



# INVASIVE ALIEN PLANTS IN WETLANDS: THE IMPORTANCE OF COLLABORATIONS FOR IMPLEMENTING COMMON STRATEGIES

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## WETLANDS

Wetlands are one of the most important ecosystems on Earth, they provide ideal conditions for a wide variety of flora and fauna, ecosystem productivity, economic activities and climate change mitigation and regulation. However, despite their importance, wetlands are among the most threatened ecosystems.



Molentargius salt marshes (South Sardinia, Italy).



Santa Gilla lagoon (South Sardinia, Italy).

Sardinia is one of the richest islands wetlands in the Mediterranean and despite the numerous reclamation interventions that began in the 19th century, it has approximately 49,400 hectares of wetlands (2% of the Sardinian territory, excluding running waters).

## INVASIVE SPECIES

Invasive alien plants are one of the main causes of biodiversity loss and species extinction and their spread is currently favoured by climate change and globalisation, which in parallel reduces the resilience of several habitats. The distribution of invasive plants is not homogeneous in all the world, certain regions are more affected than others, or, in a certain region, invasive species could turn out to be more abundant in certain habitats. Among the different invaded habitats, wetlands are the most susceptible to biological invasions. The comparison of these traits is essential for the study of invasive alien species in different wetlands of Mediterranean Basin.



*Pontederia crassipes*, invasive plant from South America.



*Hydrocotyle ranunculoides*, invasive plant from North America.



*Lycium ferocissimum*, invasive plant from South Africa.



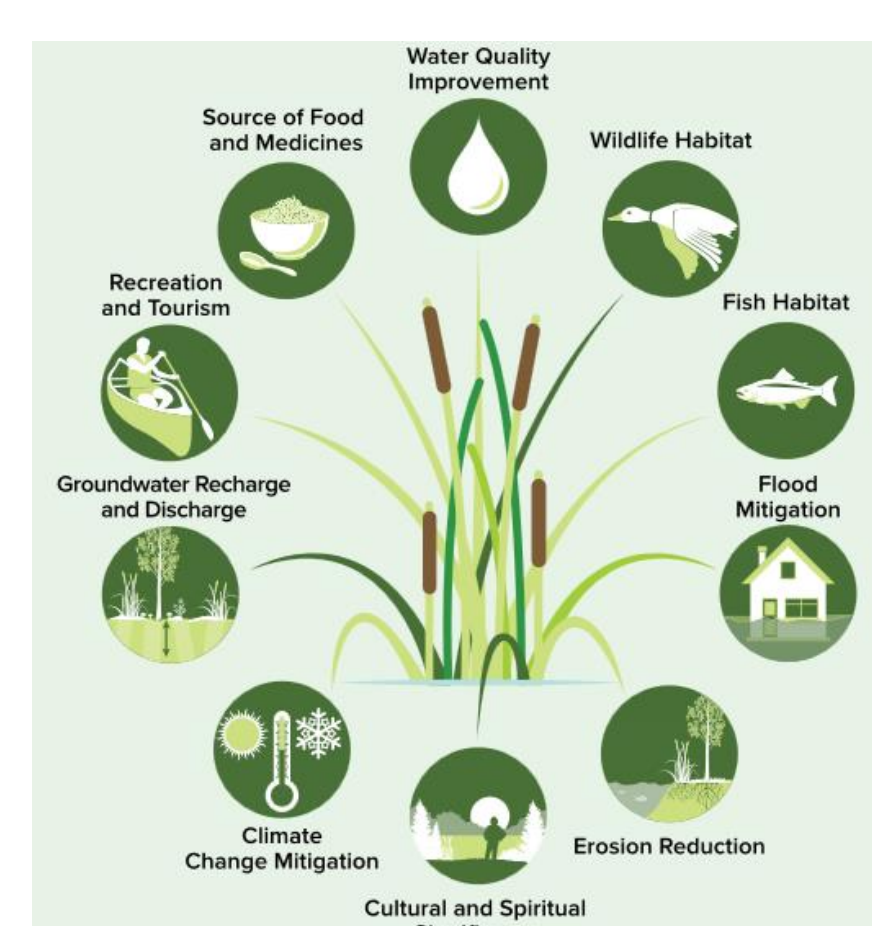
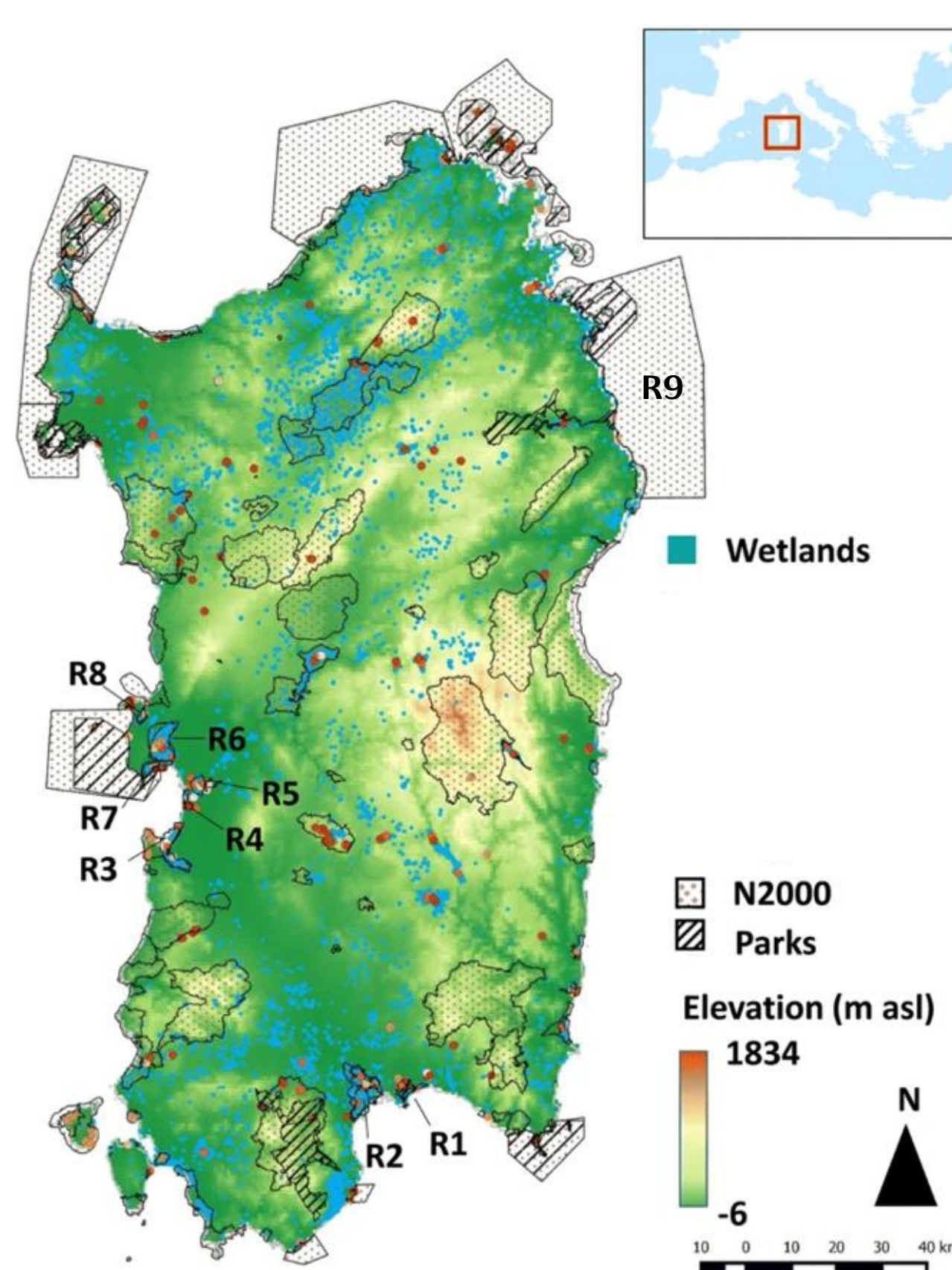
*Parkinsonia aculeata*, invasive plant from America.



*Acacia saligna*, invasive plant from Australia.



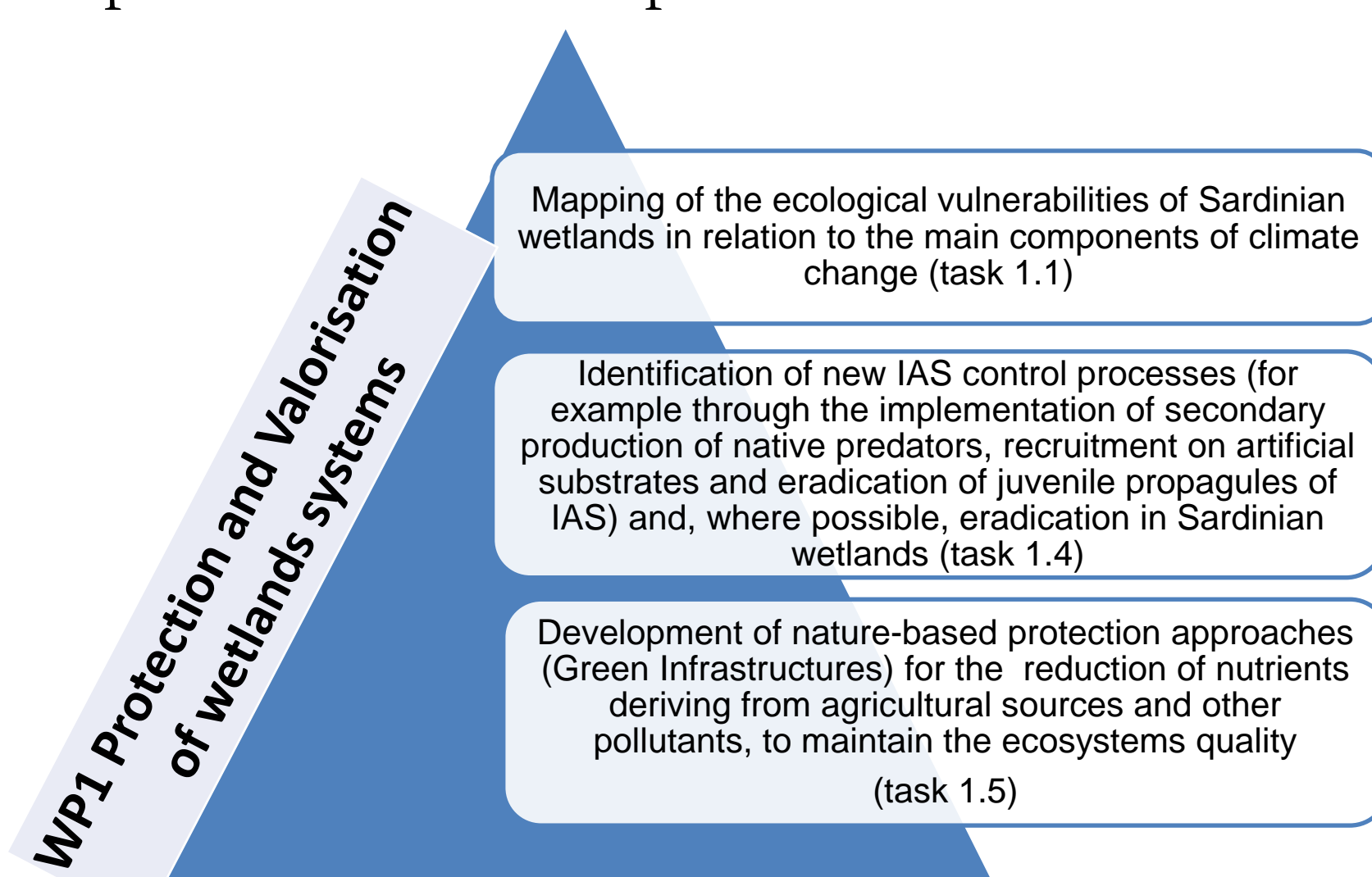
*Eucalyptus camaldulensis*, invasive plant from Australia.



2.501 wetlands  
9 Ramsar sites  
128 sites Natura 2000 Network;  
31 SPAs, 89 SACs

## AIMS

The aims of this study are to understand which are the most invasive species in wetland habitats, with particular attention to the areas belonging to Mediterranean islands, and the threats that such species represent to these areas, in order to prioritize and homogenize *in situ* management actions across the Mediterranean. This work will make a valuable contribution to development of task 1.4 "Identification of new IAS control processes and, where possible, eradication in Sardinian wetlands" within WP1 Protection and Valorisation of wetlands systems of the National Recovery and Resilience Plan (NRRP) Spoke 09 "Environment protection and valorisation". This Spoke is led by UniCa with several partners which can cooperate and benefit of the results of the activities which will be carried out, and which have an important role in Sardinia within the topic of environment protection and valorisation.



## THE NATIONAL RECOVERY AND RESILIENCY PLAN (NRRP)

The e.INS ecosystem - Ecosystem of Innovation for Next generation Sardinia constitutes a global program for Sardinia, aimed at strengthening the link between business and science, at mitigating the social impacts generated by the economic and environmental crisis, and at increasing the level of territorial inclusion. Sardinia have different specializations with a high potential for growth and development, targeted by the different Spokes. The necessity of promoting more effective collaboration among different institutions from the Mediterranean is crucial in order to exchange good practices develop common strategies to eliminate/control the threat of invasive alien plants. UniCA is a main player in a context of fervent activity in the fields of environmental protection, pursuit of sustainable development goals, implementation of the principles of circular economy with several Departments. This context is fertilized by an extensive network of national and international collaborations that is mirrored by agreements and joint projects.

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