

## MAL082 - II-Ballut ta' Marsaxlokk

### **Description**

The Special Area of Conservation (SAC) of II-Ballut ta' Marsaxlokk is found within the Marsaxlokk locality boundary in the south east of Malta and is within the north-east corner of Marsaxlokk Bay. The site is also protected as a Bird Sanctuary, Area of Ecological Importance and a Site of Scientific Importance. The area is located between the Marsaxlokk settlement and approximately 250 m from the Delimara power station. To the north of the site there is the Tas-Silġ hill. Il-Ballut saline marshland (coastal wetland) is located immediately adjacent to II-Magħlug ta' Marsaxlokk, a man-made enclosure for fishermen's vessels. The area east of the site is predominantly used for agricultural activities. The main hydrological features are the lagoons or water pools. These water pools are desiccated during the dry season except for two pools. During the wet season the water pools overflow to fill a large extent of the saline marshland. Hypersaline conditions have been recorded during the dry season reaching a maximum of 71 X 10-3µscm-1. During the wet season salinity levels were much lower (55X 10-1µscm-1) and approached the levels of freshwater. The pH varied from 92 to 72 (Nature Trust, 2005 citing Bonello, 1992). The II-Ballut marshland is designated as transitional water (MT203) under the Water Framework Directive 2000/60/EC. The backshore of the II-Ballut marshland is a sloping topography from the Tas-Silġ area. A watercourse meanders down from the Tas-Silġ area in the direction of the marshland. Il-Ballut ta' Marsaxlokk is part of a 0.68 km2 hydrological catchment. This catchment is of high significance to the SAC. In the past (during the 1990s) there was a problem of illegal sewage infiltration from farm effluent (personal communication, Vincent Attard, 2012). The contaminated water passed beneath Trig il-Power Station into the saline marshland. This issue has now been resolved since the farm is no longer operational. The habitats of importance in this SAC (listed in the Habitats Directive under Annex I) include:

- Salicornia (Twiggy Glasswort) and other annuals (plants that complete their life cycle within one year) colonising mud and sand (Habitat 1310);
- Mediterranean salt meadows (subject to flooding by sea water) (Habitat 1410); and
- Mediterranean and thermo-Atlantic halophilous scrubs (perennial vegetation of marine saline muds) (Habitat 1420).

Although no Annex II species have been noted at the site, a number of invertebrate species listed in the Red Data Book (RDB) have been recorded on site that are of conservation importance. Several threats exert pressure on the ecology of the site. There is evidence that coastal erosion could be a threat to maintaining the saltmarsh in its current state. Erosion has resulted in damage to the surrounding fence and some areas with vegetation are now also in direct contact with the sea. Two major point activities operating outside the site and possibly affecting it are identified. These are the Power Station located to the east of the site and the Marsaxlokk marina adjacent to the site. Other threats to the site include motorbikes off-roading/scrambling within the site, and in general people can access the site unrestricted. The site is also subject to dumping, and litter and waste accumulate at the site that are most likely washed ashore by the sea. Noise and light pollution may be a limiting factor to wildlife, given the small size of the site and the urbanised surroundings. Runoff from the fields east of the saltmarsh reaches the habitat from underneath the road. Impacts from pesticides could affect the saltmarsh communities and fertilisers in the run-off may affect the water quality in the coastal lagoons. A gutter also lies parallel to the edge of the site adjacent to the road. A culvert lies along the western border of the habitat that connects with the sea. The aim of the culvert is to prevent flooding in neighbouring fields from the area in case of heavy rain and at the same time allow a link with the sea, however, the culvert is not currently operating as planned and a connection with the sea is not consistent. The saltmarsh habitats may be vulnerable to invasion by alien species such as the Castor Oil Tree. Non typical marshland species are also established. There is evidence of hunting activities taking place within the protected area. Hunting within the saltmarsh could result in negative impacts on the vegetation communities and impacts on birds using the area.

#### **General information**

#### **Basic information**

Wetland location:	Marine/Coastal
Wetland type:	Natural
Natural / Artificial:	Wetland system
Area (Ha):	1.10
Hydrological interaction with other wetland:	No -
Water salinity:	Brackish (5.0-18.0 g/l)
Fresh water entry:	Catchment area (precipitation)
Surface water runoff:	Other
Open water area (%):	5 - 25
Hydroperiod:	Permanent

#### **Geographic information**

Census district:	South Eastern
Island:	Malta
Local council:	Marsaxlokk
Coordinates (WGS84):	14.549140 E - 35.839000 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
International	Special Areas of Conservation - International Importance	II-Ballut (I/ta' Marsaxlokk)		100	Environment Protection Act (Act I of 2016)
International	Transitional Waters (WFD)	Il-Ballut ta' Marsaxlokk		100	Water Framework Directive
National	Bird Sanctuary	ll-madwar tal-bur salmastru f' Tal-Ballut, Marsaxlokk		100	Environment Protection Act (Act I of 2016)
National	Area of Ecological Importance/Site of Scientific Importance	Il-Maghluq, limiti ta' Marsaxlokk		100	Development Planning Act (Act VII of 2016)

#### **CDDA** protection status

CDDA code	Category
MT03	Bird Sanctuary
MT11	Special Areas of Conservation - International Importance
MT02	Area of Ecological Importance/Site of Scientific Importance

# **Ecosystem Services, Activities & Impacts**

#### **Ecosystem Services**

Type of Ecosystem service	Ecosystem service	Scale of Benefit	Importance	
Cultural services	Cultural heritage			
Regulatory services	Water regulation			
Supporting services	Provision of habitat			

#### **Activities on wetland**

Activities	Intensity
010 = Habitat conservation	High
030 = Species conservation	Medium
701 = water pollution	High
790 = Other pollution/human impacts/activities	Low

### **Activities on drainage basin**

100 = Cultivation	High
110 = Use of pesticides	High
120 = Fertilisation	High
130 = Irrigation	High
402 = discontinuous urbanisation	Low
430 = Agricultural structures	Low
502 = roads motorways	Medium
701 = water pollution	High
790 = Other pollution/human impacts/activities	Medium

#### **Impacts**

Impact type	Intensity
ED- = Increase in sediment removal/retention	
EF- = Increase in protection from natural forces	
PF- = Fertilizer/Excess nutrient pollution	
PP- = Pesticide pollution	

# **Habitats & Vegetation**

#### **Vegetation types**

Vegetation type	Coverage (%)
Ammophilous	
Emergent	< 5
Halophytic	51 - 75
Other	
Wet meadow	5 - 25

# **Species**

#### **Flora**

Species	Dominance	Reference
Arthrocnemum macrostachyum		
Cakile maritima		

Carex extensa	
Halimione portulacoides	
Jacobaea crithmoides	
Limonium virgatum	
Matthiola tricuspidata	
Pancratium maritimum	
Phragmites australis	
Ricinus communis	
Salicornia ramosissima	
Salsola kali	
Suaeda vera	

#### Fauna

Invertebrates	Presence in wetland	References
Brachygluta globulicollis aubei		
Brachygluta simplex hipponensis		
Stenosis melitana (Reitter, 1894)		
Hydrobia acuta (Draparnaud, 1805)		

#### **References**

Nature Trust Malta (2005) Il-Ballut Nature Reserve, Marsaxlokk: Management Plan for the years 2006-2010

Henwood, J., Falzon, A., Bonello, A., Attard, V., Bonavia, O. (2005) Il-Ballut Nature Reserve, Marsaxlokk: Management Plan for the years 2006-2010. Nature Trust (Malta).

Falzon, A. (1999) An evaluation of the vegetational changes at the nature reserve of il-Ballut saline marshland (Marsaxlokk).International Environmental Institute, University of Malta.

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

Bonello, A. (1992) Vegetational and other changes at il-Ballut saline marshland: A nature reserve in the making (Unpublished B.Sc. dissertation). Faculty of Science, University of Malta.

Bonanno, G., Borg, J. & di Martino, V. (2017) Levels of heavy metals in wetland and marine vascular plants and their biomonitoring potential: a comparative assessment

Adi Epsilon Consortium (2014e) Il-Ballut ta' Marsaxlokk – 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



