

Name of Park: _____

of Acres: _____

Species Richness: _____

Shannon Diversity Index:

where:

$$H = \sum_{i=1}^S -(P_i \cdot \ln P_i)$$

H = the Shannon diversity index

P_i = fraction of entire population made up of species i

S = numbers of species encountered

Σ indicates the sum from species 1 to species S

Typical values are generally between 1.5 and 3.5 in most ecological studies, and the index is rarely greater than 4. The Shannon index increases as both the richness and the evenness of the community increase. The fact that the index incorporates both components of biodiversity can be seen as both a strength and a weakness. It is a strength because it provides a simple, synthetic summary, but it is a weakness because it makes it difficult to compare communities that differ greatly in richness.

Species	N _i = abundance of each species	P _i = (N _i /N)	ln(P _i)	-(P _i x ln(P _i))
CATDOM				
CHIPMUNK				
COYOTE				
DEER				
FLYING SQUIRREL				
FOX SQUIRREL				
GRAY SQUIRREL				
MINK				
MLG SQUIRREL				
OPOSSOM				
RABBIT				
RACCOON				
RED FOX				
RED SQUIRREL				
SKUNK				
TURKEY				
WOODCHUCK				
	N =			H =

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Shannon's evenness index (J)

In addition to species richness and the Shannon Index, there is a measure called species evenness, which attempts to measure the equality of the abundances for each species. The formula for evenness is given below:

Shannon evenness index: $J = H / \ln(S)$

Where, H = Shannon Index

S = species richness

J = _____