Gross Pathology of Non-Human Primates

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Non-Human Primates
- >300 species of primates
  - Apes
    - Great apes
    - Lesser apes
  - Monkeys
    - Old World
    - New World
  - Prosimians (“premonkeys”)
    - Most primitive NHPs

Apes
- Africa and Asia
- Larger, heavier than monkeys
- Longer lifespan
- More upright posture
- Often can walk on 2 legs
- No tail
- Broad chest
- Short, broad nose
- Rely on vision
- Large brain:body size
- Create tools, problem solve
- Great apes = orangutan, chimp, gorilla, bonobo
- Lesser apes = gibbon, siamang
OWM

- Catarrhine – narrow nose with thin septum, down-facing nostrils
- Africa and Asia – varied habitats from rainforest to desert
- Larger than NWM
- Longer hindlimbs than forelimbs
- Tails but lack prehensility
- Ischial callouses
- Prominent sexual skin around the anus and vagina in females
- Mandibular premolar specialized for sharpening upper canine
- Many have opposable thumbs
- Fingernails and toenails on all digits
- 2 subfamilies
  - Cercopithecinae (cheek pouched) = baboon, macaques, guenons, mandrill, drills, proboscis monkey, sooty mangabey, patas
  - Colobinae (leaf eating) = colobus monkeys, langurs
    - 3-4 chambered stomachs for fermentation of leaves, seeds

NWM

- Platyrrhine – broad nose with wide septum, outwardly directed nostrils
- Central and South America – arboreal habitats only
- Small to medium sized
- Long tails, sometimes prehensile
- Scent glands (territory marking)
- Thumb in line with other digits (spider monkeys have no thumbs)
- Not as much manual dexterity as OWM
- No ischiatic pads
- No cheek pouches
- (ex) tamarin, marmoset, capuchin, owl monkey, titi monkey, saki monkey, spider monkey, howler monkey, wooly monkey, squirrel monkey, uakari
Prosimians

- Lemurs, lorises, tarsiers
- Only live in Old World, tropical woodlands
- Mostly nocturnal
  - Large eyes with sensitive nocturnal vision
  - Large, independently movable ears
- Developed hand with good control
- Well-developed sense of smell, prominent snout

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...And anyone else I may have missed... THANK YOU!
Rhesus

Cardiovascular

Owl monkey
New World monkey

Hematopoietic

Rhesus

Rhesus
Chimpanzee

Liver and Gall Bladder

Rhesus

Lemur
Musculoskeletal
Squirrel monkey

Spider monkey
THE END!

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References