 with basal pale band on 0.6 or more of segment 3. Costa just distal to humeral crossvein usually without pale scales 4. Apical dark mark on vein CuA long, usually as long as apical dark mark on vein 1A |
|---|---|



An. nigerrimus
(A and B in part)

An. argyropus
(A and B)

From PLATE 15: Hindtarsomeres with apical pale bands only

Wing apex with narrow pale fringe spot, not extending beyond veins R_1 to R_3

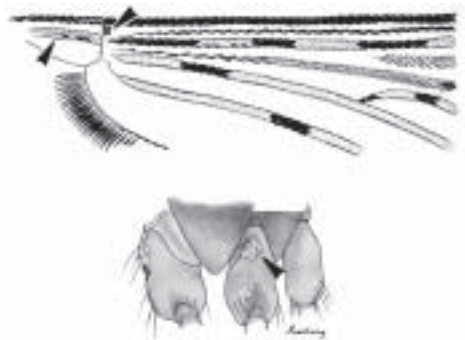
Wing apex with wide pale fringe spot, extending at least from vein R_2 to R_{4+5}



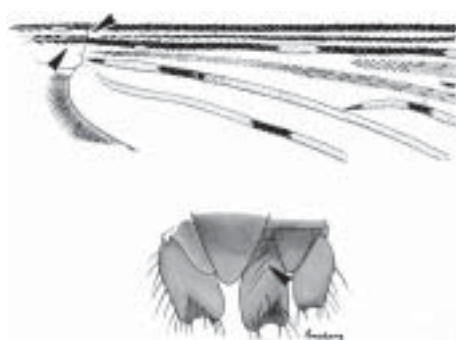
↳ To PLATE 18

1. Humeral crossvein with dark scales
2. Remigium mostly pale-scaled
3. Midcoxa with pale scales

1. Humeral crossvein without scales
2. Remigium mostly dark-scaled
3. Midcoxa without pale scales



An. pursati

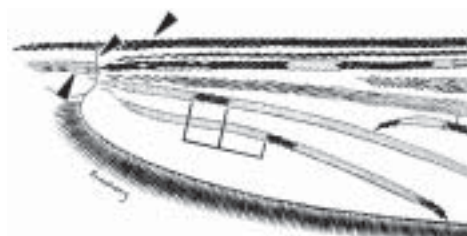
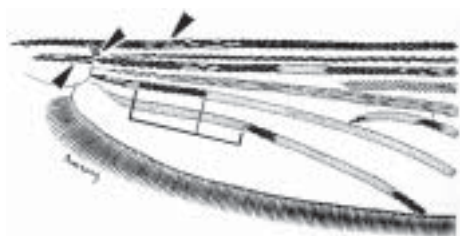


An. paraliae

From PLATE 17: Wing apex with wide pale fringe spot, extending at least from vein R_2 to R_{4+5}

1. Vein CuA with long basal dark mark, at least twice as long as most basal pale mark on vein CuA, and approaching within own length or less of upper dark mark on vein 1A
2. Costa usually with several scattered pale-scales on basal 0.33 just distal to humeral crossvein
3. Remigium mostly dark-scaled
4. Humeral crossvein with dense patch of dark scales

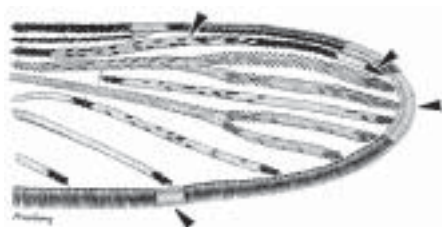
1. Vein CuA with short basal dark mark, equal or less length of most basal pale mark on CuA, and usually separated by own length or more from upper dark mark on vein 1A
2. Costa usually entirely dark-scaled on basal 0.33 just distal to humeral crossvein
3. Remigium mostly pale-scaled
4. Humeral crossvein bare or with few scales



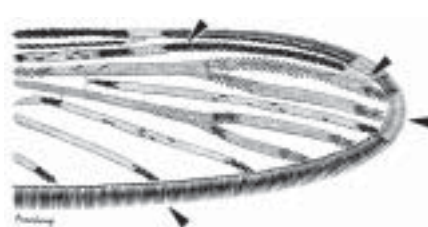
An. nigerrimus
(A and B) in part

1. Wing pattern blurred
2. Tip of vein R_1 dark-scaled
3. Wing apex with long pale fringe spot, beginning at or above vein R_1
4. Preapical dark (PD) mark on vein R_1 with some pale scales
5. Vein CuA usually with pale fringe spot

1. Wing pattern sharp, dark marks short and well defined
2. Tip of vein R_1 pale-scaled
3. Wing apex with shorter pale fringe spot, beginning at vein R_2
4. Preapical dark (PD) mark on vein R_1 without pale scales
5. Vein CuA usually without pale fringe spot



An. sinensis
(A and B)



An. crawfordi
(A and B)