

Finding the mJOR descriptors of species networks

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Abstract: TODO

Keywords: food web, structure, dimensionality reduction

1 Blah blah blah Vermaat et al. (2009)

2 “It is incumbent on network ecologists to establish clearly the independence and uniqueness of the descriptive

3 metrics used.” - Lau et al. (2017)

Table 1: An informative caption about the different network properties

Label	Definition	“Function”	Reference (for maths), can make footnotes probs
Basal	Percentage of basal taxa (taxa without resources)		
Connectance	L/S^2 , where S is the number of species and L the number of links		
Cannibal	Percentage of cannibals		
ChLen	Mean food chain length, averaged over all species		
ChSD	Standard deviation of ChLen		
ChNum	log number of food chains		
Clust	mean clustering coefficient (probability that two taxa linked to the same taxon are also linked)		
GenSD	Normalized standard deviation of generality of a species standardized by L/S		
Herbivore	Percentage of herbivores plus detritivores (taxa that feed on basal taxa)		
Intermediate	percentage of intermediate taxa (with both consumers and resources)		
LinkSD	normalized standard deviation of links (number of consumers plus resources per taxon)		

Label	Definition	“Function”	Reference (for
			maths), can make footnotes probs
Loop	Percentage of taxa in loops (food chains in which a taxon occurs twice)		
L/S	links per species		
MaxSim	Mean of the maximum trophic similarity of each taxon to other taxa, the number of predators and prey shared by a pair of species divided by their total number of predators and prey		
Omnivory	Percentage of omnivores (taxa that feed on ≥ 2 taxa with different trophic levels)		
Path	characteristic path length, the mean shortest food chain length between species pairs		
Richness	Number of trophic species, or taxa		
TL	prey-weighted trophic level averaged across taxa (Williams & Martinez, 2004)		
Top	Percentage of top taxa (taxa without consumers)		
VulSD	Normalized standard deviation of vulnerability of a species standardized by L/S		
Links	The number of links in the network		
Diameter	Diameter can also be measured as the average of the distances between each pair of nodes in the network		Delmas et al. (2019)
Nestedness			
Modularity			

Label	Definition	“Function”	Reference (for maths), can make footnotes probs
Centrality	Centrality is a measure of how ‘influential’ a species is, under various definitions of ‘influence’...		

References

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