



LIFECHARCOS

# “Conservation of the Temporary Ponds in the Southwestern coast of Portugal”

LIFE12NAT/PT/997



## Project LIFE Charcos



The LIFE+ project "Conservation Temporary ponds in Southwest Coast of Portugal" (LIFE12NAT/PT/997), with the acronym LIFE Charcos, aims the conservation of a priority habitat, the Mediterranean Temporary Ponds (priority habitat 3170\* of the Habitats Directive). This habitat is increasingly threatened because of its ecological fragility and due to a lack of knowledge regarding its high natural value. Temporary ponds are shallow depressions that are influenced by an annual alternation between a dry and a flooded stage. During the winter, the ponds are filled with water. From the beginning of spring on, we

witnessed the gradual disappearance of the water level.

The uniqueness of this habitat results from the diversity and the peculiarity of the organisms it is sheltering. Some of the resident wildlife species, including some freshwater crustaceans, are endemic species with a highly reduced distribution. For a long time, the Mediterranean Temporary Ponds were dominant elements in the landscape of the Southwest of Portugal and its preservation was compatible with the extensive traditional uses of the soil. However in the past two decades a drastic degradation and regression of their distribution area could be witnessed. This project aims to strongly reduce the declining trend of the temporary ponds that they have been encountered so far and to recover its unfavorable conservation status.

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## Biodiversity of the Ponds: *Eryngium corniculatum* and *Triops vicentinus*



*Eryngium corniculatum*, also known as “Thistle-of-Lagoons” is an annual plant with stems in a very characteristic blue-green

colour. The leaves can take on two completely different appearances. In the flooded period, the leaves are hollow and fleshy but as soon as the pond starts to dry, they become rigid and thorny. The flowers are grouped into bluish sections with a thorn in the centre, that resembles a horn, which is name giving to the species. It is an indicator plant with an ephemeral character in the flooded period of the temporary ponds as well as a characteristic indicator species of the priority habitat 3170\* of Directive 92/43/CEE.



*Triops vicentinus*, also called tadpole-shrimp, is a crustacean with an outer shell (sized up to 7 cm), a tail and about 70 pairs of legs.

This specie of large branchiopods is considered to be a “living-fossil” (one of the oldest, still living animals in the world, contemporary of the dinosaurs) deriving its name from the fact, that it has got three (tri) eyes (ops). The eggs of the *Triops vicentinus* can remain “dormant” in the dry soil for years, just start hatching with the appearance of water. The occurrence of this species is strictly confined to the extreme southern southwest of Portugal.

## Threats to the conservation of the Temporary Ponds



This priority habitat is increasingly threatened due to its ecological fragility, anthropogenic actions and the lack of knowledge about its natural value. In the last two decades, particularly in the SCI (Site of Community Interest) of the Southwest coast, modern industrialized agriculture and tourism have caused a significant decline of this habitat of the Natura 2000 Network. Traditionally seen as non-productive areas, the Mediterranean Tempo-

rary Ponds are currently under a strong anthropogenic pressure through actions like deep soil ploughing, drainage, clogging its area, transformations into permanent irrigation reservoirs, irrigation and fertilization of crops near the ponds and forestry activity. Furthermore the pressure of tourism, traffic, overgrazing, the existence of invasive species and the climate change can be seen as threatening factors for this habitat.

### One year of done work



Although the seasonal flooding of the ponds in this year has been lower than usual in the earlier years, it can be stated that the carried out work showed positive effects. So far there have been about 90 Mediterranean Temporary Ponds confirmed in the field and the identification of the managers of the land, where they are situated, is progressing well. Through inventory takings of fauna and flora, it was possible to successfully establish a reference situation of the Temporary Ponds as well as a perception of their conservation status. Furthermore, hydrogeological studies were performed and will continue.

These studies provide more information about the ecological conditions, the Temporary Ponds are subjected to. Another initiated and ongoing action was the creation and maintenance of a germplasm bank. The first crops of mature seeds of 22 plant species have already been collected. The germplasm bank is important for the safeguarding of genetic resources of the plants as well as for potential restoration actions. Furthermore, a defining of general management standards regarding the Temporary Ponds have been started, as well as their implementation into a Nature Stewardship network. In terms of disclosure, the Project website was completed, a first presentation of the Project was realized and several news went out to the social media.

## Testimony: Ricardo Silva, Master student at the University of Évora

Ricardo Silva says, that his main objective is to “understand in which way bats are using the Mediterranean Temporary Ponds and how significant the results are”.

“My master’s thesis, inserted in the Master in Conservation Biology at the University of Évora, aims to understand in which way bats are using the Mediterranean Temporary Ponds and how significant the results are. By now, the first period of sampling was already completed and the experiences were just fantastic. I have learned a lot. What attracts me most in biology is being in the field and being in contact with nature, especially when we have the opportunity to study fascinating animals such as bats. Being in the ponds at night, with the ultrasound detector in our hand, only with nocturnal preys and amphibians breaking the silence is an amazing feeling. This was undoubtedly one of the most rewarding experiences I had so

far and I really have to thank the LIFE Project and my mentor João Tiago Marques for it.”



## Public Presentation of the Project



The Presentation of LIFE Charcos was held at the auditorium of the “Associação de Beneficiários do Mira”, partners of the Project, in Odemira, on the 27<sup>th</sup> February 2014. It was the official public launching event of the project. The intention of the session was to present the objectives, the actions and the expected results as well as giving an insight on the uniqueness and importance of this habitat and the

resident species. During this presentation it was carry out an exchange of ideas and clarified some scepticism among the participants and experts, regarding the conservation of the temporary ponds. The session was attended by more than 70 participants in addition to the project partners. The number and the diversity of the present public demonstrated the interest and the expectations that were awakened by the project.

Learn more about the presentation on:

[www.lifecharcos.lpn.pt](http://www.lifecharcos.lpn.pt).

## Meeting of the Scientific Committee



Between the 8<sup>th</sup> and 10<sup>th</sup> of May, the first meeting of the Scientific Committee of the LIFE Charcos Project took place. The objective was the present the project and the temporary ponds of the SCI of the Southwest coast to the scientific advisers. The work of this Committee is not only needed to have a scientific monitoring for the

foreseen actions of the project, but also to get expert advices on the implementation of management measures in the field as well as on the realization of a long-term conservation of this priority habitat. The Scientific Committee includes national and foreign experts on the conservation of Temporary ponds. These are coordinators of LIFE Projects dealing with this kind of habitats in France, Spain (Menorca) and Greece (Crete).

Learn more about this meeting on:

[www.lifecharcos.lpn.pt](http://www.lifecharcos.lpn.pt).

## The opinion of: Pere Fraga, member of the Scientific Committee



*Pere Fraga states that "I had a very good impression of LIFE Charcos. It can be a very important contribution to the conservation of Mediterranean Temporary ponds (...)"*

“After I have had the opportunity to visit the intervention area of the project and meet the technical team, I had a very good impression of LIFE Charcos. It can be a very important contribution to the conservation of Mediterranean Temporary ponds, a priority habitat on a European level, on which we must continue working on to get to know it better. Especially important is to get beyond the punctual preservation and achieve a social awareness that ensures a long-term preservation. I want to highlight two aspects that can help this project to receive good results: Firstly, the diversity of the Mediterranean Temporary Ponds and the existing different levels of conservation and management that may generate new approaches or methodologies for the management of the habitat. Furthermore, a complementary and innovative expertise can be created considering the fact that previous projects were situated in different geographical areas (South France, Menorca, Greece). Secondly the technical members and their degree of involvement. Due to the fact that the project

has a multidisciplinary team with a strong interest, they shown during the days I have been with them, there will always be a guarantee that the actions are going to develop in a proper manner. Regarding my experiences with the Project LIFE Basses and other habitat restoration projects, my main recommendations are: Act always on the basis of previous knowledge and get as much information as possible about the area of the habitat as well as about other areas of action. Plan and program the actions properly to foresee any kind of results. Give the most importance to the sensitization, the social awareness and do not save any effort or work to communicate and inform, especially with the more aware social sectors, in both positive and negative sense. In this way, there will be a higher assurance that the project objectives and actions will have positive results, in both the technical aspect and its social impact”.

Learn more about the Temporary Ponds in Menorca on: [www.cime.es/lifebasses/](http://www.cime.es/lifebasses/).

## Contacts

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# LIFECHARCOS

Project LIFE Charcos (LIFE12NAT/PT/997)

“Conservation of the Temporary Ponds in the Southwestern Coast of Portugal”

Coordinator Beneficiary: Liga para a Protecção da Natureza (LPN)

Associated Beneficiaries: University of Évora (UÉvora), University of Algarve (UAAlg), Centro de Ciências do Mar (CCMAR), Câmara Municipal de Odemira (CMO) e Associação de Beneficiários do Mira (ABM)

Duration: July 2013 to December 2017

## Technical Form

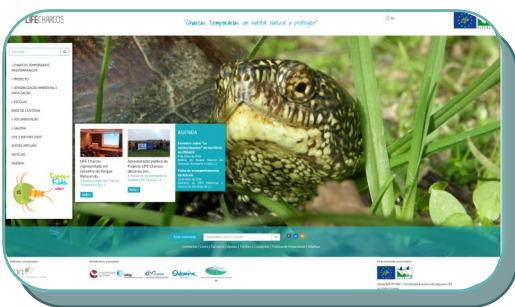
- **Editorial Commission:** Liliana Barosa e Rita Alcazar
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- **Digital distribution**

## Mediterranean Temporary Ponds: A natural habitat to preserve!

{[www.lifecharcos.lpn.pt](http://www.lifecharcos.lpn.pt)}

## Next steps of the Project:

- ↪ Completion of the updating of the cartography
- ↪ Edition of a brochure that presents the Project
- ↪ Publication of a Children's Tale
- ↪ Start of activities in schools
- ↪ Initiation of the implementation into the Custody Network
- ↪ Signing of a First Management Protocol
- ↪ Implementation of the first measures about the connectivity between ponds
- ↪ Definition of general management standards for the temporary ponds in the Southwest Coast
- ↪ Start with the first habitat restoration works



Get to know everything about the LIFE Charcos Project and visit our website:

[www.lifecharcos.lpn.pt](http://www.lifecharcos.lpn.pt)

### Beneficiary Coordinator



### Associated Beneficiaries



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