Abstract

It has been proposed that there are functional source-sink relationships between two patch types (microbiotic crusts and shrubs) in drylands. Crust patches supply runoff water and resources which shrub patches accumulate, thereby becoming loci of productivity and diversity. This study compared some soil characteristics under shrubs and outside to determine how these soil parameters relate to the source-sink model. Four shrubs dominant in the area namely: Zygophyllum dumosum, Hammada scoparia, Atriplex leucocladaandThymelea hirsuta were investigated. The results on compaction, salinity, pH, water holding capacity, respiration and organic carbon supported the model. The crust:shrub ratio is crucial for the functioning and sustained productivity of the system.