

## SUPPORTING INFORMATION

### For in One: Cryptic Diversity in the Geoffroy's Side-Necked Turtle *Phrynops geoffroanus* (Schweigger 1812) (Testudines: Pleurodira: Chelidae)

#### SAMPLING AND SOURCE OF DNA

**Supplementary Table S1.** List of genetic sample of *Phrynops geoffroanus* taxa used in this study, with localities, country, basins, geographic coordinates, genbank access, museum voucher (see Methods).

Lineage	Sample	Locality, Country	Basins	lat	long	16S	CYTB	COI	Voucher number
L1	<i>P. geoffroanus</i>	Anhanduinzinho stream, Campo Grande, Mato Grosso do Sul, Brazil	Parana	-20.757239°	-54.384169°	ON063157	ON061168	ON063068	INPA-H 27634
L1	<i>P. geoffroanus</i>	Anhanduinzinho stream, Campo Grande, Mato Grosso do Sul, Brazil	Parana	-20.757239°	-54.384169°	ON063154	ON061165	ON063065	INPA-H 27623
L1	<i>P. geoffroanus</i>	Anhanduinzinho stream, Campo Grande, Mato Grosso do Sul, Brazil	Parana	-20.757239°	-54.384169°	ON063156	ON061167	ON063067	INPA-H 27230
L1	<i>P. geoffroanus</i>	Anhanduinzinho stream, Campo Grande, Mato Grosso do Sul, Brazil	Parana	-20.757239°	-54.384169°	ON063155	ON061166	ON063066	INPA-H 27629
L1	<i>P. geoffroanus</i>	Uberabinha River, Uberaba, Minas Gerais, Brazil	Parana	-18.907083°	-48.307798°	ON063146	ON061130	ON063057	INPA-H 27592
L1	<i>P. geoffroanus</i>	Uberabinha River, Uberaba, Minas Gerais, Brazil	Parana	-18.907083°	-48.307798°	ON063145	ON061129	ON063056	INPA-H 27591
L1	<i>P. geoffroanus</i>	Uberabinha River, Uberaba, Minas Gerais, Brazil	Parana	-18.907083°	-48.307798°	ON063147	ON061131	ON063058	INPA-H 27593
L1	<i>P. geoffroanus</i>	Uberabinha River, Uberaba, Minas Gerais, Brazil	Parana	-18.907083°	-48.307798°	ON063149	ON061134	ON063061	INPA-H 27604
L1	<i>P. geoffroanus</i>	Uberabinha River, Uberaba, Minas Gerais, Brazil	Parana	-18.907083°	-48.307798°	ON063150	ON061133	ON063060	INPA-H 27601
L1	<i>P. geoffroanus</i>	Uberabinha River, Uberaba, Minas Gerais, Brazil	Parana	-18.907083°	-48.307798°	ON063148	ON061132	ON063059	INPA-H 27600
L1	<i>P. geoffroanus</i>	Lindóia River, Londrina, Paraná, Brazil	Parana	-23.284493°	-51.109415°	ON063177	ON061171	ON063088	INPA-H 29054
L1	<i>P. geoffroanus</i>	Lindóia River, Londrina, Paraná, Brazil	Parana	-23.284493°	-51.109415°	ON063175	ON061169	ON063087	INPA-H 29045

L1	<i>P. geoffroanus</i>	Lindóia River, Londrina, Paraná, Brazil	Paraná	-23.284493°	-51.109415°	ON063176	ON061170	ON063086	INPA-H 29051
L1	<i>P. geoffroanus</i>	Green Lake, Tapajós River, Santarém, Pará, Brazil	Amazonas	-2.509800°	-54.932759°	ON063184	ON061154	ON063100	INPA-H 33842
L1	<i>P. geoffroanus</i>	Green Lake, Tapajós River, Santarém, Pará, Brazil	Amazonas	-2.509800°	-54.932759°	ON063183	ON061153	ON063099	INPA-H 33841
L1	<i>P. geoffroanus</i>	Taquaruçuzinho River, Tocantins, Brazil	Amazonas	-10.310822°	-48.150442°	ON063201	ON061152	ON063112	INPA-H 34889
L1	<i>P. geoffroanus</i>	Paranoá Lake, Brasília, Distrito Federal, Brazil	Parana	-15.776779°	-47.858755°	ON063151	ON061135	ON063062	INPA-H 27606
L1	<i>P. geoffroanus</i>	Paranoá Lake, Brasília, Distrito Federal, Brazil	Parana	-15.776779°	-47.858755°	ON063153	ON061137	ON063064	INPA-H 27619
L1	<i>P. geoffroanus</i>	Paranoá Lake, Brasília, Distrito Federal, Brazil	Parana	-15.776779°	-47.858755°	ON063152	ON061136	ON063063	INPA-H 27618
L1	<i>P. geoffroanus</i>	Piracicaba River, Piracicaba, São Paulo, Brazil	Parana	-22.679111°	-47.540663°	ON063142	ON061158	ON063053	INPA-H 26126
L1	<i>P. geoffroanus</i>	Piracicaba River, Piracicaba, São Paulo, Brazil	Parana	-22.679111°	-47.540663°	ON063141	ON061157	ON063052	INPA-H 26125
L1	<i>P. geoffroanus</i>	Piracicaba River, Piracicaba, São Paulo, Brazil	Parana	-22.679111°	-47.540663°	ON063140	ON061156	ON063051	INPA-H 26124
L1	<i>P. geoffroanus</i>	Piracicaba River, Piracicaba, São Paulo, Brazil	Parana	-22.679111°	-47.540663°	ON063139	ON061155	ON063050	INPA-H 26122
L1	<i>P. geoffroanus</i>	Piracicaba River, Piracicaba, São Paulo, Brazil	Parana	-22.679111°	-47.540663°	ON063143	ON061159	ON063054	INPA-H 26127
L1	<i>P. geoffroanus</i>	Piracicaba River, Piracicaba, São Paulo, Brazil	Parana	-22.679111°	-47.540663°	ON063144	ON061160	ON063055	INPA-H 26134
L1	<i>P. geoffroanus</i>	Piracicaba River, Anhembi, São Paulo, Brazil	Parana	-22.614889°	-48.037386°	ON063188	ON061164	ON063107	INPA-H 34303
L1	<i>P. geoffroanus</i>	Aguapeí River, Castilho, São Paulo, Brazil	Parana	-21.064909°	-51.745594°	ON063185	ON061162	ON063105	INPA-H 34291
L1	<i>P. geoffroanus</i>	Aguapeí River, Castilho, São Paulo, Brazil	Parana	-21.064909°	-51.745594°	ON063186	ON061163	ON063106	INPA-H 34292
L1	<i>P. geoffroanus</i>	Aguapeí River, Castilho, São Paulo, Brazil	Parana	-21.064909°	-51.745594°	ON063187	ON061161	ON063101	INPA-H 34254
L1	<i>P. geoffroanus</i>	Araguaia River, Barra do Garças, Mato Grosso, Brazil	Araguaia/Tocantins	-15.696112°	-52.131174°	ON063190	ON061146	ON063103	INPA-H 34258
L1	<i>P. geoffroanus</i>	Araguaia River, Barra do Garças, Mato Grosso, Brazil	Araguaia/Tocantins	-15.696112°	-52.131174°	ON063189	ON061145	ON063102	INPA-H 34257
L1	<i>P. geoffroanus</i>	São Gonçalo River, Cuiabá, Mato Grosso, Brazil	Paraguay	-15.645573°	-56.066384°	ON063191	ON061147	ON063104	INPA-H 34260

L1	<i>P. geoffroanus</i>	São Gonçalo River, Cuiabá, Mato Grosso, Brazil	Paraguay	-15.645573°	-56.066384°	ON063193	ON061141	ON063090	INPA-H 30417
L1	<i>P. geoffroanus</i>	São Gonçalo River, Cuiabá, Mato Grosso, Brazil	Paraguay	-15.645573°	-56.066384°	ON063192	ON061140	ON063089	INPA-H 30416
L1	<i>P. geoffroanus</i>	Camarinha River, Porto Estrela, Mato Grosso, Brazil	Paraguay	-15.998708°	-57.419831°	ON063195	ON061143	ON063092	INPA-H 30422
L1	<i>P. geoffroanus</i>	Camarinha River, Porto Estrela, Mato Grosso, Brazil	Paraguay	-15.998708°	-57.419831°	ON063196	ON061144	ON063093	INPA-H 30423
L1	<i>P. geoffroanus</i>	Camarinha River, Porto Estrela, Mato Grosso, Brazil	Paraguay	-15.998708°	-56.683485°	ON063194	ON061142	ON063091	INPA-H 30420
L1	<i>P. geoffroanus</i>	UHE Yacyretá, Corrientes, Argentina	Parana	-27.454583°	-57.419831°	ON063206	ON061172	ON063117	MLPDB 5283
L1	<i>P. geoffroanus</i>	UHE Yacyretá, Corrientes, Argentina	Parana	-27.454583°	-57.419831°	ON063207	ON061173	ON063118	MLPDB 6495
L2	<i>P. geoffroanus</i>	Aripuanã River, Aripuanã, Mato Grosso, Brazil	Amazonas	-10.162786°	-59.448605°	ON063137	ON061138	ON063048	INPA-H 34908
L2	<i>P. geoffroanus</i>	Aripuanã River, Aripuanã, Mato Grosso, Brazil	Amazonas	-10.162786°	-59.448605°	ON063138	ON061139	ON063049	INPA H 34909
L2	<i>P. geoffroanus</i>	Pirarara River, Cacoal, Rondônia, Brazil	Amazonas	-11.425813°	-61.467387°	ON063205	ON061151	ON063116	INPA-H 34905
L2	<i>P. geoffroanus</i>	Pirarara River, Cacoal, Rondônia, Brazil	Amazonas	-11.425813°	-61.467387°	ON063203	ON061149	ON063114	INPA-H 34901
L2	<i>P. geoffroanus</i>	Pirarara River, Cacoal, Rondônia, Brazil	Amazonas	-11.425813°	-61.467387°	ON063204	ON061150	ON063115	INPA-H 34902
L2	<i>P. geoffroanus</i>	Machado River, Ji-Paraná, Rondônia, Brazil	Amazonas	-10.114157°	-61.912930°	ON063202	ON061148	ON063113	INPA-H 34345
L3	<i>P. geoffroanus</i>	Itans Lake, Caicó, Rio Grande do Norte, Brazil	Notheastern Atlantic	-6.491912°	-37.067279°	ON063174	ON061115	ON063085	INPA-H 27996
L3	<i>P. geoffroanus</i>	Itans Lake, Caicó, Rio Grande do Norte, Brazil	Notheastern Atlantic	-6.491912°	-37.067279°	ON063171	ON061112	ON063082	INPA-H 27991
L3	<i>P. geoffroanus</i>	Itans Lake, Caicó, Rio Grande do Norte, Brazil	Notheastern Atlantic	-6.491912°	-37.067279°	ON063172	ON061113	ON063083	INPA-H 27992
L3	<i>P. geoffroanus</i>	Itans Lake, Caicó, Rio Grande do Norte, Brazil	Notheastern Atlantic	-6.491912°	-37.067279°	ON063173	ON061114	ON063084	INPA-H 27993
L3	<i>P. geoffroanus</i>	Itans Lake, Caicó, Rio Grande do Norte, Brazil	Notheastern Atlantic	-6.491912°	-37.067279°	ON063170	ON061111	ON063081	INPA-H 27989
L3	<i>P. geoffroanus</i>	Formoso River, Tamandaré, Pernambuco, Brazil	Notheastern Atlantic	-8.727634°	-35.153122°	ON063158	ON061125	ON063069	INPA-H 27794
L3	<i>P. geoffroanus</i>	Formoso River, Tamandaré, Pernambuco, Brazil	Notheastern Atlantic	-8.727634°	-35.153122°	ON063161	ON061128	ON063072	INPA-H 27803

L3	<i>P. geoffroanus</i>	Formoso River, Tamandaré, Pernambuco, Brazil	Notheastern Atlantic	-8.727634°	-35.153122°	ON063159	ON061126	ON063070	INPA-H 27796
L3	<i>P. geoffroanus</i>	Formoso River, Tamandaré, Pernambuco, Brazil	Notheastern Atlantic	-8.727634°	-35.153122°	ON063160	ON061127	ON063071	INPA-H 27802
L3	<i>P. geoffroanus</i>	Carinhanha River, Carinhanha, Bahia, Brazil	São Francisco	-14.319964°	-43.487613°	ON063200	ON061124	ON063111	INPA-H 34883
L3	<i>P. geoffroanus</i>	Carinhanha River, Carinhanha, Bahia, Brazil	São Francisco	-14.319964°	-43.487613°	ON063198	ON061121	ON063108	INPA-H 34879
L3	<i>P. geoffroanus</i>	Carinhanha River, Carinhanha, Bahia, Brazil	São Francisco	-14.319964°	-43.487613°	ON063199	ON061123	ON063110	INPA-H 34882
L3	<i>P. geoffroanus</i>	Carinhanha River, Carinhanha, Bahia, Brazil	São Francisco	-14.319964°	-43.487613°	ON063197	ON061122	ON063109	INPA-H 34880
L3	<i>P. geoffroanus</i>	Brigida River, Ouricuri, Pernambuco, Brazil	São Francisco	-8.130546°	-40.083797°	ON063182	ON061120	ON063098	URCA 828
L3	<i>P. geoffroanus</i>	Palmeiras River, Juazeiro do Norte, Ceará, Brazil	São Francisco	-7.134734°	-30.314594°	ON063180	ON061118	ON063096	INPA-H 30530
L3	<i>P. geoffroanus</i>	Palmeiras River, Juazeiro do Norte, Ceará, Brazil	São Francisco	-7.134734°	-30.314594°	ON063181	ON061119	ON063097	INPA-H 30531
L3	<i>P. geoffroanus</i>	Palmeiras River, Juazeiro do Norte, Ceará, Brazil	São Francisco	-7.134734°	-30.314594°	ON063178	ON061116	ON063094	INPA-H 30527
L3	<i>P. geoffroanus</i>	Palmeiras River, Juazeiro do Norte, Ceará, Brazil	São Francisco	-7.134734°	-30.314594°	ON063179	ON061117	ON063095	INPA-H 30529
L4	<i>P. geoffroanus</i>	Manhuaçu River, Caratinga, Minas Gerais, Brazil	Southeastern Atlantic	-19.725810°	-41.802147°	ON063167	ON061108	ON063078	INPA-H 27813
L4	<i>P. geoffroanus</i>	Manhuaçu River, Caratinga, Minas Gerais, Brazil	Southeastern Atlantic	-19.725810°	-41.802147°	ON063164	ON061105	ON063075	INPA-H 27809
L4	<i>P. geoffroanus</i>	Manhuaçu River, Caratinga, Minas Gerais, Brazil	Southeastern Atlantic	-19.725810°	-41.802147°	ON063169	ON061110	ON063079	INPA-H 27815
L4	<i>P. geoffroanus</i>	Manhuaçu River, Caratinga, Minas Gerais, Brazil	Southeastern Atlantic	-19.725810°	-41.802147°	ON063166	ON061107	ON063077	INPA-H 27811
L4	<i>P. geoffroanus</i>	Manhuaçu River, Caratinga, Minas Gerais, Brazil	Southeastern Atlantic	-19.725810°	-41.802147°	ON063162	ON061103	ON063073	INPA-H 27804
L4	<i>P. geoffroanus</i>	Manhuaçu River, Caratinga, Minas Gerais, Brazil	Southeastern Atlantic	-19.725810°	-41.802147°	ON063163	ON061104	ON063074	INPA-H 27806
L4	<i>P. geoffroanus</i>	Manhuaçu River, Caratinga, Minas Gerais, Brazil	Southeastern Atlantic	-19.725810°	-41.802147°	ON063165	ON061106	ON063076	INPA-H 27810
L4	<i>P. geoffroanus</i>	Manhuaçu River, Caratinga, Minas Gerais, Brazil	Southeastern Atlantic	-19.725810°	-41.802147°	ON063168	ON061109	ON063080	INPA-H 27814