

## 5<sup>th</sup> International Conference on **Biodiversity**

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### **Impact of grazing and draught on plant diversity and abundance in sand dunes and gravel plains of the arid deserts of the United Arab Emirates**

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Plant communities of the arid deserts are facing several stresses, such as high temperatures, repeated draught and overgrazing. The impacts of protection from grazing for two years on plant diversity, richness, abundance and community structure were assessed in sand dunes and gravel plains of Dubai Desert Conservation Reserve. During the two years, the study area received significantly less rainfall than the average and consequently was a good chance to assess the impact of draught and protection from grazing on community attributes of the two substrate types. Protection for two years significantly increased plant diversity, abundance and sizes in sand dunes. In gravel plains, however, protection resulted in the reduction of most of the community attributes. The reduction was significant in the grazed, but not in the protected sites, indicating that grazing exaggerated the negative effects of draught in gravel plains. The positive effect of protection from grazing in sand dunes indicates that many of sand dune plants are less affect by draught; many of them were grown nicely after very little showers. Water irrigation was provided for both protected and grazed sites on sand dunes. Species richness and abundance in the irrigated exclosures were twice that in the irrigated open grazed sites. In addition, species richness, plant abundance and average plant sizes attained significantly greater values in the irrigated than in non irrigated plots. The results conclude that both rainfall and grazing are limiting factors in shaping plant community and their impact is dependent on the soil type.

#### **Biography**

Ali El-Keblawy has awarded his PhD degree in Plant Ecology from Tanat University, Egypt and Windsor (Ontario, Canada) in a joint program. He is the Director of Sharjah Seed Bank and Herbarium and Associate Professor at the University of Sharjah, UAE. His research interests include, plant ecology, biodiversity and conservation of desert plants, invasion biology, rangeland management, propagation of native plants of the Arab Gulf deserts and domestication of desert native plants for urban landscaping.

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