

Table S1: *Trypanosoma rangeli* infection in different mammalian species in Brazilian biomes.

| Sample ID | Host | Year | Biome | SSU rDNA | GenBank accession number |
|-----------|-------------------------------|------|-----------------------------------|---------------------|--------------------------|
| C01 | <i>Didelphis albiventris</i> | 2005 | CE/Caatinga | <i>T. rangeli</i> A | MN648976 |
| C140 | <i>Nasua nasua</i> | 2009 | MS/Pantanal | <i>T. rangeli</i> A | MN648980 |
| C167 | <i>Didelphis marsupialis</i> | 2009 | PA/Amazon | <i>T. rangeli</i> A | MN649025 |
| C375 | <i>Sapajus libidinosus</i> | 2011 | MA/Amazon-Cerrado transition area | <i>T. rangeli</i> A | MN648994 |
| C376 | <i>Sapajus libidinosus</i> | 2011 | MA/Amazon-Cerrado transition area | <i>T. rangeli</i> A | MN648995 |
| C377 | <i>Sapajus libidinosus</i> | 2011 | MA/Amazon-Cerrado transition area | <i>T. rangeli</i> A | MN648996 |
| C379 | <i>Sapajus libidinosus</i> | 2011 | MA/Amazon-Cerrado transition area | <i>T. rangeli</i> A | MN648997 |
| C381 | <i>Sapajus libidinosus</i> | 2011 | MA/Amazon-Cerrado transition area | <i>T. rangeli</i> A | MN648998 |
| C382 | <i>Sapajus libidinosus</i> | 2011 | MA/Amazon-Cerrado transition area | <i>T. rangeli</i> A | MN648999 |
| C383 | <i>Sapajus libidinosus</i> | 2011 | MA/Amazon-Cerrado transition area | <i>T. rangeli</i> A | MN649000 |
| C384 | <i>Sapajus libidinosus</i> | 2011 | MA/Amazon-Cerrado transition area | <i>T. rangeli</i> A | MN649001 |
| C386 | <i>Coendou prehensilis</i> | 2011 | MA/Amazon-Cerrado transition area | <i>T. rangeli</i> A | MN649002 |
| C390 | <i>Sapajus libidinosus</i> | 2011 | MA/Amazon-Cerrado transition area | <i>T. rangeli</i> A | MN649004 |
| C391 | <i>Sapajus libidinosus</i> | 2011 | MA/Amazon-Cerrado transition area | <i>T. rangeli</i> A | MN649005 |
| C392 | <i>Sapajus libidinosus</i> | 2011 | MA/Amazon-Cerrado transition area | <i>T. rangeli</i> A | MN649006 |
| C393 | <i>Sapajus libidinosus</i> | 2011 | MA/Amazon-Cerrado transition area | <i>T. rangeli</i> A | MN649007 |
| C402 | <i>Sapajus libidinosus</i> | 2011 | MA/Amazon-Cerrado transition area | <i>T. rangeli</i> A | MN649008 |
| C587 | <i>Carollia perspicillata</i> | 2014 | AC/Amazon | <i>T. rangeli</i> A | KY649114 ^a |
| C750 | <i>Canis familiaris</i> | 2017 | AC/Amazon | <i>T. rangeli</i> A | MN649017 |
| C77 | <i>Nasua nasua</i> | 2009 | MS/Pantanal | <i>T. rangeli</i> B | MN648977 |
| C85 | <i>Nasua nasua</i> | 2009 | MS/Pantanal | <i>T. rangeli</i> B | MN648978 |
| C93 | <i>Nasua nasua</i> | 2009 | MS/Pantanal | <i>T. rangeli</i> B | MN649021 |
| C97 | <i>Nasua nasua</i> | 2009 | MS/Pantanal | <i>T. rangeli</i> B | MN649023 |
| C98 | <i>Nasua nasua</i> | 2009 | MS/Pantanal | <i>T. rangeli</i> B | MN649024 |
| C129 | <i>Nasua nasua</i> | 2009 | MS/Pantanal | <i>T. rangeli</i> B | MN648979 |
| C146 | <i>Nasua nasua</i> | 2009 | MS/Pantanal | <i>T. rangeli</i> B | MN649027 |
| C148 | <i>Nasua nasua</i> | 2009 | MS/Pantanal | <i>T. rangeli</i> B | MN648981 |
| C179 | <i>Nasua nasua</i> | 2007 | MS/Pantanal | <i>T. rangeli</i> B | MN648982 |
| C185 | <i>Nasua nasua</i> | 2009 | MS/Pantanal | <i>T. rangeli</i> B | MN648983 |
| C210 | <i>Nasua nasua</i> | 2010 | MS/Pantanal | <i>T. rangeli</i> B | MN648984 |

| | | | | | |
|-------------------|---------------------------------|------|-----------------------------------|---------------------|-----------------------|
| C212 | <i>Nasua nasua</i> | 2010 | MS/Pantanal | <i>T. rangeli</i> B | MN648985 |
| C286 | <i>Nasua nasua</i> | 2006 | MS/Pantanal | <i>T. rangeli</i> B | MN648986 |
| C296 | <i>Nasua nasua</i> | 2006 | MS/Pantanal | <i>T. rangeli</i> B | MN648987 |
| C299 | <i>Nasua nasua</i> | 2008 | MS/Pantanal | <i>T. rangeli</i> B | MN648988 |
| C342 | <i>Nasua nasua</i> | 2008 | MS/Pantanal | <i>T. rangeli</i> B | MN648989 |
| C359 | <i>Nasua nasua</i> | 2011 | MS/Pantanal | <i>T. rangeli</i> B | MN648990 |
| C372 | <i>Alouatta belzebul</i> | 2011 | MA/Amazon-Cerrado transition area | <i>T. rangeli</i> B | MN648991 |
| C373 | <i>Alouatta caraya</i> | 2011 | MA/Amazon-Cerrado transition area | <i>T. rangeli</i> B | MN648992 |
| C374 | <i>Sapajus libidinosus</i> | 2011 | MA/Amazon-Cerrado transition area | <i>T. rangeli</i> B | MN648993 |
| C389 | <i>Sapajus libidinosus</i> | 2011 | MA/Amazon-Cerrado transition area | <i>T. rangeli</i> B | MN649003 |
| C710 | <i>Saguinus bicolor bicolor</i> | 2016 | AM/Amazon | <i>T. rangeli</i> B | MN649011 |
| C711 | <i>Nasua nasua</i> | 2016 | MS/Pantanal | <i>T. rangeli</i> B | MN649012 |
| C713 | <i>Nasua nasua</i> | 2016 | MS/Pantanal | <i>T. rangeli</i> B | MN649013 |
| C714 | <i>Nasua nasua</i> | 2016 | MS/Pantanal | <i>T. rangeli</i> B | MN649014 |
| C721 | <i>Nasua nasua</i> | 2016 | MS/Pantanal | <i>T. rangeli</i> B | MN649016 |
| RM2028 | <i>Carollia perspicillata</i> | 2015 | ES/Atlantic Forest | <i>T. rangeli</i> B | MF141861 ^a |
| C593 | <i>Carollia perspicillata</i> | 2014 | ES/Atlantic Forest | <i>T. rangeli</i> D | MF141848 ^a |
| C636 | <i>Trinomys dimidiatus</i> | 2015 | RJ/Atlantic Forest | <i>T. rangeli</i> D | MN649009 |
| C637 | <i>Didelphis aurita</i> | 2015 | RJ/Atlantic Forest | <i>T. rangeli</i> D | MN649010 |
| C94 | <i>Canis familiaris</i> | 2009 | PA/Amazon | <i>T. rangeli</i> E | MN649022 |
| C170 | <i>Philander opossum</i> | 2008 | PA/Amazon | <i>T. rangeli</i> E | MN649026 |
| C720 | <i>Procyon cancrivorus</i> | 2016 | MS/Pantanal | <i>T. rangeli</i> E | MN649015 |
| C752 ^b | <i>Priodontes maximus</i> | 2017 | MS/Pantanal | <i>T. rangeli</i> E | MN649018 |
| C776 ^b | <i>Priodontes maximus</i> | 2017 | MS/Pantanal | <i>T. rangeli</i> E | MN649019 |
| C792 ^b | <i>Priodontes maximus</i> | 2017 | MS/Pantanal | <i>T. rangeli</i> E | MN649020 |
| LBT 6705 | <i>Canis familiaris</i> | 2015 | RJ/Atlantic Forest | <i>T. rangeli</i> E | MN661344 |
| LBT 6706 | <i>Canis familiaris</i> | 2015 | RJ/Atlantic Forest | <i>T. rangeli</i> E | MN661345 |

^a sequence from previous studies.

^b samples from the same specimen collected in different periods of time.

Brazilian states: AC - Acre, AM - Amazonas, CE - Ceará, ES - Espírito Santo, MA - Maranhão, MS - Mato Grosso do Sul, PA - Pará, RJ - Rio de Janeiro.

Table S2: Two-tailed t-tests of paired average samples of *Trypanosoma rangeli* infection in mammals.

| | Infected | Total |
|----------------------------|-------------|-------------|
| Mean | 3,8 | 92,8 |
| Variance | 38,31428571 | 12414,88571 |
| Observations | 15 | 15 |
| Pearson's Correlation | 0,17092652 | |
| Mean difference hypothesis | 0 | |
| G1 | 14 | |
| | - | |
| Stat t | 3,118499881 | |
| P(T<=t) two-tail | 0,007549767 | |
| critical two-tail t | 2,144786688 | |

Table S3: Two-tailed t-test of two samples of *Trypanosoma rangeli* infection assuming different variances.

| | Infected | Total |
|----------------------------|-------------|-------------|
| Mean | 3,8 | 92,8 |
| Variance | 38,31428571 | 12414,88571 |
| Observations | 15 | 15 |
| Mean difference hypothesis | 0 | |
| G1 | 14 | |
| | - | |
| Stat t | 3,088838165 | |
| P(T<=t) two-tail | 0,008007961 | |
| critical two-tail t | 2,144786688 | |

Table S4: Trypanosomatid SSU rDNA sequences retrieved from GenBank used for phylogenetic analysis

| Sample | Location | Host | GenBank accession number |
|-------------------------------------|-------------|------------------------------|--------------------------|
| <i>Trypanosoma rangeli</i> A | | | |
| San Augustin* | Colombia | <i>Homo sapiens</i> | AJ012417 |
| Coachi | Colombia | <i>Rhodnius prolixus</i> | AJ012414 |
| Palma-2 | Venezuela | <i>Rhodnius prolixus</i> | AY491741 |
| <i>Trypanosoma rangeli</i> B | | | |
| Legeri10* | Brazil | <i>Tamandua tetradactyla</i> | AY491769 |
| AM80* | Brazil | <i>Homo sapiens</i> | AY491766 |
| Preguici* | Brazil | <i>Choloepus didactylus</i> | AY491767 |
| AM11* | Brazil | <i>Homo sapiens</i> | AY491758 |
| Legeri32* | Brazil | <i>Tamandua tetradactyla</i> | AY491759 |
| 4176* | Brazil | <i>Rhodnius brethesi</i> | EF071580 |
| TryCC207* | Brazil | <i>Cebuella pygmaea</i> | AY491752 |
| TryCC194* | Brazil | <i>Cebuella pygmaea</i> | AY491753 |
| TryCC233* | Brazil | <i>Saguinus l. labiatus</i> | AY491756 |
| TryCC238* | Brazil | <i>Saguinus l. labiatus</i> | AY491754 |
| TryCC236* | Brazil | <i>Saguinus f. weddelli</i> | AY491755 |
| TryCC205* | Brazil | <i>Aotus sp</i> | AY491757 |
| TryCC416* | Brazil | <i>Alouatta stramineus</i> | AY491760 |
| TryCC427* | Brazil | <i>Callicebus lugens</i> | AY491751 |
| <i>Trypanosoma rangeli</i> C | | | |
| PG* | Panama | <i>Homo sapiens</i> | AJ012416 |
| RGB | Venezuela | <i>Canis familiaris</i> | AJ009160 |
| 1625 | El Salvador | <i>Homo sapiens</i> | AY491738 |

| | | | |
|---|------------|----------------------------------|----------|
| <i>Trypanosoma rangeli</i> D | | | |
| SC58* | Brazil | <i>Echimys dasythrix</i> | AY491745 |
| <i>Trypanosoma rangeli</i> E | | | |
| TryCC643* | Brazil | <i>Platyrrhinus lineatu</i> | FJ900242 |
| TCC900 | Brazil | <i>Rhodnius pictipes</i> | KT368799 |
| Outgroup species | | | |
| <i>Trypanosoma conorhini</i> USP | Brazil | <i>Rattus rattus</i> | AJ012411 |
| <i>Trypanosoma</i> sp. NanDoum1 | Cameroon | <i>Nandinia binotata</i> | FM202492 |
| <i>Trypanosoma</i> sp. HochNdi1 | Cameroon | <i>Cercopithecus nictitans</i> | FM202493 |
| <i>T. vespertilionis</i> P14 | England | <i>Pipistrellus pipistrellus</i> | AJ009166 |
| <i>Trypanosoma</i> sp. | Gabon | <i>Rousettus aegyptiacus</i> | AJ012418 |
| <i>Trypanosoma wauwau</i> CBT68 | Brazil | <i>Pteronotus parnellii</i> | KR653210 |
| <i>Trypanosoma wauwau</i> BMC 1069 | Brazil | <i>Pteronotus parnellii</i> | KR653211 |
| <i>Trypanosoma</i> sp. G8 | Australia | <i>Bettongia</i> sp. | KC753537 |
| <i>Trypanosoma noyesi</i> H25 | Australia | <i>Macropus giganteus</i> | AJ009168 |
| <i>T. livingstonei</i> 1304 | Mozambique | <i>Rhinolophus landeri</i> | KF192983 |
| <i>T. livingstonei</i> 1953 | Mozambique | <i>Hipposideros caffer</i> | KF192984 |

*Sequences used in the haplotype network analysis of *T. rangeli* lineage B intra-specificity.

Figure S1: Representative 2% agarose gel electrophoresis of 18S rDNA molecular markers for *Trypanosoma rangeli* molecular identification. The 2% agarose gel was stained with ethidium bromide, and 100 base-pair ladders were used: A) PCR product (~850 bp) for the V7-V8 region; B) PCR products for the SSU rDNA (~600 bp).

