

## Pond Management Success Stories

### Number 1



# A tale from Ferrara, Italy

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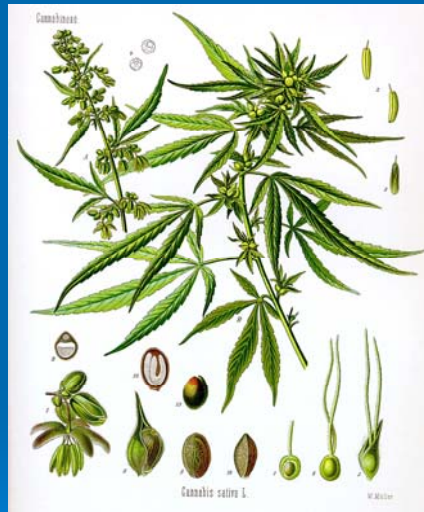
## Background and Location

- ❑ Ferrara is located in the region of Emilia Romagna
- ❑ Ferrara is the capital city of the province of Ferrara
- ❑ The Municipality covers just over 400 square kilometres
- ❑ Ferrara is situated 50 km north east of Bologna the regional capital
- ❑ The city lies adjacent to the the Po di Volano, a branch channel of the main stream of the Po River



## Cannabis sativa

- ❑ The industrial uses of hemp fibre (*Cannabis sativa*) have been recognised for thousands of years, and Europe has a long history of its production
- ❑ For many centuries *Cannabis sativa* was cultivated for textiles in the flood plain of the River Po
- ❑ This industry continued until the 1950s



## The industrial process

- ❑ Textile fibres were obtained from hemp stems through maceration (or soaking) in fresh water
- ❑ Maceration took place inside rectangular ponds with a depth of about two metres and a maximum surface area of 3,000 square metres
- ❑ Large stones were used to keep the hemp under the water

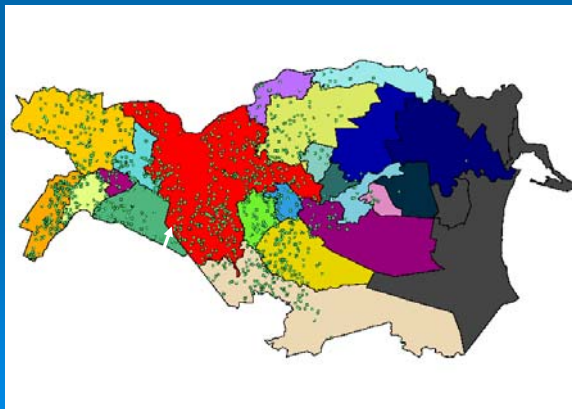


## Industrial decline

- ❑ At the start of the 20<sup>th</sup> Century, there were about 10,000 maceration ponds in the province of Ferrara
- ❑ After the Second World War, the cultivation of hemp was completely abandoned
- ❑ Today there are just over 400 ponds remaining
- ❑ They have both a historic and ecological value

## Current Initiatives

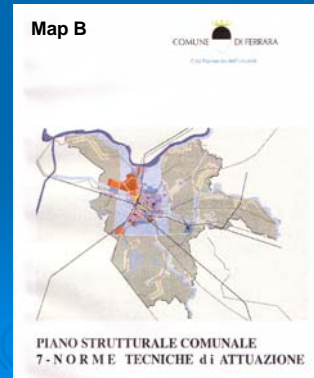
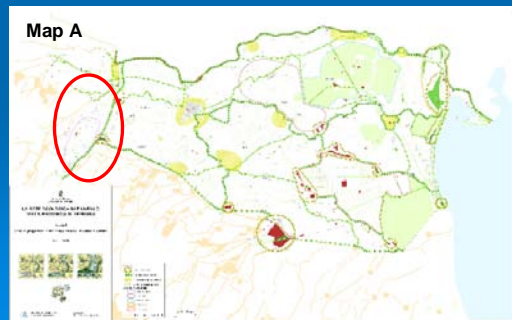
Since 2004, the Museum of Natural History in Ferrara has undertaken a census of all remaining maceration ponds in the Municipality. A pond database has been created and has been entered into a GIS.



## Pond protection

In the western part of the Province, an area with a pond density of two ponds per square kilometre has been included in the regional ecological network (map A.).

The new Ferrara City Plan (map B) has taken steps to include the protection of all wetlands including ponds.



## The Future

☺ All permanent ponds are now protected in Ferrara  
BUT . . .

☹ Temporary ponds have still to be fully protected

- ❑ There is a need to disseminate information about the ecological value of temporary ponds and to introduce appropriate legislation for their protection
- ❑ There is a need to ensure that 'temporary ponds' are not deepened and in so doing become permanent wetland features
- ❑ There is also a need to work closely with the planning authority. Although maceration ponds are included in regional legislation, ideas on management do not always represent best practice.

## Pond Management Success Stories

### Number 2

# From catastrophe to conservation: Bomb crater ponds in Hasselt, Belgium

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## Background and Location

- ❑ Hasselt is the capital of the Flemish province of Limburg
- ❑ Hasselt was founded in the 7th century on the Helbeek, a tributary of the Demer river
- ❑ The name Hasselt came from Hasaluth, which means hazel wood
- ❑ Hasselt is located in between the Campine and Hesbaye regions in the middle of the Euregion Meuse-Rhine



## Site Origin

- ❑ Ponds created in 1944 during the latter stages of the Second World War
- ❑ Five allied air strikes were concentrated on the marshalling yards at Hasselt between April and May 1944



## Biodiversity Value

- ❑ Over time, the majority of the bomb craters have filled in
- ❑ Nevertheless, more than 110 were preserved, forming permanent or seasonal ponds and creating a diverse and unique wetland habitat
- ❑ The pond complex and the surrounding terrestrial biotopes have a high capacity to support a wide range of organisms, many of high conservation importance, particularly amphibians and macro-invertebrates
- ❑ Large populations of six species of amphibians are still present in the fishless ponds: *Rana esculenta synklepton*, *Rana temporaria*, *Bufo bufo*, *Triturus alpestris*, *Triturus cristatus* and *Triturus vulgaris*
- ❑ Represents the largest population of *Triturus cristatus* in Flanders

## Threats and Opportunities

- Because of its location on the fringes of the city of Hasselt, the pond complex at Tommelen has been threatened with development.
- A number of housing projects have been proposed
- Local nature conservation organizations were too small to mount an effective opposition to these schemes

### HOWEVER

- Support from the European Pond Conservation Network (EPCN)
- Meeting with the mayor of Hasselt
- Raising awareness about the links between history + ecology + scientific value
- Dissemination of information via websites and a variety of different publications
- Has enabled a situation to develop whereby the site is being developed as a local nature reserve



