Biodiversity

Assignment 1

AJ Smit

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Submit a R script wherein you provide answers to Questions 1–9 by no later than 8:00 tomorrow. Label the script as follows: `BCB743_<Name>_<Surname>_Assignment_1.R`, e.g. `BCB743_AJ_Smit_Assignment_1.R`.

Refer to the Biodiversity lecture material for the question context.

0.1 Assignment 1 Questions

Question 1: Why is the matrix square, and what determines the number of rows/columns?

Question 2: What is the meaning of the diagonal?

Question 3: What is the meaning of the non-diagonal elements?

Question 4: Take the data in row 1 and create a line graph that shows these values as a function of section number.

Question 5: Provide a mechanistic (ecological) explanation for why this figure takes the shape that it does.

Question 6: Why is there a difference between the two?

Question 7: Which is correct?

Question 8: Plot species turnover as a function of Section number, and provide a mechanistic exaplanation for the pattern observed.

Question 9: Based on an assessment of literature on the topic, provide a discussion of nestedness-resultant -diversity. Use either a marine or terrestrial example to explain this mode of structuring biodiversity.