**Supplemental Table 1.** Samples collected for this study.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **MISSOURI** |  |  |  |  |  |
| **Deer #** | **Sample #** | **MtDNA hap.** | **28S Genotype** | **Deer Sex** | **Mo. county** |
| C3 | C3A | 17 | 8 | F | WAYNE |
| C3 | C3B | 17 | 9 | F | WAYNE |
| C3 | C3D | 17 | 22 | F | WAYNE |
| C6 | C6 | 8 | 39 | F | BOLLINGER |
| G135 | G135A | 8 | 33 | F | STODDARD |
| G135 | G135B | 21 | 8 | F | STODDARD |
| G135 | G135C | 21 | 18 | F | STODDARD |
| G135 | G135D | 23 | 36 | F | STODDARD |
| G142 | G142A | 28 | 7 | U | STODDARD |
| G142 | G142B | 17 | 25 | U | STODDARD |
| G148 | G148A | 17 | 29 | U | STODDARD |
| G148 | G148B | 17 | 8 | U | STODDARD |
| G151 | G151 | 8 | 11 | F | REYNOLDS |
| G152 | G152 | 3 | 36 | F | BUTLER |
| G153 | G153A | 8 | 25 | M | WAYNE |
| G153 | G153B | 18 | 6 | M | WAYNE |
| G160 | G160A | 3 | 1 | M | WAYNE |
| G160 | G160B | 17 | 16 | M | WAYNE |
| G160 | G160C | 17 | 3 | M | WAYNE |
| G160 | G160D | 18 | 3 | M | WAYNE |
| G162 | G162A | 3 | 2 | F | REYNOLDS |
| G162 | G162B | 20 | 4 | F | REYNOLDS |
| G162 | G162C | 23 | 18 | F | REYNOLDS |
| G162 | G162D | 8 | 35 | F | REYNOLDS |
| G162 | G162E | 21 | 18 | F | REYNOLDS |
| G168 | G168A | 4 | 13 | F | MADISON |
| G168 | G168B | 8 | 8 | F | MADISON |
| G180 | G180A | 4 | 36 | M | CARTER |
| G180 | G180B | 13 | 10 | M | CARTER |
| G180 | G180C | 4 | 3 | M | CARTER |
| G180 | G180D | 24 | 26 | M | CARTER |
| G180 | G180E | 13 | 25 | M | CARTER |
| G187 | G187 | 22 | 16 | M | SHANNON |
| G192 | G192A | 6 | 25 | F | REYNOLDS |
| G192 | G192B | 6 | no sequence | F | REYNOLDS |
| G192 | G192C | 6 | 25 | F | REYNOLDS |
| G192 | G192D | 6 | 25 | F | REYNOLDS |
| G192 | G192E | 6 | 20 | F | REYNOLDS |
| G192 | G192F | 30 | 36 | F | REYNOLDS |
| G197 | G197A | 22 | 9 | M | CARTER |
| G197 | G197B | 8 | 17 | M | CARTER |
| G197 | G197C | 22 | 9 | M | CARTER |
| G197 | G197D | 8 | 9 | M | CARTER |
| G198 | G198A | 22 | 9 | M | CARTER |
| G198 | G198B | 21 | 42 | M | CARTER |
| P4 | P4A | 37 | 30 | M | BUTLER |
| P4 | P4B | 37 | 8 | M | BUTLER |
| R275 | R275A | 17 | 9 | F | CARTER |
| R275 | R275B | 8 | 22 | F | CARTER |
| R275 | R275C | 8 | 28 | F | CARTER |
| R275 | R275D | 8 | 25 | F | CARTER |
| R275 | R275E | 3 | 25 | F | CARTER |
| R275 | R275F | 8 | 22 | F | CARTER |
| R275 | R275G | 17 | 22 | F | CARTER |
| R275 | R275H | 3 | 8 | F | CARTER |
| R275 | R275I | 8 | 36 | F | CARTER |
| R277 | R277A | 17 | 25 | F | MADISON |
| R277 | R277B | 4 | 41 | F | MADISON |
| R278 | R278 | 30 | 25 | F | DENT |
| R281 | R281 | no sequence | 27 | M | RIPLEY |
| R287 | R287A | 17 | 43 | F | WAYNE |
| R287 | R287B | 17 | 25 | F | WAYNE |
| R287 | R287C | 34 | 26 | F | WAYNE |
| R287 | R287D | 27 | 25 | F | WAYNE |
| R287 | R287E | 8 | 22 | F | WAYNE |
| R287 | R287F | 34 | 23 | F | WAYNE |
| R287 | R287G | 8 | 36 | F | WAYNE |
| W9 | W9A | 17 | 26 | M | WAYNE |
| W9 | W9B | 8 | 32 | M | WAYNE |
| W9 | W9C | 17 | 42 | M | WAYNE |
| W9 | W9D | 8 | 26 | M | WAYNE |
| W9 | W9E | 8 | 34 | M | WAYNE |
| W10 | W10A | 6 | 25 | F | RIPLEY |
| W10 | W10B | 6 | no sequence | F | RIPLEY |
| W10 | W10C | 38 | 25 | F | RIPLEY |
| W10 | W10D | 6 | 25 | F | RIPLEY |
| W10 | W10E | 19 | 21 | F | RIPLEY |
| W10 | W10F | 19 | no sequence | F | RIPLEY |
| W10 | W10G | 20 | 25 | F | RIPLEY |
| W16 | W16A | 4 | 5 | M | REYNOLDS |
| W16 | W16B | 4 | 19 | M | REYNOLDS |
| W19 | W19 | 17 | 25 | F | REYNOLDS |
| W22 | W22A | 18 | 36 | F | BUTLER |
| W22 | W22B | 18 | 15 | F | BUTLER |
| W22 | W22C | 18 | 21 | F | BUTLER |
| W22 | W22D | 18 | 14 | F | BUTLER |
| W22 | W22E | 20 | 25 | F | BUTLER |
| W22 | W22F | 30 | 9 | F | BUTLER |
| W25 | W25A | 17 | 31 | M | IRON |
| W25 | W25B | 8 | 26 | M | IRON |
|  |  |  |  |  |  |
| **Elk #** | **Sample #** | **MtDNA hap.** | **28S Genotype** | **Elk Sex** | **Mo. county** |
| ELK-1322 | ELK-1322 | 11 | 24 | U | SHANNON |
| ELK-1514 | ELK-1514 | 18 | 39 | U | SHANNON |
| ELK-1622 | ELK-1622-1 | 23 | 12 | U | SHANNON |
| ELK-1622 | ELK-1622-2 | 4 | 28 | U | SHANNON |
| ELK-1626 | ELK-1626 | 8 | 43 | U | SHANNON |
| ELK-1627 | ELK-1627 | 8 | 40 | U | SHANNON |
|  |  |  |  |  |  |
| **KENTUCKY** |  |  |  |  |  |
| **Deer #** | **Sample #** | **MtDNA hap.** | **28S Genotype** | **Deer Sex** |  |
| KY1 | KY1A | 1 | 25 | U |  |
| KY1 | KY1B | 8 | 43 | U |  |
| KY1 | KY1C | 8 | 36 | U |  |
| KY3 | KY3 | 10 | no sequence | U |  |
| KY4 | KY4A | 2 | 43 | U |  |
| KY4 | KY4B | 2 | no sequence | U |  |
| KY4 | KY4C | 25 | 43 | U |  |
| KY4 | KY4D | 2 | 44 | U |  |
| KY6 | KY6A | 2 | 25 | U |  |
| KY6 | KY6B | 36 | 43 | U |  |
| KY6 | KY6C | 18 | 43 | U |  |
| KY6 | KY6D | 7 | 43 | U |  |
| KY6 | KY6E | 36 | 30 | U |  |
| KY9 | KY9A | 25 | 25 | U |  |
| KY9 | KY9B | 25 | 25 | U |  |
| KY10 | KY10 | 18 | 37 | U |  |
| KY12 | KY12A | 1 | 36 | U |  |
| KY12 | KY12B | 8 | no sequence | U |  |
| KY12 | KY12C | 8 | 26 | U |  |
| KY12 | KY12D | 14 | no sequence | U |  |
| KY12 | KY12F | 32 | 26 | U |  |
| KY12 | KY12G | 8 | 25 | U |  |
| KY12 | KY12H | 35 | 25 | U |  |
| KY12 | KY12I | no sequence | 36 | U |  |
| KY12 | KY12J | no sequence | 25 | U |  |
| KY13 | KY13A | 12 | 44 | U |  |
| KY13 | KY13B | 29 | 17 | U |  |
| KY13 | KY13C | 7 | 37 | U |  |
| KY16 | KY16A | 9 | 25 | U |  |
| KY18 | KY18A | 7 | 25 | U |  |
| KY18 | KY18B | 7 | 25 | U |  |
| KY18 | KY18C | 2 | 25 | U |  |
| KY20 | KY20A | 33 | 36 | U |  |
| KY20 | KY20B | 2 | 25 | U |  |
| KY20 | KY20C | 2 | 37 | U |  |
| KY20 | KY20D | 2 | 44 | U |  |
| KY22 | KY22A | 8 | 36 | U |  |
| KY22 | KY22B | 8 | 25 | U |  |
| KY23 | KY23 | 7 | 25 | U |  |
| KY25 | KY25A | 25 | 25 | U |  |
| KY25 | KY25B | 7 | 25 | U |  |
| KY30 | KY30A | 2 | 26 | U |  |
| KY30 | KY30B | 2 | 37 | U |  |
| KY31 | KY31 | 2 | 37 | U |  |
| KY32 | KY32 | 2 | 25 | U |  |
| KY34 | KY34A | no sequence | 25 | U |  |
| KY34 | KY34B | 16 | no sequence | U |  |
| KY34 | KY34C | 25 | 25 | U |  |
| KY34 | KY34D | no sequence | 36 | U |  |
| KY34 | KY34E | 10 | 36 | U |  |
| KY35 | KY35 | 26 | 25 | U |  |
| KY36 | KY36A | 2 | 38 | U |  |
| KY36 | KY36B | 15 | 42 | U |  |
| KY36 | KY36C | 2 | 36 | U |  |
| KY36 | KY36D | 2 | 44 | U |  |
| KY36 | KY36E | 2 | 25 | U |  |
| KY38 | KY38A | 7 | 25 | U |  |
| KY38 | KY38B | 5 | 26 | U |  |
| KY38 | KY38C | 2 | 44 | U |  |
| KY38 | KY38D | 7 | 25 | U |  |
| KY40 | KY40A | 2 | 36 | U |  |
| KY40 | KY40B | 2 | 36 | U |  |
| KY40 | KY40C | 2 | 25 | U |  |
| KY40 | KY40D | 2 | 25 | U |  |
| KY40 | KY40E | 2 | no sequence | U |  |
| KY40 | KY40F | 2 | 36 | U |  |
|  |  |  |  |  |  |
| **Elk #** | **Sample #** | **MtDNA hap.** | **28S Genotype** | **Elk Sex** |  |
| ELK-KY2 | ELK-KY2A | 7 | 44 | U |  |
| ELK-KY2 | ELK-KY2B | 7 | 44 | U |  |
| ELK-KY4 | ELK-KY4 | 31 | 25 | U |  |