**Supplementary material 1:** Tissues supplemented by different Museums to probe cross-species amplification and library enrichment. We are presenting museum; voucher, tissue or collector number; species and specific use of the tissue.

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| **Museum** | **Sample** | **Species** | **Utility** |
| MZFC-M | GHC396 | *S. hondurensis* | Cross amplification |
| MZFC-M | TACM073 | *S. hondurensis* | Cross amplification |
| MZFC-M | MRM166 | *S. hondurensis* | Cross amplification |
| MZUCR | TUCR18 | *S. burtonlimi* | Cross amplification |
| MZUCR | TUCR20 | *S. burtonlimi* | Cross amplification |
| MZUCR | TUCR48 | *S. burtonlimi* | Cross amplification |
| FMNH | 174845 | *S. oporaphilum* | Cross amplification |
| MZUCR | TUCR27 | *S. mordax* | Cross amplification |
| MZUCR | TUCR29 | *S. mordax* | Cross amplification |
| FMNH | 174871 | *S. tildae* | Cross amplification |
| FMNH | 174803 | *S erythromos* | Cross amplification |
| FMNH | 128785 | *S. bogotensis* | Cross amplification |
| FMNH | 174833 | *S. magna* | Cross amplification |
| TTU | TK104211 | *S.* new species 3 | Cross amplification |
| TTU | TK104337 | *S.* new species3 | Cross amplification |
| TTU | TK104349 | *S.* new *species* 3 | Cross amplification |
| LSUMZ | LSUMZ393 | *S. luisi* | Cross amplification |
| LSUMZ | LSUMZ394 | *S. luisi* | Cross amplification |
| LSUMZ | LSUMZ529 | *S. luisi* | Cross amplification |
| TTU | TK56609 | *S. lilium* | Cross amplification |
| TTU | TK56808 | *S. lilium* | Cross amplification |
| TTU | TK56950 | *S. lilium* | Cross amplification |
| TTU | TK104623 | *S. bakeri* | Cross amplification |
| TTU | TK104662 | *S. bakeri* | Cross amplification |
| TTU | TK136986 | *S. parvidens* | Polimorfism |
| MZFC-M | GHC009 | *S. parvidens* | Illumina paired-end sequencing and polimorfism |
| MZFC-M | GHC032 | *S. parvidens* | Polimorfism |
| MZFC-M | GHC060 | *S. parvidens* | Illumina paired-end sequencing and polimorfism |
| MZFC-M | GHC072 | *S. parvidens* | Illumina paired-end sequencing and polimorfism |
| MZFC-M | GHC103 | *S. parvidens* | Polimorfism |
| MZFC-M | GHC213 | *S. parvidens* | Polimorfism |
| MZFC-M | GHC214 | *S. parvidens* | Polimorfism |
| MZFC-M | GHC240 | *S. parvidens* | Illumina paired-end sequencing and polimorfism |
| MZFC-M | GHC445 | *S. parvidens* | Polimorfism |
| MZFC-M | MAG011 | *S. parvidens* | Polimorfism |
| MZFC-M | MAG014 | *S. parvidens* | Polimorfism |
| MZFC-M | MCyT053 | *S. parvidens* | Polimorfism |
| MZFC-M | MCHAM079 | *S. parvidens* | Polimorfism |
| MZFC-M | MRM075 | *S. parvidens* | Illumina paired-end sequencing and polimorfism |
| MZFC-M | DOR013 | *S. parvidens* | Illumina paired-end sequencing and polimorfism |
| MZFC-M | 151CAS | *S. parvidens* | Polimorfism |
| MZFC-M | 210HRP | *S. parvidens* | Polimorfism |
| MZFC-M | MBB012 | *S. parvidens* | Polimorfism |
| MZFC-M | MCP079 | *S. parvidens* | Polimorfism |