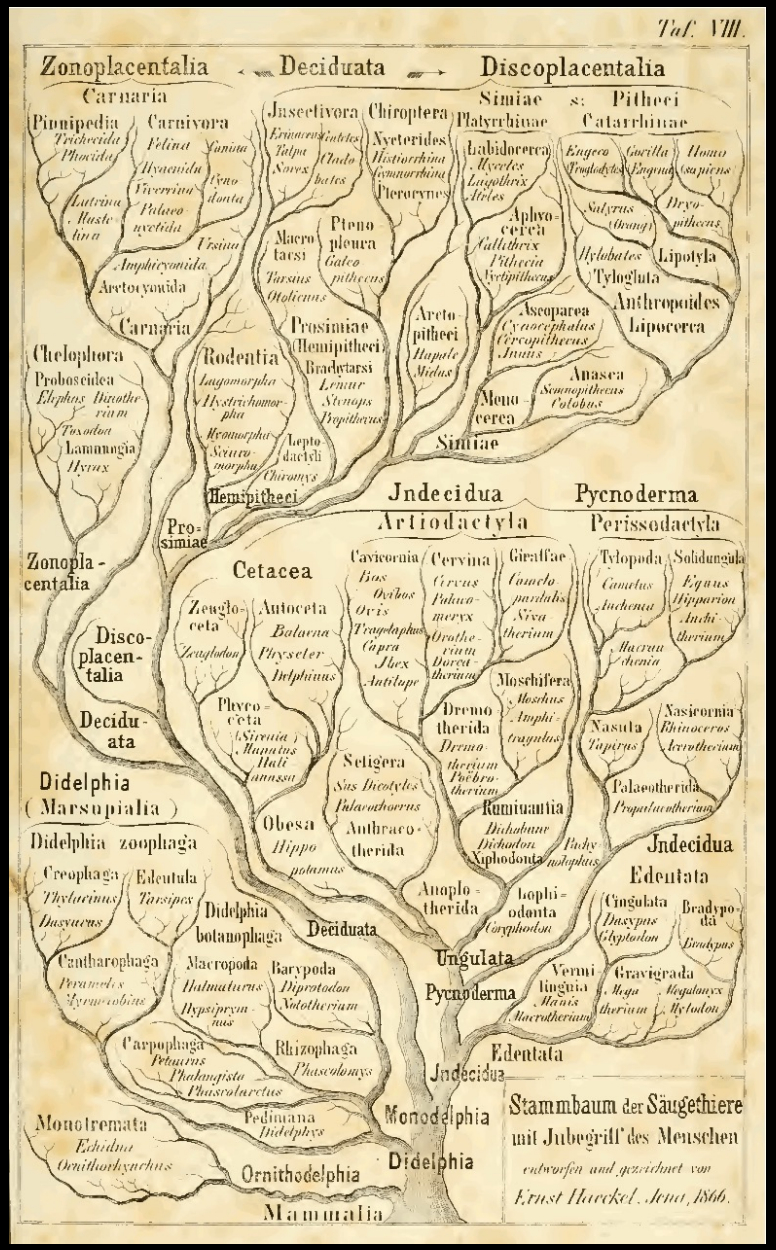
Biogeografia de Mamíferos da América do Sul



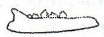
Biogeografia

-Estudo da distribuição geográfica dos organismos (Myers & Giller)

-Estudo dos organismos no espaço e no tempo (Cox & Moore)

- documentar e entender padrões espaciais de diversidade biológica; o estudo da distribuição dos organismos no passado e no presente (Lomolino et al.)

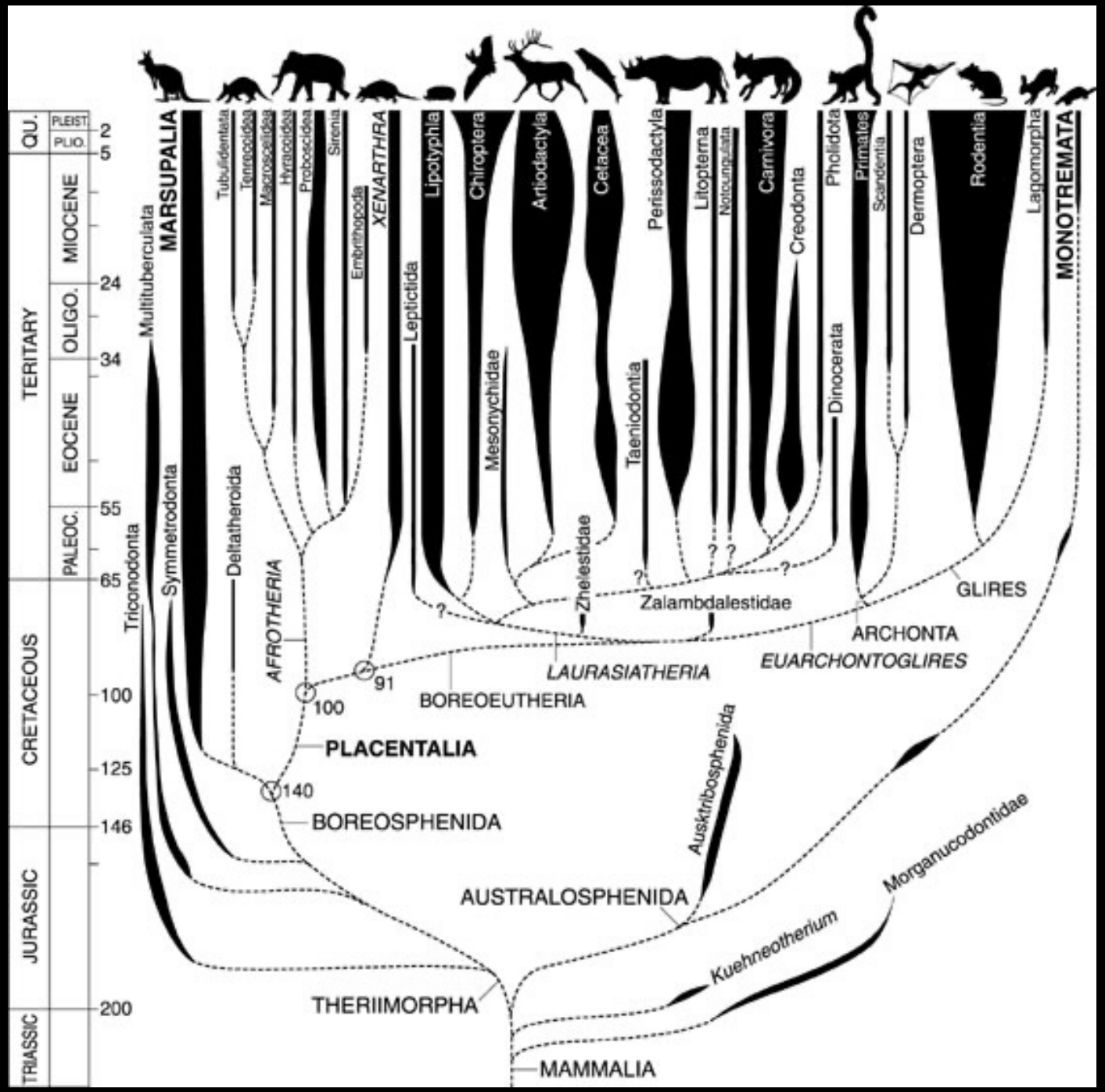
Como a diversidade biológica varia ao longo da geografia?

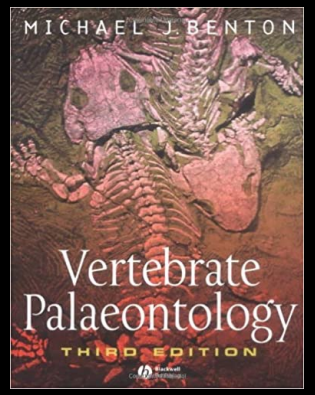
	Extinct	Extant
Monotremata		
 Platypoda	3	1
 Tachyglossa	0	2
Stem taxa to Theria		
 **Gondwanatheria**	75	0
 **Multituberculata**	3	0
 **Triconodonta**	17	0
 **Holotheria**	1	0
 **Kuhneotheria**	3	0
 **Symmetrodonta**	7	0
 **Amphidontoidea**	4	0
 **Spalacotherioidea**	11	0
 **Dryolestoidea**	25	0
 **Amphitheriidae**	1	0
 **Zatheria**	3	0
 **Peramura**	4	0
 **Tribosphenida**	2	0
 **Aegialodontia**	1	0
 **Theria,** order indet	21	0

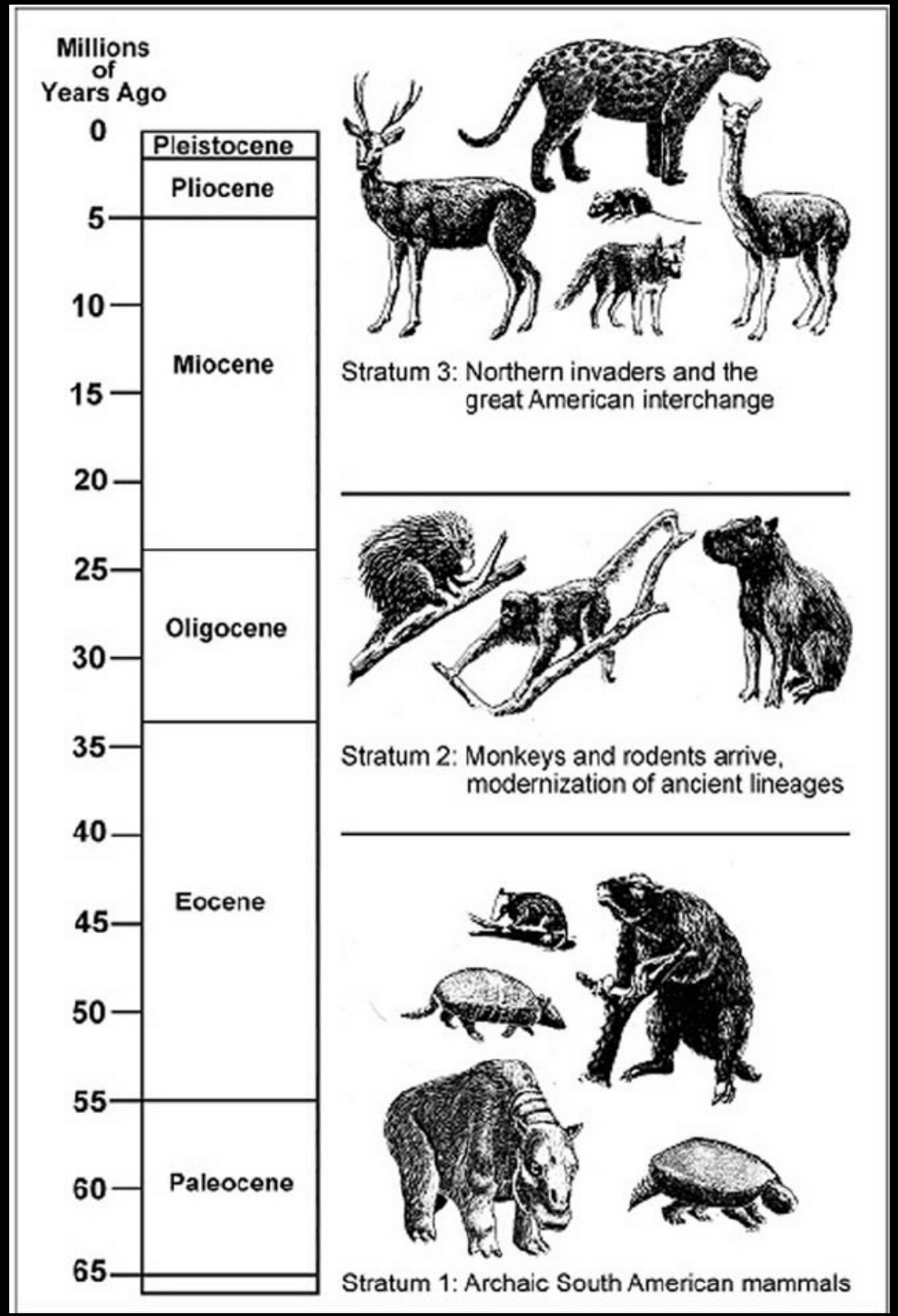
	Extinct	Extant
Metatheria		
 Metatheria, order indet	7	0
 Archimetatheria	8	0
Marsupialia		
 Microbiotheria	6	1
 Eometatheria	1	1
 Dasyuromorpha	8	14
 Peramelia	2	8
 Diprotodontia	77	34
 Ameridelphia	8	0
 Didelphimorphia	42	14
 **Paucituberculata**	40	3
 **Sparassodonta**	39	0
Eutheria		
 Eutheria, order indet	20	0
Placentalia		
 **Bibymalagasia**	1	0
 Xenartha	208	12
 Pholidota	17	4
 **Leptictida**	29	0
 **Anagalida**	24	0

	Extinct	Extant
Placentalia		
 Macroscelidea	8	4
 **Mimotonida**	3	0
 Lagomorpha	56	12
 **Mixodontia**	12	0
 Rodentia	743	430
 Cimolesta	128	4
Creodonta	61	0
Carnivora	354	108
Lipotyphla	205	53
Chiroptera	41	178
Primates	218	54
Scandentia	2	5
Ungulata, order indet	1	0
Tubulidentata	4	1
Procreodi	29	0
Condylarthra	59	0
Arctostylopida	9	0

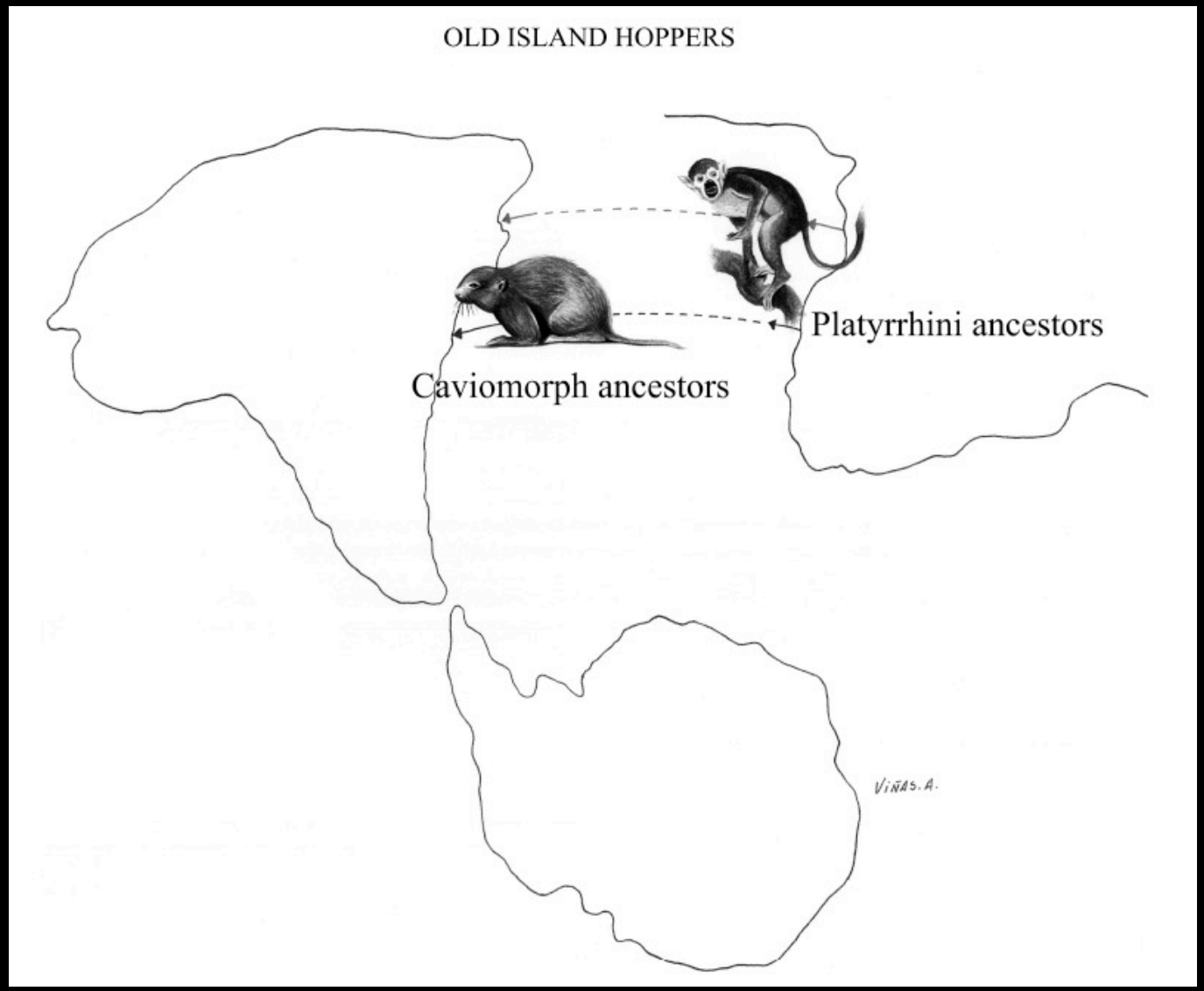
	Extinct	Extant
Placentalia		
Cete	238	40
Artiodactyla	601	82
Meridiungulata, order indet	10	0
Litopterna	51	0
Notoungulata	167	0
Astrapotheria	16	0
Xenungulata	2	0
Pyrotheria	6	0
Altungulata, order indet	1	0
Perissodactyla	238	6
Hyracoidea	18	3
Embrithopoda	5	0
Sirenia	29	2
Desmostylia	6	0
Proboscidea	42	2


QU.
PLEIST.
PLIO.
TERTIARY
MIOCENE
OLIGO.
EOCENE
PALEOC.
CRETACEOUS
JURASSIC
TRIASSIC
2
5
24
34
55
65
100
125
146
200
MARSUPALIA
Multituberculata
Tubulidentata
Tenrecoidea
Macroscelidea
Hyracoidea
Proboscidea
Sirenia
Embrithopoda
XENARTHRA
Lipotyphla
Chiroptera
Artiodactyla
Cetacea
Perissodactyla
Litopterna
Notoungulata
Carnivora
Creodonta
Pholidota
Primates
Scandentia
Dermoptera
Rodentia
Lagomorpha
MONOTREMATA
Triconodonta
Symmetrodonta
Deltatheroida
AFROTHERIA
Leptictida
Mesonychidae
Zhelestidae
Taeniodontia
Dinocerata
Zalambdalestidae
GLIRES
ARCHONTA
EUARCHONTOGLIRES
LAURASIATHERIA
91
100
BOREOEUTHERIA
PLACENTALIA
140
BOREOSPHENIDA
Ausktribosphenida
AUSTRALOSPHENIDA
Morganucodontidae
Kuehneotherium
THERIIMORPHA
MAMMALIA

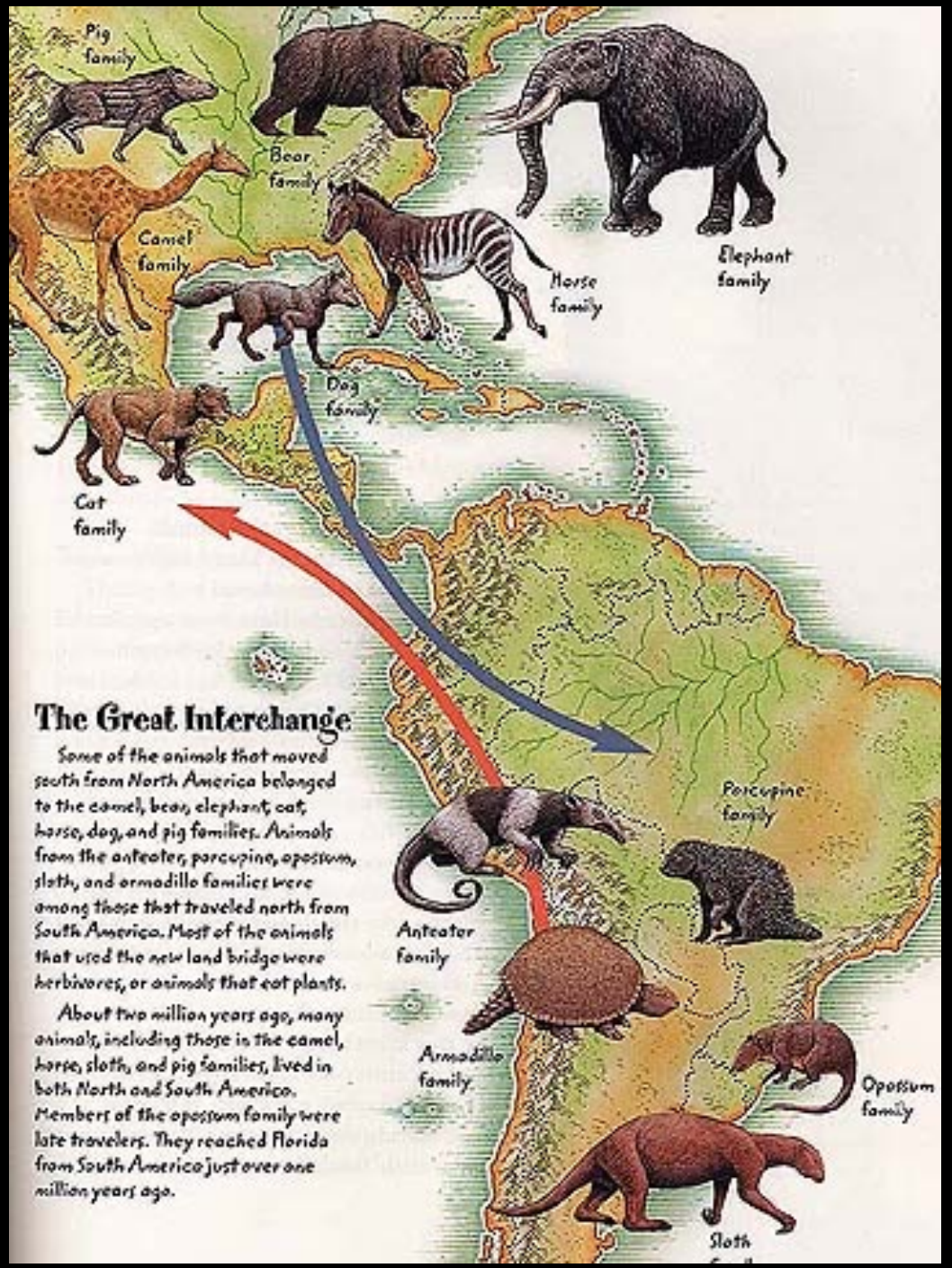

MICHAEL J. BENTON
Vertebrate Palaeontology
THIRD EDITION


Millions of Years Ago
0
Pleistocene
Pliocene
5
10
Miocene
15
20
25
Oligocene
30
35
40
Eocene
45
50
55
Paleocene
60
65
Stratum 3: Northern invaders and the great American interchange
Stratum 2: Monkeys and rodents arrive, modernization of ancient lineages
Stratum 1: Archaic South American mammals


CUBA
PARALOUATTA
HAITI
DOMINICAN REPUBLIC
JAMAICA
XENOTHRIX
INSULACEBUS
ANTILLOTHRIX
GUYANA
SURINAME
LA GUYANE
VENEZUELA
La Venta
STIRTONIA
NEOSAIMIRI
CEBUPITHECIA
LAGONIMICO
PATASOLA
NUCIRUPTOR
MOHANAMICO
? AOTUS
? MICODON
LAVENTIANA
MIOCALLICEBUS
COLOMBIA
ECUADOR
PERU
Rio Acre
cf STIRTONIA
SOLIMOEA
ACRECEBUS
BRAZIL
Atalaya
? CEBINE
BOLIVIA
Salla
BRANISELLA
? SZALATAVUS
Toca de Boa Vista
CAIPORA
Lagoa Santa
PROTOPITHECUS
PARAGUAY
CHILE
ARGENTINA
Rio Las Leñas
CHILECEBUS
URUGUAY
Cañadon del Tordillo
PROTEROPITHECIA
Sacanana
TREMACEBUS
? SORIACEBUS
Gaiman
DOLICHOCEBUS
Pinturas
SORIACEBUS
CARLOCEBUS
Gran Barranca
MAZZONICEBUS
Rio Gallegos
HOMUNCULUS, KILLIKAIKI

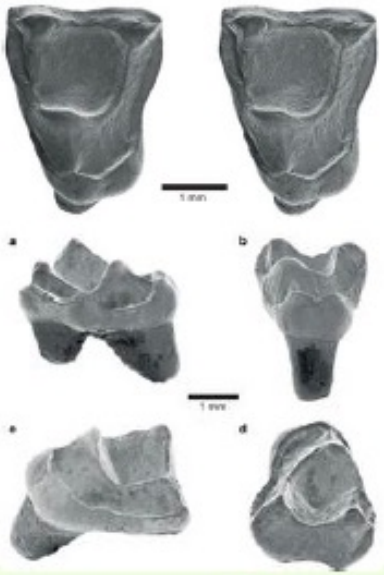

OLD ISLAND HOPPERS
Platyrrhini ancestors
Caviomorph ancestors
VIÑAS. A.

Estrato 2

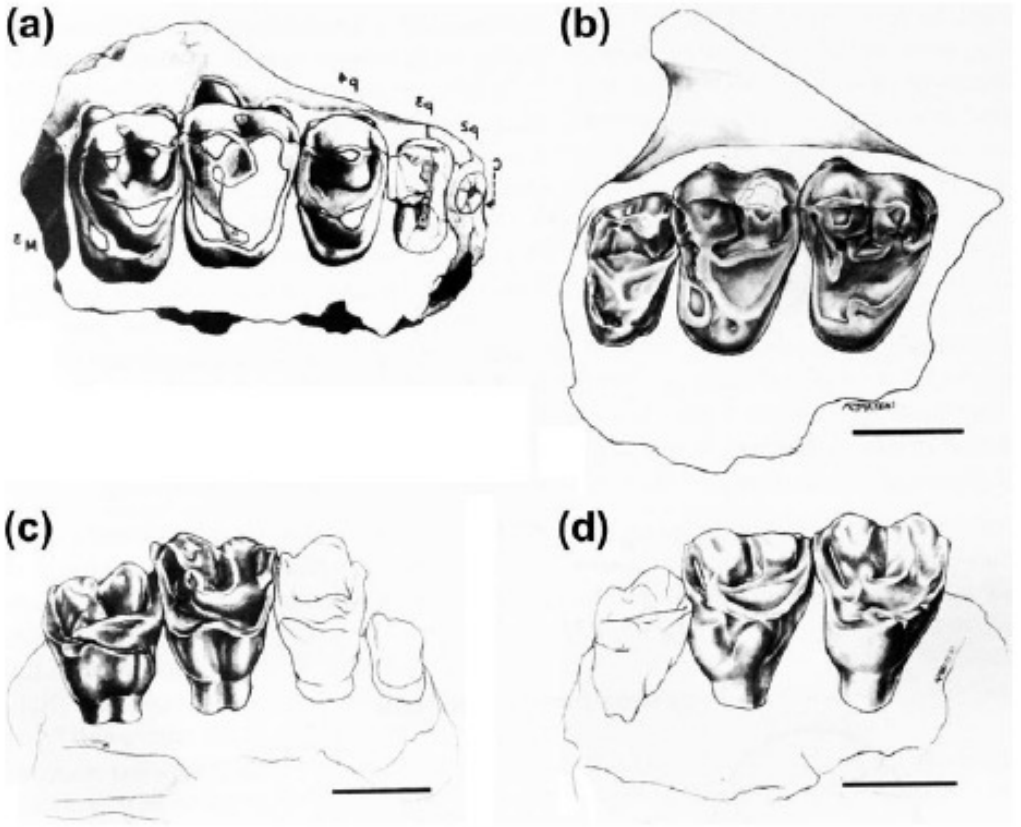


Family	Common name
Northern families	**To the South**
Soricidae	Shrews
Leporidae	Rabbits
Heteromyidae	Pocket mice
Geomyidae	Pocket gophers
Sciuridae	Squirrels
Muridae	Field mice
Felidae	Cats
Mustelidae	Otters
Mephistidae	Skunks
Canidae	Dogs
Procyonidae	Raccoons
Ursidae	Bears
Gomphotheriidae	Elephantoids
Tapiridae	Tapirs
Equidae	Horses
Agoutidae	Pacas
Dasyproctidae	Agoutis
Echimyidae	Spiny rats
Tayassuidae	Peccaries
Camelidae	Camels
Cervidae	Deer
Southern families	**To the North**
Dasypodidae	**Armadillos**
Pampatheriidae	Giant armadillos
Glyptodontidae	Glyptodonts
Megalonychidae	Two-toed sloth
Mylodontidae	Ground sloth
Megatheriidae	Ground sloth
Bradypodidae	**Three-toed sloth**
Myrmecophagidae	**Anteater**
Callitrichidae	**Tamarins, marmosets**
Cebidae	**Other primates**
Hydrochoeridae	Capybaras
Caviidae	Guinea pigs
Toxodontidae	Toxodonts
Didelphidae	**Opossums**

OLIGOCENO (34 – 23 MA)



Perupithecus ucayaliensis



Branisella boliviana (a,c) e *Szalatavus attricuspis* (b,d).

Ucayalipithecus perdita (35 – 32 MA)

RESEARCH

PALEONTOLOGY

A parapithecid stem anthropoid of African origin in the Paleogene of South America

Erik R. Seiffert[1,2]*, Marcelo F. Tejedor[3,4,5], John G. Fleagle[6], Nelson M. Novo[3], Fanny M. Cornejo[7,8], Mariano Bond[9], Dorien de Vries[7], Kenneth E. Campbell Jr.[10]

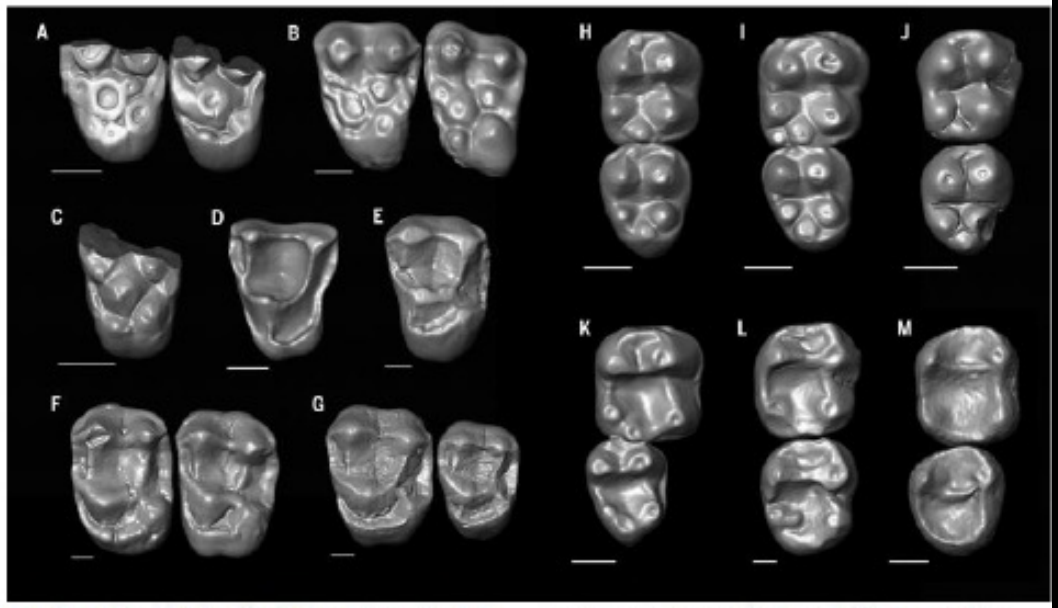
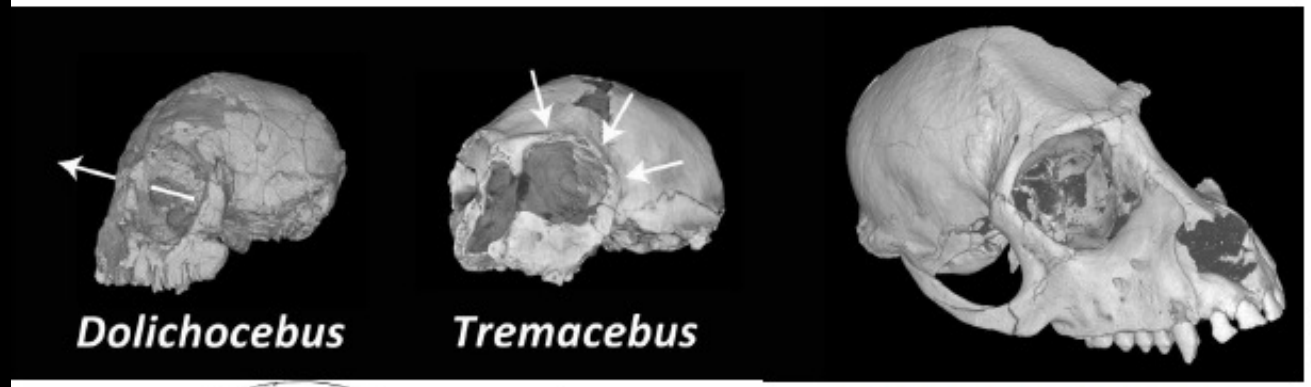
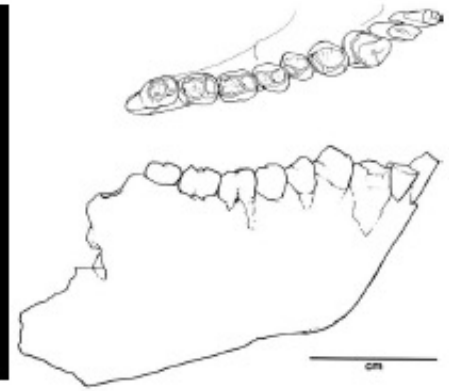


Fig. 1. Upper and lower molars of *Ucayalipithecus perdita* compared with those of parapithecids and platyrrhines. (**A**) CPI-7937, a partial right upper Ranas, Pinturas Formation, Argentina]. (**G**) Left M^{1-2} of the early Miocene platyrrhine *Panamacebus transitus* [UF (Florida Museum of Natural History)

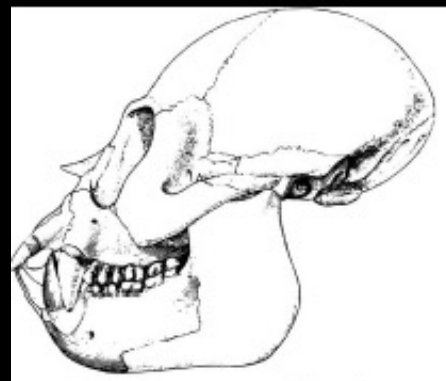
MIOCENO (23 – 5 MA)





Homunculus patagonicus

Sorlacebus ameghinorum

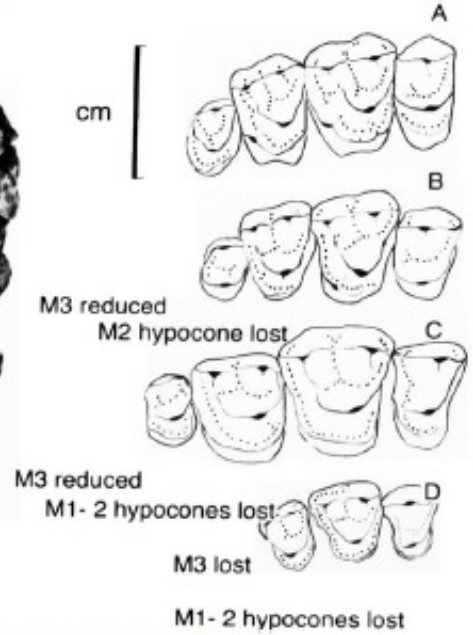


Cebupithecia sarmientoi

Neosaimiri fieldsi

Mohanamico hershkovitzi

Stirtonia tatacoensis



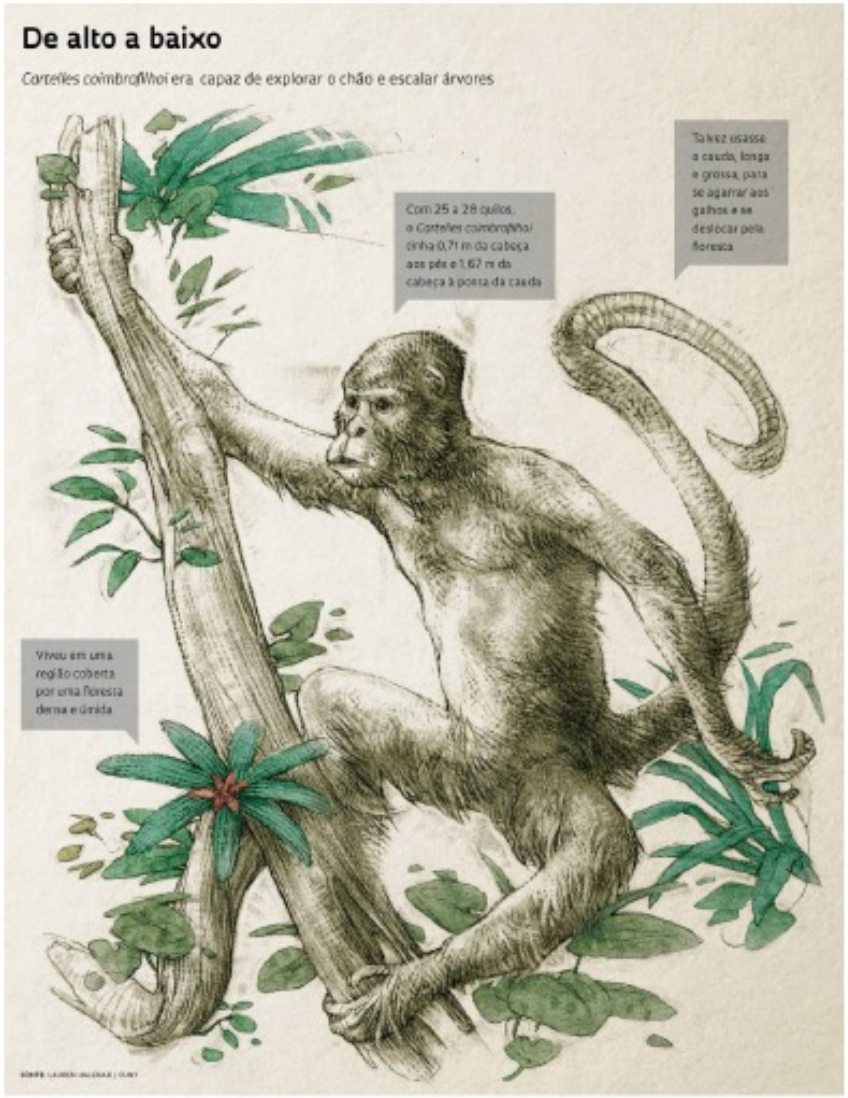
Lagonimico conclutatus

PLEISTOCENO (2.6 MA – 11,700 anos)

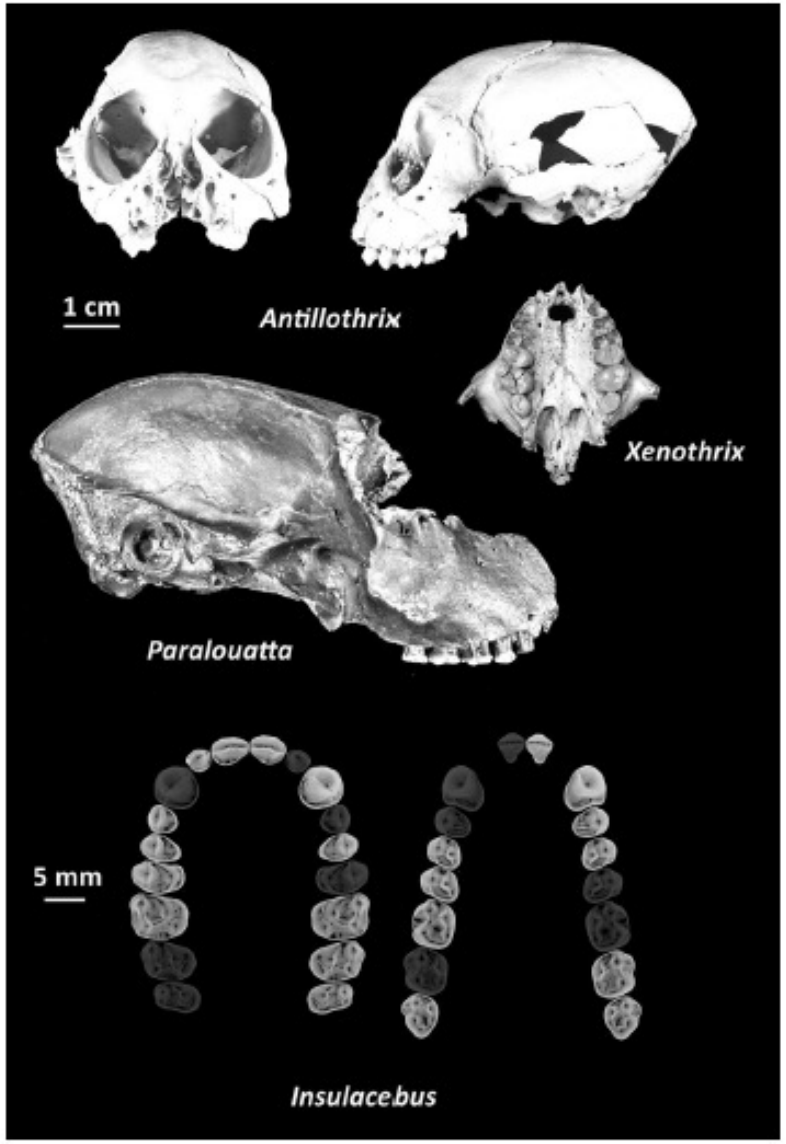
Protopithecus brasiliensis

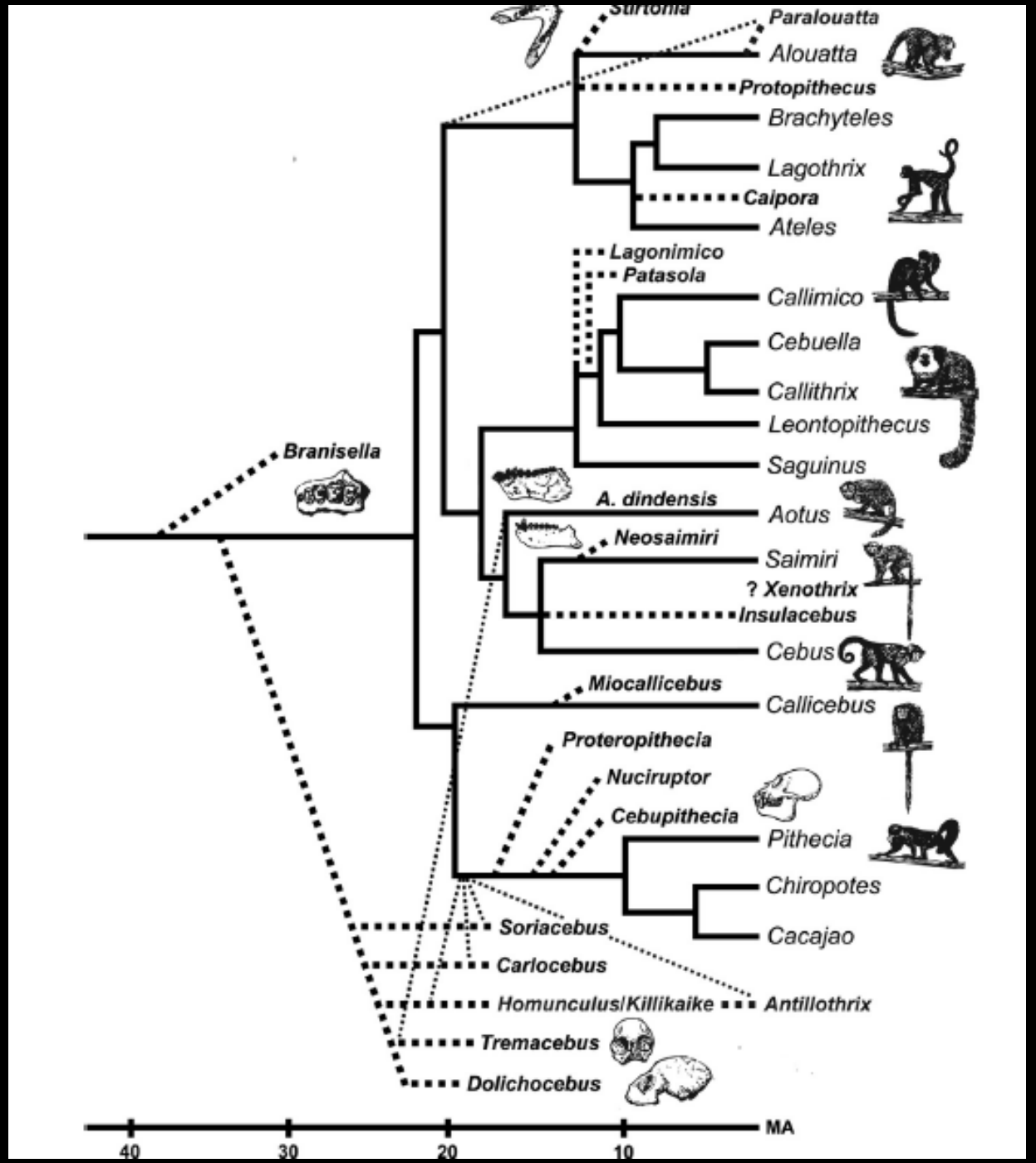
Caipora bambuiorum

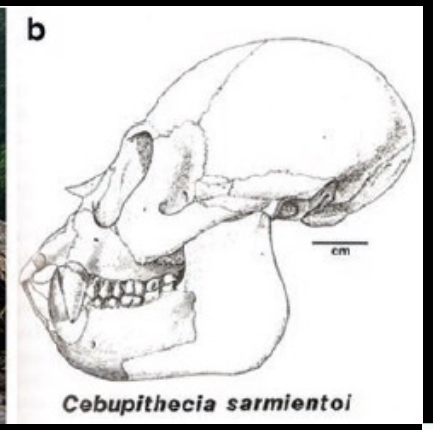
1 cm

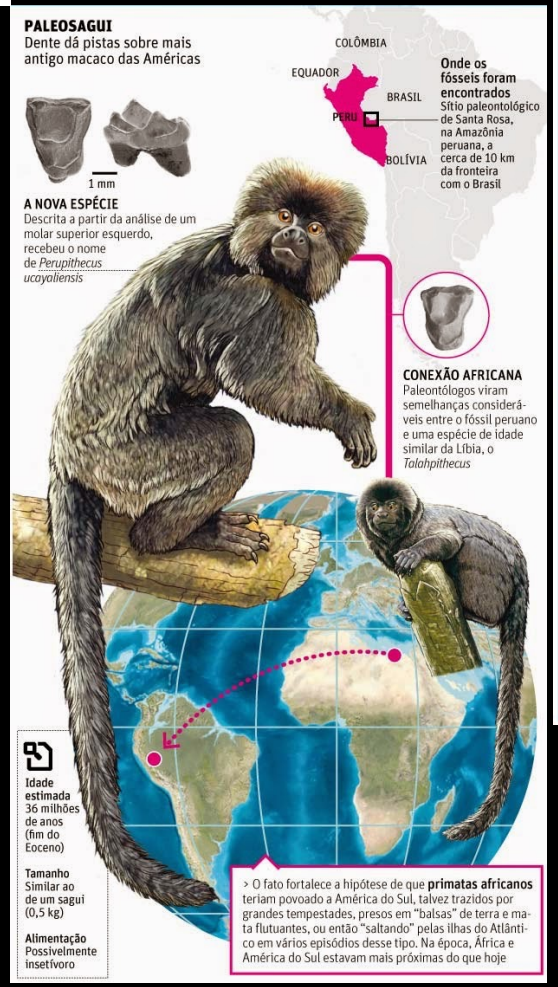


Os primatas do Caribe



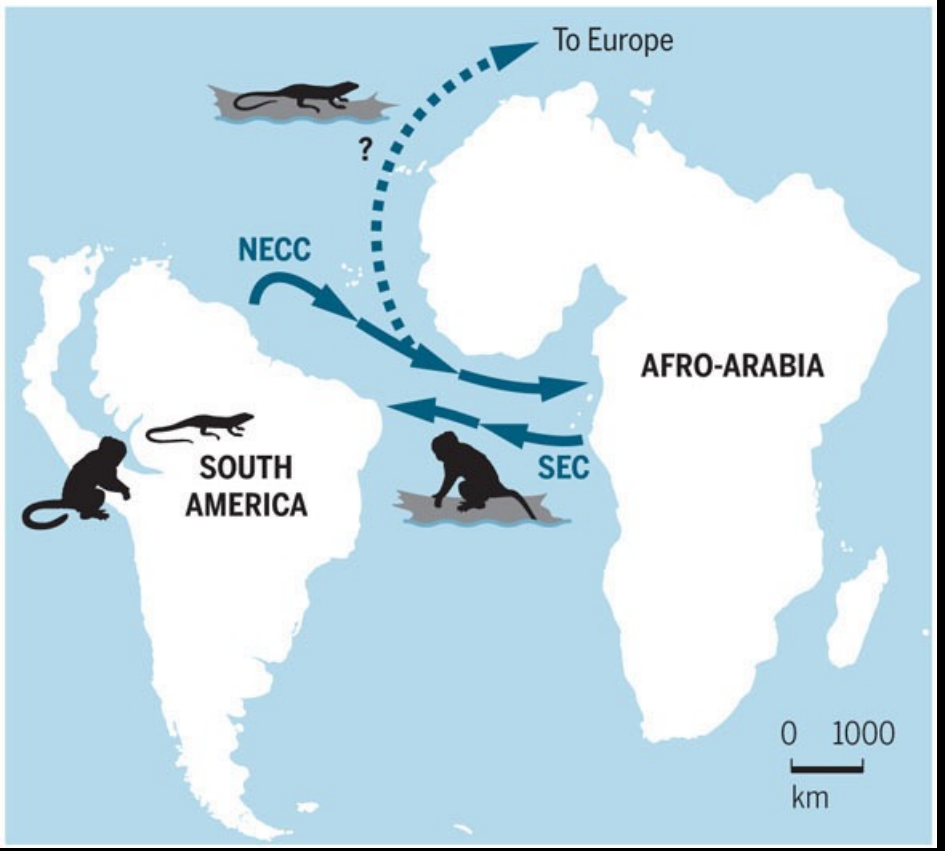

Stirtonia
Paralouatta
Alouatta
Protopithecus
Brachyteles
Lagothrix
Caipora
Ateles
Lagonimico
Patasola
Callimico
Cebuella
Callithrix
Leontopithecus
Saguinus
Branisella
A. dindensis
Aotus
Neosaimiri
Saimiri
? Xenothrix
Insulacebus
Cebus
Miocallicebus
Callicebus
Proteropithecia
Nuciruptor
Cebupithecia
Pithecia
Chiropotes
Cacajao
Soriacebus
Carlocebus
Homunculus/Killikaike
Antillothrix
Tremacebus
Dolichocebus
MA
40
30
20
10





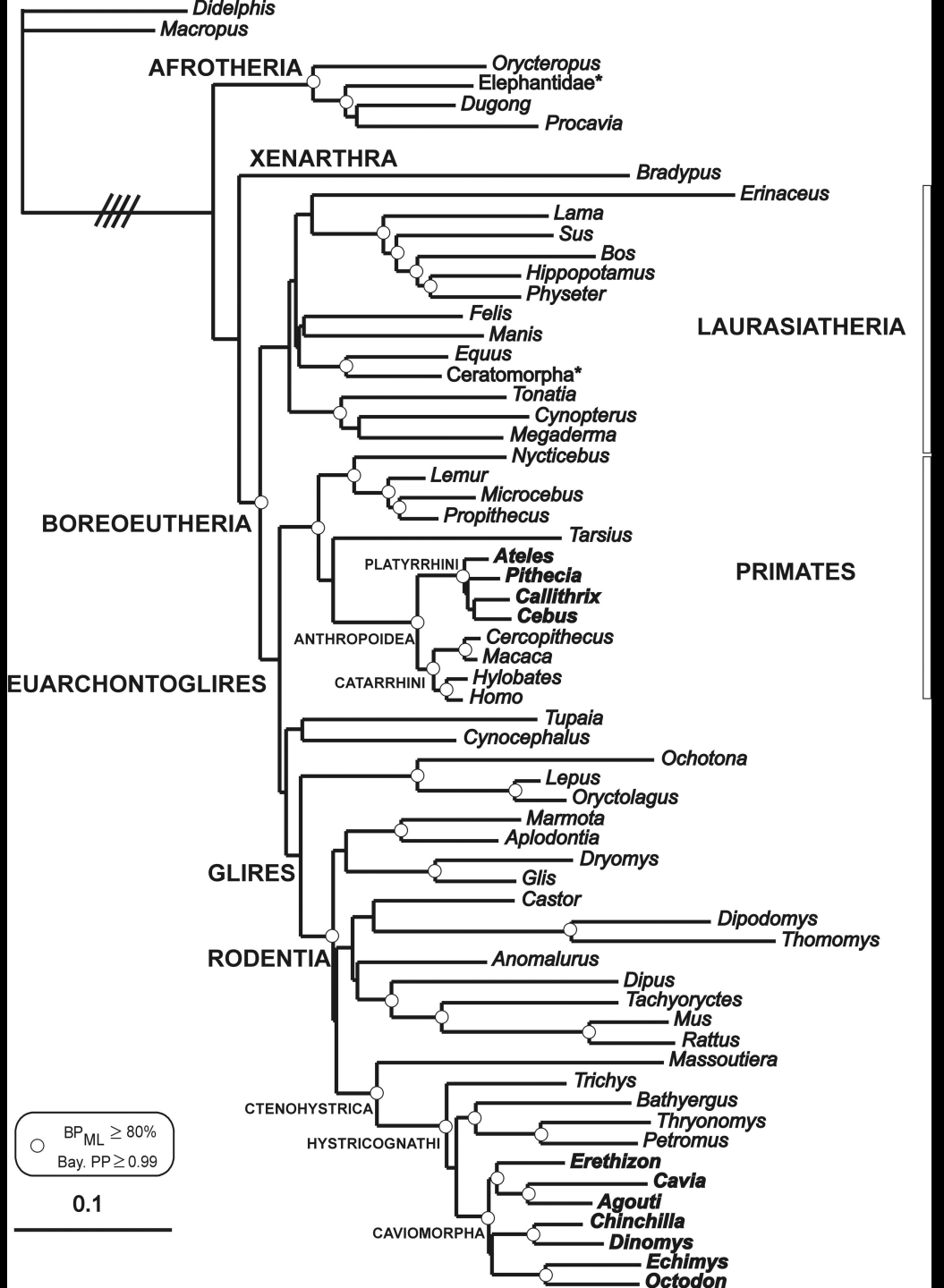
Rafting route

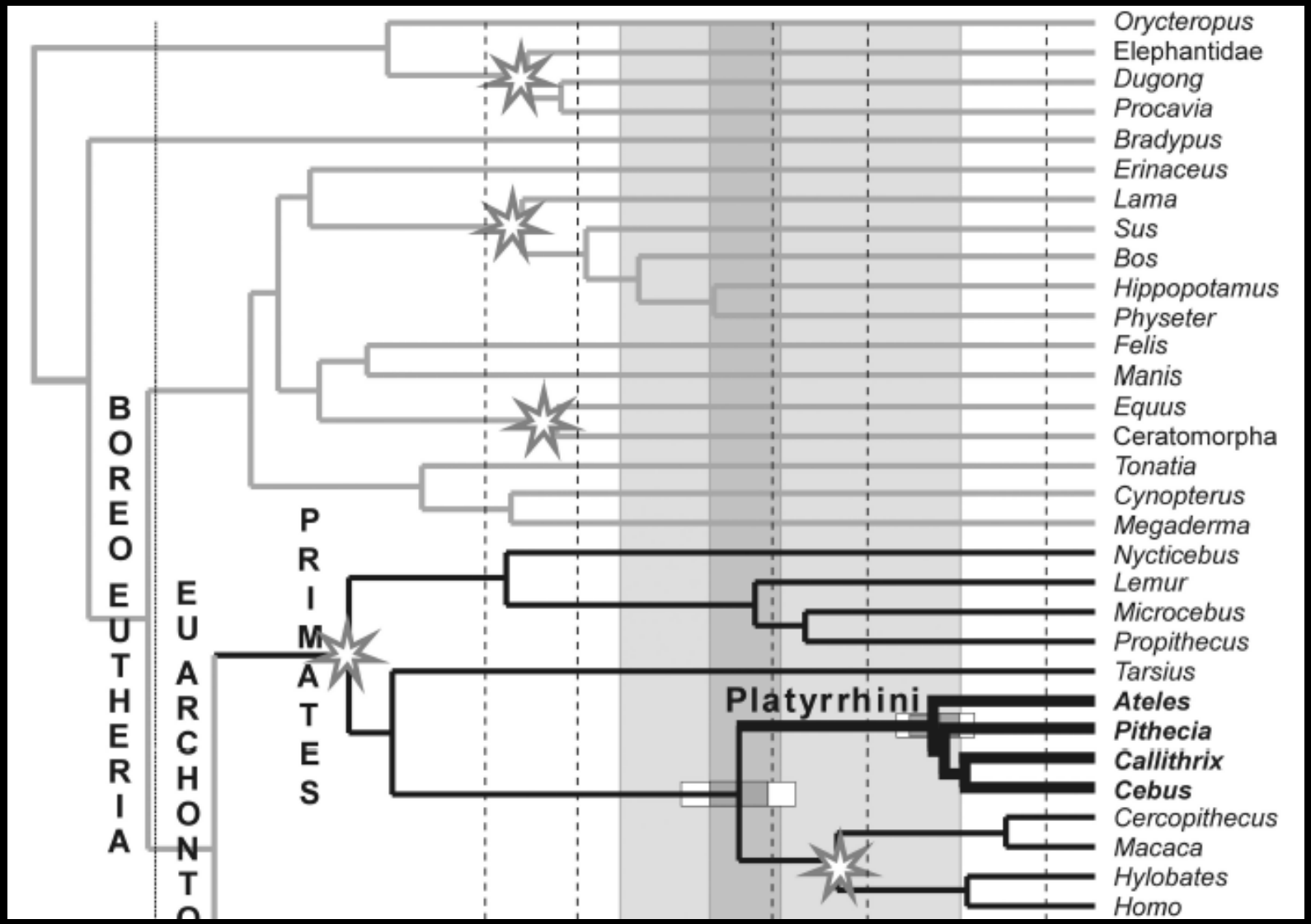
A *Ucayalipithecus* monkey or its ancestor sailed from West Africa to South America on the south equatorial paleocurrent (SEC). Recent data (*11*) suggest that teiid lizards crossed over from South America on the north equatorial countercurrent (NECC), eventually arriving in Eocene Europe. Continental positions are from the Oligocene.



Arrival and Diversification of Caviomorph Rodents and Platyrrhine Primates in South America

Céline Poux,[1,2] Pascale Chevret,[1] Dorothée Huchon,[3] Wilfried W. de Jong,[2] and Emmanuel J. P. Douzery[1]




Orycteropus
Elephantidae
Dugong
Procavia
Bradypus
Erinaceus
Lama
Sus
Bos
Hippopotamus
Physeter
Felis
Manis
Equus
Ceratomorpha
Tonatia
Cynopterus
Megaderma
Nycticebus
Lemur
Microcebus
Propithecus
Tarsius
Platyrrhini
Ateles
Pithecia
Callithrix
Cebus
Cercopithecus
Macaca
Hylobates
Homo
BOREOEUTHERIA
EUARCHONTO
PRIMATES

Annual Review of Anthropology

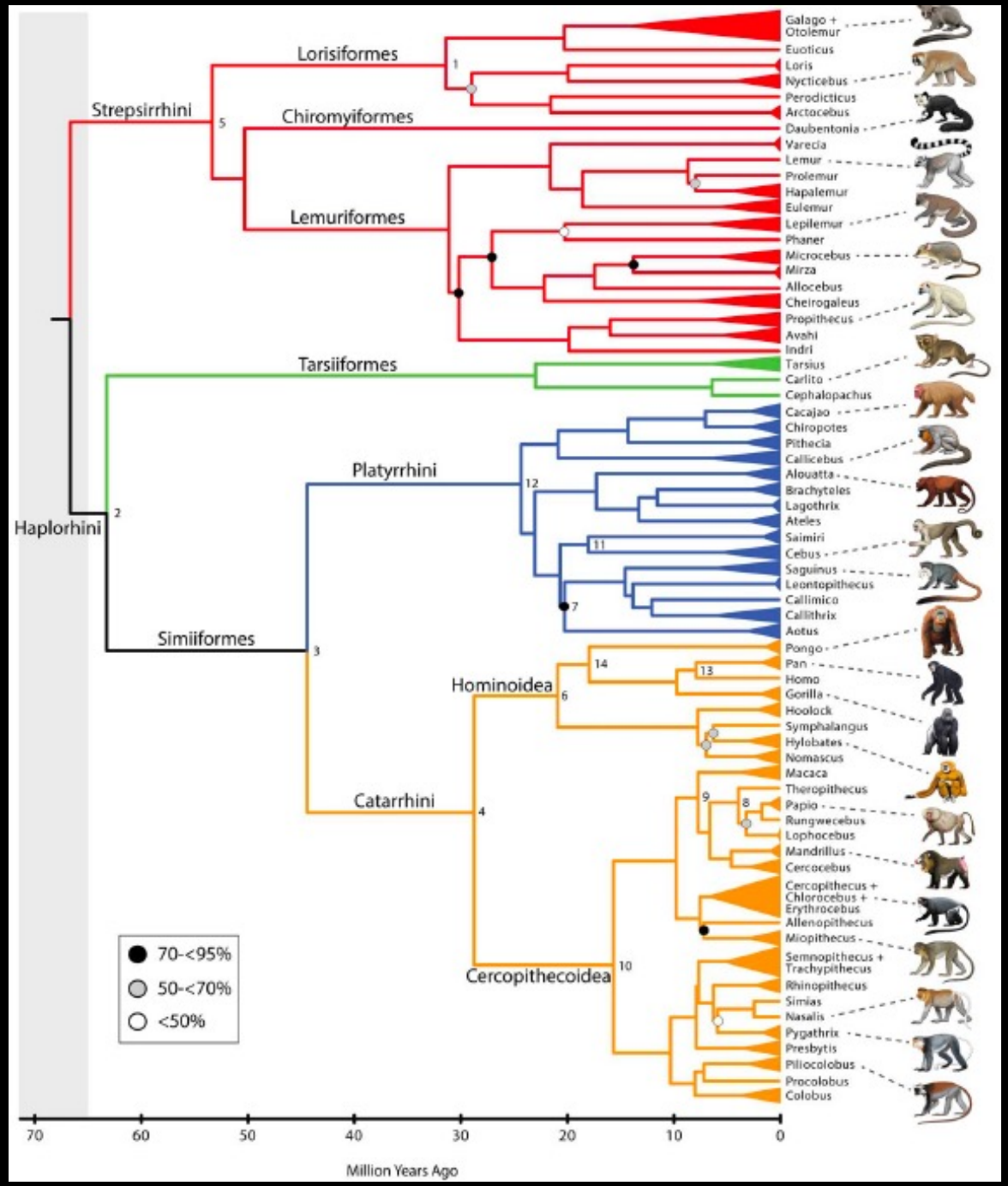
The Monkeying of the Americas: Primate Biogeography in the Neotropics*

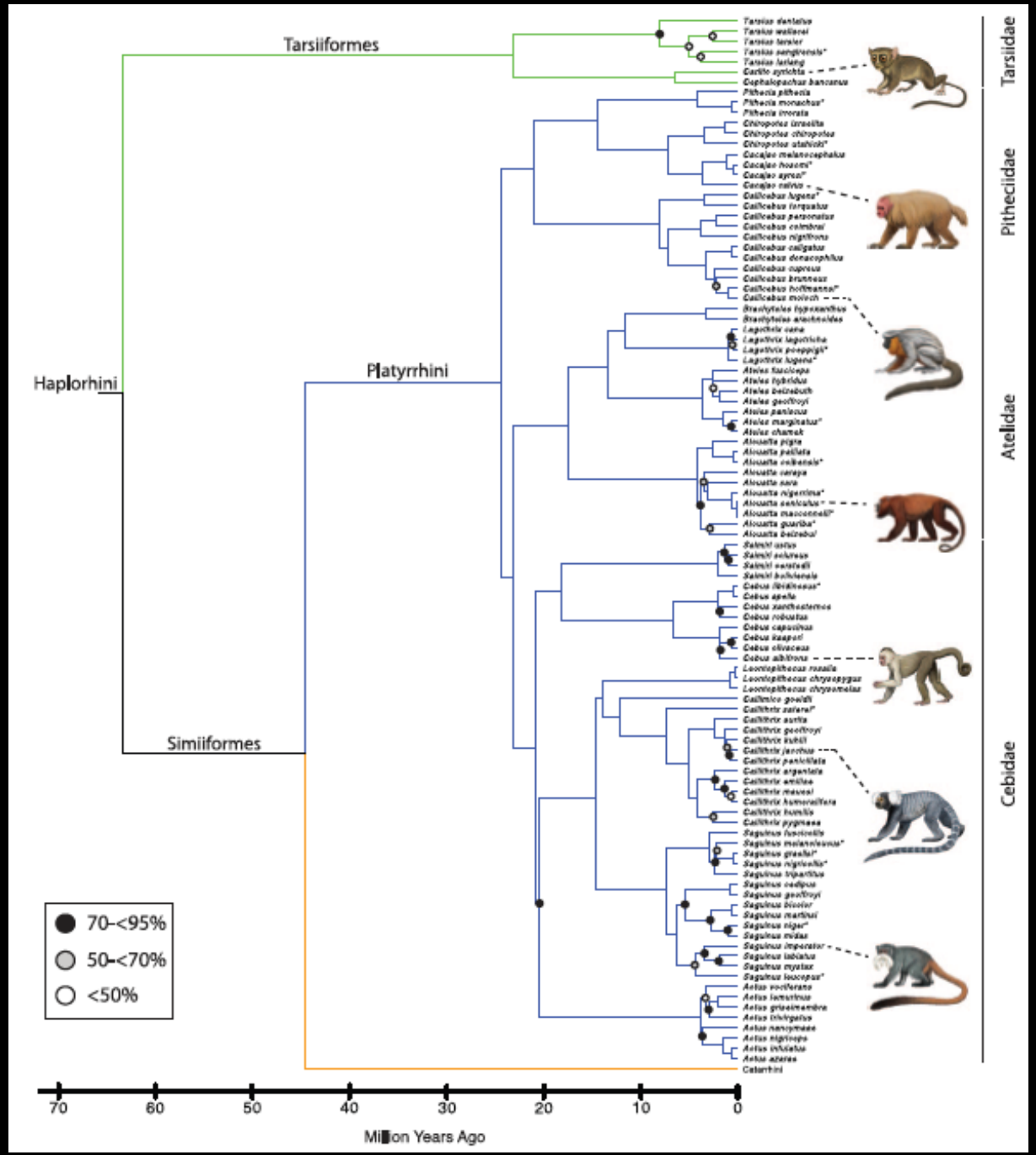
Jessica Lynch Alfaro

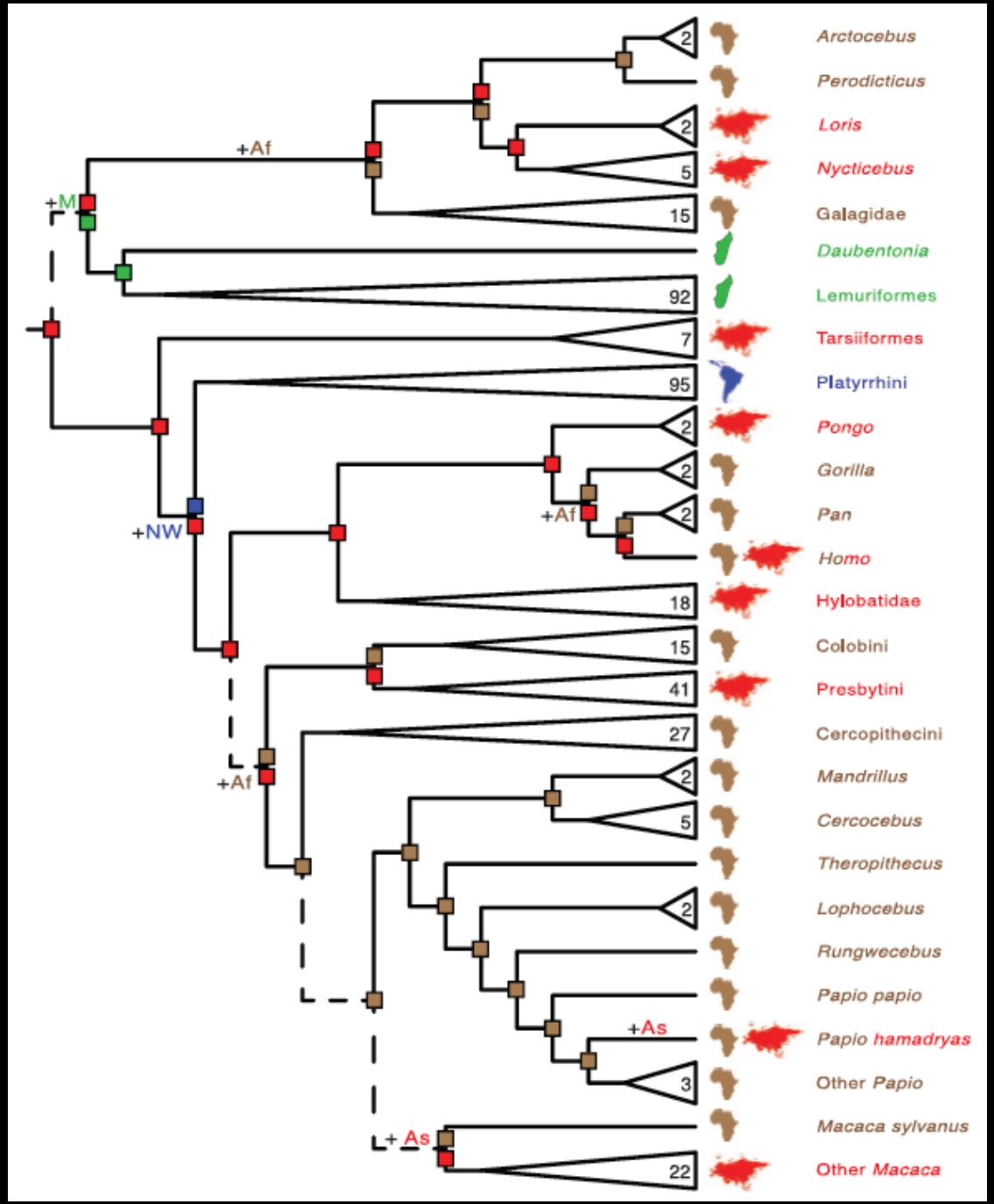
Institute for Society and Genetics and Department of Anthropology, University of California, Los Angeles, California 90095; email: jlynchalfaro@g.ucla.edu

Macroevolutionary Dynamics and Historical Biogeography of Primate Diversification Inferred from a Species Supermatrix

Mark S. Springer[1]*, Robert W. Meredith[1,2], John Gatesy[1], Christopher A. Emerling[1], Jong Park[1,3], Daniel L. Rabosky[4,5], Tanja Stadler[6], Cynthia Steiner[7], Oliver A. Ryder[7], Jan E. Janečka[8], Colleen A. Fisher[8], William J. Murphy[8]*




Tarsiiformes
Haplorhini
Platyrrhini
Simiiformes
Tarsiidae
Pitheciidae
Atelidae
Cebidae
70–<95%
50–<70%
<50%
70
60
50
40
30
20
10
0
Million Years Ago


2
Arctocebus
Perodicticus
2
Loris
+Af
5
Nycticebus
+M
15
Galagidae
Daubentonia
92
Lemuriformes
7
Tarsiiformes
95
Platyrrhini
2
Pongo
2
Gorilla
+Af
2
Pan
+NW
Homo
18
Hylobatidae
15
Colobini
41
Presbytini
27
Cercopithecini
+Af
2
Mandrillus
5
Cercocebus
Theropithecus
2
Lophocebus
Rungwecebus
Papio papio
+As
Papio hamadryas
3
Other Papio
Macaca sylvanus
+ As
22
Other Macaca