



## An Introduction to the Ghadira Nature Reserve

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The Ghadira Nature Reserve, which covers approximately six hectares, lies roughly 100 metres inland from the water's edge at Mellieħa Bay, while on the opposite side (to the west) the sea at iċ-Ċumnija, a rugged rocky coast, is about one km. distant.

On mid-sixteenth century maps the site is indicated as *Saline* and in fact at that time the area was one of the main producers of salt in Malta. With the building of the salt-pans at Qawra, the Ghadira area started to be indicated on the maps as *Saline Vechie* or *Saline Vecchie*.

After a number of years of being unused as salt-pans the area was gradually being covered by soil carried down during the rainy season mainly from the extensive northern hill side.

When Ghadira started to emerge as a site of natural scientific importance it consisted mainly of a clayey depression, dry in summer but flooded during the winter months, surrounded by a salt marshy plant community. This 'oasis' in the midst of a comparatively arid limestone environment, lying at sea level, and bounded by some cultivated fields and a rocky karstic area, provided a diversity of microhabitats quite rich in flora and fauna and an ideal spot for migratory birds.

In the mid-sixties the area was threatened by the building of a new coastal road, which was planned to go right through the centre of this natural niche. The Malta Ornithological Society, which at that time was incorporated with the Natural History Society of Malta, quickly alerted other bodies interested in conservation to this development and the Government took steps to revise its project and leave the pool intact. This decision was received with joy not only by the local small group of naturalists but also by foreign conservation organisations. This is how it was commented upon in the International Council of Bird Preservation's bulletin *The President's Letter* (No. 9 Sep 1966):

"It was therefore with much satisfaction that a letter was received from the Office of the Prime Minister of Malta, dated 14th May 1966, stating that the plans for the

new Ghadira Road ensure that the pond will be by-passed and left untouched. This action of the Government of Malta will be greatly appreciated in many other countries and is a valuable contribution to the international preservation of migratory birds."

In 1967 the Malta Ornithological Society published a report on the natural and historical features of Ghadira and was presented to the House of Representatives requesting the conservation of the area and the creation of the first nature reserve on the islands.

In the mid-seventies the increasing popularity of the site as a weekend picnic area was posing a new threat to this ecological site. From late spring to early autumn cars were being driven onto the area, while the dry bed of the pool was frequently being used as a football pitch as well as a parking place.

In the meantime, the area was still being leased by Government for bird-hunting and this continued until 1978 when the area was legally declared a bird sanctuary. This occurred after the Government accepted the plans for the setting up of the reserve prepared by Mr Herbert Axell, a land-use adviser, who was brought over from the U.K. by the Malta Ornithological Society with the help of the Royal Society for the Protection of Birds, with whom he had served as warden of Minsmere Bird Reserve for several years.

His main plans involved widening the surface area of the pool, creating islands of different levels, digging a deep area which could be used as a reservoir at the back and digging a surrounding ditch, and using most of the spoils to build an embankment along the whole length of the ditch.

The work could start by hiring a contractor with an initial sum of US\$25,000 donated by the World Wildlife Fund on the initiative of the Malta Ornithological Society. And the machines rolled onto the area in May 1980.

Due to the nature of the pool bed all the heavy engineering works had to be carried out in the dry season and in fact it was executed in three phases during three consecutive summers.

By August 1982 two thirds of the works were completed. Those of us who were involved in the project as well as all other local naturalists were shocked to see the infliction of huge scars in such an area but Mr. H. Axell's plans were quite convincing and when all works were finished and the rainwater washed the scars, nature took over again.

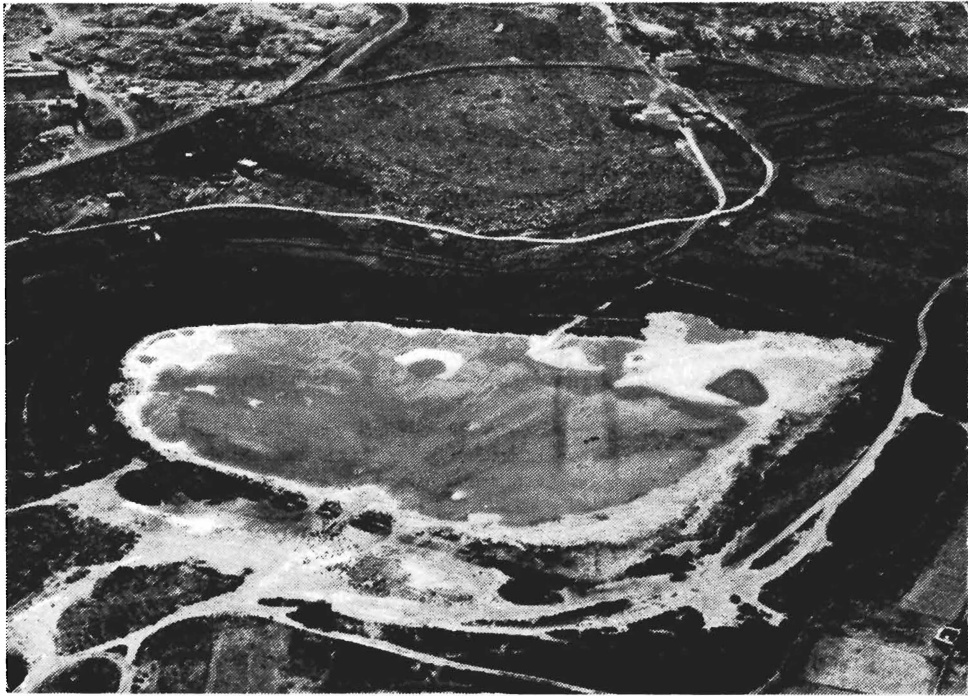
Apart from the habitat engineering work, a bird-watching hide was built with a donation from the Malta Bird Reserves Overseas Committee while a visitor's centre, which houses an interpretive room, was also built by the Malta Ornithological Society with a contribution by Mid-Med Bank.

The Malta Ornithological Society was also engaged in the organisation of voluntary work which included the planting of shrubs and trees, supplied by the Department of Agriculture, fencing and screening.

Soon the mud and brackish water became enriched with life and various species of migrant birds started to visit the reserve and stay for winter. And when it rained heavily and rainwater rushed towards the beach in a continuous stream the Grey Mullet *Mugil cephalus* swam towards the pool to find a new home. Several specimens of rare species of flora such as *Carex extensa* and *Pancratium maritimum* which were being exterminated from the bay area with the building of the new road, were transplanted in the reserve area and have thrived in the new environment.

Due to the unfortunate local circumstances regarding bird shooting, apart from digging the defensive ditch, the area had also to be fenced to keep intruders out.

With the posting of a warden at Ghadira by the Government Environment Division, a lot of work such as tree planting, has been carried out, while school visits have been organised on a regular basis. The Ghadira reserve, with its rich flora and fauna has been designed to help bring



*Plate 1: Aerial view from the N.E. of the pool at Ghadira prior to the habitat engineering works which started in 1980. (Courtesy of the Department of Information, Malta)*



*Plate 2: A recent (Feb. 1991) aerial view from the S.E. of the Ghadira Nature Reserve. (Photo: Joe Sultana)*

about a change in mentality towards nature, birds in particular, especially in the younger generation. Here they can watch and study birds feeding quietly and compare them with the lifeless stuffed effigies in private collections.

Here they can observe closely how nature works and how beautiful nature is. Ghadira is a living museum, which is already being used as a scientific and educational medium where various species can be seen to take advantage of a safe environment. Mammals such as the hedgehog *Erinaceus algirus*, reptiles such as the Occellated Skink *Chalcides ocellatus*, insects and other living organisms including an interesting salt-marsh flora combine to make Ghadira a fine example of conservation. Here, conservation was not only made but was seen being made.

#### ANNOTATED LIST OF REPORTS ON GHADIRA IN CHRONOLOGICAL ORDER

- 1967 - Report on the natural and historical features of Ghadira — Malta Ornithological Society.
- This report includes mainly information about flora, fauna, geology and history of Ghadira. It was presented to the Malta House of Representatives by the M.O.S. when the area was threatened by the building of a road. At that time the M.O.S. was associated with the Natural History Society of Malta.
- 1978 - Ghadira-proposals for development as a National Nature Reserve - Herbert Axell.
- This report, which includes details of the proposed development of the site into nature reserve, was presented to the Malta Government and to the Malta Ornithological Society.
- 1980 - Report on Ghadira prepared by the Natural Environment Study Section of the Society for the Study and Conservation of Nature — C. Savona Ventura, S.P. Schembri, E. Lanfranco, P.J. Schembri, G. Lanfranco, J. Schembri.
- This report was issued by the S.S.C.N. as it feared that some of the proposed changes to Ghadira might be detrimental to certain animal and plant species found in the region. It outlines the general features of the area and stresses the scientific importance and uniqueness of the pool and its environs.
- 1980 - Ghadira National Nature Reserve — H.E. Axell
- This report was made after the first phase of the habitat engineering work was carried out in summer 1980. It outlined how the available funds should be used and what future work with excavating machines was necessary. This document was sent to the Malta Ornithological Society so that together with the Development Plan of 1978 it would be circulated to all concerned to facilitate discussion on the project.
- 1980 - Ghadira Malta: Development as a national nature reserve — H.E. Axell
- This paper was presented at the 12th Conference of the European Continental Section of the International Council for Bird Preservation — Malta November 1980. In his paper Mr Axell outlined the plans for developing Ghadira as a national nature reserve.
- 1981 - Second report on Ghadira — Society for the Study and Conservation of Nature
- This report was issued by the Committee of the Society for the Study and Conservation of Nature and was based on a draft report prepared by P.J. Schembri. It outlines the diversity of habitats at Ghadira and makes a number of recommendations aimed at reducing the negative impact of the habitat engineering works on the vista of the reserve.
- 1981 - The Ghadira Development Plan: a reappraisal — M.A. Thake. A report which evaluates the feasibility of the second phase of Axell's Ghadira Development Plan.
- 1982-83 - Ghadira — the making of a reserve — Parts I & II. *Bird's Eye View* Nos. 5 (pp11 - 14) + 6 (pp4 - 8) — (J. Sultana ed.)
- This report which appeared in two parts gives detailed information of all the work which was being carried out at Ghadira to turn it into a nature reserve according to Axell's plan.