

# GRAPH- THEORETICAL ANALYSIS

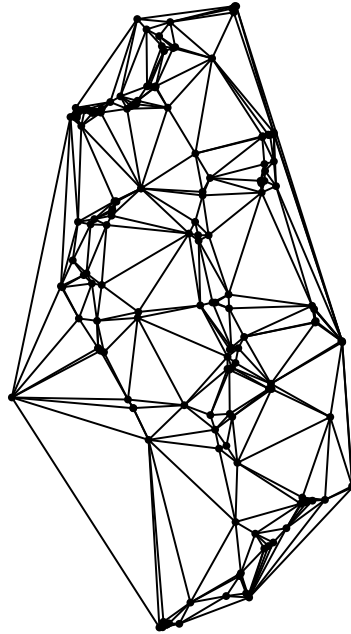
## References:

- Bunn, a. G., D. L. Urban, and T. H. Keitt. 2000. Landscape connectivity: A conservation application of graph theory. *Journal of Environmental Management* 59:265-278.
- Dale, M. R. T., and M.-J. Fortin. 2010. From Graphs to Spatial Graphs. *Ann. Rev. Ecol. Evol. Syst.* 41:21-38.
- Fortin, M.-J., and M. R. T. Dale. 2005. *Spatial Analysis. A Guide for Ecologists.* Cambridge University Press, New York.
- Legendre, P., and L. Legendre. 1998. *Numerical Ecology.* Second English Edition. Elsevier, New York.
- Ripley, B. D. 1981. *Spatial Statistics.* John Wiley & Sons, Inc., New York.

**a**



**b**



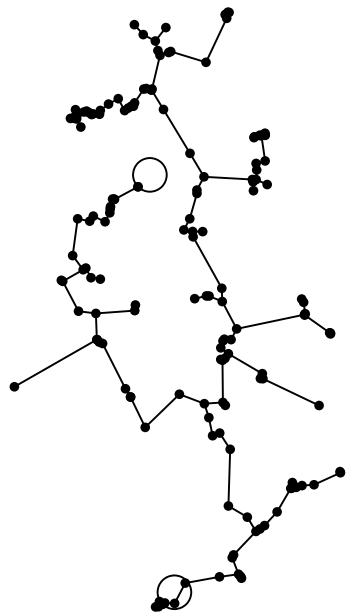
a. Mapped points

b. Delaunay triangulation

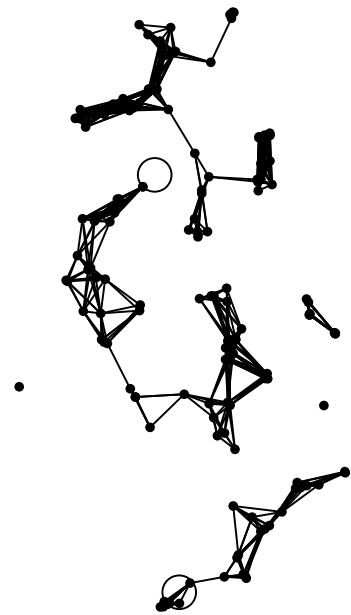
c. Minimum spanning tree

d. Connected graph pruned to distances between points at 5 km or less

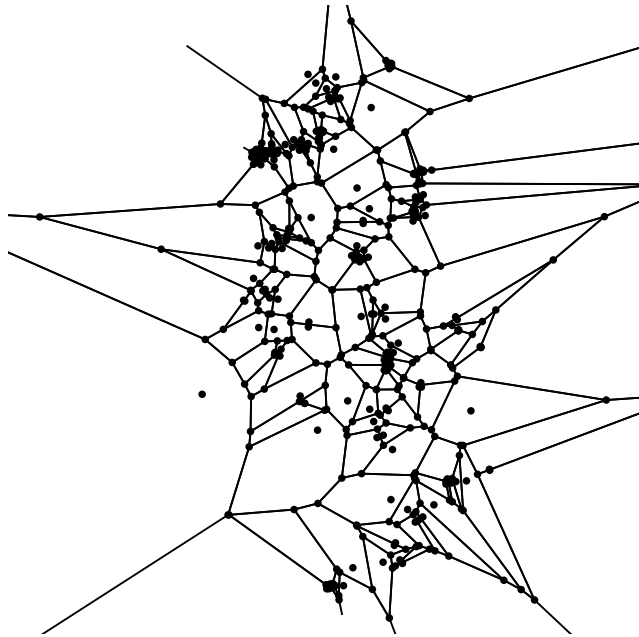
**c**



**d**

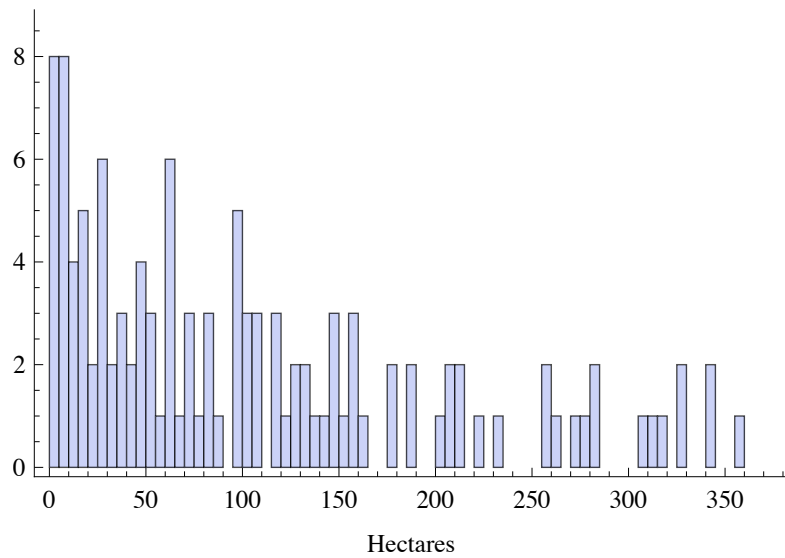


**a**

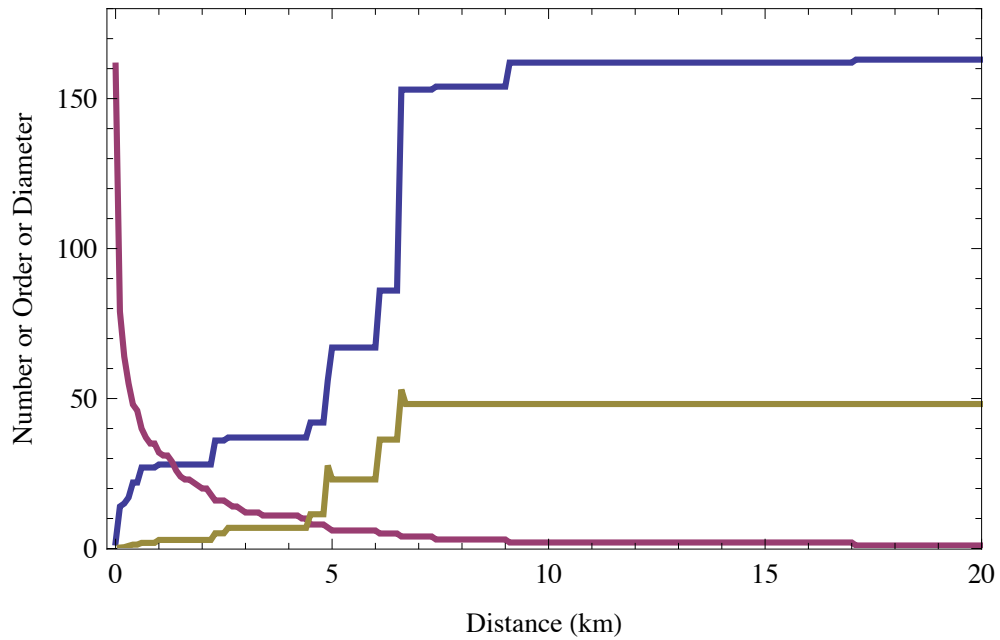


a. Dirichlet tessellation (Voronoi diagram)

**b**



b. Frequency distribution of areas in Dirichlet tessellation (in ha)



Red - Number of connected components (groups)

Blue - Order or number connected nodes (vertices) in largest group

Brown - Diameter of largest group

