

Zoological characteristics of an ICP Level I forest monitoring plot with Mull-Moder mosaic

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Dataset to "Graefe, U. (1994): Humusformengliederung aus bodenzoologischer Sicht. Mitteilungen der Deutschen Bodenkundlichen Gesellschaft 74: 41-44."

Table 1: Sorted table of annelid assemblages in the buffer zone of plot 139 (ICP Level I) Rosendahl, North Rhine-Westphalia, Germany. Sampling campaign November 1991. *M* = indicator values for soil moisture. *R* = indicator values for soil reaction.

| | <i>M</i> | <i>R</i> | 139/1-4 | 139/11-14 | 139/5-10 |
|---|----------|----------|----------------------|--------------------|----------------------|
| Earthworm species | | | | | |
| Individuals/m ² and abundance class for macrofauna | | | | | |
| <i>Dendrobaena octaedra</i> | x | 4 | | 30 2 | 50 3 |
| <i>Lumbricus rubellus</i> | x | x | | 7 1 | 63 3 |
| <i>Lumbricus castaneus</i> | x | 7 | | 5 1 | 29 2 |
| <i>Lumbricus terrestris</i> | 5 | 7 | | | 1 1 |
| <i>Octolasion cyaneum</i> | x | 7 | | | 1 1 |
| <i>Aporrectodea caliginosa</i> | x | 7 | | 25 2 | 283 4 |
| <i>Aporrectodea rosea</i> | x | 7 | | 25 2 | 267 4 |
| <i>Aporrectodea limicola</i> | 6 | 7 | | 20 2 | 27 2 |
| <i>Eiseniella tetraedra</i> | 9 | 7 | | | 98 3 |
| Microannelid species | | | | | |
| Individuals/m ² and abundance class for mesofauna | | | | | |
| <i>Marionina clavata</i> | 5 | 1 | 31831 5 | 19990 4 | |
| <i>Cognettia sphagnetorum</i> | x | 2 | 2292 2 | 5984 3 | 170 1 |
| <i>Achaeta aberrans</i> | 5 | 3 | 509 1 | 764 1 | |
| <i>Achaeta danica</i> | 5 | 3 | 2674 2 | 2292 2 | |
| <i>Oconnorella cambrensis</i> | 5 | 4 | | 9804 3 | |
| <i>Mesenchytraeus glandulosus</i> | 5 | 5 | | 382 1 | |
| <i>Marionina simillima</i> | 6 | 5 | | 891 1 | |
| <i>Enchytronia parva</i> | 5 | 6 | | 2037 2 | 85 1 |
| <i>Fridericia striata</i> | x | 6 | 382 1 | 382 1 | 170 1 |
| <i>Stercutus niveus</i> | 5 | 7 | 382 1 | 4074 3 | 4923 3 |
| <i>Achaeta dzwilloi</i> | 5 | 7 | | | 764 1 |
| <i>Achaeta eiseni</i> | 5 | 7 | | 509 1 | |
| <i>Achaeta healyae</i> | 5 | 7 | | | 594 1 |
| <i>Achaeta unibulba</i> | 6 | 7 | | | 764 1 |
| <i>Enchytronia sp. (omni)</i> | 6 | 7 | | | 1698 2 |
| <i>Buchholzia appendiculata</i> | x | 7 | | | 2801 2 |
| <i>Enchytraeus buchholzi</i> | x | 7 | | | 424 1 |
| <i>Enchytraeus lacteus</i> | x | 7 | | | 3650 3 |
| <i>Enchytraeus minutus</i> | x | 7 | | 509 1 | 2037 2 |
| <i>Fridericia bisetosa</i> | x | 7 | | | 170 1 |
| <i>Fridericia connata</i> | x | 7 | | | 85 1 |
| <i>Fridericia galba</i> | x | 7 | | | 934 1 |
| <i>Fridericia paroniana</i> | x | 7 | | | 849 1 |
| <i>Fridericia perrieri</i> | x | 7 | | | 255 1 |
| <i>Fridericia sp. juv.</i> | x | 7 | 255 1 | 255 1 | 5178 3 |
| <i>Marionina argentea</i> | 8 | 7 | | 127 1 | 7724 3 |
| <i>Rhyacodrilus falciformis</i> | 8 | 7 | | | 1867 2 |
| <i>Cernosvitoviella atrata</i> | 8 | x | | 509 1 | 764 1 |
| <i>Cognettia glandulosa</i> | 9 | 6 | | | 424 1 |
| <i>Mesenchytraeus armatus</i> | 9 | 7 | | | 509 1 |
| Amount of earthworm species | | | 0 | 6 | 9 |
| Amount of microannelid species | | | 7 | 15 | 23 |
| Total abundance of earthworms (ind./m ²) | | | 0 | 112 | 819 |
| Total abundance of microannelids (ind./m ²) | | | 38325 | 48510 | 36839 |
| Weighted average for <i>M</i> | | | 5.0 | 5.4 | 6.9 |
| Weighted average for <i>R</i> | | | 2.9 | 4.9 | 6.7 |
| Decomposer community type | | | Achaeto-Cognettietum | Transitional stage | Stercuto-Lumbricetum |

Abundance class for macrofauna species

- 1 up to 10 individuals/m²
- 2 above 10 up to 30
- 3 above 30 up to 100
- 4 above 100 up to 300
- 5 above 300 individuals/m²

Abundance class for mesofauna species

- 1 up to 1000 individuals/m²
- 2 above 1000 up to 3000
- 3 above 3000 up to 10000
- 4 above 10000 up to 30000
- 5 above 30000 individuals/m²

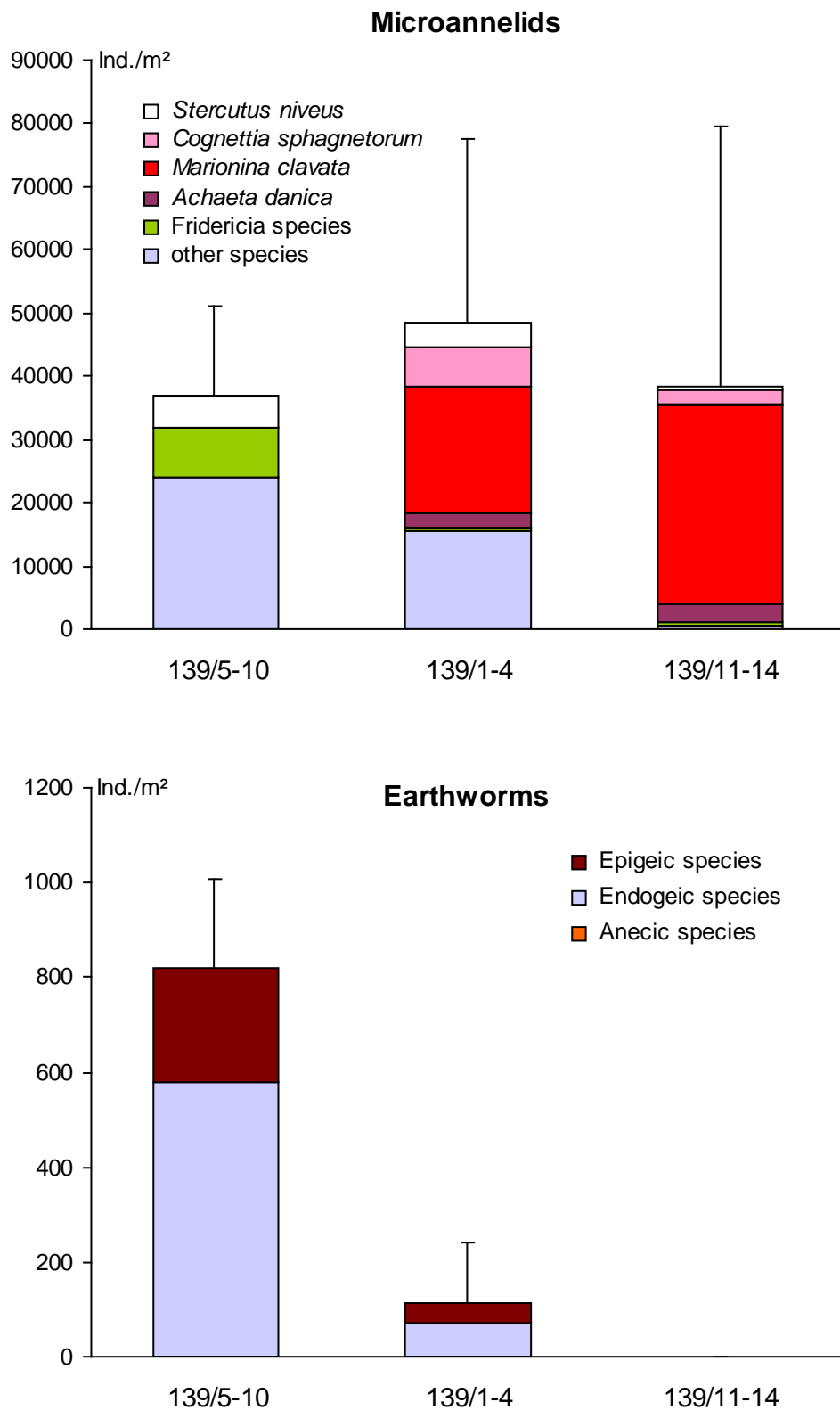


Figure 1: Small-scale heterogeneity of annelid assemblages at plot 139 (ICP Level I) Rosendahl, North Rhine-Westphalia, Germany. Sampling campaign November 1991.

Result of microannelid extraction from soil samples
 BZE 139 Rosendahl/Hakenfort, NRW
 Mixed stand of beech and oak

Sampling campaign November 1991
 Size of soil core 19.63 cm²
 Conversion factor 509

| Depth 0 - 2.5 cm | Sampling point | | | | | | | | | | | | | | Sum | Ind./m ² |
|-----------------------------------|----------------|---|----|---|----|----|----|----|----|----|----|----|----|----|-----|---------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | |
| <i>Achaeta aberrans</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Achaeta danica</i> | | | | | | | | | | | | 1 | | | 1 | 36 |
| <i>Achaeta dzwilloi</i> | | | | | | | | | 1 | 1 | | | | | 2 | 73 |
| <i>Achaeta eiseni</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Achaeta healyae</i> | | | | | 1 | | | | | | | | | | 1 | 36 |
| <i>Achaeta unibulba</i> | | | | | | 4 | | 1 | | 1 | | | | | 6 | 218 |
| <i>Buchholzia appendiculata</i> | | | | | 1 | 1 | 1 | 8 | 22 | | | | | | 33 | 1200 |
| <i>Cernosvitoviella atrata</i> | | | | | 2 | | | | | | | | | | 2 | 73 |
| <i>Cognettia glandulosa</i> | | | | | | | 4 | | | | | | | | 4 | 146 |
| <i>Cognettia sphagnetorum</i> | 12 | 3 | 14 | 1 | | | 1 | 1 | | | 5 | 1 | 10 | | 48 | 1746 |
| <i>Enchytraeus buchholzi</i> | | | | | | | | 3 | 2 | | | | | | 5 | 182 |
| <i>Enchytraeus lacteus</i> | | | | | 7 | 1 | 3 | 3 | 4 | 3 | | | | | 21 | 764 |
| <i>Enchytraeus minutus</i> | | | | | | 1 | 1 | 21 | | | | | | | 23 | 837 |
| <i>Enchytronia parva</i> | | 6 | | | | | | | | | | | | | 6 | 218 |
| <i>Enchytronia sp. (omni)</i> | | | | | | 3 | | 1 | | | | | | | 4 | 146 |
| <i>Fridericia bisetosa</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Fridericia connata</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Fridericia galba</i> | | | | | | 3 | | | 2 | | | | | | 5 | 182 |
| <i>Fridericia paroniana</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Fridericia perrieri</i> | | | | | | | | 1 | | | | | | | 1 | 36 |
| <i>Fridericia striata</i> | 1 | | 2 | | 1 | 1 | | | | | | | 1 | 2 | 8 | 291 |
| <i>Fridericia sp. juv.</i> | | | | | 4 | 11 | 3 | 1 | 7 | | | | 2 | | 28 | 1019 |
| <i>Marionina argentea</i> | | | | | 6 | 5 | 4 | 4 | 2 | 4 | | | | | 25 | 909 |
| <i>Marionina clavata</i> | | | 11 | 7 | | | | | | | 51 | 2 | 25 | 1 | 97 | 3529 |
| <i>Marionina simillima</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Mesenchytraeus armatus</i> | | | | | 2 | | | 3 | 1 | | | | | | 6 | 218 |
| <i>Mesenchytraeus glandulosus</i> | 2 | | 1 | | | | | | | | | | | | 3 | 109 |
| <i>Oconnorella cambrensis</i> | 2 | | 3 | | | | | | | | | | | | 5 | 182 |
| <i>Stercutus niveus</i> | 5 | | | | 12 | 9 | 4 | 8 | 7 | 16 | | | | 3 | 64 | 2328 |
| <i>Rhyacodrilus falciformis</i> | | | | | | | | | | | | | | | 0 | 0 |
| | 22 | 9 | 31 | 8 | 36 | 39 | 21 | 55 | 48 | 25 | 56 | 4 | 38 | 6 | 398 | 14479 |

Result of microannelid extraction from soil samples
 BZE 139 Rosendahl/Hakenfort, NRW
 Mixed stand of beech and oak

Sampling campaign November 1991
 Size of soil core 19.63 cm²
 Conversion factor 509

| Depth 2.5 - 5 cm | Sampling point | | | | | | | | | | | | | | Sum | Ind./m ² |
|-----------------------------------|----------------|---|----|----|----|----|---|----|----|----|----|----|----|----|-----|---------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | |
| <i>Achaeta aberrans</i> | | | | | | | | | | | | | | 3 | 3 | 109 |
| <i>Achaeta danica</i> | 14 | 1 | | 2 | | | | 2 | 3 | | | 4 | 6 | | 27 | 982 |
| <i>Achaeta dzwilloi</i> | | | | | 2 | | | 2 | 3 | | | | | | 7 | 255 |
| <i>Achaeta eiseni</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Achaeta healyae</i> | | | | | 2 | | | | | 1 | | | | | 3 | 109 |
| <i>Achaeta unibulba</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Buchholzia appendiculata</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Cernosvitoviella atrata</i> | | | | | | 4 | | 1 | | | | | | | 5 | 182 |
| <i>Cognettia glandulosa</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Cognettia sphagnetorum</i> | 5 | | | 3 | | | | | | | 2 | | | | 10 | 364 |
| <i>Enchytraeus buchholzi</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Enchytraeus lacteus</i> | | | | | 1 | 3 | 3 | | 5 | 1 | | | | | 13 | 473 |
| <i>Enchytraeus minutus</i> | | | | | | | | 1 | | | | | | | 1 | 36 |
| <i>Enchytronia parva</i> | 1 | 2 | | | | | | | | | | | | | 3 | 109 |
| <i>Enchytronia sp. (omni)</i> | | | | | | 5 | | | 2 | | | | | | 7 | 255 |
| <i>Fridericia bisetosa</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Fridericia connata</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Fridericia galba</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Fridericia paroniana</i> | | | | | | 2 | | | | | | | | | 2 | 73 |
| <i>Fridericia perrieri</i> | | | | | | | | | 1 | | | | | | 1 | 36 |
| <i>Fridericia striata</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Fridericia sp. juv.</i> | | | | | 3 | | | 1 | 3 | 5 | | | | | 12 | 437 |
| <i>Marionina argentea</i> | 1 | | | | 10 | 13 | | 4 | 5 | 3 | | | | | 36 | 1310 |
| <i>Marionina clavata</i> | 7 | 1 | 9 | 55 | | | | | | | 5 | 13 | 79 | 3 | 172 | 6257 |
| <i>Marionina simillima</i> | | 2 | | | | | | | | | | | | | 2 | 73 |
| <i>Mesenchytraeus armatus</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Mesenchytraeus glandulosus</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Oconnorella cambrensis</i> | 25 | 2 | 13 | | | | | | | | | | | | 40 | 1455 |
| <i>Stercutus niveus</i> | 18 | | 1 | | | | | | | | | | | | 19 | 691 |
| <i>Rhyacodrilus falciformis</i> | | | | | 1 | 3 | | 1 | | 2 | | | | | 7 | 255 |
| | 71 | 8 | 23 | 60 | 19 | 30 | 3 | 10 | 19 | 12 | 7 | 17 | 85 | 6 | 370 | 13460 |

Result of microannelid extraction from soil samples
 BZE 139 Rosendahl/Hakenfort, NRW
 Mixed stand of beech and oak

Sampling campaign November 1991
 Size of soil core 19.63 cm²
 Conversion factor 509

| Depth 5 - 7.5 cm | Sampling point | | | | | | | | | | | | | | Sum | Ind./m ² |
|-----------------------------------|----------------|---|---|----|----|----|---|---|---|----|----|----|----|----|-----|---------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | |
| <i>Achaeta aberrans</i> | | | 1 | 5 | | | | | | | | 1 | | | 7 | 255 |
| <i>Achaeta danica</i> | 1 | | | | | | | | | | | 1 | 9 | | 11 | 400 |
| <i>Achaeta dzwilloi</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Achaeta eiseni</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Achaeta healyae</i> | | | | | 3 | | | | | | | | | | 3 | 109 |
| <i>Achaeta unibulba</i> | | | | | | 1 | | | | | | | | | 1 | 36 |
| <i>Buchholzia appendiculata</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Cernosvitoviella atrata</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Cognettia glandulosa</i> | | | | | | 1 | | | | | | | | | 1 | 36 |
| <i>Cognettia sphagnetorum</i> | | 1 | | 5 | | | | | | | | | | | 6 | 218 |
| <i>Enchytraeus buchholzi</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Enchytraeus lacteus</i> | | | | | 1 | 1 | 1 | 1 | | 1 | | | | | 5 | 182 |
| <i>Enchytraeus minutus</i> | | 2 | | | | | | | | | | | | | 2 | 73 |
| <i>Enchytronia parva</i> | | 4 | | | | | | | | | | | | | 4 | 146 |
| <i>Enchytronia sp. (omni)</i> | | | | | | 4 | | | | | | | | | 4 | 146 |
| <i>Fridericia bisetosa</i> | | | | | | 1 | | | | | | | | | 1 | 36 |
| <i>Fridericia connata</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Fridericia galba</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Fridericia paroniana</i> | | | | | | | | 2 | 2 | | | | | | 4 | 146 |
| <i>Fridericia perrieri</i> | | | | | | | | | 1 | | | | | | 1 | 36 |
| <i>Fridericia striata</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Fridericia sp. juv.</i> | | | | | 5 | | | | 2 | | | | | | 7 | 255 |
| <i>Marionina argentea</i> | | | | | 4 | 7 | | 1 | 4 | | | | | | 16 | 582 |
| <i>Marionina clavata</i> | 7 | | | 49 | | | | | | | | 7 | 49 | 1 | 113 | 4111 |
| <i>Marionina simillima</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Mesenchytraeus armatus</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Mesenchytraeus glandulosus</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Oconnorella cambrensis</i> | 30 | | | | | | | | | | | | | | 30 | 1091 |
| <i>Stercutus niveus</i> | | | | | | 1 | | | | | | | | | 1 | 36 |
| <i>Rhyacodrilus falciformis</i> | | | | | 3 | 3 | | 1 | | 1 | | | | | 8 | 291 |
| | 38 | 7 | 1 | 59 | 16 | 19 | 1 | 5 | 9 | 2 | 0 | 9 | 58 | 1 | 225 | 8185 |

Result of microannelid extraction from soil samples
 BZE 139 Rosendahl/Hakenfort, NRW
 Mixed stand of beech and oak

Sampling campaign November 1991
 Size of soil core 19.63 cm²
 Conversion factor 509

| Depth 7.5 - 10 cm | Sampling point | | | | | | | | | | | | | | Sum | Ind./m ² |
|-----------------------------------|----------------|----|---|----|----|----|---|---|----|----|----|----|----|----|-----|---------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | |
| <i>Achaeta aberrans</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Achaeta danica</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Achaeta dzwilloi</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Achaeta eiseni</i> | 2 | | | 2 | | | | | | | | | | | 4 | 146 |
| <i>Achaeta healyae</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Achaeta unibulba</i> | | | | | | | | | 2 | | | | | | 2 | 73 |
| <i>Buchholzia appendiculata</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Cernosvitoviella atrata</i> | | 4 | | | 1 | 1 | | | | | | | | | 6 | 218 |
| <i>Cognettia glandulosa</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Cognettia sphagnetorum</i> | | | | 3 | | | | | | | | | | | 3 | 109 |
| <i>Enchytraeus buchholzi</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Enchytraeus lacteus</i> | | | | | | 1 | | | | 3 | | | | | 4 | 146 |
| <i>Enchytraeus minutus</i> | | 2 | | | | | | | | | | | | | 2 | 73 |
| <i>Enchytronia parva</i> | | 3 | | | | | | 1 | | | | | | | 4 | 146 |
| <i>Enchytronia sp. (omni)</i> | | | | | | 5 | | | | | | | | | 5 | 182 |
| <i>Fridericia bisetosa</i> | | | | | | | | | 1 | | | | | | 1 | 36 |
| <i>Fridericia connata</i> | | | | | | | | | | 1 | | | | | 1 | 36 |
| <i>Fridericia galba</i> | | | | | | | | 1 | 5 | | | | | | 6 | 218 |
| <i>Fridericia paroniana</i> | | | | | 2 | | | | | 2 | | | | | 4 | 146 |
| <i>Fridericia perrieri</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Fridericia striata</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Fridericia sp. juv.</i> | | 2 | | | | | | 2 | 1 | 13 | | | | | 18 | 655 |
| <i>Marionina argentea</i> | | | | | 4 | 4 | 2 | 3 | 2 | | | | | | 15 | 546 |
| <i>Marionina clavata</i> | | | 1 | 10 | | | | | | | | 2 | 12 | | 25 | 909 |
| <i>Marionina simillima</i> | 3 | 2 | | | | | | | | | | | | | 5 | 182 |
| <i>Mesenchytraeus armatus</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Mesenchytraeus glandulosus</i> | | | | | | | | | | | | | | | 0 | 0 |
| <i>Oconnorella cambrensis</i> | 2 | | | | | | | | | | | | | | 2 | 73 |
| <i>Stercutus niveus</i> | 8 | | | | 1 | | | | | | | | | | 9 | 327 |
| <i>Rhyacodrilus falciformis</i> | | | | | 2 | 1 | 2 | | | 2 | | | | | 7 | 255 |
| | 15 | 13 | 1 | 15 | 10 | 12 | 6 | 6 | 23 | 8 | 0 | 2 | 12 | 0 | 123 | 4475 |

Result of microannelid extraction from soil samples
 BZE 139 Rosendahl/Hakenfort, NRW
 Mixed stand of beech and oak

Sampling campaign November 1991
 Size of soil core 19.63 cm²
 Conversion factor 509

| Total depth (0-10 cm) | Sampling point | | | | | | | | | | | | | | Freq | Sum | Dom | Ind./m ² |
|-----------------------------------|----------------|----|----|-----|----|-----|----|----|----|----|----|----|-----|----|--------------------------|------|-----|---------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | | | |
| <i>Achaeta aberrans</i> | | | 1 | 5 | | | | | | | | 1 | | 3 | 29% | 10 | 1% | 364 |
| <i>Achaeta danica</i> | 15 | 1 | | 2 | | | | | | | | 6 | 15 | | 36% | 39 | 3% | 1419 |
| <i>Achaeta dzwilloi</i> | | | | | 2 | | | 2 | 4 | 1 | | | | | 29% | 9 | 1% | 327 |
| <i>Achaeta eiseni</i> | 2 | | | 2 | | | | | | | | | | | 14% | 4 | 0% | 146 |
| <i>Achaeta healyae</i> | | | | | 6 | | | | | 1 | | | | | 14% | 7 | 1% | 255 |
| <i>Achaeta unibulba</i> | | | | | | 5 | | 1 | 2 | 1 | | | | | 29% | 9 | 1% | 327 |
| <i>Buchholzia appendiculata</i> | | | | | 1 | 1 | 1 | 8 | 22 | | | | | | 36% | 33 | 3% | 1200 |
| <i>Cernosvitoviella atrata</i> | | 4 | | | 3 | 5 | | 1 | | | | | | | 29% | 13 | 1% | 473 |
| <i>Cognettia glandulosa</i> | | | | | | 1 | 4 | | | | | | | | 14% | 5 | 0% | 182 |
| <i>Cognettia sphagnetorum</i> | 17 | 4 | 14 | 12 | | | | 1 | 1 | | | 7 | 1 | 10 | 64% | 67 | 6% | 2437 |
| <i>Enchytraeus buchholzi</i> | | | | | | | | 3 | 2 | | | | | | 14% | 5 | 0% | 182 |
| <i>Enchytraeus lacteus</i> | | | | | 9 | 6 | 7 | 4 | 9 | 8 | | | | | 43% | 43 | 4% | 1564 |
| <i>Enchytraeus minutus</i> | | 4 | | | | 1 | 1 | 22 | | | | | | | 29% | 28 | 3% | 1019 |
| <i>Enchytronia parva</i> | 1 | 15 | | | | | | 1 | | | | | | | 21% | 17 | 2% | 618 |
| <i>Enchytronia sp. (omni)</i> | | | | | | 17 | | 1 | 2 | | | | | | 21% | 20 | 2% | 728 |
| <i>Fridericia bisetosa</i> | | | | | | 1 | | | 1 | | | | | | 14% | 2 | 0% | 73 |
| <i>Fridericia connata</i> | | | | | | | | | | 1 | | | | | 7% | 1 | 0% | 36 |
| <i>Fridericia galba</i> | | | | | | 3 | | 1 | 7 | | | | | | 21% | 11 | 1% | 400 |
| <i>Fridericia paroniana</i> | | | | | 2 | 2 | | 2 | 2 | 2 | | | | | 36% | 10 | 1% | 364 |
| <i>Fridericia perrieri</i> | | | | | | | | 1 | 2 | | | | | | 14% | 3 | 0% | 109 |
| <i>Fridericia striata</i> | 1 | | 2 | | 1 | 1 | | | | | | | | 1 | 43% | 8 | 1% | 291 |
| <i>Fridericia sp. juv.</i> | | 2 | | | 12 | 11 | 5 | 3 | 25 | 5 | | | | 2 | 57% | 65 | 6% | 2365 |
| <i>Marionina argentea</i> | 1 | | | | 24 | 29 | 6 | 12 | 13 | 7 | | | | | 50% | 92 | 8% | 3347 |
| <i>Marionina clavata</i> | 14 | 1 | 21 | 121 | | | | | | | 56 | 24 | 165 | 5 | 57% | 407 | 36% | 14806 |
| <i>Marionina simillima</i> | 3 | 4 | | | | | | | | | | | | | 14% | 7 | 1% | 255 |
| <i>Mesenchytraeus armatus</i> | | | | | 2 | | | 3 | 1 | | | | | | 21% | 6 | 1% | 218 |
| <i>Mesenchytraeus glandulosus</i> | 2 | | 1 | | | | | | | | | | | | 14% | 3 | 0% | 109 |
| <i>Oconnorella cambrensis</i> | 59 | 2 | 16 | | | | | | | | | | | | 21% | 77 | 7% | 2801 |
| <i>Stercutus niveus</i> | 31 | | 1 | | 13 | 10 | 4 | 8 | 7 | 16 | | | | 3 | 64% | 93 | 8% | 3383 |
| <i>Rhyacodrilus falciformis</i> | | | | | 6 | 7 | 2 | 2 | | 5 | | | | | 36% | 22 | 2% | 800 |
| | 146 | 37 | 56 | 142 | 81 | 100 | 31 | 76 | 99 | 47 | 63 | 32 | 193 | 13 | | 1116 | | 40598 |
| Amount of species | 30 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | Arithmetic mean | 80 | | 40598 |
| | | | | | | | | | | | | | | | Standard deviation | 52 | | 26329 |
| | | | | | | | | | | | | | | | Coefficient of variation | 65% | | |
| | | | | | | | | | | | | | | | Median | 70 | | 35396 |

Result of microannelid extraction from soil samples
 BZE 139 Rosendahl/Hakenfort, NRW
 Mixed stand of beech and oak

Sampling campaign November 1991
 Size of soil core 19.63 cm²
 Conversion factor 509

| Total depth (0-10 cm) | Sampling point | | | | | | Freq | Sum | Dom | Ind./m ² |
|---------------------------------|----------------|-----|----|----|----|----|------|-----|-----|---------------------|
| | 5 | 6 | 7 | 8 | 9 | 10 | | | | |
| <i>Achaeta dzwilloi</i> | 2 | | | 2 | 4 | 1 | 67% | 9 | 2% | 764 |
| <i>Achaeta healyae</i> | 6 | | | | | 1 | 33% | 7 | 2% | 594 |
| <i>Achaeta unibulba</i> | | 5 | | 1 | 2 | 1 | 67% | 9 | 2% | 764 |
| <i>Buchholzia appendiculata</i> | 1 | 1 | 1 | 8 | 22 | | 83% | 33 | 8% | 2801 |
| <i>Cernosvitoviella atrata</i> | 3 | 5 | | 1 | | | 50% | 9 | 2% | 764 |
| <i>Cognettia glandulosa</i> | | 1 | 4 | | | | 33% | 5 | 1% | 424 |
| <i>Cognettia sphagnetorum</i> | | | | 1 | 1 | | 33% | 2 | 0% | 170 |
| <i>Enchytraeus buchholzi</i> | | | | | 3 | 2 | 33% | 5 | 1% | 424 |
| <i>Enchytraeus lacteus</i> | 9 | 6 | 7 | 4 | 9 | 8 | 100% | 43 | 10% | 3650 |
| <i>Enchytraeus minutus</i> | | 1 | 1 | 22 | | | 50% | 24 | 6% | 2037 |
| <i>Enchytronia parva</i> | | | | 1 | | | 17% | 1 | 0% | 85 |
| <i>Enchytronia</i> sp. (omni) | | 17 | | 1 | 2 | | 50% | 20 | 5% | 1698 |
| <i>Fridericia bisetosa</i> | | 1 | | | 1 | | 33% | 2 | 0% | 170 |
| <i>Fridericia connata</i> | | | | | | 1 | 17% | 1 | 0% | 85 |
| <i>Fridericia galba</i> | | 3 | | 1 | 7 | | 50% | 11 | 3% | 934 |
| <i>Fridericia paroniana</i> | 2 | 2 | | 2 | 2 | 2 | 83% | 10 | 2% | 849 |
| <i>Fridericia perrieri</i> | | | | 1 | 2 | | 33% | 3 | 1% | 255 |
| <i>Fridericia striata</i> | 1 | 1 | | | | | 33% | 2 | 0% | 170 |
| <i>Fridericia</i> sp. juv. | 12 | 11 | 5 | 3 | 25 | 5 | 100% | 61 | 14% | 5178 |
| <i>Marionina argentea</i> | 24 | 29 | 6 | 12 | 13 | 7 | 100% | 91 | 21% | 7724 |
| <i>Mesenchytraeus armatus</i> | 2 | | | 3 | 1 | | 50% | 6 | 1% | 509 |
| <i>Stercutus niveus</i> | 13 | 10 | 4 | 8 | 7 | 16 | 100% | 58 | 13% | 4923 |
| <i>Rhyacodrilus falciformis</i> | 6 | 7 | 2 | 2 | | 5 | 83% | 22 | 5% | 1867 |
| | 81 | 100 | 31 | 76 | 99 | 47 | | 434 | | 36839 |

Amount of species 23

| | | |
|--------------------------|-----|-------|
| Arithmetic mean | 72 | 36839 |
| Standard deviation | 28 | 14252 |
| Coefficient of variation | 39% | |
| Median | 79 | 39980 |

Result of microannelid extraction from soil samples
 BZE 139 Rosendahl/Hakenfort, NRW
 Mixed stand of beech and oak

Sampling campaign November 1991
 Size of soil core 19.63 cm²
 Conversion factor 509

| Total depth (0-10 cm) | Sampling point | | | | Freq | Sum | Dom | Ind./m ² |
|-----------------------------------|----------------|----|----|-----|--------------------------|-----|-----|---------------------|
| | 1 | 2 | 3 | 4 | | | | |
| <i>Achaeta aberrans</i> | | | 1 | 5 | 50% | 6 | 2% | 764 |
| <i>Achaeta danica</i> | 15 | 1 | | 2 | 75% | 18 | 5% | 2292 |
| <i>Achaeta eiseni</i> | 2 | | | 2 | 50% | 4 | 1% | 509 |
| <i>Cernosvitoviella atrata</i> | | 4 | | | 25% | 4 | 1% | 509 |
| <i>Cognettia sphagnetorum</i> | 17 | 4 | 14 | 12 | 100% | 47 | 12% | 5984 |
| <i>Enchytraeus minutus</i> | | 4 | | | 25% | 4 | 1% | 509 |
| <i>Enchytronia parva</i> | 1 | 15 | | | 50% | 16 | 4% | 2037 |
| <i>Fridericia striata</i> | 1 | | 2 | | 50% | 3 | 1% | 382 |
| <i>Fridericia</i> sp. juv. | | 2 | | | 25% | 2 | 1% | 255 |
| <i>Marionina argentea</i> | 1 | | | | 25% | 1 | 0% | 127 |
| <i>Marionina clavata</i> | 14 | 1 | 21 | 121 | 100% | 157 | 41% | 19990 |
| <i>Marionina simillima</i> | 3 | 4 | | | 50% | 7 | 2% | 891 |
| <i>Mesenchytraeus glandulosus</i> | 2 | | 1 | | 50% | 3 | 1% | 382 |
| <i>Oconnorella cambrensis</i> | 59 | 2 | 16 | | 75% | 77 | 20% | 9804 |
| <i>Stercutus niveus</i> | 31 | | 1 | | 50% | 32 | 8% | 4074 |
| | 146 | 37 | 56 | 142 | | 381 | | 48510 |
| Amount of species | 15 | | | | | | | |
| | | | | | Arithmetic mean | 95 | | 48510 |
| | | | | | Standard deviation | 57 | | 28952 |
| | | | | | Coefficient of variation | 60% | | |
| | | | | | Median | 99 | | 50420 |

Result of microannelid extraction from soil samples
 BZE 139 Rosendahl/Hakenfort, NRW
 Mixed stand of beech and oak

Sampling campaign November 1991
 Size of soil core 19.63 cm²
 Conversion factor 509

| | Sampling point | | | | Freq | Sum | Dom | Ind./m ² |
|-------------------------------|----------------|----|-----|----|--------------------------|------|-----|---------------------|
| | 11 | 12 | 13 | 14 | | | | |
| Total depth (0-10 cm) | | | | | | | | |
| <i>Achaeta aberrans</i> | | 1 | | 3 | 50% | 4 | 1% | 509 |
| <i>Achaeta danica</i> | | 6 | 15 | | 50% | 21 | 7% | 2674 |
| <i>Cognettia sphagnetorum</i> | 7 | 1 | 10 | | 75% | 18 | 6% | 2292 |
| <i>Fridericia striata</i> | | | 1 | 2 | 50% | 3 | 1% | 382 |
| <i>Fridericia</i> sp. juv. | | | 2 | | 25% | 2 | 1% | 255 |
| <i>Marionina clavata</i> | 56 | 24 | 165 | 5 | 100% | 250 | 83% | 31831 |
| <i>Stercutus niveus</i> | | | | 3 | 25% | 3 | 1% | 382 |
| | 63 | 32 | 193 | 13 | | 301 | | 38325 |
| Amount of species | 7 | | | | | | | |
| | | | | | Arithmetic mean | 75 | | 38325 |
| | | | | | Standard deviation | 81 | | 41334 |
| | | | | | Coefficient of variation | 108% | | |
| | | | | | Median | 48 | | 24192 |