

## For Week 5 (Rodentia: Families Muridae and Dipodidae)

### Order Rodentia (rodents)

Family Muridae (mouse-like rodents)

Subfamily Arvicolinae (voles, lemmings, and muskrats)

Skin: 1) small eyes and ears

2) typically short tails

Skull: 1) crowns of molars have triangles of dentine (i.e., microtine teeth)

2) zygomatic arches nearly parallel

Clethrionomys (Myodes) gapperi (southern red-backed vole)

Skin: 1) dorsal pelage with broad rufous stripe

2) short tail, barely extending beyond feet

Skull: 1) posterior edge of palate forms a straight shelf extending between the last molars

Lemmiscus curtatus (sagebrush vole)

Skin: 1) pelage sandy or yellowish-gray

2) tail relatively short, barely extending beyond hind feet if at all

Microtus spp

Skull: 1) posterior edge of palate forms a ridge bordered by lateral pits

M. longicaudus (long-tailed vole)

Skin: 1) pelage variable, typically brownish-gray

2) tail relatively long, between 1/3 – 1/2 of body length

M. ochrogaster (prairie vole)

Skin: 1) dorsal pelage typically brown, ventral pelage with orange wash

2) tail intermediate; extends beyond hind legs but < 1/3 of body length

M. pennsylvanicus (meadow vole)

Skin: 1) pelage variable, typically brownish-gray

2) tail relatively short, barely extending beyond hind feet if at all

Ondatra zibethicus (muskrat)

Skin: 1) dorsal pelage chocolate brown, ventral pelage typically lighter

2) thick undercoat beneath outer guard hairs

2) tail sparsely furred

Skull: 1) largest skull exhibiting microtine teeth in WY

2) postorbital processes are squarish and formed on squamosal

Subfamily Neotominae (North American mice and rats)

Skin: 1) large eyes and ears

2) long, furred tails

Skull: 1) cusps of molars arranged in two longitudinal rows (except Neotoma)

Neotoma cinerea (bushy-tailed woodrat)

Skin: 1) dorsal pelage gray or buffy with white feet

2) bushy, squirrel-like tail

Skull: 1) microtine-like teeth, but dentine not arranged in triangles

2) nasals longer than arvicoline species

3) zygomatic plate extends anteriorly from zygomatic process

Onychomys leucogaster (northern grasshopper mouse)

- Skin: 1) dorsal pelage gray or grayish-brown with white ventral pelage  
2) short, light-colored tail

Peromyscus spp

- Skull: 1) cusps of molars arranged in two longitudinal rows  
2) upper incisors not grooved

Peromyscus maniculatus (deer mouse)

- Skin: 1) pelage sharply bicolored, with light brown dorsal pelage and white ventral pelage  
2) strongly bicolored tail

P. truei (pinyon mouse)

- Skin: 1) pelage sharply bicolored as in P. maniculatus, but with lateral orange wash  
2) exceptionally large ears  
3) strongly bicolored tail

Reithrodontomys megalotis (western harvest mouse)

- Skin: 1) pelage and tail bicolored, but more gradual transition than Peromyscus  
Skull: 1) cusps of molars arranged in two longitudinal rows  
2) upper incisors grooved

Subfamily Murinae (Old World rats and mice)

- Skin: 1) large eyes and ears  
2) long, mostly naked tails  
Skull: 1) cusps of molars arranged in three longitudinal rows

Mus musculus (house mouse)

- Skin: 1) dorsal pelage dull grayish-brown (except for some domestic individuals)  
2) pelage not sharply bicolored  
Skull: 1) upper incisors notched

Rattus norvegicus (Norway rat)

- Skin: 1) dorsal pelage dull grayish-brown (except for some domestic individuals)  
2) tail length < body length  
3) stout rump  
Skull: 1) zygomatic plate extend anteriorly from zygomatic process  
2) lophodont molars

Family Dipodidae

Zapus princeps (western jumping mouse)

- Skin: 1) dorsal pelage with lateral orange wash  
2) sparsely furred or naked tail nearly twice length of body  
3) massive hind feet  
Skull: 1) infraorbital foramen very large  
2) upper incisors grooved  
4) 4<sup>th</sup> upper premolar small and peg-like