

POINTS OF HISTORICAL INTEREST

Ghajn Tuffieha Tower was one of the seven towers built by Grand Master Lascaris who embarked on building a number of coastal towers in various vulnerable parts of the Maltese Islands (1636 to 1657); in order to surveil the coastline and warn of any approaching vessels. Ghajn Tuffieha Tower was built in 1637 on the site of a medieval watchpost, and has Lippija and Nadur Towers in its line of sight. The tower was designed by the Italian architect Vincenzo Maculani, and is almost identical to Lippija Tower, having a square plan and two floors topped by a flat roof with a parapet. Each floor has a single room, and access to the upper floor, originally reached by a wooden ladder. It was originally armed with a half-pounder gun, and its garrison consisted of a captain and three men.

Ghajn Tuffieha WW2 searchlight and sound locator position can be found at the back of Hotba I-Bajda, and the concave batter walls were intended to deflect the wind from the sound locator deployed within the small compound. They also helped deflect blasts away from the emplacement, with the locator itself stored in an adjoining building. A British150cm anti-aircraft searchlight on a teethered mobile mounting (NWMA) was wheeled into a roofed protective searchlight emplacement at an adjacent position to the rear which included an observation platform, a generator room and limited accommodation.

Ta' Lippija Tower, also known as Ġnejna Tower, was also built in 1637, and the tower is located on the cliff edge of the Wardija Ridge overlooking Ġnejna Bay. It stands at an altitude of 80m above sea level and 11m high, over an area of 6m by 6m. Above the upper entrance to the tower were two escutcheons with the coat-of-arms of the Order and Grand Master Lascaris, together with the inscription PAX FIAT IN VIRTUTE TUA ET ABUNDATIO IN1637. The Lippija tower was manned by a garrison of four men and was armed with a single 'cannone di mezza libra'.

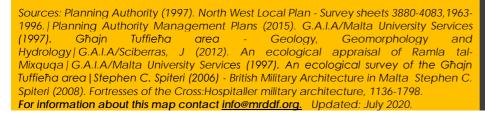
ABOUT THE PARK

The area in the northwest of Malta, which includes the coastal area from Golden Bay to II-Prajjet and ix- Xagħra I-Ħamra, was declared a national park by the Government of Malta by Legal Notice 251 in September 2007. The Park was named after the Northwest wind -'Majjistral' - in the Maltese language. The Park's area includes a stretch of 6km of protected coast, designated as part of a larger Special Area of Conservation (SAC) within the Natura 2000 network of sites. The Ghajn Tuffieħa SAC incorporates a varied landscape of clay slopes, beaches, karstland, boulder screes and agricultural land; and is rich in biodiversity, with over 300 plant species.

The Park is managed by the Heritage Parks Federation (HPF) and overseen by a supervisory board, composed of representatives from three NGOs, Mellieħa Local Council and an independent chairperson nominated by the Minister for the Environment (Subsidiary Legislation 549.83).



This map complements two new books about the flora and fauna in the Majjistral park (2020). Available from the Majjistral Visitors Centre or the GAIA Elysium nursery. Or else visit http://www.maltawildplants.com/



FLORA AND HABITAT HIGHLIGHTS

II-Hotba I-Bajda - II-Hotba I-Bajda has been afforested mainly with Acacias, Tamarisks and some Eucalyptus between 1969 and 1971 on the advice of experts from Israel, hence the name 'Israel Grove'. The undergrowth is mostly dominated by Cape Sorrel (M. Haxixa Ingliza, Oxalis pes-caprae), but also includes Golden Samphire (M. Xorbett; Limbarda crithmoides), Mediterranean Asparagus (M. Spraġġ xewwieki; Asparagus aphyllus) and Mediterranean Thistle (M. Xewk abjad; Galactites tomentosa) with occasional Field Gladiolus (M. Habb tal-gamh tar-raba; Gladiolus italicus) and French daffodil (M. Narcis; Narcissus tazetta). The clay slopes at the back of Ir-Ramla ta' Ghajn Tuffieha have also been planted with Tamarisk and Acacia in localised patches. The Tamarisks (M. Bruka; Tamarix africana) are now self-regenerating alongside Esparto Grass (M. Halfa; Lygeum spartum), creating a specific habitat known as a 'Southern riparian gallery and thicket'. This community is playing a crucial role in reducing erosion of the blue clay since roots stabilise the ground and the dense canopy minimises the effects of water and wind erosion. This slope also hosts the threatened Himantoglossum_robertianum (M. Orkida Kbira; Giant Orchid). Other typical clay species include the Hairless Goatsbeard (M. Leħjet il-bodbod; Tragopogon hybridus), Sulla (M. Sulla; Hedysarum coronarium) and Divided-leaved Viper's Grass (Podospermum laciniatum) occur in areas where the tree cover is reduced or absent. Spillover from the Acacia at Israeli Grove has led to its establishment and dominance below the escarpment, with a thick undergrowth of Mediterranean Asparagus, Wild Artichoke (M. Qagoċċ tax-xewk; Cynara cardunculus), African Carline Thistle (M. Sajtun; Carlina involucrata), Hedysarum coronarium, Animated Oat (M. Hafur kbir; Avena sterilis), Spanish Cock's Foot (M. Dekkuka ta' Spanja; Dactylis glomerta subsp. hispanica). Aleppo Pine (M. Žnuber; Pinus halepensis), Olive and Cypress also occur. The clay slopes are also the habitat for a number of rare faunal species like the reduviid bug Oncocephalus squalidus, the snail Hohenwartiana hohenwarti, the mutillid wasp Smicromyrne viduata, the reduviid bug Pasira basiptera and the carabid beetle Parophanus hispanus. To the South of II-Hotba I-Bajda and to the NE of Tal-Lippija/Ix-Xagħra tat-Torri plateau, the area is dominated by Olive trees exhibiting considerable self-growth.

Tal-Lippija/Ix-Xaghra Tat-Torri plateau - Although predominantly the plateau is considered to be a specific habitat called 'West Mediterranean clifftop 2 phryganas', and in part also a 'Thermo-Mediterranean and pre-desert scrub', species richness is high and the low-lying form of the shrubs appear to be a function of exposure to wind rather than of trampling or other human pressures. The dominant species are Mediterranean Thyme (m. Saghtar; Thymbra capitata), Summer Asphodel (M. Berwieg; Asphodelus aestivus) and Sea Squill (M. Basal tal-ghansar; Drimia pancration). Other species present include the Maltese Yellow Kidney Vetch (M. Hatba s-sewda ta' Malta; Anthyllis hermanniae subsp. Melitensis), Common Kidney Vetch (M. Silla tal-blat; Anthyllis vulneraria), Annual Kidney Vetch (M. Silla tal-bzieżel; Tripodion tetraphyllum), Azure Stonecrop (M. Beżzulet il-bagra; Sedum caeruleum), Mediterranean Stonecrop (M. Sedum; S. sediforme), Pink Bindweed (M. Leblieb tal-irdum; Convolvulus oleifolius), Silvery Mallow-Leaved BindWeed (M. Leblieba tax-xaghri car; Convolvulus elegantissimus), White-hedge Nettle (M. Te` Sqalli; Prasium majus), (M. Żebbuģija; Teucrium fruticans), Yellow Germander (M. Borghom komuni; Teucrium flavum). Eastern Phagnalon (M. Lixka komuni, Phagnalon graecum subsp. Ginzbergeri), Mediterranean False Brome (M. Pinna, Brachypodium retusum), Beard Grass (M Barrum tax-xagħri; Hyparrhenia hirta), Mediterranean Rock Rose (M. Čistu isfar; Fumana Arabica), Southern Star of Bethlehem (M. Halib it-tajr żgħir; Ornithogallum narbolense), Small-flowered Tongue Orchid (M. Orkida tal-Ilsien iż-Żghira; Serapias parviflora), Hairy Garlic (M. Tewm Muswaf; Allium subhirsutum), Rosy Garlic (M. Tewm Hamrani; Allium roseum), some Pyramidal Orchid (M. Orkida Piramidali; Anacamptis pyramidalis), Milky Orchid (M. Orkida Bajda tat-Tikek; Neotinea lactea) and thistles such as Stemless Atractylis (M. Xewk tal-mixta; Atractylis gummifera), African Carline Thistle (M. Sajtun; Carlina involucrata) and Mediterraean Thistle (M. Xek Abjad; Galactites tomentosa). There is evidence of a thriving wild rabbit population. The southern half of the Ix-Xaghra Tat-Torri / Tal-Lippija plateau is more exposed and has resulted in a more steppic character for the communities present. Further north along the plateau edges, one can find Fagonia, Spiny Chicory (M. Qanfuda; Cichorium spinosum), Rock Crucianella (M. Kruċanella; Crucianella rupestris), Golden Samphire, Hairy Plantain (Plantago bellardi), Phyrgana Yellow Bee Orchid (M. Żunżana tal-Frigana; Ophrys lutea subsp. phryganae) and Esparto Grass.

Ta' Żammitello - The slope leading towards the sea north of Ta' Żammitellu is mainly clayey, interspersed occasionally with coralline boulders, hence giving the whole area rather distinct habitat characteristics, namely a combination of 'Mediterranean salt steppes' and 'Vegetated sea cliffs & 'Calcareous rocky slopes with chasmophytic vegetation'. Dense stands of Great Reed (M. Qasba; *Arundo donax*) arise where there is considerable runoff from the various scarp-foot springs. Degraded areas are overrun with Animated Oat. The rest of the area is a mosaic of grass steppe dominated by *Esparto Grass* and a boulder scree assemblage. Areas of vegetation which are sheltered by the escarpment face, are dominated by Carob, Fig, Olive and Pomegranate which were originally planted, and by maritime shrubs such as *Golden Samphire* and Maltese Salt Tree (M. Xebb; *Salsola melitensis*). Small patches of cultivated land are also found. Closer to II-Qarraba, the clay substratum is more unstable and as a consequence the vegetation cover decreases. The rare *Fagonia cretica* is present along the whole talus up to the northernmost point of the Tal-Lippija/Ix-Xagħra tat-Torri plateau.

4 II-Qarraba promontory - II-Qarraba is steppic, although Esparto Grass is rather sparse in this area. The north-facing slope is colonised by Wild Artichoke, Esparto Grass, Golden Samphire, Clustered Carline-Thistle and Cape Sorrel. The south-facing slope is practically bare due to the steep gradient although in some areas the slopes are covered by blankets of Fagonia and the tenacious alien Cape Sorrel. To the West and the Northeast of these steep slopes, the steppes become dominated by herbaceous species and bulbous plants such as Asphodel and Seaside Squill, although Esparto Grass is still present.

B II-Qarraba boulder scree - II-Qarraba supports distinct boulder scree habitats. On the northern side of the promontory are primarily 'Mediterranean slope steppes' with a high species richness but no particular species dominating, except for a patch where Tree Spurge (M. Tengħud tas-Siġra; Euphorbia dendroides) is the most conspicuous shrub - elevating the habitat to a thermo-Mediterranean and pre-desert scrub. The tree species present include Carob, Fig, Date Palm (*Phoenix dactylifera*), Olive, and the Great Reed. These provide shelter for lower garrigue shrubs such as Mediterranean Thyme, Wolfbane (M. Siġret il-Harir; Periploca angustifolia), Spiny Chicory, Eastern Phagnalon, Golden Samphire, Sea Samphire (M. Bużbież il-boħar; *Crithmum maritimum*), Olive-leaved Bindweed, White-hedge Nettle, Olive-leaved Germander and Mediterranean Heath (M. Leħjet ix-xiħ; *Erica multifiora*). These two strata of vegetation provide shelter and support for climbers like Mediterranean Smilax (M. Zalza pajżana; *Smilax aspera*), Wild Madder (M. Harxajja selvaġġa; *Rubia peregrine*), Evergreen Honeysuckle and (M. Qarn il-mogħża; *Lonicera implexa*). Other low-lying species cover the ground like Maltese Sea Lavender (M. Limonju ta' Malta; *Limonium melitensis*), Red Stonecrop (M. Beżżul il-baqra; Sedum rubens) and Dog Cabbage (M. Habaq il-ħnieżer; *Theligonut such as False* Yellowhead (M. Tursin Il-Bir; *Adiantum capillus-veneris*) grows in shaded crevices and nooks in the vertical rock faces. More ubiquitous plants such as False Yellowhead (M. Tuliera komuni; *Dittrichia viscosa*), Sicilian Silver Ragwati (M. Kromb il-baħar isfar; Jacobaea maritima subsp. Sicula), Caper Bush (M. Kappara; *Capparis orientalis*), Pine Spurge (M. Tengħud Komuni; *Euphorbia segetalis*), Narrow Navelwort (M. Żokret I-għaġuża; Umbilicus horizonalis) and Greater Snapdragon (M. Papoċċi homor; *Antirrhinum tortuosum*) are also found. The south-facing side of the boulder scree provides a more protected habitat for vegetated sea cliffs since it i