

Abstract:

Giant hogweed - negative impact of invasion and means of eradication

Invasions represent in most cases negative aspects of current globalized world. Dispersion of non-native species occurs daily and it is caused by anthropogenic or natural processes. Plant species belong to the best described invasive organisms. An emblematic species of plant invasions in the Czech Republic is giant hogweed, *Heracleum mantegazzianum*. It is one of the most detailed documented non-native species occurring in this country. Due to its qualities hogweed spreads quickly and establishes large stands, which can negatively influence surroundings and lead to both ecologic and economic damage. Compared to other invasive plant species of the Czech Republic, giant hogweed has also negative effects on human health. Due to these characteristics giant hogweed has been an object of interest of many scientific projects, e.g. Giant Alien, aiming to understand attributes that enable its successful invasion.

This thesis attempts to give a summary of attributes enabling successful penetration of giant hogweed into environment, and alert to its negative impact that influences also human activities. Presented data include properties causing hogweed's successful spread, and means of its eradication. Major part of thesis is devoted to methods used as control measures and their effectiveness. In the last few years some institutions have started to take an action and actively invest effort to decrease occurrence of these species. On the basis of accessible data and own field survey I discuss effects of control methods. According to the data evaluation, root cutting and chemical intervention showed to achieve a satisfying degree of control. Thesis objectives were to provide both comprehensive information about problematics of invasion of giant hogweed, and experience obtained in control strategies.

Key words: giant hogweed, invasion, spread, impact, management, eradication methods