

Abstract

Invasive species are one of the main factors threatening biodiversity. Their negative financial impact is estimated at €400 billion per year. This situation is reflected in new policies at European and Czech level (Regulation (EU) 1143/2014 and Act No. 364/2021 Coll.). For the Czech Republic, there are several projects related to monitoring and interventions against invasive species, with a total value of around 300 million CZK. Despite the fact that the costs of interventions against invasive species in the Czech Republic are relatively high, there is a minimum of work summarising these costs or examining how effectively the funds have been spent. Projects where these perspectives were addressed was the project on invasive plant control in the Karlovy Vary Region or the bachelor thesis Management of non-native species in Prague, which this thesis builds on. The aim of this thesis is to expand the information on the funds spent on invasive species management in selected regions, to compare the amounts spent between regions and to verify the effectiveness of the funds spent in the field.

The surveyed regions were KRNAP, NP Podyjí, NP Šumava and NP České Švýcarsko with CHKO Labské pískovce. For the regions, a search of contracts and interventions against invasive plants was carried out and in regions other than NP Šumava the result of interventions was evaluated in the field. The availability, robustness and temporal coverage of data varied considerably between regions. The highest annual spending was in the region České Švýcarsko. The total identified costs in all regions were more than 91.5 million CZK. The average cost of intervention per hectare varied between regions, mainly due to the different composition of invasive species in the regions. The average amounts spent per hectare are around the values reported by AOPK in the Costs of usual measures.

As no data on invasive species cover was available from any region prior to the intervention, effectiveness was thus assessed as species cover at the sites after the intervention. Only for the interventions against alpine dock (*Rumex alpinus*) and black locust (*Robinia pseudoacacia*) were there enough different observations to examine the influence of different factors on the observed cover. For acacia, none of the factors investigated had a significant effect on the cover found, whereas the cover of alpine sorrel was lower over larger intervention areas and at higher unit costs per intervention.

Key words:

Alpine dock, black locust, effectiveness of management control, invasive plants, management costs, National Parks of the Czech Republic