

Ponds and pools of the Northeastern Edge of Crete

A hidden wetland in danger



In the arid areas of the Northeastern the Edge of Crete
not everything is as dry as it looks...



There are spots that hold water for longer periods of the year, namely **temporary ponds or pools**.



What is a temporary pond/pool?

- It is a small lake that is not permanent, but depending on the season, either contains water or is dry.
- It has a characteristic type of vegetation.



Temporary ponds or pools can be either freshwater, brakish water or saltwater ponds/pools.

Specifically in the Mediterranean area there are the...

... MTPs! Mediterranean Temporary Ponds

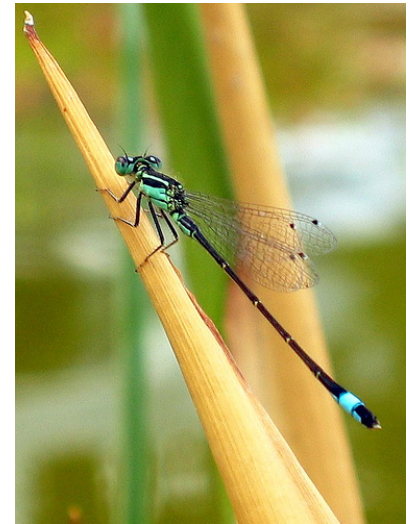
What are MTPs?

- They are very shallow – a few centimeters deep - seasonal little ponds or pools that
- usually contain water only during winter and/or spring and that
- include characteristic aquatic flora species that can survive, i.e. are adapted to seasonal waters.



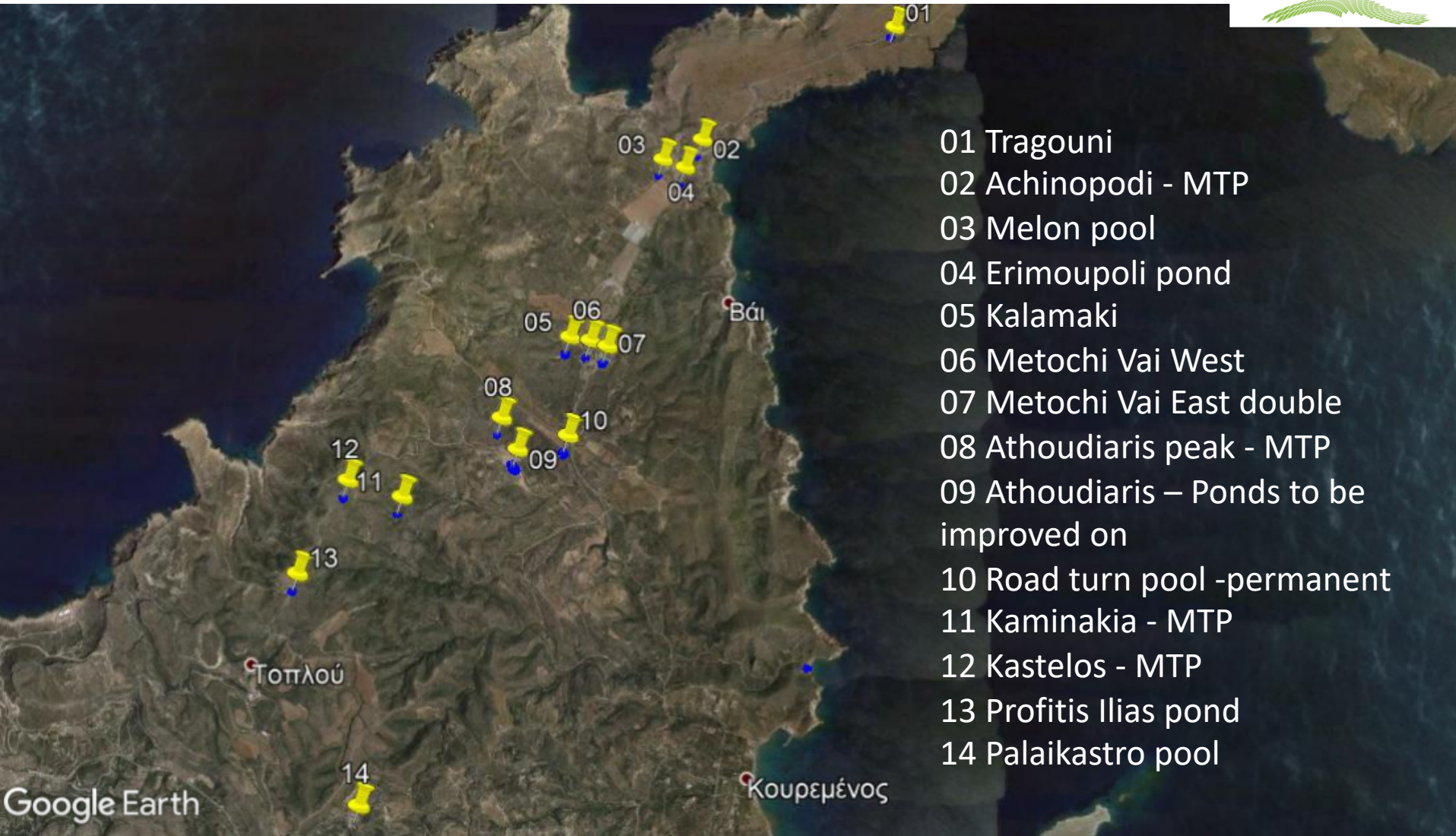
Mediterranean Temporary Ponds are:

- Habitats protected by various international laws, like the European Habitats Directive 92/43/EEC
- Unique and sensitive ecosystems in need of protection and conservation
- Indicators of ecological balance



MTPs are of a high ecological importance as they are a biotope for various noteworthy aquatic plants that have a small distribution in the Mediterranean area and in Greece.

Map of MTPs and other ponds/pools of the Northeastern Edge of Crete



MTPs as well as permanent ponds or pools each have:

- Their own ecological identity
- Their own hydroperiod,
i.e. the length of time and portion of the year
that there is ponded water in the pond.
- Their own specific and unique flora and fauna



And all of them are related to the water management in the area.

There are both natural and artificial ponds (pools) in the area of the Northeastern Edge of Crete (NEEC).



Athoudiaris peak – MTP



NHMC © Dretakis, M.

Melon pool – artificial

They are...



A spot where Eleonora's falcon can search for large insects to feed on



An oasis for migratory birds, where they can feed and rest



A unique habitat for a unique frog species, the Cretan Frog



A water trough for goat and sheep herds

Things are not always as they seem!

What might look like useless unproductive wasteland,
may actually contain hidden secrets:

At the bottom of a dry pond, the seeds of aquatic plants that comprise the flora of the pond during its wet period are preserved during its dry period.

So, just because a pond or pool has dried up,
doesn't mean there is no life there.

It is just a sleeping beauty,
waiting to be awakened by the first rains of the rainy season.

THREATS

Ponds and pools in the area are mainly threatened by:

- **Natural phenomena** that are gradually increasing in frequency in the area



like
aridity and
drought

THREATS

- **Human activities**, like activities that produce



garbage
and
chemical waste

Chemical waste changes the physical and chemical properties of pond water, which affects competition between various pond flora species.

THREATS

- **Human activities**, like
 - Destruction of the pond banks by vehicles driving over the pond/pool.

*Destruction of pond banks results in even faster drainage of water from the pond or pool.
The water finds a way out and... disappears!*

- Digging up soil for various purposes, e.g. to get good planting soil.

*Removing soil from a pond bottom contributes
to the direct degradation of the wetland.*

Interventions in the area of NEEC

- All pools have been indicated on the related map.
- Water was added to some of the pools during the arid months of the year.
- Three more ponds are to be improved on.

IMPRECO interventions



Erimoupoli pond

Before the interventions...



NHMC © Dretakis, M.

Profitis Ilias pond



NHMC © Dretakis, M.

Erimoupolis pond



After the interventions...

Profitis Ilias pond



Erimoupolis pond



How you can help



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- **By monitoring the water level of the various ponds and pools in the area.**
- **By maintaining the hydroperiod during the critical period for certain fauna species, like the Cretan Frog or for migrating birds.**
- **By informing the Management Body of NEEC or the relevant authorities in case of damage caused to any of the ponds or pools.**
- **By informing local users as well as visitors about the ecological value of the ponds and pools in the area and about the threats they face.**

