



# **Important Bird Areas of EU importance in Malta**

Compiled by John J. Borg and Joe Sultana



# Important Bird Areas of EU importance in Malta

Compiled by John J. Borg and Joe Sultana

July 2004

This publication was produced by BirdLife Malta, printed by the Royal Society for the Protection of Birds (RSPB)

*Front cover illustrations:*

**Photo:** Ta'Cenc Cliffs (credit: Joe Sultana)

**Line drawing:** Yelkouan Shearwater (credit: Paul Hirst)

# **Important Bird Areas of European Union importance in Malta**

**Compiled by**

**John J. Borg & Joe Sultana**

**BirdLife Malta**

## **Introduction**

On 1 May 2004, Malta, together with nine other countries from Eastern and Southern Europe, joined the European Union. This was not only a political event of historic significance, but also a new opportunity to renew conservation efforts to protect the country's important biodiversity. The EU nature directives, namely the Wild Birds Directive and the Habitats Directive had to be adopted and should be in full force from the day of accession. These two Directives contain the provisions to establish a network of protected areas known as Natura 2000. This network consists of sites specifically designated for the conservation of wild birds under the Birds Directive, called Special Protection Areas (SPAs). SPAs should consist the most suitable sites for the conservation of species listed in Annex I of the Directive, as well as for other migratory species. Malta had an obligation to designate these sites by 1 May 2004.

BirdLife International's Important Bird Areas (IBAs) are sites of international importance for the conservation of wild birds world-wide. Within the European Union, sites selected according to the IBA "C" level criteria are designed to satisfy the requirements set by the Birds Directive for the designation of SPAs. The fact that successive IBA inventories represent the best scientific evidence upon which SPAs should be selected has been recognized by no less than four judgements of the European Court of Justice (against the Netherlands, Finland, France and Italy).

The current IBA inventory was prepared to present a selection of sites that satisfies the criteria for sites of European Union importance. BirdLife Malta believes that due to the proven high international importance of these sites, they should all be designated as SPAs by the Maltese government. The book provides all the detailed information about the sites that is necessary for their successful designation. It also provides an up-date to the European IBA inventory, Malta chapter published in 2000 (Heath and Evans).

## **Objectives of the Directory**

The principal objectives of this directory are:

- to identify Important Bird Areas of European Union importance as candidate Special Protection Areas under the EC Birds Directive and to promote their designation as such
- to promote awareness of the most important sites in the Maltese Islands for bird conservation;
- to help direct conservation activity and available funding towards these sites;
- to present the ornithological value of each site in a standardized but also reliable way, using numerical criteria;
- to provide a tool for planning and management, at practical and political levels, through the presentation of key information on birds, habitats, land-uses, threats, legal protection, and conservation status;
- to develop a network of local experts, fieldworkers and volunteers, and motivate them to monitor and protect IBA's;

- to stimulate national and international cooperation and coordination in conserving Malta's most important sites for birds;
- to establish a more rigorous baseline for measuring Malta's success or failure in conserving its most important sites for birds;
- to promote awareness of the value of a site-based approach for the conservation of birds and biodiversity.

## **Background**

Evidence of human settlements in the Maltese Islands date back to about 7000 years, and since then the islands have seen great changes. Humans started using land to yield their sustenance and by time not only changed the landscape but have along the years exercised enormous pressure on the land.

The total surface area of the Islands is approximately 322 sq. km., while the population presently stands at about 400,000. Given the small size of the Islands, an overall population density of 1793 per km<sup>2</sup>, approximately 7000 years of human occupancy, 98.5 sq. km of developed land and 150 sq. km of land under cultivation, it is surprising to note that the Islands still support important bird areas and other sites of natural importance.

## **The Islands**

The Maltese archipelago consists of a small group of low-lying, mostly limestone islands, situated right in the central part of the Mediterranean Sea. They lie approximately 95 km south of Sicily and 290 km north of the Libyan coast. The climate is a typical, moderate, Mediterranean one, with mild, wet winters and hot, dry summers. The Islands are geologically young; their oldest sedimentary rock, the lower Coralline limestone, was formed between 25 and 30 million years ago. There are three main inhabited islands, Malta, Gozo and Comino, and a number of uninhabited islets, the most ecologically important being Kemmunett, Filfla, St. Paul's Islands and Fungus Rock.

Geotectonic movements have moulded the islands by raising large tracts of land and subsiding others, creating hills, ridges and valleys. Malta, the main island, with a surface area of about 248 sq. km, ended up with an inclination from the south west, being about 253m above sea level at Dingli Cliffs, to the northeast, where the land is sloping gently into the sea.

Gozo, with a surface area of about 67 sq. km, and with an altitude of 191m at its highest point, has a more complex topography. It is characteristically marked by a number of hilly plateau, formed from upper Coralline limestone, with the hillsides covered with clay slopes. Between the hills erosion has exposed the Globigerina limestone forming plains, which slope down into winding valleys.

The total length of the shoreline of the Maltese Islands is about 190 km. Mainland Malta has 17% of its coast made up of slopes with boulder screes and 22% consisting of cliffs. Gozo's coastline, which is about 40 km in length, has 14.5% composed of screes and 62% of cliffs. The coastline provides a good habitat to a variety of flora and fauna species. Here one finds sites of ecological importance, supporting unique habitats such as sea-cliffs, sand dunes, salt marshes, and coastal clay slopes. All the important bird areas, apart from Buskett and Wied il-Luq, are found along the coastline.

## The Flora

It is to be expected that the flora of the Maltese Islands partakes of the Mediterranean plant life, and is most similar to that found in the southeastern region of Sicily. The Islands support some 1100 vascular species, 70% of which are indigenous, 18 species of which are endemic,

The evergreen wood, the maquis, the garigue and the steppe are the main four plant community types found in the Mediterranean. In the Maltese islands the woodland habitat, which was mainly dominated by large trees, such as the Evergreen Oak *Quercus ilex* and the Aleppo Pine *Pinus halepensis*, has been virtually exterminated since the arrival of humans.

The maquis vegetation is still widespread and is mainly found at the base of cliff formations, and along the sides and bottoms of several valleys. It is characterized by Carob *Ceratonia siliqua*, Olive *Olea europaea*, Mediterranean Buckthorn *Rhamnus alaternus*, Lentisk *Pistacia lentiscus* and Bay Laurel *Laurus nobilis*, together with a number of climbers and large herbaceous plants.

Dense, low and aromatic plants, growing on large expanses of limestone, which has been eroded into numerous fissures and depressions, form the garigue vegetation. This is the most typical of Maltese communities, frequently characterized by Mediterranean Thyme *Thymus capitatus*, Mediterranean Heath *Erica multiflora*, Olive-leaved Germander *Teucrium fruticans*, Shrubby Kidney Vetch *Anthyllis hermanniae*, and several other similar species. The Maltese Spurge *Euphorbia melitensis* is one of the garigue endemic plants, and it is frequently the dominant species. Comino supports the least spoilt garigue areas in the Maltese Islands.

The most widespread of the plant community types, however, is the steppe vegetation, which is formed mainly by herbaceous plants, particularly grasses, umbellifers, legumes, and tuberous species such as the Sea Squill *Uriginea maritima* and the Branched Asphodel *Asphodelus aestivus*.

Cliff communities are mainly located on the southern and western coasts. There are many interesting plant taxa here including endemic species such as the Maltese Cliff-Orache *Cremnophyton lanfrancoi*, the Maltese Rock Centuary *Palaeocyanus crassifolius*, the Maltese Everlasting *Helichrysum melitense* and the Maltese Salt-tree *Darniella melitensis*.

## The Fauna

The terrestrial fauna of the Maltese islands, apart from one amphibian, 9 reptiles, about 380 birds, and some 19 mammals, is largely made up of invertebrates, with insect, arachnid and mollusc species being the most evident. As with the flora, the Maltese fauna has a great affinity with that of Sicily, and most Maltese species occur there too.

Insect species are the most numerous; the coleopteran fauna alone includes more than 2000 species, while nearly 600 species of butterflies and moths have been recorded. There are several endemics particularly among the invertebrates. In spite of having a rather long dry season one can still find a number of freshwater species including a freshwater crab, whose few isolated populations belong to a distinct endemic subspecies *Potamon fluviatile lanfrancoi*. Temporary rainwater pools also support a number of other locally rare crustaceans such as the Fairy Shrimp *Branchipus schaefferi*, the Tadpole Shrimp *Triops cancriformis* and the Clamp Shrimp *Cyzicus tetracerus*.

The only amphibian found in the Islands is the Painted Frog *Discoglossus pictus*, which is restricted to localities where freshwater is present. The Ocellated Skink *Chalcides ocellatus*, two geckos (the Moorish *Tarentola mauritanica* and the Turkish *Hemidactylus turcicus*), an

introduced chameleon *Chamaeleo chamaeleon*, four snakes (the most common and widespread is the Western Whipsnake *Coluber viridiflavus*), and at least four endemic subspecies of the Maltese Wall Lizard *Podarcis filfolensis*.

The most interesting mammal species is the Sicilian Shrew *Crocidura sicula*, which has been recorded only in Sicily, Ustica, Egadi and Gozo. Its subspecies *calypso* occurs only in Gozo. On the other hand mammal species, which are found on the Island of Malta, such as the Weasel *Mustela nivalis* and the Pygmy White-toothed Shrew *Suncus etruscus* are not recorded from Gozo. Of the 10 species of bats recorded, five are residents. One of these, the Mouse-eared Bat *Myotis punicus* has been recently elevated to species level. Another interesting mammal species is the Vagrant Hedgehog *Aterelix algirus*, which as in most species of mammals found here, other than bats, has been introduced after humans colonized the Islands.

### **The Avifauna**

Of the 380 species of birds recorded in the Islands, about 20 species are regular breeding birds, 112 are regular spring and/or autumn migrants, about 52 are winter visitors, while the rest are rare and irregular migrants or vagrants. Whilst the length of stay of migrant species may vary from one to about ten days, the winter visitors remain for at least five to six months.

Small isolated islands tend to have a rather impoverished resident avifauna and the Maltese Islands are no exception. Indeed the paucity of species is aggravated by the lack of water during the long hot summer, by the lack of a wide variety of suitable habitats and by the never ending human persecution, which extends even to the smaller species.

The Spanish Sparrow *Passer hispaniolensis* is by far the most ubiquitous, while its congener the Tree Sparrow *Passer montanus* is sparsely scattered in several localities. The resident Sardinian Warbler *Sylvia melanocephala* breeds in most habitats, including suburban areas, while the Spectacled Warbler *Sylvia conspicillata*, which has decreased in the last 20 years is mainly confined to a few coastal areas. The Zitting Cisticola *Cisticola juncidis* and Cetti's Warbler *Cettia cetti* colonised the islands some 30 years ago; the former is now very common and widespread, while the latter has extended its breeding range to most of the thickly vegetated areas. The Corn Bunting *Miliaria calandra* has almost disappeared from the island of Malta and has decreased drastically in Gozo. More locally the Blue Rock Thrush *Monticola solitarius*, is now mainly confined to the sea-cliffs, which are also haunted by three procellariids, Cory's Shearwater *Calonectris diomedea*, Yelkouan Shearwater *Puffinus yelkouan*, and European Storm-petrel *Hydrobates pelagicus melitensis*, and Yellow-legged Gull *Larus cachinnans michahellis*. The Short-toed Lark *Calandrella brachydactyla*, which is a summer visitor, inhabits the open countryside, particularly in Gozo. A few pairs of Woodchat Shrike *Lanius senator* and Spotted Flycatchers *Muscicapa striata* breed annually, while other species, such as Common Quail *Coturnix coturnix*, Turtle Dove *Streptopelia turtur*, Chaffinch *Fringilla coelebs*, and Serin *Serinus serinus* would breed regularly where it not for intense human interference.

In recent years there have been a number of new breeding species such as Little Ringed Plover *Charadrius dubius* at Ghadira, Moorhen *Gallinula chloropus* at Ghadira, is-Simar and Gozo, Reed Warbler *Acrocephalus scirpaceus* at Salina and Simar, Starling *Sturnus vulgaris* at Comino and Collared Dove *Streptopelia decaocto* at Mellieha. Other rare breeding species are Kestrel *Falco tinnunculus*, Barn Swallow *Hirundo rustica* and House Martin *Delichon urbicum*. The Rock Dove *Columba livia* breeds along the southern cliffs and at Comino.

In the past thirty years, the Maltese Islands have lost a number of breeding species, such as Peregrine Falcon *Falco peregrinus* and the Barn Owl *Tyto alba*. This was mainly due to human interference and not lack of adequate habitat.

Bird migration dominates the Maltese ornithological year, and in spring and autumn a consistent movement of birds occurs through the islands. Large numbers are frequently seen during adverse weather conditions. Most of the migrant species, other than those birds that arrive during the night, make for the coast when they see land. They usually fly inland against the wind funneling through valleys that run towards the coast. All of these valley mouths are important for migrants, especially for those, which have been brought down by adverse weather conditions. Large numbers of birds are usually seen when a period of adverse weather, such as head-winds, overcast or stormy weather, follow suddenly on a period of settled, fine weather and more favorable winds. Such falls have been noted to occur not infrequently at the important bird areas listed here. 'Coasting' by many migrants is also noted to occur frequently during migration.

Whilst weather conditions affect the numbers of migrants, there is always a consistent migration of birds through the islands both in spring and autumn. Although valleys, rocky ridges and coastal areas seem to be most favoured by bird species of open country, on migration all species, even those which inhabit woodland and other types of habitats are invariably recorded almost everywhere. The Maltese Islands are in such a unique situation that migrating birds may be noted to occur along the entire coast, even at urban and developed areas. However, some areas such as Ghadira, Simar, and the salt pans areas, particularly Salina, are very important as feeding areas for a number of wader species namely *Tringa*, *Calidris* and *Charadrius sp.*, while Buskett is an important roosting site for migrants notably raptors, particularly Honey Buzzard *Pernis apivorus* and Marsh Harrier *Circus aeruginosus*, as well as an important site for passage and wintering passerines

When the autumn movement of trans-saharan migrants comes to an end, another set of European birds start arriving to spend the winter in the Mediterranean basin. These species are regularly recorded in the Maltese Islands and many of them stay for the entire winter until they return to European breeding grounds in March. The most important areas for wintering species are Ghadira and Is-Simar, both of which have been restored as wetland areas. Birds such as Black-necked Grebe *Podiceps nigricollis*, a variety of duck species mainly *Anas sp.*, Coot *Fulica atra*, Common Snipe *Gallinago gallinago*, Kingfisher *Alcedo atthis* and several other passerine species remain to winter at both areas. The bays and harbours are also ideal for some wintering species and provide shelter, particularly during strong north-westerly winds for gulls particularly Mediterranean Gull *Larus melanocephalus*, Black-headed Gull *Larus ridibundus*, Yellow-legged Gull *Larus cachinnans* and Lesser Black-backed Gull *Larus fuscus*.

### **History of Important Bird Areas in Europe**

The BirdLife International IBA programme is a worldwide initiative aimed at identifying and protecting a network of critical sites for the conservation of birds.

In 1989, BirdLife International, then known as the International Council for Bird Preservation (ICBP), published the first IBA inventory covering all Europe (Grimmet & Jones 1989). This first inventory provided key information on 2,444 high priority sites in 39 countries or autonomous regions. The aim was to identify sites of importance for four groups of birds:

- Regularly occurring migratory species which concentrate at and are dependant on particular sites either when breeding, on migration, or during the winter;
- Globally threatened species (i.e. species at risk of total extinction);

- Species and subspecies threatened throughout all large parts of their range in Europe but not globally;
- Species that have relatively small total world ranges with important populations in Europe.

With an ever increasing interest and the recognition of the importance of IBA's for bird conservation, BirdLife partners from 51 countries in the European region updated this first Pan-European IBA Inventory in 2000, increasing the list to 3,619 sites (Heath & Evans 2000). A large proportion of the sites are not just important because of their bird species, but have their own intrinsic value as ecosystems with a great variety of biodiversity.

### **Important Bird Areas in Malta**

In recent years, the authors, on behalf of BirdLife Malta have embarked on a project to identify a network of sites, which are important for birds. The sites chosen fall under three groups within the categories of site selection:

#### ***Sites of Global importance:***

- Filfla Islet (holding a large colony of *Hydrobates pelagicus melitensis*);
- l-Ahrax tal-Madonna (with one of the largest known colony of *Puffinus yelkouan*);
- Ta' Cenc Cliffs (supporting a large concentration of *Calonectris diomedea*);
- Buskett (a flyway for raptors mainly *Pernis apivorus* and *Circus aeruginosus*);
- Comino (breeding site for *Puffinus yelkouan*, and known also as a refuge for trans-saharan passerine migrants).

#### ***Sites of European Union importance:***

- West of Wied ix-Xaqqa to Wied Maqbul cliffs;
- West of il-Hagra Sewda to ix-Xaqqa cliffs;
- Il-Kullana to ta' Gfien cliffs;
- Ic-Cnus to tal Bardan cliffs;
- Xlendi Bay to Wardija Pt cliffs;
- Dwejra Bay to San Dimitri Cliffs

(all holding colonies of *Calonectris diomedea* and *Puffinus yelkouan*).

#### ***Sites of National Importance:***

- Ghadira,
- Simar,
- Salina
- Lunsjata Valley
- Ramla Valley and Wied il-Hanaq

(feeding and resting places for a variety of resident, summer visitors migrant and wintering species).

The current IBA inventory lists all the sites of European Union importance in Malta, including those in higher categories (sites of global importance).

## Selection of Important Bird Areas using the IBA “C” criteria in Malta

There are three levels of IBA selection criteria according to BirdLife International: global, regional and sub-regional. Within Europe, the sub-regional level corresponds to the European Union’s geographical territory. The site selection criteria (IBA C criteria) were designed to satisfy the requirements of the EC Birds Directive for the selection of Special Protection Areas, so that sites identified using these criteria can be regarded as candidate SPAs. Several of the IBA C criteria categories repeat the criteria from higher-level categories or are modeled on them. The only criterion that is unique to the IBA C level is the C6 criterion, which is designed to identify sites for species listed in Annex I of the Birds Directive. The C7 criterion has only been used in previous EU member states to record sites of ornithological importance that don’t correspond to any other IBA criteria but had been designated as SPAs. This criterion has not been used in the new member states, including Malta. A summary of the IBA C criteria is given in Table 1.

During the preparation of the current IBA inventory, the following C level IBA criteria were applied:

### **C2: Concentrations of Annex I species. In Malta, only two species are used as qualifying species:**

Cory’s Shearwater *Calonectris diomedea* (1% population threshold = 330 pairs)  
Yelkouan Shearwater *Puffinus yelkouan* (1% population threshold = 30 pairs)

### **C5: Migratory bottleneck**

Under this criterion, the following migratory species were used for site selection: Honey-buzzard *Pernis apivorus*, Marsh Harrier *Circus aeruginosus*, Common Kestrel *Falco tinnunculus*, Hobby *F. subbuteo*, and Eleonora’s Falcon *F. eleonora*.

### **C6: Best breeding sites (maximum five) for species listed in Annex I**

Under this criterion, the following species were used as qualifying species for IBAs: Cory’s Shearwater *Calonectris diomedea*, Yelkouan Shearwater *Puffinus yelkouan* and Storm Petrel *Hydrobates pelagicus*.

The full list of identified IBAs of EU importance, with the qualifying species populations and criteria are given in Table 2.

**Table 1. The categories of IBAs of European level importance,**

| <b>Category</b>                                                               | <b>Criterion</b>                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>C1. Species of global conservation concern</b>                             | The site regularly holds significant numbers of a globally threatened species, or other species of global conservation concern                                                                                         |
| <b>C2. Concentrations of a species threatened at the European Union Level</b> | The site is known to regularly hold at least 1% of a flyway population or of the EU population of a species threatened at the EU level (listed on Annex 1 and referred to in article 4.1 of the EC Bird Directive)     |
| <b>C3. Congregations of migratory species not threatened at the EU level</b>  | The site is known to regularly hold at least 1% of a flyway population of a migratory species not considered threatened at the EU level (as referred to Article 4.2 of the EC Bird Directive) (not listed in Annex 1)  |
| <b>C4. Congregatory - large concentrations</b>                                | The site is known to regularly hold at least 20,000 migratory waterbirds and/or 10,000 pairs of migratory seabirds of one or more species.                                                                             |
| <b>C5. Congregatory - bottleneck sites</b>                                    | The site is a 'bottleneck' site where at least 5,000 storks (Ciconidae) and/or at least 3,000 raptors (Accipitriformes and Falconiformes) and/or 3,000 Cranes (Gruidae) regularly pass on spring and autumn migration. |
| <b>C6. Species threatened at the EU level</b>                                 | The site is one of the five most important in the European Region (NUTS region) in question for a species or subspecies considered threatened in the European Union (i.e. listed in Annex 1 of the EC Bird Directive)  |
| <b>C7. Other Ornithological criteria</b>                                      | The site has been designated as a Special Protection Area (SPA) or selected as a candidate SPA based on ornithological criteria (similar but not equal to C1-C6) in recognized use for identifying SPA's.              |

**Table 2. Localities & Species Criteria**

| <b>Site</b>                                 | <b>Species</b>              | <b>Population minimum</b> | <b>Population maximum</b> | <b>Criteria</b> |
|---------------------------------------------|-----------------------------|---------------------------|---------------------------|-----------------|
| Ta'Cenc cliffs                              | <i>Calonectris diomedea</i> | 800                       | 1000                      | C2, C6          |
| Ta'Cenc cliffs                              | <i>Puffinus yelkouan</i>    | 150                       | 300                       | C2, C6          |
| Comino Island                               | <i>Puffinus yelkouan</i>    | 50                        | 80                        | C2              |
| Filfla islet                                | <i>Hydrobates pelagicus</i> | 5000                      | 8000                      | C2, C6          |
| Buskett and Wied il-Luq                     | <i>Falconiiformes</i>       | 3000                      | 3000+                     | C5              |
| Rdum Tal-Madonna                            | <i>Puffinus yelkouan</i>    | 500                       | 500                       | C2, C6          |
| West of Wied ix-Xaqqa to Wied Maqbul cliffs | <i>Puffinus yelkouan</i>    | 100                       | 150                       | C2, C6          |
| West of il-Hagra Sewda to ix-Xaqqa cliffs   | <i>Calonectris diomedea</i> | 500                       | 1000                      | C2, C6          |
| West of il-Hagra Sewda to ix-Xaqqa cliffs   | <i>Puffinus yelkouan</i>    | 80                        | 100                       | C2, C6          |
| Il-Kullana to ta' Gfien cliffs              | <i>Calonectris diomedea</i> | 500                       | 1000                      | C2, C6          |
| Il-Kullana to ta' Gfien cliffs              | <i>Puffinus yelkouan</i>    | 100                       | 200                       | C2, C6          |
| Ic-Cnus to tal Bardan cliffs                | <i>Puffinus yelkouan</i>    | 30                        | 30+                       | C2              |
| Xlendi Bay to Wardija Pt cliffs             | <i>Puffinus yelkouan</i>    | 30                        | 50                        | C2              |
| Xlendi Bay to Wardija Pt cliffs             | <i>Calonectris diomedea</i> | 350                       | 500                       | C2              |
| Dwejra Bay to San Dimitri Cliffs            | <i>Calonectris diomedea</i> | 400                       | 500                       | C6              |
| Dwejra Bay to San Dimitri Cliffs            | <i>Puffinus yelkouan</i>    | 30                        | 50                        | C2              |

### **Methodology of compilation of data**

The data found in the two previous contributions for Malta (Grimmet & Jones 1989, pp 439-442, and Heath & Evans 2000, Vol. 2 pp. 435-438) has been updated in this directory by the compilation of further data in recent years by applying the C criteria, in the light of Malta joining the EU, thus increasing the list of IBAs from 5 to 12.

The methodology used for the compilation of data for the identification of Malta's global and European Union important bird areas follows that used by Borg and Sultana (2000) for the Procellariiformes with added observations carried out during a four-year period 2000-2003. A survey of the breeding birds of the islands was also carried out during the years 1999-2000, with the main aim of producing the first complete *Atlas of Breeding Birds in the Maltese Islands* (unpublished). The preparation of data for Malta's contribution to the new *Birds in Europe II* publication was also taken in consideration, while further information has been extracted from BirdLife Malta's database compiled by daily records observed by members of BirdLife Malta.

### **Number and area of IBAs**

There are 11 IBAs of European Union importance identified in Malta. These sites cover a total area of 480.2 ha, or approximately 1.5% of the land area of Malta. This small percentage is due to the fact, that most of the sites are seabird colonies located on small surface areas. However, when designating these sites, the feeding requirements of the species breeding on these sites should also be taken into consideration. If one wants to secure a big enough area to satisfy the ecological requirements of the seabird colonies, the area of IBAs will be considerably bigger.

### **Impacts and Threats to IBAs**

In a densely populated country such as the Maltese Island it is to be expected that important bird areas be under severe pressure like all the rest of the countryside. The main threats to the important bird areas are urbanization, stone-quarrying, fisheries (mainly fish farms), bird-trapping and hunting, and other leisure activities.

Stone-quarrying is threatening the sea cliff habitats, which are ideal nesting sites for the colonies of Shearwaters both the *Calonectris diomedea* and *Puffinus yelkouan*. Some active quarries, particularly the hard stone quarry at Wied Moqbol and the soft stone quarries at Dwejra, are threatening the nearby colonies of Shearwaters, as well as other breeding species such as the *Calandrella brachydactyla*, *Monticola solitarius*, *Sylvia conspicillata* and *Miliaria calandra*.

The urban development has engulfed large parts of the coastal areas such as St. Paul's Bay and Qawra, and Marsalforn and Qbajjar in Gozo.

Fish-farms and tuna pens also provide a great threat when these are situated below the shearwaters' colonies or in their 'rafting' path. Fishing at night, usually using some forms of lights, from sea-craft or from cliff edges close to the Shearwaters' nesting sites is another greatly disturbing factor. Continuous disturbance by this type of activity at traditional sub-colonies has led to the total desertion by the birds.

The important bird areas are also under severe pressure by bird trapping and hunting. The recent practice of dumping inert material to level cliff edges to accommodate clap-netting sites for bird trapping has destroyed a number of nesting sites at the fringes of sea cliff colonies. Rabbit hunting with the use of ferrets also threaten the sea-bird colonies. Hunting dogs and ferrets frequently create havoc amongst breeding birds at these coastal colonies.

Leisure activities, which take place at or close to sea-bird colonies, may be detrimental. The main disturbing activities include abseiling at ecologically important sea-cliffs, and barbecuing at sites, which can only be reached from the sea, particularly those close to sea bird colonies.

An industrial estate and a recently new development for telecommunications within 100m from the cliff-edge at Hal Far is threatening an important bird area along the coast. The Hal Far area, which includes Wied Znuber, was an important site for a number of breeding species, such as Short-toed Lark *Calandrella brachydactyla*, Spectacled Warbler *Sylvia conspicillata* and Corn Bunting *Emberiza calandra*, all of which have been on the decline in recent years. The shearwaters colonies (*Calonectris diomedea* and *Puffinus yelkouan*), in spite of having decreased in the area, are still present in the cliffs close to the estate, as are three or four pairs of Blue Rock Thrush *Monticola solitarius*.

### **Conservation & Protection**

In recent years, an active awareness for the need of protecting and conserving the natural environment has been created. Malta is party to a number of international treaties concerned with the protection of the Mediterranean marine environment. Malta became a party to the 1976 Barcelona Convention for the Protection of the Mediterranean Sea against Pollution and its protocols in February 1978, acceded to the 1982 Geneva protocol on Mediterranean Specially Protected Areas in January 1988, acceded to the Ramsar Convention on Wetlands of International Importance in September 1988, acceded to the 1972 London Convention on the Prevention of Marine Pollution by Dumping Wastes and Other Matter in January 1990. Fairly recent initiatives by the Government include the 1991 Environment Protection Act and the 1992 Planning Development Act as well as the adoption of a Structure Plan for the Maltese Islands. The Environment Protection Act is an enabling law, which empowers the Minister responsible for the Environment to take all measures, both preventive, and remedial, that may be necessary for the protection of the environment of Malta and to protect the environment when deciding on economic and social matters

The Structure Plan and the Local Plans, which introduce various conservation policies and delineate building and outside development zones, have improved the situation. At least building development for residential purposes is no longer a threat to sites of ornithological importance along the coasts. However building development for tourism, industrial, agricultural and fishing purposes are still a threat.

None of the IBAs are managed in terms of nature conservation, although a project for habitat restoration in a small valley on Comino (Mt002) has been put forward by BirdLife Malta. Recently the Malta Environment & Planning Authority (MEPA) has set up a committee composed of various stakeholders to prepare a management plan for Comino. BirdLife Malta has set up a bird observatory on Comino to monitor bird migration. Buskett and Wied il-Luq (Mt004) fall under the jurisdiction of the Agriculture Department, which manages the area for agricultural and recreational purposes. Some consultation between the Agriculture Department and the MEPA's Environment Protection Directorate takes place occasionally. Here BirdLife Malta also monitors the migration of raptors in autumn. Monitoring of seabird populations at coastal and islet IBAs is carried out within the framework of the Research Working Group of BirdLife Malta. Visits to Filfla islet (Mt003) require prior authorization from the Environment Protection Directorate and such visits are routinely carried out by the Research Group of BirdLife Malta.

Nature conservation is the responsibility of MEPA's Environment Protection Directorate. The Environment Protection Act of 1991 (superseded by the Act XX of 2001) is the main framework of law, which deals with bird protection, including site protection. There are two types of national protected areas: Bird Sanctuary and Nature Reserve. As a member of the European Union, Malta is called upon to adopt the EU Wild Birds and Habitats Directives. Besides being a requirement for all member states, adoption of these directives ensures a consistent and coherent nature protection regime throughout the geographical region of the European Union. In addition it is imperative that the specific natural characteristics of the Maltese Islands are given adequate protection. From an ornithological perspective Malta is the southernmost EU member state through which birds migrate in spring. It would be pointless to control activities that disturb breeding birds in all member states, without offering them protection on the doorstep to Europe.

In its agreement with the EU, Malta agreed to fully transpose and to fully comply with the Birds Directive 79/409/EEC by 1<sup>st</sup> May 2004 as well as to fully transpose the Birds Directive into the Protection of Birds and Wild Rabbit Regulations by the third quarter of 2003. The Maltese laws were amended by Legal Notice 41/2003 on 24<sup>th</sup> January 2003 and were brought into effect on 1<sup>st</sup> February 2003 by LN 56 of 2003 dated 31<sup>st</sup> January 2003. These legal notices were intended to transpose the Birds Directive into Maltese legislation, including those conditions agreed to during the EU accession negotiations with Malta (there were no other relevant legal notices published until the third quarter of 2003). There remain however, parts of the Wild Birds Directive that have not been adequately transposed into Maltese Law.

Legal Notice 41/2003 together with existing legislation present shortcomings in respect of the Birds Directive text, in particular of articles 2, 3, 4, 7 and 9, and elements of 5, 6 and 8. Articles 5 to 9 are particularly pertinent given the accession agreement between the EU and Malta.

- Hunting at sea is allowed on twelve species of birds (including e.g. Wigeon, Pintail, Shoveler, Gadwall) until the end of February. There are currently no officially available pre-nuptial migration data for these species in Malta. An examination of the closest official data available (Italy) shows that this hunting season seems to allow overlaps of several decades, which is not allowed under Article 7.
- In the accession negotiations, Malta was allowed a transitional period for the trapping of seven species of finches until December 2008. The EU has underlined that *"the measures taken during the transitional period shall be in full accordance with the principles governing the timing of hunting of migratory bird species as outlined in the Directive"*. The current legislation allows the trapping of this group of finches until 10<sup>th</sup> April. Notwithstanding the fact that official pre-nuptial migration data does not occur for these species, it is clear that the months of March and April are, as a minimum, return migration periods for these birds. Consequently, the trapping period leads to many decades of overlap.
- Four species (Turtle Dove, Quail, Song Thrush and Golden Plover) that can be hunted in the normal hunting season, can also be trapped between 1<sup>st</sup> September and 31<sup>st</sup> January. This would clearly represent use of Article 9, which would certainly not meet the *"no other satisfactory solution"* criterion.
- The law also allows trapping of two species, namely Turtle Dove and Quail, between 25<sup>th</sup> of March and 22<sup>nd</sup> of May. This period coincides with the expressed intention by the Maltese Government to allow hunting of these species under Article 9. BirdLife International and BirdLife Malta are strictly opposed to use of Article 9 for allowing hunting and/or trapping of

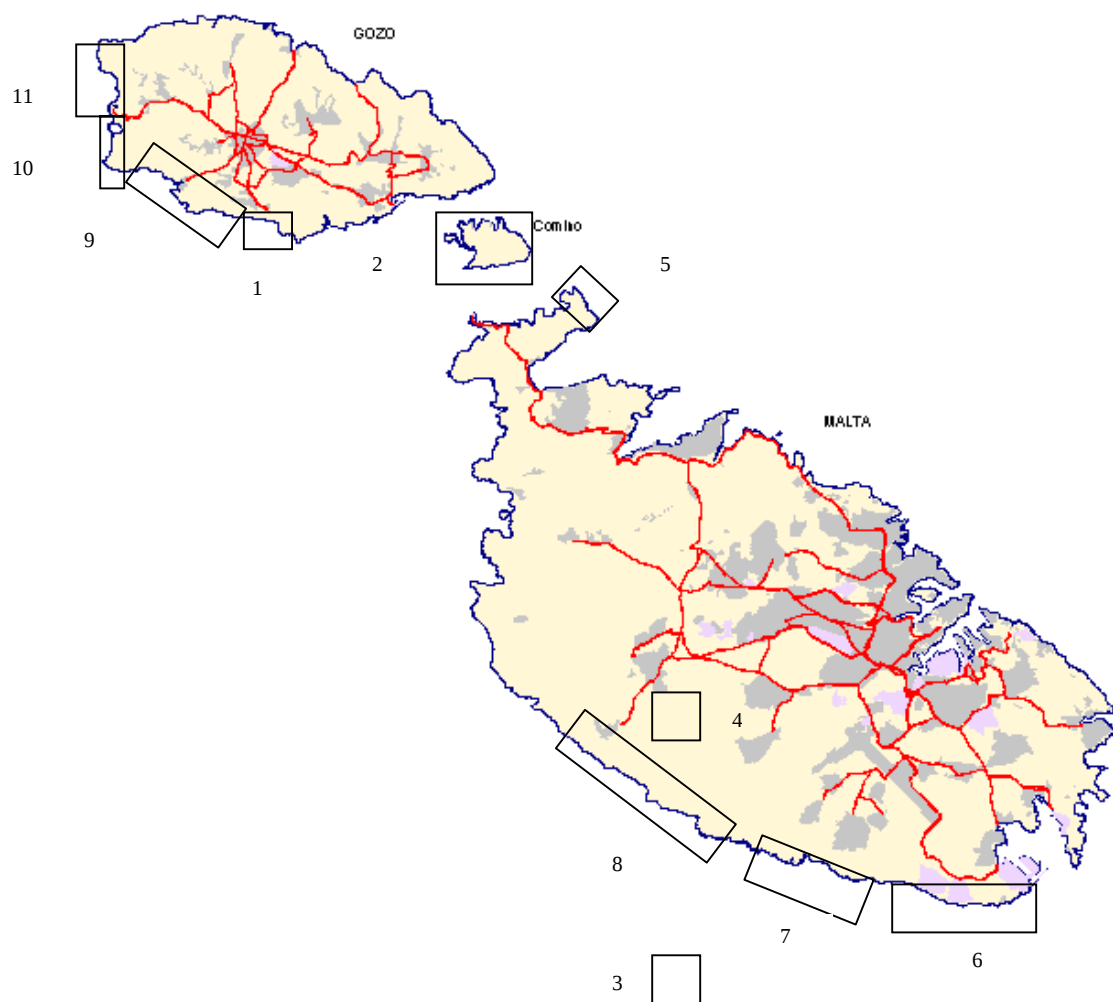
any species in spring. Regardless of this position, it is clear that the Maltese Government has not indicated during the negotiations that apart from hunting, it also intends to allow trapping of these two species in spring

It is worth noting that intense hunting and trapping activities on the islands contribute substantially for the dearth of breeding birds on the islands. The continued practice of these activities between February and May, particularly in view of the continued illegal hunting and/or trapping activities of a substantial number of individuals continues to be a major obstacle to successful breeding attempts by new species.

Four of the five Globally Important IBAs afford bird protection from hunting, trapping and breeding disturbance under the various legal notices issued in the ambit of the Environment Protection Act, 2001 (Act No. XX of 2001). However no legislation has been enacted that specifically declares that the sites of EU Importance are Special Protected Areas as required by Article 4 of the Wild Birds Directive.

### **Acknowledgements**

The authors would like to acknowledge the assistance of Zoltán Waliczky, who advised us on the compilation of this directory; Joseph M. Mangion for his input in the Conservation and Protection section; Denis Cachia, BirdLife Malta's Council Secretary, who organized the survey of breeding birds during the years 1999-2000, and all those members of BirdLife Malta who contributed towards the compilation of observations.



**Map of the Maltese Islands highlighting Important Bird Areas**

## Inventory of IBAs

Ta' Cenc Cliffs

Mt001

**Locality** – Sannat (Gozo)

**Co-ordinates** – 36°02'N – 14°14'E

**Area** – ca. 20 ha (including cliff face); **Altitude** – 120m

**Legal Status** – Bird Sanctuary (LN 150 1993)

**International Importance** – Global Important Bird Area

**Qualifying species:** *Calonectris diomedea* (C2, C6), *Puffinus yelkouan* (C2, C6)

**Description of Area** – Limestone sea cliffs, with profuse vegetation on some ledges, rising to a maximum altitude of 135 metres above sea level and an extensive rocky area with numerous trapping huts and old stone structures.

**Land-use** – recreational (trekking).

**Dominant Vegetation** – Garigue and cliff vegetation parts of which are dominated by the Tree Spurge *Euphorbia dendroides* or the Mediterranean Thyme *Thymbra capitata*. The endemic flora species include the national plant Maltese Centaury *Palaeocyanus crassifolius*. The Common Pyramidal Orchid *Anacamptis pyramidalis*, the French Daffodil *Narcissus tazetta*, the Large Star of Bethlehem *Ornithogalum arabicum* and the Blue Stonecrop *Sedum caeruleum* are few of several common flowering plants that grow here, providing an extensive natural rock garden.

**Ornithological Importance** – The site is important for its breeding sea-bird colonies. The cliffs support a colony of Cory's Shearwater *Calonectris diomedea* as well as two other procellarids, Yelkouan Shearwater *Puffinus yelkouan*, and European Storm-petrel *Hydrobates pelagicus*. The cliffs and the extensive rocky area also offer an ideal habitat for a number of breeding, migrating and wintering birds. Heron species frequently rest on cliff ledges. Short-eared Owl *Asio flammeus* and Stone Curlew *Burhinus oedichenus* are two of the larger species while wheatears mainly Northern Wheatear *Oenanthe oenanthe* and Black-eared Wheatear *O. hispanica* as well as several other passerines occur in the area. Wintering species include Sky Lark *Alauda arvensis*, Meadow Pipit *Anthus pratensis*, Common Stonechat *Saxicola torquata* and especially Black Redstart *Phoenicurus ochrorus*, amongst others.

**Breeding species** – The cliffs support the largest breeding colony of Cory's Shearwater *Calonectris diomedea* (800-1000 pairs) in the islands as well as breeding populations of two other procellarids, Yelkouan Shearwater *Puffinus yelkouan* (150-300 pairs), and European Storm-petrel *Hydrobates pelagicus* (> 25 pairs). 8-10 pairs of Blue Rock Thrush *Monticola solitarius* breed in the cliffs and use the rocky area for feeding. The Peregrine Falcon *Falco peregrinus*, Common Kestrel *Falco tinnunculus* and Barn Owl *Tyto alba* have all been known to breed at Ta'Cenc. A colony of yellow-legged Gull *Larus cachinnans* deserted the site in recent years. The rocky area is one of the remaining breeding areas for three declining species, namely Short-toed Lark *Calandrella brachydactyla* (5-10 pairs), Spectacled Warbler *Sylvia conspicilata* (3-5 pairs) and Corn Bunting *Emberiza calandra* (1-2 pairs). Other breeding birds include; Zitting Cisticola *Cisticola juncidis*, Sardinian Warbler *Sylvia melanocephala*, and Spanish Sparrow *Passer hispaniolensis*.

**Threats** – A tourist complex is situated about 100m from the cliffs with plans of extension. Uncontrolled recreation, mainly trekking and rock climbing, unsustainable exploitation (e.g.illegal bird shooting and trapping).

**Locality** – middle island between Malta and Gozo (administration – Qala, Gozo)

**Co-ordinates** – 36°01'N 14°20'E

**Area** – 260 ha; **Altitude** – 0-74m

**Legal status** – Bird Sanctuary (LN 150 1993); SAC (Govt. Not. 257 2003)

**International Importance** – Global Important Bird Area

**Qualifying species:** *Puffinus yelkouan* (C2)

**Description of Area** – A small island (altitude 0-75m) lying mid-way between mainland Malta and Gozo. The karst landscape supports sclerophyllous/garigue scrub (65% of the land surface). 25% is taken up by an artificial landscape, mainly arable land with half of it long uncultivated. The rest comprises of rocky areas and a sea cliff/rocky shore. An afforestation programme has been carried out on a limited scale with pine trees *Pinus* sp. and acacia trees *Acacia* sp. in the 1970s. There is a sand-dune system at Santa Maria bay with typical native vegetation, including trees of African Tamarisk *Tamarix africana* and Chaste Tree *Vitex agnus castus*. By the NW side of the island there is a minor rocky island

**Land-use** – Agricultural (5%), Tourism development (5%), and recreational (trekking).

**Dominant vegetation** – Garigue with pockets of maquis and small groves of pine and acacia trees, the latter planted in the 1970s. Different areas of garigue are mainly dominated by Shrubby Kidney Vetch *Anthyllis hermanniae*, Olive-leaved Germander *Teucrium fruticans*, and Mediterranean Thyme *Thymra capitata*, with scattered low bushes of Lentisk *Pistacia lentiscus* and Evergreen Honeysuckle *Lonicera implexa*.

**Ornithological Importance** – An important site for breeding Yelkouan Shearwater *Puffinus yelkouan*. Many trans-Saharan passerine migrants seek refuge on the island, and large numbers are recorded particularly during adverse weather conditions in spring. The largest numbers of Woodchat Shrike *Lanius senator* (up to 50+ on one day) recorded in the Maltese Islands are noted regularly here in spring. Birds of prey occur regularly on migration, including Honey-buzzard *Pernis apivorus*, Marsh Harrier *Circus aeruginosus*, Black Kite *Milvus migrans* and Red-footed Falcon *Falco vespertinus*. Common Starling *Sturnus vulgaris* winter in large numbers.

**Breeding species** – The sea cliffs hold colonies of Yelkouan Shearwater *Puffinus yelkouan* (50-80 pairs), Cory's Shearwater *Calonectris diomedea* (15-20 pairs – recent colony), and Blue Rock Thrush *Monticola solitarius* (ca. 5 pairs). Other breeding species are Short-toed Lark *Calandrella brachydactyla*, Spectacled Warbler *Sylvia conspicillata* and Sardinian Warbler *Sylvia melanocephala*. Common Kestrel *Falco tinnunculus* breeds occasionally while Common Starling *Sturnus vulgaris* started breeding recently after they were introduced by one of the few residents on the island. Peregrine *Falco peregrinus* and *Emberiza calandra* used to breed, and a pair of *Asio flammeus* nested in 1983. Alien species, namely Chukar Partridge *Alectoris chukar* and Common Pheasant *Phasianus colchicus* have also been introduced in the last 15 years. Northern Bobwhite *Colinus virginianus* was an introduced failure.

**Threats** – Tourist development, haphazard infrastructure development, recreation (e.g off-tracking), planting of alien species, introduction of alien fauna species, illegal hunting by two residents.

**Locality** – offshore island, south of Malta

**Co-ordinates** – 35°46'N 14°25'E

**Area** – 6 ha; **Altitude** 0–60 m

**Legal status** – Strict Nature Reserve (Act 15 1988), Bird Sanctuary (LN 150 1993); SAC (Govt. Not. 257 2003), Mediterranean Specially Protected Area (Barcelona Convention).

**International Importance** – Global Important Bird Area

**Qualifying species:** *Hydrobates pelagicus* (C2, C6)

**Description of Area** – An offshore islet of calcareous rock, mainly upper coralline limestone, which is bounded by cliffs and screes. The top of the islet is a plateau, which is not easily accessible from below. The screes of loose boulders and rock debris surrounding the base of the cliff result mainly from past (up to 1971) bombing practices by the military. Shore erosion due to wind and wave action is a predominant feature. The endemic Maltese Wall Lizard *Podarcis filfolensis filfolensis* and an endemic subspecies of a land snail of the genus *Trochoidea* are known only from this islet

**Dominant vegetation** – The vegetation is mainly confined to the plateau surface but small pockets of Shrubby Seablite *Suaeda vera* and Caper *Capparis orientalis* grow among the boulder screes below the cliffs. The dominating plants on the plateau surface are Shrubby Seablite *Suaeda vera*, Tree Mallow *Lavatera arborea* and a large form of the Wild Leek *Allium commutatum*.

**Ornithological Importance** – The island holds the largest known colony in the Mediterranean of the European Storm-petrel *Hydrobates pelagicus melitensis* and a colony of Cory's Shearwater *Calonectris diomedea*. Yellow-legged Gulls *Larus cachinnans* nest on the top of the island. The Yelkouan Shearwater *Puffinus yelkouan* possibly breeds.

**Breeding species** – *Calonectris diomedea* (100-200 pairs), *Hydrobates pelagicus* (5,000-8,000 pairs), *Larus cachinnans* (100-150 pairs)

**Threats** – The taking of incubating birds, and the extension of the increasing colony of *Larus cachinnans* below the cliffs, which prey on the Storm Petrels. Possibility of introduced predators (e.g. rats and cats). The population of the breeding European Storm-petrel *Hydrobates pelagicus* seems to be decreasing due to the loss of breeding sites by storms.

**Locality** – Dingli (Malta)

**Co-ordinates** – 35°52'N 14°24'E

**Area** – 30 ha; **Altitude** 130–200m

**Legal status** – Bird Sanctuary (LN 150 1993); SAC (Govt. Not. 257 2003)

**International Importance** – Global Important Bird Area

**Qualifying species:** migratory birds of prey (*Pernis apivorus*, *Circus aeruginosus*, *Falco tinnunculus*, *F. subbuteo* and *F. eleonora*, C5)

**Description of Area** – Buskett is the most extensive area of coniferous woodland on the island, which runs down into a valley (Wied il-Luq) with a line of mature deciduous trees and choked with vegetation, and a permanent spring. The valley sides are heavily cultivated.

**Dominant vegetation** – Buskett is the only site in Malta that represents a mature woodland ecosystem. It is actually semi-artificial woodland, fairly characteristic of a Mediterranean evergreen wood. The Aleppo Pines *Pinus halepensis*, Evergreen Oak *Quercus ilex*, Olive *Olea europea* and Carob *Ceratonia siliqua* are the dominant trees here, together with a number of smaller trees and shrubs such as Lentisk *Pistacia lentiscus* and Mediterranean Buckthorn *Rhamnus alaternus*, amongst several others. In the adjoining Wied il-Luq valley there is a narrow strip of deciduous woodland consisting mainly of Ash *Fraxinus angustifolia* and White Poplar *Populus alba*.

**Ornithological Importance** – This area is one of the important passage sites for birds of prey in the Maltese Islands. Over 3,000 raptors pass regularly in autumn. It is important particularly for roosting Honey-buzzard *Pernis apivorus*, and Marsh Harrier *Circus aeruginosus*. Common Kestrel *Falco tinnunculus*, Hobby *F. subbuteo*, and Eleonora's Falcon *F. eleonora* also occur in notable numbers. The extensive undergrowth provides feeding sites for wintering passerines as well as many trans-Saharan autumn migrants.

**Breeding species** – Cetti's Warbler *Cettia cetti*, Zitting Cisticola *Cisticola juncidis*, Sardinian Warbler *Sylvia melanocephala* and Spotted Flycatcher *Muscicapa striata* breed regularly. Barn Swallow *Hirundo rustica*, Common Nightingale *Luscinia megarhynchos*, Woodchat Shrike *Lanius senator*, Chaffinch *Fringilla coelebs* and Serin *Serinus serinus* have been recorded breeding.

**Threats** - Groundwater abstraction, recreation/tourism, unsustainable exploitation, illegal bird-shooting trapping, and mismanagement.

**Locality** – L-Ahrax tal-Mellieha (Malta)

**Co-ordinates** – 36°00'N 14°22'E

**Area** – 4 ha; **Altitude** 0–25 m

**Legal status** –SAC (Govt. Not. 257 2003)

**International Importance** – Global Important Bird Area

**Qualifying species:** *Puffinus yelkouan* (C2, C6)

**Description of Area** – A promontory at the eastern side of L-Ahrax tal-Mellieha, with a 200 m stretch of sea cliffs with extensive rock breakdown.

**Dominant vegetation** – the vegetation is mainly confined to the screes and base of the cliffs with Golden Samphire *Inula chritmoides* and Fig Trees *Ficus carica* being the dominant species.

**Ornithological Importance** – The cliffs support one of the largest known colonies of *Puffinus yelkouan* in central Mediterranean.

**Breeding species** – *Calonectris diomedea* (5-10 pairs – recent colony), *Puffinus yelkouan* (500-500 pairs), *Monticola solitarius* (3-5 pairs). Short-toed Lark *Calandrella brachydactyla* and Spectacled Warbler *Sylvia conspicillata* are known to breed along the cliff-tops.

**Threats** – Recreation/tourism, bird shooting and trapping along the cliff-tops, predation by rats.

## West of Wied ix-Xaqqa to Wied Maqbul Cliffs

Mt006

**Locality** – Hal-Far l/o Birzebbuga (Malta)

**Co-ordinates** – 35°48'N – 14°31'E

**Area** – 21ha cliff face (length of cliff edge 4.3km); **Altitude** – 0 to 52.5m

**Legal status** – SAC (Govt. Not. 257 2003)

**International Importance** – European Union Importance

**Qualifying species:** *Puffinus yelkouan* (C2, C6), *Calonectris diomedea* (C2, C6)

**Description of Area** – Sea-cliffs with boulder slopes, numerous sea-caves of which one, Ghar Hasan is a tourist attraction. Much of the overlaying area was used as a military airfield by the British forces until 1979 and since then the area has been developed into an industrial estate. Includes a number of valleys one of which (Wied Znuber) is ecologically important. At the extreme west side of the area there is a functional hardstone quarry which is depleting the cliff face.

**Dominant vegetation** – Cliff plant community includes Shrubby Seablite *Suaeda vera* and the endemic Maltese Rock-centuary *Palaeocyanus crassifolius*. Wied Znuber holds a maquis vegetation with strands of Giant Reed *Arundo donax* and several Carob trees *Ceratonia siliqua* along the valley's sloping side.

**Ornithological Importance** – The cliffs host shearwater colonies. The valleys are important as feeding and resting places for migratory and wintering species.

**Breeding species** – *Calonectris diomedea* (1000 – 1500 pairs), *Puffinus yelkouan* (100-150 pairs).

**Threats** – The main threats include the industrial encroachment towards the cliff edge and unshielded light sources around the Industrial Zone, uncontrolled recreational activities (hunting and trapping, barbecues, illegal dumping and onshore trap and line fishing (the latter being hazardous to Cory's Shearwater).

## West of il-Hagra s-Sewda to ix-Xaqqa Cliffs

Mt007

**Locality** – Siggiewi (Malta)

**Co-ordinates** – 35°50'N – 14°25'E

**Area** – 3.5ha cliff face (length of cliff edge 700m); **Altitude** – 0 to 67.5m

**Legal status** – SAC (Govt. Not. 257 2003)

**International Importance** – European Union Importance

**Qualifying species:** *Puffinus yelkouan* (C2, C6), *Calonectris diomedea* (C2, C6)

**Description of Area** – Mainly low limestone seacliffs (eastern side) to high rising cliffs (western side) and boulder slopes with garigue slopes and extensive land reclamation.

**Dominant vegetation** – Shrubby Seablite *Sueda vera* on the cliff edges and Sticky Fleabane *Dittrichia viscosa* on the top parts.

**Ornithological Importance** – sea-cliffs hold shearwater colonies.

**Breeding species** – *Calonectris diomedea* (500 – 1000 pairs), *Puffinus yelkouan* (80-100 pairs).

**Threats** – Illegal dumping, bird hunting and trapping, shore fishing at night, permanent light sources.

## il-Kullana to ta' Gfien Cliffs

Mt008

**Locality** – Dingli (Malta)

**Co-ordinates** – 35°50'N, 14°24'E

**Area** – 47.25ha cliff face (length of cliff edge 4.5km); **Altitude** – 0 to 105m

**Legal status** – SAC (Govt. Not. 257 2003)

**International Importance** - European Union Importance

**Qualifying species:** *Puffinus yelkouan* (C2, C6), *Calonectris diomedea* (C2, C6)

**Description of Area** – Vertical limestone sea cliffs with boulder slopes at the base. The overlaying part is mainly agricultural land.

**Dominant vegetation** – Sea-cliff vegetation community, which includes Maltese Cliff-orache *Cremnophyton lanfrancoi* and Shrubby Seablite *Suaeda vera*. It is the only known site in Malta for Malta Fungus *Cynomorium coccineum*.

**Ornithological Importance** – sea-cliffs hold shearwater colonies.

**Breeding species** – Cory's Shearwater *Calonectris diomedea* (500 -1000 pairs), Yelkouan Shearwater *Puffinus yelkouan* (100 -200 pairs).

**Threats** – Hunting and trapping, and fishing from cliff-top.

## Ic-Cnus to Tal-Bardan Cliffs

Mt009

**Locality** – Munxar (Gozo)

**Co-ordinates** – 36°01'N 14°14'E

**Area** – 19ha cliff face (length of cliff edge 1.5km); **Altitude** – 0 to 127.5m

**Legal status** –SAC (Govt. Not. 257 2003)

**International Importance** - European Union Importance

**Qualifying species:** *Puffinus yelkouan* (C2)

**Description of Area** – Vertical sea cliffs with narrow ledges and numerous sea-caves.

**Dominant vegetation** – Sea-cliff vegetation community mainly Maltese Salt-tree *Darniella melitensis*, and the endemic Maltese Cliff-orache *Crymnophyton lanfrancoi*.

**Ornithological Importance** – sea-cliffs hold shearwater colonies.

**Breeding species** – Cory's Shearwater *Calonectris diomedea* (300-500 pairs) and Yelkouan Shearwater *Puffinus yelkouan* (30–30+ pairs).

**Threats** – Illegal dumping, bird hunting and trapping, and fishing from cliff-top.

## Xlendi Bay to Wardija Point Cliffs

Mt010

**Locality** – Xlendi (Gozo)

**Co-ordinates** – 36°02'N 14°12'E

**Area** – 31.5ha cliff face (length of cliff edge 3.0km); **Altitude** – 0 to 105m

**Legal Status** – none

**International Importance** – European Union Importance

**Qualifying species:** *Puffinus yelkouan* (C2), *Calonectris diomedea* (C2)

**Description of Area** – Sloping as well as vertical limestone cliffs with numerous ledges, crevices and boulder screes.

**Dominant vegetation** – Sea-cliff vegetation community mainly Maltese Salt-tree *Darniella melitensis*, and the endemic Maltese Cliff-orache *Crymnohyton lanfrancoi*.

**Ornithological Importance** – sea-cliffs hold shearwater colonies.

**Breeding species** – Cory's Shearwater *Calonectris diomedea* (350-500 pairs) and Yelkouan Shearwater *Puffinus yelkouan* (30–50 pairs). Other species include Blue Rock Thrush *Monticola solitarius* (3-5 pairs).

**Threats** – Illegal dumping, bird hunting and trapping, fishing from cliff-top and barbecuing in caves.

## Dwejra Bay to San Dimitri Point

Mt011

**Locality** – Gharb (Gozo)

**Co-ordinates** – 36°04'N 14°11'E

**Area** – 35.7ha cliff face (length of cliff edge 3.4km ); **Altitude** – 0 to 105m

**Legal status** – Dwejra Bay SAC (Govt. Not. 257 2003)

**International Importance** - European Union Importance

**Qualifying species:** *Calonectris diomedea* (C6), *Puffinus yelkouan* (C2)

**Description of Area** – Sea cliffs and sea caves.

**Dominant vegetation** – Vegetation on cliff ledges mainly dominated by the endemic plants: Maltese Cliff-orache *Cremnophyton lanfrancoi*, Maltese Salt-tree *Darniella melitensis*, Maltese Everlasting *Helicrysum melitense*.

**Ornithological Importance** – The site holds shearwaters' colonies and other breeding species.

**Breeding species** – Cory's Shearwater *Calonectris diomedea* (400-500 pairs), Yelkouan Shearwater *Puffinus yelkouan* (30-50 pairs) and Blue Rock Thrush *Monticola solitarius* (5-8 pairs). Short-toed Lark *Calandrella brachydactyla* and Spectacled Warbler breed above the cliffs.

**Threats** – Illegal dumping, hunting and trapping, and onshore trap and line fishing (the latter being hazardous to Cory's Shearwater).

**References:**

- Borg, J. J. & Sultana, J. 2002. Status and distribution of the breeding Procellariiformes in Malta. *Il-Merill* 30: 10-15.
- Grimmett, R. F. A. & Jones, T. A. (1989) *Important Bird Areas in Europe*. Cambridge, UK: International Council for Bird Protection (Tech.Publ. 9).
- Heath, M.F. & Evans, M.I. Eds. 2000. *Important Bird Areas in Europe: Priority sites for conservation. 2: Southern Europe*. BirdLife International (BirdLife Conservation Series No. 8) : Cambridge, UK.
- Schembri, P.J., Lanfranco, E., Farrugia, P., Schembri, S. & Sultana J. 1987. *Localities with Conservation Values in the Maltese Islands*. Environment Division, Ministry of Education: Malta.
- Schembri, P.J. & Sultana, J. (Eds.). 1989. *Red Data Book for the Maltese Islands*. Department of Information, Malta.
- Schembri, P.J. 2003. Current State of knowledge of the Maltese Non-Marine Fauna. In Malta Environment & Planning Authority – *Annual Report and Accounts 2003*, MEPA, Malta: 33-66.
- Sultana, J. 2004. The Biodiversity of the Maltese Islands. In Gambin, K (Ed.). *Malta Roots of a Nation*. Midsea Books Ltd. for Heritage Malta and the EU Accession Celebrations Committee, Malta.
- Sultana, J & J.J. Borg. 2000. *Coastal Zone Subject Plan - Ornithology*. BirdLife Malta: report submitted to the Malta Planning Authority.
- Sultana, J. & C. Gauci. 1970. *Bird Studies on Filfla*. Malta Ornithological Society: Malta.
- Sultana, J. & C. Gauci. 1982. *A New Guide to the Birds of Malta*. The Ornithological Society: Valletta, Malta.
- Tucker, G. M. & Heath, M. F. (1994) *Birds in Europe: their conservation status*. Cambridge, UK: BirdLife International (BirdLife Conservation Series no. 3).