



LIFECHARCOS

“Conservation of Temporary Ponds in Southwest Coast of Portugal”

LIFE12NAT/PT/000997

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Brown long-eared bat (*Plecotus auritus*)



Caropsis verticillato-inundata



@ José Pacheco

LIFE Charcos provides new knowledge about species

The field work carried out by LIFE Charcos Project in the Site of Community Importance of the Southwest Coast of Portugal has contributed to increase the scientific knowledge for some species regarding their distribution areas. The new data will provide better proposals of conservation measures for these species, some of which are highly threatened.

Cabrera's Vole present in the south

The known southern distribution range for Cabrera's vole was in Odeceixe (Alentejo). However, it has been confirmed it's present further south in Algarve, specifically in Aljezur and Vila do Bispo county. Evidence of presence, such as tunnels, nests and latrines were found in the Temporary Ponds and in the surrounding areas, proving it's existence in these particular counties. Temporary Ponds are very important for this exclusively herbivorous species, as they provide food and shelter.



@Tiago Marques e Luis Guilherme Sousa

Bats occupy more territories within their distribution range

In the biodiversity assessment of Temporary Ponds within the SCI of the Southwest Coast of Portugal, 17 species of bats were detected. In addition, new territories previously unknown within the distribution range were identified for the Western barbastelle (*Barbastella barbastellus*), the Brown long-eared bat (*Plecotus auritus*) and the Grey long-eared bat (*Plecotus austriacus*).

New locations for rare plants in Portugal

According to IUCN, *Pilularia minuta* is an extremely rare plant species in Portugal. Until a few years ago it was only referred to a single location in the western end of Algarve. With LIFE Charcos field work it was found that its area of occurrence is wider, with detection of a new population in a Temporary Pond located south of Vila Nova de Milfontes (Alentejo).

The same happens with the *Littorella uniflora* where the only reference was known for south of Portugal (extreme western). However, with the surveys carried out by LIFE Charcos it was concluded that its distribution area expands to the vicinity of Odemira. This plant was detected in ten different new locations.

Another example is *Caropsis verticillato-inundata*, a species that only exists in southern France, in the west and south-west Iberian, where it appears only punctually in a very dispersed form. However, it was detected in eight new Temporary Ponds in the SCI of the Southwest Coast of Portugal.

The plant *Juncus emmanuelis* is also frequent and is endemic to the west of the Iberian Peninsula. Their presence was confirmed in the Mediterranean Temporary Ponds that are in good conservation status.

Restorations and recoveries of Temporary Ponds

The Project team carried out a set of interventions in 24 Temporary Ponds, in order to eliminate some of the threats that were occurring and to guarantee their conservation in the medium and long term. Thus, it was necessary to inform and explain to the owners of the land where these priority habitats are located, its importance and a number of cooperation protocols have been established. Here are some examples of these restoration and recovery interventions:

Drainage channel elimination in one the Temporary Ponds in Sagres.



@ LPN

With the drainage channel, this Temporary Pond had a flooded area of 0,46 hectares.



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The drainage channel was covered with soil from the surrounding area.



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After, the flooded area increased to 0,87 hectares, identical to its initial area before the existence of the drainage channel.

External vegetation waist improvement in one of the Temporary Ponds in Vila do Bispo.



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The abrupt margin limited the floristic diversity of external waist of this Temporary Pond (Spring 2016).



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After the interventions in the summer, the margin was smoothed and the new flooded area increased progressively (Winter 2016).



@ LPN

The emblematic vegetation successfully germinated after a few months (Spring 2017).

Shrub vegetation control & Basin replacement in several Temporary Ponds in Vila Nova de Milfontes.



@ LPN

Before the intervention, the shrub vegetation around the habitat was dense limiting the development of representative plants species of these Temporary Ponds.



@ LPN

After, the Temporary Ponds had physical features necessary for the emblematic vegetation to colonize it and care was taken to avoid the disruption of the impermeable soil layer.

It is expected that these interventions contribute not only to the conservation of the Temporary Ponds in the Southwest Coast of Portugal but also to demonstrate forms of sustainable management for this habitat that is of priority conservation because of its importance, fragility and species rarity that it hosts.



Testimony of Rita Costa, President of TIC TAC - Association for the Promotion of Free Time for Children and Youth, in Odemira.

"I've heard about LIFE Charcos Project since its beginning in 2014. I attended the public presentation session, which took place in Odemira and since then I have been following it through the Facebook page, the project website and through the dissemination of its activities in Cultural Agenda of Odemira [...].

I think LIFE Charcos is an indispensable project for the conservation of this rare and ecologically fragile habitat such as the Temporary Ponds. Especially in a territory such as the county of Odemira where intensive agriculture is growing and the population do not know the value of this habitat that is fundamental to many species of our region.

The strong team of experts in the various areas of knowledge that contributes to the consolidation of the scientific heritage inherent to Mediterranean Temporary Ponds; the concern to reach out to diverse audiences [...] with plural approaches; the existing project of recovery of a pond for educational purposes are the strengths of this project [...]

I believe that all actions of environmental awareness and education of this project are crucial because they allow to make known to all, through the plurality of approaches used, the natural, ecological and aesthetic of this ecosystem."

Dissemination of results in scientific events

The results obtained at LIFE Charcos Project have been displayed in several scientific events which are generally related to wetlands conservation and particularly to Temporary Ponds and its associated biodiversity.

Among many communications produced by the project team, publicized in Portugal and abroad, the poster named "Conservation of Temporary Ponds in the Southwest Coast of Portugal: state of the art", won the 3rd place in the contest for best posters at the 11th European Meeting of the Society of Wetland Specialists, organized by the German Institute for Freshwater Ecology and Inland Fisheries in Potsdam, Germany in 2015.



An oral communication and three posters were presented at the International Symposium on Mediterranean Temporary Ponds in Sardinia, Italy and other oral communication was made in South Africa at the International Conference on Bats Research. In Portugal, the hydrological and hydrogeological context of the Temporary Ponds in the Southwest Coast was presented as an oral communication at the 10th Seminar on Groundwater, organized by the Portuguese Association of Water Resources in Évora. These scientific events have provided important sharing of knowledge and experience among specialists in various research areas.

Protocol with Vila do Bispo in favor of Temporary Ponds

A protocol of collaboration was signed between LPN, the entity that coordinates LIFE Charcos Project, and Vila do Bispo Municipality. The main goal is to protect Temporary Ponds that exist in the autarchy territory. This protocol defines the terms of collaboration of both parties for: execution of concrete recovery actions, management of Temporary Ponds that are in a favorable state of conservation and environmental education in the schools of the county. This is an important step for the conservation of the Temporary Ponds of this region for the medium and long term.

Temporary Pond Identification Tools

LIFE Charcos team has developed a methodology that simplifies the recognition of Temporary Ponds and assess its conservation status to be used by technicians that are not biologists. The purpose of this simplified tools is to promote the practical training of the entities responsible for the surveillance and supervision of the territory in order to better safeguard it in the long term. Therefore, another training session was organized for the vigilantes and technicians of the main Portuguese entities such as ICNF, APA and GNR-SEPNA called "Identification of Habitat 3170 - Mediterranean Temporary Ponds and their conservation status", where the functionality and the application of these recognition tools were tested and validated.



LIFE Charcos Project

“Conservation of Temporary Ponds in the Southwest Coast of Portugal” (LIFE 12 / NAT / PT / 000997)

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LIFE Charcos gathered international experts in Faro

The International Seminar of LIFE Charcos Project was held last May at the University of Algarve, in Faro. The event was associated with two others related to wetland conservation, such as the 7th Workshop of EPCN (European Pond Conservation Network) and the 12th SWS meeting (Society of Wetland Scientists).

Pere Fraga, technician and scientific coordinator of three LIFE projects that took place in Menorca island and member of the Scientific Committee of LIFE Charcos Project, was the invited speaker for the opening session where he made a presentation about the contribution of LIFE Program for the conservation of Temporary Ponds and other habitats.

Thereafter, a number of LIFE projects were presented, including the results achieved by LIFE Charcos with the experience gained by the recovery of Temporary Ponds, plus the central role that education and environmental awareness plays to increase public awareness for this sensitive habitat.

On the fieldtrip, the participants had the opportunity to meet *in loco* two Temporary Ponds in Vila do Bispo that were intervened by the Project LIFE Charcos. Not only it was possible to understand the interventions made in this ponds as well as witness the results of the measure implemented and observed the existing biodiversity. As a recognition of the contribution to protect natural values at European level, it was celebrated the 25th anniversary of the existence of LIFE Program and the Habitats Directive.



The aim of these three events was to promote exchange of experiences between projects that are in the field implementing habitat management actions for the conservation of wetlands but also seeking to transfer the knowledge among technicians, scientists and the general public.

The joint organization of these events promoted the participation of several national and international experts, such as the participation of the General Secretary of the Wetlands Convention, Martha Rojas-Urrego. In her speech she stressed the importance of wetlands for biodiversity and also for mitigating climate change through the ecosystem services that these habitats produce.



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