

Tom Henson, Abstract

Title: **Impact of *Rhododendron ponticum* on ecosystems across British Isles and control methods of its dispersal**

Abstract

Rhododendron ponticum is an invasive exotic plant species causing increased economic and environmental concern in many areas across the British Isles. Due to its ability to spread prolifically and out-compete native species in a wide variety of habitats, it has become naturalised in many areas and is threatening a whole range of native fauna and flora. It is now regarded as one of the most ecologically damaging exotic weeds of the present day and this has called for an increase in public awareness and for extensive research into methods that can be used to control its dispersal. Landowners are being encouraged to follow the correct procedures to not only control the species, but to attempt to completely eradicate it from sites in which it has established to prevent it encroaching on neighbouring land. Reaction to control operations can be critical and sometimes extremely negative due to the visual appeal of *Rhododendron* mass flowering and the perceived amenity value of the plant. This report is an introduction to the detrimental effects of *R.ponticum*, discussing its methods of dispersal and giving detailed insight into the mechanisms it adopts to completely dominate native habitats. There is a primary focus on current methods of control including physical, mechanical, chemical and natural approaches, each with different financial implications as well as strengths and weaknesses when applied out in the field. There is also scope for future biological control methods through the use of a rust-fungus found within its native range. Financial constraints can be a major factor limiting control efforts and allowing re-invasion from uncleared areas. If finances are available, the amount of time invested into formulating a plan to manage the species in an area will only be worth implementing if the control methods out in the field are performed to the highest of standards. These standards will need to be maintained for many years to ensure a high level of control is achieved and to prevent the likelihood of re-establishment in the future. A lot still needs to be done to counteract the invasion of *Rhododendron ponticum* throughout the UK and it will continue to be a problem for landowners across all areas of the environmental sector both in the near and long-term future.

Keywords: *Rhododendron ponticum*, ecosystems, British Isles, control methods, dispersal