

Lab 8 (Carnivora: Families Canidae, Felidae, and Ursidae)

Order Carnivora

Family: Canidae ("dog" family)

- Skin: 1) Digitigrade
2) Non-retractile claws
- Skull: 1) Long rostrum
2) 3 lower molars (except *Speothos*, *Cuon*, and *Otocyon*; bush dog, dhole, and bat-eared fox)
3) Crushing (bunodont) molars

Canis latrans (coyote)

- Skin: 1) Pelage variable, but usually somewhat grizzled with black-tipped tail
2) Relatively thin, slender snout and long ears
- Skull: 1) Rostrum thin and narrow
2) Diameter of upper canine <12 mm

Canis lupus (gray wolf)

- Skin: 1) Broad snout
2) Relatively short ears
- Skull: 1) Rostrum thick and powerfully built
2) Diameter of upper canine >12 mm
3) Postorbital processes thick and convex

Vulpes velox (swift fox)

- Skin: 1) Pelage buffy yellow
2) Thick, bushy tail with a black tip
- Skull: 1) Sagittal crest not as well-developed as in *Canis*
2) Postorbital processes thin and concave
3) Temporal ridges converge more narrowly than *Urocyon*, but more broadly than *V. vulpes*

Vulpes vulpes (red fox)

- Skin: 1) Pelage variable, but usually with black feet
2) Thick, bushy tail with a light tip
- Skull: 1) Sagittal crest not as well-developed as in *Canis*
2) Postorbital processes thin and concave
3) Temporal ridges form a thin "V"

Urocyon cinereoargenteus (gray fox)

- Skin: 1) Pelage typically gray with white chin and reddish venter
2) Thick, bushy tail with a black dorsal stripe
- Skull: 1) Sagittal crest not as well-developed as in *Canis*
2) Postorbital processes thin and concave
3) Temporal ridges form a broad "U"

Family: Felidae (cat family)

- Skin: 1) Digitigrade
2) Retractable claws (except *Acinonyx*—cheetah)
- Skull: 1) Short rostrum
2) 1-2 lower molars
3) Shearing molars
4) Well-developed carnassials

Lynx canadensis (Canada lynx)

- Skin: 1) Tail <50% of body length
2) Dorsal and ventral sides of tail tipped with black
3) Long, black tufts on ears
4) Large paws and long legs
5) Not as conspicuously spotted as *L. rufus*
- Skull: 1) 2 upper premolars
2) Presphenoid heart-shaped or winged

Lynx rufus (bobcat)

- Skin: 1) Tail <50% of body length
2) Only dorsal side of tail tipped with black
3) Short, black tufts on ears
4) Spotted dorsal pelage
- Skull: 1) 2 upper premolars
2) Presphenoid with straight sides

Puma (Felis) concolor (mountain lion, puma, or cougar)

- Skin: 1) Tail >50% of body length
2) Uniformly light or tawny brown
- Skull: 1) 3 upper premolars

Family: Ursidae (bears)

- Skin: 1) Conspicuous claws
- Skull: 1) Rostrum massive
2) Carnassials poorly developed
3) Cheek teeth built for crushing

Ursus americanus (American black bear)

- Skin: 1) Pelage variable
2) Stocky, well-built hindquarters
- Skull: 1) Prominent sagittal crest, but less so than *U. arctos*
2) 2nd molar broadest near middle

Ursus arctos (brown bear)

- Skin: 1) Pelage variable
2) Conspicuous hump between shoulders
- Skull: 1) Prominent sagittal crest
2) 2nd molar broadest near anterior end