

Table S1. Allele frequencies at each locus for the Elk Island NP population, proposed Banff NP founders, actual Banff NP founders, and the actual founders plus the 2017 calves.

| BM143 Allele Frequencies | | | | | |
|---------------------------------|------------|------------|------------|------------|------------|
| | 101 | 103 | 105 | 111 | 115 |
| Elk Island | 0.259 | 0.129 | 0.233 | 0.190 | 0.190 |
| Proposed founders | 0.219 | 0.094 | 0.313 | 0.219 | 0.156 |
| Actual founders | 0.188 | 0.094 | 0.250 | 0.250 | 0.219 |
| Founders and calves | 0.212 | 0.077 | 0.231 | 0.269 | 0.212 |

| BM2830 Allele Frequencies | | | | | | | |
|----------------------------------|------------|------------|------------|------------|------------|------------|------------|
| | 143 | 151 | 153 | 157 | 159 | 163 | 165 |
| Elk Island | 0.078 | 0.147 | 0.060 | 0.112 | 0.362 | 0.164 | 0.078 |
| Proposed founders | 0.094 | 0.063 | 0.094 | 0.125 | 0.281 | 0.313 | 0.031 |
| Actual founders | 0.094 | 0.125 | 0.094 | 0.063 | 0.250 | 0.281 | 0.094 |
| Founders and calves | 0.077 | 0.115 | 0.096 | 0.058 | 0.308 | 0.269 | 0.077 |

| BMC1222 Allele Frequencies | | | |
|-----------------------------------|------------|------------|------------|
| | 267 | 273 | 275 |
| Elk Island | 0.302 | 0.009 | 0.690 |
| Proposed founders | 0.406 | 0 | 0.594 |
| Actual founders | 0.375 | 0 | 0.625 |
| Founders and calves | 0.385 | 0 | 0.615 |

| BMC1225 Allele Frequencies | | | | | | | |
|-----------------------------------|------------|------------|------------|------------|------------|------------|------------|
| | 240 | 244 | 246 | 248 | 252 | 268 | 270 |
| Elk Island | 0.405 | 0.095 | 0.069 | 0.103 | 0.129 | 0.009 | 0.190 |
| Proposed founders | 0.188 | 0.094 | 0.125 | 0.094 | 0.156 | 0 | 0.344 |
| Actual founders | 0.250 | 0.094 | 0.125 | 0.125 | 0.125 | 0 | 0.281 |
| Founders and calves | 0.250 | 0.115 | 0.115 | 0.115 | 0.173 | 0 | 0.231 |

| BOVFSH Allele Frequencies | | | | | | | | | | | | |
|----------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | 297 | 298 | 299 | 302 | 303 | 308 | 309 | 310 | 313 | 316 | 321 | 322 |
| Elk Island | 0.060 | 0.043 | 0.009 | 0.078 | 0.069 | 0.112 | 0.267 | 0.086 | 0.052 | 0.026 | 0.147 | 0.052 |
| Proposed founders | 0.156 | 0 | 0.031 | 0.156 | 0.094 | 0.063 | 0.219 | 0.063 | 0.031 | 0 | 0.156 | 0.031 |
| Actual founders | 0.125 | 0 | 0 | 0.063 | 0.063 | 0.031 | 0.250 | 0.156 | 0.063 | 0.031 | 0.156 | 0.063 |
| Founders and calves | 0.135 | 0.019 | 0 | 0.038 | 0.058 | 0.058 | 0.308 | 0.135 | 0.077 | 0.019 | 0.115 | 0.038 |

| Eth121 Allele Frequencies | | | | | | |
|----------------------------------|------------|------------|------------|------------|------------|------------|
| | 184 | 186 | 194 | 196 | 198 | 200 |
| Elk Island | 0.321 | 0.286 | 0.107 | 0.045 | 0.018 | 0.223 |
| Proposed founders | 0.375 | 0.375 | 0.031 | 0.063 | 0 | 0.156 |
| Actual founders | 0.313 | 0.406 | 0.063 | 0.063 | 0 | 0.156 |
| Founders and calves | 0.250 | 0.346 | 0.058 | 0.058 | 0 | 0.288 |

| RT24 Allele Frequencies | | | | | |
|--------------------------------|------------|------------|------------|------------|------------|
| | 205 | 213 | 225 | 229 | 231 |
| Elk Island | 0.664 | 0.017 | 0.190 | 0.086 | 0.043 |
| Proposed founders | 0.594 | 0.031 | 0.250 | 0.063 | 0.063 |
| Actual founders | 0.688 | 0 | 0.219 | 0.063 | 0.031 |
| Founders and calves | 0.692 | 0 | 0.192 | 0.096 | 0.019 |

| RT27 Allele Frequencies | | | | |
|--------------------------------|------------|------------|------------|------------|
| | 146 | 148 | 150 | 152 |
| Elk Island | 0.028 | 0.056 | 0.907 | 0.009 |
| Proposed founders | 0.071 | 0.071 | 0.821 | 0.036 |
| Actual founders | 0.067 | 0.067 | 0.833 | 0.033 |
| Founders and calves | 0.060 | 0.060 | 0.860 | 0.020 |

| RT29 Allele Frequencies | | | | | | |
|--------------------------------|------------|------------|------------|------------|------------|------------|
| | 206 | 212 | 214 | 216 | 218 | 220 |
| Elk Island | 0.121 | 0.371 | 0.112 | 0.043 | 0.138 | 0.216 |
| Proposed founders | 0.125 | 0.344 | 0.094 | 0.063 | 0.094 | 0.281 |
| Actual founders | 0.063 | 0.375 | 0.063 | 0.031 | 0.094 | 0.375 |
| Founders and calves | 0.038 | 0.365 | 0.077 | 0.115 | 0.096 | 0.308 |

| RT9 Allele Frequencies | | | |
|-------------------------------|------------|------------|------------|
| | 113 | 115 | 117 |
| Elk Island | 0.474 | 0.164 | 0.362 |
| Proposed founders | 0.375 | 0.125 | 0.500 |
| Actual founders | 0.406 | 0.125 | 0.469 |
| Founders and calves | 0.404 | 0.192 | 0.404 |