

When analyzing ecological data, one considers traditional multivariate techniques to be unsuitable. The use of dissimilarity coefficients and distance matrices is a way, how to solve this problem. In this work we present some of these coefficients and distance-based tests: Mantel test, several versions of ANOSIM and MRPP tests and distance-based test for homogeneity of multivariate dispersions. We focus on relationships among these tests and illustrate the use with an example. We also discuss the difficulties of interpretation of the results of these tests.