

## **Supplementary Material**

### **A new genus of miniaturized and pug-nosed gecko from South America (Sphaerodactylidae: Gekkota)**

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#### **Contents**

Specimens used in the morphological analyses

Supplementary Table 1

Supplementary Table 2

Supplementary Figure 1

Supplementary Figure 2

Supplementary Figure 3

Specimens used in the morphological analyses. Abbreviations used follow (Leviton, Gibbs, Heal & Dawson, 1985) and the following unlisted collections: RT, Collection of Richard Thomas, University of Puerto Rico (San Juan, Puerto Rico).

*Aristelliger barbouri*: AMNH R-45811; *Aristelliger expectatus*: AMNH R-63015; *Aristelliger georgeensis*: CAS 176485; *Aristelliger lar*: AMNH R-46019, AMNH R-50272; *Aristelliger praesignis*: BMNH 1964.1812, BMNH 86.4.15.4; *Aristelliger praesignis nelsoni*: AMNH R-146747-146748; *Aristelliger praesignis praesignis*: AMNH R-71593, 71595, AMNH R-75976; *Aristelliger sp.*: RT 4921; *Chatogekko amazonicus*: OMNH 36262, OMNH 37616, USNM 302283-302284; OMNH 37110, OMNH 37274; OMNH 36712, AMNH-R 138670, AMNH R-138726; AMNH R-132039, AMNH R-132052, USNM 124173, USNM 200660-200666, USNM 288763-288788, USNM 289061-289066, USNM 290881-290882, USNM 290904, USNM 290944-290945, USNM 303472-303473, USNM 570538, USNM 304122-304123; *Coleodactylus brachystoma*: MZUSP Uncataloged, MZUSP Uncataloged; *Coleodactylus septentrionalis*: MZSP 66554, USNM 302285-302287, USNM 302337-302361; USNM 531620-531622, USNM 566300; *Euleptes europaea*: AMNH R-144404; *Gonatodes albugularis*: FMNH 55929, FMNH 209439, FMNH 209440, UV-C Uncataloged; *Gonatodes antillensis*: AMNH R-72642; *Gonatodes atricucullaris*: AMNH R-144391-144393; *Gonatodes humeralis*: RT 01198; *Gonatodes taniae*: UPRRP 006045; *Lepidoblepharis peraccae*: UV-C 8999; *Lepidoblepharis xanthostigma*: AMNH R-144541, RT 1875, USNM 313758, USNM 313834; *Pristurus carteri*: CAS 225349, BMNH 1971.44, JFBM 15821; *Pristurus insignis*: BMNH 1953.1.7.73; *Pristurus sp.*: AMNH R-20032, AMNH R-20056, AMNH R-20071; *Pseudogonatodes barbouri*: AMNH R-144395, AMNH R-146746, AMNH R-146752-146757; *Pseudogonatodes cf. guianensis*: MZUSP 94826; *Quedenfeldtia trachyblephara*: FMNH 197682; *Saurodactylus mauritanicus*: BMNH 87.10.6.1.6, FMNH 197462; *Sphaerodactylus argus*: Uncataloged; *Sphaerodactylus armstrongi*: RT 5255; *Sphaerodactylus cinereus*: AMNH R-49566; *Sphaerodactylus copei*: RT 10576; *Sphaerodactylus corticola*: USNM 220548-220552; *Sphaerodactylus gaigeae*: UPRRP 6428-6432, UPRRP 6434-6436; *Sphaerodactylus klauberi*: UPRRP 6409-6421, UPRRP 6423-6427; *Sphaerodactylus levinsi*: Uncataloged, RT 8283-8284; *Sphaerodactylus lineatus*: UPRRP 3172; *Sphaerodactylus macrolepis*: AMNH R-144331, UPRRP 6437-6445; *Sphaerodactylus millepunctatus*: AMNH R-16284; *Sphaerodactylus monensis*: UPRRP 6454; *Sphaerodactylus nicholsi*: Uncataloged, UPRRP 6383-6386, 6388; *Sphaerodactylus nigropunctatus decoratus*: AMNH R-73470; *Sphaerodactylus parkeri*: Uncataloged; *Sphaerodactylus richardsonii*: BMNH 1964.1801-2; *Sphaerodactylus roosevelti*: UPRRP 6376-6378, 6380-6381, UPRRP 6488.; *Sphaerodactylus townsendi*: UPRRP 6389-6400, 6402-6407; *Teratoscincus microlepis*: AMNH R-88524, BMNH 1934.10.9.14; *Teratoscincus przewalskii*: CAS 171013, JFBM 15826; *Teratoscincus roborowskii*: JFBM 15828; *Teratoscincus scincus*: BMNH 92.11.28.1.

Supplementary Table 1. Primers used in the molecular analyses.

Primer name	Primer sequence (5' to 3')	Source
<b><i>RAG1</i></b>		
R13	TCTGAATGGAAATTCAAGCTGTT	(Groth & Barrowclough, 1999)
R18	GATGCTGCCTCGGTCGGCCACCTTT	(Groth & Barrowclough, 1999)
F700	GGAGACATGGACACAATCCATCCTAC	(Bauer, De Silva, Greenbaum & Jackman, 2007)
R700	TTTGTACTGAGATGGATCTTTTTGCA	(Bauer et al., 2007)
693R	TGRATCTTTTGCAGTTGGTAAT	This study
R1tgR	CTCCACCTTCTTCTTTCTCAGCA	This study
<b><i>RAG2</i></b>		
EM1-F	TGGAACAGAGTGATYGACTGCAT	(Gamble, Bauer, Greenbaum & Jackman, 2008)
EM1-R	ATTTCCCATATCAYTCCCAAACC	(Gamble et al., 2008)
PY1-F	CCCTGAGTTTGGATGCTGTACTT	(Gamble et al., 2008)
PY1-R	AACTGCCTRTTGTCCTGGTAT	(Gamble et al., 2008)
<b><i>C-MOS</i></b>		
G73	GCGGTAAAGCAGGTGAAGAAA	(Saint, Austin, Donnellan & Hutchinson, 1998)
G74	TGAGCATCCAAAGTCTCCAATC	(Saint et al., 1998)
FU-F	TTTGGTTCKGTCTACAAGGCTAC	(Gamble et al., 2008)
FU-R	AGGGAACATCCAAAGTCTCCAAT	(Gamble et al., 2008)
<b><i>ACM4</i></b>		
tg-F	CAAGCCTGAGAGCAARAAGG	(Gamble et al., 2008)
tg-R	ACYTGACTCCTGGCAATGCT	(Gamble et al., 2008)
<b><i>PDC</i></b>		
PHOF2	AGATGAGCATGCAGGAGTATGA	(Bauer et al., 2007)
PHOR1	TCCACATCCACAGCAAAAACTCCT	(Bauer et al., 2007)

Primer name	Primer sequence (5' to 3')	Source
<b><i>PTPN12</i></b>		
F1	AGTTGCCTTGTWGAAGGRGATGC	(Townsend, Alegre, Kelley, Wiens & Reeder, 2008)
R6	CTRGCAATKGACATYGGYAATAC	(Townsend et al., 2008)
ColeoF	CGGCAGATGTGAATGAAAACACTAC	This study
<b><i>RBMX</i></b>		
HNRNP1F	CCACGAGATTATGCCTACCG	This study
HNRNP1R	CATCATAKCGACTGCTTCCA	This study
RBMX-F1	TCCTCTTACAGTGAYCGTGATG	This study
RBMX-R1	TCCCGTAATCATCATAGCGACT	This study

Supplementary Table 2. Specimens used in the molecular analyses. We used the following abbreviations: AMCC, Ambrose Monell Cryo Collection, American Museum of Natural History; CHUNB, Coleção Herpetológica da Universidade de Brasília; FLMNH, Florida Museum of Natural History; JAC, Jonathan Campbell; JB, Jon Boone; JFBM, James Ford Bell Museum of Natural History; KU, University of Kansas Museum of Natural History; LSUMZ, Louisiana State University Museum of Zoology; MF, Mike Forstner; MVZ, Museum of Vertebrate Zoology, Berkeley; MZUSP, Universidade de São Paulo, Museu de Zoologia; ROM, Royal Ontario Museum; TG, Tony Gamble; YPM, Yale Peabody Museum.

Species	Specimen ID	Locality	<i>RAG1</i>	<i>RAG2</i>	<i>C-MOS</i>	<i>ACM4</i>	<i>PDC</i>	<i>PTPN12</i>	<i>RBMX</i>
<i>Chatogekko amazonicus</i>	LSUMZ-H12416	East of Rio Ajarani, Roraima, Brazil	JF416911	JF416915	JF416921	JF416918	JF416924	JF416845	JF416878
<i>Chatogekko amazonicus</i>	LSUMZ-H16400	Manaus, Amazonas, Brazil	HQ426268	HQ426441	HQ426525	HQ426348	HQ426179	JF416848	JF416881
<i>Chatogekko amazonicus</i>	LSUMZ-H14192	Southeast of Santarém, Pará, Brazil	JF416912	JF416916	JF416922	JF416919	JF416925	JF416846	JF416879
<i>Chatogekko amazonicus</i>	LSUMZ-H14233	Southeast of Santarém, Pará, Brazil	HQ426267	HQ426440	HQ426524	HQ426347	HQ426178	JF416847	JF416880
<i>Chatogekko amazonicus</i>	LSUMZ-H14050	Rio Ituxi, Amazonas, Brazil	HQ426269	HQ426442	HQ426526	HQ426349	HQ426180	JF416849	JF416882
<i>Chatogekko amazonicus</i>	LSUMZ-H17771	Parque Estadual Guajara-Mirim, Rondonia, Brazil	JF416913	JF416917	JF416923	JF416920	JF416926	JF416850	JF416883
<i>Coleodactylus brachystoma</i>	MZUSP92569	Piauí, Brazil	EF534792	EF534959	EF534917	EF534874	EF534833	JF416851	JF416884
<i>Coleodactylus</i> cf. <i>brachystoma</i>	CHUNB43901	São Domingos, Goiás, Brazil	HQ426270	HQ426443	HQ426527	HQ426350	HQ426181	JF416852	JF416885
<i>Coleodactylus septentrionalis</i>	LSUMZ-H12351	East of Rio Ajarani, Roraima, Brazil	EF534791	EF534958	EF534916	EF534873	EF534832	JF416853	JF416886
<i>Gonatodes albogularis</i>	MVZ 204073	Limon, Costa Rica	EF534797	–	–	–	EF534839	–	–

Species	Specimen ID	Locality	RAG1	RAG2	C-MOS	ACM4	PDC	PTPN12	RBMX
<i>Gonatodes albogularis</i>	KU 289808	San Salvador, El Salvador	–	EF534965	EF534923	EF534880	–	JF416854	JF416887
<i>Gonatodes annularis</i>	ROM 22961	Guyana	–	EF534961	EF534919	EF534876	–	JF416855	JF416888
<i>Gonatodes annularis</i>	No ID	French Guiana	EF534794	–	–	–	EF534835	–	–
<i>Gonatodes caudiscutatus</i>	KU218359	Limon, Ecuador	EF534795	EF534962	EF534920	EF534877	EF534836	JF416856	JF416889
<i>Gonatodes ceciliae</i>	TG00039	Trinidad	JF416914	EF564114	EF564088	EF564062	HQ426193	JF416857	JF416890
<i>Gonatodes concinnatus</i>	LSUMZ-H12688	Sucumbios, Ecuador	HQ426282	EF564096	EF564070	EF564044	HQ426194	JF416858	JF416891
<i>Gonatodes eladioi</i>	CHUNB40097	Pará, Brazil	HQ426283	EF564107	EF564081	EF564055	HQ426195	JF416859	JF416892
<i>Gonatodes humeralis</i>	MF19492	Tiputini Biodiversity Station, Orellana, Ecuador	EF534796	EF534964	EF534922	EF534879	EF534838	JF416860	JF416893
<i>Lepidoblepharis</i> sp.	KU218367	Manabi, Ecuador	EF534789	EF534956	EF534914	EF534871	EF534830	JF416861	JF416894
<i>Lepidoblepharis festae</i>	LSUMZ-H12704	Sucumbios, Ecuador	HQ426297	EF564094	EF564068	EF564042	HQ426208	JF416862	JF416895
<i>Lepidoblepharis xanthostigma</i>	MVZ171438	Limon, Costa Rica	EF534790	EF534957	EF534915	EF534872	EF534831	JF416863	JF416896
<i>Pseudogonatodes guianensis</i>	AMCC106916	Berbice River, Guyana	HQ426316	HQ426490	HQ426571	HQ426399	HQ426228	JF416864	JF416897
<i>Pseudogonatodes guianensis</i>	KU222142	Loreto, Peru	EF534784	EF534950	EF534908	EF534865	EF534824	JF416865	JF416898
<i>Pseudogonatodes guianensis</i>	LSUMZ-H13583	Rio Jurura, Acre, Brazil	HQ426317	HQ426491	HQ426572	HQ426400	HQ426229	JF416866	JF416899
<i>Saurodactylus brosetti</i>	TG00082	Morocco	EF534802	EF534970	EF534928	EF534885	EF534844	JF416867	JF416900
<i>Sphaerodactylus elegans</i>	YPM 14795	Monroe County, Florida, USA	EF534787	EF534954	EF534912	EF534869	EF534828	JF416868	JF416901

Species	Specimen ID	Locality	<i>RAG1</i>	<i>RAG2</i>	<i>C-MOS</i>	<i>ACM4</i>	<i>PDC</i>	<i>PTPN12</i>	<i>RBMX</i>
<i>Sphaerodactylus glaucus</i>	JAC24229	Oaxaca, Mexico	HQ426325	HQ426498	HQ426579	HQ426408	HQ426237	JF416869	JF416902
<i>Sphaerodactylus macrolepis</i>	TG00099	Puerto Rico	HQ426326	HQ426499	HQ426580	HQ426409	HQ426238	JF416870	JF416903
<i>Sphaerodactylus nicholsi</i>	TG00211	Puerto Rico	HQ426328	HQ426501	HQ426582	HQ426411	HQ426240	JF416871	JF416904
<i>Sphaerodactylus nigropunctatus</i>	FLMNH144010	Long Island, Bahamas	HQ426329	EF534953	EF534911	EF534868	EF534827	JF416872	JF416905
<i>Sphaerodactylus torrei</i>	JB34	Cuba	EF534788	EF534955	EF534913	EF534870	EF534829	JF416873	JF416906
<i>Pristurus carteri</i>	TG00083	Yemen	EF534803	EF534971	EF534929	EF534886	EF534845	JF416874	JF416907
<i>Teratoscincus przewalskii</i>	TG00253	China	HQ426335	HQ426507	HQ426588	HQ426417	HQ426246	JF416875	JF416908
<i>Teratoscincus microlepis</i>	TG00074	Pakistan	EF534800	EF534968	EF534926	EF534883	EF534842	JF416876	JF416909
<i>Hemidactylus platyurus</i>	JFBM15815	unknown	HQ426273	HQ426446	HQ426530	HQ426353	HQ426184	JF416877	JF416910

## Literature Cited

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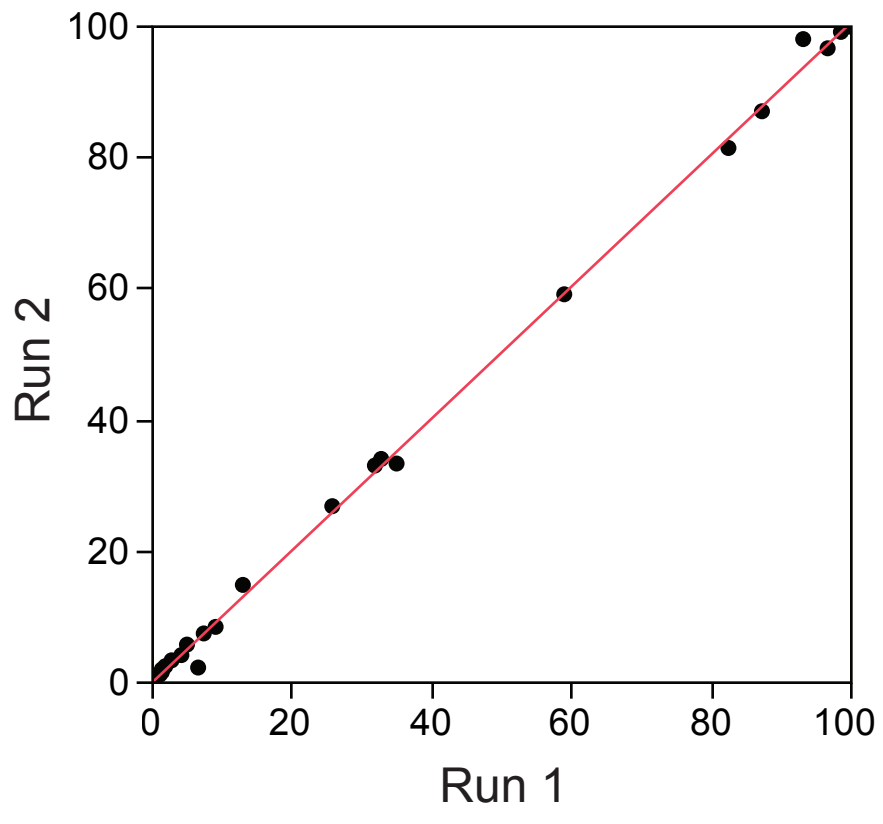


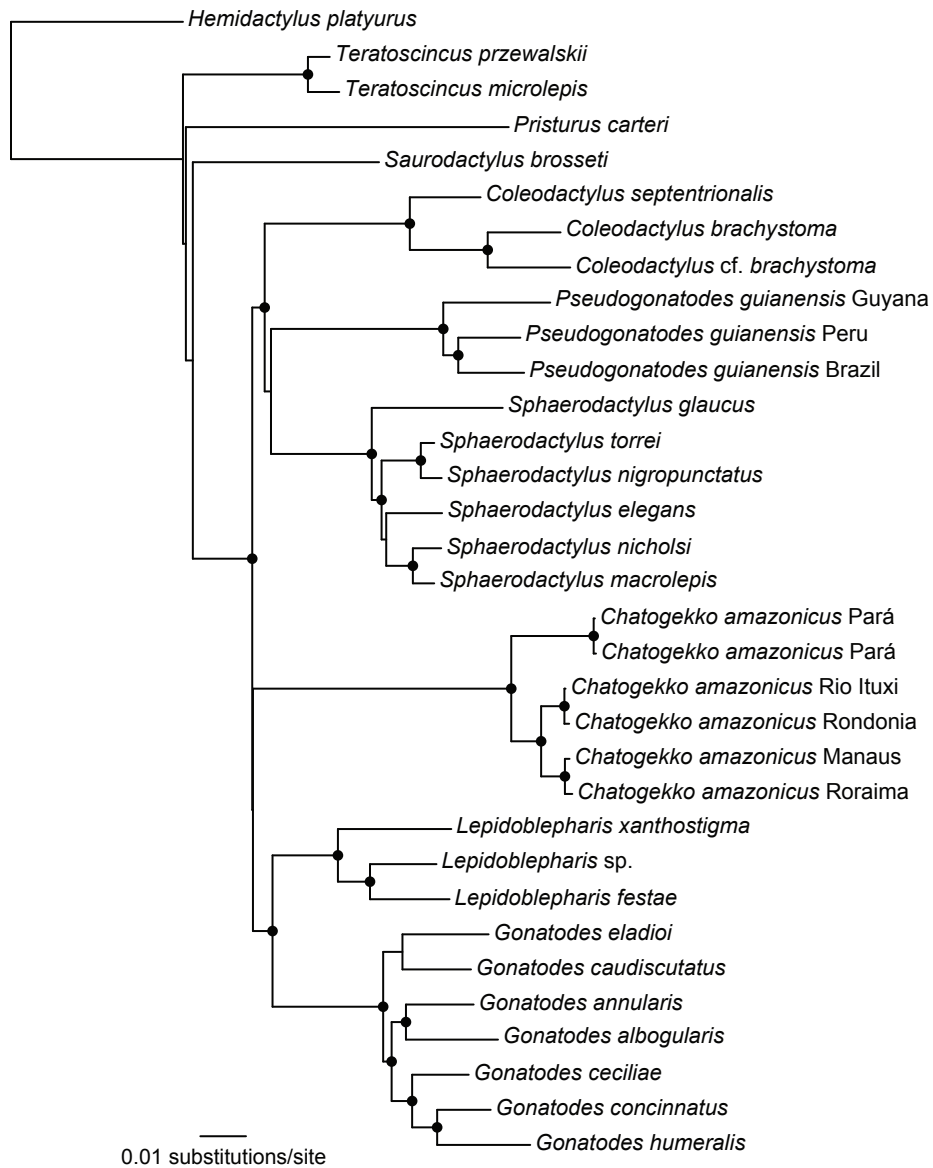
## **Supplementary Figures**

Supplementary Figure 1. Split frequencies in run1 vs. run2 for the concatenated Bayesian analysis of the nuclear gene data.

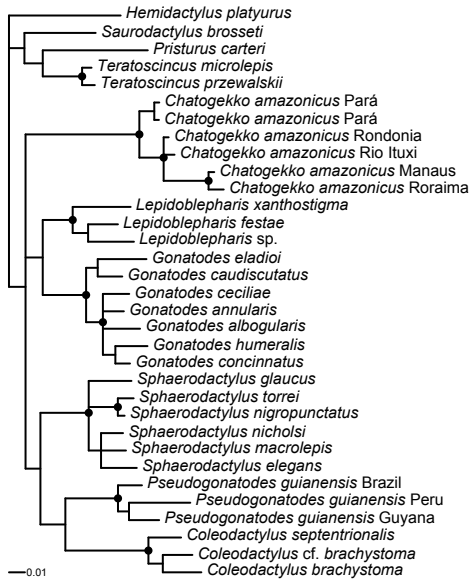
Supplementary Figure 2. Partitioned Maximum Likelihood phylogeny estimated from the nuclear gene dataset. Black circles indicate nodes with bootstrap values  $> 70$ .

Supplementary Figure 3. Bayesian phylogenies for each of the individual loci from the nuclear gene data. Black circles indicate nodes with posterior probabilities  $> 0.95$ .

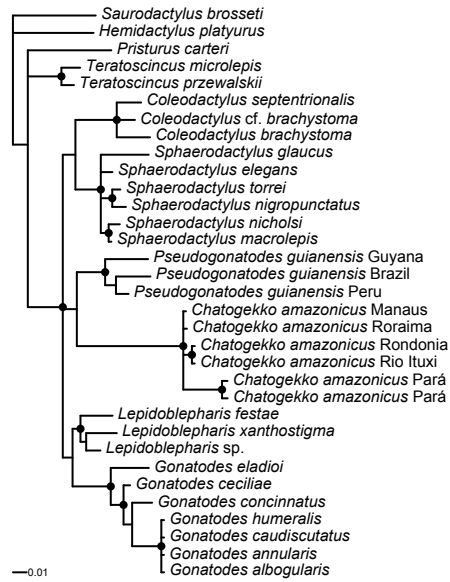




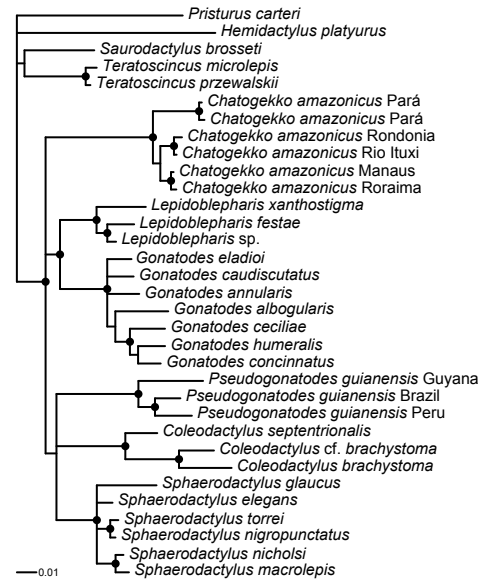
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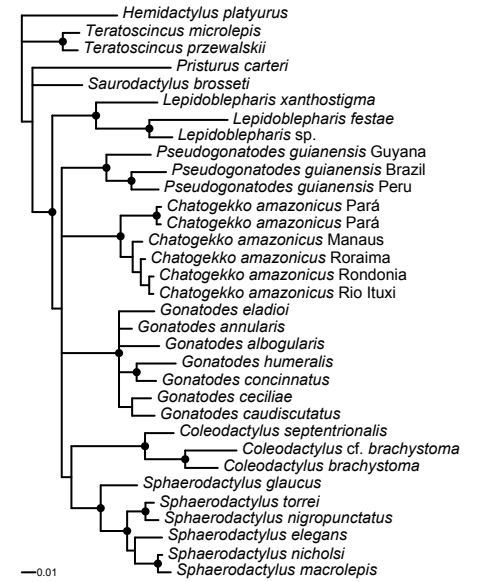
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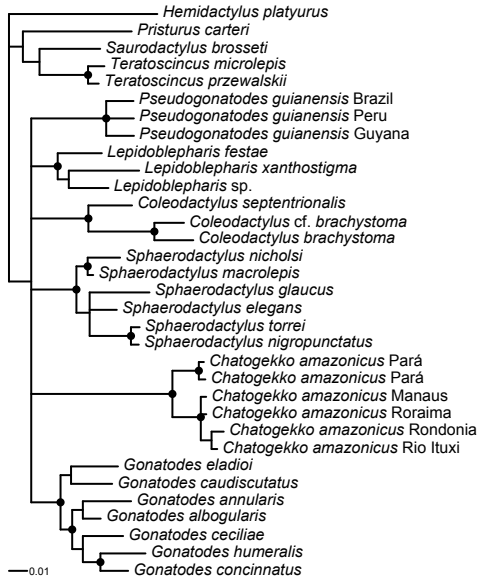
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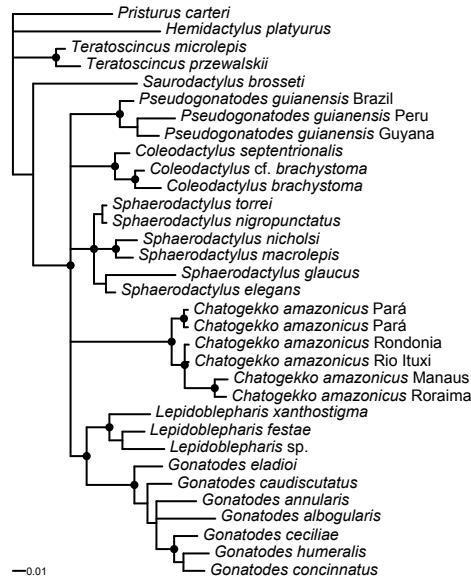
### RAG2



### C-MOS



### PDC



### RAG1

