Brief description of the datafiles in the manuscript entitled “Soil biota diversity and plant diversity both contributed to ecosystem stability in grasslands” by Wu et al. (2023).

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| --- | --- | --- |
| Column | Units | Description |
| Site | -- | Unique ID for each site |
| Plot | -- | Unique ID for each plot in site |
| Lon | °E | Longitude for site |
| Lat | °N | Latitude for site |
| Alt | m | Altitude for site |
| NDVI | -- | Normalized Difference Vegetation Index |
| Stability | -- | Stability of NDVI |
| SD | -- | Standard deviation of NDVI |
| MAP | mm | Mean annual precipitation |
| MAT | °C | Mean annual temperature |
| MAP\_2010 | mm | Mean annual precipitation in 2010 |
| MAT\_2010 | °C | Mean annual temperature in 2010 |
| NDVI\_2010 | -- | Normalized Difference Vegetation Index in 2010 |
| MAP\_2011 | mm | Mean annual precipitation in 2011 |
| MAT\_2011 | °C | Mean annual temperature in 2011 |
| NDVI\_2011 | -- | Normalized Difference Vegetation Index in 2011 |
| NDVI\_2010\_2011 | -- | Normalized Difference Vegetation Index during 2010-2011 |
| ANPP\_2010\_2011 | g m-2 | Aboveground net primary production during in 2010 or 2011 |
| Soil\_pH | -- | Soil pH |
| SOC | mg g-1 | Soil organic carbon |
| TSN | mg g-1 | Total soil nitrogen |
| TSP | mg g-1 | Total soil phosphorus |
| SST | -- | Soil fertility, first axis of the PCA on SOC, TSN, and TSP |
| Soil\_biota\_alpha | -- | z-score in α-diversity of soil biota |
| Soil\_biota\_beta | -- | z-score in β- diversity of soil biota |
| Plant\_gama | -- | z-score in γ- diversity of soil biota |
| Plant\_alpha | -- | α-diversity of plants |
| Plant\_beta | -- | β-diversity of plants |
| SB\_gama | -- | γ-diversity of plants |
| Nema\_alpha | -- | α-diversity of soil nematodes |
| Nema\_beta | -- | β-diversity of soil nematodes |
| Nema\_gama | -- | γ-diversity of soil nematodes |
| Ba\_alpha | -- | α-diversity of soil bacteria |
| Ba\_beta | -- | β-diversity of soil bacteria |
| Ba\_gama | -- | γ-diversity of soil bacteria |
| Fu\_alpha | -- | α-diversity of soil fungi |
| Fu\_beta | -- | β-diversity of soil fungi |
| Fu\_gama | -- | γ-diversity of soil fungi |
| AB\_alpha | -- | α-diversity of annuals and biennials |
| PB\_alpha | -- | α-diversity of perennial bunchgrasses |
| PF\_alpha | -- | α-diversity of perennial forbs |
| PR\_alpha | -- | α-diversity of perennial rhizome grasses |
| SS\_alpha | -- | α -diversity of shrubs and sub‐shrubs |
| AB\_beta | -- | β-diversity of annuals and biennials |
| PB\_beta | -- | β-diversity of perennial bunchgrasses |
| PF\_beta | -- | β-diversity of perennial forbs |
| PR\_beta | -- | β-diversity of perennial rhizome grasses |
| SS\_beta | -- | β-diversity of shrubs and sub‐shrubs |
| BF\_alpha | -- | α-diversity of bacterial-feeding nematodes |
| FF\_alpha | -- | α-diversity of fungal-feeding nematodes |
| RF\_alpha | -- | α-diversity of plant-feeding nematodes |
| OC\_alpha | -- | α-diversity of omnivorous + carnivorous nematodes |
| BF\_beta | -- | β-diversity of bacterial-feeding nematodes |
| FF\_beta | -- | β-diversity of fungal-feeding nematodes |
| RF\_beta | -- | β-diversity of plant-feeding nematodes |
| OC\_beta | -- | β-diversity of omnivorous + carnivorous nematodes |
| ECM\_alpha | -- | α-diversity of mycorrhizal fungi |
| Path\_alpha | -- | α-diversity of plant-pathogenic fungi |
| Sap\_alpha | -- | α-diversity of soil saprobic fungi |
| ECM\_beta | -- | β-diversity of mycorrhizal fungi |
| Path\_beta | -- | β-diversity of plant-pathogenic fungi |
| Sap\_beta | -- | β-diversity of soil saprobic fungi |