# Appendix 1

Table S1. List of specimens used in phylogenetic analyses, with Genbank accession numbers, and source of the data.

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| --- | --- | --- | --- |
| Species | Catalog number | GenBank | Source |
| *Cryptonanus chacoensis* | GD 521 | GQ911596 | Teta et al. (2009) |
| *Cryptonanus agricolai* | UUPI167 | HQ622148 | Lóss et al. (2011) |
| *Cryptonanus unduaviensis* | NK14234 | HM583366 | Giarla et al. (2010) |
| *Cryptonanus guahybae* | UFSC 4854 | KM403638 | This study |
| *Cryptonanus guahybae* | MCNU 1725 | KM403640 | This study |
| *Cryptonanus guahybae* | MCNU 2808 | KM403639 | This study |
| *Gracilinanus microtarsus* | YL237 | GU112890 | Agrizzi et al. (2012) |
| *Gracilinanus microtarsus* | LPC1204 | GU112891 | Agrizzi et al. (2012) |
| *Gracilinanus agilis* | LBCE3832 | KF313976 | Faria et al. (2013) |
| *Gracilinanus agilis* | JAO1184 | KF313981 | Faria et al. (2013) |
| *Didelphis marsupialis* | MPEG24569 | DQ236278 | Nunes et al. (2006) |
| *Didelphis albiventris* | T-1786 | AJ487004 | Steiner and Catzeflis (2003) |

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# Appendix 2

**Gazetteer**

List of collecting localities and specimens examined. Localities of *Cryptonanus guahybae* and their respective geographic coordinates (Longitude / Latitude) correspond to numbered localities on the map (Figure 2). Localities are listed by Brazilian states (abbreviations in parentheses). Record localities from the literature are underlined and new collecting localities are not underlined. Specimen collection numbers have superscript letters according to available data: genetic data (G), morphological data (M), and both genetic and morphological data (B).

*Cryptonanus guahybae*

**Paraná (PR): 1.** São Mateus do Sul 25°50’S 50°24’W (UFSC 5197 M).

**Santa Catarina (SC):** **2.** Quilombo 26°41’'S 52°36’W (UFSC 3835 M); **3.** Passos Maia 26º41’S 51º55’W (UFSC 4589 M, 5203 M), 26º42'S 51º54’W (UFSC 4821 M); **4.** Baixada do Maciambu, Palhoça (Parque Estadual da Serra do Tabuleiro) 27°50’S 48°37’W (UFSC 3849 M, 3850 M, 4465 M, 4854 B, 4855 M; 5234 M); **5.** Xavantina 27°00’S; 52°24’W (UFSC 3801 M); **6.** Guatambu 27°10’S 52°46’W (UFSC 4006 M, 4007 M); **7.** Chapecó 27°14’S 52°35’W (UFSC 3853 M, 4050 M, 4051);

**Rio Grande do Sul (RS): 8.** Area of influence of Itá hydroelectric 27°16’S 52°23’W (Quintela et al., 2011); **9.** Alpestre 27°14’S 52°58’W (UFSC 3856 M, UFSC 4049 B); Rio dos Índios 27°13’S 52°57’W (UFSC 3857 M); **10.** Derrubadas 27°15’S 53°51’W (Quintela et al., 2011); **11.** Três Passos 27°27’S 53°55’W (MCNU 2808 B); **12.** Esmeralda (Estação Ecológica de Aracuri) 28°12’S 51°09’W (MCNU 1725 B) (Quintela et al., 2011); **13.** Tainhas 29°15’S 50°18’W (Quintela et al., 2011); **14.** Taquara 29°38’S 50°46’W (Quintela et al., 2011); **15.** Venâncio Aires 29°36’S 52°11’W (Quintela et al., 2011); **16.** Island of Guaíba 29°58’S 51°19’W (Tate, 1931); **17.** Charqueadas 29°56’S 51°37’W (Carvalho et al., 2002); **18.** Mostardas 31°00’S 50°55’W (Carvalho et al., 2002); **19.** Tapes 30°39’S 51°23’W; **20.** São Lourenço do Sul 31°21’S 51°58’W (Tate, 1931); **21.** Rio Grande (Área de Proteção Ambiental da Lagoa Verde) 32°01’S 52°04’W (Quintela et al., 2011).

*Gracilinanus microtarsus*

**Paraná (PR):** São Mateus do Sul (UFSC 5199 M)

**Santa Catarina (SC):** São Domingos (UFSC 2951 M, 3716 M); Itapoá (UFSC 3000 M); Santo Amaro da Imperatriz (UFSC 3214 M); Três Barras (UFSC 3715 M); Rio dos Índios (UFSC 3855 M); Xaxim (UFSC 3914 M, 4972 M); Caçador (UFSC 4054 M); Joinville (UFSC 4370 M, 4371 M, 4372 M, 4373 M); Passos Maia (UFSC 4466 M, 4467 M, 4468 M); Praia Grande (UFSC 4856 M); Tangará (UFSC 4864 M); Chapecó (UFSC 3854 M).