Measuring Biodiversity

Biology

Richness against diversity, and the index that combines them.

Simpson's index accounts for both the number of species and their relative abundance.

$$D = 1 - \Sigma (n/N)^2$$

Two communities, 5 species each	Same richness
One dominated by a single species Low evenness.	Lower diversity index
One evenly distributed	Higher index

THE COMMON MISTAKE

× Reporting species richness alone

✓ Reporting richness and evenness

A community of 100 species where one holds 99% of individuals is not diverse in any functional sense.

Higher diversity is generally associated with greater stability and resilience to disturbance.