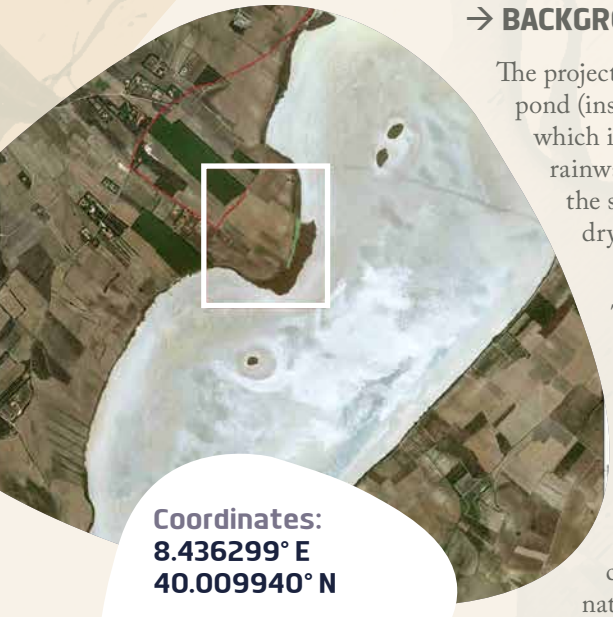
Banks of the Sale Porcus Wetland - Drone View © Giorgio Massaro

RENATURALISATION AND RESTORATION OF A RIPARIAN STRIP

STAGNO DI SALE 'E PORCUS - SAN VERO MILIS, SARDINIA, ITALY



Coordinates:
8.436299° E
40.009940° N

Site Size: 341.6 HA

Area Restored: 0.1 HA

→ BACKGROUND

The project is located within the Sale 'e Porcus pond (inside the territory of San Vero Milis), which is a temporary basin for collecting rainwater. It has no communication with the sea and no intakes, and is subject to drying up in summer.

The conservation status of the habitats within the site varies. The habitats are largely fragmented and the natural vegetation series characteristic of pond and peri-stagnal areas is only present in a few small spots. The ecological connections between the various coenoses are fragmented, and their natural evolution is significantly disturbed due to the considerable anthropic pressures around the pond area (passage of cars, agricultural vehicles, crops, etc.). During the breeding season, the wetland is used by species including purple herons, marsh harriers and sultan chickens, all three of which are listed in Annex I of Directive 79/409/EEC. It is also a transit area for avifauna during flights between the Sale 'e Porcus and Mistras ponds.

Wetland Type:

Q – Permanent saline/brackish/ alkaline lakes

R – Seasonal/ intermittent saline/ brackish/alkaline lakes and flats

Protection Status:

Protected at international level (Ramsar site, Natura 2000 site): ITB034007 (SPA); ITB030035 (SAC); IT232 (RAMSAR)

WETLAND BASED SOLUTIONS

→ BEFORE RESTORATION

→ THREATS AND PRESSURES

The critical aspects identified in the intervention areas concern in particular:

1. Indiscriminate access to the pond and neighbouring areas, in particular during the summer when the passage of motorbikes and vehicles is frequent, causing degradation of the pond, the ecosystem and the biocenosis (plants and animals) present in the area.
2. Degradation and fragmentation of the habitats of the peristaltic area, mainly due to anthropic factors: some nearby cultivated areas reach as far as the banks of the pond. In some short stretches, natural areas are protected from human interference by the presence of a thick band of vegetation that acts as a buffer. Currently though this buffer only runs along small sections of the perimeter of the pond, while what is really needed is a continuous strip along the banks.

New plants growing in the vivarium; and ready to be planted. © MedSea

→ OBJECTIVES

The project uses a new management model for protected areas based on the conservation of biodiversity and ecosystem functions, but also on reconstruction through active protection actions and sustainable development of the territory through the creation of new sustainable economies. The benefits of the project are twofold, with the reconstruction of the natural vegetation also creating a new economy in the area through the (regulated) use and harvesting of the species in question (rushes) for traditional basket-making.

The restoration action aims to thicken the vegetated areas along the pond banks, creating a buffer zone between areas dedicated to agricultural activity and those with higher natural value. This will improve the health of the habitats present, reduce their fragmentation and improve the conservation status of the ecosystems.

The project has defined a protocol for the management and extraction of plant resources in collaboration with the municipality of San Vero Milis.

In addition, the restored area could act as a phytoremediation area to reduce the flow of agricultural pollutants to the pond, as well as providing a feeding area for migratory birds including cranes.

>50%

of original habitats/ landform predominant both before and after restoration

→ IMPACT

The pilot project enabled the reconstruction of habitat 1410, 'Mediterranean flooded pastures (*Juncetalia maritimi*)', which had been completely absent in some places, providing a clear separation between areas intended for agricultural activity and natural areas. Approximately 5,000 new rush plants (*Juncus acutus* and *Juncus subulatus*) were planted. The increase in vegetation cover, in a future phase of the project, will also improve the presence of avifauna, in particular nesting waterbirds.

→ WHO BENEFITS?

The art of weaving, which is a part of the history of Sardinia and the San Vero Milis area, is a craft activity that uses natural plant materials such as rushes, which grow in rural environments, particularly wetlands. A parallel project called 'IS FAINAS' was launched with the goal of connecting the cultural and natural heritage of the wetlands: by involving designers and training young craftspeople, it aims to preserve the art of weaving while protecting the natural resources of the area. The project involved seven women and two men, and helped them to produce and promote craft products.

8 HA

have been revived through restoration activites

View of the west bank of the pond before and after the intervention.

→ RESTORATION ACTIONS & METHODOLOGY

- Collection of germplasm (July) and germination by a specialised nursery
- Planting of autochthonous species with the use of species typical of habitat 1410, mainly Juncus acutus and Juncus subulatus, 4/5 species per square metre (November/ December)
- Marking out the area with a wooden fence

→ AFTER RESTORATION

PROJECT DATES:

April - June 2019: Design of the proposal and authorisation phase.

July 2019 - December 2020: Implementation phase.

→ BUDGET & SOURCE OF FINANCE

€15,000 from the Maristanis project (MAVA Foundation and MEDSEA Foundation).

→ STAKEHOLDERS

Farmers owning land close to the restored area.

→ SOCIAL SUPPORT

The private owners of the sites decided to voluntarily grant use of their lands for the restoration actions.

→ AUTHORITIES SUPPORT

Municipality of San Vero Milis.

→ OTHER PARTNERS

LUMA Foundation.

"We are very lucky be surrounded by wetlands. The lagoons have given many opportunities to the community, and the bushes of rushes become more and more beautiful if they are extracted sparingly."

FRANCESCA MAGGINO, ARTISAN

© Pierluigi Dessì

Fence to protect the restored area; and the new plants after one month. © MedSea

→ LESSONS LEARNT

The experience has highlighted the importance of collaboration between local actors and demonstrated how multi-objective interventions can be the key to increasing support from the local population and administrations: in this case, a single intervention has benefits for different stakeholder groups and promotes multiple ecosystem services.

→ REFERENCES

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→ CONTACT DETAILS

Vania Statzu
vaniastatzu@medseafoundation.org
MEDSEA Foundation

Francesca Etzi
francescaetzi@medseafoundation.org
MEDSEA Foundation

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