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Presentation of diversity , life forms and chorology of plant species in rangelands of Jahrom

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Introduction Plant species and individuals can be grouped into different life-forms classes based on structural and functional similarities . Life-forms have close relationships with environmental factors . Raunkiaer proposed a life-form classification system based on the manner in which plants protect their perennating buds during unfavorable seasons and plant species can be grouped into five main classes : phanerophytes , chamaephytes , hemicryptophytes , cryptophytes and therophytes . Few studies have been devoted to the structure and flora of plant communities in the Jahrom region of Iran . The objective of present study , were classifying plants according to their growth habits by using Raunkiaer's life-forms system to characterize the flora of Jahrom .

Material and methods The study area was located in the Jahrom region in Iran (52°30' to 54°00' E & 28°00' to 29°00' N) .The mean annual rainfall and temperature was 200-500 mm and 19 .5°C , respectively . The vegetation of the study area was classified as woodland , shrubland and sub-tropical annual grassland . Specimens were identified according to valid references . Species were classified according Raunkiaer's life-form method and the proportion of species in each life-form class was calculated .

Results A total of 346 species belonging to 234 genera and 67 families were recorded . The families with the greatest number of species were *Papilionaceae* with 52 species , *Asteraceae* with 47 species and *Poaceae* with 36 species (Figure 1) . The life-form categories were therophytes with 30 .1% of species , hemicryptophytes with 30 .1% of species , phanerophytes with 17 .6% of species and chamaephytes with 13% of species (Figure 2) .

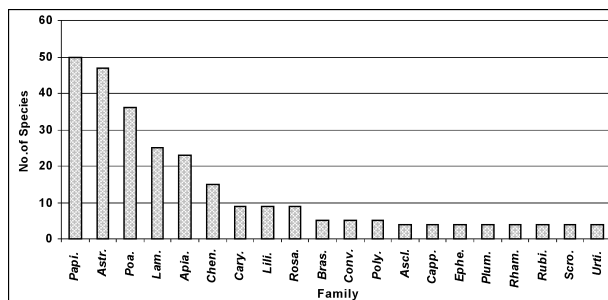


Figure 1 Important families and number of species .

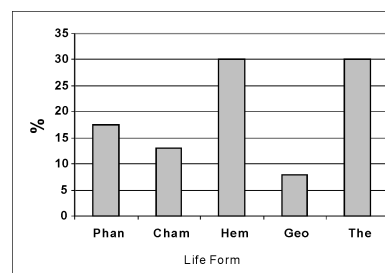


Figure 2 Spectrum of Raunkiaer's life forms .

Conclusions This study demonstrates the diversity of herbaceous plants in this area . *Papilionaceae* , *Asteraceae* and *Poaceae* were among the richest families . The chorological studies showed that 81 .6% of species were belonged to Irano-Turanian zone and 9 .2% were belonged to Sahara-Seindian zone .Also 9 .0% of common species were belonged to both zones . Presence of some genera such as *Acantholimon* , *Allium* , *Astragalus* , *Centaurea* , *Alhagi* , *Achillea* , *Cotoneaster* , *Dianthus* , *Echinops* , *Ferula* , *Ferulago* , *Gypsophila* , *Gundelia* , *Lycium* , *Peganum* , *Phlomis* , *Pistatia* , *Prangos* , *Scrophularia* , *Silene* , *Tulipa* , *Verbascum* , and *Zygophillum* are also characteristic of the Irano-Turanian zone . Some genera such as *Citrullus* , *Cenchrus* , *Caloropis* , *Blepharis* , *Priploca* , *Pergularia* , *Onychium* , *Ochradenus* , *Helianthemum* , *Hammada* , *Gallonia* , *Psylliostachys* , *Prosopis* and *Ziziphus* are main elements of the Sahara-Seindian zone . The low low frequency of these genera would indicate that an ecotone zone occurs within the in Jahrom region .

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