

Triatoma sanguisuga Blood Meals and Potential for Chagas Disease, Louisiana, USA

Technical Appendix

Technical Appendix Table. Blood meal sources of *Triatoma sanguisuga* kissing bugs, determined by 12S rDNA assay (1)*

| T. <i>sanguisuga</i> bug no. | Sex | Infection with <i>T. cruzi</i> † | Blood meal presence (vertebrate 12S amplification)† | No. clones selected and sequenced after 12S reamplification | Vertebrate blood meal source detected‡ | | | | | | | | No. species detected | No. haplotypes detected |
|------------------------------|-----|----------------------------------|---|---|--|-----------------------------|--------------------------------|-------------------------|-------------------------------|--|-------------------------------|--|----------------------|-------------------------|
| | | | | | Taxa and haplotypes detected | | | | | | | | | |
| | | | | | <i>Hyla cinerea</i> (American green tree frog) | <i>Homo sapiens</i> (Human) | <i>Procyon lotor</i> (Raccoon) | <i>Bos taurus</i> (Cow) | <i>Canis lupus</i> (Dog/Wolf) | <i>Sciurus carolinensis</i> (Squirrel) | <i>Felis domesticus</i> (Cat) | <i>Neotoma floridana</i> (Eastern woodrat) | | |
| 1 | F | - | - | NA | | | | | | | | | | |
| 2 | F | + | - | NA | | | | | | | | | | |
| 3 | F | + | + | 8 | A | | | | | | | A | 2 | 2 |
| 4 | F | - | + | 7 | B | | | | | | A | | 2 | 2 |
| 5 | F | + | + | 1 | A | | | | | | | | 1 | 1 |
| 6 | F | - | + | 7 | A | A | A, B | | | | | | 3 | 4 |
| 7 | F | - | + | 1 | | B | | | | | | | 1 | 1 |
| 8 | M | + | + | 3 | B | A | | | | | | | 2 | 2 |
| 9 | F | - | + | 7 | | A | | | | | | | 1 | 1 |
| 10 | F | + | + | 7 | C | A | | | | | | | 2 | 2 |
| 11 | M | - | + | 3 | | A | | | | | | | 1 | 1 |
| 12 | M | - | + | 4 | | | A, C, D | | | | | | 1 | 3 |
| 13 | F | - | + | 6 | A | | | | | | | | 1 | 1 |
| 14 | F | + | + | 3 | D | A | | | | | | | 2 | 2 |
| 15 | F | + | + | 5 | A | | A, E | | | | | | 2 | 3 |
| 16 | M | - | + | 2 | | A, C | | | | | | | 1 | 2 |
| 17 | F | + | - | NA | | | | | | | | | | |
| 18 | F | + | + | 2 | A | | | | | | | | 1 | 1 |
| 19 | F | + | + | 3 | A, E | D | | | | | | | 2 | 3 |
| 20 | M | + | + | 7 | A | | A | | | | | | 2 | 2 |
| 21 | F | + | + | 6 | A, F | | | | | | | | 1 | 2 |
| 22 | M | + | + | 6 | | | A, F | | | | | | 1 | 2 |
| 23 | F | + | + | 6 | | | A | | | | | | 1 | 1 |
| 24 | F | - | + | 8 | A | | A | | | | | | 2 | 2 |
| 25 | F | + | + | 5 | B | | A | A | A | | | | 4 | 4 |
| 26 | M | - | + | 8 | A, G | A | | | | | | | 2 | 3 |
| 27 | F | - | + | 7 | A | A, E | | | | | | | 2 | 3 |
| 28 | F | + | + | 0 | | | | | | | | | | |
| 29 | F | + | + | 3 | B, H | | | | | | | | 1 | 2 |
| 30 | F | - | + | 4 | A | | A | | | | | | 2 | 2 |

| <i>T. sanguisuga</i> bug no. | Sex | Infection with <i>T. cruzi</i> † | Blood meal presence (vertebrate 12S amplification)‡ | No. clones selected and sequenced after 12S reamplification | Vertebrate blood meal source detected‡ | | | | | | | | No. species detected | No. haplotypes detected |
|---------------------------------|-----|-------------------------------------|---|---|---|------------------------------------|---------------------------------------|--------------------------------|--------------------------------------|---|--------------------------------------|--|------------------------------------|----------------------------|
| | | | | | Taxa and haplotypes detected | | | | | | | | | |
| | | | | | <i>Hyla cinerea</i> (American green tree frog) | <i>Homo sapiens</i> (Human) | <i>Procyon lotor</i> (Raccoon) | <i>Bos taurus</i> (Cow) | <i>Canis lupus</i> (Dog/Wolf) | <i>Sciurus carolinensis</i> (Squirrel) | <i>Felis domesticus</i> (Cat) | <i>Neotoma floridana</i> (Eastern woodrat) | | |
| 31 | F | + | + | 3 | A | | | | | | | 1 | 1 | |
| 32 | F | - | + | 6 | A, I | | | | | | | 1 | 2 | |
| 33 | M | + | + | 6 | | | | | A, B, C | | | 1 | 3 | |
| 34 | F | + | + | 7 | | A | | A | | | | 2 | 2 | |
| 35 | M | - | + | 5 | | | | | A, D | | | 1 | 2 | |
| 36 | F | + | - | NA | | | | | No blood meal detected | | | | | |
| 37 | M | - | + | 2 | | A | | | | | | 1 | 1 | |
| 38 | F | + | + | 0 | | | | | No transformants obtained | | | | | |
| 39 | M | - | + | 1 | | | | | | A | | 1 | 1 | |
| 40 | F | + | + | 5 | | | A, G | | | | | 1 | 2 | |
| 41 | F | - | + | 5 | A | A | H | | | | | 3 | 3 | |
| 42 | F | - | + | 6 | | A, F | | | | | | 1 | 2 | |
| 43 | F | - | + | 8 | | A | | A | | | | 2 | 2 | |
| 44 | M | + | + | 5 | | A | | | | | | 1 | 1 | |
| 45 | M | + | + | 8 | | A, G | | A | | | | 2 | 3 | |
| 46 | M | + | + | 7 | | A | | A | | | | 2 | 2 | |
| 47 | M | - | + | 8 | | A, H | | A | | A | | 3 | 4 | |
| 48 | M | + | + | 8 | A, B | | | | | | | 1 | 2 | |
| 49 | F | - | + | 8 | | A | | A | | | | 2 | 2 | |
| Total | | 27/49 (55.1%) | 45/49 (92%) | 227 | | | | | | | | | | |
| Average | | | | 5.04 clones/bug (n = 45) | | | | | | | | 1.6 species/ bug (n = 43) | 2.1 haplotypes/ bug (N = 43) | |
| Range | | | | 0-8 clones/bug (n = 45) | | | | | | | | 1-4 species/ bug (n = 43) | 1-4 haplotypes/ bug (n = 43) | |

*NA, not applicable

†To rule out PCR inhibition, the samples for which no vertebrate or parasite DNA was detected were re-amplified after adding 100 ng of positive control DNA to the PCR mixture. For the only sample with these results (bug #1), PCR inhibition was ruled out as the added DNA was amplified.

‡Blood meal sources were inferred by using BLAST with ≥ 97% identity as the criterion for a match.

Reference

1. Stevens L, Dorn PL, Hobson J, de la Rúa NM, Lucero DE, Klotz JH, et al. Vector blood meals and Chagas disease transmission potential, United States. *Emerg Infect Dis.* 2012;18:646–9. [PubMed http://dx.doi.org/10.3201/eid1804.111396](http://dx.doi.org/10.3201/eid1804.111396)