

Abstract

To illustrate the importance of cultivation and production herbal medicine, it is enough to know about some of the important aspects of cultivation and production of these plants, such as: the type of plant cultivated, The crop yield was cultivated and its economic importance (the importance of exports and the needs of its pharmaceutical industry), The effect of environmental factors (And in general the appropriate place for cultivation) on the quality and quantity of the active ingredients of any plant and descriptions and examples are provided. (Omid Beigi, 2011). Genetic identification and registration of various plant varieties is one of the important pillars of conservation and proper utilization of genetic resources which will be difficult in most plants in the early stages of the morphological characteristics of the work. The present study is aimed at genetic identification the five medicinal plants of the Sistan and Baluchestan region such as Ajwain, Lemon Beebrush, *Rubia tinctorum*, Ribwort Plantain and *withania samnifera* through DNA barcoding will be carried out. The success rate of proliferation of *rbcl trnH psbA* and ITS barcodes in the samples was estimated to be about 100%. In this research the *rbcl* barcode for the sex of Ribwort Plantain, the *trnH psbA* barcode for examining Species of *withania samnifera* and *Rubia tinctorum*, and the ITS barcode for sex of Ajwain and Lemon Beebrush is appropriate barcode. One of the most valuable natural resources in the world is herbal medicine which recognizes the genetic diversity and records various plant varieties as one of the key pillars of genetic resources protection. Sistan and Baluchestan province with its geographical location and specific climate diversity is one of the valuable and high potential areas of medicinal plants. Advances in sequencing and bioinformatics computing have transformed DNA barcoding into one of the major new sources of information for studies on genetic evolution, discovery of anonymous species, identification of biodiversity and the creation of kinship trees.

Keywords: *Aloysia citrodora*, Barcoding, *Carum copticum*, DNA, *Plantago major*, *Rubia tinctorum*, *Withania coagulans*



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