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BOOK REVIEW

Ecology and Management of Giant Hogweed *(Heracleum mantegazzianum)*, P. Pysek, M.J.W. Cock, W. Nentwig, H.P. Ravn (Eds.). CABI, Wallingford (2007). 352pp., £60.00, ISBN: 978-1-845-93206-0

How rock music texts get into scientific literature.

Back in 1971 the rock group Genesis made a song titled "The Return of the Giant Hogweed". The song is about the story of the introduction and spread of this conspicuous alien plant, its human health effects and control issues. Now, science has the story, too. While it would not be fair to say that scientists were not aware of the spread of *Heracleum mantegazzianum* in the early 1970s, it is most amazing how the song came long before a solid knowledge of the ecology of the species was compiled. So it is a nice idea of the editors to pay tribute to the rock group by using lines from the song as a heading for each chapter. The book is, of course, not the first piece of information on Giant Hogweeds. Being a compilation of results from the "Giant Alien" project funded under the 5th Framework Programme, it is the most comprehensive and up-to-date set of information available. Tall *Heracleum* species belong to the most prominent invasive plants over much of temperate Europe due to their conspicuous growth and their perceived impacts on native flora and vegetation as well as on human health. The book is mainly on *H. mantegazzianum*, but has some information on *H. sosnowskyi* and *H. persicum*. It contains 23 chapters written by 33 authors from the Czech Republic, Denmark, Germany, Latvia, Lithuania, Russia, Sweden, Switzerland and the UK. Being a list of countries where large *Heracleum* species are frequent and troublesome invaders, this list of countries may serve as a rough estimate of the potential distribution of the core readership.

It is striking how much effort went into the study of the taxonomy, ecology, life history, invasion history, etc. of just one single species. A central aim of the book is to explain the invasion success and to lay a basis for efficient control. The tremendous invasion success of Giant Hogweed is shown to result from a combination of superior traits like high fecundity, high growth rate, high germination, etc. Some exaggerated assumptions about its superiority, however, need to be corrected. Contrary to some statements in the literature, *H. mantegazzianum* does not produce 100.000 seed per plant; seeds do not remain viable in the soil for 15 years and the plant is strictly monocarpic. In addition, the biodiversity effects seem to be smaller than previously assumed. To add to the good news, appropriately done long-term control may be successful. Even if not all questions are answered by the research project (when are they ever?), the project and the book may serve as a model for how to tackle an invasive species. A thorough understanding of the biology of a species is always needed as the basis for impact assessment and control.

The book is very readable (with some variation between chapters, that is normal in multi-author volumes). Most – unfortunately not all – chapters end in a "Conclusions" paragraph. The hurried reader would have appreciated a summary or abstract for each chapter. Tables and figures are well arranged and a number of monochrome photographs help the reader, e.g. those from the native range in Caucasus or the time series of aerial photographs. The book is well edited with very few very minor errors, e.g. where a plot area is given in "m" instead of "m^2" or where the citation software produced double brackets. The preface by Dave Richardson serves well as an introduction, which the editors do not give us. Instead they help appreciate the whole book by wrapping it up in a concluding chapter. In all, the book is most recommendable. It is a must for libraries of most ecological and botanical institutions and will be very handy on the shelf for plant invasion ecologists. Even readers from regions without Giant Hogweed species may profit from this very comprehensive study of a single invasive plant.

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