Chapter 3 Spatial networks

Methods

Last year I mapped and spatial analyzed the locations, identity and size of 1700 woody shrubs, cactus and yucca in three 80m by 20m transects (Braun, under preparation).

Average nearest 3 neighbour distance is 1.4 m -> so chose a 3 m

|  |  |  |  |
| --- | --- | --- | --- |
|  | T4 | T5 | T6 (clustered) |
| Min. 3 nearest neigh | 0.158 | 0.4 | 0.18 |
| Mean 3 | 1.415 | 1.59 | 1.7 |
| Max 3 | 3.95 | 4.45 | 4.16 |
| Min1 | 0 | 0 | 0 |
| Mean 1 | 0.74 | 0.8 | 0.8 |
| Max 1 | 3.49 | 3.63 | 2.75 |

Things I can measure:

Distance to nearest neighbour of same or different species. Location within site.

Shrub size.

Whether they are closer or farther than the average nearest neighbour.

Looking for ‘hot spots’ of pollination – and want to see what is driving them.

Responses: Pollinator visitation rate, identity, links?

Species that have a disproportionate effect on a community can be identified by looking at degrees of the many nodes (Dale and Fortin).

Questions:

How is visitation rate influenced by nearest neighbour?