

Mammalogy Laboratory 6 – Lagomorpha, Primates, & Scandentia

General Notes. We have little material for most of these orders. Therefore, we'll have an easier week, after the difficult Rodents II lab.

Order Lagomorpha (Rabbits, Hares, and Pikas)

Diagnosis: Small to medium in size; quadrupedal and **digitagrade**; tail either not evident externally, or short and well-furred; soles of feet covered with hair; **facial portion of maxillae fenestrated**; incisive foramina large, confluent posteriorly, and elongate, terminating between cheek teeth; bony palate short, extending in mid line only as far as P4 or M1, bullae formed only from ectotympanic; **incisors ever-growing, with enamel extending around to posterior surface; first upper incisor with longitudinal groove** on anterior surface; **second upper incisor peg-like, located directly behind the first**; lower incisors of variable length; diastema present between incisors and cheek teeth.

Range: Worldwide, with principle exception of southern South America, Australia & New Zealand.

Family Ochotonidae (Pikas)

Diagnosis: **Ears short; tail not externally visible**; limbs short, hind limbs only slightly longer than forelimbs; skull rather flat in profile, much constricted between orbits; **no supraorbital process on frontal** (contrast with Leporidae); **maxilla with single large fenestra**.

Habits: Subfossorial; active in all seasons, but hibernation has been reported; diurnal; scampering with great agility; typically inhabit rockslides; very vocal; chiefly herbivorous; have a distinctive habit of curing and storing food for winter use.

Range: Holarctic, but discontinuous, occurring in mountains of western North America, eastern Europe, and all of Asia north of the Himalayan Mountains.

Genus: *Ochotona*

Material in Laboratory: *Ochotona princeps* (American pika)
 O. collaris (Collared pika)*

*Not an Idaho species

Family Leporidae (Rabbits, Hares)

Diagnosis: Ears longer than wide; hind limbs longer than forelimbs; pentadactyl, with strong reduction of first digit on both hind-and forefeet; skull more or less arched in profile with only moderately constricted orbital region; supraorbital process of frontal always with a posterior arm,

sometimes with an anterior arm as well; maxilla with numerous fenestrae; last lower molar divided by transverse enamel plate.

Habits: Nocturnal or crepuscular; do not hibernate or aestivate; locomotion varies from scampering to a series of long bounds (not saltatorial); some vocal, many drum with hind feet; almost strictly herbivorous, some coprophagous; no food storage; territorial behavior evident in some; females polyestrous.

Range: Same as for order.

Representative Genera: *Lepus*, *Sylvilagus*, *Oryctolagus*, *Pentalagus*, *Nesolagus*, *Romerolagus*, *Bunolagus*, *Pronolagus*; *Brachylagus*

Material in Lab: *Sylvilagus nuttallii* (Mountain cottontail)
 Brachylagus idahoensis (Pygmy rabbit)
 Lepus americanus (Snowshoe hare)
 L. californicus (Black-tailed jackrabbit)
 L. townsendii (White-tailed jackrabbit)

Order Primates

Diagnosis: plantigrade; herbivorous, omnivorous, rarely insectivorous or carnivorous; mostly arboreal, but some terrestrial; primarily pentadactyl; radius and ulna unfused, permitting free pronation and supination; molars brachydont and tuberculo-sectorial or bunodont; mandibular symphysis firmly ossified in some groups; orbits directed forward and separated from temporal fenestra by post-orbital bar or plate; baculum usually present (except in *Tarsius*, some cebids, and *Homo*); mammae usually in a single pectoral pair.

Range: Pantropical, except Australia; *Homo* is cosmopolitan.

Classification: Suborder Strepsirhini (informally “prosimians”)

Family Lemuridae

Family Indriidae

Family Daubentoniidae

Family Lorisidae

Family Cheirogaleidae

Family Lepilemuridae

Family Galagidae

Suborder Haplorhini (informally “anthropoids”)

Infraorder Tarsiiformes

Family Tarsiidae

Infraorder Platyrrhini

Family Callithricidae

Family Callimiconidae

Family **Cebidae**

Infraorder Catarrhini

Family **Cercopithecidae**

Family Hylobatidae
Family **Hominidae** (includes Pongidae)

Family Cebidae (New World monkeys)

Diagnosis: Small to medium sized; arboreal; nails on digits; pollex only slightly opposable or absent; tail variable in length but moderately to strongly prehensile; internarial septum broad, nostrils well-separated and laterally directed (platyrrhine condition); no cheek pouches or ischial callosities; molars usually bunodont; facial vibrissae reduced, but present; orbits large and directed forward; dental formula $2/2 \ 1/1 \ 3/3 \ 2-3/2-3 = 32$ or 36 ; palate shorter than in

catarrhines; jugal contributes to post-orbital plate and meets parietal.

Habits: primarily herbivorous, but also omnivorous; usually live in territorial family groups; arboreal, climb quadrupedally; diurnal or nocturnal; engage in personal and social grooming; extremely vocal; possess well-developed color vision.

Range: Amazon basin of South America, north to southern Mexico.

Representative Genera: *Saimiri*, *Aotus*, *Callicebus*, *Alouatta*, *Cacajao*, *Cebus*, *Ateles*

Material in Lab: *Cebus apella* * (**capuchin monkey**)

*Not an Idaho species

Family Cercopithecidae (Old World monkeys)

Diagnosis: medium sized, arboreal to semiterrestrial; flattened nails on all digits; rostrum often lengthened; ischial callosities present; auditory bulla extends laterally as a bony tube; P_1 with anterior root sloping anteriorly into dentary, occluding with upper canine; tail not prehensile; dental formula typically $2/2 \ 1/1 \ 2/2 \ 3/3 = 32$; bunodont.

Habits: omnivorous to herbivorous; well-developed social groups; usually diurnal; life spans up to 50 years; well-developed vocalizations, used primarily in social interactions; possess well-developed color vision.

Range: Old World, from Africa east through southern Asia.

Representative Genera: *Miopithecus*, *Cercopithecus*, *Papio*, *Presbytis*

Material in Lab: *Macaca* (**macaque**)*

*Not an Idaho species

Order Scandentia (tree shrews)

Diagnosis: squirrel-like in size and form (19-40 cm); molars with w-shaped ectolophs (dilambdodont); post-orbital process contacts zygomatic arch to form postorbital bar; tail often tufted.

Habits: inhabit deciduous forests; nest in trees, fallen logs, or holes in ground; rather omnivorous; diurnal.

Range: southeastern Asia

Family Tupaiidae

Material in Lab: *Tupaia** Skin & Skull

*Not an Idaho form.

Other Representative Genera: *Ptilocercus*, *Urogale*