

EXTENDED ABSTRACT OF THE GRAZING CAPACITY STUDY OF MEDITERRANEAN TEMPORARY PONDS

Mediterranean temporary Ponds (MTP's) constitute priority habitats of the Natura 2000 network (Code 3170). They are defined as shallow ground depressions flooded during the rainfall period for a period of few weeks or months until the end of spring or summer, while their flora is dominated by Mediterranean therophytes and geophytes which belong to the alliances of *Isoetion*, *Nanocyperion flavescens*, *Preslion cervinae*, *Agrostion salmanticae*, *Heleochoilon* and *Lythrion tribracteati*.

Except from the floral interest, temporary ponds host a number of faunal species (crustacean, invertebrates, etc.), while functioning as attraction sites for bird fauna and mainly for migrant birds. Temporary ponds are also characterized as natural grasslands, producing high value grazing matter.

The present study has as its objective the examination of the MTPs' grazing capacity as well as their ability to supply water for animal watering. It is generally acceptable from a wide spectrum of scientific specialties in the national and international literature and research that normal grazing exerts beneficial effect on their function. Degradation phenomena appear only when there is over-grazing, with the associated consequences often related with:

1. intense defoliation of natural vegetation;
2. constraints on the plants ability to produce seeds;
3. soil's degradation due to compaction and fragmentation of its cohesion resulting into erosion.

In the case of temporary ponds, even if grazing in the wider area is normal, it is possible that over-grazing phenomena may occur due to the fact that ponds function as sources of attracting stock-breeding animals due to the water

occurrence itself but also to the rich grazing matter they produce. Therefore, animals remain for a longer period of time around the pond, resulting in overgrazing.

The main objective of the study is to estimate the ponds' grazing-capacity and graze-loading, aiming at their de-pressurization from a number of animals by taking the appropriate management measures and constructing alternative animals' watering points in the wider area.

1. The ponds in Elafonisos are not attractive points for animal watering because the hydro-period is irregular, short and lasts only for few days after the rain. The overgrazing (28%) is mainly due to forage production.
2. In Omalos the overgrazing is high (72%) because the pond is the main source for animal watering and is rich in forage production. The watering capacity of the pond is not enough to cover the needs of the animals watering from the pond.
3. In Kournas although it was not possible to estimate the grazing capacity, there are not signs of overgrazing. Moreover the pond is not used for animal watering because it is declined and does not retain water.
4. In Falasarna the signs of grazing are not clear because the animal husbandry in the area is domestic. The watering capacity is high but only for the period January – February.
5. In Gavdos the rock-pools are very small and do not produce forage. The watering capacity is very low (50m³) in relation to the real needs of the animal that freely graze on the Island.