



Informationen zur Umwelt und für Naturreisende auf Kreta:
Information about the Environment and for travellers in Crete:

The artificial lake at Grá Ligiá, Ierapetra
"Reservoir of Bramiana": Nature reserve for flora and fauna



The artificial lake at Grá Ligiá (north-west of Ierapetra) can be reached – apart from directly of Ierapetra (South coast) - from the North coast towards South along the Eastern foothills of the Dikti-Mountain over Kalamáfka; for the route description see also our info leaflet No. 195-07/E at CRETEEnvironmentforum, navigation “Monasteries / Churches



The reservoir (see figure) serves as water supply for Ierapetra, especially the irrigation of the countless greenhouses, where mainly vegetables are grown. Its total capacity is approximately 16 million cubic metres. It is fed primarily of rain water but also through pipes, such as from the river of Mirtos (12.4 miles away) or from Malavra in Kavousi (24.8 miles away). Short drought periods can thus bypassed for approximately 20 months and the irrigation of greenhouses for that period of time ensured. The quality of the supplied water is good; but it looks different for the wastewater. The excessive use of fertilizers and plant protection products in the greenhouses charged the effluent very highly and local geology offers no "cleansing effect" on the way of the wastewater into the sea. Hypertrophy¹⁾ therefore is evident along the costal section.

¹⁾ Hypertrophy: (from Greek: *hyper* – excessive, *trophe* – nutriment) means an excessive cell growth, that results from nutrient elements caused intensity of organic production.



The fig left shows the information kiosk on the main parking lot on the west- side of the reservoir. Middle picture the reservoir on the southern end of the lake and fig right the reservoir from south-west to north-east.

Pictures: U. Kluge / H. Eikamp (19.12.2006)



The fig left shows the lake seen from west to south to the dam wall, right from south-west towards north-east.

The artificial lake is not only a water reservoir; as the " **Reservoir of Bramiana** " it is also known as one of the biggest nature conservation areas of Crete. By the EU over *Life* [00 ENV GR000685] promote, the area is scientifically maintained by the NHMC (Natural History Museum Crete) University Heraklion; therefore see also www.nhmc.uoc.gr/Wetlands/files/ecotouristic_guide_en/1.bramiana. It is considered one of the most important refuges for the flora and fauna of the island and has a high priority in particular for the avi-fauna. Since it is possible to bend the Lake, it offers countless observatories and is often used for ornithological excursions. The southern part of the reservoir is mainly inhabited by seagulls and serves these birds also as place to sleep. Wading birds, herons and terns are mostly migrants; during the winter months, the Lake is also home to many types of ducks. Among the birds of prey including the Eleonora's Falcon uses the reservoir as hunting ground.



Common "guests" on the lake are (among others) **little egret** (*Egretta garzetta*), fig. left and **purple heron** (*Ardea purpurea*), fig. right.

Translated by Michael Bloechinger-Daeumling

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