

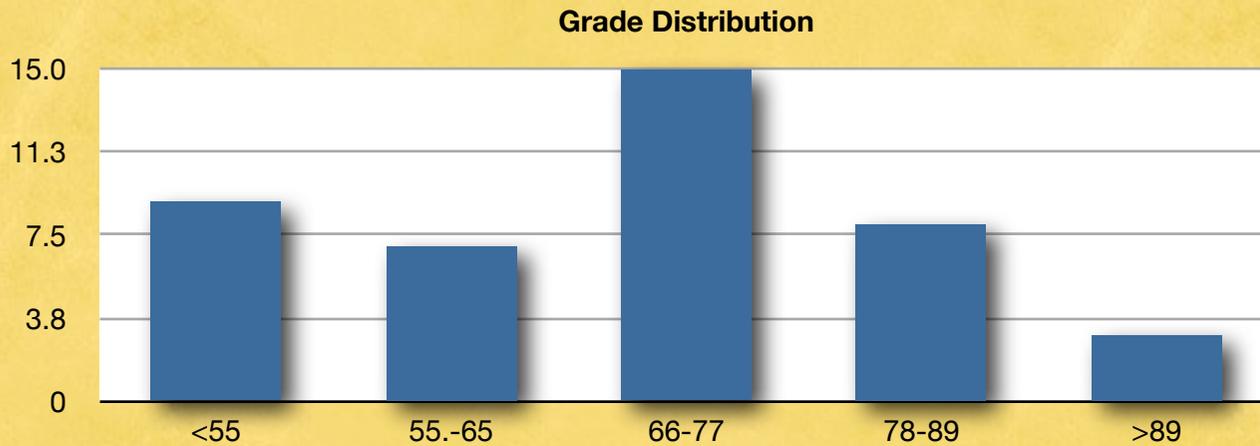
Midterm

E	50	
T	92	83%

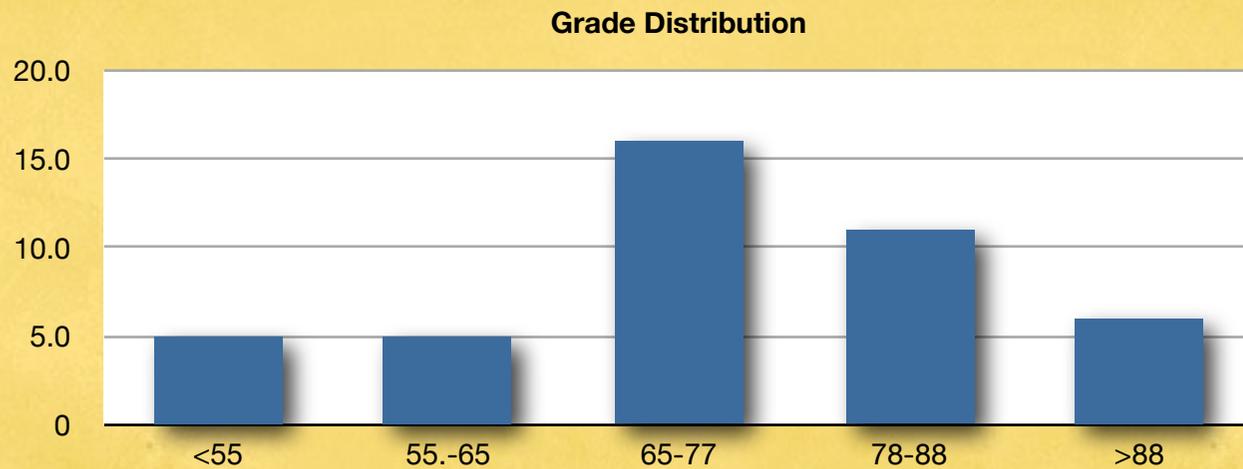
Highs: Midterm 59, total 128.5
Midterm 53, total 123.5

Midterm

10:30

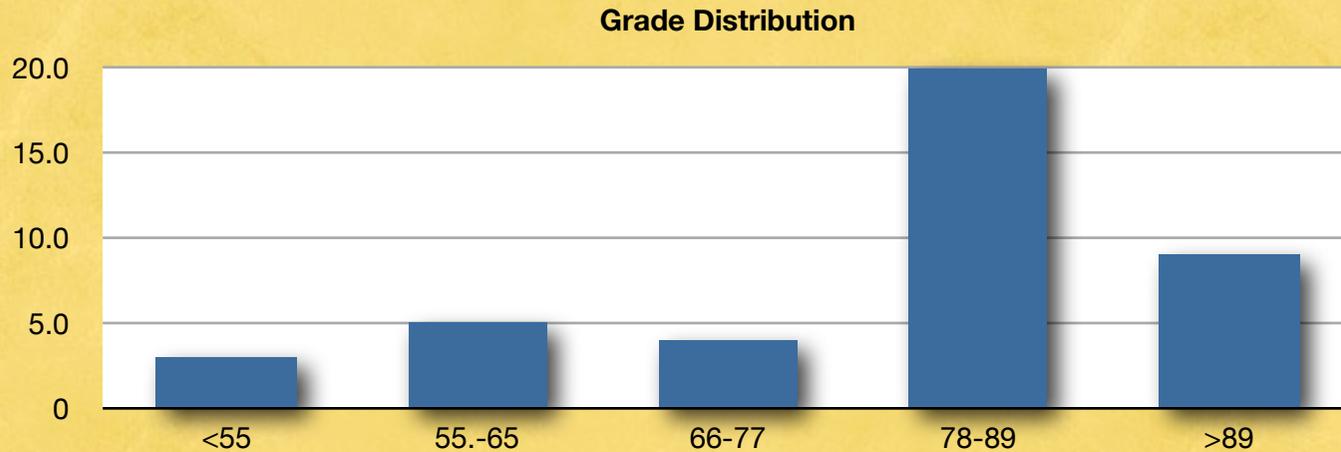


Noon

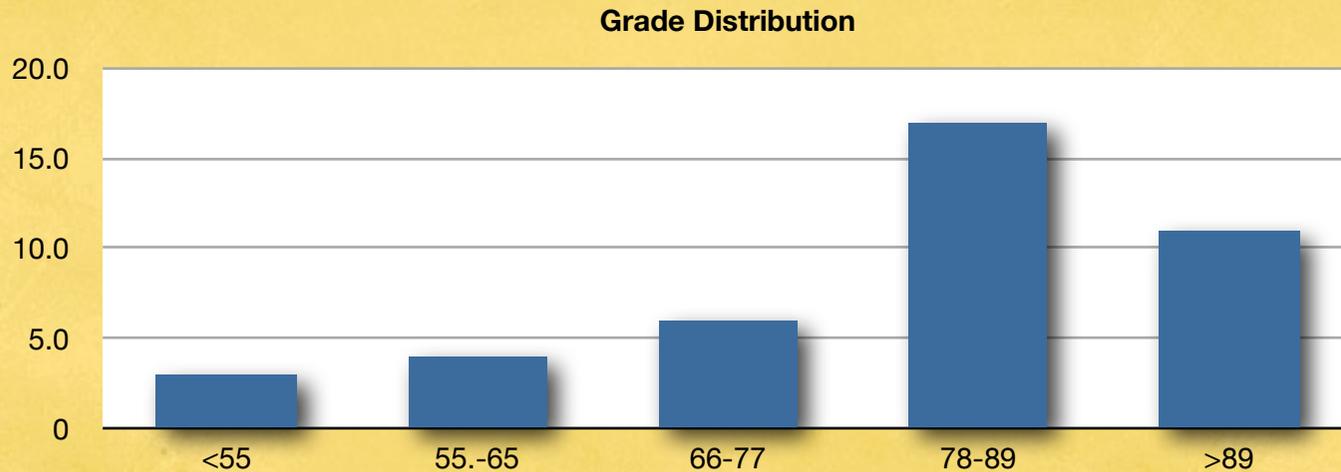


Current Percentages

10:30



noon



Last time...

- Who are the modern primates?
- What are their two major divisions?
- What is the geographic range of living primates?
- What is the size range of living primates?

Primate evolution

- When did primates first appear in the fossil record?
- What are the epochs of the Cenozoic and what kinds of primates are found in each epic?
 - What do we find in the Paleocene and where?
 - What do we find in the Eocene and where?

Strepsirrhines

- What are the characteristics that define the strepsirrhines?
 - Which are primitive to primates and which are derived?
- What are the different kinds of strepsirrhines? How do they differ?

Eocene primates

- What kinds of primates are found in the Eocene?
- What did they look like? What kind of environment did they live in?
- What “grade” of primates are found in the Eocene?
- Are these primates of the Strepsirrhine or Haplorhine lineage?

Lemurs

- Where do they live?
- How do they live?
- What are their identifying characteristics?



Lorises

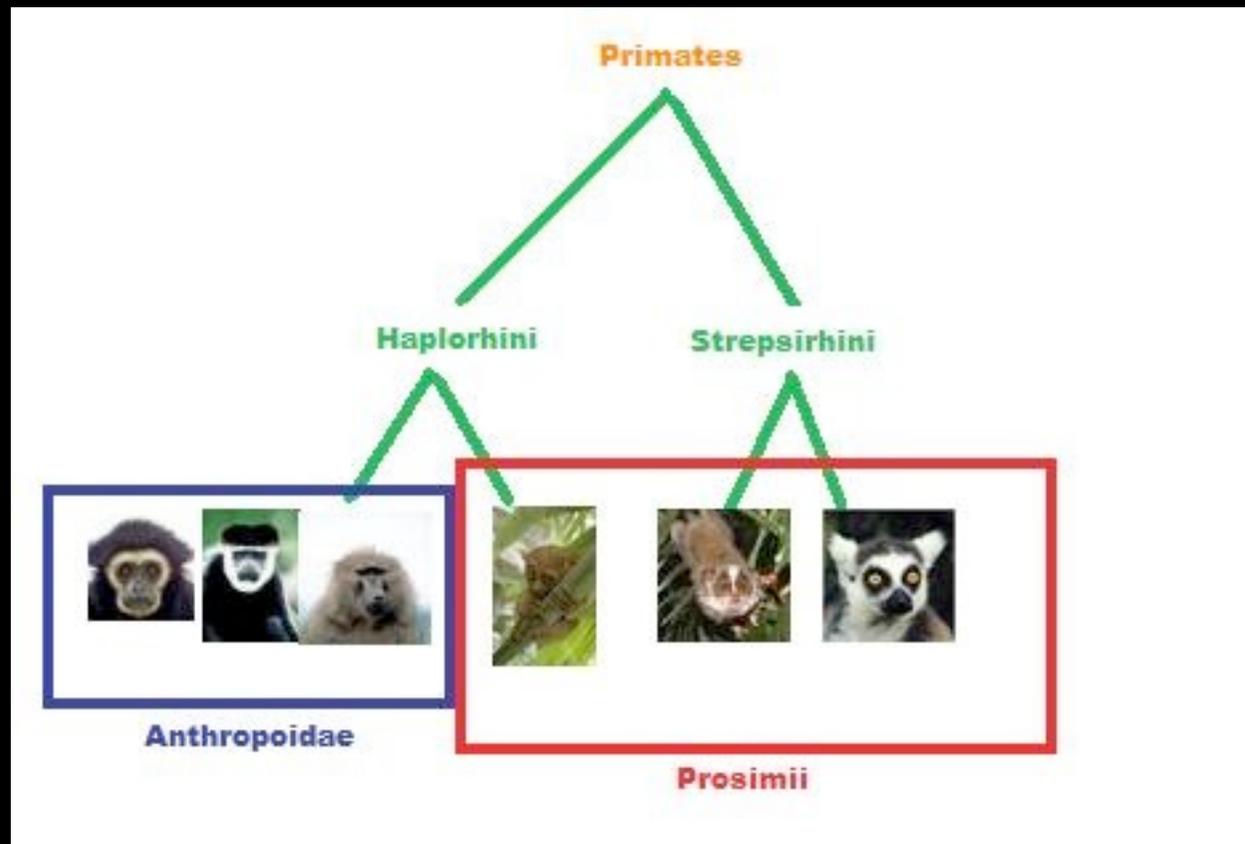
- Where do they live?
- How do they live?
- What are their identifying characteristics?



Primate Suborders

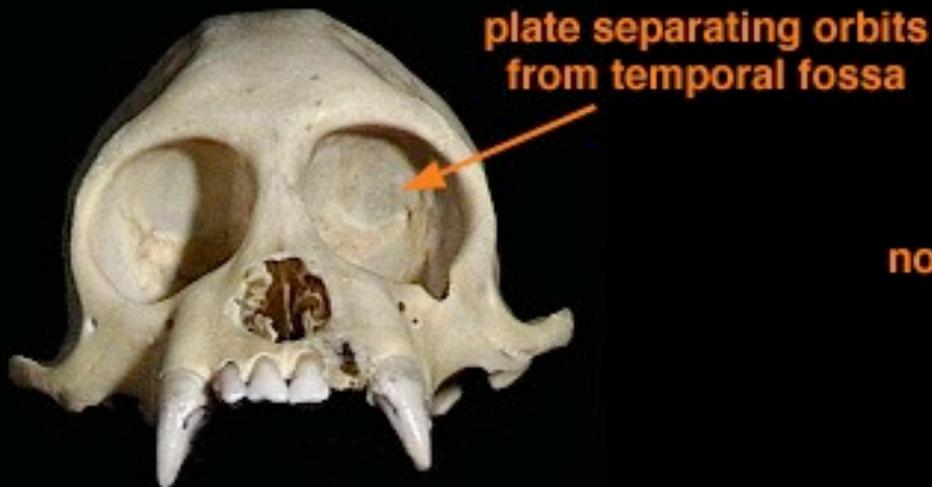
- Haplorhini vs. Strepsirhini
- Anthropoid vs. Prosimian
- What are the differences between these two ways of dividing the primates?

Traditional vs. Modern Taxonomy

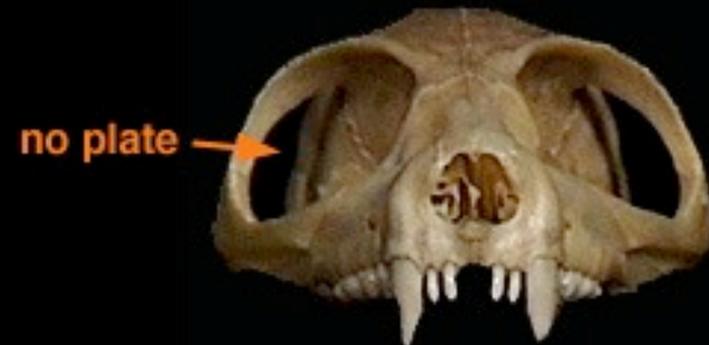
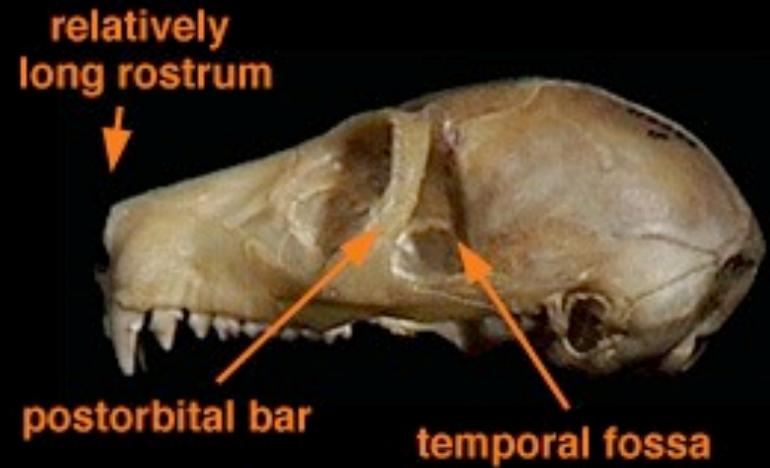


Primates

Haplorhini

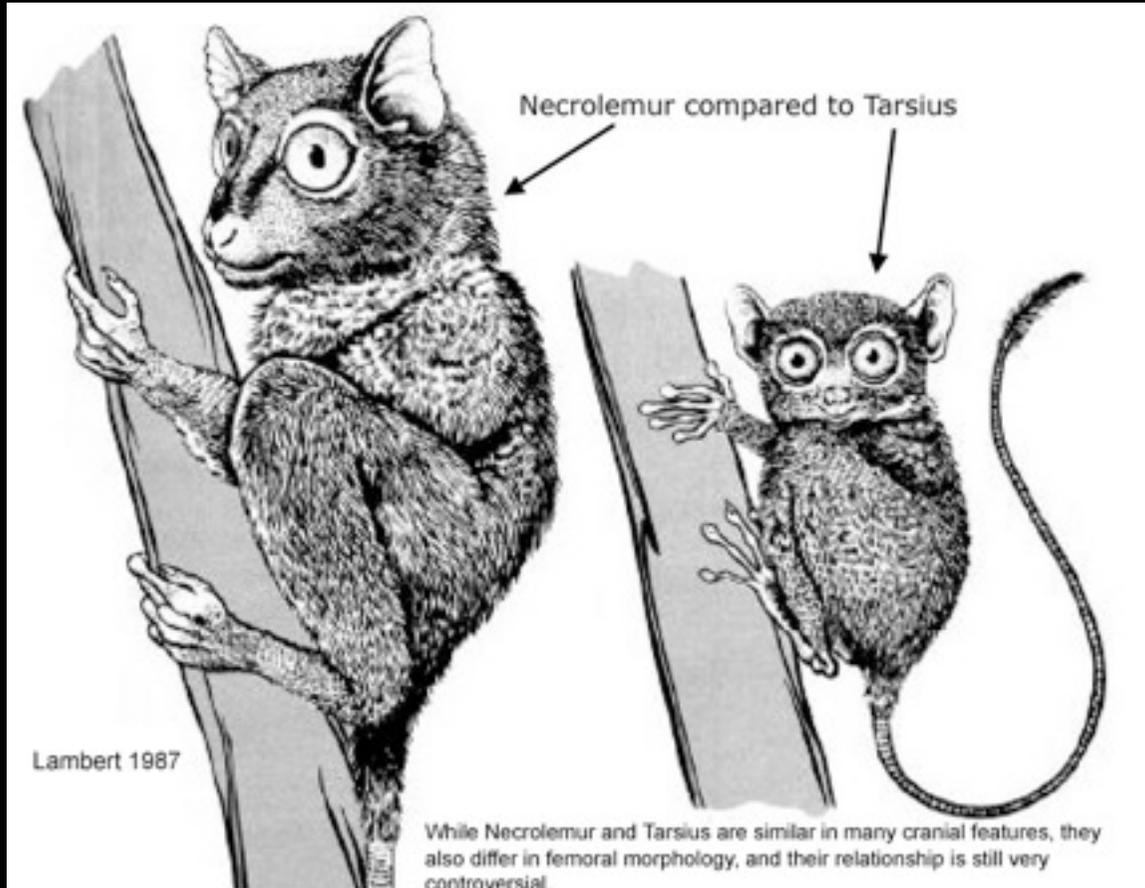


Strepsirhini



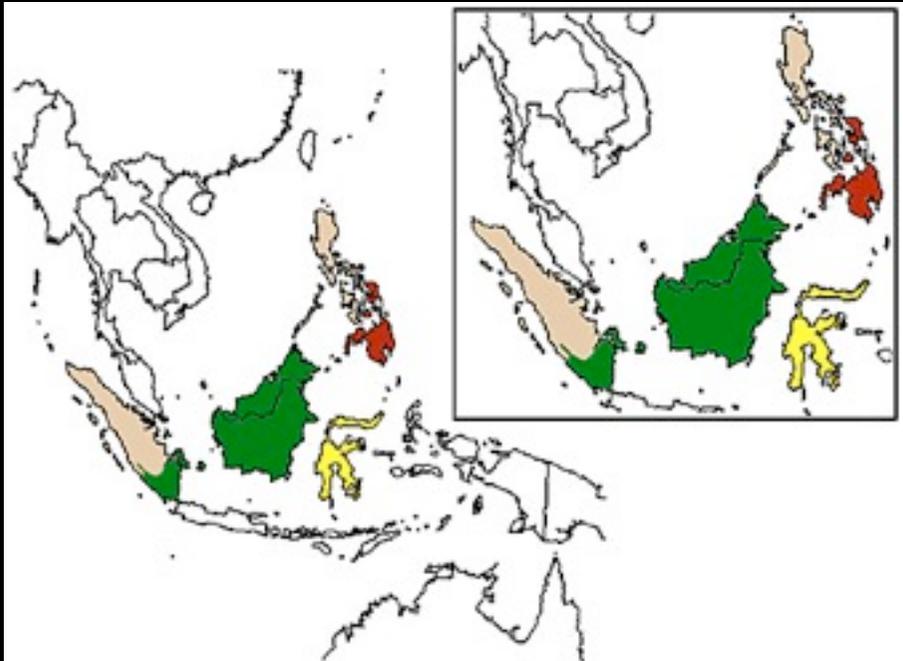
Haplorhines





Tarsier

Suborder: Haplorhini
Infraorder: Tarsiiformes
Superfamily: Tarsiioidea





Tarsier

- nocturnal
- no rhinarium
- grooming claw
- carnivorous
- monogamous pairs
- no tooth comb

Tarsier Skull



Haplorhines



Anthropoids or Simiiformes (Infraorder of the Haplorhini)

- Monkeys, apes, and humans
- larger body size
- larger brain
- complete stereoscopic vision
- postorbital closure
- no rhinarium - reduced snout
- more complex social systems
- more parental care and longer development



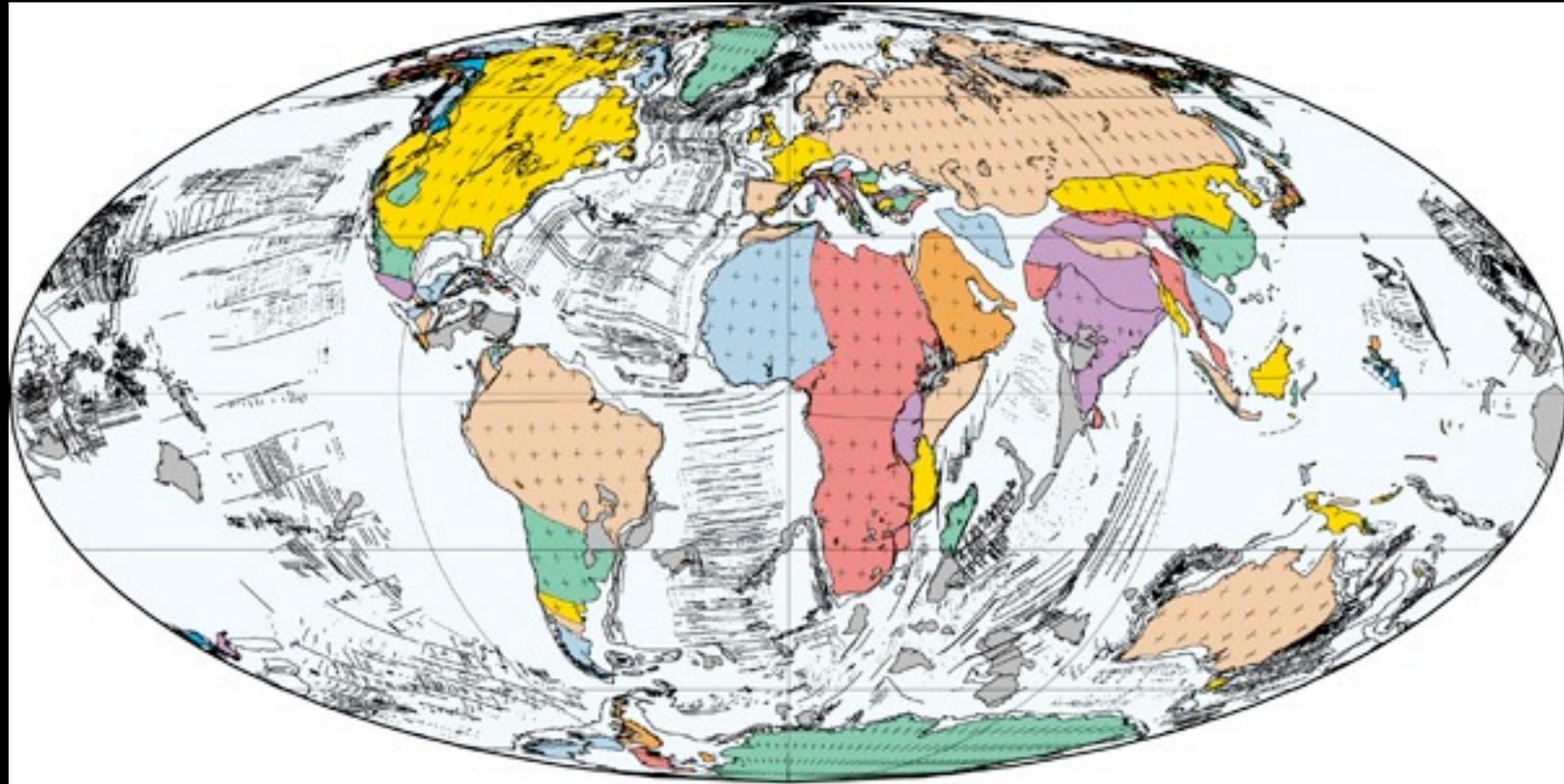
Homo sp.
 Hominids
 Apes
 Monkeys
 Prosimians
 Protoprimates

Era	Period	Epoch	Time Scale	
CENOZOIC	QUATERNARY	HOLOCENE	Present	
		PLEISTOCENE (ICE AGE)	10,000 years ago	
	TERTIARY	NEOGENE	PLIOCENE	1.8 million years ago
			MIOCENE	5.3 million years ago
		PALEOGENE	OLIGOCENE	23.8 million years ago
			EOCENE	33.7 million years ago
			PALEOCENE	54.8 million years ago
			65 million years ago	

Eocene continents



Oligocene Continental Arrangement



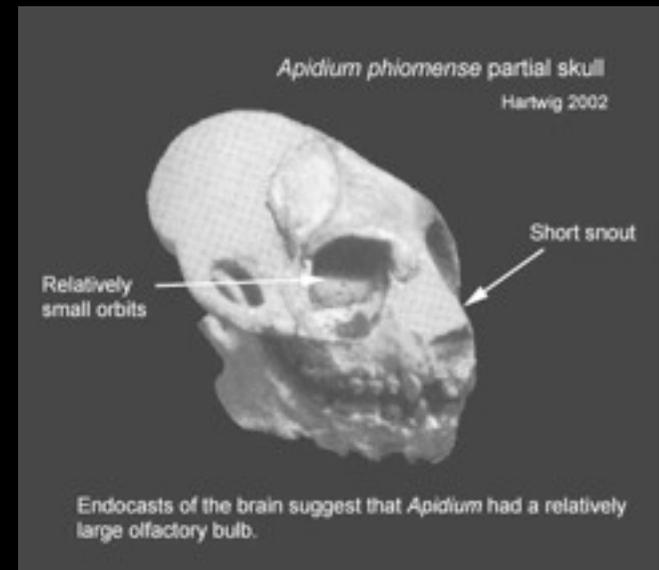
30 Ma
Early Oligocene

PLATES/UTIG
March 2007

Eosimias

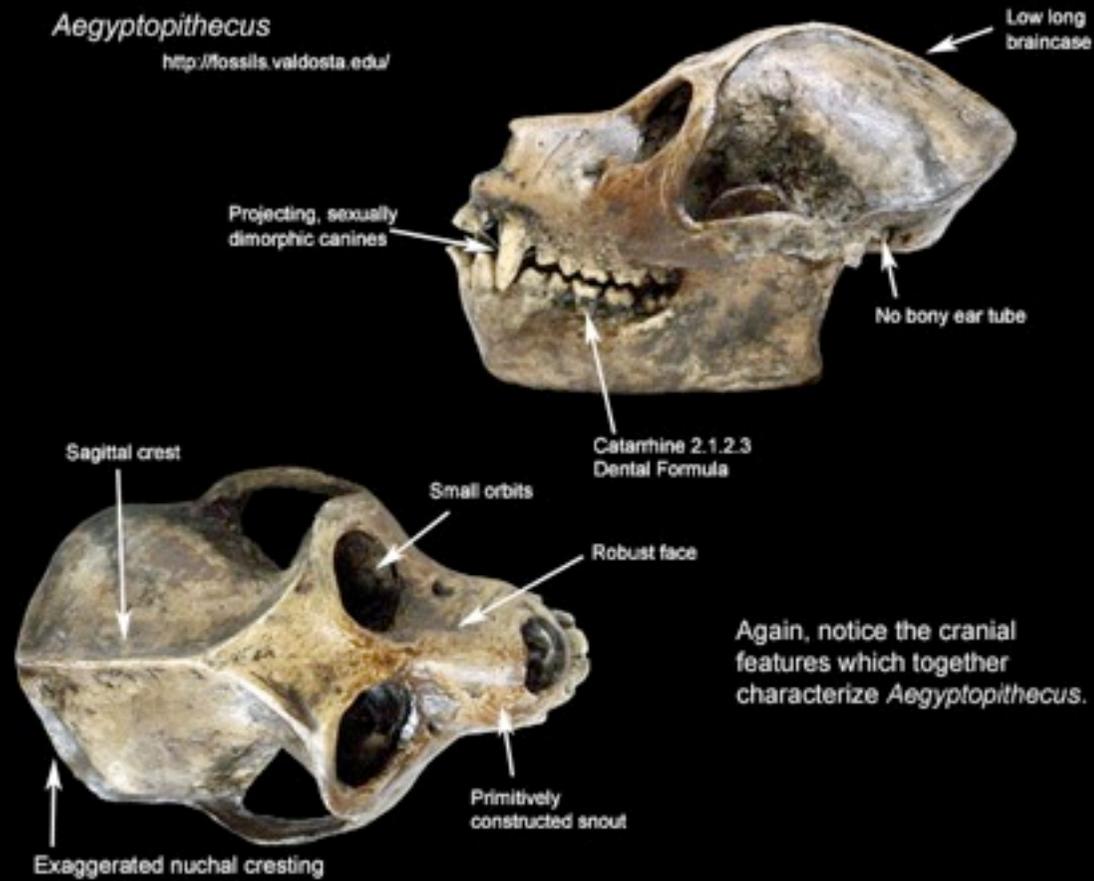


Canine size sexual dimorphism suggests that *Apidium* lived in polygynous social groups.



Aegyptopithecus

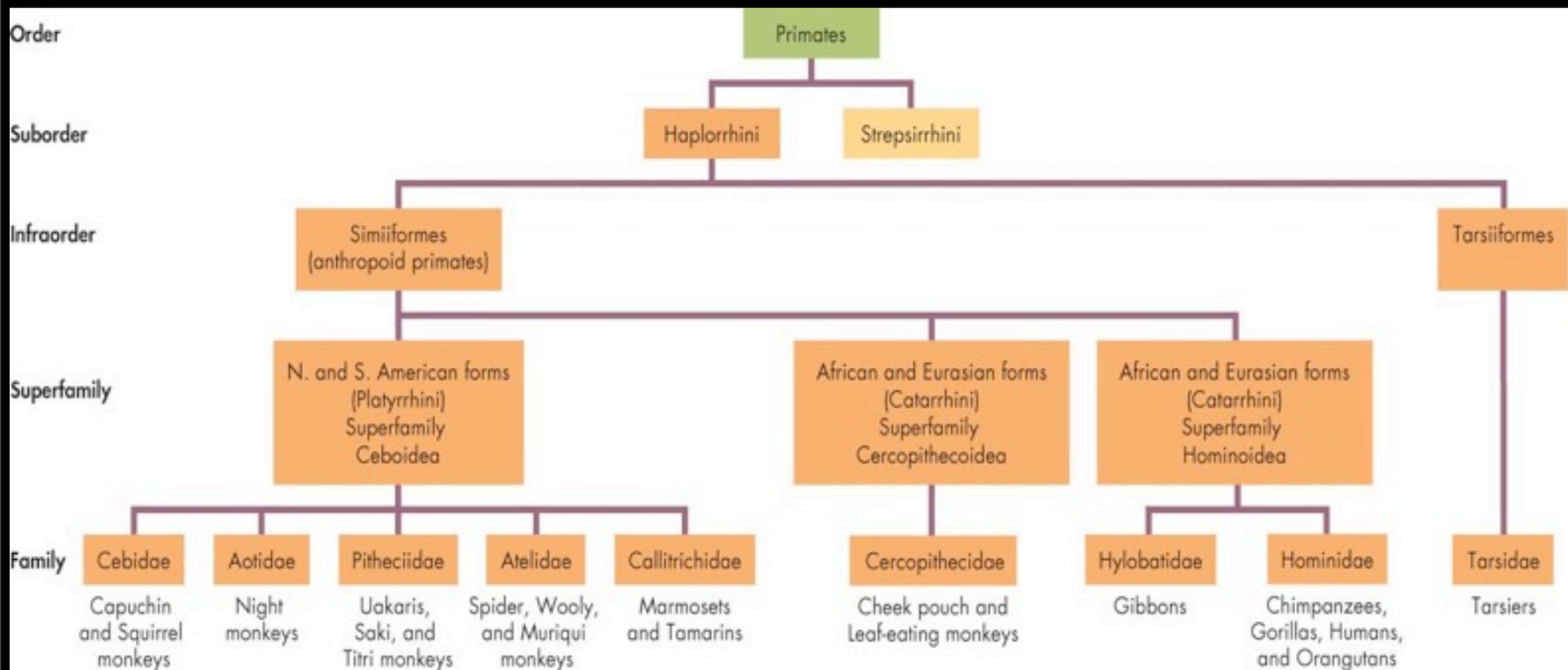
<http://fossils.valdosta.edu/>



Aegyptopithecus reconstruction



More Taxonomy



New World Monkey Origins?

- molecular evidence suggests 2 lines split by 40 mya
- Earliest primates in S.America at 35-30 mya
- Source?
 - Eocene of North America?
 - Rafting? from Africa
 - supported by anatomical links to *Apidium*

Platyrrhini and Catarrhini

(Parvorder?)

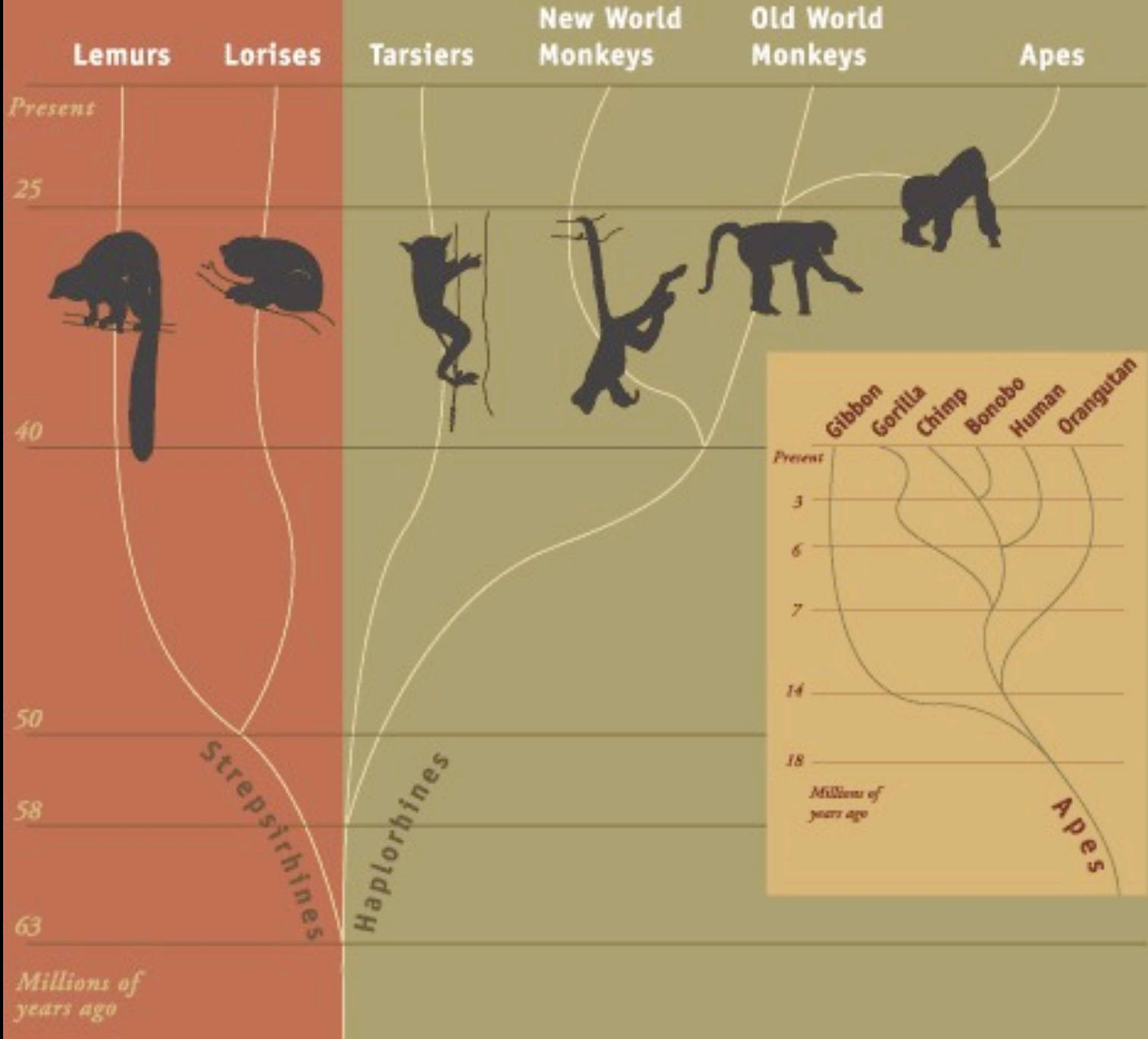
- **Platyrrhini**

- New World
- Flat noses
- some prehensile tails
- 2132/2133

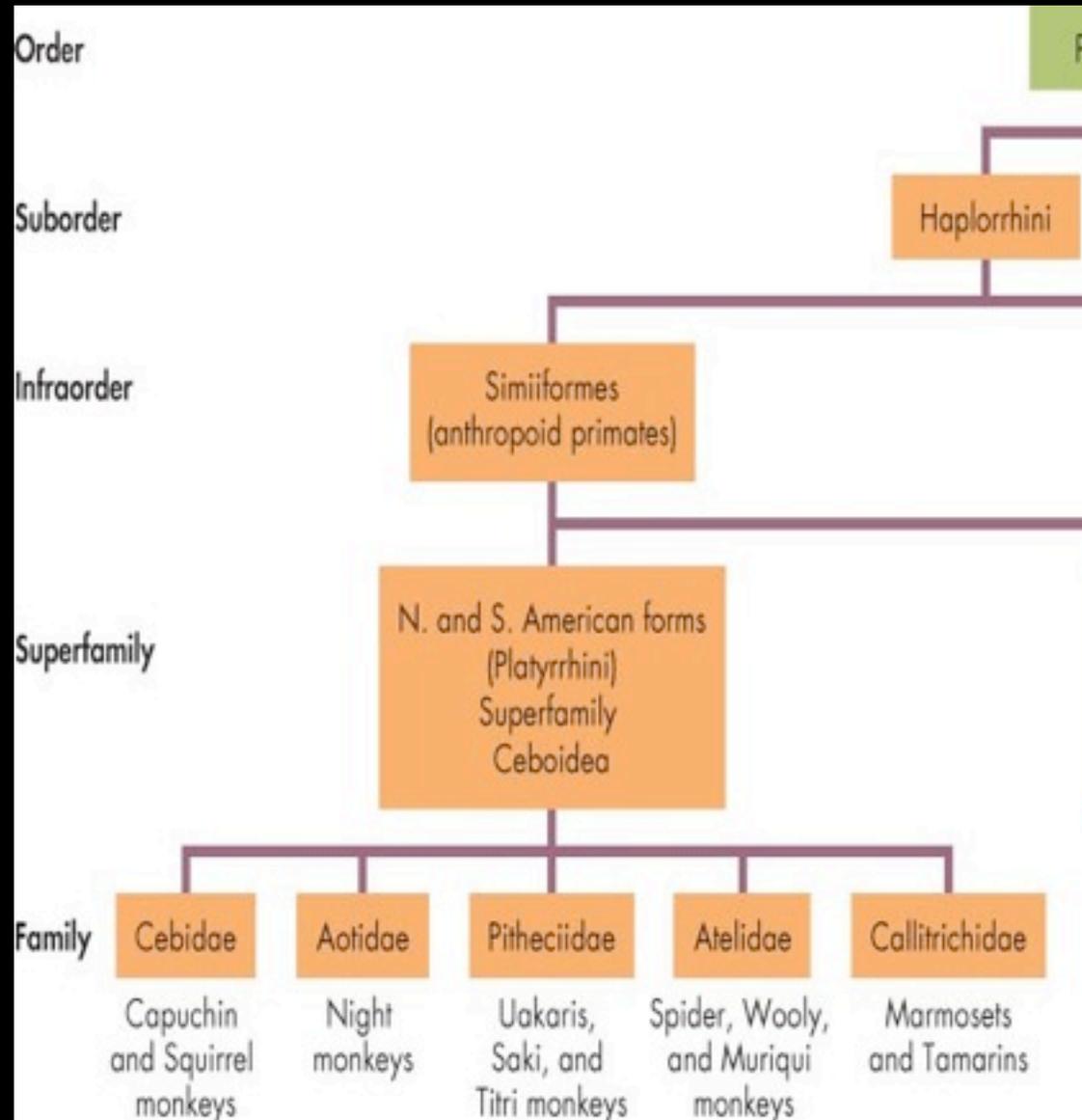
- **Catarrhini**

- Old World monkeys and apes
- down noses
- 2123

THE PRIMATE FAMILY TREE



Superfamily: Ceboidea



Ceboidea Distribution



Capuchin



Squirrel monkey



Squirrel monkeys



Owl monkey



Owl monkey skull



Pitheciidea -Uakari



Titi Monkey



Titi Monkeys



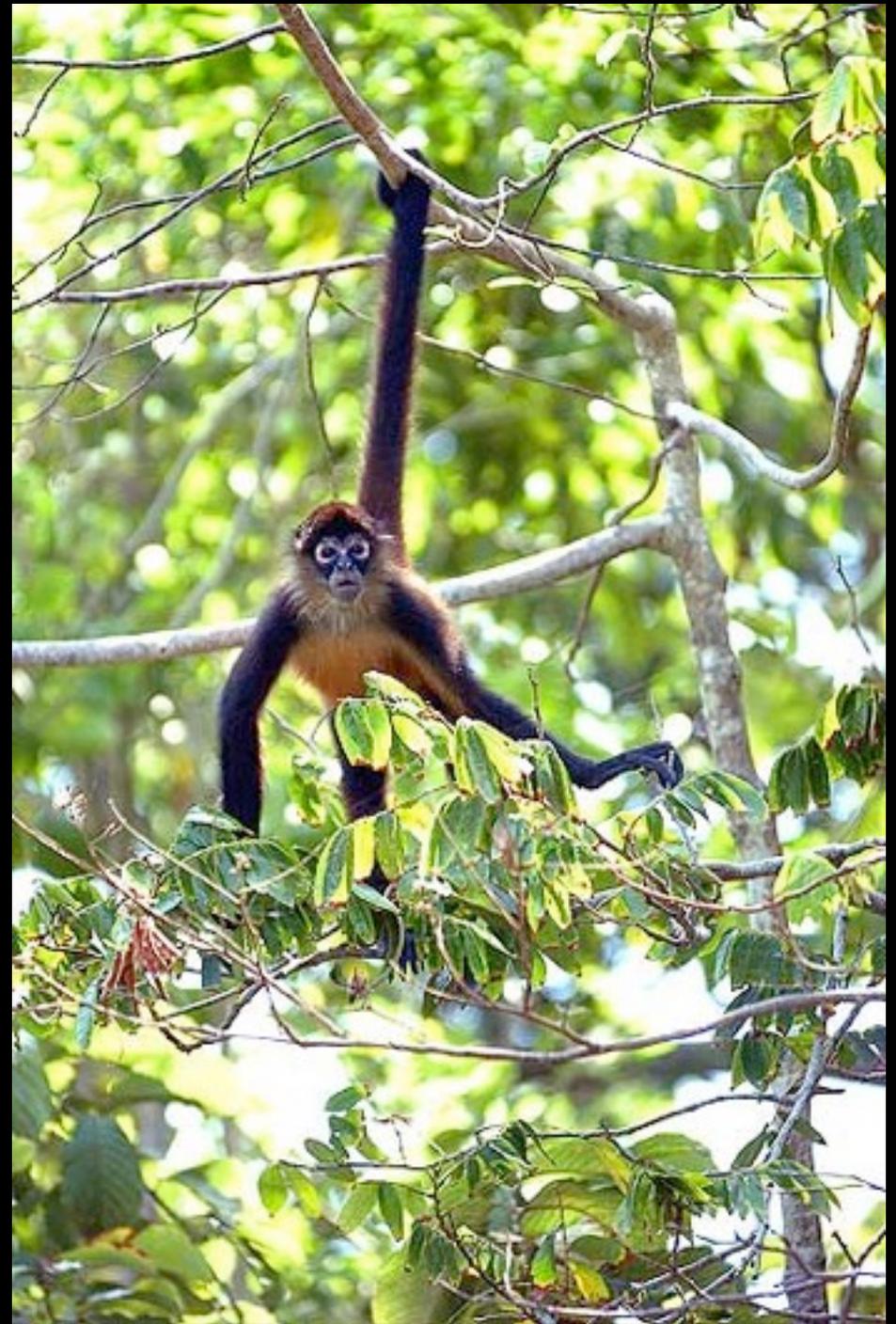
Atelidae - Howler monkeys



Black howler



Spider monkey



Woolly Monkey



Muriqui

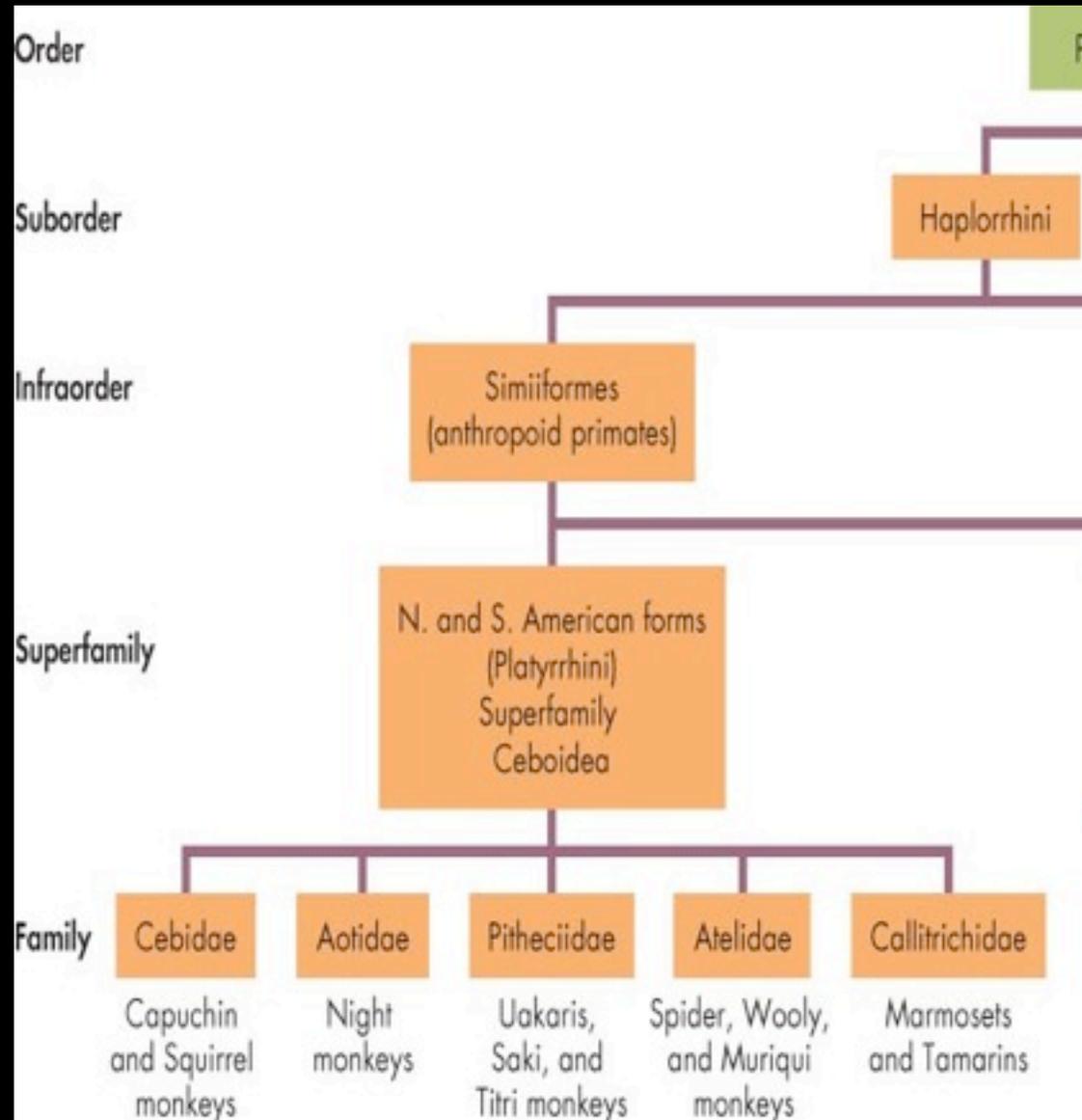


45

Muriqui



Superfamily: Ceboidea



Emperor tamarin



Cotton-top tamarin



Golden Lion Tamarin



Twinning



Pygmy marmoset



Silvery Marmoset



Common Marmoset



Living Primates

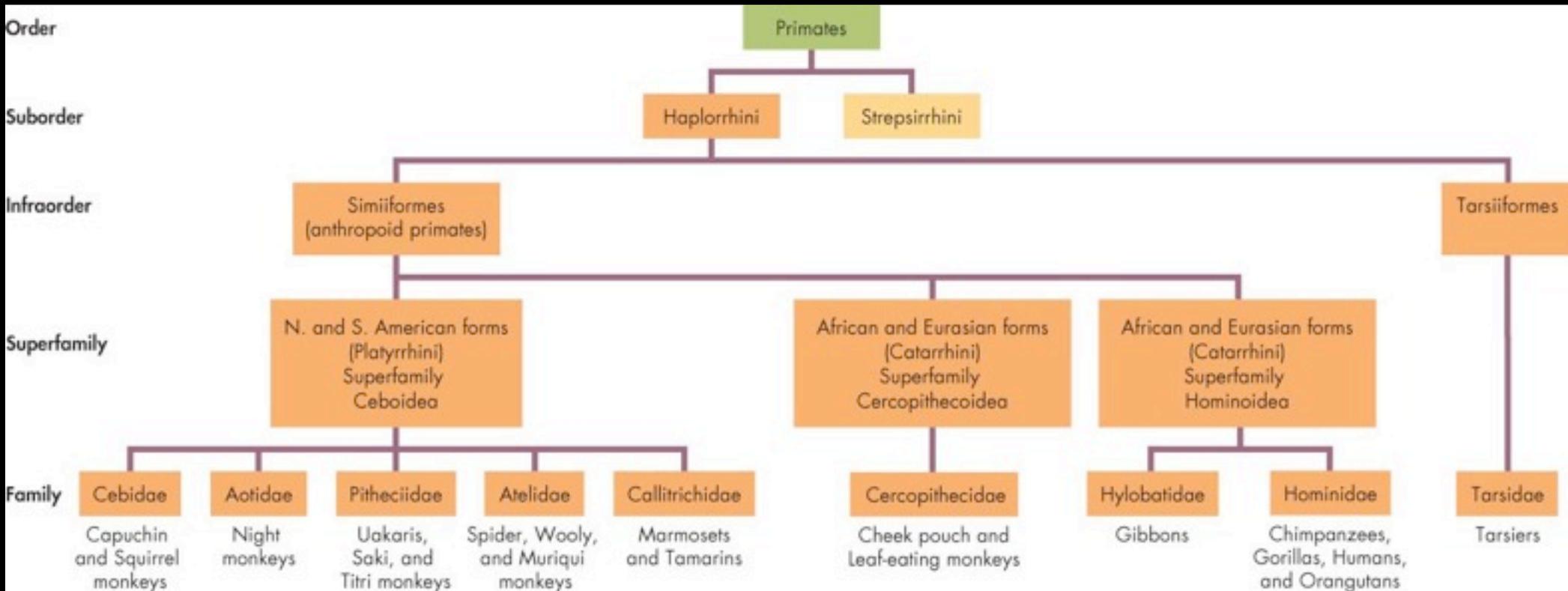
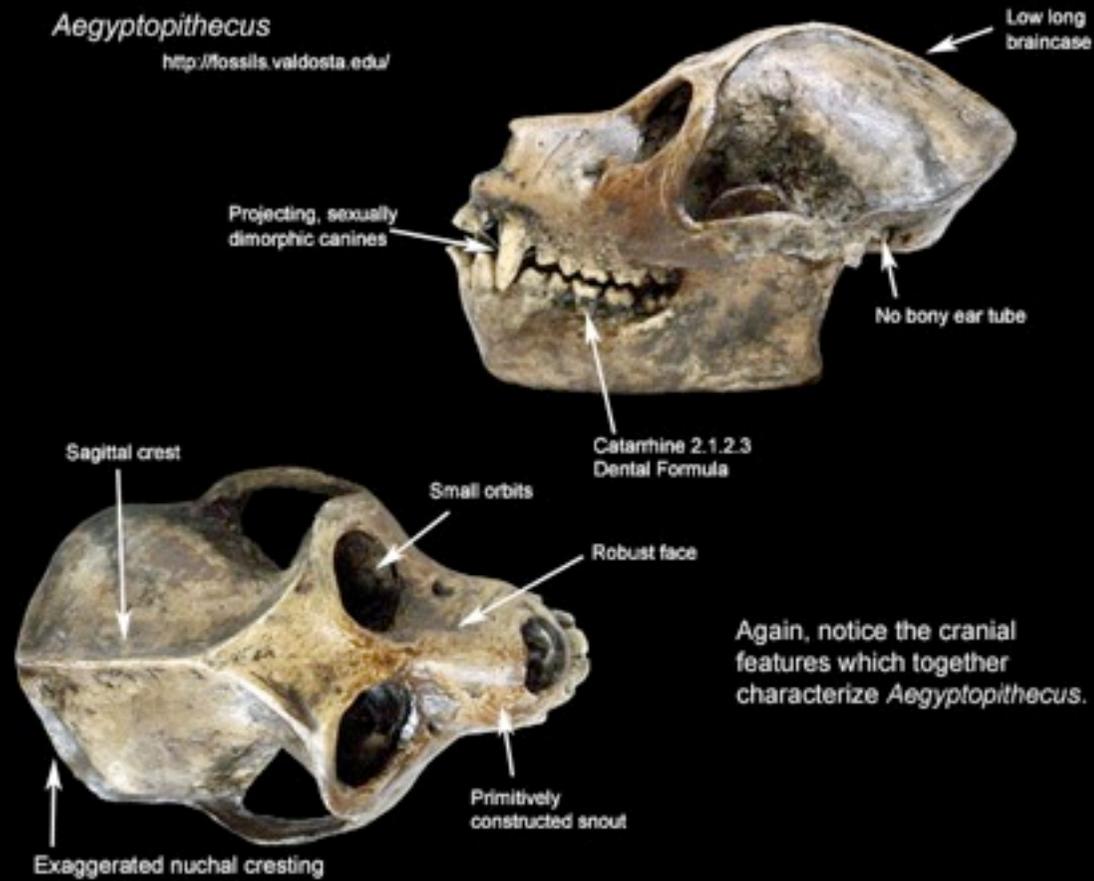


Figure 5.5 Taxonomy of the Haplorrhines to the Family Level

Aegyptopithecus

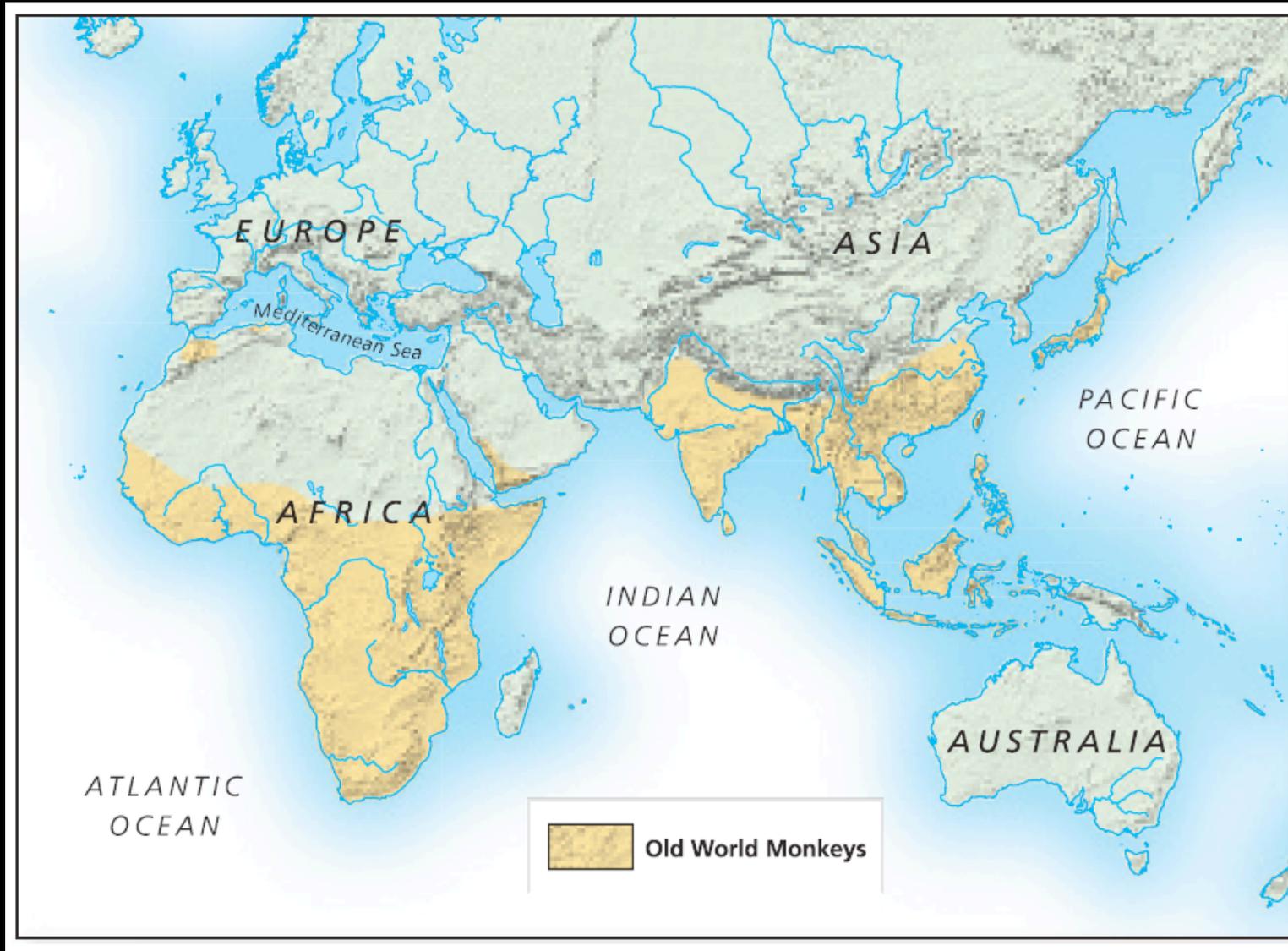
<http://fossils.valdosta.edu/>



Old World Monkeys

- Superfamily: Cercopithecoidea
- Family: Cercopithecidae
- 2 Subfamilies: Cercopithecinae and Colobinae

Cercopithecoidea Distribution



Vervet



Vervet monkey



Barbary macaque



Lion-tailed Macaque



Baboon



Mandrill



Japanese Macaque



Japanese Macaque



Colobinae: Hanuman langur

leaf eating monkeys
specialized stomach
bilophodont molars



Douc Langur



Red Colobus Monkey



Black and white colobus



Proboscis monkey

