

Abstract

Range plants are the most obvious part of an ecosystem and their study forms an important part of ecological investigations. Desert ranges are very poor in plant cover and plant species in these regions have evolved in and adapted to these harsh environmental conditions over time. Better and more accurate understanding of plant species adapted to regional conditions can greatly help in reestablishing range plants. The purpose of this research was to study on autecological of species *Taverniera cuneifolia* in desert rangelands of Baluchestan. The area under study extended from the ranges in central Baluchestan in the Karvandar region of Khash to the Tighab ranges in Iranshahr. The research treatments (with three replications) included three ranges sites with *T. cuneifolia* and pasture sites lacking this species. Two pasture sites were selected in Karvandar pastures and one neighboring Tighab. Moreover, range sites without this species were considered the control. After field visits to the mentioned ranges and identification of the areas where *T. cuneifolia* grew, a 100 hectare rangeland area was selected using a GPS device. At each range site, three 200 meter transects were selected and, depending on plant distribution and canopy, three 10m² plots were chosen along each transect using the systematic random sampling method for taking soil and plant samples. At each range site, soil and plant samples (of the species under study) were taken from 9 plots in the three transects. Required experiments were performed on 33 soil and 27 plant samples that were collected. Results showed that this species could easily establish itself in the dry climate of Baluchestan, and that its growth under the various topographical conditions (slopes, directions, and heights) was possible and not limited by topography. The positive influence of soil alkalinity, and soil calcium, potassium, phosphorous and silt contents, were determined. Soils such as those found in the study area have sandy texture and contain a large quantity of stones and gravel, which provide a suitable growing bed for *T. cuneifolia*. Obtained results indicate this plant species has high raw protein content and, hence, is a feedstuff of suitable quality for livestock.

Keywords

Ranges, Autecological, Baluchestan, *Taverniera cuneifolia*, plant species



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**Study on some autecological characteristics of
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