

Week 9, Lab 9 (Carnivora: Families Mustelidae and Procyonidae)

Order Carnivora

Family: Mustelidae (weasels and allies)

Skin: 1) Lithe, cylindrical body (except Taxidea and Gulo)

2) Short legs

Skull: 1) Shearing molars (less so in Lontra)

2) Dumbbell-shaped M2

3) Well-developed carnassials

Mustela erminea (short-tailed weasel or ermine)

Skin: 1) Summer dorsal pelage variable, but usually brown with white ventral pelage

2) Tail ~30% of total length

3) Tail with conspicuous black tip

Skull: 1) 3 upper premolars

2) Auditory bullae nearly twice as long as wide

3) Posterior edges of palatines usually form a point

4) Cranium 34-53 mm, indistinguishable from M. frenata

Mustela frenata (long-tailed weasel)

Skin: 1) Summer dorsal pelage variable, but usually brown with yellow ventral pelage

2) Tail ~50% of total length

3) Tail lacking black tip

Skull: 1) 3 upper premolars

2) Auditory bullae nearly twice as long as wide

3) Posterior edges of palatines usually form a point

4) Cranium 34-53 mm, indistinguishable from M. erminea

Mustela nigripes (black-footed ferret)

Skin: 1) Yellow-brown pelage

2) Black mask, feet, and tip of tail

Mustela nivalis (least weasel)

Skin: 1) Summer dorsal pelage variable, but usually brown with white ventral pelage

2) Tail <25% of total length

3) Noticeably smaller than erminea or frenata

Skull: 1) 3 upper premolars

2) Auditory bullae nearly twice as long as wide

3) Cranium <33 mm

Mustela (Neovison) vison (American mink)

Skin: 1) Thick, dark brown fur, often with white patches on chest and neck

2) Feet partially webbed

Skull: 1) 1st molar nearly twice as wide as long

2) Auditory bullae nearly twice as long as wide

3) Posterior edges of palatines usually rounded—contrast with both skunks

4) Cranium >54 mm

Martes americana (American marten)

Skin: 1) Thick brown pelage, with a yellowish patch on chest—contrast with mink

Skull: 1) 4 upper premolars
2) Auditory bullae elongated, but not twice as long as wide

Gulo gulo (wolverine)

Skin: 1) Long, dark brown pelage, usually with a broad, lighter stripe along the sides
2) Resembles a larger, more powerfully built marten

Skull: 1) Sagittal crest more developed than *Martes*
2) Auditory bullae not elongated
3) Four upper premolars

Lontra (Lutra) canadensis (river otter)

Skin: 1) Thick brown fur with rudder-like tail
2) Webbed feet
3) Tail thick at base, appears to fuse with body
4) Ears greatly reduced

Skull: 1) 4 upper premolars
2) Rostrum much reduced
3) Skull flattened dorsally
4) Large braincase

Taxidea taxus (American badger)

Skin: 1) Pelage gray or grizzled, with white stripes and patches on face
2) Small ears
3) Powerful front limbs with long claws

Skull: 1) Braincase triangular, and broadest occipit
2) 3 upper premolars
3) 1st upper molar a rounded triangle (other North American mustelids dumbbell-shaped)

Family: Mephitidae (skunks and stink badgers)

Mephitis mephitis (striped skunk)

Skin: 1) Dorsal pelage with unbroken white stripes, or all black except for top of head
2) Large bushy tail, usually entirely white or entirely black

Skull: 1) Palate does not extend appreciably beyond molars
2) 1st upper molar squarish
3) Cranium appears convex in profile

Spilogale gracilis (western spotted skunk)

Skin: 1) Dorsal pelage with 3-4 white blotches or stripes
2) Bushy tail, but smaller and more sparsely haired than *M. mephitis*
3) White spot on forehead and in front of each ear

Skull: 1) Palate does not extend appreciably beyond molars
2) 1st upper molar squarish
3) Cranium appears straight in profile

Family: Procyonidae (raccoons and allies)

Procyon lotor (North American raccoon)

Skin: 1) Pelage consists of long guard-hairs and dense, soft underfur

2) Ringed tail

3) Dark brown or black mask on face

Skull: 1) Carnassials poorly developed and not used for slicing

2) Bony palate terminating far posterior to last upper molar

3) Upper molars not transversely elongated

Bassariscus astutus (ringtail)

Skin: 1) Pelage grayish-brown

2) Ringed tail

3) Cat-like appearance

Skull: 1) Carnassials poorly developed and not used for slicing

2) Bony palate terminated just posterior to last upper molar

3) Upper molars transversely elongated