



MAL001 - L-Ghadira

Description

The Għadira Wetland falls within a Special Area of Conservation (SAC) and Special Protection Area (SPA) found within the Mellieħa locality boundary. To the north of the site is the Marfa Ridge whilst to the south is the Mellieħa Ridge. The site is one of the richest in biodiversity, particularly for avifauna. It supports one of the most successful bird sanctuaries in the country, acting as a nesting and breeding site for several protected species. The latter aspect attracts many visitors to the area, making the Għadira reserve the most popular Wetland Reserve in Malta, with around 8,000 visitors a year, many of whom include school children. In view of this, this SAC is an important site for ecotourism and environmental education. The Għadira Wetland is one of two Ramsar sites in the Maltese Islands. This inland surface water body is protected as a lake under the Water Framework Directive (200/06/EC, LN 198/04). Studies undertaken between 1985 and 1986 showed that salinity in the reserve's wetland varied from 7 to 40‰. The salinity fluctuations are related to precipitation and sea water seepage. In summer the precipitation is at its lowest and the sea water seeps in the wetland. Increased evaporation contributes to increase the levels of salinity. The Coastal Lagoon (habitat 1150*) at L-Għadira is considered to be probably the best example of this habitat in the Maltese Islands. The lagoon supports a thriving population of the endemic Annex II species, the Maltese Killifish and a considerable number of Annex I bird and migratory bird species. The lagoon also presents suitable foraging habitat for bats. Over 100 species of invertebrates are known from the reserve as well as the only species of amphibian in the Maltese Islands, the Painted Frog. The main reason behind the creation of the Għadira wetland was to provide a variety of bird species with ideal breeding grounds, as well as an important feeding and resting area for migratory birds. The Black winged Stilt is establishing a breeding population within the Għadira lagoon. Other breeding birds at the reserve include the Little Ringed Plover and the Moorhen, and the passerines the Zitting Cisticola, the Sardinian Warbler and Cetti's Warbler. The Short-toed Lark has a breeding population of 3-5 pairs at the garrigue patch situated in the western end of the site. The reserve is an important stopover in both spring and autumn migration periods. Over 100 migratory bird species have been recorded at L-Għadira Wetland Reserve and flocks of herons and egrets can exceed fifty birds at any one time. Passerines also winter within the reserve. The dune habitat is heavily disturbed as a result of the road that intersects the dune system, disconnecting it from the beach. Reclamation for agriculture and habitat modification prior to the Wetland Reserve creation obliterated the largest part of the remaining inland dunes. Nowadays, a remnant habitat, of an area of 11,300 m² patch is present within the outer grove of the Għadira Wetland Reserve. This habitat patch is still densely vegetated with alien species, including invasive Acacia and ruderals. Two Annex II invertebrate species are known from this area, a cricket and a beetle. Foresta 2000, an afforestation project that has been carried out on part of the ridge above the wetland has created safe roosting habitat and attracts raptor species. Migrant passerines rest and forage at the garrigue and arboreal habitats. Several activities exert pressure on the ecology of the site. The Għadira area is popular with tourists and experiences pressures from recreational activities as well as pressure from development including impacts from noise, trampling, habitat disturbance and habitat loss. Overuse of fertilizers and pesticides from surrounding agricultural practices exerts pressure on the wetland from eutrophication and water pollution. Hunting is prohibited in the entire SAC/SPA site since the area falls within a Bird Sanctuary, however, poaching is practiced in the areas bordering the SAC/SPA. Poachers' intrusions and poaching within the Bird Sanctuary, resulting in losses of rare Annex I bird species, is not uncommon. Other activities that involve the removal or collection of animals also impacts wildlife at this site. Trapping might be still present in private land and illegally practiced also in public land. As a practice it is responsible for vegetation clearings and habitat modification, disturbance of wildlife and direct biodiversity loss. Localised dumping is evidenced amongst the Annex I habitats that are close to the access road.

General information

Basic information

Wetland location:	Marine/Coastal
Wetland type:	Natural
Natural / Artificial:	Wetland system
Area (Ha):	8.10
Hydrological interaction with other wetland:	No -
Water salinity:	Brackish (5.0-18.0 g/l)
Fresh water entry:	Catchment area (precipitation)
Surface water runoff:	Outflow controlled by pipeline
Open water area (%):	76 - 95
Hydroperiod:	Permanent

Geographic information

Census district:	Northern
Island:	Malta
Local council:	Il-Mellieha
Coordinates (WGS84):	14.347440 E - 35.970130 N

Wetland condition

Wetland condition:	
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Ramsar wetland types

Ramsar type	Coverage (%)
J -- Coastal brackish/saline lagoons; brackish to saline lagoons with at least one relatively narrow connection to the sea	

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/Site of Scientific Importance	L-Inhawi ta' I-Ghadira mill-Bajja tal-Mellieha sac-Cumnija fil-Mellieha	330747	100	Development Planning Act (Act VII of 2016)
National	Bird Sanctuary	Il-madwar ta' I-Ghadira, fil-Bajja tal-Mellieha	11704	100	Environment Protection Act (Act I of 2016)
International	Special Areas of Conservation - International Importance	L-Inhawi ta' I-Ghadira	330721	100	Environment Protection Act (Act I of 2016)
International	Special Protection Areas	L-Inhawi ta' I-Ghadira	555552404	100	Environment Protection Act (Act I of 2016)
International	Ramsar Sites	L-Ghadira		100	
International	Transitional waters	L-Ghadira	MT TW 05	100	Water Framework Directive

CDDA protection status

CDDA code	Category
MT02	Area of Ecological Importance/Site of Scientific 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
Cultural services	Cultural heritage		
Cultural services	Recreation and tourism		
Supporting services	Provision of habitat		

Activities on wetland

Activities	Intensity
010 = Habitat conservation	High
030 = Species conservation	High
160 = General forestry management	High
162 = artificial planting	High
610 = Interpretative centres	High
701 = water pollution	High
830 = Canalisation	High
853 = management of water levels	High
952 = eutrophication	Low

Activities on drainage basin

Activities	Intensity
010 = Habitat conservation	High
030 = Species conservation	High
100 = Cultivation	High
110 = Use of pesticides	High
120 = Fertilisation	High
130 = Irrigation	High
160 = General forestry management	High
402 = discontinuous urbanisation	Medium
430 = Agricultural structures	Medium
502 = roads motorways	High
625 = gliding delta plane paragliding ballooning	High
701 = water pollution	High

Impacts

Impact type	Intensity
EB- = Increase in aesthetic qualities	
EP- = Reduction of salt intrusion potential	
ER- = Increase in flow regulation	
EU- = Increase of tourist/recreation potential	
EW- = Increase in wilderness/wildlife values	
PC- = Chemical pollution	
PF- = Fertilizer/Excess nutrient pollution	
PP- = Pesticide pollution	

Habitats & Vegetation

Habitat types

Habitat types	Coverage (%)
1150 * Coastal lagoons	26 - 50
1310 Salicornia and other annuals colonizing mud and sand	5 - 25
1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>)	5 - 25

1420 Mediterranean and thermo-Atlantic halophilous scrubs (<i>Sarcocornetea fruticosi</i>)	5 - 25
2220 Dunes with <i>Euphorbia terracina</i>	< 5

Vegetation types

Vegetation type	Coverage (%)
Ammophilous	
Emergent	< 5
Halophytic	5 - 25
Other	
Shrubby / Arborescent	5 - 25
Wet meadow	

Species

Flora

Species	Dominance	Reference
<i>Acacia saligna</i>		
<i>Jacobaea crithmoides</i>		
<i>Juncus acutus</i>		
<i>Juncus subulatus</i>		
<i>Orobancha densiflora</i>		
<i>Oxalis pes-caprae</i>		
<i>Pancratium maritimum</i>		
<i>Phragmites australis</i>		
<i>Pinus halepensis</i>		
<i>Pistacia lentiscus</i>		
<i>Punica granatum</i>		
<i>Rhamnus alaternus</i>		
<i>Salicornia ramosissima</i>		
<i>Tamarix africana</i>		
<i>Tetraclinis articulata</i>		

Fauna

Mammals	Presence in wetland	References
<i>Mustela nivalis</i> (L., 1766)		
<i>Myotis punicus</i> (Felten, 1977)		
<i>Nyctalus noctula</i> (Schreber, 1774)		
<i>Oryctolagus cuniculus</i> (Linnaeus, 1758)		
<i>Pipistrellus kuhlii</i> (Kuhl, 1817)		
<i>Pipistrellus pipistrellus</i> (Schreber, 1774)		
<i>Plecotus austriacus</i> (Fischer, 1829)		
<i>Rhinolophus hipposideros</i> (Bechstein, 1800)		
<i>Suncus etruscus</i> (Savi, 1822)		

Birds	Population	Nesting status	References
<i>Circus aeruginosus</i> (Linnaeus, 1758)			
<i>Circus cyaneus</i> (Linnaeus, 1766)			
<i>Circus macrourus</i>			
<i>Circus pygargus</i> (Linnaeus, 1758)			
<i>Anas crecca</i> (Linnaeus, 1758)			
<i>Aythya ferina</i> (Linnaeus, 1758)			
<i>Actitis hypoleucos</i> (Linnaeus, 1758)			
<i>Calidris alpina</i> (Linnaeus, 1758)			
<i>Calidris ferruginea</i> (Pontoppidan, 1763)			

<i>Calidris minuta</i> (Leisler, 1812)		
<i>Charadrius dubius</i> (Scopoli, 1786)		
<i>Gallinago gallinago</i> (Linnaeus, 1758)		
<i>Himantopus himantopus</i> (Linnaeus, 1758)		
<i>Scolopax rusticola</i> (Linnaeus, 1758)		
<i>Ardeola ralloides</i> (Scopoli, 1769)		
<i>Ixobrychus minutus</i> (Linnaeus, 1766)		
<i>Alcedo atthis</i> (Linnaeus, 1758)		
<i>Gallinula chloropus</i> (Linnaeus, 1758)		
<i>Rallus aquaticus</i> (Linnaeus, 1758)		
<i>Acrocephalus schoenobaenus</i> (Linnaeus, 1758)		
<i>Anthus spinoletta</i> (L, 1758)		
<i>Calandrella brachydactyla</i> (Leisler, 1814)		
<i>Cettia cetti</i> (Temminck, 1820)		
<i>Cisticola juncidis</i> (Rafinesque, 1810)		
<i>Emberiza pusilla</i>		
<i>Emberiza schoeniclus</i> (Linnaeus, 1758)		
<i>Erithacus rubecula</i> (Linnaeus, 1758)		
<i>Ficedula semitorquata</i> (Homeyer, 1885)		
<i>Phylloscopus collybita</i> (Vieillot, 1817)		
<i>Phylloscopus sibilatrix</i> (Bechstein, 1793)		
<i>Phylloscopus trochilus</i> (Linnaeus, 1758)		
<i>Saxicola rubetra</i> (Linnaeus, 1758)		
<i>Sylvia communis</i> (Latham, 1787)		
<i>Sylvia melanocephala</i> (J.F. Gmelin, 1789)		
<i>Jynx torquilla</i> (Linnaeus, 1758)		
<i>Tachybaptus ruficollis</i> (Pallas, 1764)		

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

Amphibians	Presence in wetland	References
<i>Discoglossus pictus</i> (Otth, 1837)		

Fishes	Presence in wetland	References
<i>Aphanius fasciatus</i> (Valenciennes, 1821)		

Invertebrates	Presence in wetland	References
<i>Tetragnatha extensa</i> (Linnaeus, 1758)		
<i>Anthicus fenestratus</i> (W.L.E. Schmidt, 1842)		
<i>Cyclodinus humilis</i> (Germar, 1824)		
<i>Cyclodinus minutus</i> (La Ferté-Sénéctère, 1842)		
<i>Leptaleus rodriguesi</i> (Latreille, 1804)		
<i>Anoxia australis</i> (Gyllenhal, 1817)		
<i>Scarabeus semipunctatus</i> (Fabricius, 1792)		
<i>Allophylax picipes melitensis</i> (Baudi de Selve, 1876)		
<i>Ammobius rufus</i> (Lucas, 1849)		
<i>Erodium siculum melitensis</i> (Reitter, 1914)		
<i>Pseudoseriscius cameroni</i> (Reitter, 1902)		
<i>Stenosis melitana</i> (Reitter, 1894)		
<i>Stenosis schembrii</i> (Canzoneri, 1979)		

Protrama baronii		
Philanthus raptor sículus (Giordani Soika, 1944)		
Smicromyrme n.sp.(?)		
Tachyagetyes n.sp. (?)		
Prionyx viduatus (Christ, 1791)		
Coleophora mellechella (Toll, 1962)		
Trithemis annulata (Palisot de Beauvois, 1807)		
Brachytripes megacephalus (Lefèvre, 1827)		
Odontura stenoxipha (Fieber, 1853)		
Gammarus aequicauda (Martynov, 1931)		

References

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Representative Image & Map

