

Order Chiroptera

2 Suborders:

MEGAchiroptera (1 Family)

Microchiroptera (17 Families)

202 genera, 1116 species

20% of mammal species!

but you don't have to learn them all...

MEGAchiroptera

- No echolocation (except *Rousettus*)
- frugivores and nectarivores
- no tragus
- no nasal or facial ornaments
- uropatagium, tail usually absent
- larger body size
- large eyes (visual animals)
- skulls: postorbital process well developed, palate extends beyond last upper molars

Microchiroptera

- Echolocation
- variety of diets (but majority insectivores)
- tragus in ears
- many with nasal and facial structures to facilitate echolocation
- tail and uropatagium often (but not always) present
- small body size
- generally small eyes
- skulls: postorbital process usually tiny or absent, palate usually does not extend beyond last upper molars

● Suborder Megachiroptera

- Family Pteropodidae – 42 genera, 186 sp.
 - Old World fruit bats, or flying foxes



Tropical and subtropical Africa, southern and southeast Asia, Australia, Pacific islands

Mostly fruit eaters (some nectar and pollen), found by vision and smell

Don't hibernate, don't echolocate (*Rousettus* uses tongue clicks to orient in caves), simple ears with no tragus

Range in body size from a few small species of around 15-20 g to large species in the genus *Pteropus*, weighing up to 1,200 g with a wingspan of 2 meters



Pteropus



Typically form large communally roosting colonies by day, usually in trees (but a few species solitary)

Fly off to forage in evening, primarily nocturnal (although some species can be active during the day)

Important seed dispersers, but also can be serious crop predators



insectivores

Can search for insects on the wing, glean them from the ground or vegetation (or spider webs!), or fly out from a roost.

Can use echolocation, just listen for movements, or visually search.

Bats that concentrate on hard-bodied prey like beetles have larger and fewer teeth with more robust mandibles than bats that prey on soft-bodied prey like moths.

“tin snips vs scissors”



Antrozous

Who says insectivores can't be macho?



Corynorhinus

frugivores



Piper, a plant specialized for seed dispersal by bats



Uroderma

Why do fruit-eating bats still have large canines?



Centurio

Bats that specialize on fruit tend to have broader, flatter molars than insectivores. They often chew up fruit and swallow the juice, then spit out the pulp. Mostly they eat softer fruits, and are major seed dispersers in the tropics.

nectarivores, pollinators



Lonchophylla

Musonycteris



Long snouts, protrusible tongues, reduced teeth, very low wing-loading (can hover)

Wouldn't have many tropical plant species, as well as columnar cacti, without them!

carnivores and piscivores



Megaderma



Trachops



Not all
microbats are
content with
insects or fruit...



Noctilio

Some prey on
vertebrates as
well.

sanguivores

and some think *you* taste good...



Desmodus

