**Table S1.** Mean relative abundance of nematode genus (proportion) (per 100 g dry soil) in the abandoned farmland and reclaimed farmland for different soil layers

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Genus | c-p | abandoned farmland |  | reclaimed farmland |
|  |  | 0-10 cm | 10-20 cm |  | 0-10 cm | 10-20 cm |
| **Bacterivores** |  |  |  |  |  |  |
| *Acrobeles* | 2 | 0 | 0 |  | 0.005 ± 0.005 | 0.043 ± 0.033 |
| *Acrobeloides* | 2 | 0.392 ± 0.106 | 0.546 ± 0.079 |  | 0.111 ± 0.001 | 0.169 ± 0.007 |
| *Acrolobus* | 2 | 0.010 ± 0.017 | 0 |  | 0 | 0 |
| *Alaimus* | 4 | 0 | 0 |  | 0.005 ± 0.005 | 0.049 ± 0.020 |
| *Bursilla* | 1 | 0.005 ± 0.008 | 0 |  | 0 | 0 |
| *Cephalobus* | 2 | 0 | 0 |  | 0 | 0.005 ± 0.005 |
| *Cervidellus* | 2 | 0 | 0 |  | 0 | 0.005 ± 0.005 |
| *Chiloplacus* | 2 | 0.258 ± 0.060 | 0.087 ± 0.017 |  | 0.010 ± 0.000 | 0.019 ± 0.009 |
| *Eucephalobus* | 2 | 0.025 ± 0.013 | 0.003 ± 0.006 |  | 0.010 ± 0.000 | 0.015 ± 0.015 |
| *Heterocephalobus* | 2 | 0.027 ± 0.046 | 0 |  | 0 | 0 |
| *Mesorhabditis* | 1 | 0 | 0.009 ± 0.016 |  | 0.005 ± 0.005 | 0.005 ± 0.005 |
| *Monhystera* | 2 | 0 | 0 |  | 0.005 ± 0.005 | 0 |
| *Panagrolaimus* | 1 | 0.008 ± 0.007 | 0 |  | 0 | 0 |
| *Pellioditis* | 1 | 0.010 ± 0.017 | 0 |  | 0 | 0 |
| *Prismatolaimus* | 3 | 0 | 0 |  | 0.015 ± 0.015 | 0.010 ± 0.000 |
| *Rhabditis* | 1 | 0.007 ± 0.011 | 0.011 ± 0.010 |  | 0.005 ± 0.005 | 0.145 ± 0.021 |
| **Fungivores** |  |  |  |  |  |  |
| *Aphelenchoides* | 2 | 0.037 ± 0.055 | 0 |  | 0.009 ± 0.009 | 0.063 ± 0.044 |
| *Aphelenchus* | 2 | 0.090 ± 0.035 | 0.163 ± 0.055 |  | 0.010 ± 0.010 | 0.033 ± 0.024 |
| *Ditylenchus* | 2 | 0.050 ± 0.051 | 0.039 ± 0.020 |  | 0 | 0 |
| *Dorylaimoides* | 4 | 0 | 0 |  | 0.014 ± 0.014 | 0 |
| *Tylencholaimus* | 4 | 0 | 0 |  | 0.072 ± 0.002 | 0.107 ± 0.021 |
| **Herbivores** |  |  |  |  |  |  |
| *Aglenchus* | 2 | 0 | 0 |  | 0.005 ± 0.005 | 0 |
| *Boleodorus* | 2 | 0.007 ± 0.012 | 0 |  | 0 | 0.025 ± 0.025 |
| *Cephalenchus* | 2 | 0 | 0 |  | 0.009 ± 0.009 | 0 |
| *Coslenchus* | 2 | 0.017 ± 0.029 | 0 |  | 0.005 ± 0.005 | 0 |
| *Helicotylenchus* | 3 | 0.024 ± 0.022 | 0.075 ± 0.023 |  | 0.650 ± 0.030 | 0.235 ± 0.098 |
| *Lelenchus* | 2 | 0 | 0 |  | 0.005 ± 0.005 | 0.005 ± 0.005 |
| *Longidorella* | 4 | 0 | 0.004 ± 0.008 |  | 0.015 ± 0.005 | 0.005 ± 0.005 |
| *Pararotylenchus* | 3 | 0.013 ± 0.015 | 0.034 ± 0.051 |  | 0 | 0 |
| *Paratylenchus* | 3 | 0 | 0.003 ± 0.006 |  | 0 | 0 |
| *Rotylenchulus* | 3 | 0.005 ± 0.008 | 0 |  | 0 | 0 |
| *Rotylenchus* | 3 | 0.003 ± 0.006 | 0.003 ± 0.006 |  | 0 | 0 |
| *Trichodorus* | 4 | 0 | 0 |  | 0 | 0.005 ± 0.005 |
| *Tylenchus* | 2 | 0 | 0.012 ± 0.021 |  | 0 | 0.005 ± 0.005 |
| **Omnivores-predators** |  |  |  |  |  |  |
| *Discolaimus* | 5 | 0 | 0 |  | 0 | 0.005 ± 0.005 |
| *Eudorylaimus* | 4 | 0.008 ± 0.007 | 0.003 ± 0.005 |  | 0 | 0 |
| *Mesodorylaimus* | 5 | 0.007 ± 0.012 | 0 |  | 0 | 0 |
| *Microdorylaimus* | 4 | 0 | 0 |  | 0 | 0.019 ± 0.000 |
| *Thonus* | 4 | 0 | 0.007 ± 0.011 |  | 0.034 ± 0.006 | 0.019 ± 0.019 |
| *Torumanawa* | 5 | 0 | 0 |  | 0.005 ± 0.005 | 0.010 ± 0.010 |

Notes: Values are means ± standard deviation (n=3). C-p represents coloniser-persister value.