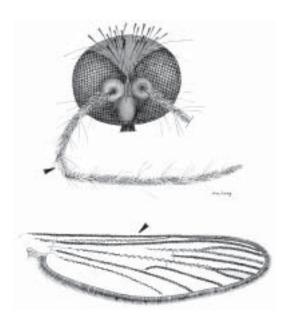
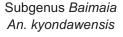
# KEY TO THE SUBGENERA OF ANOPHELES ADULT FEMALES

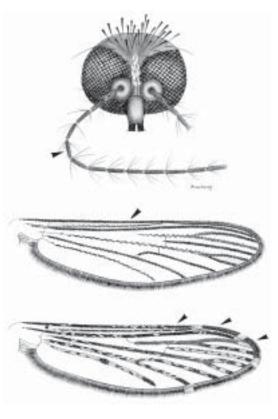
Characters: Scutellum evenly rounded; maxillary palpus approximately same length as proboscis

- Antennal flagellomeres with dense covering of long pale sensilla between whorls that provide fuzzy appearance
- 2. Wing entirely dark-scaled

- Antennal flagellomeres with or without sparse covering of long pale sensillae between whorls, without dense covering of long pale sensillae
- 2. Wing entirely dark or spotted with pale and dark marks





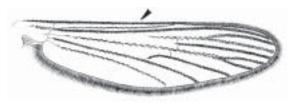


To PLATE 2

From PLATE 1: Antennal flagellomeres with or without sparse covering of long pale sensillae between whorls, without dense covering of long pale sensillae; wing entirely dark or spotted with pale and dark marks



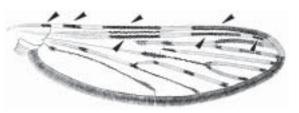
- Wing entirely dark- scaled (Aitkenii and Culiciformis Groups) or



 Wing with 3 dark marks involving both costa and veins R-R<sub>1</sub> (Albotaeniatus, Asiaticus, Barbirostris, Hyrcanus, Umbrosus Groups, and *An. bulkleyi*) or



Wing with 4 dark marks on costa but veins R-R<sub>1</sub>with not more than 3 dark areas, accessory sector pale (ASP) spot absent (Lindesayi Group)



Subgenus Anopheles

To PLATE 3

 Wing with 4 or more dark marks involving both costa and veins R-R<sub>1</sub>, accessory sector pale (ASP) spot present on costa and/or subcosta, and/or R<sub>1</sub>



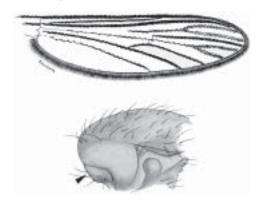
Subgenus Cellia



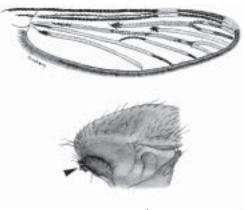
# KEY TO THE SERIES AND THE SPECIES GROUPS OF SUBGENUS ANOPHELES ADULT FEMALES

From PLATE 2: Wing entirely dark-scaled, with 3 dark marks involving both costa and veins  $R-R_1$ , or with 4 dark marks on costa, but veins  $R-R_1$  with not more than 3 dark areas, accessary sector pale (ASP) spot absent

- 1. Wing scales all dark
- 2. Antepronotal lobe without scales
- 1. Wing with pale and dark scales
- 2. Antepronotal lobe with scales

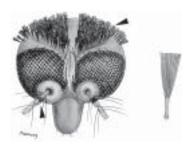


Anopheles Series (in part)



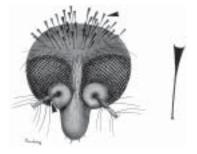
To PLATE 4

- Erect head scales widely expanded apically
- 2. Antennal flagellomere 1 with dark scales
- 1. Erect head scales long and narrow, only slightly expanded apically
- 2. Antennal flagellomere 1 with or without scales



Culiciformis Group

An. sintonoides



Aitkenii Groupa



<sup>&</sup>lt;sup>a</sup>Anopheles aberrans, An. bengalensis, An. fragilis, An. insulaeflorum, An. palmatus, An. stricklandi, and An. tigertti.

From PLATE 3: Wing with pale and dark scales; antepronotal lobe with scales

Legs with tuft of dark scales on hindfemur or on tarsomeres of mid- and hindleg

Legs without tuft of dark scales on hindfemur or on tarsomeres of mid- and hindleg

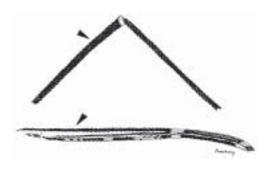


Lophoscelomyia Series Asiaticus Group and *An.bulkleyi* (unassociated species)





- 1. Hindfemur without distal broad preapical white band
- 2. Costa without presector pale (PSP) spot
- 1. Hindfemur with distal broad preapical white band **or**
- 2. Costa with presector pale (PSP) and humeral pale (HP) spots



Myzorhynchus Series<sup>a</sup>



Anopheles Series (in part) Lindesayi Group



To PLATE 7

<sup>&</sup>lt;sup>a</sup>Albotaeniatus, Barbirostris, Hyrcanus, and Umbrosus Groups.

# KEY TO THE SPECIES OF THE LOPHOSCELOMYIA SERIES ADULT FEMALES

From PLATE 4: Legs with tuft of dark scales on hindfemur or on tarsomeres of mid-and hindlegs

Legs with clusters of erect dark scales on tarsomere 2 of midleg and tarsomeres 1 and 2 of hindleg Legs with erect scales only on hindfemur, as prominent tuft of scales on apical 0.25- 0.33 (black proximally and white distally)

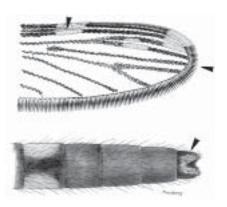
No specimens available

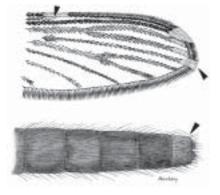


An. bulkleyi<sup>a</sup> (Unassociated species)

# Asiaticus Group

- Wing apex without pale fringe spot at vein R<sub>4+5</sub>
- 2. Subcostal pale (SCP) spot of costa extending onto vein R<sub>1</sub>
- 3. Abdominal tergum VIII with pale golden scales
- 1. Wing apex with narrow pale fringe spot at vein  $R_{4+5}$
- Subcostal pale (SCP) spot, when present, confined to costa and tip of subcosta
- 3. Abdominal tergum VIII without pale scales





An. asiaticus

An. interruptus

<sup>&</sup>lt;sup>a</sup>Only known from a single male (type specimen) which was lost.

From PLATE 4: Hindfemur without distal broad preapical white band; costa without presector pale (PSP) spot

- 1. Clypeus with patch of dark scales on each side
- 2. Basal 4-8 antennal flagellomeres with pale scales
- 1. Clypeus without patch of dark scales
- 2. Only antennal flagellomere 1 with pale scales



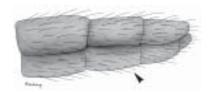
Hyrcanus Group<sup>a</sup>

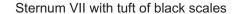
To PLATE 15



Sternum VII without tuft of black scales









Barbirostris Groupb

► To PLATE 12

Hindtarsomere 5 all white

Hindtarsomere 5 dark-scaled











<sup>&</sup>lt;sup>a</sup> Anopheles argyropus A and B, An. crawfordi A and B, An. nigerrimus A and B, An. nitidus, An. paraliae, An. peditaeniatus, An. pursati, and An. sinensis A and B.

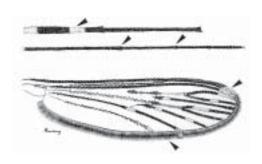
<sup>&</sup>lt;sup>b</sup>Anopheles barbirostris A, B, and C, An. barbumbrosus, An. campestris, An. donaldi, An. hodgkini, and An. pollicaris.

<sup>&</sup>lt;sup>c</sup>Anopheles baezai, An. letifer, An. roperi, An. separatus, An. umbrosus, and An. whartoni.

# KEY TO THE SPECIES OF THE LINDESAYI GROUP ADULT FEMALES

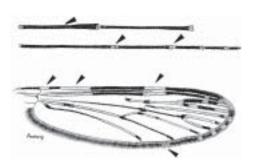
From PLATE 4: Hindfemur with distal broad preapical white band or costa with presector pale (PSP) and humeral pale (HP) spots

- 1. Hindfemur with broad preapical pale band, tarsi all dark
- Costa with not more than 2 pale spots, apical pale (AP) and/or subcostal pale (SCP) spots
- 3. Wing usually without pale fringe spot between veins CuA and vein 1A
- 1. Hindfemur without broad preapical pale band, tarsi with pale bands
- Costa with 3 or more pale spots including presector pale (PSP) and humeral pale (HP) spots
- 3. Wing usually with pale fringe spot between veins CuA and vein 1A<sup>a</sup>



Lindesayi Subgroup

An. lindesayi cameronensis



Gigas Subgroup

- 1. Wing margin with pale fringe spots at veins R<sub>1</sub>,R<sub>2</sub>, R<sub>4+5</sub>, M<sub>1</sub>, M<sub>2</sub>, and M<sub>3+4</sub>
- 2. Vein 1A with two dark spots (long spot at base and short spot at apex)
- 1. Wing margin with pale fringe spots at vein R<sub>1</sub> and R<sub>2</sub>
- 2. Vein 1A entirely dark



n. sp. near An. gigas b



An. baileyi c

<sup>&</sup>lt;sup>a</sup>This character is difficult to see on some specimens.

<sup>&</sup>lt;sup>b</sup>This species found on top of a mountain, Phu Kra Dung, Loei Province.

<sup>&</sup>lt;sup>c</sup>This species found on top of a mountain, Doi Inthanon, Chiang Mai Province.

# KEY TO THE SPECIES OF THE AITKENII GROUP ADULT FEMALES

From PLATE 3: Erect head scales long and narrow, only slightly expanded apically; antennal flagellomere 1with or without scales

Abdominal segments IV or IV and V distinctly paler than other segments

All abdominal segments unicolorous





Abdominal segments IV and V pale

Only abdominal segment IV pale



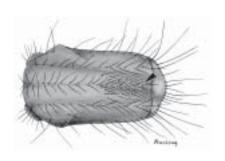


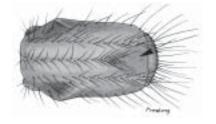
An. aberrans (in part, 75%)

An. palmatus (in part, 75%)

Prescutellar space with short fine setae reaching scutellum

Prescutellar space with distinct median bare area immediately cephalad of scutellum





An. insulaeflorum

An. aberrans (in part, 25 %), An. bengalensis, An. fragilis, An. palmatus (in part, 25%), An. stricklandi, and An. tigertti