**Calculating the Index**

1. Divide the number of a species (n) in one area by the total number of all species in that area to get relative abundance. We will call this number p.
2. Calculate the natural log (ln) of this number. Don’t worry excel will do it for you.
3. Multiply the relative abundance (p) by the ln(p). That is multiply number 1 and 2.
4. Multiply this number by -1.
5. Then raise e to this number. e is just a constant at 2.71828183…..

Your table should look something like this:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Flood Plain | n | p | ln(p) | p\*ln(p) |
| Ant | x1 | x1/y |   |   |
| Aphid |   |   |   |   |
| beetle |   |   |   |   |
| Beetle Larvae |   |   |   |   |
| Beetle Mite |   |   |   |   |
| Centipede |   |   |   |   |
| Colembolla |   |   |   |   |
| Dipluran |   |   |   |   |
| earthworm |   |   |   |   |
| Fly |   |   |   |   |
| Harvestman |   |   |   |   |
| Isopod |   |   |   |   |
| Japygig |   |   |   |   |
| Larvae |   |   |   |   |
| Millipede |   |   |   |   |
| Nematode |   |   |   |   |
| Pauropod |   |   |   |   |
| Predacious Mite |   |   |   |   |
| Proturan |   |   |   |   |
| Pseudoscorpion |   |   |   |   |
| Psocid |   |   |   |   |
| Roach |   |   |   |   |
| Rove Beetle |   |   |   |   |
| Spider |   |   |   |   |
| Symphalid |   |   |   |   |
| Termite |   |   |   |   |
| Thrip |   |   |   |   |
| Worm |   |   |   |   |
| Total  | y | n/a | n/a | H'= sum((p\*ln(p))\*-1 |
| Shannon Diversity Index |   |   |   | e^(H') |