Lepidoptera:

***Key to the Families of Lepidoptera starts on page 579**

Families you should know for the final practical:
Nymphalidae (Danainae)
Nymphalidae (Nymphalinae)
Pieridae
Hesperiidae
Sphyngidae
Papilonidae
Saturniinae
Lycanidae

Comments about beetles and the key:
It often helps to see the veins from below. If you're having trouble seeing the venation, try turning specimens upside down.

Look at the figures of the wings. They will help you a lot!

You can always start at couplet 6. All of our specimens have well-developed wings and heteroneurous venation.

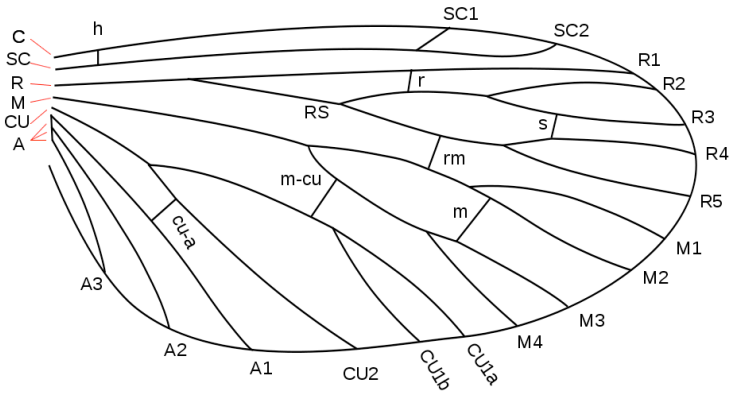
Couplet 6/6' distinguishes butterflies from moths. Butterflies have clubs/knobs at the end of their antennae. Moth antennae have no knobs or are plumose.

Frenulum = bristle or group of bristles that helps front and hind wings stay together; arises from humeral angle of the hind wing (figure 30-6)

Discal cell = large cell in central part of wing

Couplet 13: Does M_1 come off the corner of the discal cell?
If no (because M_1 is stalked with R beyond cell), the specimen is Pieridae. If yes (because M_1 is not stalked), the specimen is Nymphalinae.

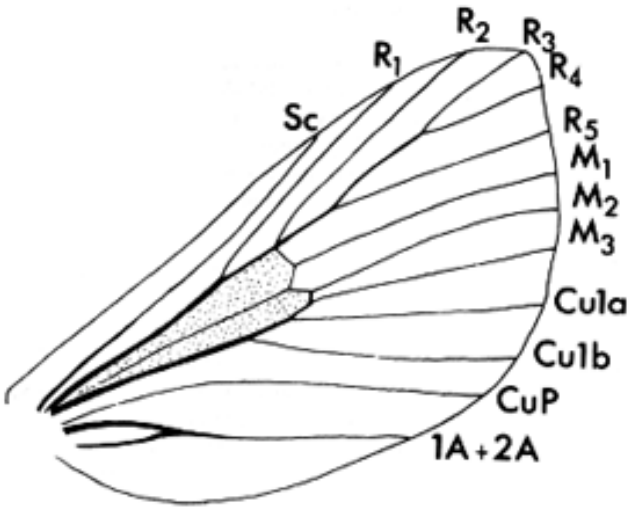
Couplet 14: Again, does M_1 come off the corner of the discal cell?
If no, Pieridae. If yes, Lycaenidae.



WING VENATION
Comstock-Needham System

Refer to Fig. 2-10 (pp. 12-13) for wing venation terminology

C = Costa
SC = Subcosta
R = Radius
M = Media
Cu = Cubitus
A = Anal veins



The discal cell is large cell in central part of wing.

It is bordered anteriorly by the radius, and posteriorly by the cubitus. The basal portion of the media is typically atrophied or loss (hence the large discal cell).