



## Project LIFE ALBUFERA international newsletter

### Newsletter No. 3 April 2016

## Outcomes of the second implementation phase of the LIFE ALBUFERA project

1) Definition of a strategy for the management of the water and vegetation of constructed wetlands.



2) Implementation of the management strategy and monitoring the impact of the water quality, vertebrate biodiversity and habitats.



3) Drafting of recommendations on the management of wetlands in degraded natural areas and implementation of management plans in wetlands.



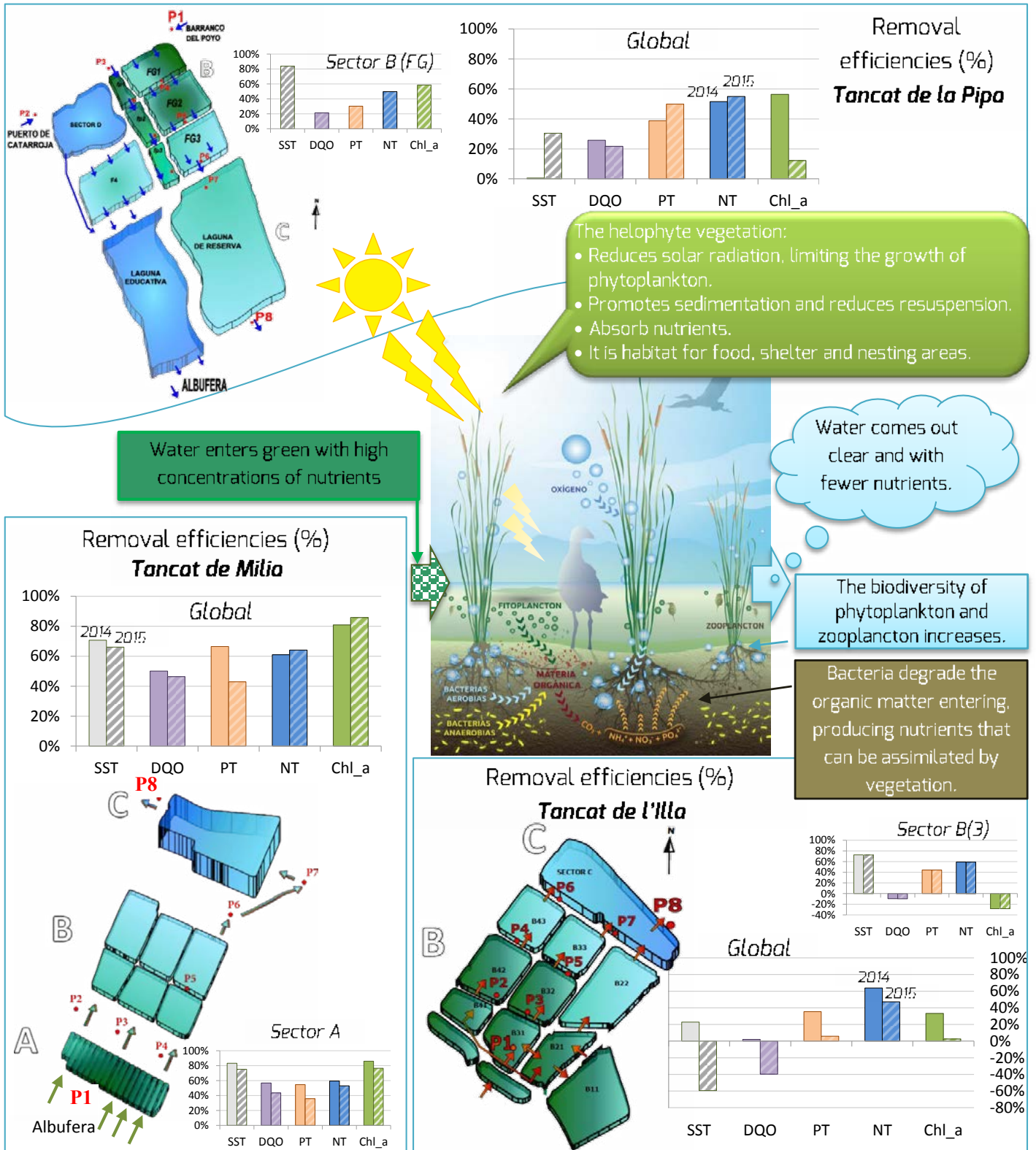
The LIFE ALBUFERA project, divided into three phases, is about to end its second implementation phase, which corresponds to monitoring the impact of the management strategy on water quality, biodiversity and habitats. The monitoring consisted in the analysis of the evolution of the water quality passing through the constructed wetlands, the biodiversity of vertebrate fauna and habitats, sampling different points distributed across the three constructed wetlands in the natural park of the Albufera in Valencia: Tancat de la Pipa, Tancat de Milia and Tancat de l'Illa.

Right now we are already starting the third phase, which is about the integrated analysis of all the information obtained to evaluate different management options and in order to make some recommendations on the management that will improve both the water quality, the biodiversity and habitats. In this third phase, the use of mathematical models of water quality and the development of indicators based on avifauna are being confirmed as interesting tools for managing these spaces. The underlying principle of all this work is the integration of the European Water Framework Directive as well as the Birds and Habitats Directives, which the administrations must comply with and implement.

### Index

- 1 Outcomes of the second implementation phase
- 2 Constructed wetlands improve the water quality
- 3 The major bird news of the year
- 4 International and national dissemination

## Constructed wetlands improve the water quality!



After two years of monitoring in the LIFE ALBUFERA project, the results show that the quality of the water in the lake of Albufera has been significantly improved as it passes through the constructed wetlands of Tancat de la Pipa, Tancat de Milia and Tancat de l'Illa. A total volume of 6.65 Hm<sup>3</sup> of water has been treated and a total of 512 kg of phosphorus and nitrogen 10487 kg were removed from the lake.

The biological water quality has also improved significantly. The concentration of phytoplankton could be reduced – a key aspect in the improvement of the water quality of the Albufera lake – and the concentration of zooplankton filtering phytoplankton was increased. The role of artificial wetlands as “breeding places” of zooplankton is great news for the improved biodiversity of the Nature Park.



## The major bird news of the year 2015: the garganey breeds in the constructed wetland of Tancat de la Pipa



The garganey (*Anas querquedula*) is a small migratory waterfowl listed as vulnerable in the Red Book of Birds of Spain, according to the criteria of the International Union for Conservation of Nature. It is a very rare species in Spain throughout the annual cycle, with an occasional and timely breeding population in sharp decline and which in the last national census of the species in Spain, coordinated by SEO / BirdLife in 2007, was reduced to less than 10 couples throughout the entire Spanish territory.

In 2015, it was possible to observe the reproduction of this species in the constructed wetland of Tancat de la Pipa, with a female taking care of her offspring in June and subsequently she was accompanied by a fully developed juvenile in mid-July.

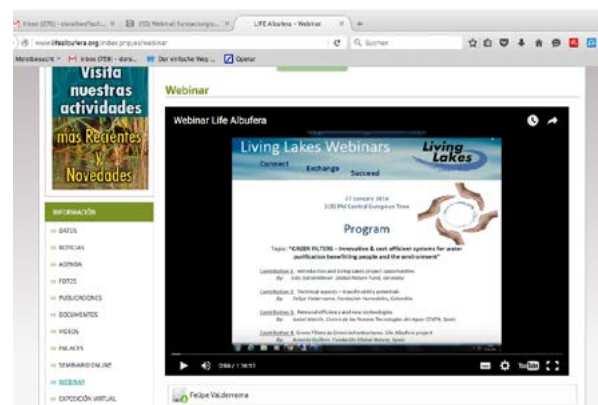
Constructed wetlands which are developed within the LIFE ALBUFERA project maintain environments in permanent flooding including the recovery of meadows of submerged plants. It is precisely these factors that favor the visit of migratory waterfowl between March and April, a period in which the Albufera rice fields are completely dry, while these birds are looking for suitable reproduction places. The LIFE ALBUFERA project also develops management actions that foster the diversity of scarce or nonexistent environments in the area of l'Albufera of Valencia which are used by breeding birds. Among them, flooded pastures with water of a good quality and abundance of aquatic invertebrates, conditions for nesting and the garganey's nutrition during the breeding season.



## International and national dissemination

### Webinar

On January 27, 2016 Antonio Guillem participated on behalf of the LIFE ALBUFERA project as speaker in the webinar “Green filters – Innovative and cost efficient systems for water purification benefitting people and the environment”. The webinar was organized by Living Lakes and recordings are available on our [webpage](#).



### Online Seminar Booklet

Summaries and transcripts of our online seminar last year are now available in a booklet on our [webpage](#).

### Congress LIFE Riverlink

Antonio Guillem presented the project at the 5th Nature Congress of the Region of Murcia and the 2nd Iberian Sureste (LIFE Riverlink) on 26 November 2015. The theme of his speech: The green infrastructure to improve water quality and biodiversity: constructed wetlands at the Albufera of Valencia.



### Workshop LIFE - WATOP

On 17 November 2015, Antonio Guillem presented the ALBUFERA LIFE project “Workshop on new technologies for water treatment in Lurederra” organized by the LIFE-WATOP project. The focus was on new unconventional water purification methods.



### National Congress of Conservation and Restoration of Wetlands

From 12 to 14 November 2015 Matthieu Lassalle, Miguel Martín, Lucia Moreno and Mattia Sacchè presented the ALBUFERA LIFE Project at the National Congress of Conservation and Restoration of Wetlands organized by the LIFE Tollos project in Jerez de la Frontera. They talked about the three integrated constructed wetlands in the Natural Park of Albufera of Valencia and the challenge of growing vegetation in the constructed wetlands with superficial water flow.







## LIFE ALBUFERA project

Integrated management of three constructed wetlands in compliance with the Water Framework, Birds and Habitats Directives



UNIVERSITAT  
POLITÈCNICA  
DE VALÈNCIA



GOBIERNO  
DE ESPAÑA

MINISTERIO  
DE AGRICULTURA, ALIMENTACIÓN  
Y MEDIO AMBIENTE

CONFEDERACIÓN  
HIDROGRÁFICA  
DEL JÚCAR



Fundación Biodiversidad

[www.lifealbufera.org](http://www.lifealbufera.org)

[contacto@lifealbufera.org](mailto:contacto@lifealbufera.org)

follow us on:



FACEBOOK / LIFEALBUFERA



TWITTER / LIFEALBUFERA

The newsletter is published with co-funding from the EU in the context of the project LIFE-ALBUFERA (LIFE12 ENV/ES/000685)



## Final conference **LIFE ALBUFERA Project**

**Integrated management of three constructed wetlands in compliance with the Water Framework, Birds and Habitats Directives**

29 – 30 June 2016

Venue: Botanical gardens of the university of Valencia and the Natural Park of l'Albufera

Participation for free, registration required

Registration: [dorotheefischer@fundacionglobalnature.org](mailto:dorotheefischer@fundacionglobalnature.org)

More information: [www.lifealbufera.org](http://www.lifealbufera.org)



UNIVERSITAT  
POLITÈCNICA  
DE VALÈNCIA



Instituto de Ingeniería del  
Agua y Medio Ambiente



GOBIERNO  
DE ESPAÑA

MINISTERIO  
DE AGRICULTURA, ALIMENTACIÓN  
Y MEDIO AMBIENTE

CONFEDERACIÓN  
HIDROGRÁFICA  
DEL JÚCAR



with the support of:



GOBIERNO  
DE ESPAÑA

MINISTERIO  
DE AGRICULTURA, ALIMENTACIÓN  
Y MEDIO AMBIENTE



Fundación Biodiversidad

with the special participation of:

