MAL003 - L-Ghadira z-Zghira

Description

This marshland is found in the southeastern corner of L-Għadira Natura 2000 site, is triangular in shape and is bordered to the south by a road used by farmers to access agricultural land located to the south of the marshland. The western boundary of the marshland is demarcated by the boundary wall of the Mellieha Holiday Complex. The northeastern boundary of the marshland is flanked by the arterial road. Thus, the marshland, in its current state is surrounded by anthropogenic influences. Il-Ħofra saline marshland is included within the same Natura 2000 site as MAL001 (L-Għadira). Il-Ħofra saline marshland is a Level 1 Area of Ecological Importance. The marshland is surrounded by a buffer Level 3 Area of Ecological Importance. Il-Ħofra is characterised by a muddy substratum on which a pool of brackish water collects in the wet season. The marshland is maintained by seasonal fluctuations in precipitation, run-off, evaporation, and groundwater seepage. Coastal tidal fluctuations have an insignificant control. During the dry season the water in the saline marshland becomes progressively brackish until it becomes hyper saline and finally dries out completely until the following wet season. The ecosystem at the marshland depends significantly on groundwater from the Mellieha coastal aquifer. Run-off from a series of valleys dissecting the northern side of the Mellieha Ridge also feeds the marshland. The marshland receives run-off from Wied Ingraw, Wied il-Ħanżira, Wied il-Ħalqun, and Wied ta' Randa. Run-off from il-Bisqra also reaches Il-Ħofra marshland.The marshland is relatively degraded. The central marshland area is characterised by typical marshland species, namely Juncus subulatus, Juncus acutus, and Phragmites australis. These species grow around a depression where water collects. Dried Salicornia ramosissima and Suaeda maritima were recorded growing in the depression. The marshland area (dominated by Juncus subulatus) creates a boundary around a central area that includes Tamarix sp trees and a more disturbed area dominated by Dittrichia viscosa and Foeniculum vulgare. Single specimens of Urginea pancration and Anthyllis hermanniae were recorded in this area. Specimens of Juncus acutus also grow within this area. A number of species typical of coastal, salty habitats were recorded including Aetheorhiza bulbosa, Lotus cytisoides, Atriplex prostata, and Parapholis filiformis. Other species recorded include, Evidence of disturbance to the site included dumped material and the presence of species such as Cynodon dactylon, Oxalis pes-caprae, Dittrichia viscosa, Galium murale, Lagurus ovatus, and Foeniculum vulgare. Inula crithmoides and Beta maritima also grow within the marshland. The marshland is further disturbed as a result of its interruption by the arterial road running along its northern boundary. The northern edge of the site includes mounds of material, presumably resulting from the construction of the road embankment. This area is dominated by Arundo donax. Several Acacia saligna trees grow closer to the western boundary of the marshland (close to the Mellieha Holiday Complex boundary wall). The westernmost area of the marshland (boundary with the Mellieha Holiday Complex) includes species typical of degraded habitats and segetal species.This wetland once supported a significant population of Carex extensa which is listed in the Red Data Book (RDB) as an Endangered Species with a restricted distribution in the Maltese Islands.

Threats to Il-Ħofra include:
•Disturbance of the watercourses that supply it with freshwater;
•Pollution related to agricultural activities in the neighbouring areas; and
•Trampling from cars associated with the urbanisation of the area especially in summer months. Degradation of the marshland is also attested to artificial planting, mostly of Acacia saligna and Arundo donax, which was carried out around the Għadira wetland, following the re-engineering works.

General information

Basic information

Wetland location:	Marine/Coastal
Wetland type:	Natural
Natural / Artificial:	Marsh / Swamp
Area (Ha):	0.80
Hydrological interaction with other wetland:	No -
Water salinity:	Brackish (5.0-18.0 g/l)
Fresh water entry:	Catchment area (precipitation)
Surface water runoff:	There is no obvious water outflow
Open water area (%):	5 - 25
Hydroperiod:	Permanent

Geographic information

Census district:	Northern
Island:	Malta
Local council:	Il-Mellieha
Coordinates (WGS84):	14.352040 E - 35.966180 N

Wetland condition

Wetland condition:	3 - Original habitats/landform partially modified (10-50% untouched)

Ramsar wetland types

Ramsar type	Coverage (%)
H -- Intertidal marshes; includes salt marshes, salt meadows, saltings, raised salt marshes; includes tidal brackish and freshwater marshes	

Property status

Public

Protection statuses & other designations

Protection status

Protection status category	Protection status subcategory	Site name	Code	Coverage (%)	Legislation
National	Area of Ecological Importance	Bur salmastru fil-Hofra (l/tal-Mellieha)	174740	100	Development Planning Act (Act VII of 2016)
National	Bird Sanctuary	Il-madwar ta' l-Ghadira, fil-Bajja tal-Mellieha	11704	89	Environment Protection Act (Act I of 2016)
International	Special Areas of Conservation - International Importance	L-Inhawi ta' l-Ghadira	330721	100	Environment Protection Act (Act I of 2016)
International	Special Protection Areas	L-Inhawi ta' l-Ghadira	555552404	100	Environment Protection Act (Act I of 2016)

CDDA protection status

CDDA code	Category
MT01	Area of Ecological Importance
MT03	Bird Sanctuary
MT11	Special Areas of Conservation - International Importance
MT13	Special Protection Areas

Ecosystem Services, Activities & Impacts

Ecosystem Services

Type of Ecosystem service	Ecosystem service	Scale of Benefit	Importance
Regulatory services	Storm hazard regulation		
Regulatory services	Water regulation		
Supporting services	Provision of habitat		

Activities on wetland

Activities	Intensity
010 = Habitat conservation	High
423 = disposal of inert materials	High
701 = water pollution	High
954 = invasion by a species	High

Activities on drainage basin

Activities	Intensity
100 = Cultivation	High
110 = Use of pesticides	High
120 = Fertilisation	High
130 = Irrigation	High
402 = discontinuous urbanisation	High
430 = Agricultural structures	Medium
501 = paths tracks cycling tracks	High
502 = roads motorways	High
701 = water pollution	High
810 = Drainage	High
830 = Canalisation	High

Impacts

Impact type	Intensity
EW- = Increase in wilderness/wildlife values	
HF- = Habitat fragmentation	
HL- = Habitat loss	
PF- = Fertilizer/Excess nutrient pollution	
PP- = Pesticide pollution	
VC- = Change in vegetative species composition	
VCX = Introduction of exotic floral species	
VP- = Decrease in population of floral species	
VS- = Change in vegetative structure	

Habitats & Vegetation

Habitat types

Habitat types	Coverage (%)
1410 Mediterranean salt meadows (Juncetalia maritimi)	26 - 50
92D0 Southern riparian galleries and thickets (Nerio-Tamaricetea and Securinegion tinctoriae)	26 - 50

Vegetation types

Vegetation type	Coverage (%)
Ammophilous	
Emergent	5 - 25

Halophytic	
Other	
Shrubby / Arborescent	26 - 50
Wet meadow	26 - 50

Species

Flora

Species	Dominance	Reference
Acacia saligna		
Aetheorhiza bulbosa		
Anthyllis hermanniae subsp. melitensis		
Antirrhinum siculum		
Arundo donax		
Atriplex prostrata		
Beta vulgare subsp. Maritima		
Chasmanthe bicolor		
Conyza bonariensis		
Cynodon dactylon		
Diplotaxis erucoides		
Diplotaxis tenuifloia		
Dittrichia viscosa		
Erodium moschatum		
Euphorbia pinea		
Foeniculum vulgare		
Galium murale		
Glebionis coronaria		
Jacobaea crithmoides		
Juncus acutus		
Juncus subulatus		
Lagurus ovatus		
Lotus cytisoides		
Mercurialis annua		
Oxalis pes-caprae		
Parapholis filiformis		
Phoenix canariensis		
Salicornia ramosissima		
Suaeda maritima		
Tamarix africana		
Urginea pancration		

Fauna

Mammals	Presence in wetland	References
Mustela nivalis (L., 1766)		
Myotis punicus (Felten, 1977)		
Nyctalus noctula (Schreber, 1774)		
Pipistrellus kuhlii (Kuhl, 1817)		
Pipistrellus pipistrellus (Schreber, 1774)		
Plecotus austriacus (Fischer, 1829)		
Rhinolophus hipposideros (Bechstein, 1800)		
Suncus etruscus (Savi, 1822)		

Birds	Population	Nesting status	References
Calidris alpina (Linnaeus, 1758)			
Calidris minuta (Leisler, 1812)			

Ardeola ralloides (Scopoli, 1769)			
Ixobrychus minutus (Linnaeus, 1766)			
Acrocephalus schoenobaenus (Linnaeus, 1758)			
Cisticola juncidis (Rafinesque, 1810)			
Emberiza calandra (Linnaeus, 1758)			
Erithacus rubecula (Linnaeus, 1758)			
Passer hispaniolensis (Temminck, 1820)			
Phylloscopus collybita (Vieillot, 1817)			
Phylloscopus sibilatrix (Bechstein, 1793)			
Phylloscopus trochilus (Linnaeus, 1758)			
Saxicola rubetra (Linnaeus, 1758)			
Sylvia communis (Latham, 1787)			
Sylvia melanocephala (J.F. Gmelin, 1789)			
Tachybaptus ruficollis (Pallas, 1764)			

Reptiles	**Presence in wetland**	**References**
Chalcides ocellatus tiligugu (Gmelin, 1789)		
Chamaeleo chamaeleon (Linnaeus, 1758)		
Coluber viridiflavus carbonarius (Bonaparte, 1833)		
Hemidactylus turcicus (Arnold, 1980)		
Podarcis filfolensis maltensis (Mertens, 1921)		
Tarentola mauritanica (Linnaeaus, 1758)		
Telescopus fallax (Fleischmann, 1831)		
Zamenis situla (Linnaeus, 1758)		

Invertebrates	**Presence in wetland**	**References**
Tetragnatha extensa (Linnaeus, 1758)		
Anthicus fenestratus (W.L.E. Schmidt, 1842)		
Cyclodinus humilis (Germar, 1824)		
Cyclodinus minutus (La Ferté-Sénectère, 1842)		
Leptaleus rodriguesi (Latreille, 1804)		
Anoxia australis (Gyllenhal, 1817)		
Scarabeus semipunctatus (Fabricius, 1792)		
Allophylax picipes melitensis (Baudi de Selve, 1876)		
Ammobius rufus (Lucas, 1849)		
Erodius siculus melitensis (Reitter, 1914)		
Pseudoseriscius cameroni (Reitter, 1902)		
Stenosis melitana (Reitter, 1894)		
Stenosis schembrii (Canzoneri, 1979)		
Protrama baronii		
Philanthus raptor siculus (Giordani Soika, 1944)		
Smicromyrme n.sp.(?)		
Tachyagetyes n.sp. (?)		
Prionyx viduatus (Christ, 1791)		
Coleophora mellechella (Toll, 1962)		
Brachytrupes megacephalus (Lefèvre, 1827)		
Odontura stenoxipha (Fieber, 1853)		
Gammarus aequicauda (Martynov, 1931)		

References

Adi Associates Environmental Consultants Ltd (2004) Mellieħa Bay: Regional Environmental Assessment.

Adi Associates Environmental Consultants Ltd (2009) Existing to existing Seabank Hotel and extension of facilities, Triq il-Marfa – Mellieħa: Environmental Impact Statement

Adi Epsilon Consortium (2014f) L-Inhawi tal-Ghadira – Natura 2000 Management Plan (SAC). Prepared for the Malta Environment and Planning Authority under CT3101/2011. San Gwann, Malta, pp. 112 + Annex

Representative Image & Map


MAL003
L-Ghadira z-Zghira
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