**Additional file 3: Table S2.**

MetaStats Results by species

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***C. oncophora*** |  | **BCa** | **ABa** | **SKa** | **MBa** | **GNP-Plainsb** | **EINP-Plainsb** | **EINP-Woodb** | **Cow-Calf a** | **Feeder a** |
| **BCa** | / | 0.029\* | 0.009\* | 0.273 | 0.588 | 0.068 | 0.062 | / | / |
| **ABa** | 0.029\* | / | 0.474 | 0.146 | 0.003\* | 0.965 | 0.949 | / | / |
| **SKa** | 0.009\* | 0.474 | / | 0.051 | 0.002\* | 0.563 | 0.583 | / | / |
| **MBa** | 0.273 | 0.146 | 0.051 | / | 0.015\* | 0.226 | 0.223 | / | / |
| **GNP-Plainsb** | 0.588 | 0.003\* | 0.002\* | 0.015\* | / | 0.006\* | 0.001 | / | / |
| **EINP-Plainsb** | 0.068 | 0.965 | 0.563 | 0.226 | 0.006\* | / | 0.990 | / | / |
| **EINP-Woodb** | 0.062 | 0.949 | 0.583 | 0.223 | 0.001\* | 0.990 | / | / | / |
| **Cow-Calf a** | / | / | / | / | / | / | / | / | 0.682 |
| **Feedera** | / | / | / | / | / | / | / | 0.682 | / |
| ***O. ostertagi*** |  | **BCa** | **ABa** | **SKa** | **MBa** | **GNP-Plainsb** | **EINP-Plainsb** | **EINP-Woodb** | **Cow-Calf a** | **Feeder a** |
| **BCa** | / | 0.170 | 0.644 | 0.835 | 0.112 | 0.0560 | 0.021\* | / | / |
| **ABa** | 0.170 | / | 0.247 | 0.031\* | 0.003\* | 0.001\* | 0.001\* | / | / |
| **SKa** | 0.644 | 0.247 | / | 0.409 | 0.028\* | 0.001\* | 0.001\* | / | / |
| **MBa** | 0.835 | 0.031\* | 0.409 | / | 0.078 | 0.001\* | 0.001\* | / | / |
| **GNP-Plainsb** | 0.112 | 0.003\* | 0.028\* | 0.078 | / | 0.412 | 0.141 | / | / |
| **EINP-Plainsb** | 0.0560 | 0.001\* | 0.001\* | 0.001\* | 0.412 | / | 0.301 | / | / |
| **EINP-Woodb** | 0.021\* | 0.001\* | 0.001\* | 0.001\* | 0.141 | 0.301 | / | / | / |
| **Cow-Calf a** | / | / | / | / | / | / | / | / | 0.833 |
| **Feedera** | / | / | / | / | / | / | / | 0.833 | / |
| ***T. axei*** |  | **BCa** | **ABa** | **SKa** | **MBa** | **GNP-Plainsb** | **EINP-Plainsb** | **EINP-Woodb** | **Cow-Calf a** | **Feeder a** |
| **BCa** | / | 0.295 | 0.146 | 0.202 | 0.013\* | 0.000\* | 0.002\* | / | / |
| **ABa** | 0.295 | / | 0.219 | 0.339 | 0.011\* | 0.001\* | 0.001\* | / | / |
| **SKa** | 0.146 | 0.219 | / | 0.818 | 0.537 | 0.007\* | 0.720 | / | / |
| **MBa** | 0.202 | 0.339 | 0.818 | / | 0.554 | 0.001\* | 0.693 | / | / |
| **GNP-Plainsb** | 0.013\* | 0.011\* | 0.537 | 0.554 | / | 0.001\* | 0.501 | / | / |
| **EINP-Plainsb** | 0.000\* | 0.001\* | 0.007\* | 0.001\* | 0.001\* | / | 0.001\* | / | / |
| **EINP-Woodb** | 0.002\* | 0.001\* | 0.720 | 0.693 | 0.501 | 0.001\* | / | / | / |
| **Cow-Calf a** | / | / | / | / | / | / | / | / | 0.779 |
| **Feedera** | / | / | / | / | / | / | / | 0.779 | / |
| ***O. bisonis*** |  | **BCa** | **ABa** | **SKa** | **MBa** | **GNP-Plainsb** | **EINP-Plainsb** | **EINP-Woodb** | **Cow-Calf a** | **Feedera** |
| **BCa** | / | 0.848 | 0.794 | 0.863 | 0.624 | 0.369 | 0.000\* | / | / |
| **ABa** | 0.848 | / | 0.957 | 0.936 | 0.224 | 0.003\* | 0.001\* | / | / |
| **SKa** | 0.794 | 0.957 | / | 0.961 | 0.237 | 0.001\* | 0.001\* | / | / |
| **MBa** | 0.863 | 0.936 | 0.961 | / | 0.370 | 0.004\* | 0.001\* | / | / |
| **GNP-Plainsb** | 0.624 | 0.224 | 0.237 | 0.370 | / | 0.001\* | 0.001\* | / | / |
| **EINP-Plainsb** | 0.369 | 0.003\* | 0.001\* | 0.004\* | 0.001\* | / | 0.001\* | / | / |
| **EINP-Woodb** | 0.000\* | 0.001\* | 0.001\* | 0.001\* | 0.001\* | 0.001\* | / | / | / |
| **Cow-Calf a** | / | / | / | / | / | / | / | / | 0.026\* |
| **Feedera** | / | / | / | / | / | / | / | 0.026\* | / |
| ***H. placei*** |  | **BCa** | **ABa** | **SKa** | **MBa** | **GNP-Plainsb** | **EINP-Plainsb** | **EINP-Woodb** | **Cow-Calf a** | **Feedera** |
| **BCa** | / | 0.059 | 0.006\* | 0.030\* | 0.139 | 0.232 | 0.270 | / | / |
| **ABa** | 0.059 | / | 0.295 | 0.136 | 0.05\* | 0.079 | 0.009\* | / | / |
| **SKa** | 0.006\* | 0.295 | / | 0.011\* | 0.001\* | 0.011\* | 0.001\* | / | / |
| **MBa** | 0.030\* | 0.136 | 0.012\* | / | 0.001\* | 0.813 | 0.003\* | / | / |
| **GNP-Plainsb** | 0.139 | 0.005\* | 0.001\* | 0.001\* | / | 0.005\* | 0.209 | / | / |
| **EINP-Plainsb** | 0.232 | 0.079 | 0.011\* | 0.813 | 0.005\* | / | 0.013\* | / | / |
| **EINP-Woodb** | 0.270 | 0.009\* | 0.001\* | 0.003\* | 0.209 | 0.013\* | / | / | / |
| **Cow-Calf a** | / | / | / | / | / | / | / | / | 0.140 |
| **Feedera** | / | / | / | / | / | / | / | 0.140 | / |
| ***T. longispicularis*** |  | **BCa** | **ABa** | **SKa** | **MBa** | **GNP-Plainsb** | **EINP-Plainsb** | **EINP-Woodb** | **Cow-Calf a** | **Feeder a** |
| **BCa** | / | 0.124 | 0.726 | 0.265 | 0.350 | 0.018\* | 0.724 | / | / |
| **ABa** | 0.124 | / | 0.155 | 0.570 | 0.001\* | 0.053 | 0.225 | / | / |
| **SKa** | 0.726 | 0.155 | / | 0.432 | 0.001\* | 0.002\* | 0.991 | / | / |
| **MBa** | 0.265 | 0.570 | 0.432 | / | 0.003\* | 0.384 | 0.235 | / | / |
| **GNP-Plainsb** | 0.350 | 0.001\* | 0.001\* | 0.003\* | / | 0.001\* | 0.001\* | / | / |
| **EINP-Plainsb** | 0.018\* | 0.053 | 0.002\* | 0.384 | 0.001\* | / | 0.001\* | / | / |
| **EINP-Woodb** | 0.724 | 0.225 | 0.991 | 0.235 | 0.001\* | 0.001\* | / | / | / |
| **Cow-calfa** | / | / | / | / | / | / | / | / | 0.117 |
| **Feeder a** | / | / | / | / | / | / | / | 0.117 | / |
| ***C. punctata*** |  | **BCa** | **ABa** | **SKa** | **MBa** | **GNP-Plainsb** | **EINP-Plainsb** | **EINP-Woodb** | **Cow-Calf a** | **Feeder a** |
| **BCa** | / | 1.000 | 0.578 | 1.000 | 1.000 | 0.122 | 1.000 | / | / |
| **ABa** | 1.000 | / | 0.162 | 1.000 | 1.000 | 0.004\* | 1.000 | / | / |
| **SKa** | 0.578 | 0.162 | / | 0.251 | 0.086 | 0.066 | 0.113 | / | / |
| **MBa** | 1.000 | 1.000 | 0.251 | / | 1.000 | 0.026\* | 1.000 | / | / |
| **GNP-Plainsb** | 1.000 | 1.000 | 0.086 | 1.000 | / | 0.034\* | 1.000 | / | / |
| **EINP-Plainsb** | 0.122 | 0.0040\* | 0.066 | 0.026\* | 0.034\* | / | 0.027 | / | / |
| **EINP-Woodb** | 1.000 | 1.000 | 0.113 | 1.000 | 1.000 | 0.027 | / | / | / |
| **Cow-Calf a** | / | / | / | / | / | / | / | / | 0.556 |
| **Feedera** | / | / | / | / | / | / | / | 0.556 | / |

Commercial herdsa, Conservation herdsb. *P* < 0.05\*