

Comenius Project

Biodiversity Languages and Organic Growing

Fourth meeting

Fieldwork -The students calculated the biodiversity index like in the example below

Calculating the Shannon-Weiner Index

Biologically realistic H' values range from 0 (only one species present with no uncertainty as to what species each individual will be) to about 4.5 (high uncertainty as species are relatively evenly distributed). In theory, the H' value can be much higher than 4.5, although most **real world estimates of H' range from 1.5 to 3.5**. In general, it is thought that more disturbed and less stable environments should have lower H' values.

Yellow Plants

<u>Species</u>	<u>Number of Individuals</u>	<u>Prop. of individuals (pi= ni/N)</u>	<u>Inpi</u>	<u>(pi)(lnp)</u>
Rorippa Sylvestre	100	2,040816327	0,713349888	1,455816098
Crepis Neglecta	1	0,020408163	-3,891820298	-0,079424904
Euphorbia Terracina	5	0,102040816	-2,282382386	-0,232896162
Scolynus Hispanicus	150	3,06122449	1,118814996	3,424943865
Jasminum Fruticans	1	0,020408163	-3,891820298	-0,079424904
Sysimbrium Officinalis	8	0,163265306	-1,812378756	-0,295898572

Total number species

(S) =	6	Sum (pi)(lnP) =	4,193115421
Total (N) =	265	H' =	-4,193115421
Mean (N/S)	44,16666667		

H'max (lnS) =	1,791759469
Eveness (E = H' / H'max)	-2,340222275