

Rottenberg, A., Grishkan, I. & Nevo, E. 2006. Genetic diversity among strains of *Sordaria fimicola* from contrasting environments. – Mycologia Balcanica 3: 1-5.

Abstract. Genetic diversity was studied in populations of the soil fungus *Sordaria fimicola* at climate-contrasting environments using 132 AFLP markers. Six populations were tested from opposing slopes at 'Evolution Canyon' in Nahal Oren, Israel: three (upper, middle, and lower) from the harsher, drier south facing slope and the parallel three from the lush, milder north facing slope. Analysis of molecular variance (AMOVA) showed that more genetic diversity among populations of *S. fimicola* was derived from between slopes than from within slopes; and F-statistics analysis suggested low estimations of inter-slope gene flow. In addition, clustering analysis (UPGMA) clearly grouped the six wild populations according to their appropriate slopes. These findings suggest that migration of *S. fimicola* between the two slopes of 'Evolution Canyon' is relatively small and some isolation barriers between opposing populations probably exist.

Key words: AFLP, ascomycetes, Evolution Canyon, Israel, Mediterranean