

Verdier marshes © Virginie Mauclert-TdV

COMMUNITY-BASED WETLAND RESTORATION

VERDIER MARSHES - SOUTHERN FRANCE

→ BACKGROUND

Community-based conservation empowers local people in the management process through partnerships in planning and implementation of conservation projects, with the aim of creating accountability and a sense of ownership of conservation objectives. We have taken this concept a step further, using community-based conservation principles in the planning, implementation and monitoring of a wetland restoration project. With the active collaboration of the local community, scientists from Tour du Valat (which is also the landowner) have recovered 120 ha of natural wetlands that had been converted for fish-farming. The conservation objective was to restore key traditional Camargue habitats by moving from artificial marsh exploitation with high, continual water levels to a more natural management approach with seasonal fluctuations in water levels. The results of participatory monitoring have shown a return of traditional flora and fauna, with the recovery of permanent and temporary marshes, reed beds, pastoral vegetation and bush lands. The project evaluation showed that stakeholders appreciated their involvement in a co-learning process where habitat management, plant ecology, local uses of plants and game birds were discussed in depth with scientists and villagers. The recovered land now hosts a variety of activities for the local community including grazing, hunting, fishing, hiking, birdwatching and educational visits.

Camargue

Coordinates:
43.5089° E
4.66757° N

Site Size: 120 HA

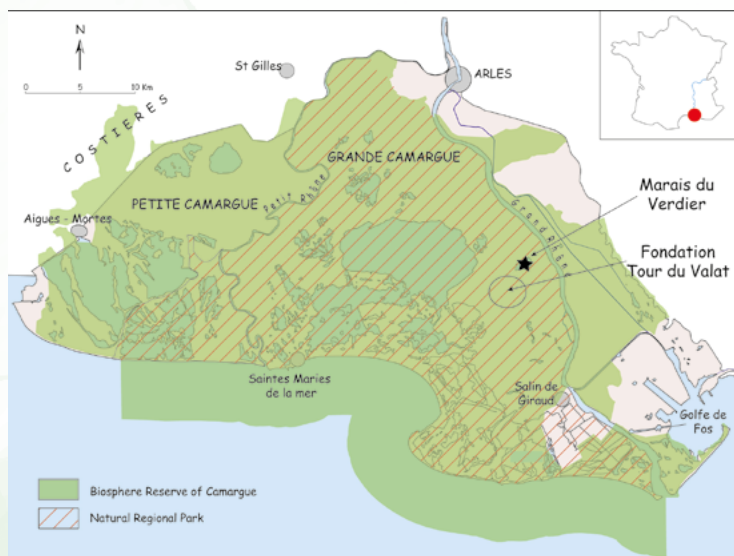
Area Restored:
120 HA



Protection Status:
Regional Natural Park, Natura 2000



→ BEFORE RESTORATION



Wetland Type:

ARTIFICIAL:

2 - Ponds; includes farm ponds, stock ponds, small tanks (generally below 8 ha)

NATURAL:

F - Estuarine waters; permanent water of estuaries and estuarine systems of deltas

L - Permanent inland deltas

Sp - Permanent saline/brackish/alkaline marshes/pools

Ss - Seasonal/intermittent saline/brackish/alkaline marshes/pools

Tp - Permanent freshwater marshes/pools; ponds (below 8 ha), marshes and swamps on inorganic soils; with emergent vegetation water-logged for at least most of the growing season

Xf - Freshwater, tree-dominated wetlands; includes freshwater swamp forests, seasonally flooded forests, wooded swamps on inorganic soils



→ OBJECTIVES

Community members identified four principal activities (fishing, hunting, horse grazing and recreation) and three secondary activities (reed harvesting, cattle grazing and education) that they wished to develop for the Verdier area. These activities were developed by restoring four traditional Camargue habitats: permanent wetlands, temporary wetlands, open spaces, and open spaces with access to water.

→ IMPACT

This mosaic of habitats created a diverse landscape favourable for recreational activities such as hiking and birdwatching. Fishing activities were developed by reinforcing existing dikes, eliminating young wooded flora, strictly controlling water inflows and restocking naturally with irrigation canals. Community members participated in monthly hydrological monitoring and seasonal fish and fauna monitoring. Reed beds were also measured yearly to determine the impact of the change in water flows. As a result of this restoration activity, local inhabitants can now actively line fish. Secondary results include reeds that can be harvested,

an increase in aquatic plant species, an increase in fish species and an increase in nesting waterbirds.

Hunting possibilities were opened up through land excavation, land clearing, water supply management and pump maintenance. These restoration activities developed temporary marshes and open spaces to create ideal hunting conditions. During the first years of the project, community members actively participated in monitoring vegetation cover, bird counts (nesting and migrating), and hunting bags.

→ RESTORATION ACTIONS & METHODOLOGY

In 2003, after identifying and meeting with the key actors (mayor, local authorities and leaders from the hunting association), we circulated a simple one-page questionnaire to find out if the residents of Le Sambuc would be interested in participating in a community-based, multi-use conservation project. The questionnaire was a preliminary exercise to determine the local population's interest in taking part in the project, and to compile the ideas that residents proposed concerning the ex-fish farm located on the outskirts of the village. After confirming there was general support for a community-based, multi-use conservation project, Tour du Valat purchased the land and held the first community-wide open forum to present and adapt the methodologies for the future project.

The second phase of the project began by creating three working groups, made up of volunteers from the community, based on the categories established from the conclusions of the preliminary questionnaire. The working groups consisted of five to ten people interested in the selected topic, the project facilitator and one person representing the views of Tour du Valat as the property owner. The Tour du Valat facilitator played an integral role, requiring between 20 to 30 hours of work each week.

Each working group met monthly. A range of environmental assessments were also carried out to establish a benchmark for the biodiversity (flora and fauna) and hydrological conditions. Local villagers were invited to participate and were later trained in biological monitoring.

Throughout phase two, activities and micro-actions were put in place to create a sense of ownership and develop community building on this newly accessible land. A key component of the community-based project was to keep the population and local organisations informed; the involvement and the acceptance of the facilitator was also crucial to mobilize and maintain community participation. The project leader began to produce quarterly newsletters to highlight the project's activities and increase awareness on strategic subjects.

The management plan was developed by the local residents, expert scientists and the project team. The objective of the management plan was to have an official document, easily accessible to all the actors, which would guide the project activities. This plan was followed, and the restoration and water management activities were thus implemented.



The results show improved hunting possibilities (both in terms of quantity of birds and species hunted) for increased numbers of community members. The site is now viewed as an attractive local hunting destination; while strict regulations and training have limited the negative impacts of the hunting activities taking place. In terms of secondary impacts, traditional water management using cycles suited to Mediterranean habitats has helped control invasive species and has increased the diversity of flora and fauna.

Horse grazing was of great importance to the community, and required dyke reconsolidation, land clearing, and the mechanical elimination of exotic species. The open pasture habitat was then solely fed by rain, with no artificial water inflows. Traditional Mediterranean flora has been re-established, providing pasture and natural vegetative barriers. The community actively participated in vegetation cover monitoring and bird counts (migrating and nesting). The monitoring has shown net increases in the diversity of flora and fauna.

→ WHO BENEFITS?

The new habitats created by the community-based restoration project provide good scope for educational and recreational activities, and attract an average of more than 1,000 visitors each year.

→ LESSONS LEARNT

The activity-based approach has stimulated community participation at every stage of the project, from design to implementation. This approach has facilitated problem-solving and has stimulated creative solutions. By restoring the principal traditional Camargue habitats and increasing the diversity of Mediterranean flora and fauna, we have validated our hypothesis: community-based restoration with an activity approach can achieve conservation objectives. Other benefits of this approach include community monitoring to gather scientific data concerning the site, allowing for timely management decisions and increased social capital for the local community. It is important to keep in mind the facilitation time required to set up such a project, and to ensure that it continues afterwards in a more autonomous way. Today, the project is maintained by the work of the association's volunteers. Tour du Valat's participation is still necessary to remind people of the framework for implementing the activities (the management plan) and to act as a link between the association's volunteers and the owner.

→ CONTACT DETAILS

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→ REFERENCES

1. [Tour du Valat website - Verdier Marshes project](#)
2. [Ernoul L., Mathevet R., Beck N. & Legeay L. 2009. Community-based Conservation in Action: What does it Really Imply in Terms of Investment? Conservat Soc. 7\(3\): 205-2012.](#)
3. [Verdier Marshes website](#)



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