

ALIEN SPECIES. CAUSES OF INVASIVENESS AND CONTROL METHODS

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Summary

The major research question in biological invasions is understanding of the mechanisms governing invasive alien species success after introduction into new areas. Although alien species have been intensively studied, it is still unexplained what causes invasiveness in some of them. Answer to this question is crucial to improve invasive alien species control management and to more effectively predict the abilities of recently introduced species.

We present causes of the increase in numbers of alien species in Poland and worldwide, and a brief history of the biological invasion science. Basic hypotheses and questions, as well as the proposed solutions, are briefly presented, with a particular reference to the Enemy Release Hypothesis. We also present methods of alien species management, including biological control, which may be the only effective solution to mitigate impacts from alien species that are too widely-distributed to be managed with mechanical or chemical methods. Mechanical control proves to be most effective at early stages of invasion, particularly when it is enhanced with chemical control.