Table 1: Primers and probes targeting mammalian retrotransposons for bloodmeal identification in ticks

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| **Host Targeted** | **SINE family** | **Primer name** | **Fluorophore**  | **Sequence of primers and probes** | **Sensitivityd** |  **Host-specificitye** |
| Multiplex 1 |  |  |  |  |  |
| Mousea | B1 | PlSINE-41F |  | GATCTCTGTGAGTTCGAGG | 10-9 ng/µl | *Peromyscus* |
|  |  | PlSINE-114R |  | GTTTCTCTGTGTAGCTTTGC |  |  |
|  |  | PlSINE-66P | FAM | TGGGCTACCAAGTGAGCTCCAGG |  |  |
| Rabbitb | C48 | RabbSINE-131F-AG |  | ggaaggcagtggaggat | 10-9 ng/µl | *Lagomorpha* |
|  |  | RabbSINE-196R-TGG |  | ggtgcttcctcctggtct |  |  |
|  |  | RabbSINE-167P | Cy5 | GGGCCCTGCACCCCATGG |  |  |
| Voleb | B2 | MicrB2SINE-55F |  | TGAGTTCAATTCCCAGCAAC | 10-7 ng/µl | *Arvoclinae*c |
|  |  | MicrB2SINE-160R |  | TGTATACAATATTCTGTCTGTGTG |  |  |
|  |  | MicrB2SINE-160RCA |  | TGTATACAATATTCTGTCTGCATG |  |  |
|  |  | MicroB2SINE-113P | HEX | GCCCTCTTCTGGCCTGCAGA |  |  |
| Multiplex 2 |  |  |  |  |  |
| Shrewb | SA\_Ba-325L16 | SorexSINE-164F |  | GATTCCCAGCATCCCATATG | 10-8 ng/µl | *Soricidae* |
|  |  | SorexSINE-235rmod |  | RTTACTCCTGGCTCTGCA |  |  |
|  |  | SorexSINE-185PCA | HEX | GTCCCCCAAGCACCGCCAGG |  |  |
| Deer | Unknown | WTDrep10-167F |  | GATCTGTTTCACCCTAGATAAT | 10-8 ng/µl | *Odocoileus* |
|  |  | WTDrep10-245R |  | CTGTGGGAGAAGGCGAG |  |  |
|  |  | WTDrep10-200P | Cy5 | TCGATGCTGTTCTCTTGAAACATCCCA |  |  |
| Bird | CR1-E5a | CR1-E5a-1188F |  | cccagagaagttgtgg | See Table 2 |
|  |  | CR1-E5a-1188FT |  | cccagagaagctgtgg |  |  |
|  |  | CR1-E5a-1290R |  | catgggcagggacacc |  |  |
|  |  | CR1-E5a-1234P | FAM | gccaggytggatggggc |  |  |
| Multiplex 3: |  |  |  |  |  |
| Squirrel | CM55b | SqrlSINE-103F |  | ccctgtctct aaataaaata ca | 10-7 ng/µl | *Sciuridae* |
|  |  | SqrlSINE-183R |  | TACCAGGGATTGAACTCAG |  |  |
|  |  | SqrlSINE-132P | Cy5 | GGGCTAGGGATGTGGCTCAGTGG |  |  |
| Bird | CR1-AVIb | CR1AVI-23F |  | SAGGCCCTGGCACAGG | See Table 2 |
|  |  | CR1AVI- 78R |  | CCTTGRACACTTCCAGGGAT |  |  |
|  |  | CR1AVI- 35P | FAM | GCCCAGAGMAGCTGTGGC |  |  |
| Single reaction |  |  |  |  |  |
| Cat | SINEb | CatSINE-120F |  | CTTCGGATTCTGTGTCTCC | 10-7 ng/µl | *Felis* |
|  |  | CatSINE-192R |  | TATTTTTGGGACAGAGAGAGAC |  |  |
|  |  | CatSINE-146P MGB | FAM | TCTGMCCCTCCCCCGTT-MGB |  |  |
| apreviously published 10bpreviously published 11c These primers cross-react with *Peromyscus* at a concentration of 10-4ng/µld Sensitivity of each primer set was determined using serial dilutions of positive control DNA. Listed is the last dilution that tested positive.e Host specificity for each primer set was determined by testing primers against a panel of positive control DNA from likely hosts that are common in New England forests at a dilution of 10-4ng/µl.  |