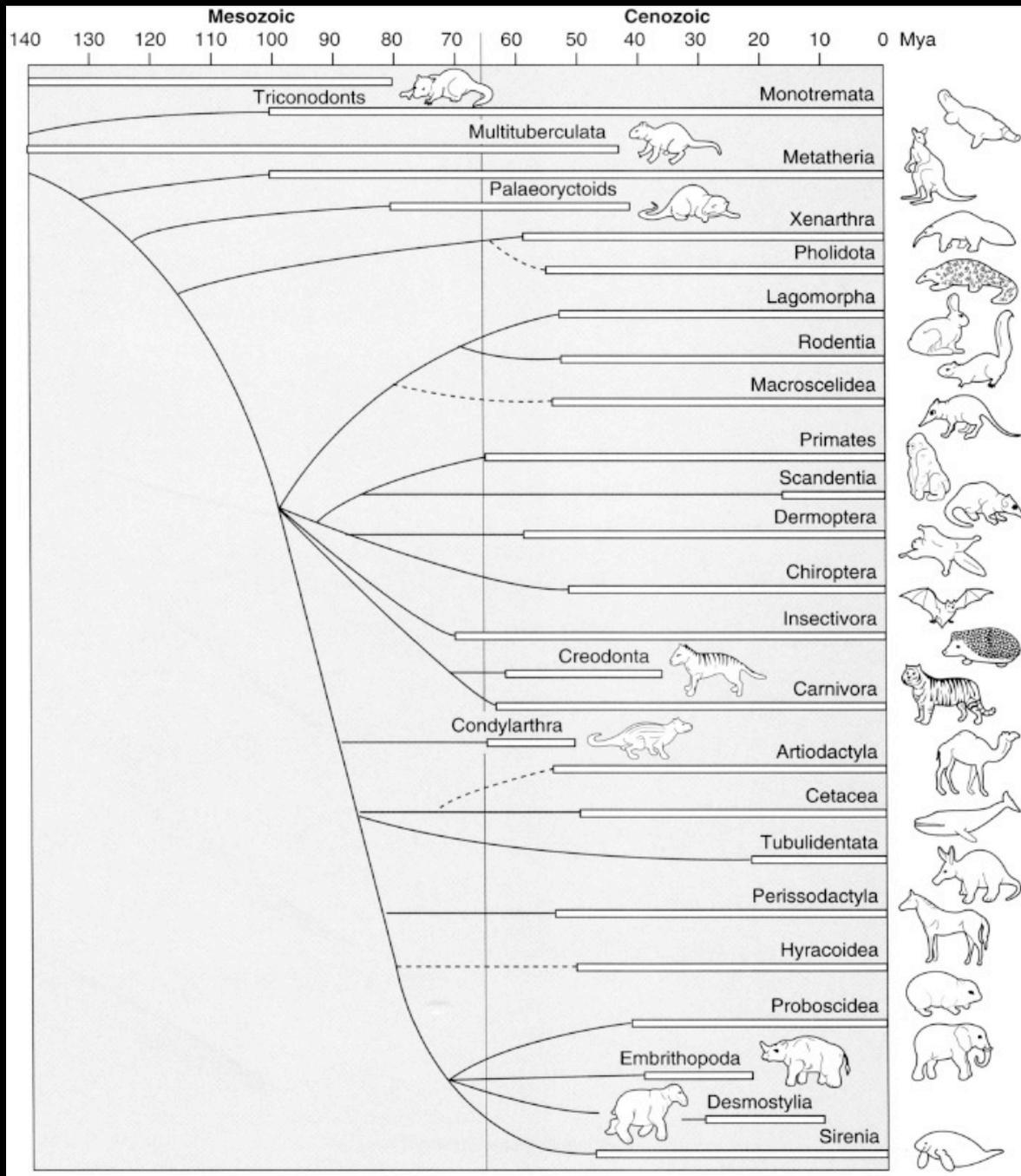
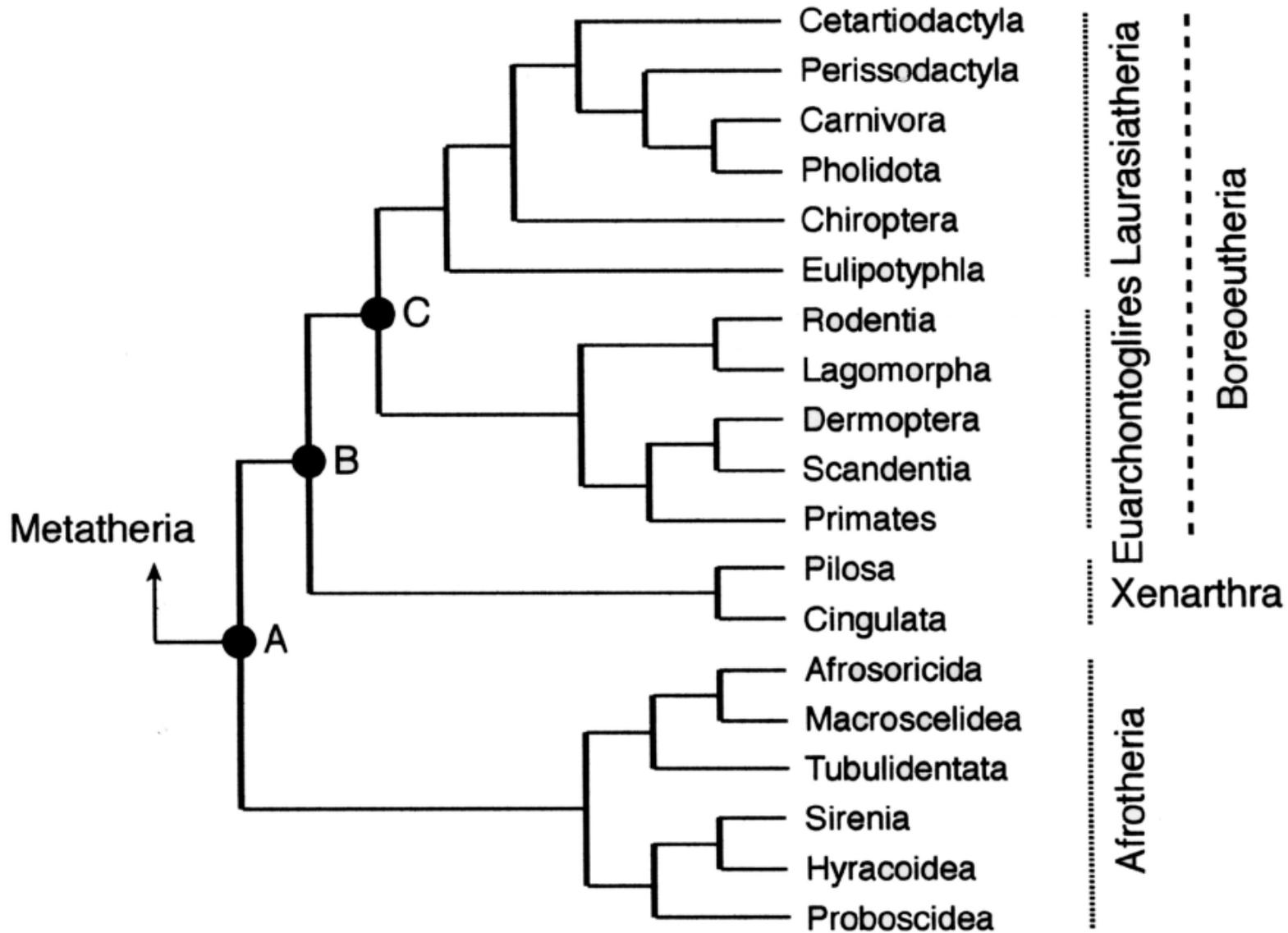


Eutheria

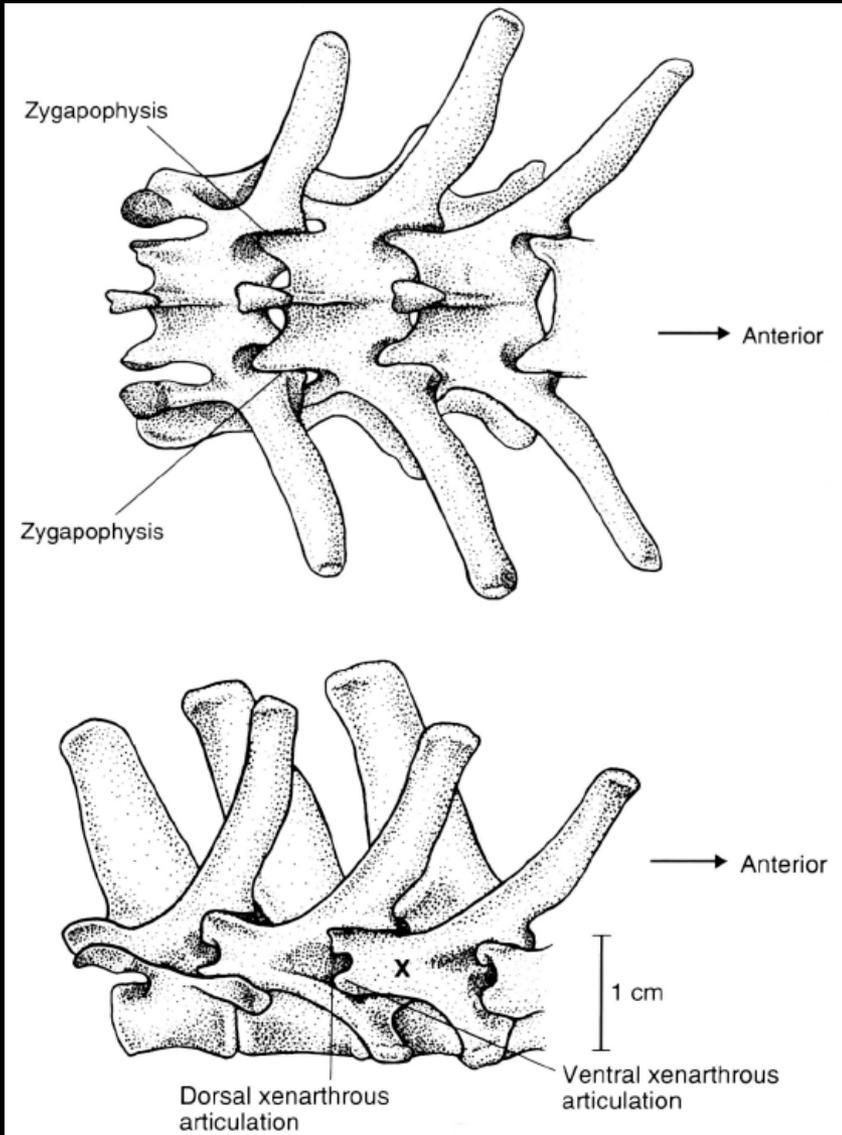
structural characters of eutherians:

1. marsupium not present
2. epipubic bones not present
3. braincase large; cerebral hemispheres large
4. jugal not forming part of mandibular fossa
5. no contribution of alisphenoid to auditory bulla
6. angular process not inflected
7. palatal vacuities usually not present
8. no styler shelf on upper tribosphenic molars
9. entoconid, hypoconulid, and hypoconid equidistant on talonid
10. single vagina
11. uteri medial to ureters; fused in some groups
12. male phallus not divided



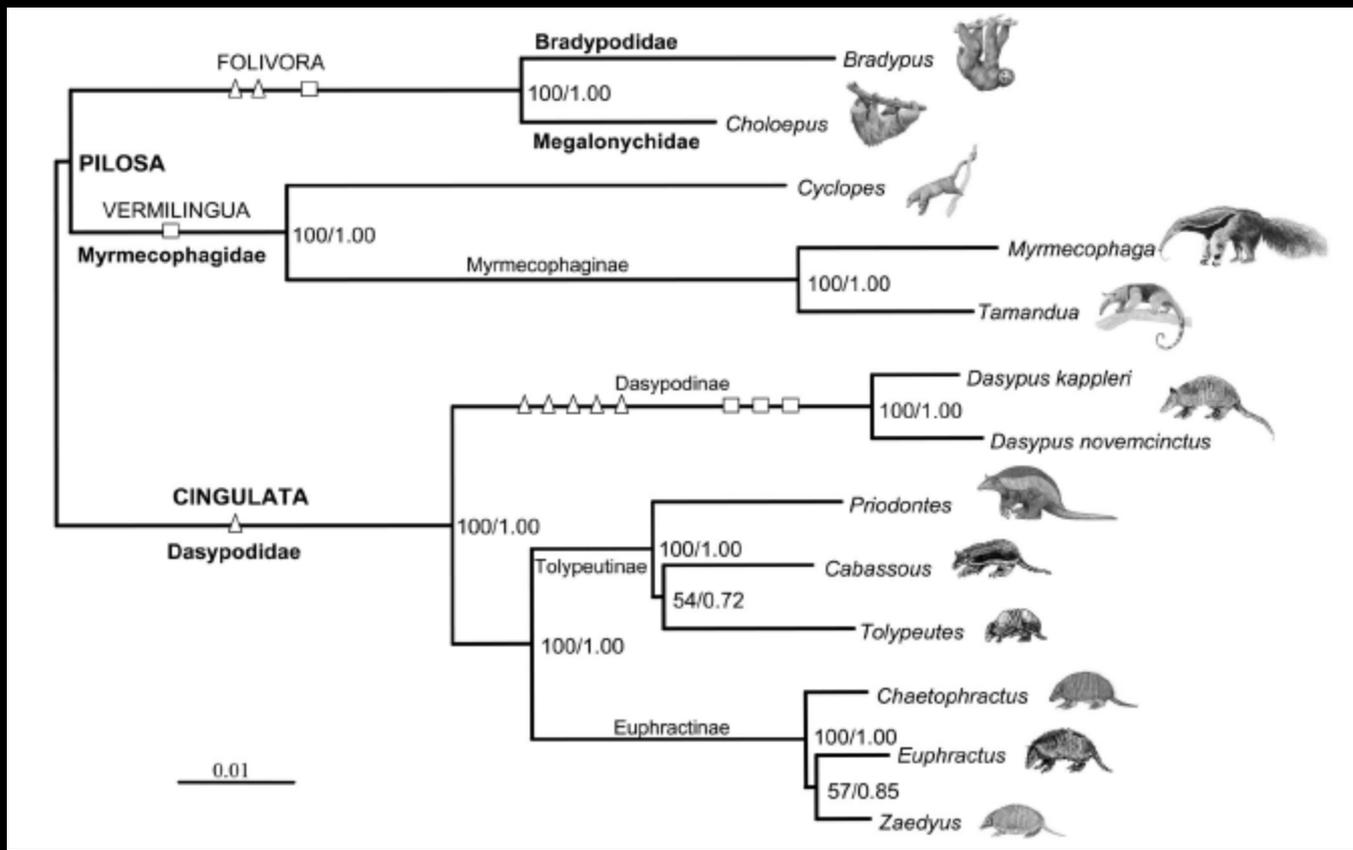


SUPERORDEM XENARTHRA



Características diagnósticas:

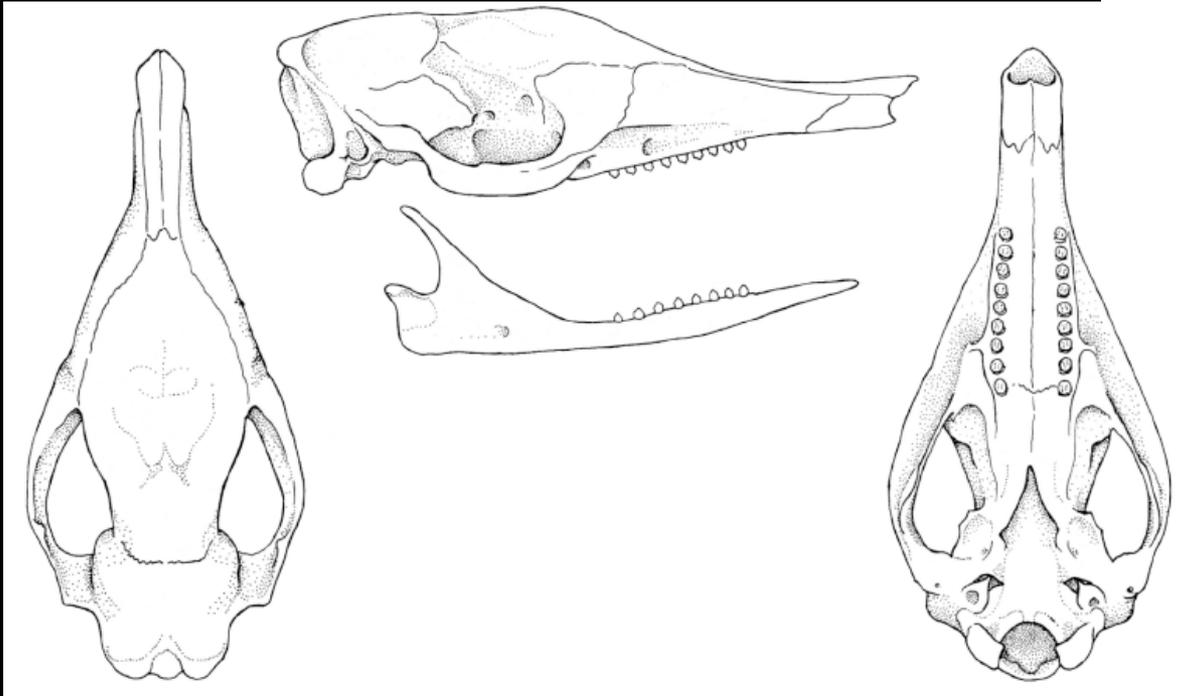
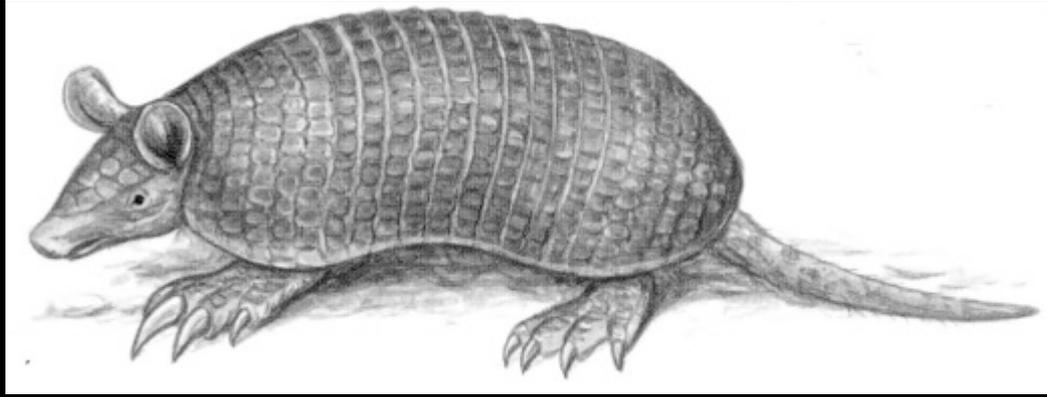
Zigapófises extras nas vértebras torácicas e lombares

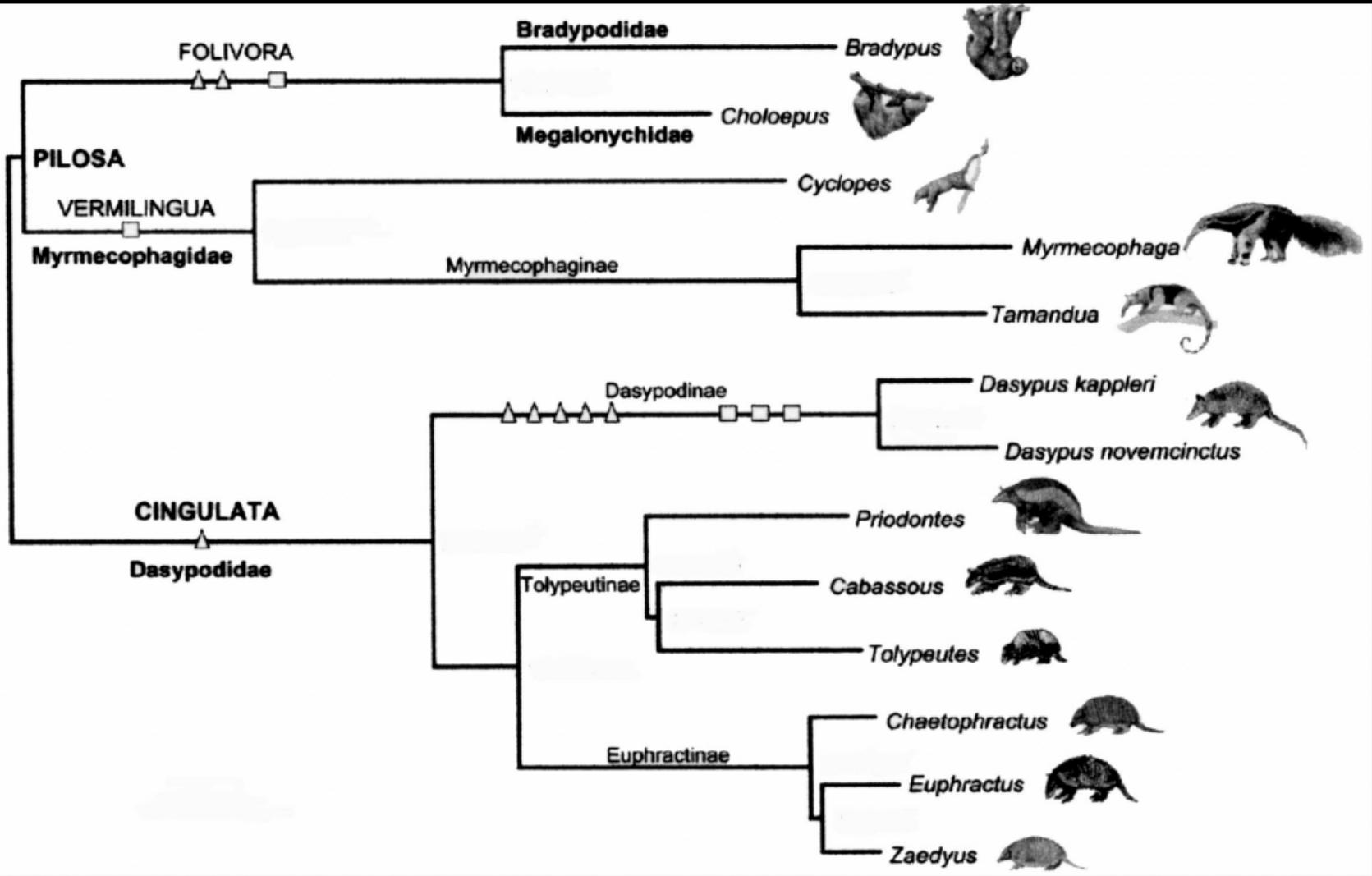


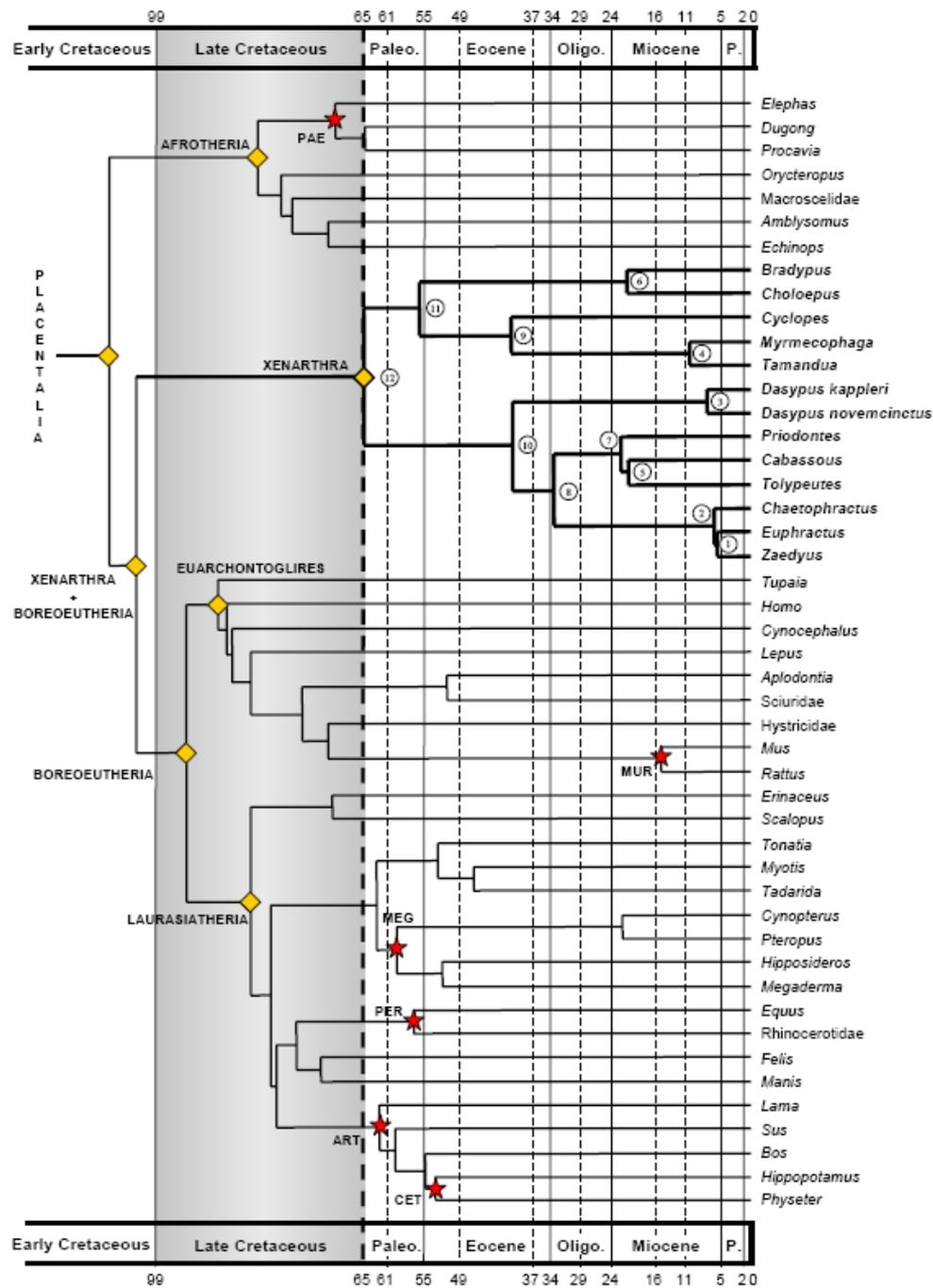
Características morfológicas:

general characters:

1. size small to medium-large (15-210 cm).
2. body covered with hair or scutes
3. forefoot with two or three principal digits, each bearing long claws; hindfoot with 2-5 digits
4. no incisors or canines
5. cheekteeth absent (Myrmecophagidae) or, if present, homodont and without enamel
6. zygomatic arch complete (Dasypodidae) or separate (Bradypodidae, Megalonychidae, Myrmecophagidae)
7. jugal, lacrimal, and interparietal bones present
8. pterygoid bones variable, either separate (sloths, armadillos) or meeting at midline to form part of palate (anteaters)







ORDEM CINGULATA

Família Dasypodidae



9 gêneros

21 espécies

dental formula:

$$\frac{0 \ 0 \ 7-25}{0 \ 0 \ 7-25} = 28-100$$

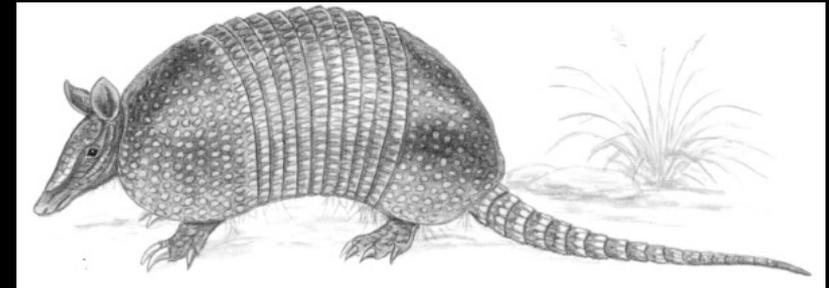
premolars and molars indistinguishable

Características diagnósticas:

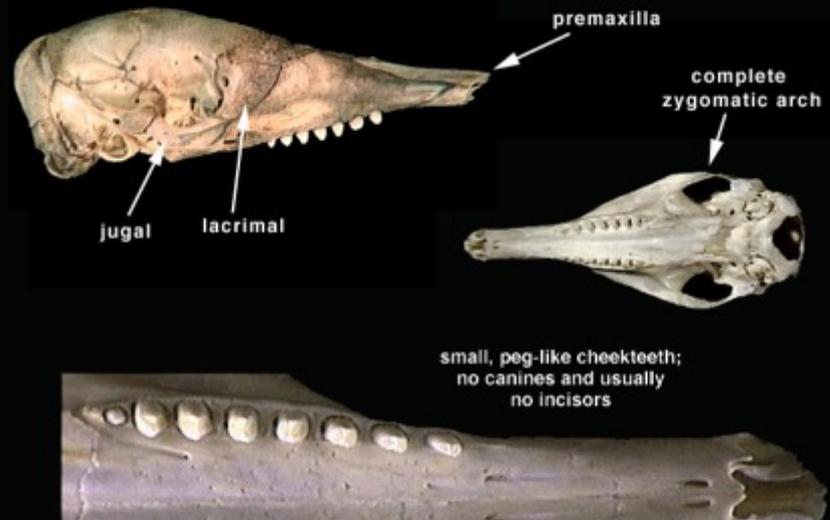
diagnostic character: body covered with keratin scutes overlaying bony plates

general characters:

1. forelimbs and hindlimbs subequal in size
2. tongue long and protrusible
3. skull elongate, flattened; rostrum elongate
4. zygomatic arch complete
5. cheekteeth homodont
6. premaxilla well developed
7. jugal well developed
8. pterygoids usually separate, not forming part of palate (joined at midline in *Dasypus*)



Dasypodidae



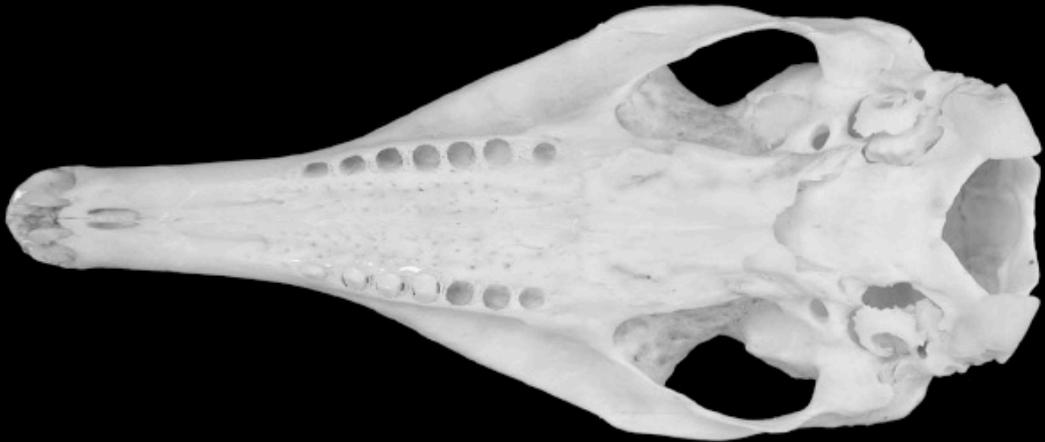
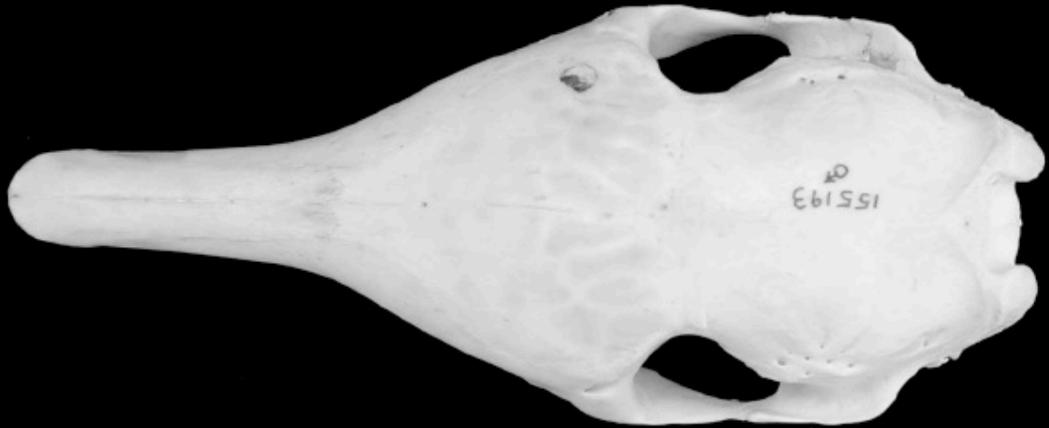


Family Dasypodidae
Dasypus septemcinctus
T. Carter
ASM - AMU



Family Dasypodidae
Dasypus sabanicola
R. Lord
ASM - AMU









Family Dasypodidae
Chalamyphorus truncatus
J. Rood
ASM - MIL









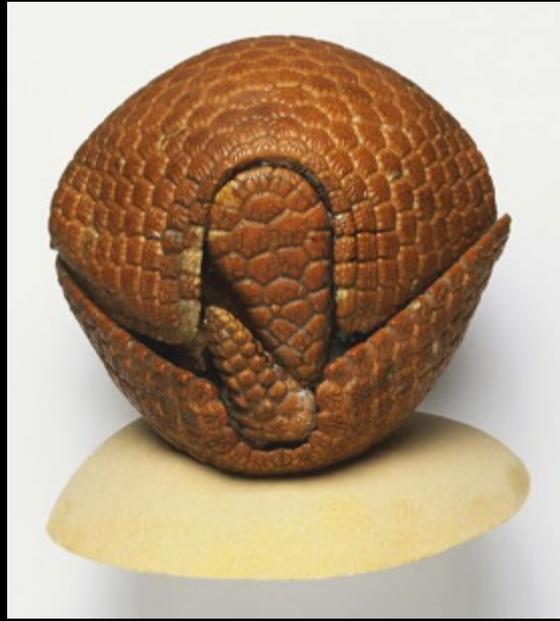








© John White



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ORDEM PILOSA

Subordem Folivora

Família Bradypodidae



1 gênero

4 espécies

dental formula:

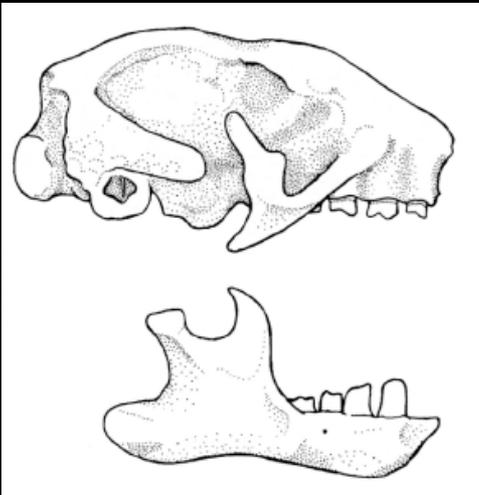
$$\frac{0 \ 0 \ 5}{0 \ 0 \ 4-5} = 18-20$$

premolars and molars indistinguishable

Características diagnósticas:

diagnostic characters:

1. very small tail
2. blocky skull with blunt snout
3. **three toes (claws) on forefeet**
4. **anterior premolars not caniniform**



general characters:

1. forelimbs much longer than hindlimbs
2. tail very small
3. fur short, feathery in texture
4. tongue unspecialized
5. premaxilla very small
6. jugal well developed
7. zygomatic arch incomplete
8. pterygoids separate, not forming part of palate
9. angular process enlarged, projecting postero-ventrally
10. all cheekteeth homodont; first pair of cheekteeth not canine-like







ORDEM PILOSA

Subordem Folivora

Família Megalonychidae



1 gênero

2 espécies

dental formula:

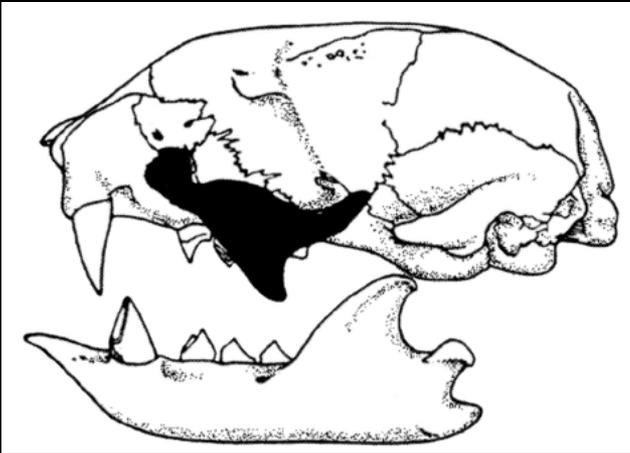
$$\frac{0 \ 0 \ 5}{0 \ 0 \ 4-5} = 18-20$$

premolars and molars indistinguishable

Características diagnósticas:

diagnostic characters:

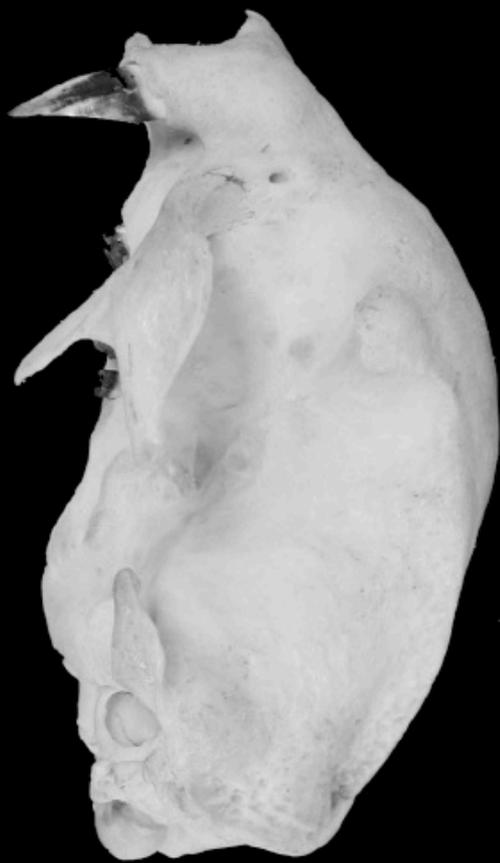
1. very small tail
2. blocky skull with blunt snout
- 3. two toes (claws) on forefeet**
- 4. anterior premolars caniniform**



general characters:

1. forelimbs much longer than hindlimbs
2. tail very small
3. fur long and shaggy in appearance
4. tongue unspecialized
5. zygomatic arch incomplete
6. first pair of cheekteeth canine-like; all cheekteeth homodont
7. premaxilla very small
8. jugal well developed
9. pterygoids separate, not forming part of palate
10. angular process small, directed posteriorly





ORDEM PILOSA

Subordem Vermilingua

Família Myrmecophagidae, Cyclopedidae



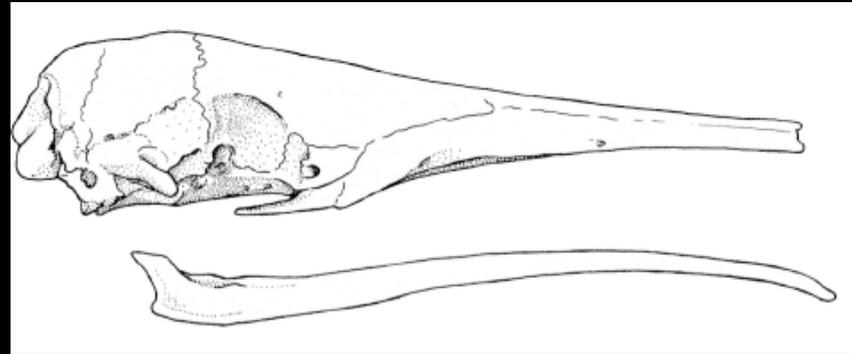
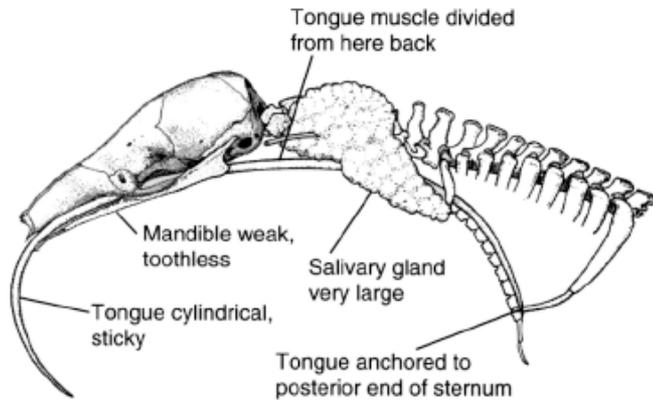
3 gêneros

9 espécies

Características diagnósticas:

general characters:

1. forelimbs and hindlimbs subequal in size
2. tongue very long, protrusible, worm-like



3. skull elongate; rostrum very long and curving downward
4. zygomatic arch incomplete
5. premaxilla very small
6. jugal present but small, articulating with maxilla, not squamosal
7. pterygoids meeting at midline, extending palate posteriorly to auditory bullae





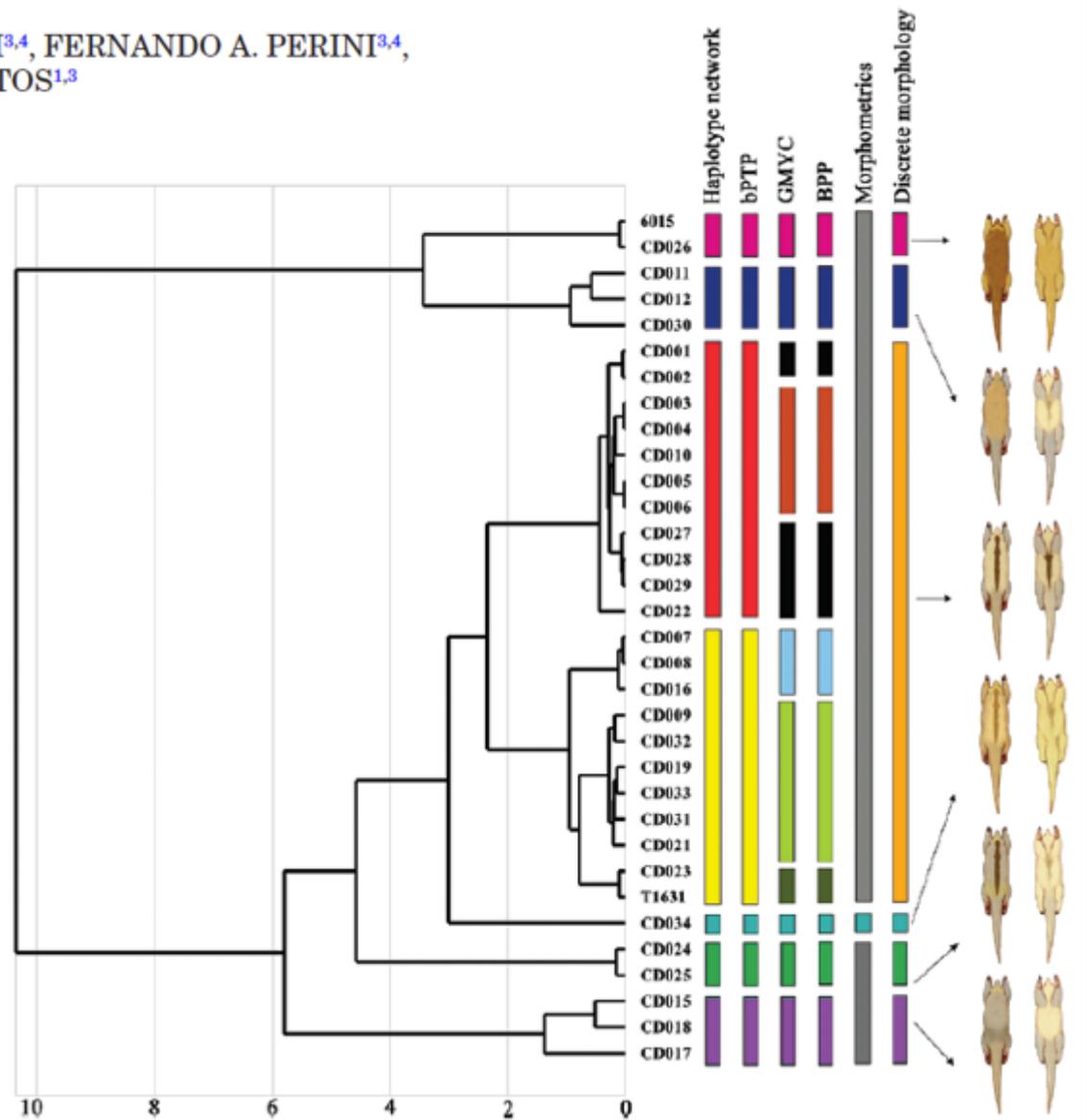


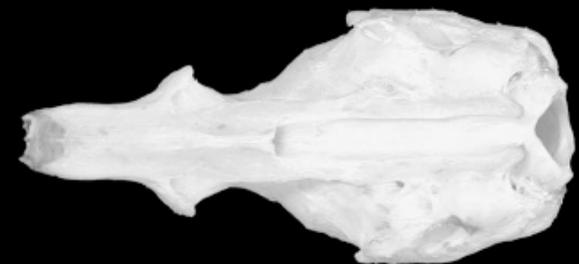
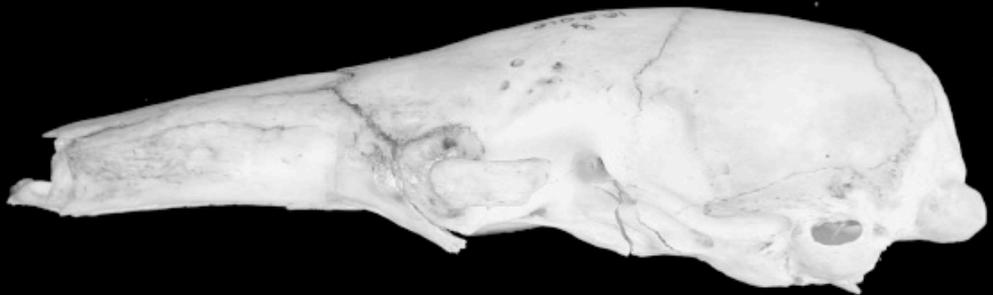
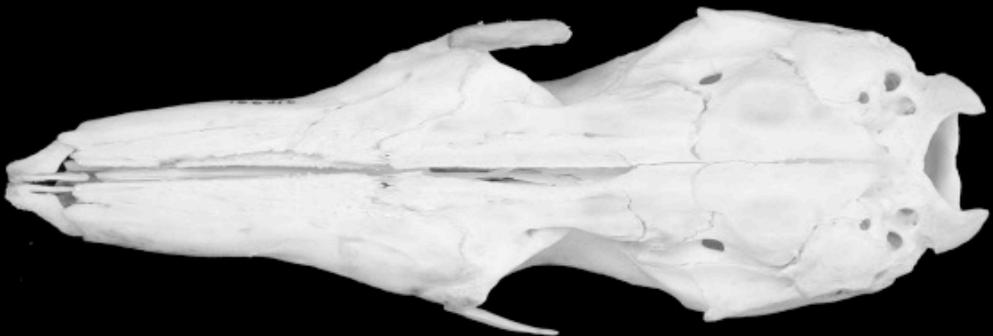
Family Myrmecophagidae
Cyclopes didactylus
Corynorhinus
ASM - MBL



Taxonomic review of the genus *Cyclopes* Gray, 1821 (Xenarthra: Pilosa), with the revalidation and description of new species

FLÁVIA R. MIRANDA^{1,2,3*}, DANIEL M. CASALI^{3,4}, FERNANDO A. PERINI^{3,4}, FABIO A. MACHADO^{5,6} and FABRÍCIO R. SANTOS^{1,3}





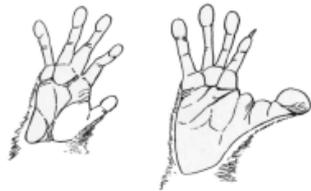
ORDEM PRIMATES

shared and derived characters

1. locomotor characters:

- grasping hands and feet with opposable pollex (thumb) and hallux (big toe)
- hallux contains a nail
- nails present on all or most digits (may be modified secondarily into a claw)
- elongation of the calcaneus
- hindlimb dominance during locomotion (except in brachiators)
- center of gravity shifted towards hindlimbs

Strepsirhines:



lemur (*Eulemur*:
Lemuridae)



sifaka (*Propithecus*:
Indridae)



potto (*Arctocebus*:
Loridae)

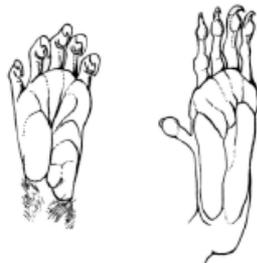


aye-aye (*Daubentonia*:
Daubentoniidae)

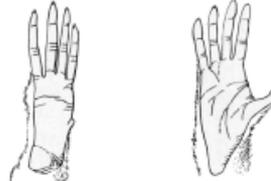
Haplorhines:



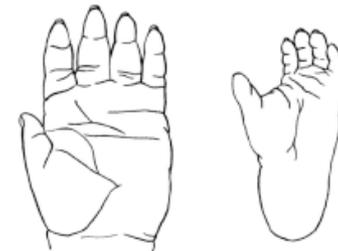
tarsier (*Tarsius*:
Tarsiidae)



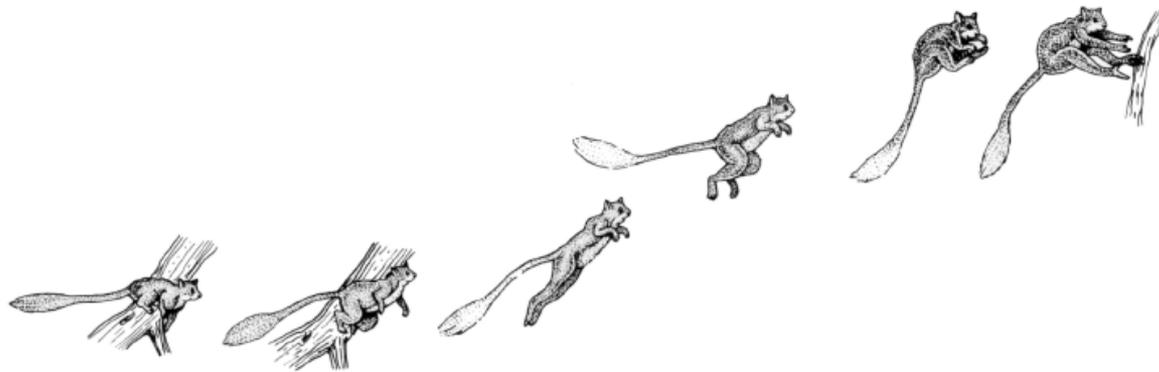
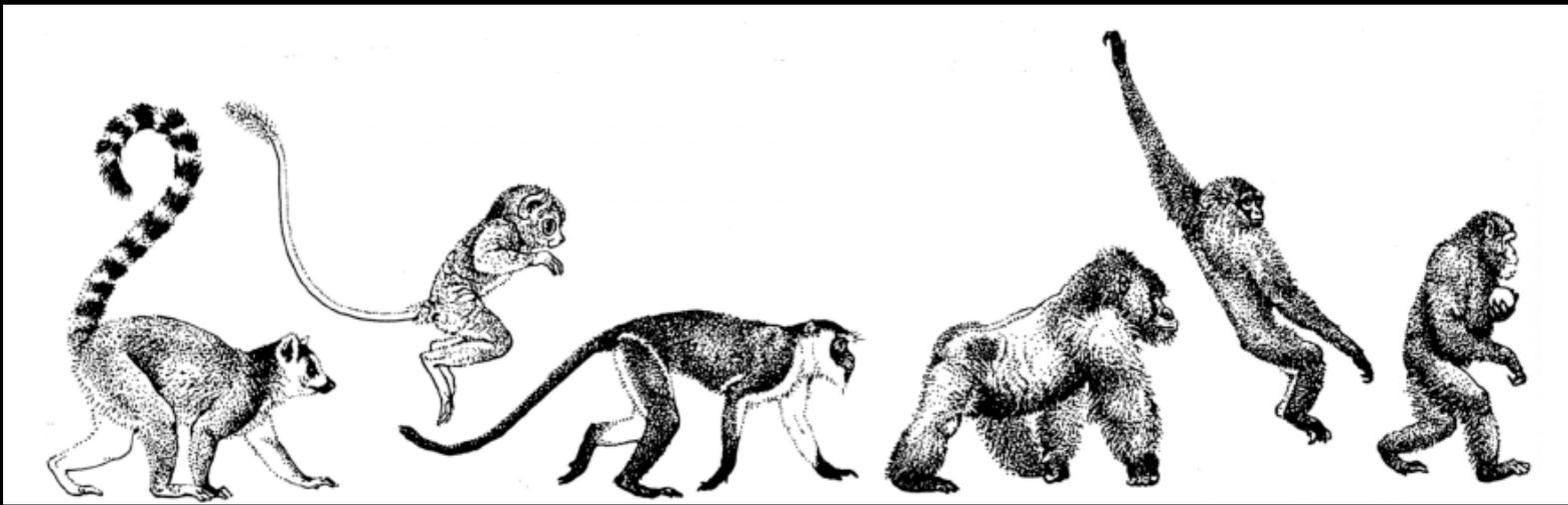
marmoset (*Callithrix*:
Callitrichidae)



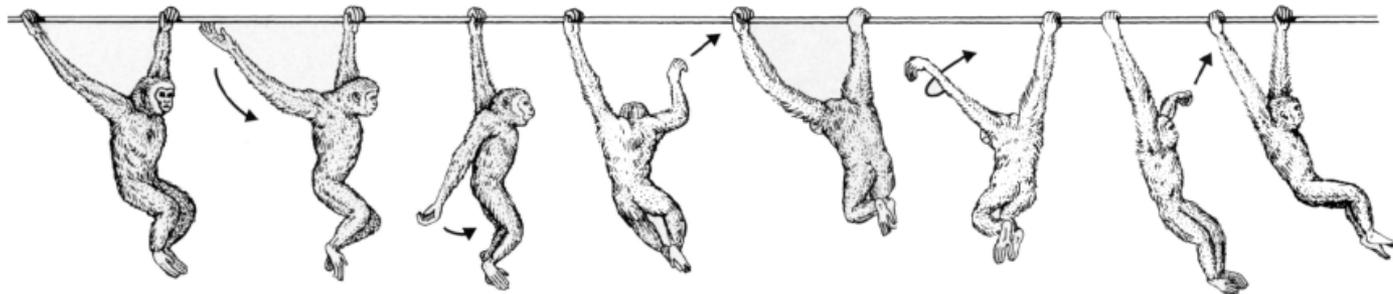
spider monkey
(*Brachyteles*:
Cebidae)



gorilla (*Gorilla*:
Hominidae)

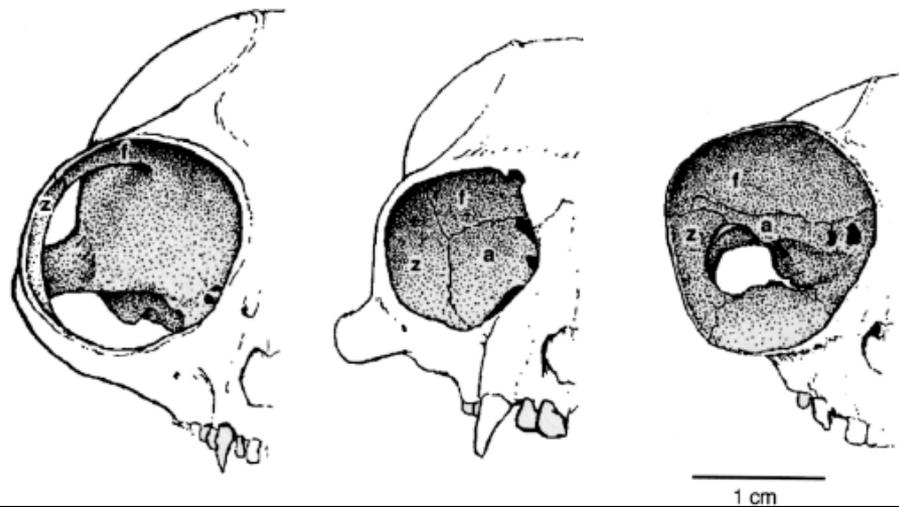


vertical leaping in a galago [note springing action of enlarged hindlimbs and use of tail as a balancing strut]

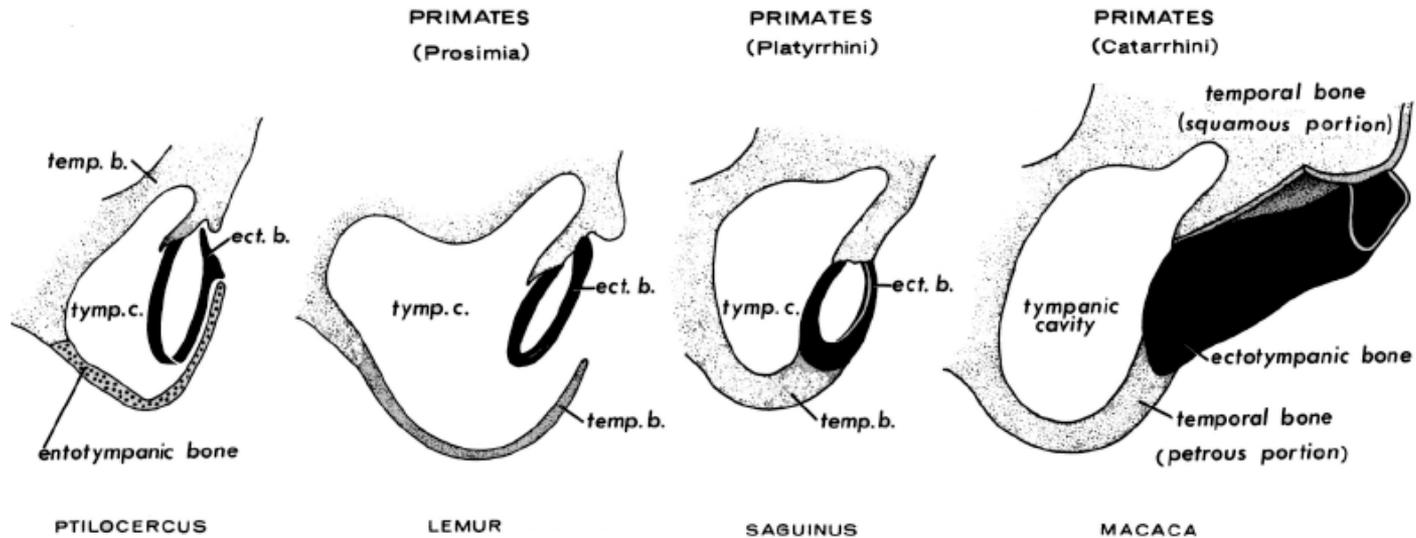


2. stereoscopic vision

- forward rotation of the orbits and narrowing of the interorbital distance
- enlargement of the orbital cavity
- exposure of the ethmoid bone on the inner orbital wall
- stereoscopic vision in which approximately half of the retinal axons project to the ipsilateral side of the brain
- complete postorbital bar or plate (plate of haplorhine primates unique among mammals)



3. auditory bulla bony; the floor formed by the petrosal bone, with tympanic ring or tube present



transverse view of the bulla of a tree shrew (*Ptilocercus*: Tupaiidae, Scandentia) compared to three primates (from left to right – common lemur [*Lemur*: Lemuridae, Strepsirhini]; tamarin [*Saguinus*: Callitrichinae, Haplorhini]; rhesus [*Macaca*: Cercopithecidae, Haplorhini])

4. dentition

- dental formula with two incisors and three premolars (loss of one incisor and one premolar from primitive eutherian condition)
- molars tritubercular or quadritubercular, bunodont and brachydont



Komba



Tamarini



Giboni



Kaku



Kima



Orangutangu



Sokwe mtu



**Komba bukini
(Lemuri)**



Ngedere



Nyani



Mandirili



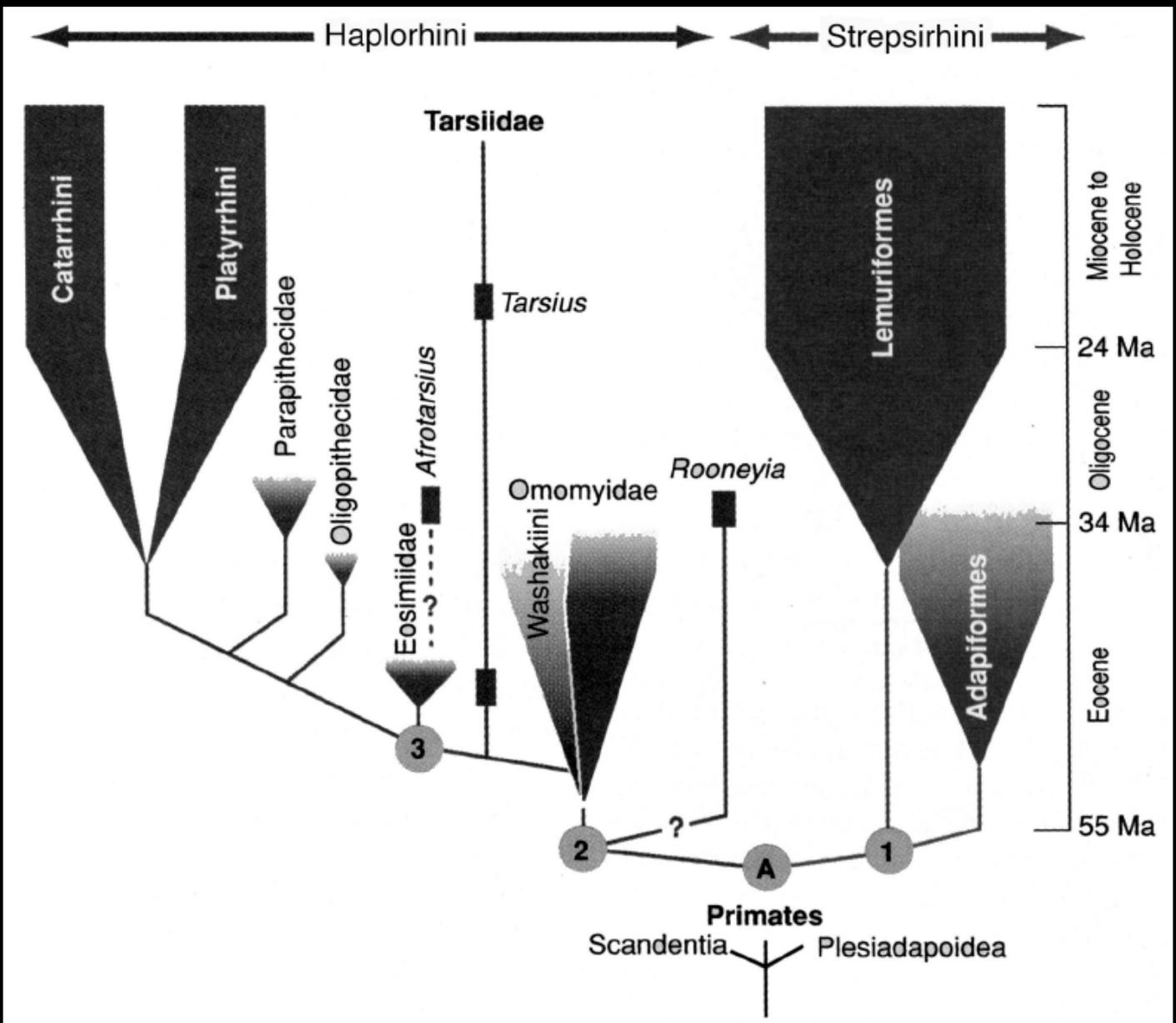
Mbega



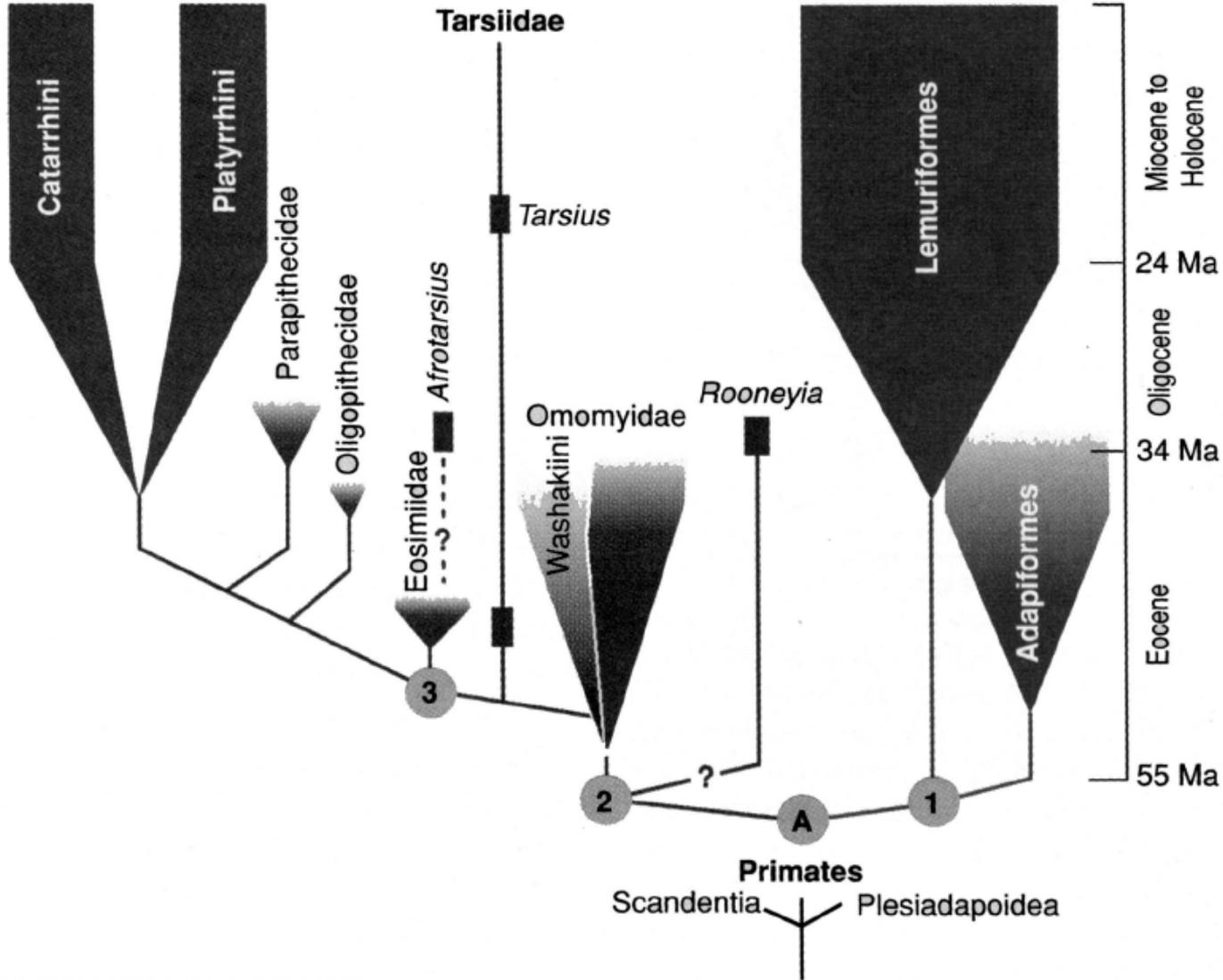
Ngagi

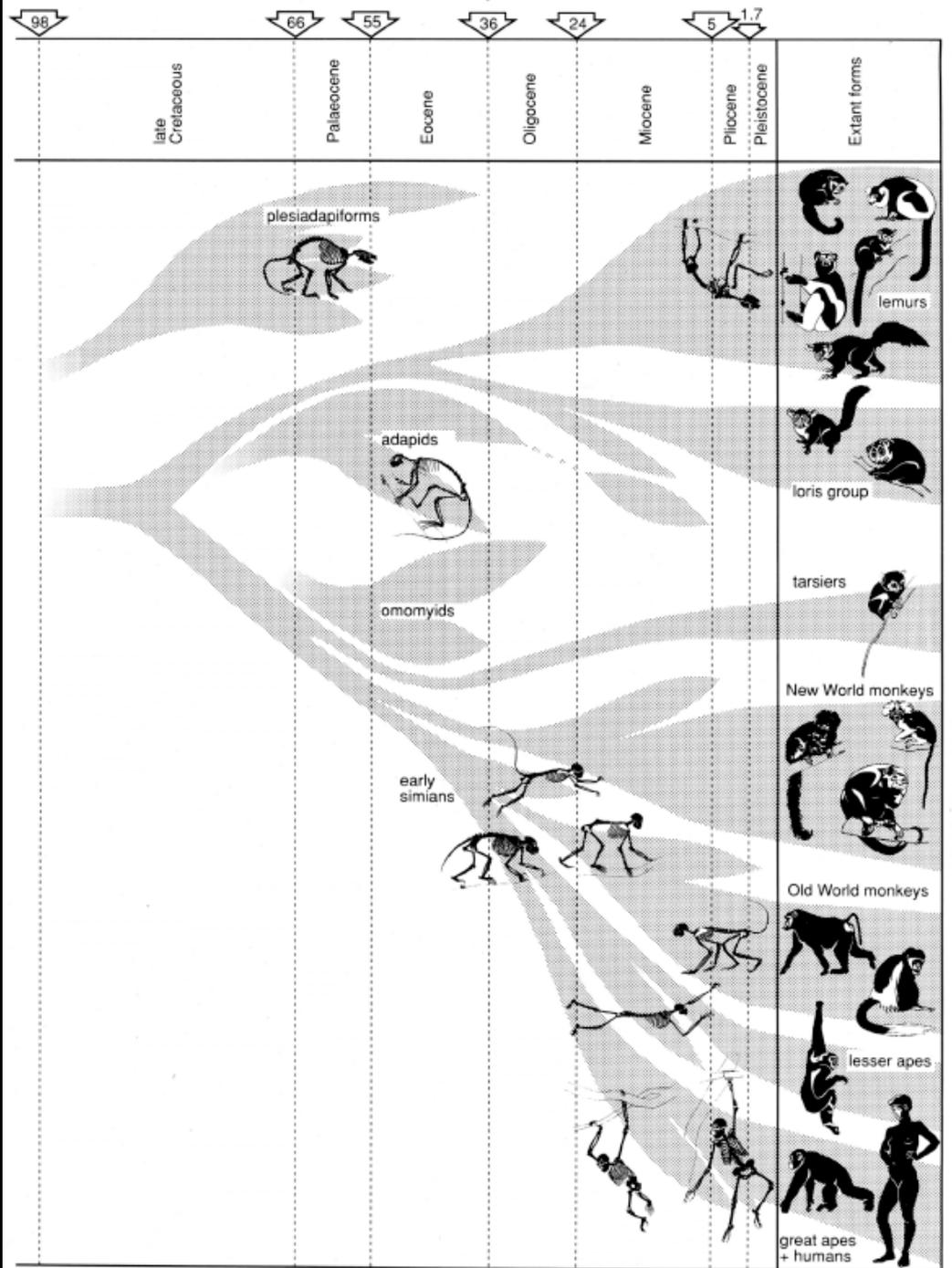


Binadamu



← Haplorhini → ← Strepsirhini →

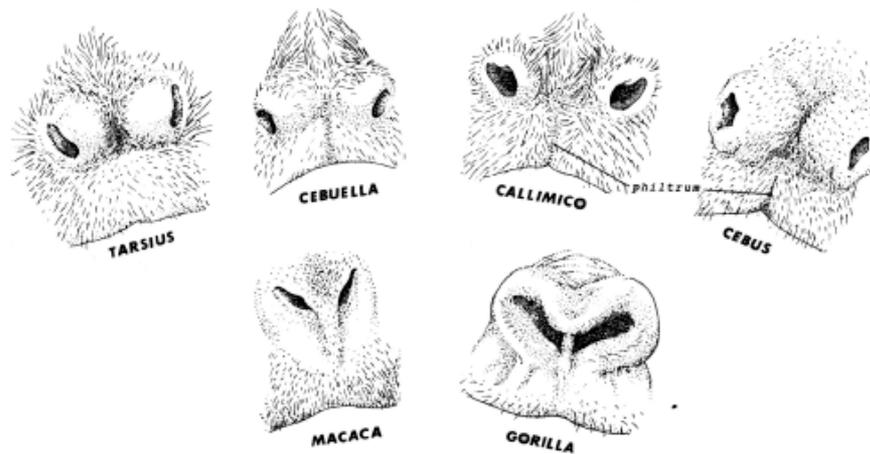




Suborder HAPLORHINI

diagnostic characters:

1. nose with simple nostrils, no rhinarium, philtrum vestigial or absent; internarial breadth wide in *Tarsius* and all platyrrhines (with nostrils directed somewhat laterally) and comparatively narrow in all catarrhines (with nostrils directed forward)

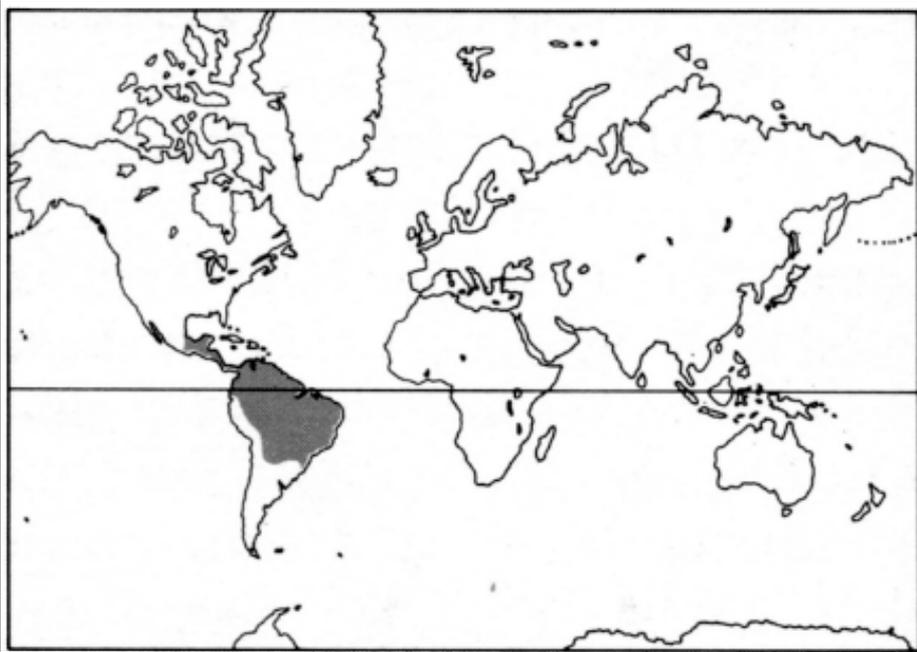


2. orbit and temporal fossa separated by postorbital plate (see illustrations on pages 123-124)
3. braincase relatively large and rounded, not elongated
4. foramen magnum more or less directed ventrally

ORDEM PRIMATES

Parvordem Platyrrhini

Famílias Cebidae, Atelidae, Aotidae, Pitheciidae



16 gênero

128 espécies

dental formula:

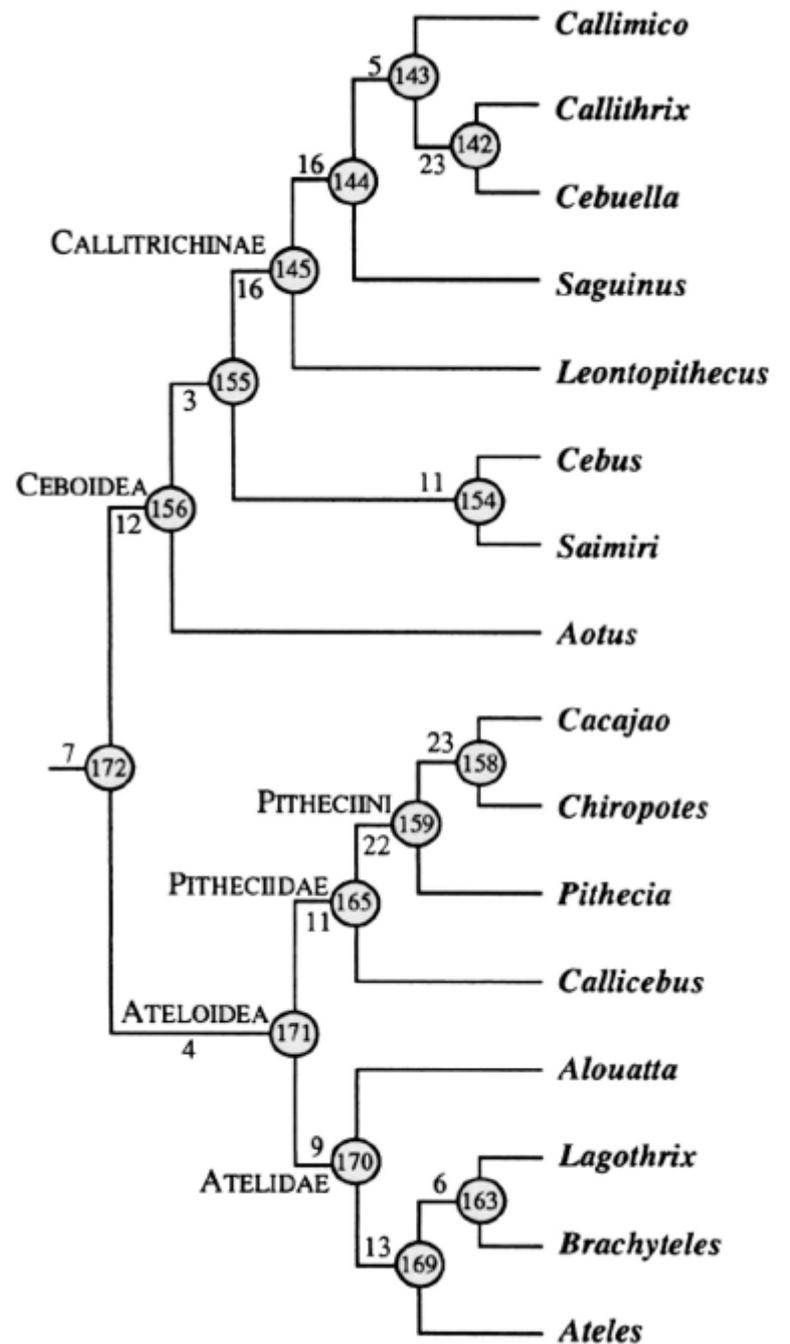
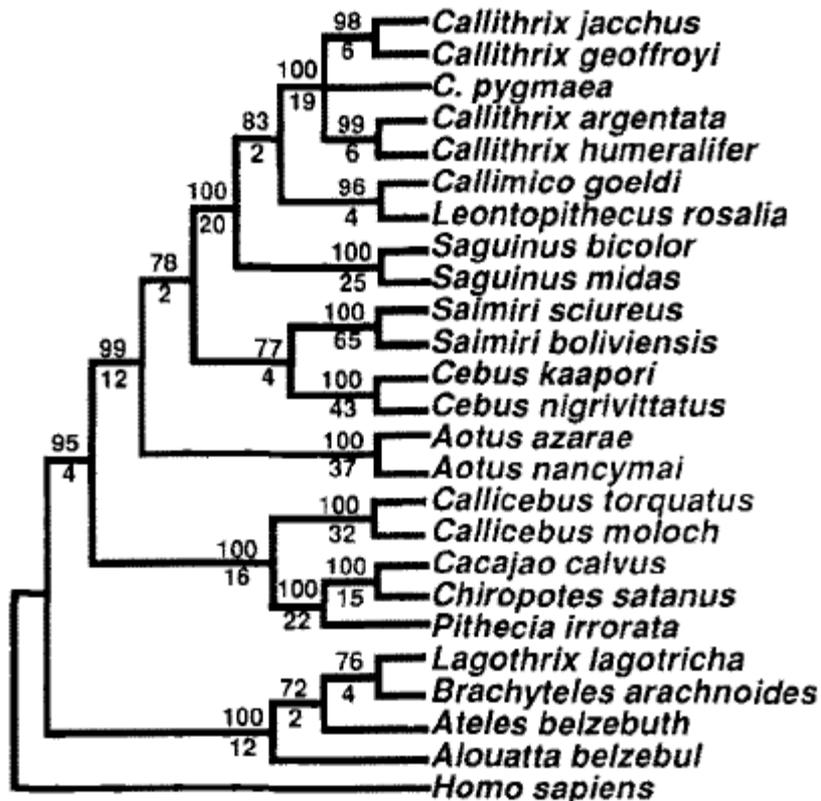
$$\frac{2 \ 1 \ 3 \ 3}{2 \ 1 \ 3 \ 3} = 36$$

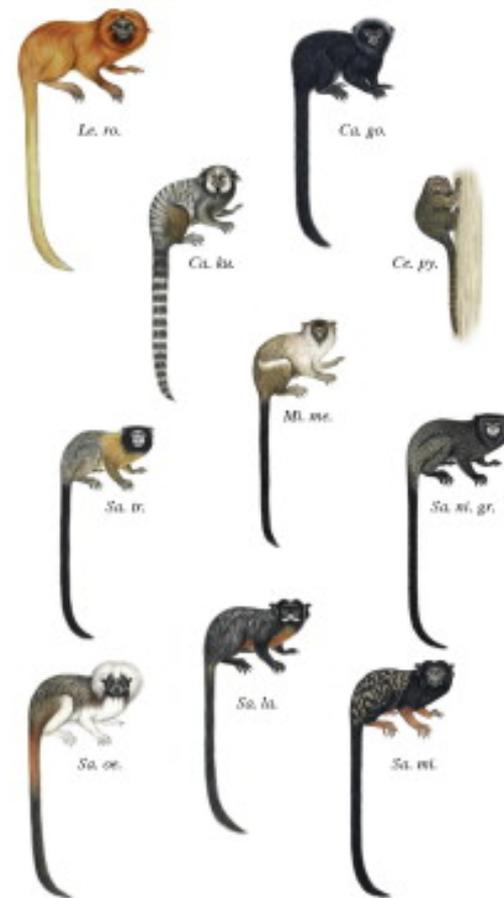
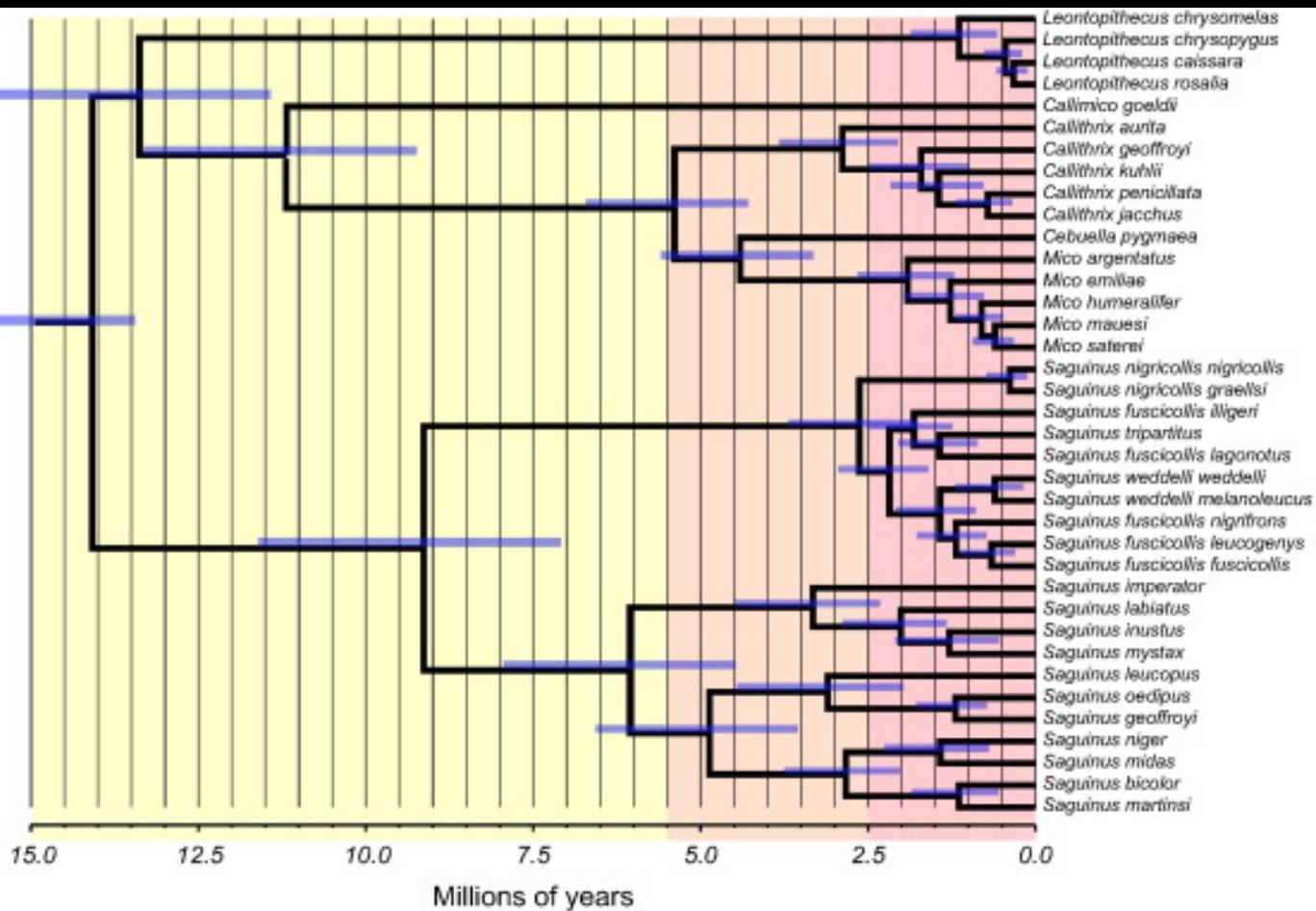
or (in Callitrichinae)

$$\frac{2 \ 1 \ 3 \ 2}{2 \ 1 \ 3 \ 2} = 32 \text{ (3 molars above and below in } Callimico \text{)}$$

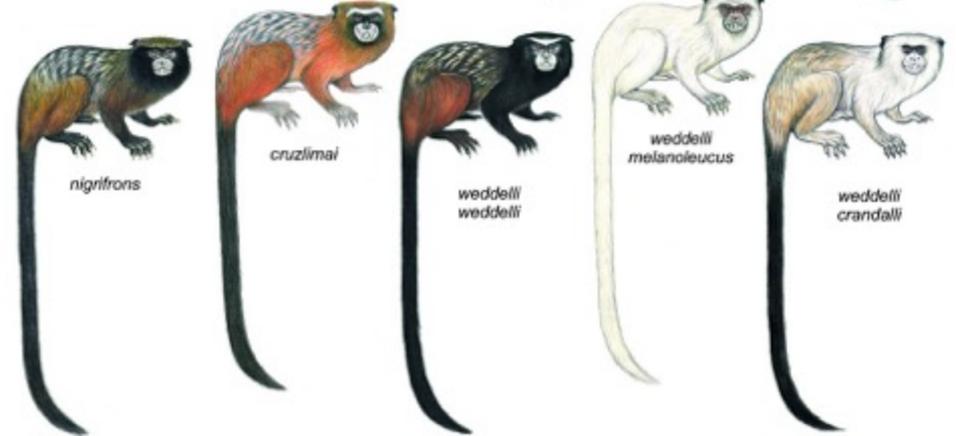
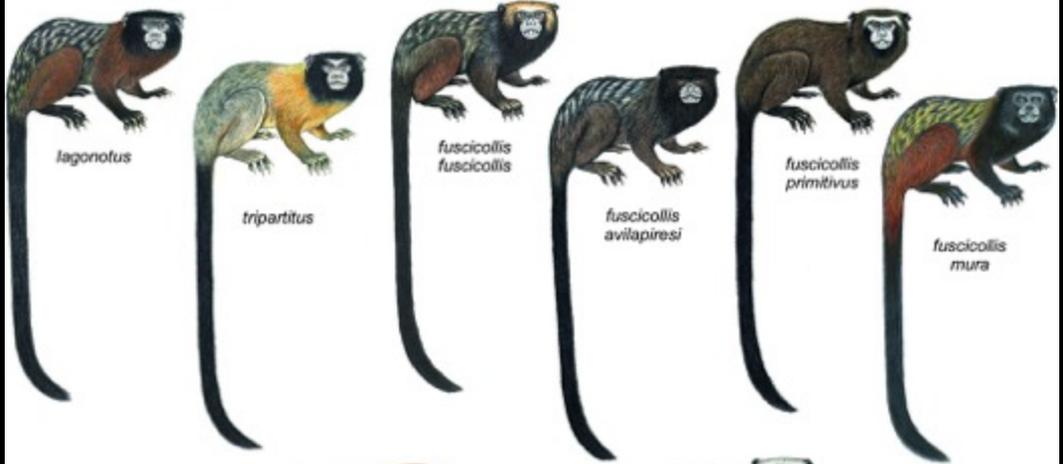
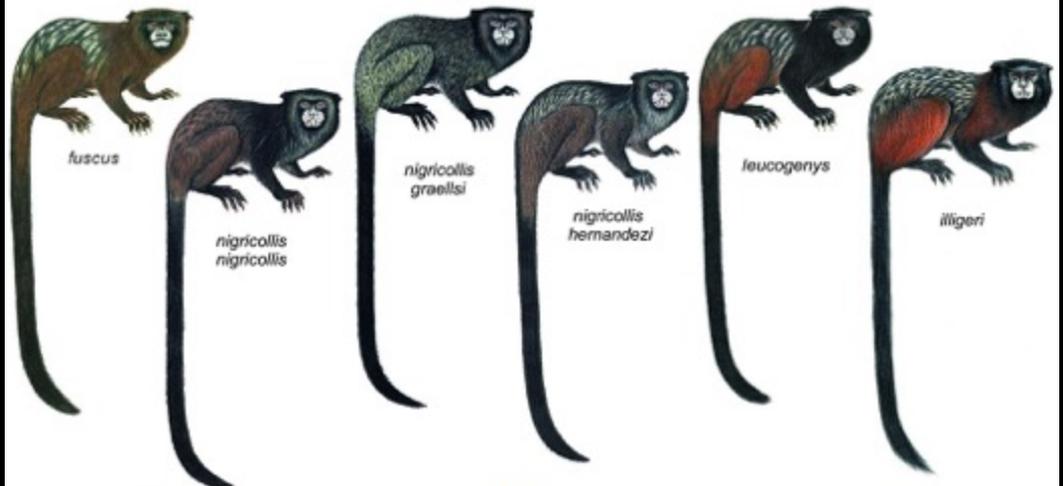
general characters:

1. size small to medium (65-190 cm)
2. forelimbs may be longer or shorter than hindlimbs
3. pollex only slightly opposable or absent (*Ateles*, *Brachyteles*); hallux opposable
4. digits each bearing a flattened or narrowed, keeled nail
5. tail short (*Cacajao*) or long, prehensile in some (*Ateles*, *Alouatta*, *Cebus*, *Lagothrix*)
6. auditory bulla not extending laterally as a bony tube
7. molars quadritubercular
8. three premolars and three molars above and below





White-mouthed or *nigricollis* group



Midas tamarin or *midas* group



midas



niger



ursulus

Moustached or *mystax* group



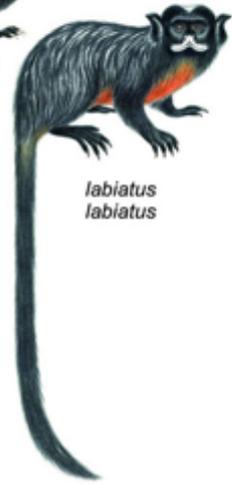
*mystax
mystax*



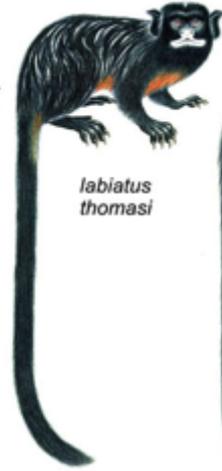
*mystax
pileatus*



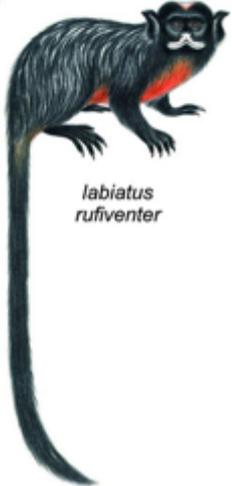
*mystax
pluto*



*labiatus
labiatus*

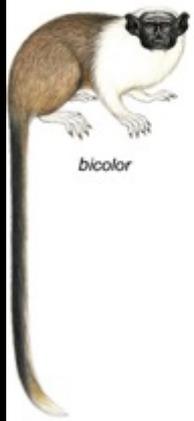


*labiatus
thomasi*



*labiatus
rufiventer*

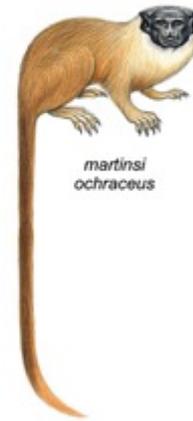
Brazilian bare-faced tamarins or *bicolor* group



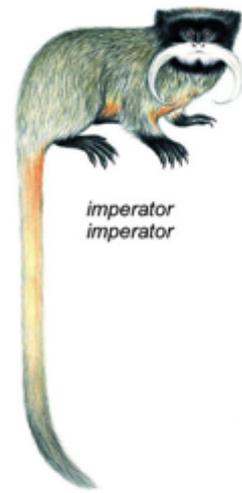
bicolor



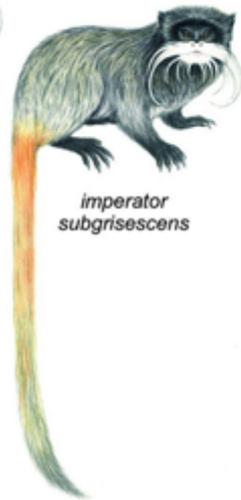
*martinsi
martinsi*



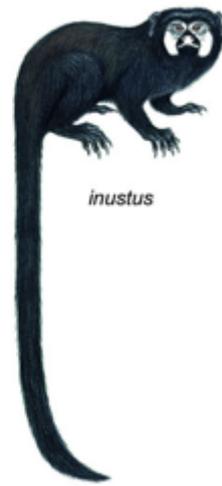
*martinsi
ochraceus*



*imperator
imperator*

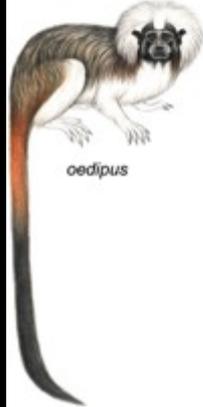


*imperator
subgriseus*

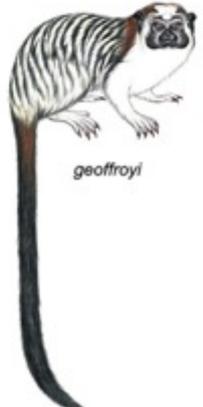


inustus

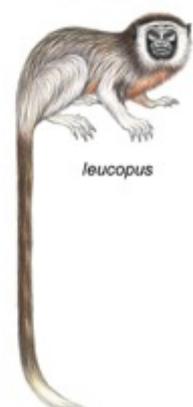
Colombian and Panamanian bare-faced tamarins or *oedipus* group



oedipus

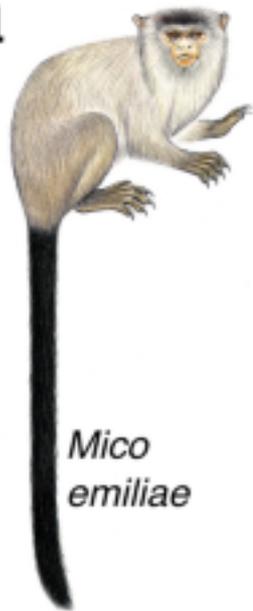


geoffroyi



leucopus

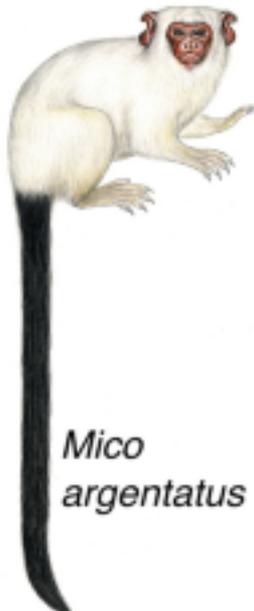
a



Mico emiliae



Mico leucippe



Mico argentatus



Mico munduruku



Mico rondoni



Mico intermedius

b



Mico schneideri sp. n.



Mico marcai



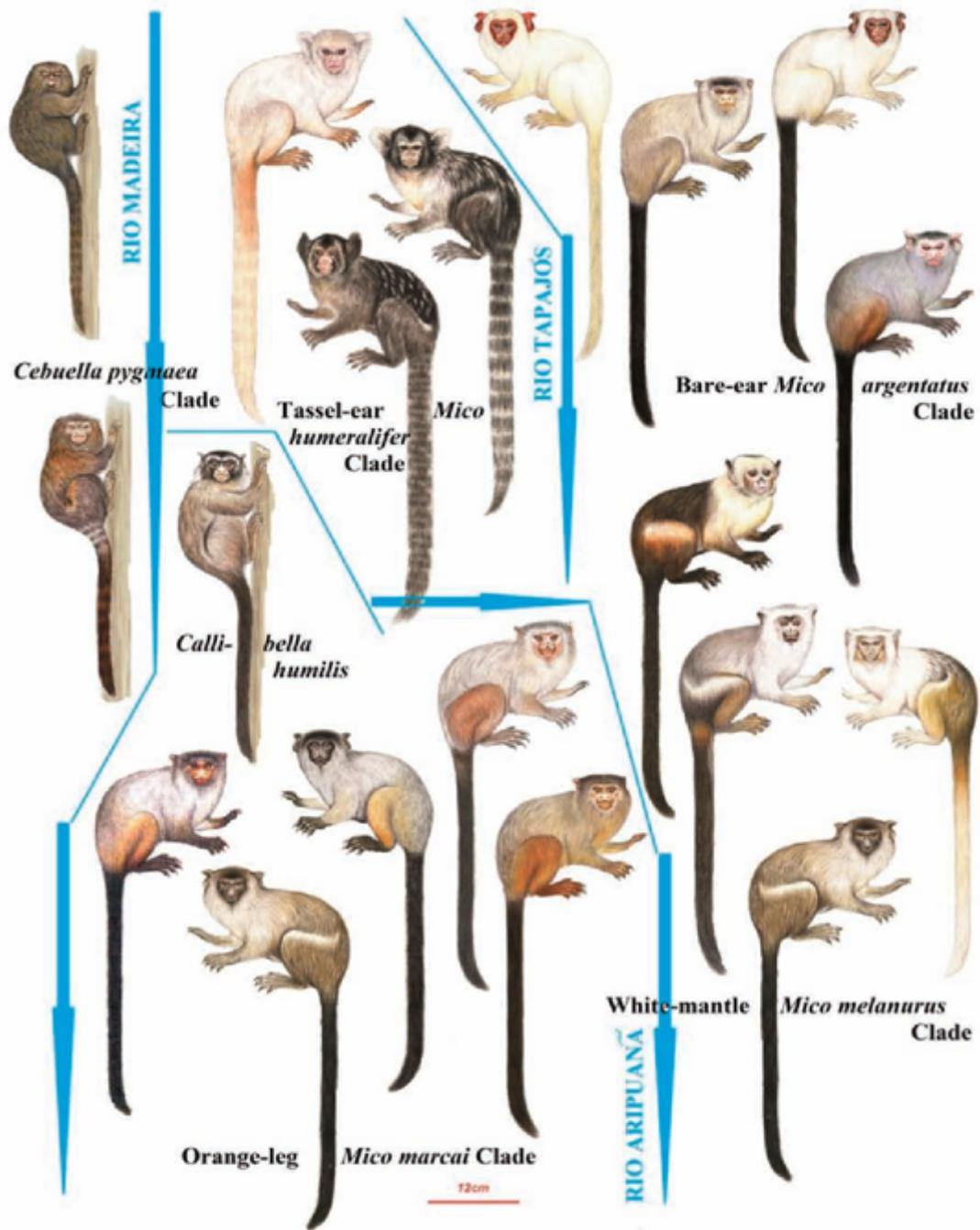
Mico melanurus



Mico manicorensis



Mico nigriceps

















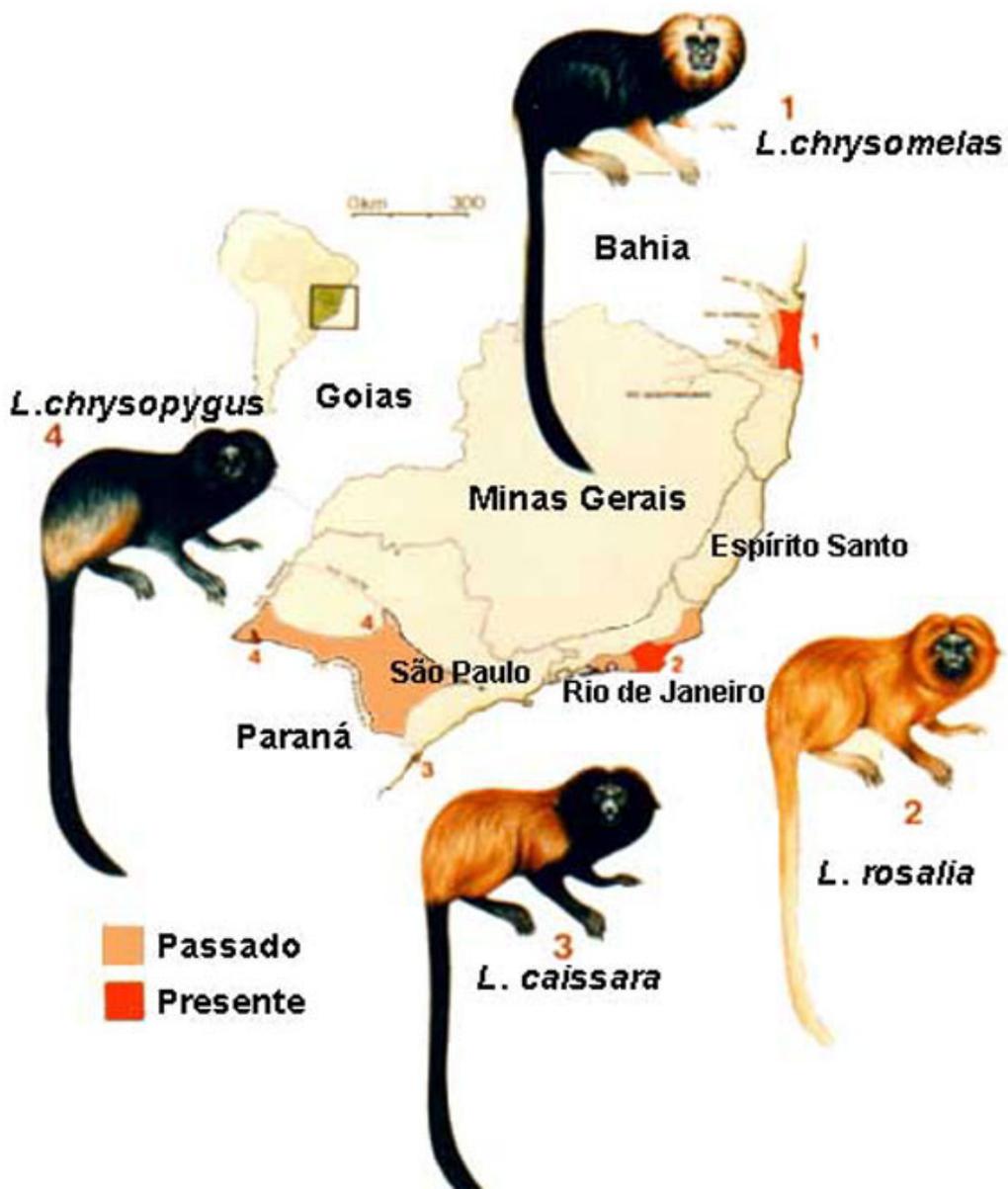
Espécies de Mico Leão e sua distribuição:

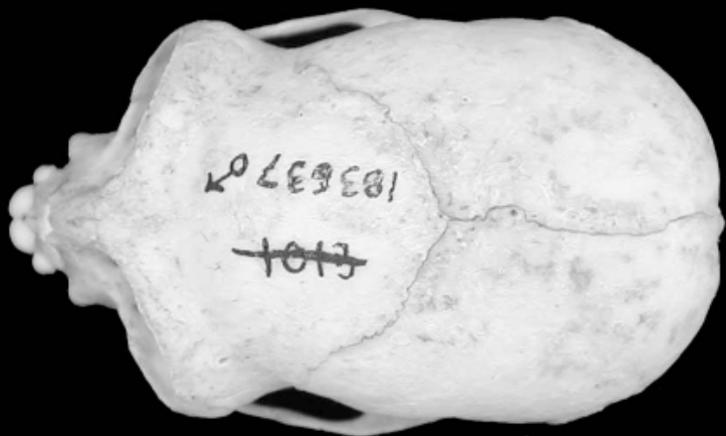
Mico Leão Dourado (*Leontopithecus rosalia*)

Mico Leão da Cara Dourada (*Leontopithecus chrysomelas*)

Mico Leão Preto (*Leontopithecus chrysopygus*)

Mico Leão da Cara Preta (*Leontopithecus caissara*)





Cebus

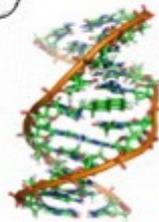
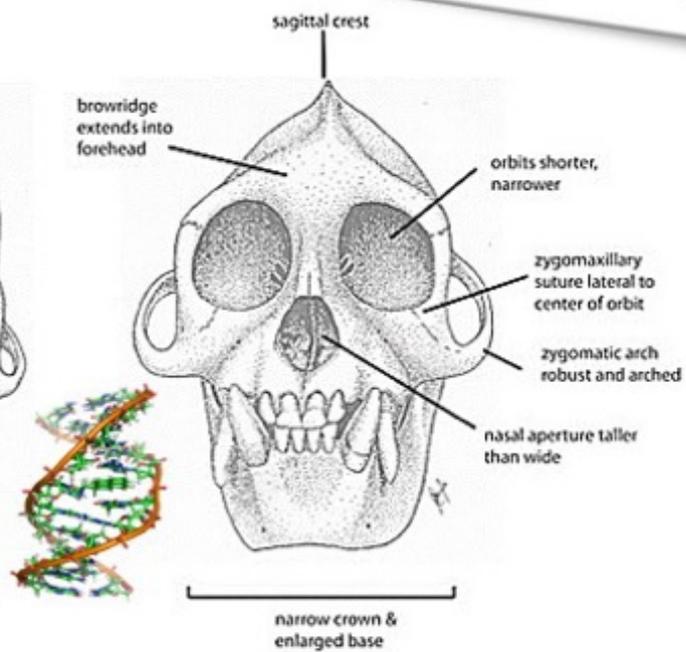
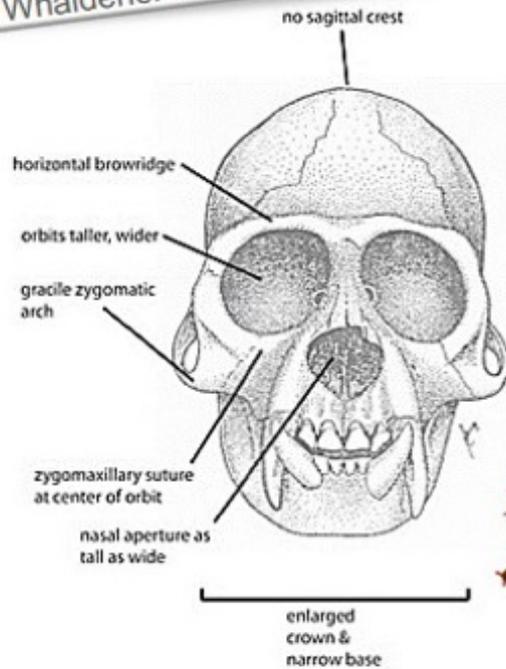


Foto: Whaldener Endo

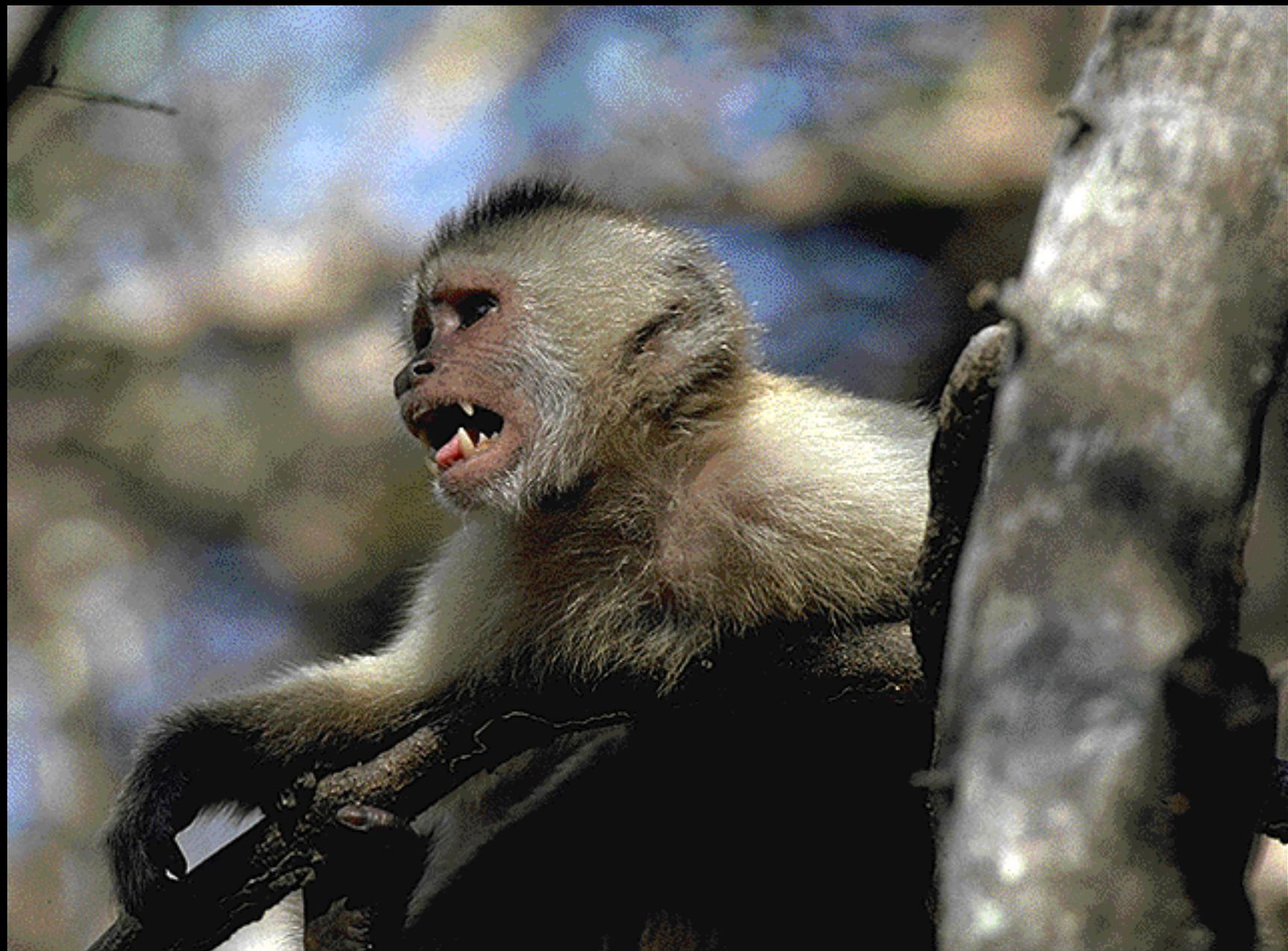
Sapajus



Foto: Mariana Lorenzo















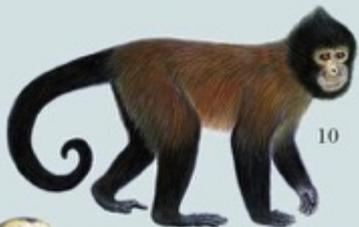
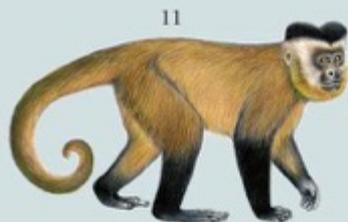
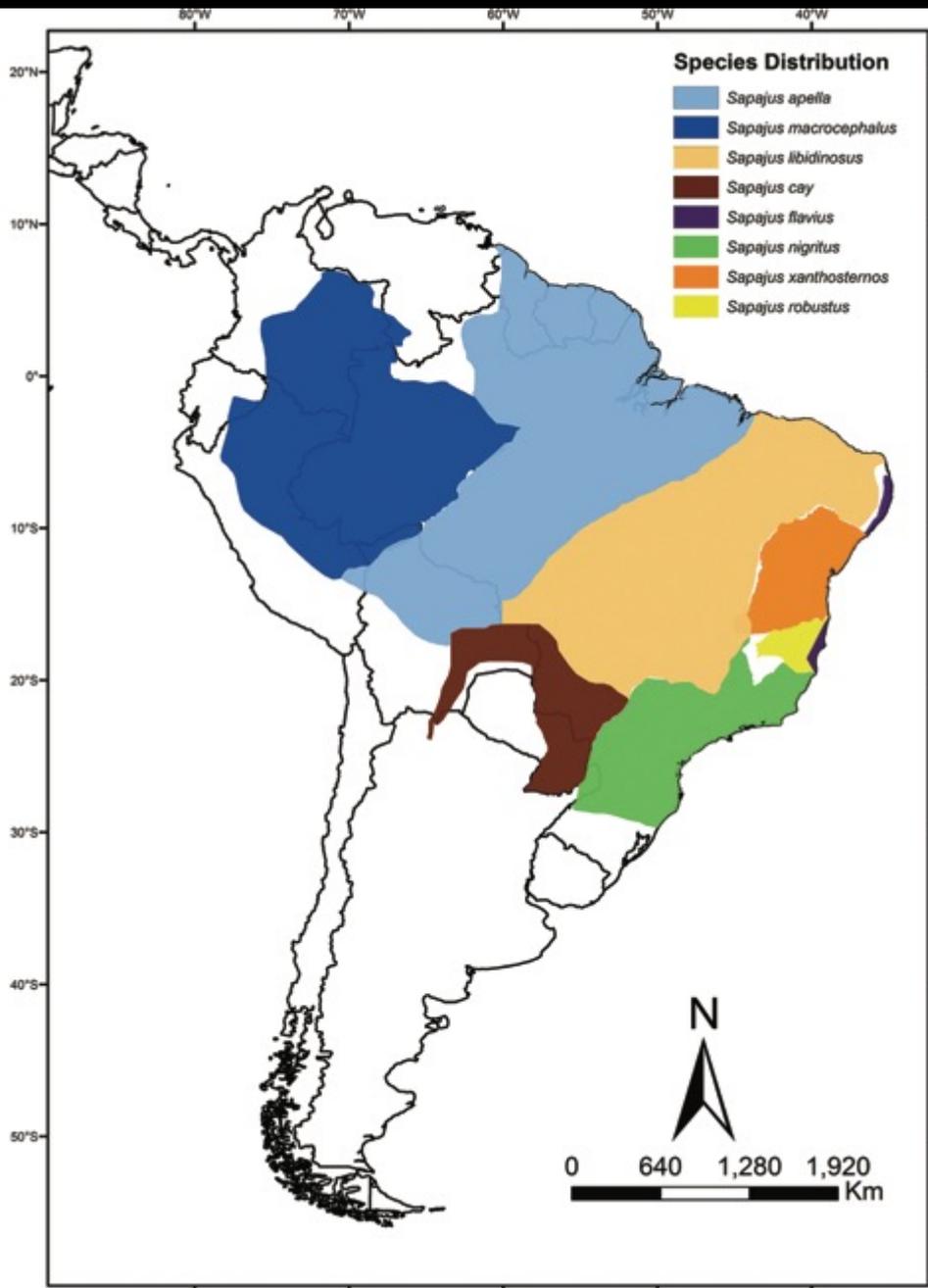
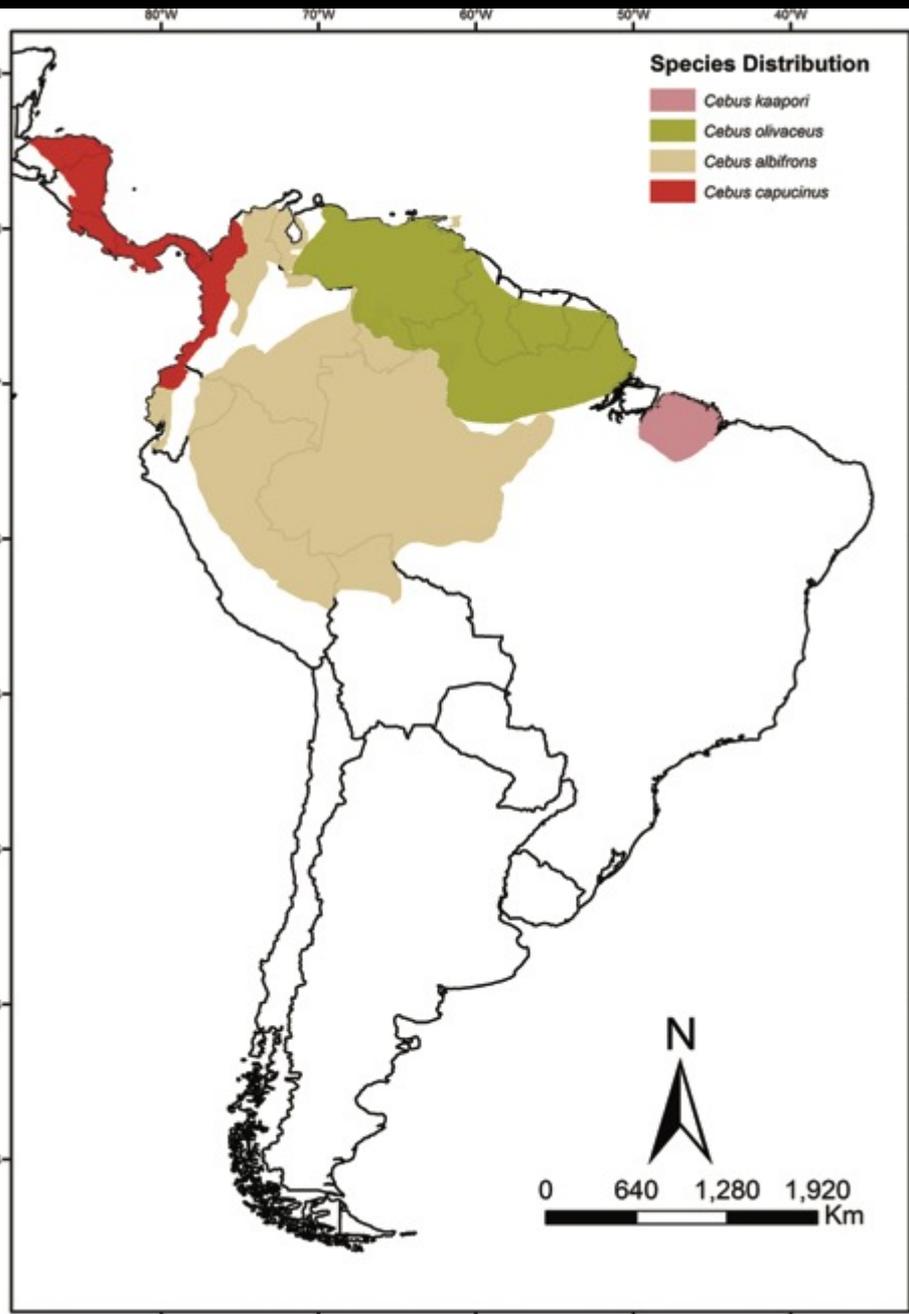


PLATE 25

inches 10
cm 25

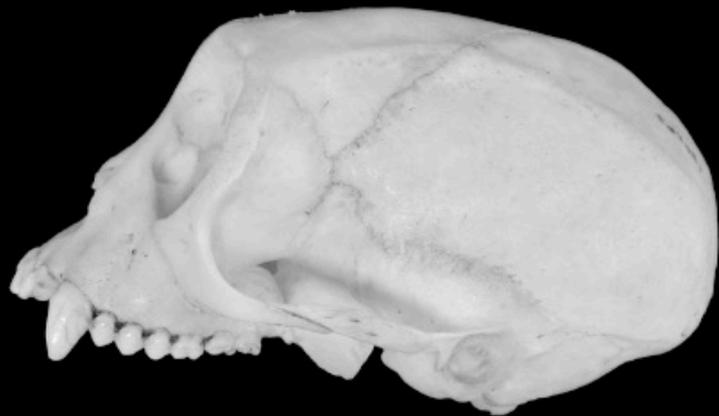
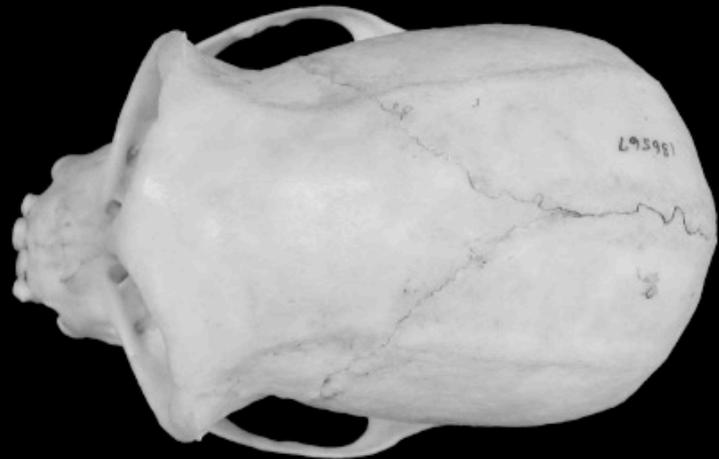


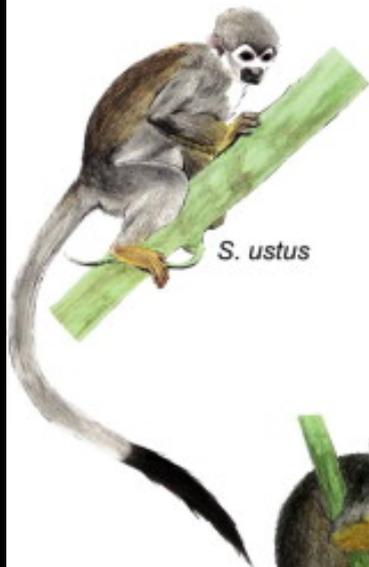
15



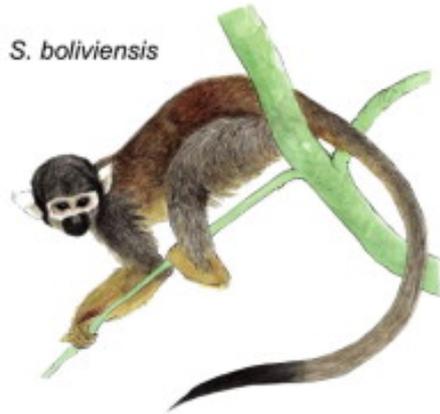








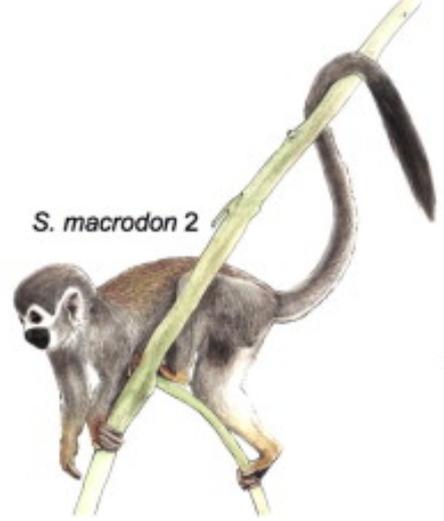
S. ustus



S. boliviensis



S. c. cassiquiarensis



S. macrodon 2



S. vanzolinii



S. oerstedii



S. macrodon 1

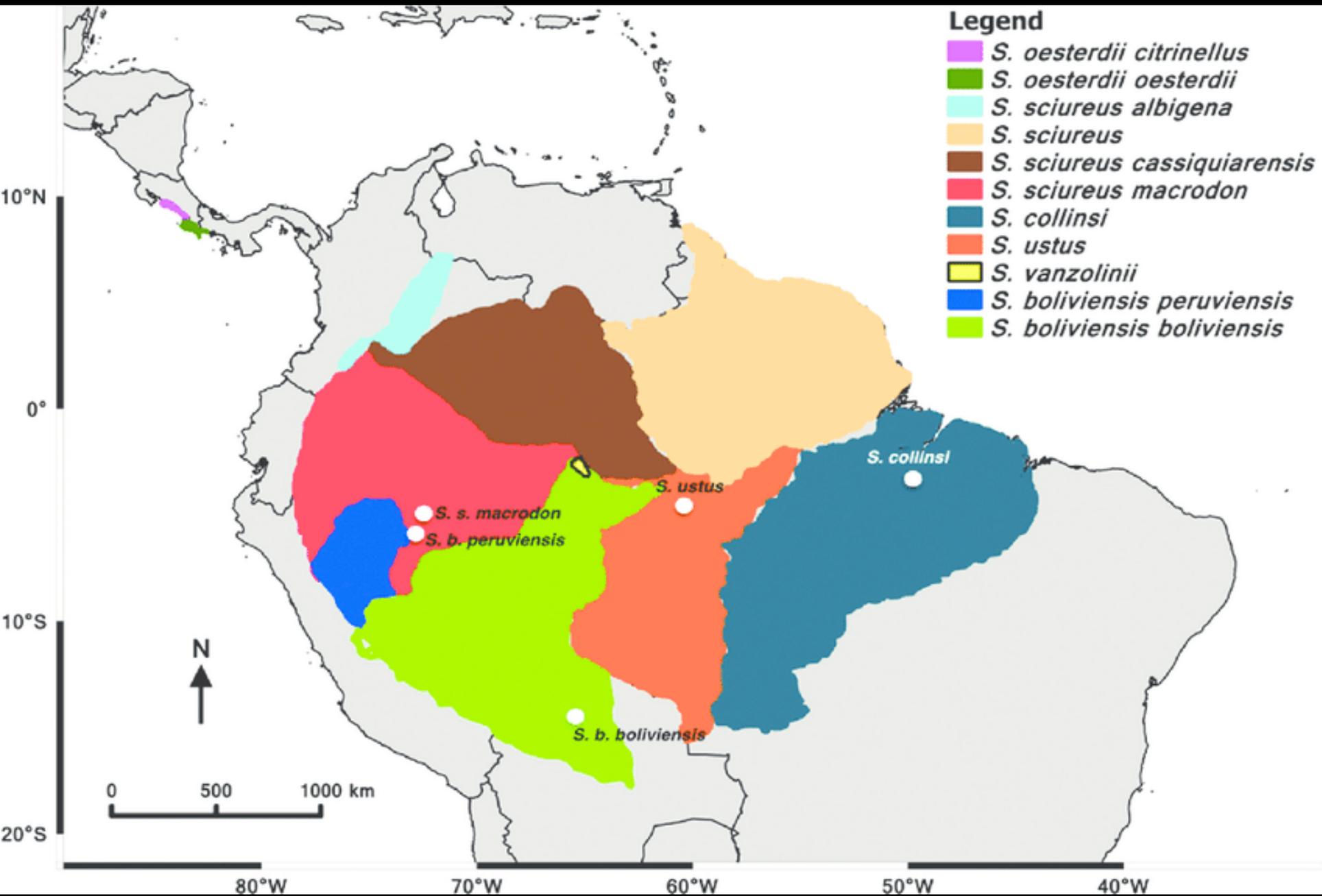


S. c. albigena

S. s. sciureus (inset)



S. s. collinsi









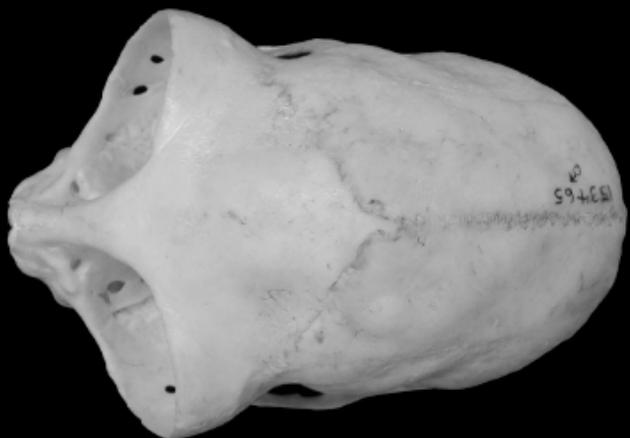




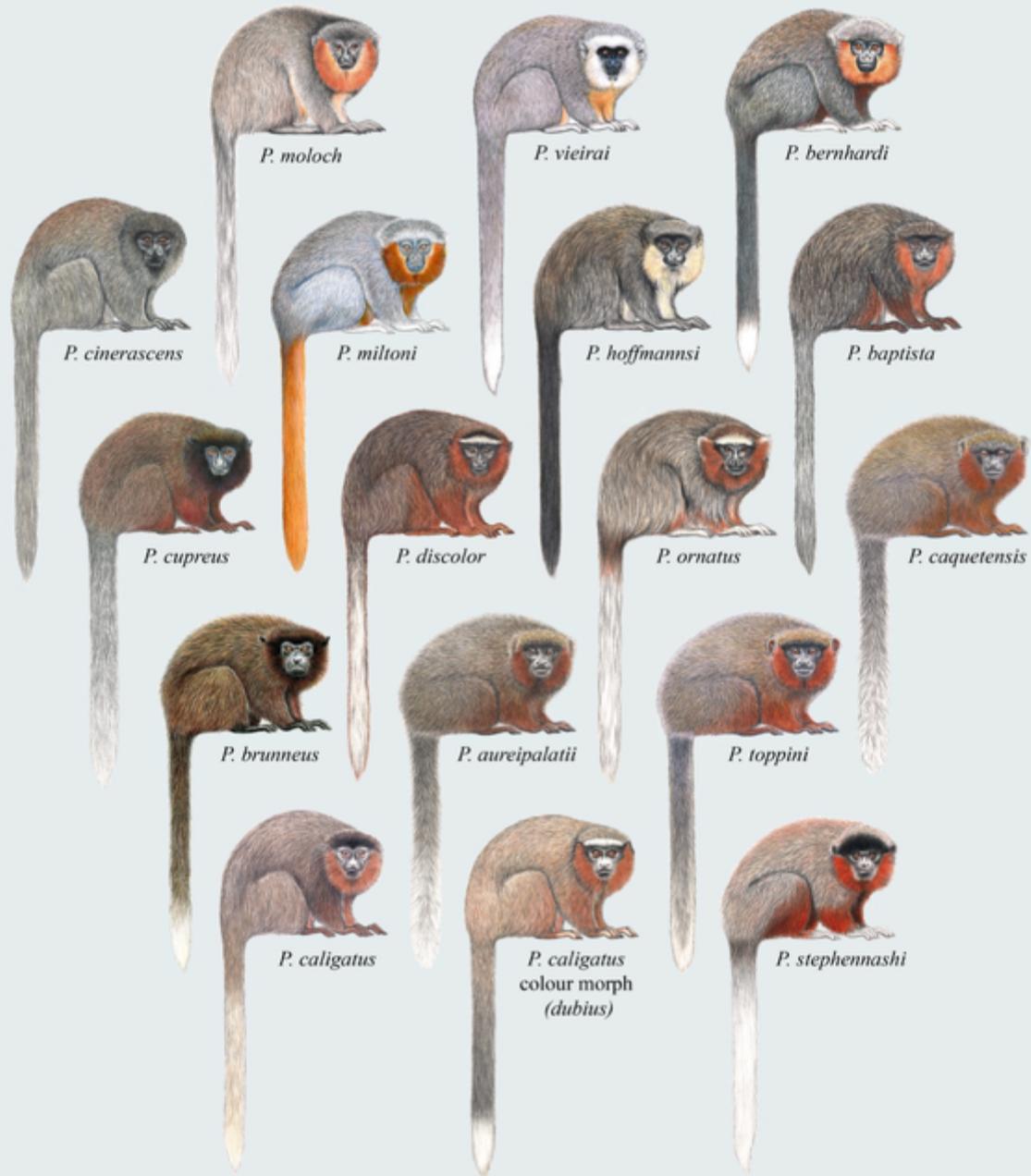


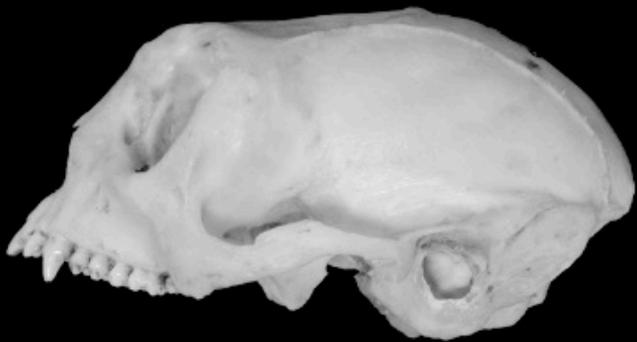


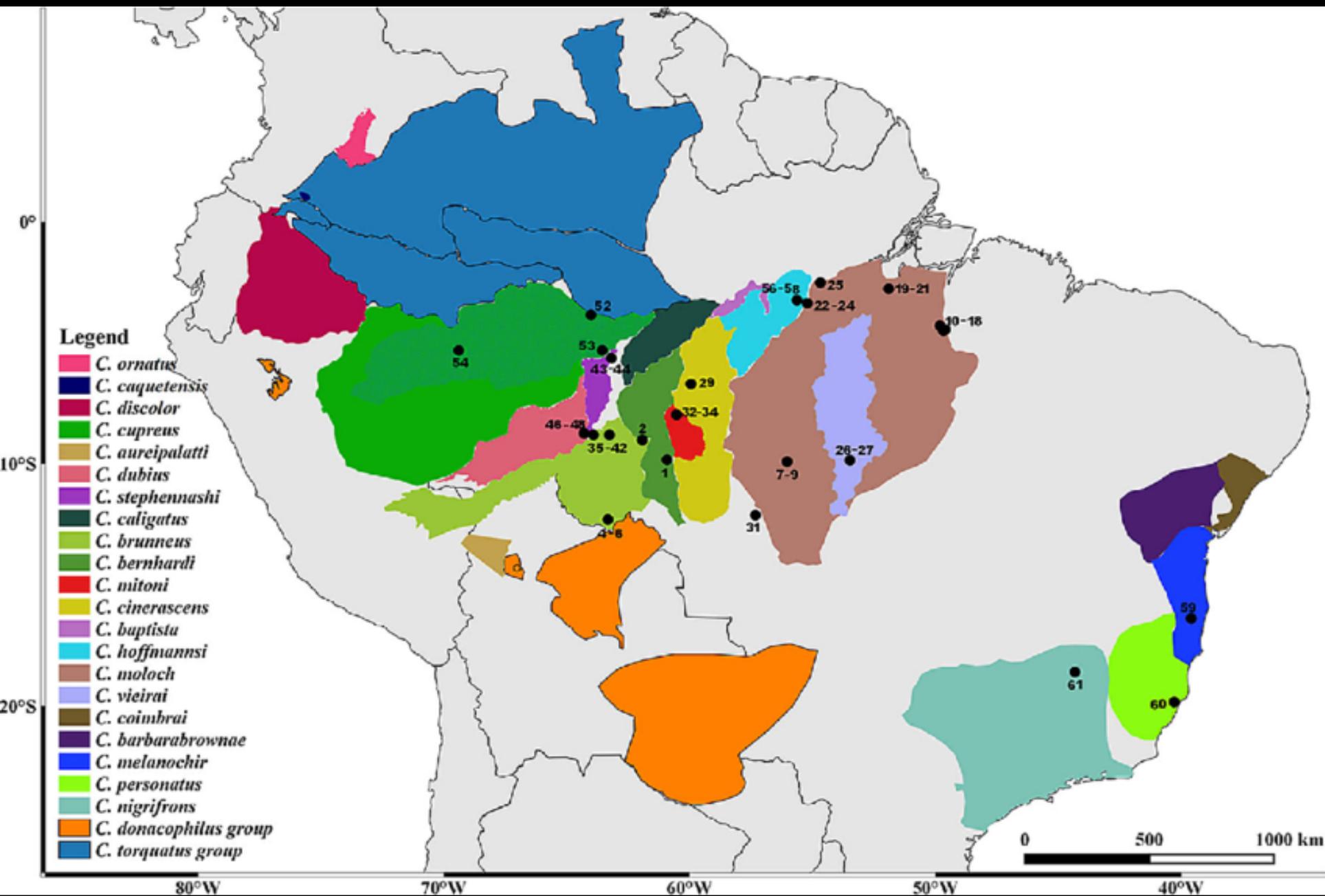




Figure 47. Array of faces of titi monkeys, genus *Callicebus*, arranged by group. Illustration by Stephen D. Nash.

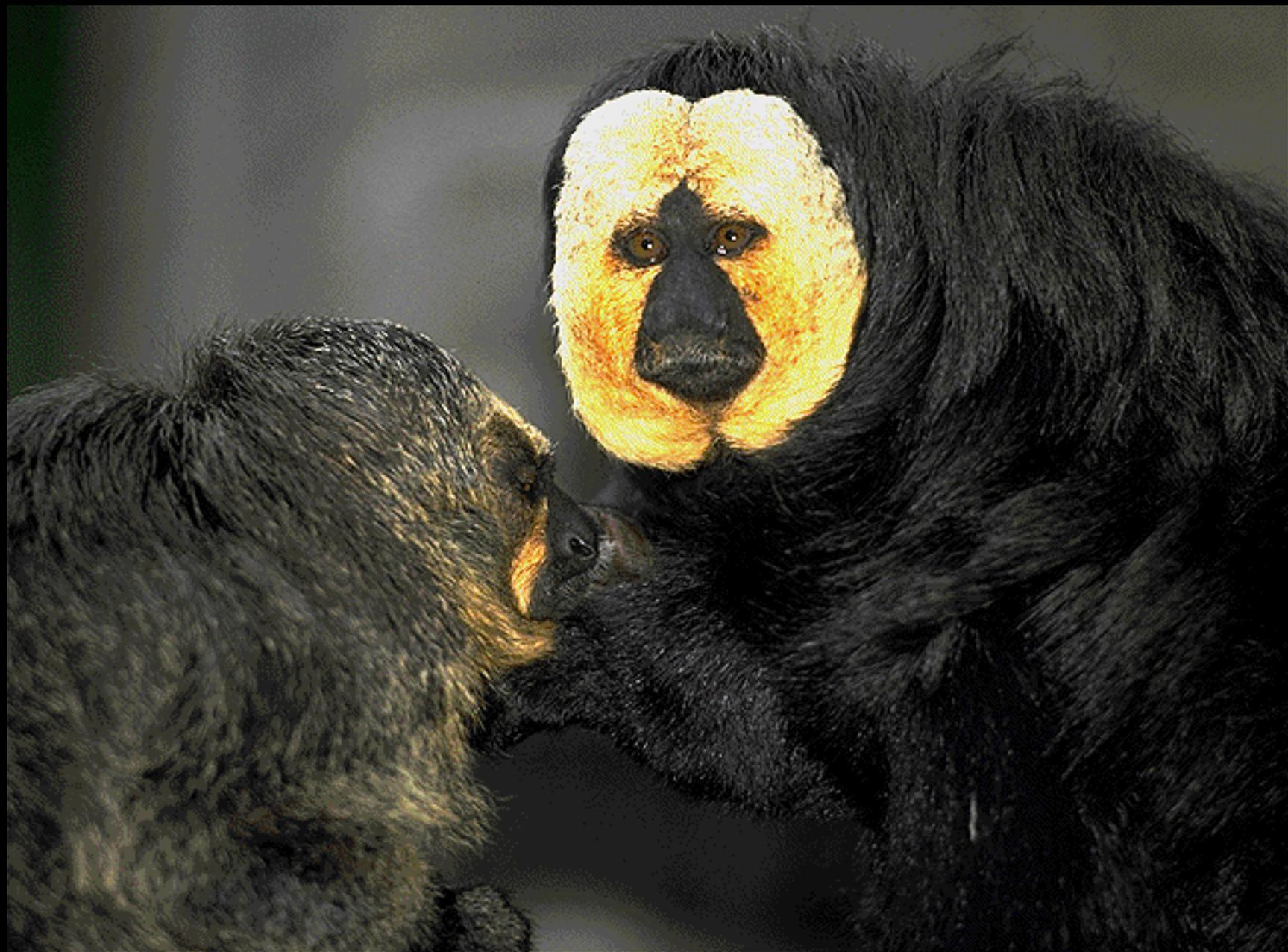






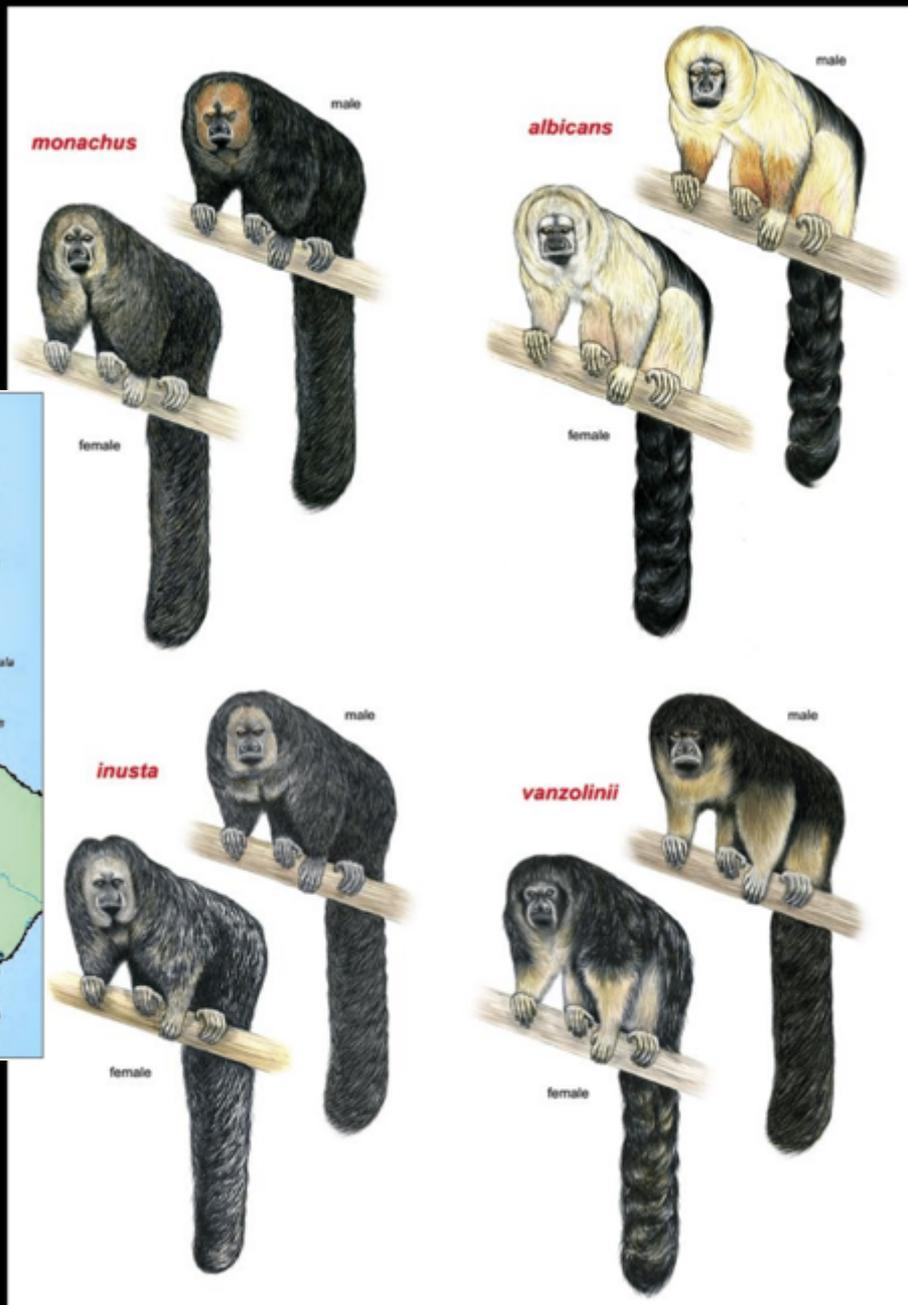


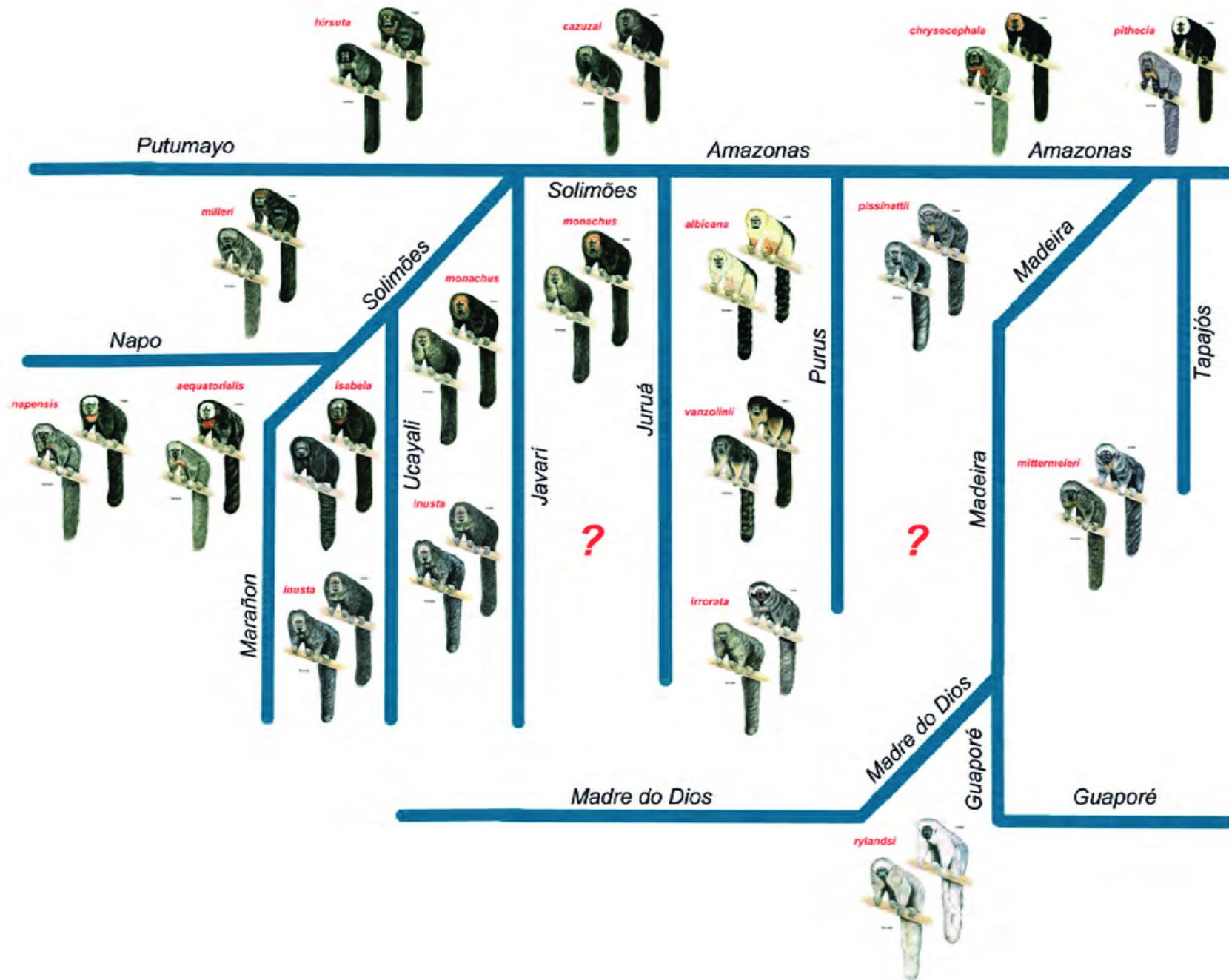






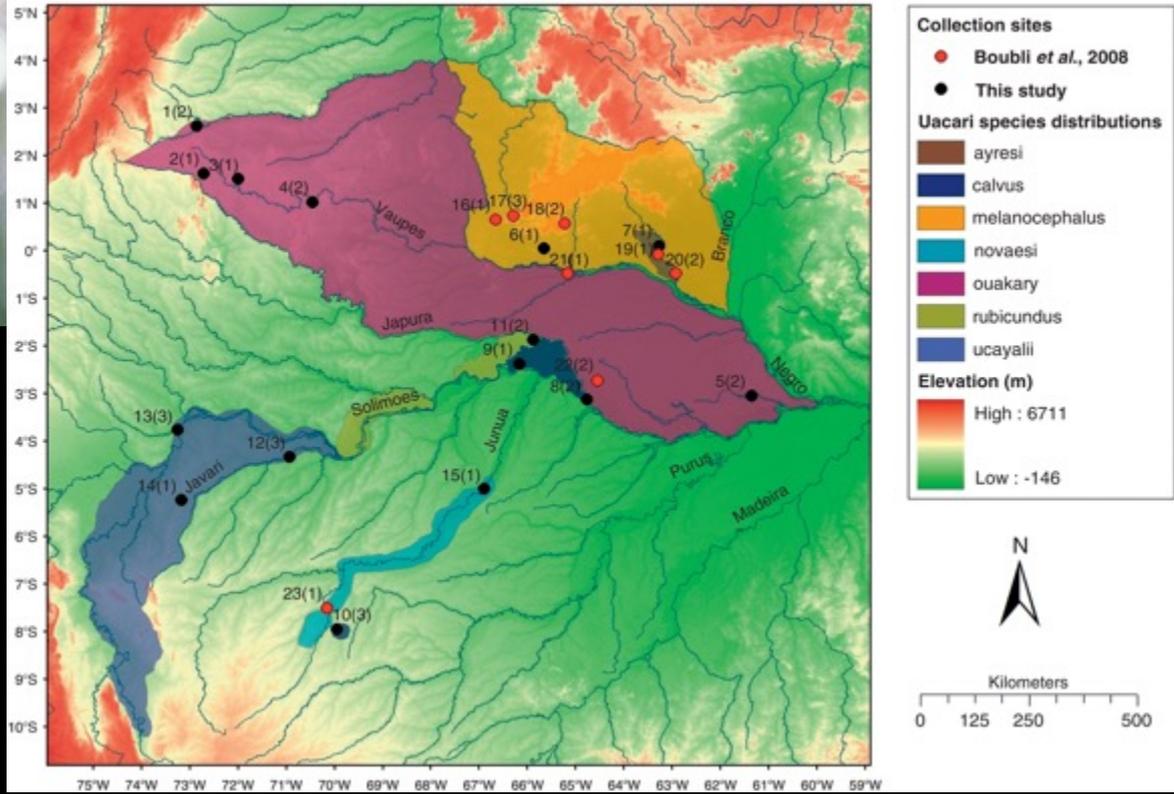








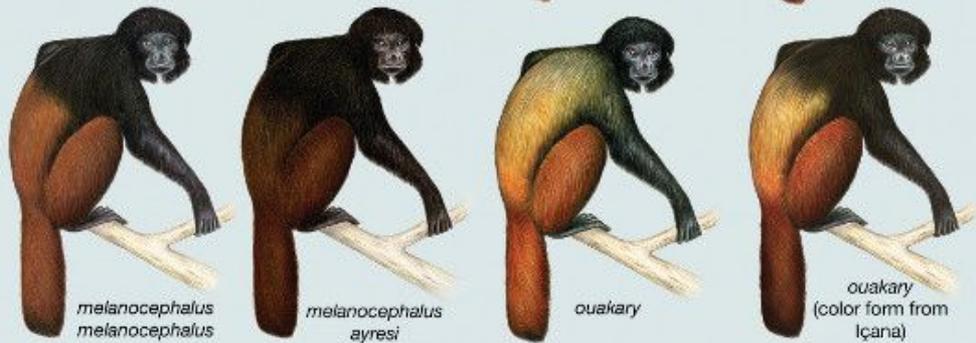
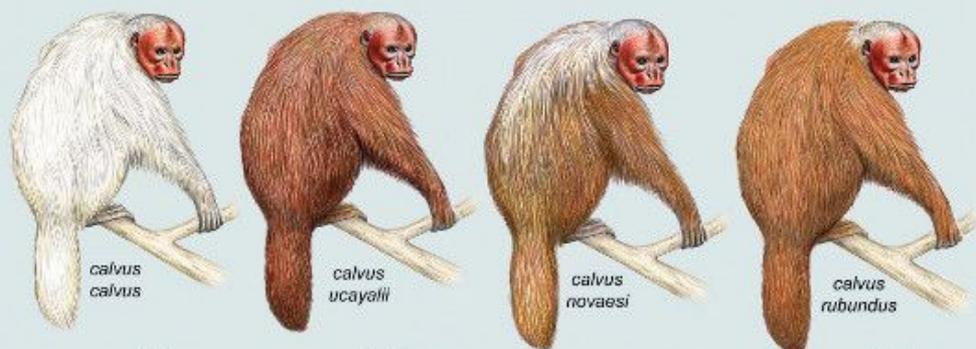
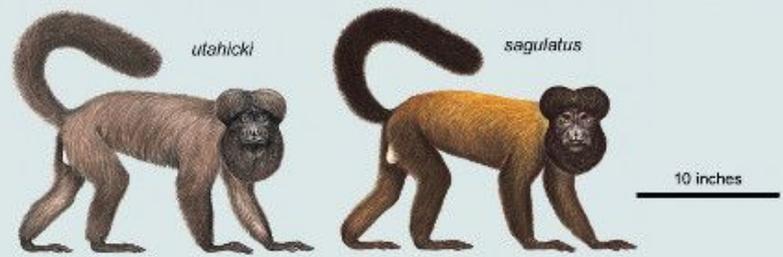
Distributions of the 7 species of Uacari monkeys









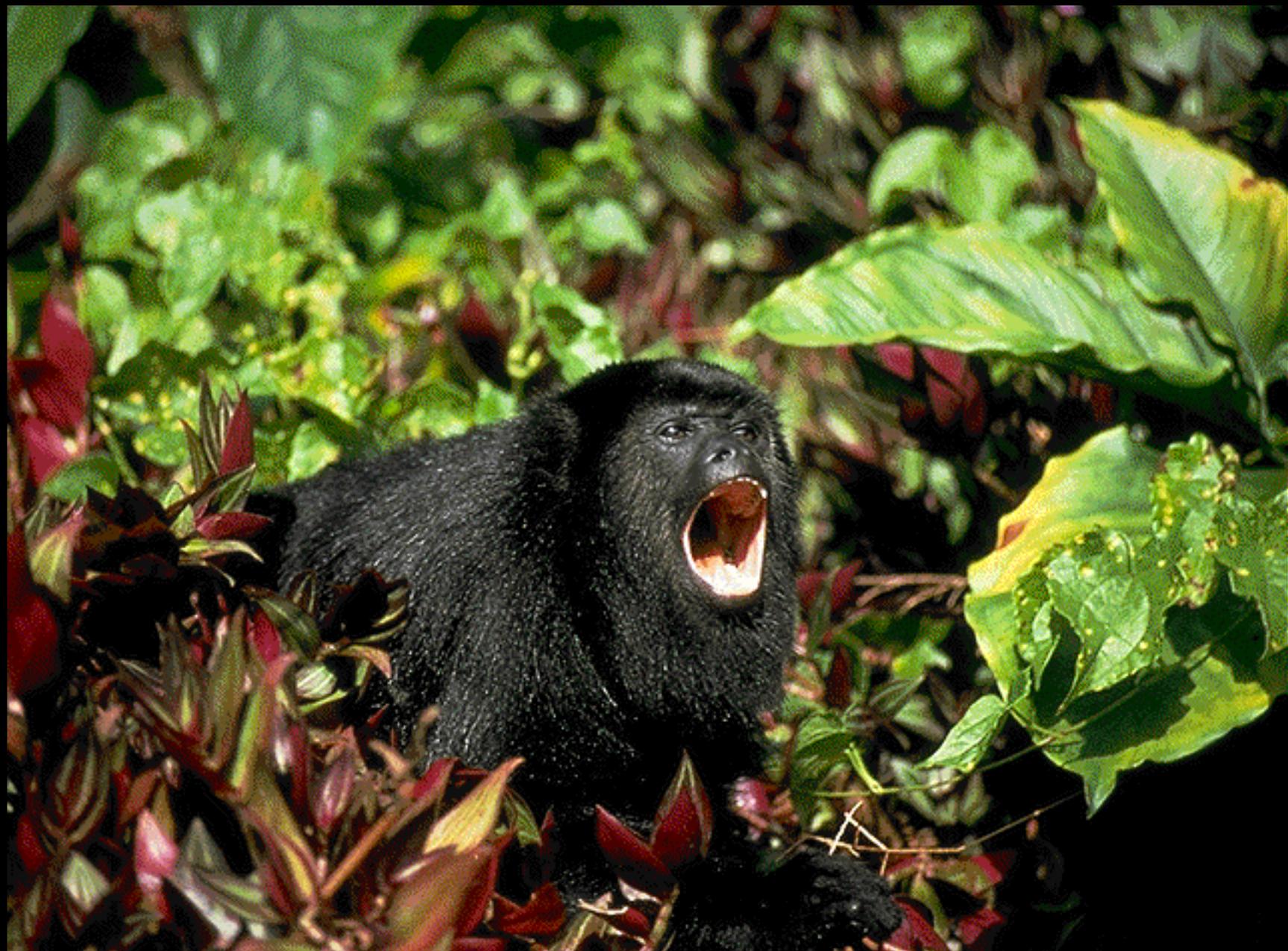


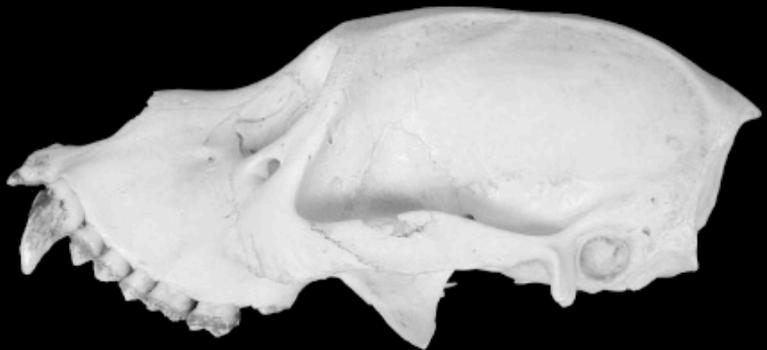








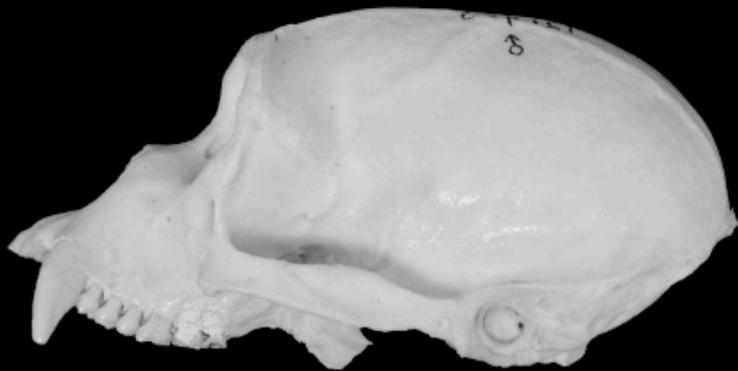
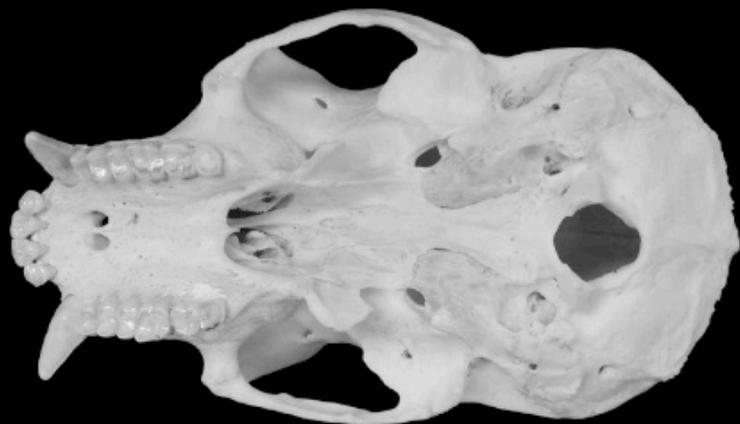


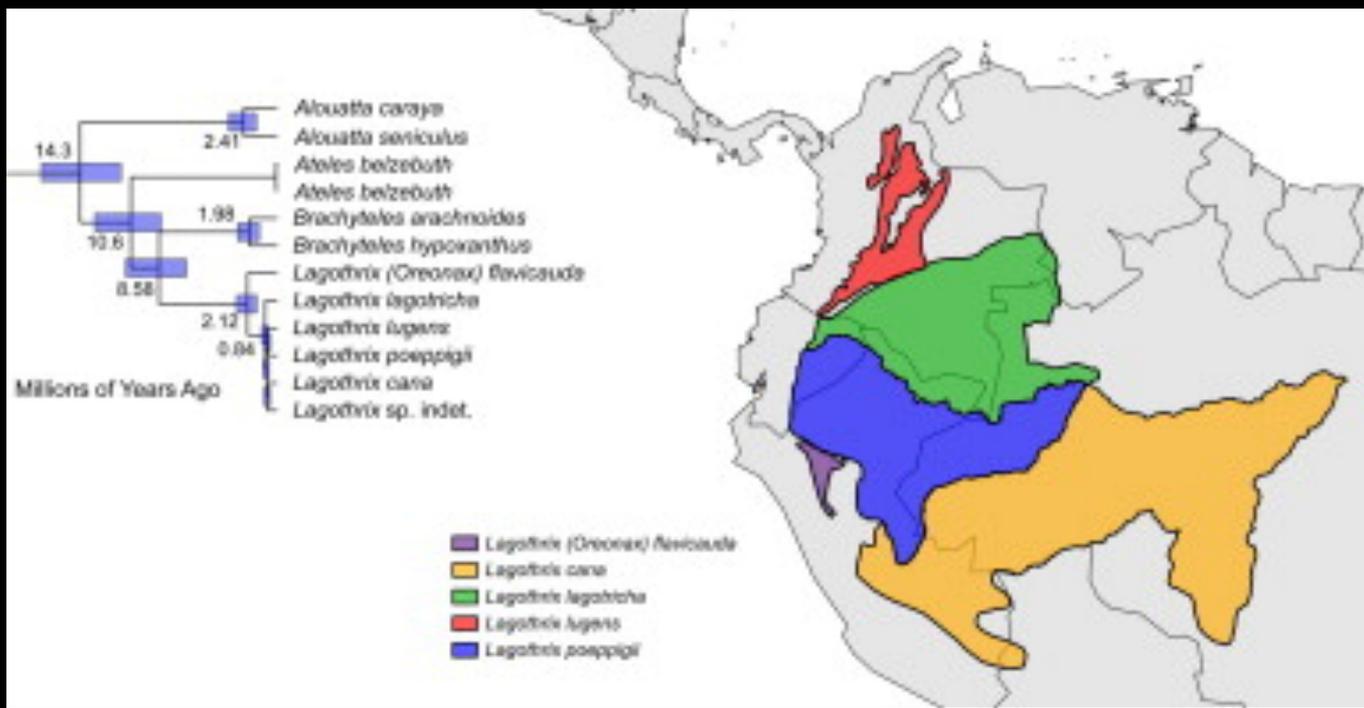




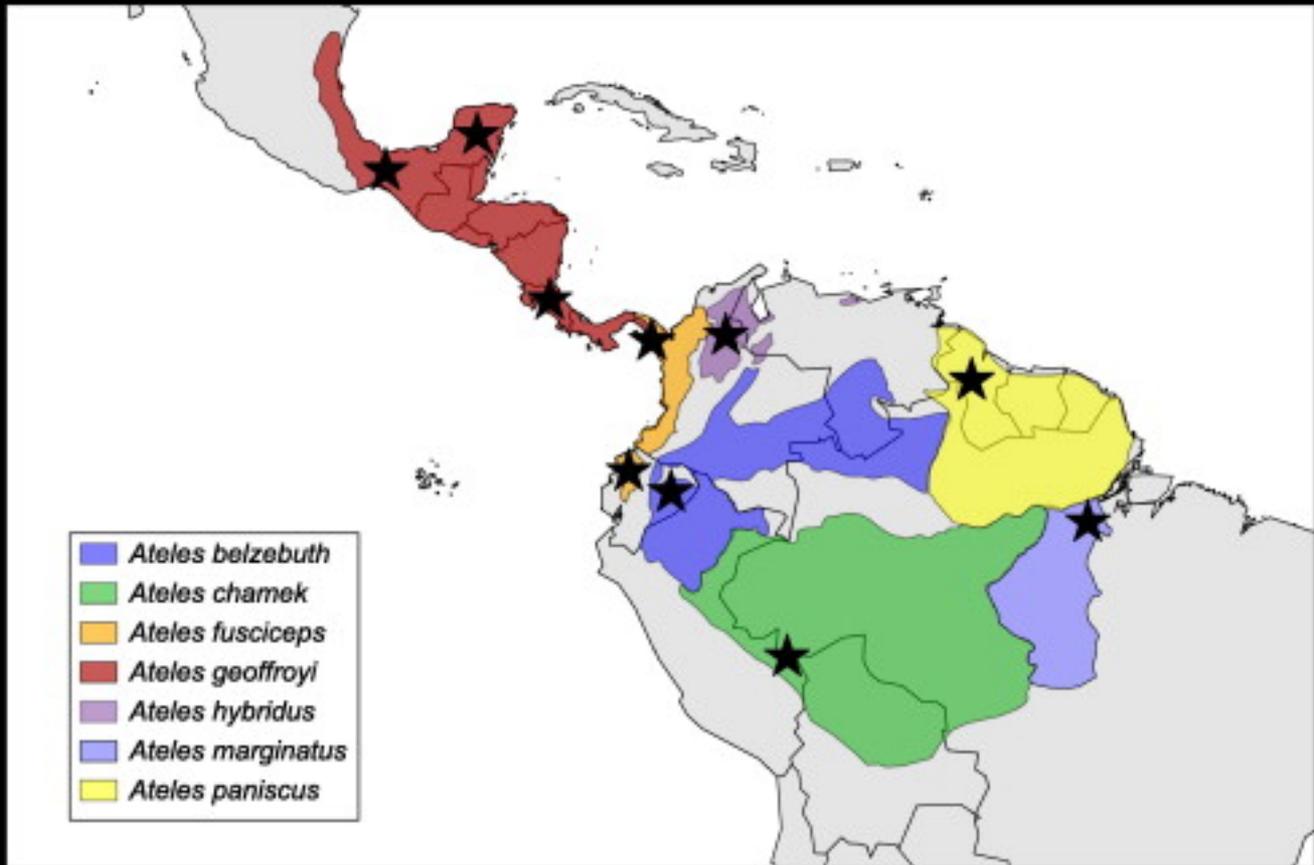






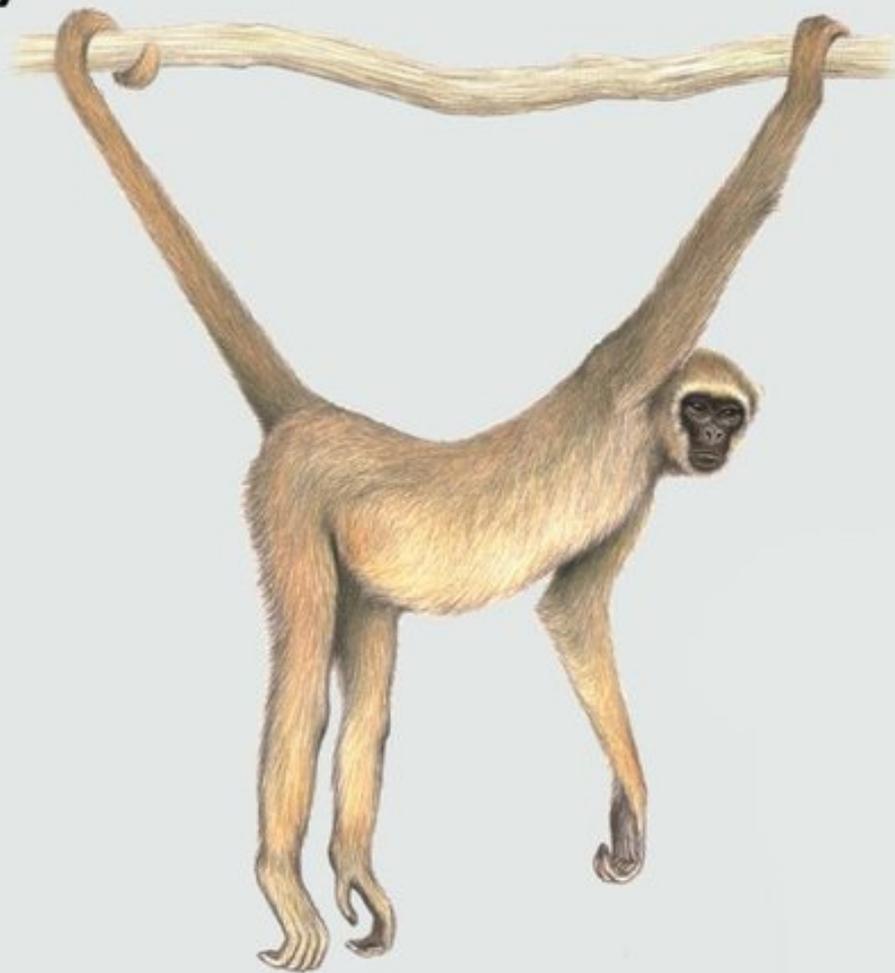




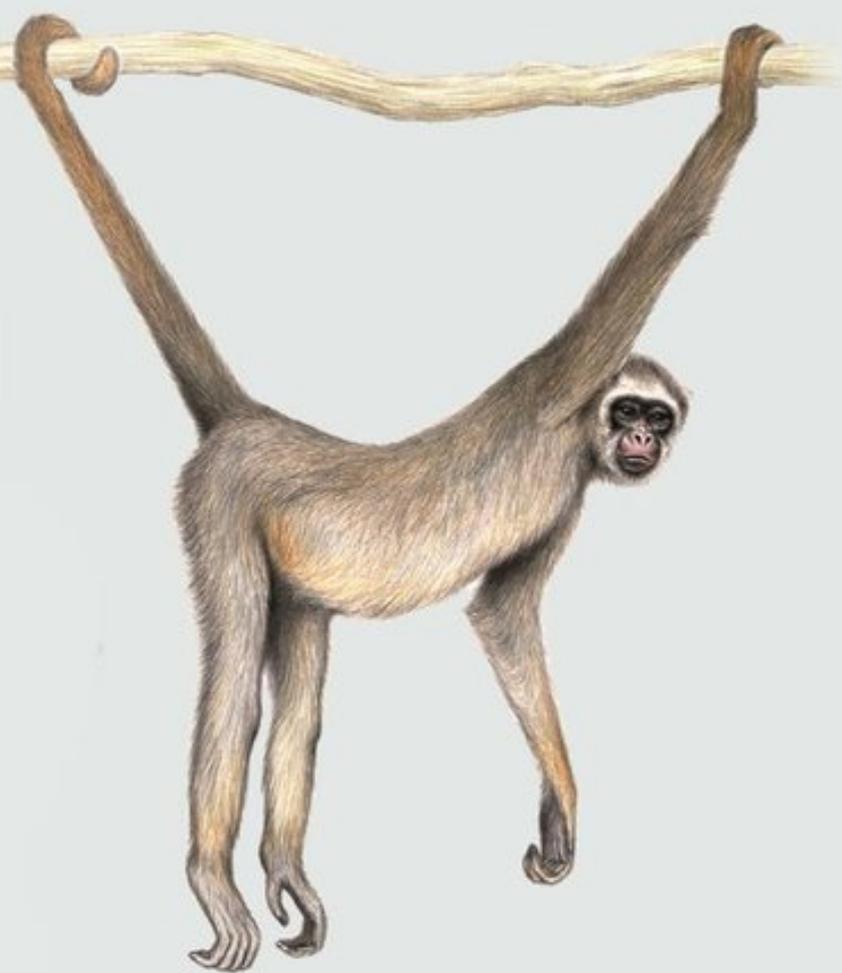




A)



B)



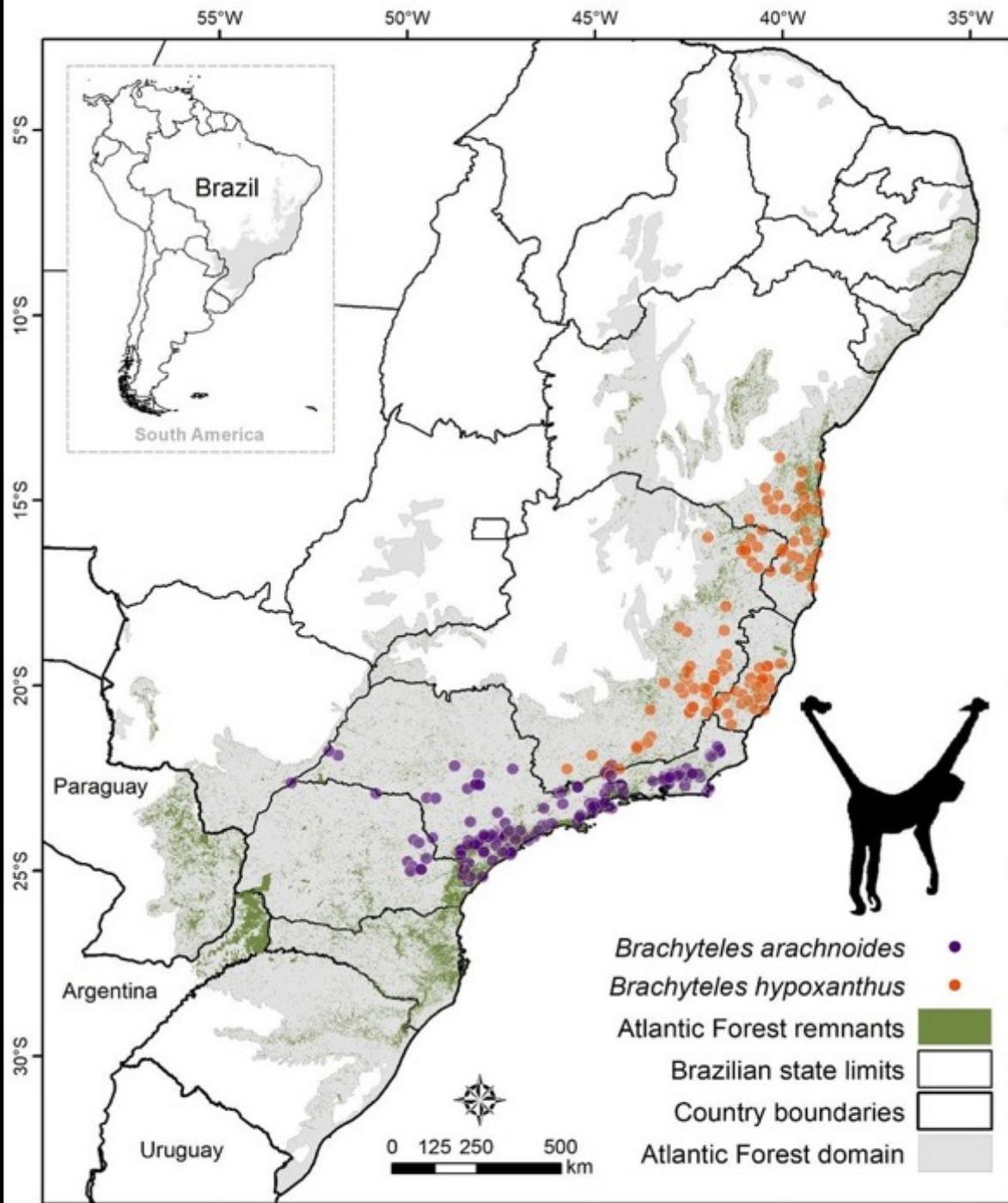


















PLATE 53

inches 20
cm 75

3

4

