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Effect of Woody Patches on Soil Seed Bank Size in Shrubby Rangelands of Kerman

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Abstract

This study was carried out to investigate the effect of crown canopy of Pistacia atlantica, Amygdalus scoparia and A. eburnea species on seed bank density (size). Ten individuals of each species were selected and one plot under and another plot outside of the crown canopy of each species were established. In each plot, soil sampling was done from 0-5 and 5-10 cm depths. The soil seeds were identified in green house study through Germination Method. General linear model was used to clarify the effect of crown of woody plant and soil sampling depth on seed bank density (size). The results showed that the density (size) of seed bank under crown canopy of P. atlantica was significantly higher than other two species. The density of seed bank in 0-5 cm depths was significantly higher than 5-10 cm in all three woody species. It can be concluded from the results that crown canopy of trees in dry rangelands can play an important role in soil seed bank reservation. Therefore, the conservation of individual trees in these areas has to be concerned by managers.

Keywords: Amygdalus eburnea, A. scoparia, Crown canopy, Pistacia atlantica, Seed bank density, Soil seed bank.

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