Perception of Invasive Plant Species in the Mediterranean

Invasive species are species occurring outside their natural habitat as a result of deliberate or accidental release by humans. These species are well-known for their significant negative impacts on socio-ecological systems such as disease transmission (e.g. foot and mouth disease), long-term changes in the composition and function of native ecosystems and potential biodiversity losses. In the Mediterranean area, climate change is predicted to result in increasing periods of drought, which are likely to increase the vulnerability of native ecosystems, in particular regarding invasive species.

One of the major challenges for policy makers and environmental managers is therefore to evolve in their understanding of the environmental consequences of invasive species, especially in the Mediterranean region. As part of the EU-funded project EPIDEMIE1, an international team of researchers has recently conducted a survey in three Mediterranean islands (Mallorca, Sardinia and Crete), in order to understand how key stakeholders currently perceive issues relating to invasive species. These islands were selected for their distribution (West to East) within the Mediterranean area. On these islands, scientists, government officials, environmental managers, agricultural advisers and managers of urban space were contacted by e-mail, mail or phone and were asked to rate the importance of environmental problems, to name five invasive plant species and to provide information regarding the management options for three targeted invasive species.

142 persons responded to the survey. The first outcome is that both negative and positive environmental impacts of invasive species are perceived on the three islands, but the importance attached to each of the impacts (e.g. ecosystem disruption or invasion of natural habitat) varies across the islands. In addition, the same invasive species occur on the three selected islands. The invasive plant species that cause the most concern are also the ones that are found worldwide and that are important targets for research and environmental policy development.

The second main result of the survey is that climate change is not perceived to be of very high importance among the environmental problems faced on these islands but is rather seen as a source of uncertainty concerning the magnitude of the impact of invasive species in the future. Furthermore, some respondents suggest that invasive species are a source of biodiversity and that there is no apparent justification for controlling their importation or utilisation on these islands. Stakeholders also indicate that it is very difficult to control the importation of these species on these islands, in particular because there is no established list of invasive species.

The authors conclude that providing support for stakeholders so they can manage the environment more efficiently is essential if the management of invasive species is to be improved in the Mediterranean region. In addition, the researchers suggest that any reform of regulations in the trade, cultivation and management of exotic species will require associated programmes to raise the awareness of the impacts of invasive species, in particular in a period of rapid climate change.

The results of this survey are particularly useful in the current context, where climate change is occurring rapidly and where the risks involving invasive species are increasing.

1The project EPIDEMIE “Exotic Plant Invasions: Deleterious Effects on Mediterranean Island Ecosystems” (http://science.ceh.ac.uk/epidemie) is supported by the European Commission under the 5th Framework Programme, theme “Energy, Environment and Sustainable Development”, Key Action 2.2.1 “Ecosystem Vulnerability”.


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