# ABSTRACT

## DETERMINATION OF SOME OF FACTORS WHICH AFFECT INVASIVE SUCCESS OF *POA BULBOSA* L., *BROMUS TECTORUM* L., *POTENTILLA RECTA* L., *CARDUUS NUTANS* L., *RUMEX ACETOSELLA* L. AND *HYPERICUM PERFORATUM* L. SPECIES

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M.Sc. Thesis, Department of Biology
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2015, 63 Pages

In the world and in our country, invasive plants are known to cause significant loss of products in agriculture. The yield loses caused by invasive plants as well as the plant protection products used to control those lead to very serious economic losses. Because of their negative impacts on economy and ecosystems, many studies have been conducted on invasive plants. These studies are mostly concentrated on to determine the invasive potential of those species, the mechanisms underlying invasion success and the development of alternative pest control methods. Determining the differences in phenotypic traits between populations may help to understand why some weeds reach higher abundance in certain regions. Understanding these processes will facilitate the estimation of the invasion capacity of the plants and will help to develop more effective control strategies in agricultural areas.

For this reason, in this study fenotipic variation and invasive sucsess of 6 invasive species (*Poa bulbosa, Bromus tectorum, Potentilla recta, Carduus nutans, Rumex acetosella ve Hypericum perforatum*) native to Turkey has been studied in perennial grasslands of Turkey. Resuls obatined from this study have been compared another studies conducted on those species in Montana (USA). Our results showed that each species, independent of invasive success, had different results. Of the successfully invasive species, *B. tectorum* grew larger and produced more seeds in Montana, while *H. perforatum* and *P. recta* grew larger in Turkey. Conversely, *C. nutans*, a species that may have a similar abundance in both ranges, grew larger and produced more viable seeds in Montana. *P. bulbosa* showed no difference in shoot biomass but produced more seeds in Montana, and *R. acetosella* showed no overall differences.

**Key Words:** Invasion biology, invasive plants, ruderals, grasslands.