**SUPPLEMENTARY INFORMATION**

Supplementary Table 1. Measures of aggregation for individual species of nematodes by site and overall

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Wadi El Arbaein | | | Wadi Gebal | | | Wadi Gharaba | | | Wadi Tlah | | |
| Species | *k*1 | *I*2 | *D*3 | *k*1 | *I*2 | *D*3 | *k*1 | *I*2 | *D*3 | *k*1 | *I*2 | *D*3 |
|  |  | (± SEM4) |  | (± SEM4) |  |  | (± SEM4) |  |  | (± SEM4) |  |  |
| All helminths combined | 0.4046, | 109.7 | 0.739 | 0.6366 | 24.3 | 0.611 | 0.6706 | 87.9 | 0.614 | 0.4897,8 | 1037.3 | 0.726 |
|  | (0.0025) |  |  | (0.0111) |  |  | (0.0065) |  |  | (0.0028) |  |  |
| All nematodes combined | 0.3676 | 113.1 | 0.753 | 0.5867,8 | 24.4 | 0.619 | 0.6966 | 73.4 | 0.609 | 0.4697,8 | 1063.6 | 0.737 |
|  | (0.0022) |  |  | (0.0098) |  |  | (0.007) |  |  | (0.0026) |  |  |
| All spirurid nematodes Combined | 0.2227,8 | 41.7 | 0.788 | 0.4567,10 | 6.4 | 0.661 | 0.5476 | 51.4 | 0.621 | 0.4527,8 | 30.1 | 0.669 |
|  | (0.0011) |  |  | (0.0102) |  |  | (0.0049) |  |  | (0.0038) |  |  |
| *Protospirura muricola* | 0.1867,8 | 43.7 | 0.808 | 0.01911 | 3.0 | 0.975 | 0.4177,8 | 53.7 | 0.647 | 0.3217,8 | 32.5 | 0.719 |
|  | (0.0008) |  |  |  |  |  | (0.0030) |  |  | (0.0021) |  |  |
| *Mastophorus muris* | 0.07311 | 3.3 | 0.926 | 0.3287,10 | 7.0 | 0.714 | nd11 | 1.0 | 0.956 | 0.11211 | 3.7 | 0.882 |
|  | (0.0009) |  |  | (0.0057) |  |  |  |  |  | (0.0011) |  |  |
|  |  |  |  | (0.012) |  |  |  |  |  | (0.021) |  |  |
| *Streptopharagus spp.* | 0.10211 | 4.4 | 0.922 | 0.18911 | 3.0 | 0.866 | 0.1057.10 | 13.8 | 0.889 | 0.1167,10 | 3.3 | 0.899 |
|  | (0.0015) |  |  | (0.0063) |  |  | (0.0007) |  |  | (0.0015) |  |  |
| *Gongylonema aegypti* | nd11 | 1 | 0.982 | 0.01011 | 2.0 | 0.975 | 0.15011 | 2.0 | 0.914 | 0.02211 | 4.3 | 0.974 |
|  |  |  |  |  |  |  | (0.0063) |  |  | (0.0001) |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| All oxyuroid nematodes | 0.1657,8 | 147.5 | 0.875 | 0.2787,8 | 30.0 | 0.751 | 0.2167,8 | 126.7 | 0.840 | 0.2267,8 | 1247.9 | 0.835 |
| Combined | (0.0006) |  |  | (0.0025) |  |  | (0.0010) |  |  | (0.0007) |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Dentostomella kuntzi* | 0.2236 | 5.4 | 0.783 | 0.2726, | 6.4 | 0.773 | 0.188 6 | 12.1 | 0.817 | 0.3306 | 6.6 | 0.731 |
|  | (0.0025) |  |  | (0.0046) |  |  | (0.0016) |  |  | (0.0035) |  |  |
| *Aspiculuris africana* | 0.1126 | 5.2 | 0.890 | 0.08111 | 4.5 | 0.924 | 0.0986 | 6.2 | 0.903 | 0.1926 | 10.1 | 0.826 |
|  | (0.0011) |  |  | (0.0013) |  |  | (0.0008) |  |  | (0.0015) |  |  |
| *Syphacia minuta* | 0.033,6 | 188.2 | 0.949 | 0.1206 | 38.4 | 0.849 | 0.057 8, 12, 134 | 163.4 | 0.932 | 0.067 7,8 | 1345.2 | 0.891 |
|  | (<0.0001) |  |  | (0.0006) |  |  | (0.0001) |  |  | (0.0001) |  |  |
| All cestodes combined | 0.1376 | 6.2 | 0.875 | 0.08714 | 11.6 | 0.907 | 0.0288,12,13 | 114.9 | 0.966 | 0.06813,16 | 39.6 | 0.933 |
|  | (0.0013) |  |  | (0.0007) |  |  | (Nd15) |  |  | (0.0002) |  |  |
| *Rodentolepis negevi* | 0.05011 | 7.3 | 0.949 | 0.08913,16 | 10.3 | 0.914 | Nd17 |  |  | 0.1046 | 5.6 | 0.904 |
|  | (0.0003) |  |  | (0.0011) |  |  |  |  |  | (0.0009) |  |  |
| *Moniliformis acomysi* | 0.01413,16 | 21.9 | 0.973 | Nd17 |  |  | 0.0408,12, 13, | 85.2 | 0.947 | ND11,15 | 1.0 | 0.985 |
|  | (<0.0001) |  |  |  |  |  | (0.0001) |  |  |  |  |  |

Table 1. Continued

|  |  |  |  |
| --- | --- | --- | --- |
|  | Combined |  |  |
| Species | *k*1 | *I*2 | *D*3 |
|  | (± SEM4) |  |  |
| All helminths combined | 0.4758,9 | 591.4 | 0.715 |
|  | (0.0009) |  |  |
|  |  |  |  |
| All nematodes combined | 0.4568,9 | 626.0 | 0.722 |
|  | (0.0008) |  |  |
|  |  |  |  |
| All spirurid nematodes | 0.3276 | 48.4 | 0.739 |
| Combined | (0.0005) |  |  |
|  |  |  |  |
| *Protospirura muricola* | 0.1926 | 53.6 | 0.796 |
|  | (0.0002) |  |  |
|  |  |  |  |
| *Mastophorus muris* | 0.0916 | 7.0 | 0.901 |
|  | (0.0002) |  |  |
|  |  |  |  |
| *Streptopharagus* spp. | 0.1026 | 9.1 | 0.912 |
|  | (0.0002) |  |  |
|  |  |  |  |
| *Gongylonema aegypti* | 0.04411 | 2.7 | 0.970 |
|  | (0.0002) |  |  |
|  |  |  |  |
| All oxyuroid nematodes | 0.1958,9 | 949.2 | 0.863 |
| Combined | (0.0002) |  |  |
|  |  |  |  |
| *Dentostomella kuntzi* | 0.2485 | 7.7 | 0.782 |
|  | (0.0007) |  |  |
|  |  |  |  |
| *Aspiculuris africana* | 0.1196 | 8.3 | 0.890 |
|  | (0.0003) |  |  |
|  |  |  |  |
| *Syphacia minuta* | 0.0587,8 | 1075.0 | 0.930 |
|  | (<0.0001) |  |  |
|  |  |  |  |
| All cestodes combined | 0.0495 | 69.6 | 0.957 |
|  | (<0.0001) |  |  |
|  |  |  |  |
| *Rodentolepis negevi* | 0.0586 | 7.4 | 0.948 |
|  | (0.0001) |  |  |
|  |  |  |  |
| *Moniliformis acomysi* | 0.0146 | 79.8 | 0.983 |
|  | (<0.0001) |  |  |

1. Negative binomial exponent. 2. Index of dispersion = Variance to mean ratio.

3. Index of discrepancy (Poulin 1993). 4. Standard error of the mean estimate.

5. Significantly different from Poisson, binomial, Gaussian and negative binomial distribution

6. Not significantly different from the negative binomial distribution but significantly different from Poisson, Gaussian and binomial distributions

7. Not significantly different from the negative binomial distribution but significantly different from Poisson and binomial distributions

8. Insufficient degrees of freedom for test of Gaussian distribution

9. Significantly different from Poisson, binomial, and negative binomial distribution

10. Not significantly different from the Gaussian distribution

11. Insufficient degrees of freedom to test any distribution

12. Significantly different from Poisson and binomial distributions

13 Insufficient degrees of freedom for test of negative binomial distribution

14. Significantly different from Gaussian distribution, insufficient degrees of freedom for test of other distributions

15. Cannot be calculated

16. Significantly different from Poisson, binomial and Gaussian distributions

17. Not done. No worms of this species recovered