Session A-9: Resilience of ecosystems

The ecosystem resilience approach (ERA) of Australian swamp stonecrop *(Crassula helmsii)* in practice

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The invasive species *Crassula helmsii* is spreading rapidly. A lot of native species are threatened by this semi aquatic exotic plant-species. Habitats with open niches and species-poor native ecosystems are vulnerable for settlement and spread of *C. helmsii*. Because eradication is in most cases not feasible, ecosystem based management, the so-called Ecosystem Resilience Approach (ERA), is used to control this species in different (semi) natural habitats.

Adding to the presentation of J.M.M. van der Loop "*Testing the Ecosystem Resilience Approach (ERA) to control the invasive Australian swamp stonecrop (Crassula helmsii)*" this presentation discusses experiences and results of different management methods in practice, regarding the practical implementation, i.e. the machines and equipment to be used, how to deal with the water management during the execution, as well as how to deal with hygiene in the field to prevent further spread of the invasive species.

Additionally, we discuss how to deal with the natural values and characteristics of the infected areas, in this research the Natura 2000 sites 'De Plateaux' and 'Sarsven en de Banen' in the Netherlands, and how to use these in the fight against *C. helmsii*. Questions involving management in practice where: Is it possible to introduce native competing species on the infected sites in order to close open niches and reduce the colonization of the invasive species? And, is it possible to multiply these native plant species in very large quantities in a growth facility? After introducing the species into a natural area of the Natura 2000 sites it is determined which plant species, i.e. *Littorella uniflora, Eleogiton fluitans* and *Pilularia globulifera*, and plant sowing combinations have the most resilience against recolonizing *C. helmsii*. Field studies where executed to test effectiveness of the ERA.