Curso de posgrado
“Herpetología neotropical” - 2026

Origen y composición de la fauna Neotropical de anfibios

PEDECIBA MEC-UDELAR

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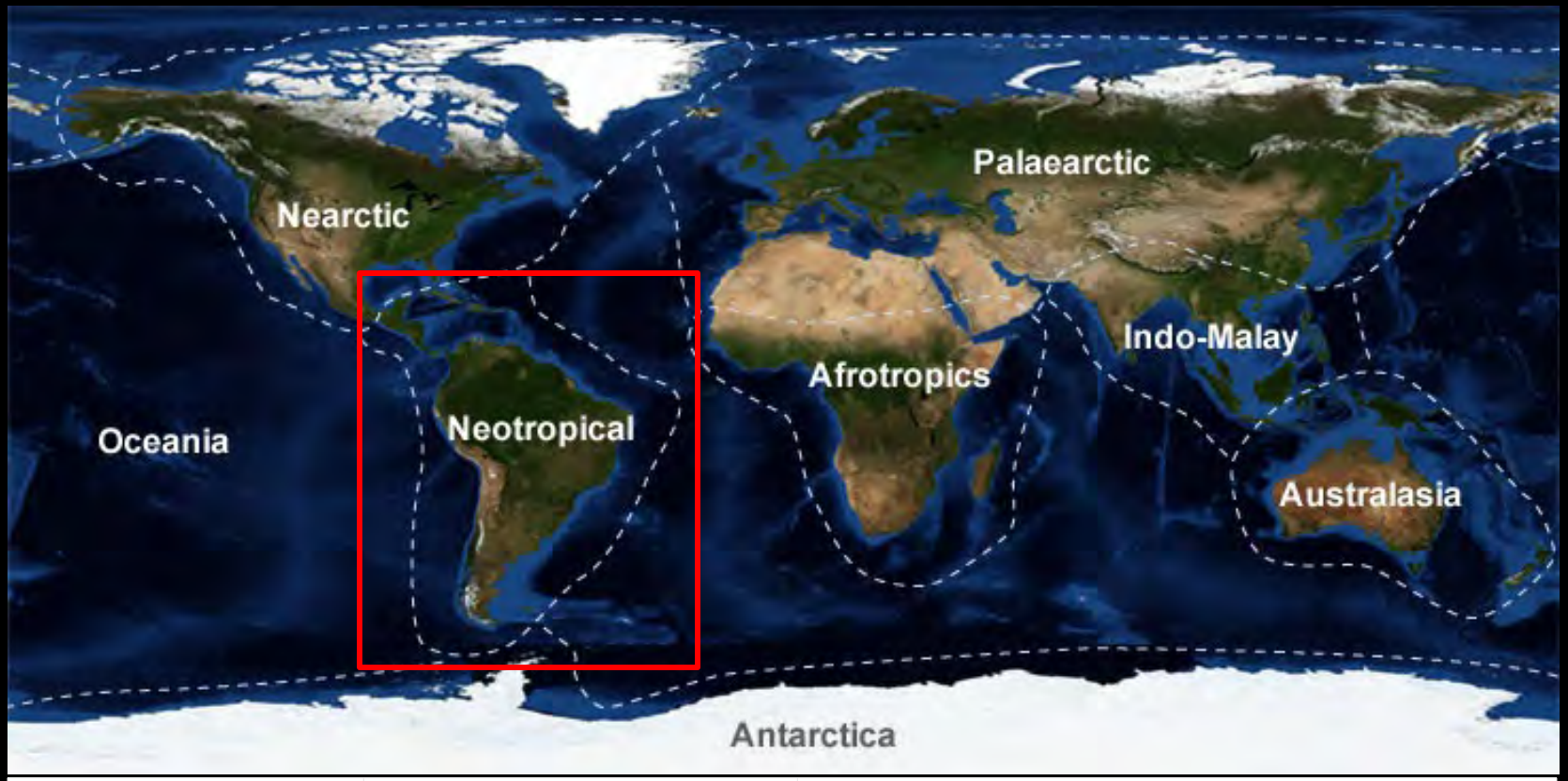
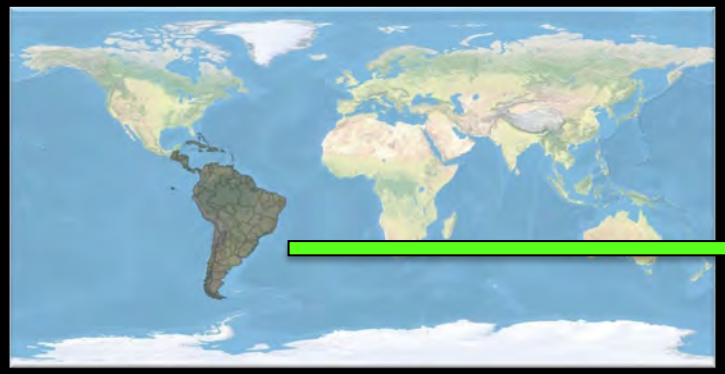
Facultad de Ciencias UDELAR

La Región Neotropical



Ecozona	Superficie (millones de km²)	Localización
Paleártica	54,1	Europa, gran parte de Asia y el norte de África)
Neártica	22.9	Gran parte de Norteamérica
Afrotropical o Etiópica	22.1	África subsahariana y el extremo sur de Arabia
Neotropical	19.0	Sudamérica, Centroamérica, las Antillas y el sur de Norteamérica
Australasia o Australiana	7.7	Australia, Nueva Guinea, Nueva Zelanda y otras islas del Sudeste asiático situadas al sur de la línea de Wallace
Indomalaya u Oriental	7.5	Sureste de Asia
Antártica	0.3	Antártida
Oceánica	1.0	Islas del Pacífico sur

La Región Neotropical



- Separación temprana de la región Neártica
- Grandes bosques tropicales.

Reserva de BD

La diversidad de anfibios.

Gymnophiona

234 spp

Caudata

839 spp

Anura

7960 spp

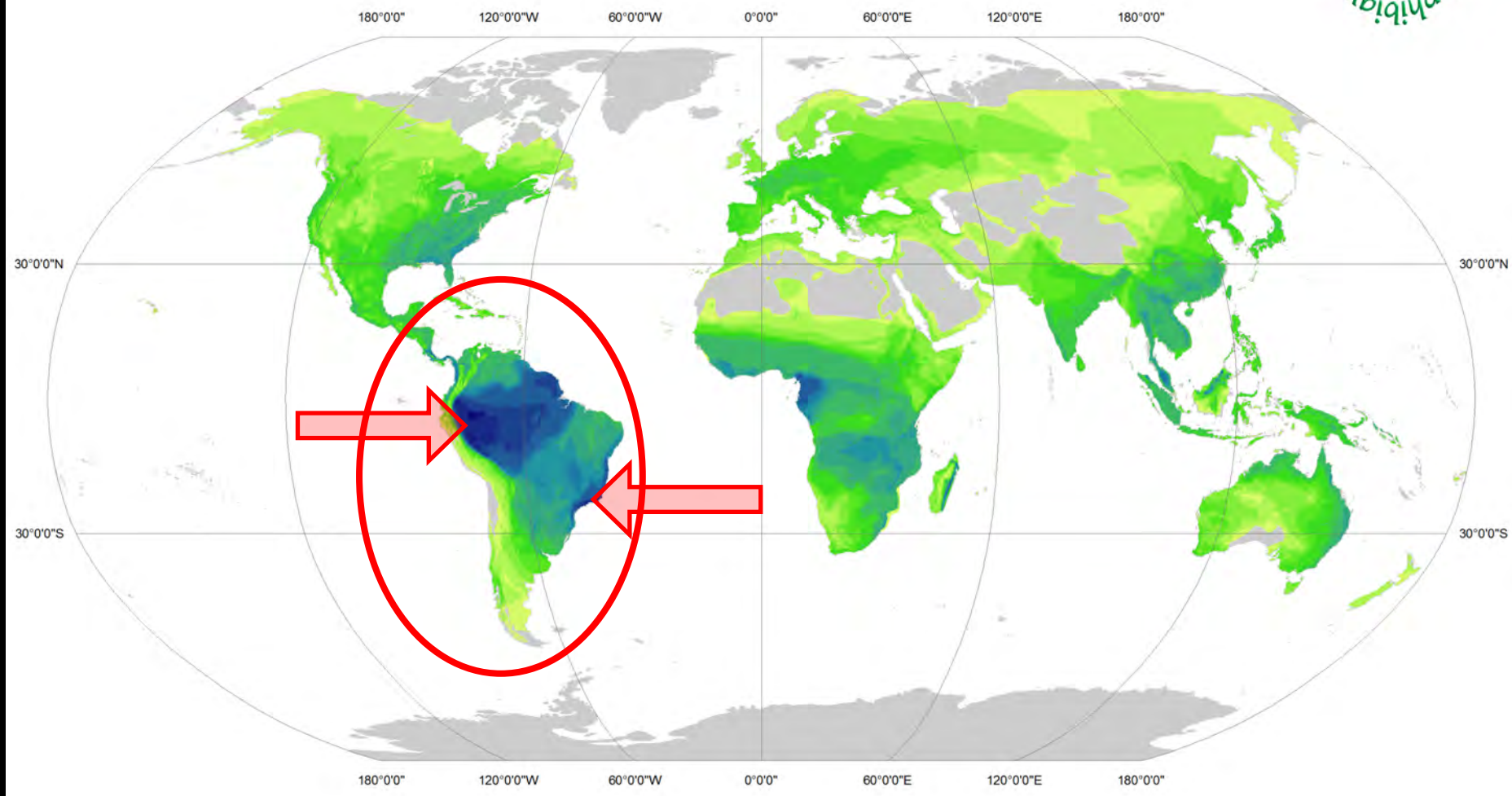
Batrachia

Lissamphibia

AMPHIBIA (Total = 9033 especies)

Frost, D. 2026. Amphibian species of the world.

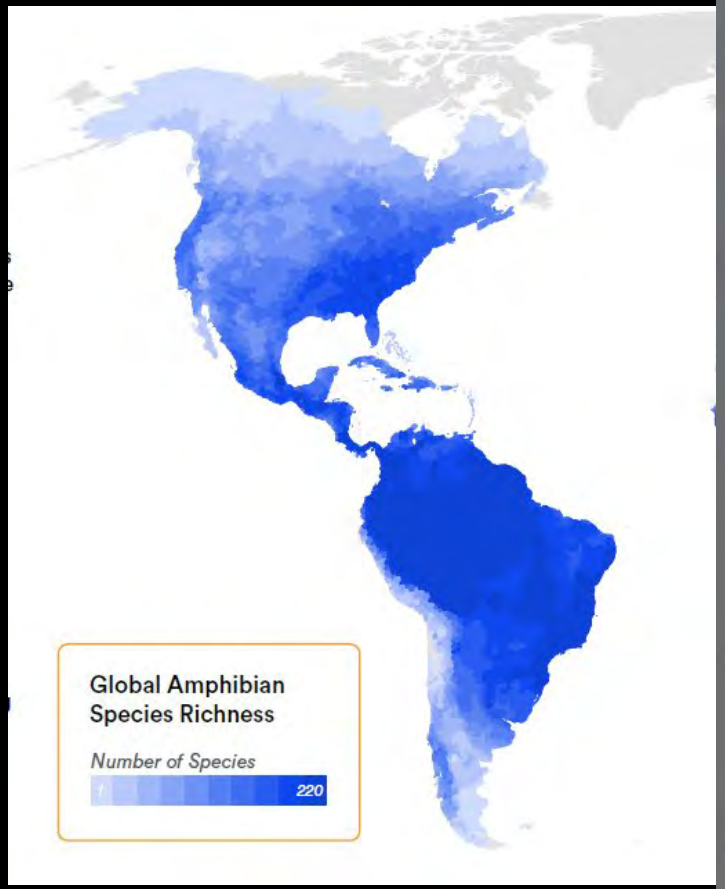
Global Amphibian Species Richness



Number of Species

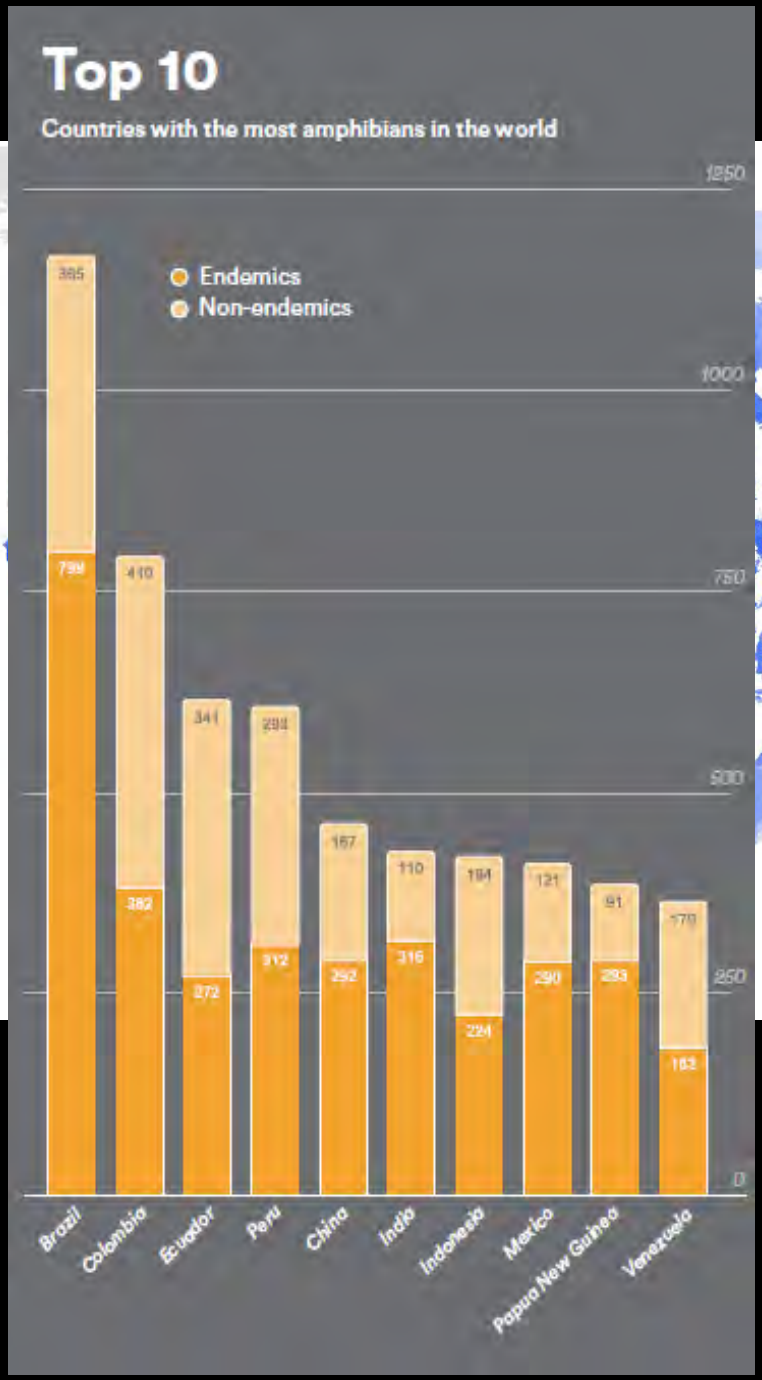
0	1	2 - 3	4 - 6	7 - 10	11 - 15	16 - 20	21 - 30	31 - 40	41 - 50	51 - 60	61 - 80	81 - 100	101 - 120	121 - 136

Tercera evaluación global

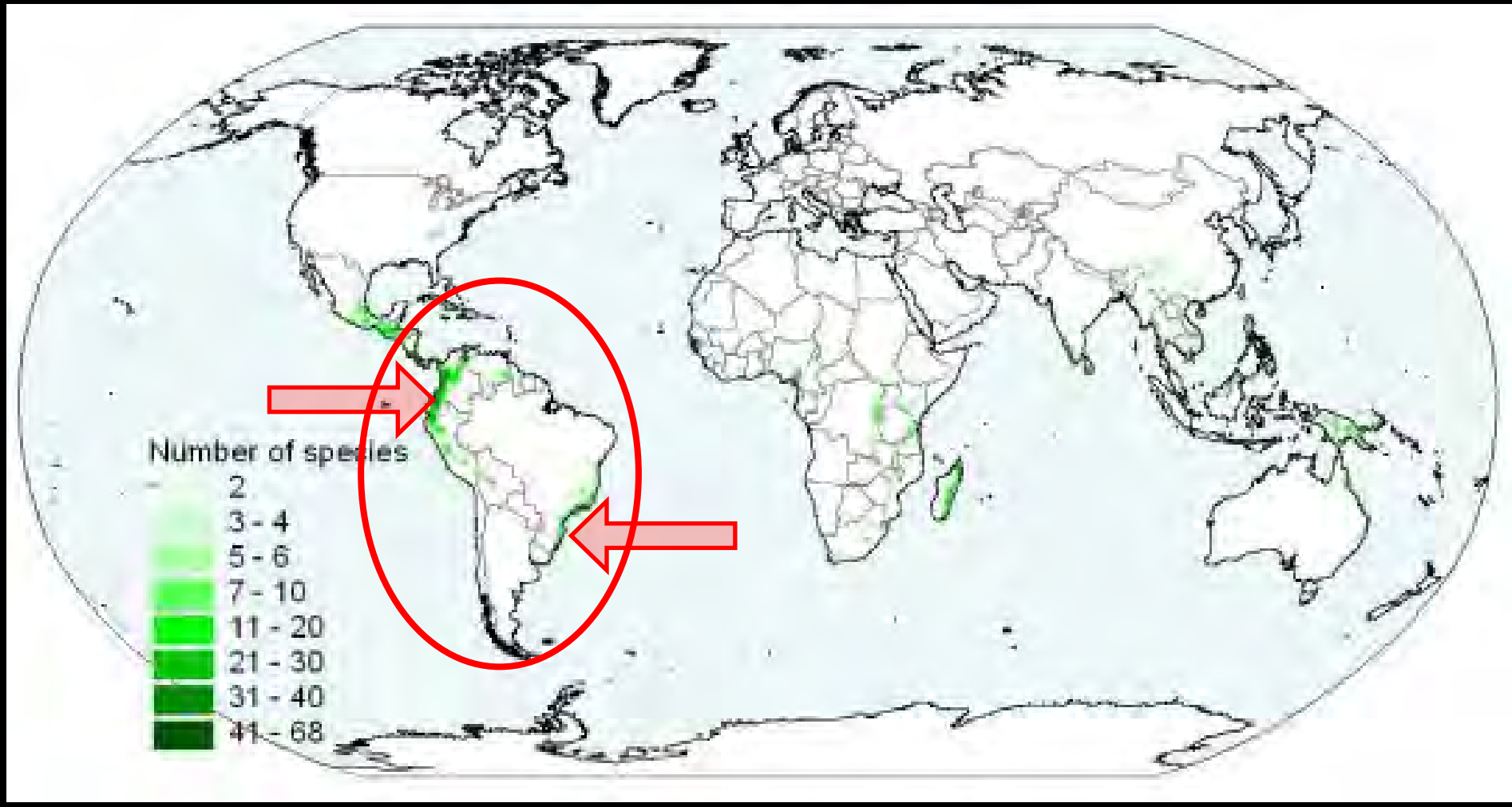


NEOTROPICS

Almost half of the planet's amphibians are found in the Neotropics. Brazil, Colombia, Ecuador, and Peru are home to the greatest number of species in the Neotropical realm and worldwide. The number of amphibian species in this region continues to rise unabated, with Brazil topping the list at 385 new species described since 2006.



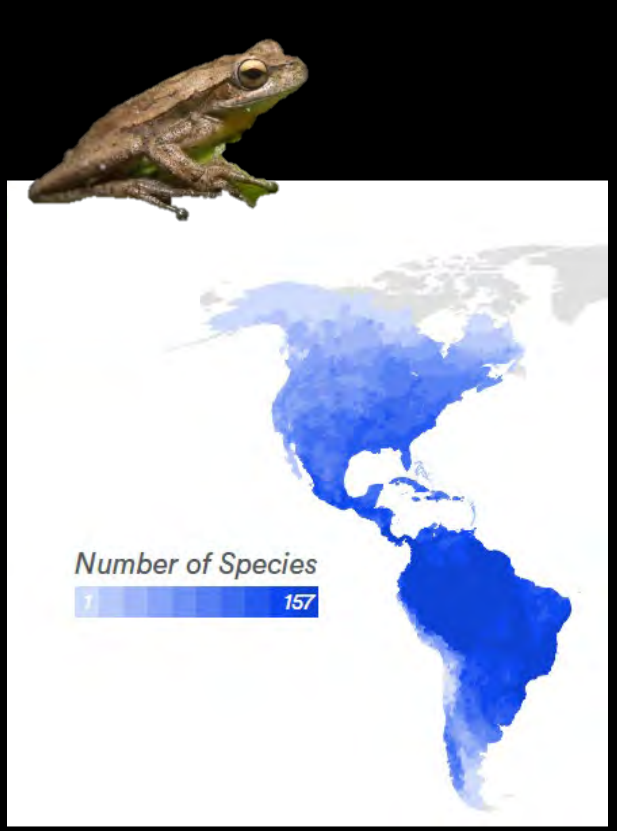
Patrones globales de endemismo



Global Amphibian Assessment, 2009

¿Cómo se distribuye esa diversidad y esos endemismos?

¿Esa distribución es uniforme?

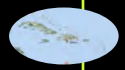


Re:wild, Synchronicity Earth, IUCN SSC Amphibian Specialist Group. 2023. State of the World's Amphibians: The Second Global Amphibian Assessment. Texas, USA: Re:wild.

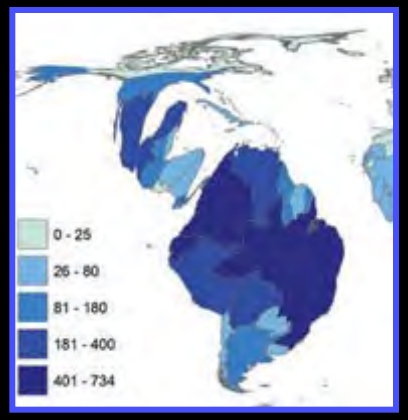
234 839 7960 = 9033

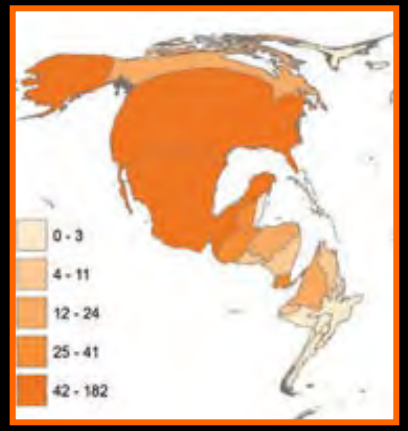
	Gymnophiona (52% NT)	**Urodela (44% NT)**	**Anura (46% NT)**	**Especies**
Neot.	**122 (0,03)**	**367 (0.08)**	**3636 (0.89)**	**4125**
SA	101 (0.035)	43 (0.015)	2720 (0.950)	**2864**
MA	21 (0.020)	324 (0.330)	638 (0.650)	**983**
WI	-	-	278 (1.00)	**278**

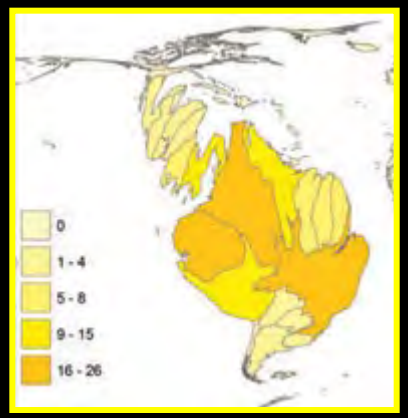
234 839 7960 = 9033

	Gymnophiona	Urodela	Anura	Especies
Neot.	**122 (0,029)**	**367 (0.089)**	**3636 (0.881)**	**4125**
SA (0,69)	101 (0.828)	43 (0.117)	2720 (0.748)	**2864 (59%)** 
MA (0,24)	21 (0.172)	324 (0.883)	638 (0.175)	**983 (24%)** 
WI (0,07)	-	-	278 (0,076)	**278 (7%)** 

PAÍS	Anura	Caudata	Gymnophiona
Chile	56		
Argentina	164		4
Uruguay	44		1
Brasil	861	2	29
Paraguay	76		2
Bolivia	237	1	3
Perú	475	3	13
Ecuador	473	7	23
Colombia	697	19	34
Venezuela	328	6	11
Guyana	124		10
Suriname	85		5
Guayana F.	95		5
Panamá	166	28	11
Costa Rica	143	44	7
Nicaragua	60	9	2
Honduras	86	33	2
El Salvador	24	4	1
Guatemala	95	60	3
Belice	35	2	
Cuba	66		
Jamaica	25		
Haití	58		
Rep. Dcana	47		
Puerto Rico	26		
México	231	132	2



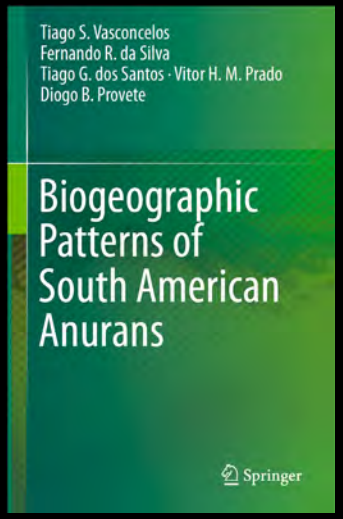




CONTEXTO GLOBAL: Patrones regionales de riqueza de anfibios por ordenes

AmphibiaWeb: Information on amphibian biology and conservation. 2012.

Patrones de distribución en anfibios: causas y consecuencias



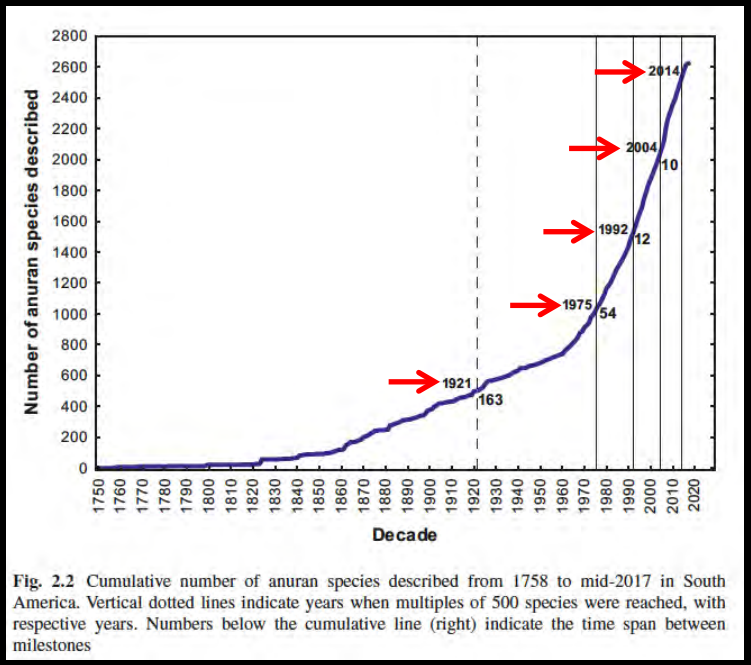


Fig. 2.2 Cumulative number of anuran species described from 1758 to mid-2017 in South America. Vertical dotted lines indicate years when multiples of 500 species were reached, with respective years. Numbers below the cumulative line (right) indicate the time span between milestones

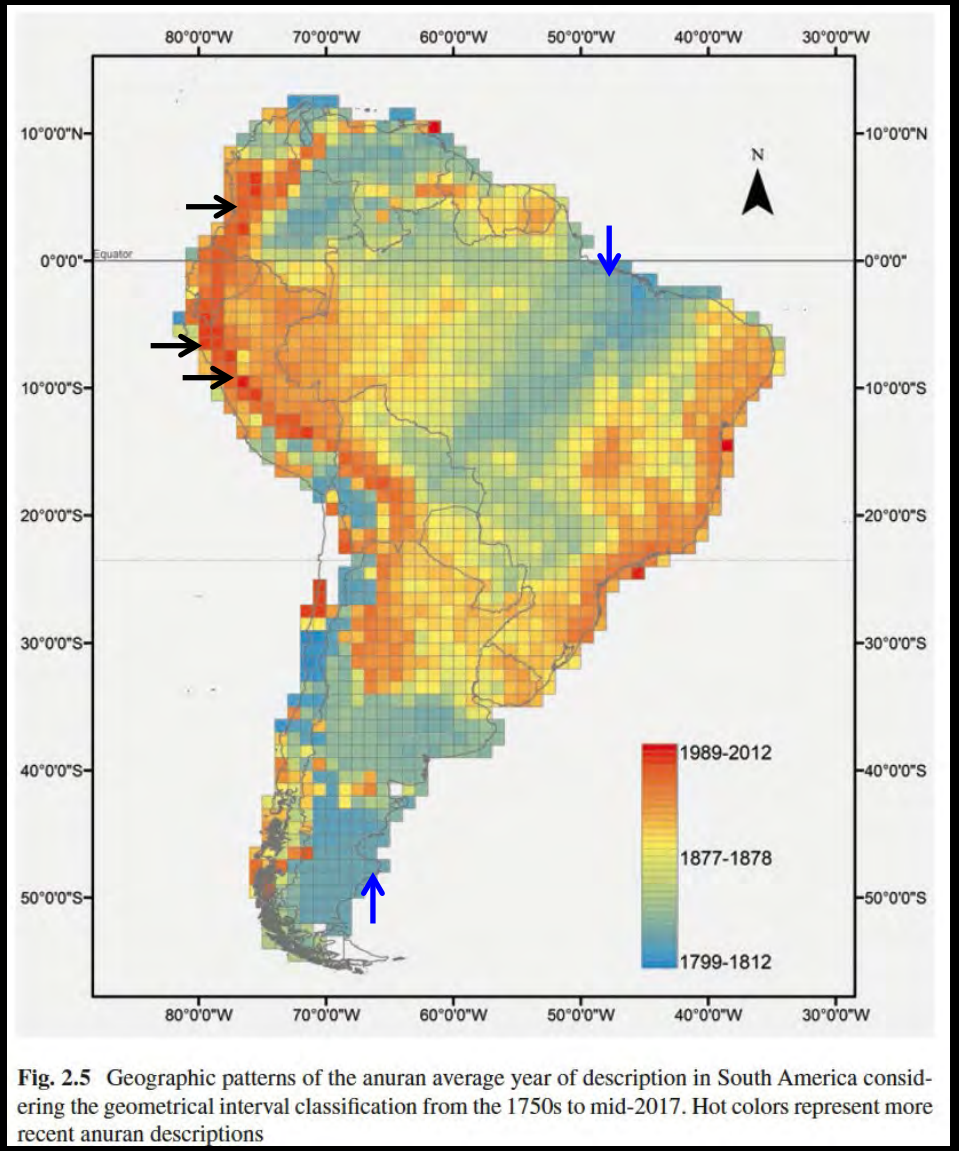
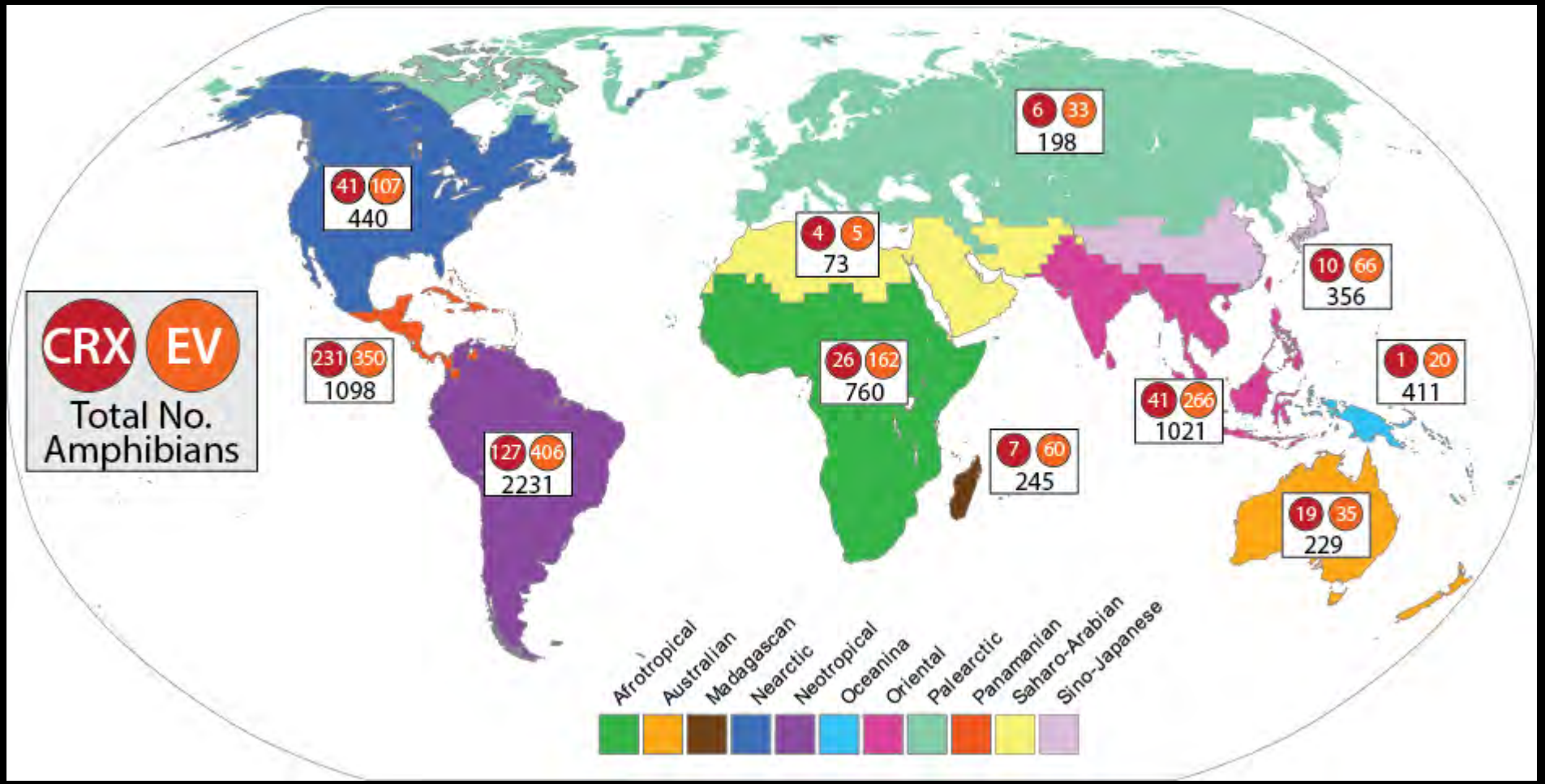


Fig. 2.5 Geographic patterns of the anuran average year of description in South America considering the geometrical interval classification from the 1750s to mid-2017. Hot colors represent more recent anuran descriptions

Conservación a nivel global: ANFIBIOS



AmphibiaWeb. 2021. <https://amphibiaweb.org> University of California, Berkeley, CA, USA. Accessed Oct 2021.

La diversidad de anfibios y reptiles

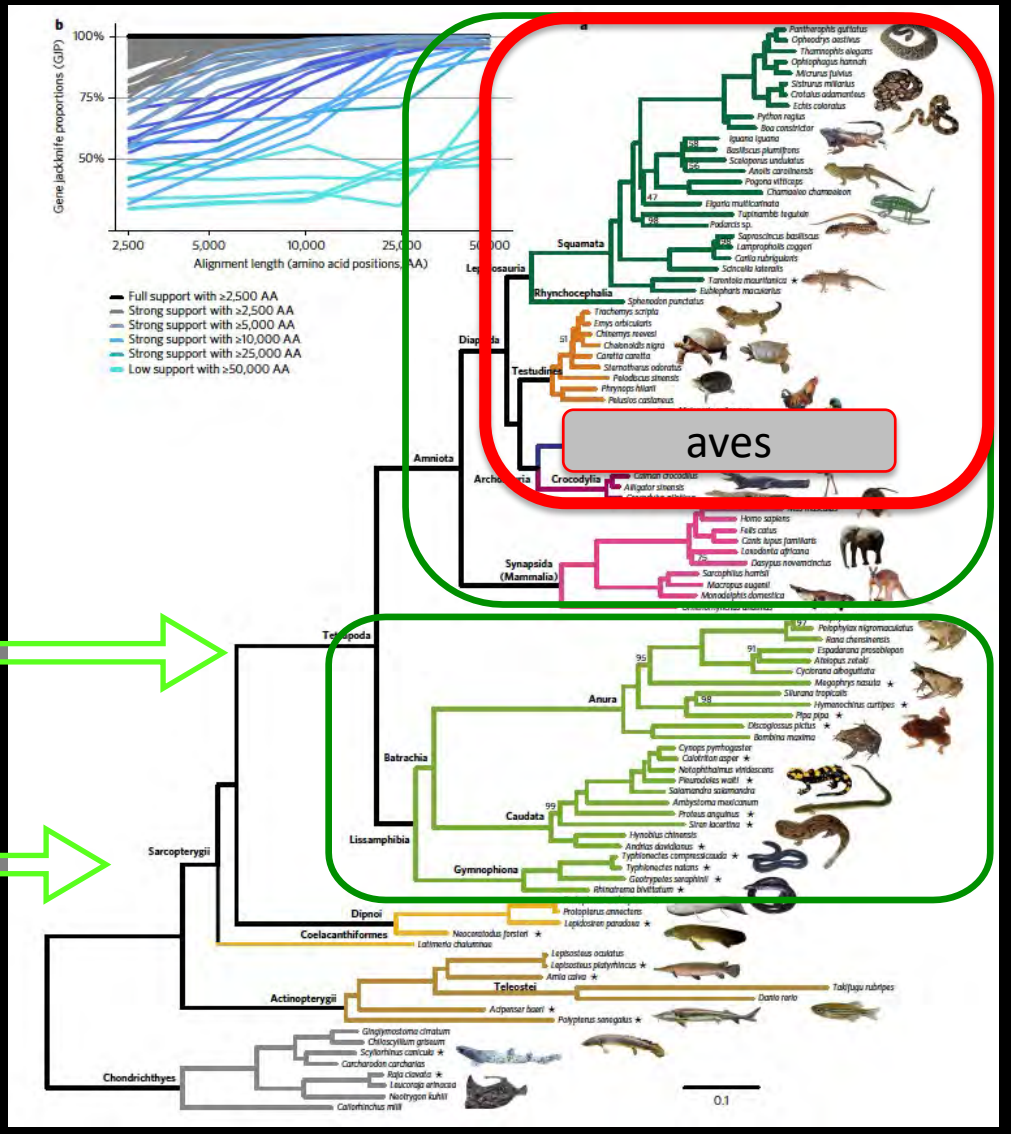
nature ecology & evolution
ARTICLES
DOI: 10.1038/s41559-017-0240-5

Phylotranscriptomic consolidation of the jawed vertebrate timetree

Iker Irisarri[1,11]*, Denis Baurain[2], Henner Brinkmann[3], Frédéric Delsuc[4], Jean-Yves Sire[5], Alexander Kupfer[6], Jörn Petersen[3], Michael Jarek[7], Axel Meyer[1], Miguel Vences[8] and Hervé Philippe[9,10]*

Tetrapoda

Sarcopterigios



La diversidad de anfibios y reptiles

Lepidosauria

12171 spp

Chelonia

369 spp

Crocodilia

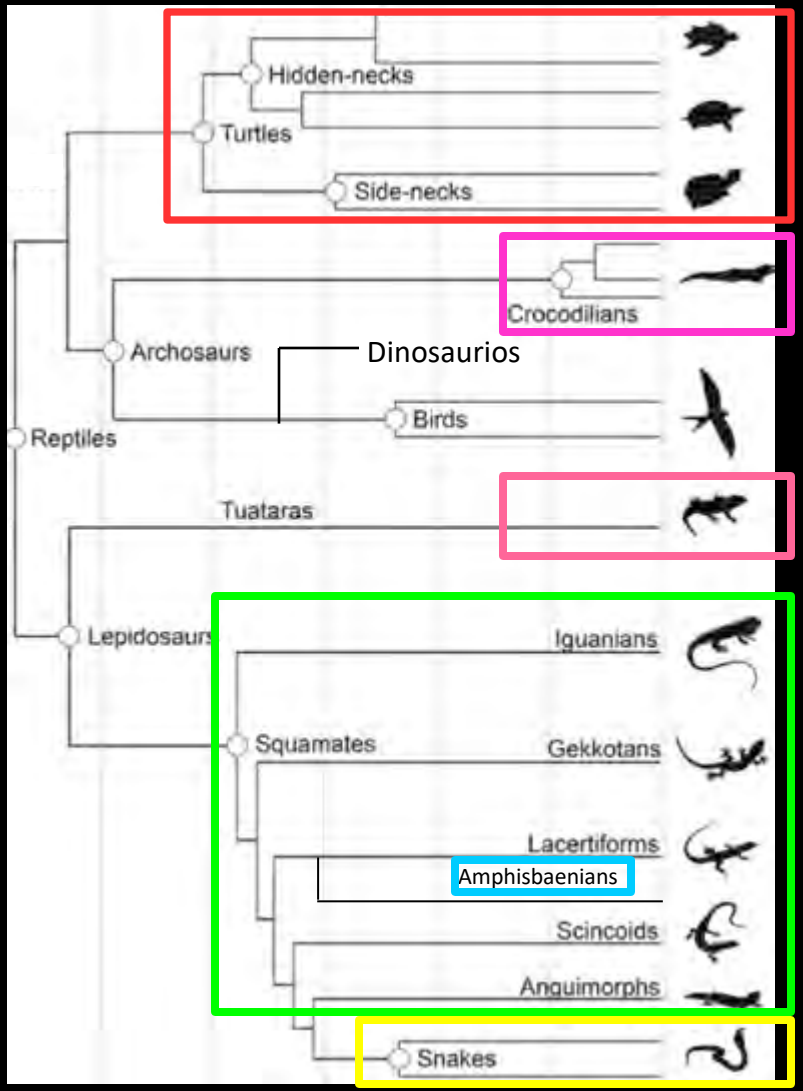
27 spp

Archosauria

“REPTILIA” (Diapsida) (Total = 12568 especies)

Uetz, P. (editor), The Reptile Database
http://www.reptile-database.org

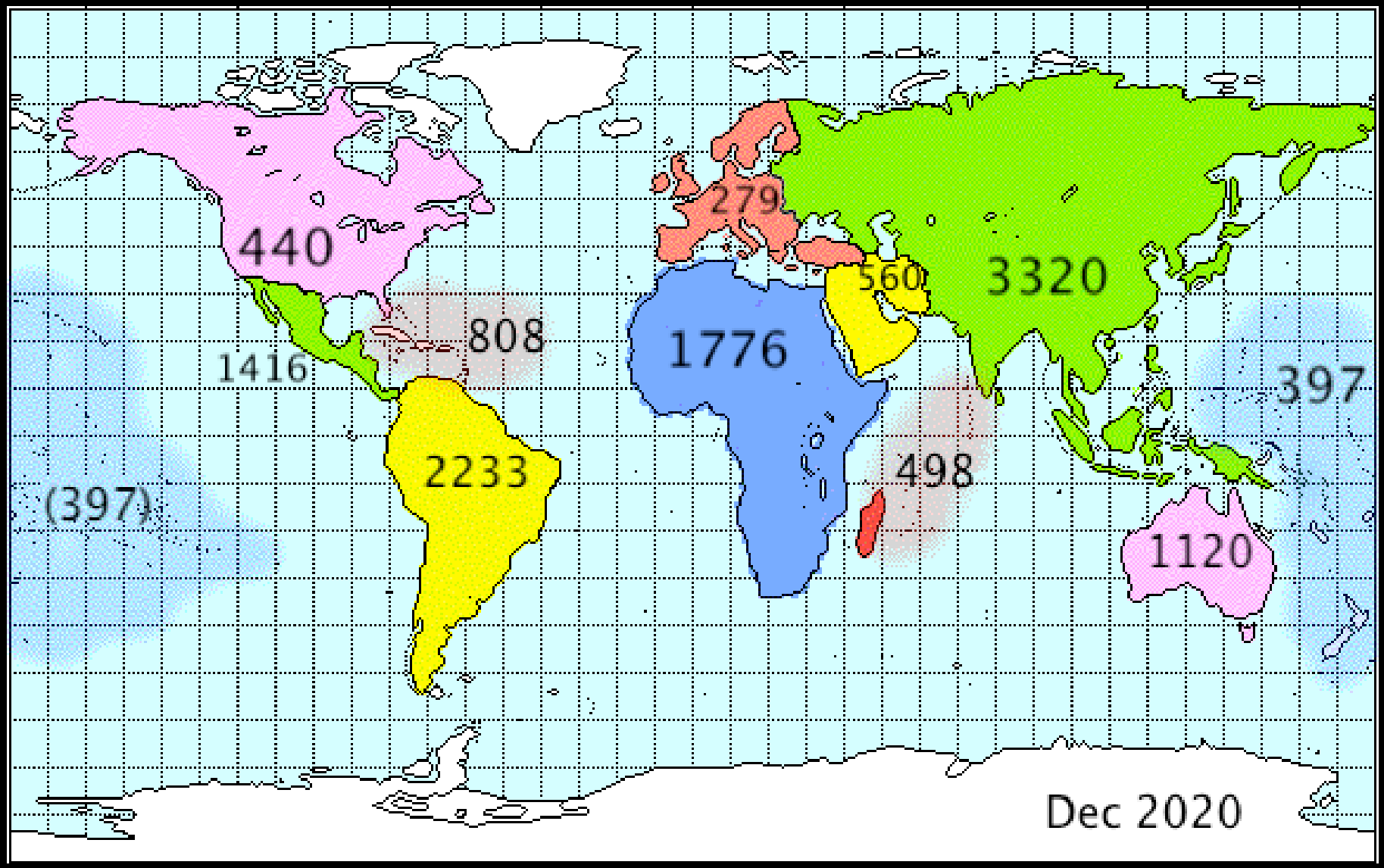
Relaciones y diversidad actual de “Reptiles” – parafiléticos



	Jan 2026
Amphisbaenia (amphisbaenians)	(203)
Sauria (lizards)	7,942
Serpentes (snakes)	4,229
Testudines (turtles)	369
Crocodylia (crocodiles)	27
Rhynchocephalia (tuataras)	1
Reptile species total	12,568

Uetz, P. (editor), The Reptile Database
http://www.reptile-database.org

Patrones globales de riqueza



Uetz, P. (editor), The Reptile Database
http://www.reptile-database.org

Patrones globales de riqueza

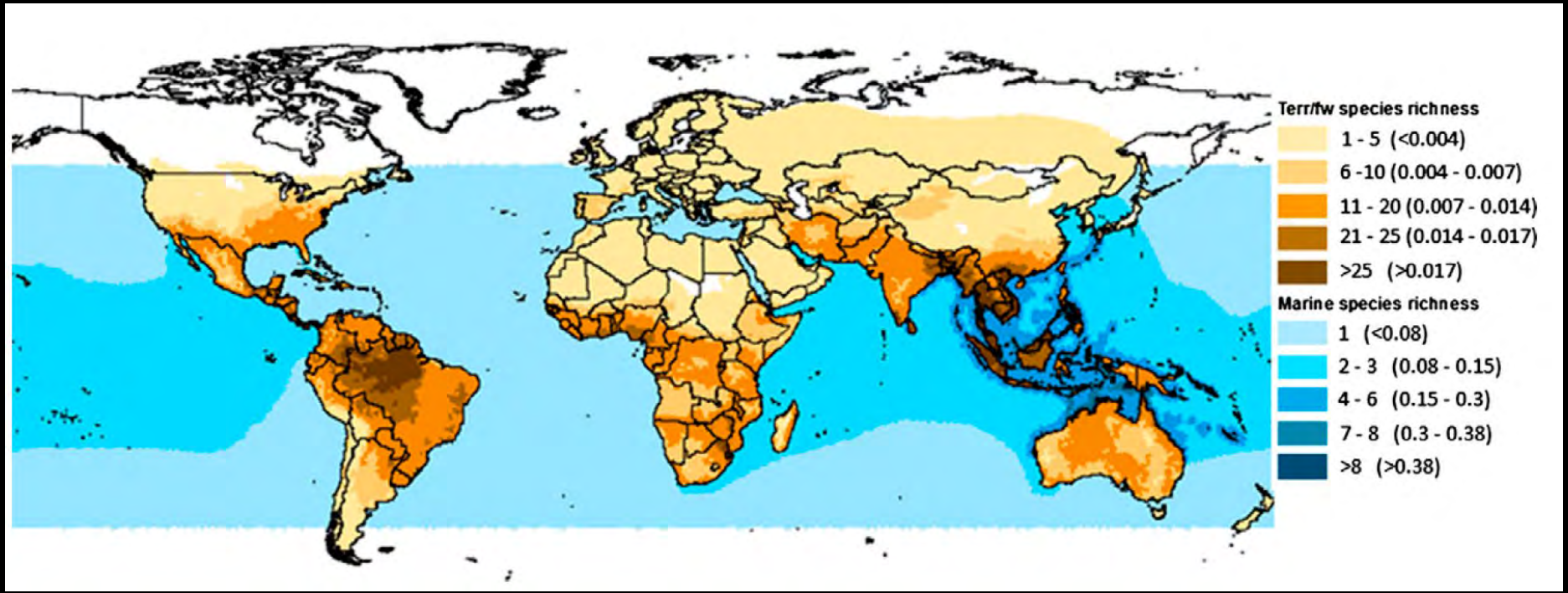


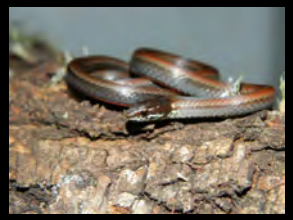
Table 1
Extinction risk in a subsample of 1500 reptiles by order, biogeographic realm and habitat system. The number of species falling into each IUCN Category are listed, from which % threatened has been calculated as described in Section 2.3.

Taxon	DD	LC	NT	VU	EN	CR	N	No. of species		% Threatened		
								Described	% Sampled	Threatened %	Lower	Upper
Reptiles	318	881	78	105	92	26	1500	9413	15.9	18.9	14.9	36.1
Amphisbaenia	14	11	2	0	1	0	28	181	15.5	7.1	3.6	53.6
Crocodylia	0	1	0	2	0	1	4	24	16.7	75	75	75
Sauria	164	506	48	72	63	14	867	5537	15.7	21.2	17.2	36.1
Serpentes	135	352	19	24	20	5	555	3346	16.6	11.7	8.8	33.2
Testudines	5	11	9	7	8	6	46	323	14.2	51.2	45.7	56.5
Realm												
Afrotropical	53	161	15	33	22	5	289			25.4	20.8	39.1
Australasian	32	149	9	10	14	5	219			15.5	13.2	27.9
Indomalayan	105	167	13	15	10	5	315			14.3	9.5	42.9
[illegible]												
Neotropical	107	309	27	38	35	11	527			20.0	15.9	36.2
[illegible]												
Palaearctic	25	105	8	6	8	2	154			12.4	10.4	26.6
Habitat system												
Terrestrial	313	861	78	105	91	25	1473			19.1	15.0	36.3
Freshwater and marine	16	44	11	9	8	6	94			29.5	24.5	41.5
Subsurface	50	46	5	1	5	0	107			10.5	5.6	57.0

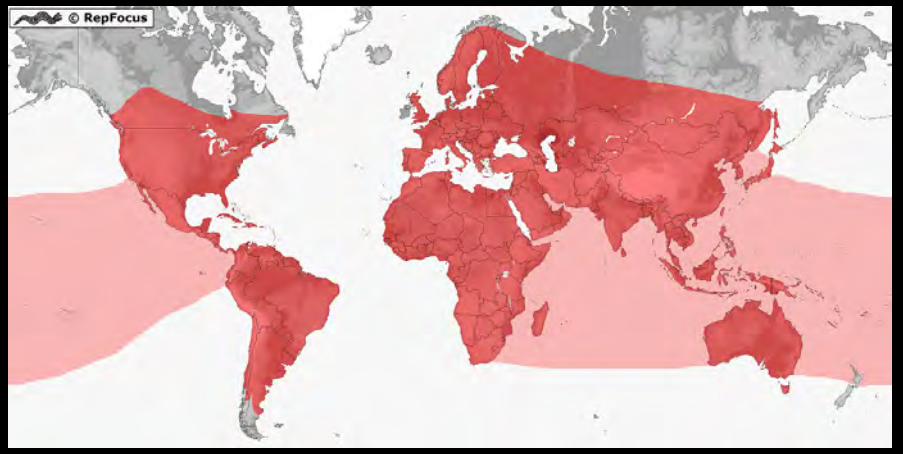
DD – Data Deficient; LC – Least Concern; NT – Near Threatened; VU – Vulnerable; EN – Endangered; CR – Critically Endangered. Percentage threatened: assumes DD species are threatened in the same proportion as non-DD species; Lower margin: no DD species threatened; Upper margin: all DD species threatened. Number of described species is based on Uetz (2010). Rhynchocephalia (Tuatara) was not represented in our random sample. Subsurface includes completely or primarily fossorial families: Amphisbaenidae, Anomalepidae, Dibamidae, Leptotyphlopidae, Trogonophidae, Typhlopidae, Uropeltidae, Xenopeltidae.

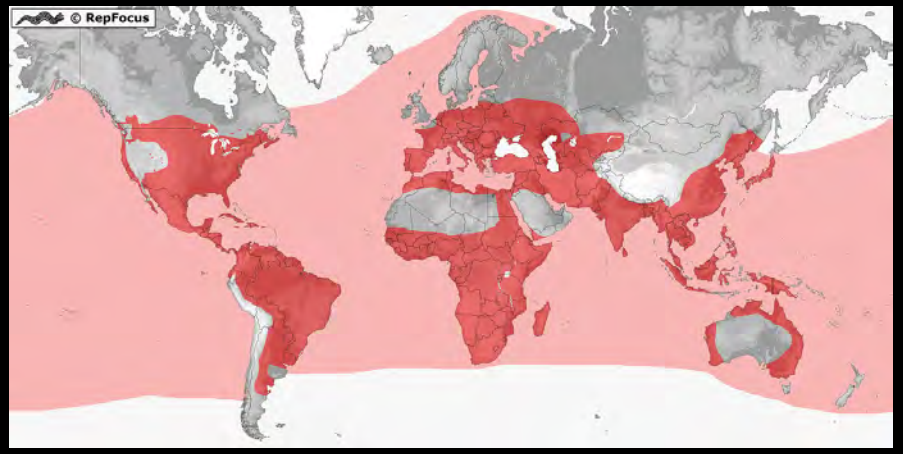
Bohm, et al. 2012. The conservation status of the world's reptiles. Biol. Cons., 157: 372-385.

Distribución por taxa



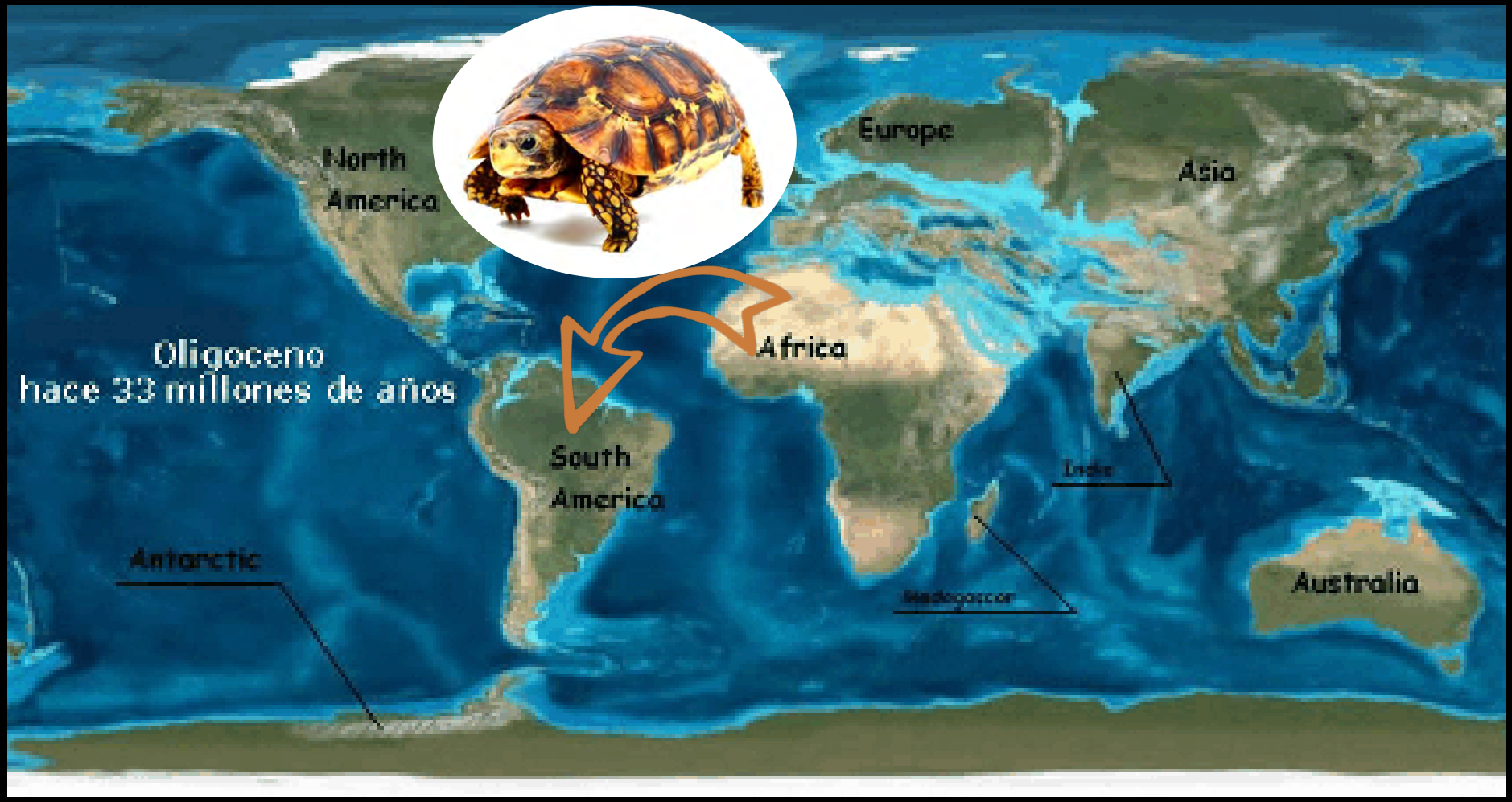




Midtgaard, Rune. RepFocus - A Survey of the Reptiles of the World. www.repfocus.dk - © Rune Midtgaard

Procesos de dispersión: Oligoceno



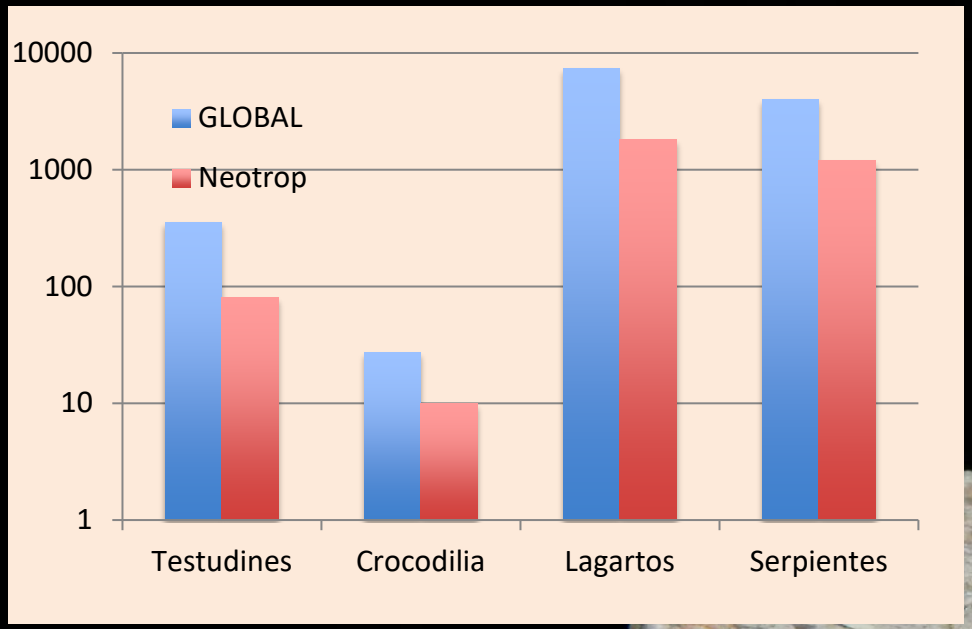
Le et al. 2006. A molecular phylogeny of tortoises (Testudines: Testudinidae) based on mitochondrial and nuclear genes. Molecular phylogenetics and evolution. 40. 517-531.
Thomson et al. 2021.A global phylogeny of turtles reveals a burst of climate-associated diversification on continental margins. Proc. Natl. Acad. Sci. U.S.A. 118(7): e2012215118.

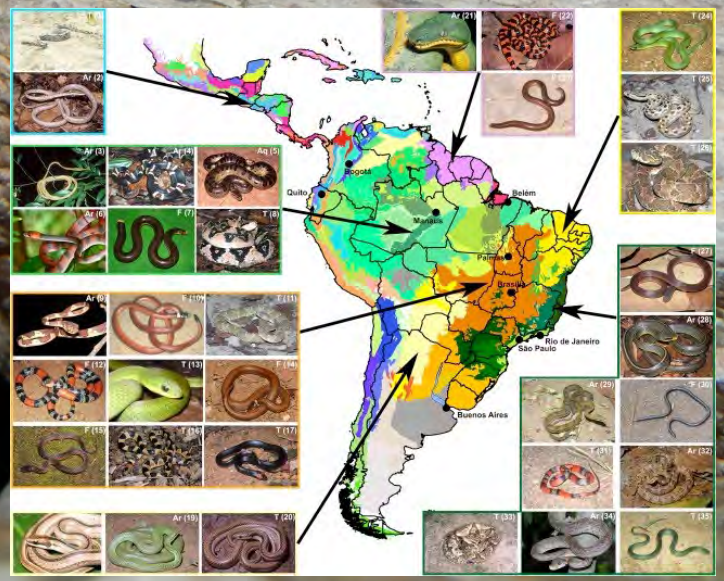
Procesos de dispersión: Mioceno

Jowers et al. 2019. Phylogeography of West Indies Coral snakes (Micrurus): Island colonisation and banding patterns. Zool Scr., 48:263–276.

Procesos de dispersión: Plioceno

La diversidad de reptiles neotropicales

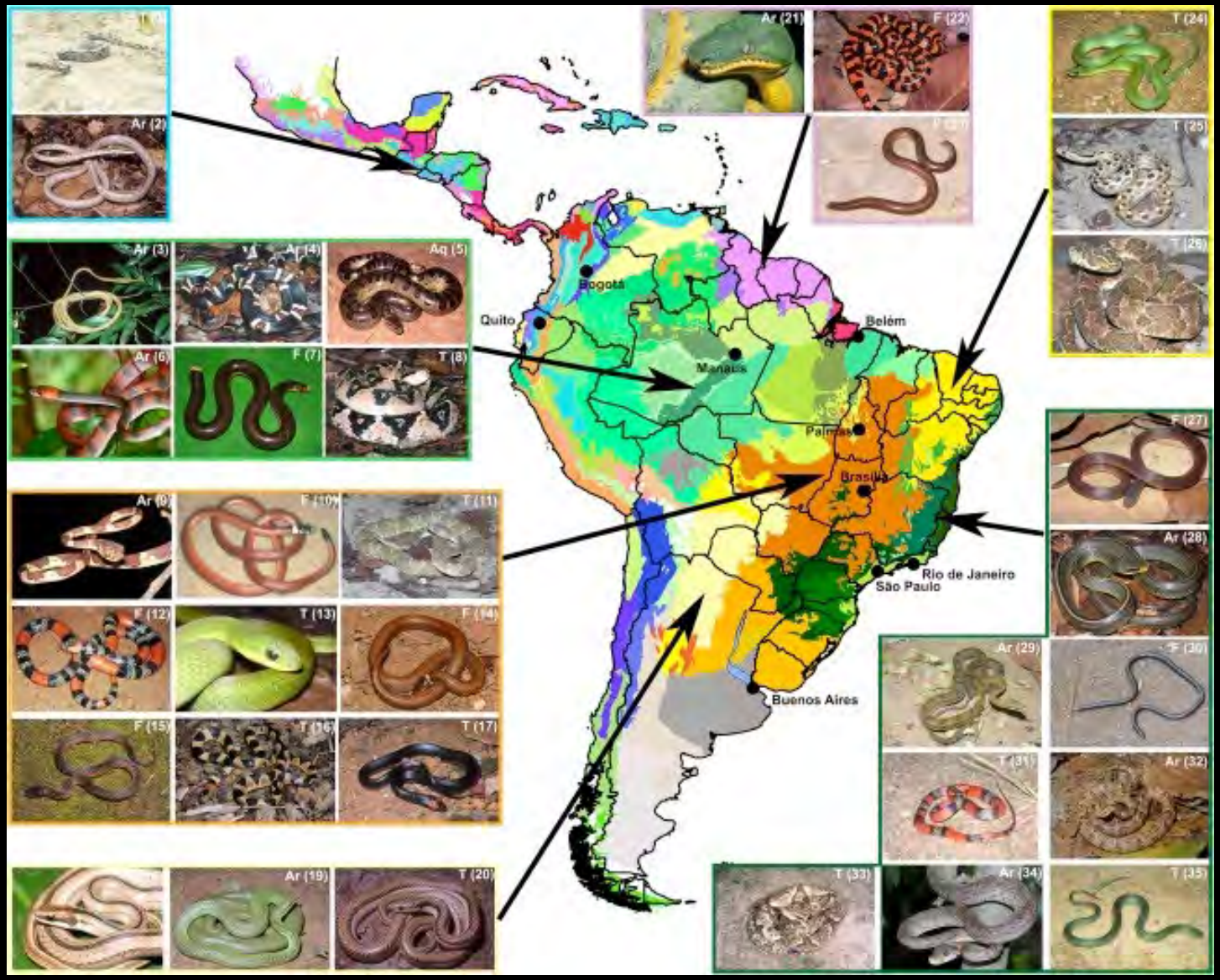




Guedes *et al*., 2018
147.515 registros
886 especies (74%)
12 Familias
27 países

Guedes et al. 2018. Patterns, biases and prospects in the distribution and diversity of Neotropical snakes. Glob Ecol Biogeogr. 27(1): 14–21.

Ejemplo: las serpientes neotropicales vs ecoregiones de Olson *et al.*

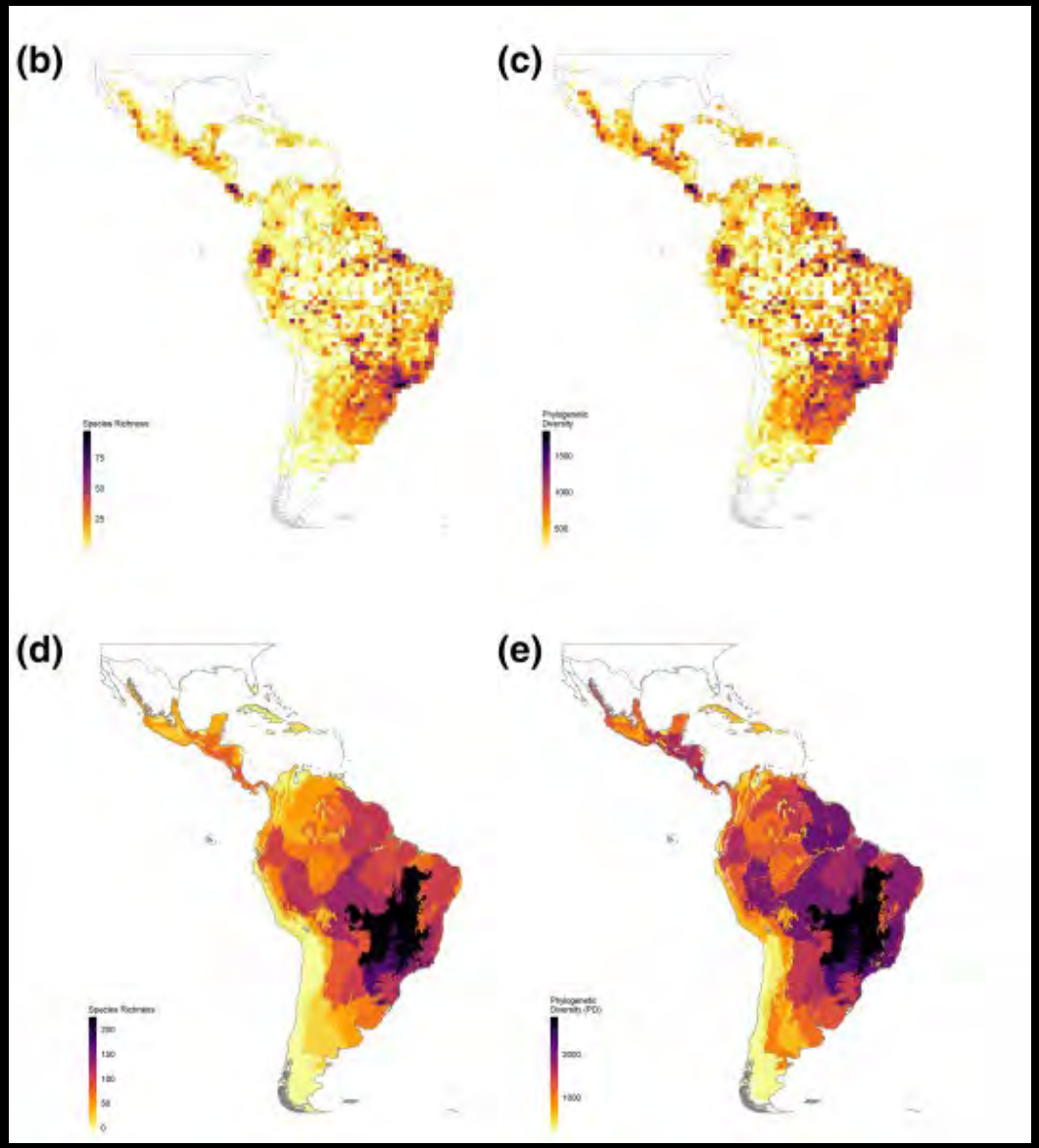


Guedes et al. 2018. Patterns, biases and prospects in the distribution and diversity of Neotropical snakes. Glob Ecol Biogeogr. 27(1): 14–21.

Ejemplo: las serpientes neotropicales

Riqueza de especies

Diversidad filogenética



Cuadrículas:

- Mata Atlántica
- Amazonia
- Bosques andinos (Ecuador)
- Bosques de América Central
- Cerrado
- Pantanal

Ecoregiones:

- Cerrado (222 spp)
- Mata Atlántica

Alta diversidad - bosques estacionales secos tropicales
Poco muestreo - Amazonia
Mejor muestreo: universidades y colecciones científicas

Curso de posgrado
“Herpetología neotropical” - 2026

Origen y composición de la fauna Neotropical de anfibios

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