



MAL063 - Il-Magħluq tal-Baħar ta' Marsaskala

Description

The Special Area of Conservation (SAC) of Il-Magħluq tal-Baħar ta' Marsaskala is found within the Marsaskala locality boundary. The site is characterised by a body of brackish water which was originally two interconnected ponds. Triq il-Gardiell runs parallel to the elongated saline marshland's eastern side. The marshland is separated from the sea by a narrow strip of land although there is a connection to the marine environment via two pipes laid under the road. Sea water incursions are common during storms and bad weather. The pool also has agricultural land on its western and southern sides. In the late 1990s the site was fenced by the former Environment Protection Department. The habitats of importance in this SAC (listed in the Habitats Directive under Annex I) include: Coastal lagoons (Habitat 1150*); and Mediterranean salt meadows (subject to flooding by sea water) (Habitat 1410). The natural system of this wetland has been altered and no historical data was found to help in the safe reconstruction of an image of the natural past, or in tracking the successive human interventions that led to the present state. Judging from the tidal action, the coastal topography, the watercourse and associated flooding, and the persisting remnants of dunes it is likely that this was an unstable tidal area which, depending on the balance of fresh-saline water, would take the form of an estuary or a coastal lagoon. This wetland system would have a varying size depending on the climatic conditions but occasionally the whole terrain lying behind Marsaskala Bay and included within the 0-2m contours would be influenced by the combined action of the tide and the watercourse. The area within the SAC occupied today by fields is actually the natural collector of Marsaskala basin rainwater. The heavy engineering interventions imposed upon the natural wetland system have resulted in the following two major constraints. Firstly, the confinement of the lagoon. The encapsulation of the lagoon has obliterated the natural floodplain of the wetland. The construction of the asphalted road and promenade has resulted in the severance of the site from the sea. The two pipes present under the road are inadequate to ensure a proper connection between the lagoon and the marine environment and sea water incursions occur mainly during storms and when the pipes are not blocked with sand, debris, marine vegetation and other litter. A second constraint is the size of the wetland. The reduction of the natural extent of the lagoon combined with its confinement have greatly reduced the system's resilience, both against natural events such as occasional anoxic conditions through summer (not infrequent in Mediterranean coastal lagoons), and trivial anthropogenic constraints such as agrichemical runoff from contiguous fields, general littering, or incidental imbalance of the biotic load resulting from the introduction of domestic ducks to the site. Fertiliser and pesticide-contaminated runoff from surrounding fields exacerbates the impact of low dissolved oxygen levels in the water during summer months caused by occasional natural eutrophication events and possibly lack of adequate water circulation. Certain contaminants have also been recorded, that indicate other sources of contamination apart from agriculture; however, the contaminant levels are low. The site is under threat from invasive alien species including the fish, the Mullet, which may compete with the resident Killifish. In addition, a mixed flock of ducks had established breeding populations in the fringes of the lagoon such that a population of some 70 birds had become established. Over recent years, however, most of this population has been removed save for a handful of individuals. The NTM site manager regularly removes eggs in order to avoid further growth of the population. The presence of these populations within the SAC had resulted in siltation, water pollution and eutrophication of the lagoon, the effect of which was exacerbated by the limited size and confinement of the lagoon. The excessive numbers of waterfowl also impacted the salt meadows present at the back of the lagoon causing soil erosion, vegetation trampling and habitat modification, the effect of which was again exacerbated by the limited size of the habitat. The ducks also result in direct impacts to the Killifish including disturbance and displacement. Incidental consumption of Killifish larvae, normally insignificant, may also have had an impact on this confined population. In addition, other wild species are possibly displaced by these territorial species. Finally, the presence of domestic animals, regardless of population size and ecological impacts, further diminishes the site's social value; not necessarily from an aesthetic point of view, but mainly as regards people's, and especially children's, perception of real nature and wildlife. The excessive dumping and littering have also resulted in rat infestation of the site.

General information

Basic information

Wetland location:	Marine/Coastal
Wetland type:	Artificial
Area (Ha):	0.50
Hydrological interaction with other wetland:	No -
Fresh water entry:	Catchment area (precipitation)
Surface water runoff:	Outflow controlled by pipeline
Open water area (%):	76 - 95
Hydroperiod:	Permanent

Geographic information

Census district:	South Eastern
Island:	Malta
Local council:	Marsaskala
Coordinates (WGS84):	14.562420 E - 35.861780 N

Biological significance

Biological significance:	Low
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Ramsar wetland types

Ramsar type	Coverage (%)
2 -- Ponds; includes farm ponds, stock ponds, small tanks; (generally below 8 ha)	

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	Bur salmastru fil-Maghluq (l/ta' Wied il-Ghajn)	14785	100	Development Planning Act (Act VII of 2016)
International	Special Areas of Conservation - International Importance	Il-Maghluq tal-Bahar (l/ta' Marsascala)	330717	100	Environment Protection Act (Act I of 2016)
International	Transitional waters	Il-Maghluq ta' Marsascala	MT TW 02	100	Water Framework Directive

CDDA protection status

CDDA code	Category
MT02	Area of Ecological Importance/Site of Scientific Importance
MT11	Special Areas of Conservation - International Importance

Ecosystem Services, Activities & Impacts

Ecosystem Services

Type of Ecosystem service	Ecosystem service	Scale of Benefit	Importance
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Cultural services	Recreation and tourism		
Regulatory services	Flood hazard regulation		
Regulatory services	Water purification		
Supporting services	Nutrient cycling		
Supporting services	Provision of habitat		

Activities on wetland

Activities	Intensity
010 = Habitat conservation	High
020 = Resource conservation	High
030 = Species conservation	High
040 = Land restoration	Low
100 = Cultivation	Low
162 = artificial planting	Medium
220 = Leisure fishing	Low
701 = water pollution	High
702 = air pollution	Medium
703 = soil pollution	Medium
720 = Trampling overuse	Low
740 = Vandalism	Medium
820 = Removal of sediments (mud...)	Low
840 = Flooding	Low
852 = modifying structures of inland water courses	High
952 = eutrophication	Medium
954 = invasion by a species	High
962 = parasitism	Medium
965 = predation	High

Activities on drainage basin

Activities	Intensity
100 = Cultivation	High
110 = Use of pesticides	High
120 = Fertilisation	High
130 = Irrigation	High
220 = Leisure fishing	Medium
401 = continuous urbanisation	High
419 = other industrial / commercial areas	High
430 = Agricultural structures	Low
502 = roads motorways	High
710 = Noise nuisance	High
830 = Canalisation	Medium
852 = modifying structures of inland water courses	High

Impacts

Impact type	Intensity
AS- = Loss of scenic value	
FCP = Introduction of animal pests	
FP- = Decrease in population of faunal species	
LR- = Decrease in flow regulation	
LU- = Decrease in tourist/recreation potential	
LW- = Decrease in wilderness/wildlife values	
PP- = Pesticide pollution	
VCD = Loss of floral diversity	
WF- = Increase in flooding	
WR- = Altered flow regime	
WS- = Salt water intrusion	

Habitats & Vegetation

Habitat types

Habitat types	Coverage (%)
1150 * Coastal lagoons	> 95
1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>)	< 5

Vegetation types

Vegetation type	Coverage (%)
Halophytic	
Other	
Submerged	51 - 75
Wet meadow	5 - 25

Species

Flora

Species	Dominance	Reference
<i>Aster squamatus</i>		
<i>Avena</i> sp.		
<i>Cynodon dactylon</i>		
<i>Dittrichia viscosa</i>		
<i>Foeniculum vulgare</i>		
<i>Jacobaea crithmoides</i>		
<i>Juncus maritimus</i>		
<i>Limonium virgatum</i>		
<i>Piptatherum miliaceum</i>		
<i>Ruppia</i> sp.		
<i>Tamarix africana</i>		

Fauna

Birds	Population	Nesting status	References
<i>Anas acuta</i> (Linnaeus, 1758)			
<i>Anas clypeata</i> (Linnaeus, 1758)			
<i>Anas crecca</i> (Linnaeus, 1758)			
<i>Anas falcata</i> (Georgi, 1775)			
<i>Anas formosa</i> (Georgi, 1775)			
<i>Anas penelope</i> (Linnaeus, 1758)			
<i>Anas platyrhynchos</i> (Linnaeus, 1758)			
<i>Anas querquedula</i> (Linnaeus, 1758)			
<i>Anas strepera</i> (Linnaeus, 1758)			
<i>Cairina moschata</i>			

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

References

Adi Epsilon Consortium (2014i) Il-Magħluq tal-Bahar ta' Marsaskala - Natura 2000 Management Plan (SAC). Prepared for the Malta Environment and Planning Authority under CT3101/2011. San Gwann, Malta, pp. 112 + Annex

ERA (2015) The 2 nd Water Catchment Management Plan for the Malta Water Catchment District 2015 - 2021

Zammit-Mangion, M., Deidun, A., Vassallo-Agius, R. & Magri, M., (2011) Management of Threatened *Aphanius Fasciatus* at Il-Magħluq, Malta. Rhodes, Greece, s.n.

Representative Image & Map



