

30. January 2013

Exercise 1: Write a computer program that reads a tree in newick format and simulates the evolution of quantitative traits along the branches of the tree.

Exercise 2: The files QuantTraitsA.csv, QuantTraitsB.csv, and QuantTraitsC.csv contain datasets of quantitative traits for species whose phylogeny is given in the file QuantTraits_Tree.txt. Do you find evidence for selection and/or for correlated evolution of some of the traits?

Exercise 3: Assume that 200 different traits have been measured for 50 species of known phylogeny. For only a few pairs of traits there is some evidence for correlated evolution. How would you measure the significance of this evidence?