

Life BaHAR for Natura 2000

LIFE 12 NAT/MT/000845

Diversità fl-ibħra Tagħna

L-ambjenti naturali tal-baħar

I-baħar madwar il-Gżejjer Malta hu rikk; b'diversità kbira ta' ħajja marittima, mill-plankton, għar-rizzi, qroll tal-baħar, raj u ħut. Il-baħar fil-ambjenti naturali differenti li jipprovdū kenn, ikek u postijiet fejn jgħixu u jgħammru diversi speci. L-gherien fil-baħar, is-sikek, l-imfierex tar-ramel u l-alka huma kollha eżempji ta' ambjenti naturali fil-baħar li huma importanti ghaliex dawn għandhom rwol uniku biex imantnu l-ekosistemi u l-bijodiversità fil-baħar.



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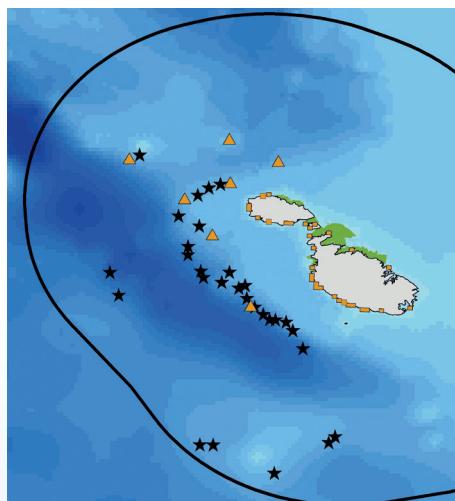
L-ghan ewljeni tal-proġett LIFE BaHAR for N2K hu li jħares din il-bijodiversità billi jiġiġenera informazzjoni ġidida permezz ta' sħarrig fil-baħar. Din l-informazzjoni sservi biex tistabbilixxi fejn hemm dawn l-ambjenti naturali, il-kundizzjoni tagħhom, liema speci jiddepdu fuqhom, u jekk l-aktivitajiet tal-bniedem għandhomx impatt fuqhom. Meta nifhu l-baħar tagħna ahna nkunu nistgħu nharsu l-ambjent naturali u l-ispeċi li jgħixu fihom.

Is-sikek

Hemm żewġ tipi ta' sikek – dawk ġeoġenici u dawk bijoġenici. Is-sikek ġeoġenici huma ambjenti naturali magħħmula mill-blatt fejn il-komunitajiet tal-annimali u l-pjanti jikbru fuq il-blatt li jisponta minn qiegħi il-baħar, fuq sisien taħt il-baħar jew fuq il-borgiġiet tal-ġebel. Is-sikek bijoġenici jinholqu minn ħlejjaq zgħar li mbagħad iservu bhala ambjenti naturali fejn jgħixu speci oħrajn. Is-sikek jinsabu f'fond differenti u f'għadd ta' għamliet differenti f'qiegħ il-baħar.



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Is-sikek huma differenti wkoll f'termini ta' liema komunitajiet jgħixu fuqhom u huma kunsidrati bhala postijiet mill-aqwa ghall-bijodiversità. Diversi algi u annimali, inkluż kemm invertebrati kif ukoll ħut, huma normalment assoċjati mas-sikek. Il-kundizzjonijiet ambjentali tas-sikka jiddeterminaw liema jkunu dawk il-gruppi ta' speci assoċjati ma' dan it-tali ta' ambjenti naturali.

L-ispeċi ta' qroll li jifformaw qafas fil-qiegħ tal-baħar jikbru biss fl-il-mijiet fondi u kiesha, peress li dawn m'humiex addattati biex jgħixu fl-il-mijiet tal-wiċċi iktar shan. Għalhekk is-sikek tal-qroll huma rari fil-Baħar Meditarran. Il-qroll ta' daqs kbir kapaċi jkun ha mijiet ta' snin biex jilħaq d-daqqs attwali tiegħu, peress li dawn l-ispeċi ta' qroll jikbru bil-mod ħafna. Minhabba f'hekk hu vitali li dawn l-ambjenti naturali ikunu protetti u konservati.

Bis-saħħa tal-proġett instabu ghall-ewwel darba wesghat estensivi u varji ta' qroll f'ilma kiesah f'fond ta' bejn it-300 u l-1,000 metru. Dawn inkludew foresti ta' qroll iswed kif ukoll qroll abjad, aħmar u ta' kultur id-deheb. Instabt ukoll sikka ffurmata minn sponza fossilizzata f'fond ta' madwar 300 metru u miffraxha fuq zona wiesgħha 7 kilometri li sservi ta' post fejn jgħixu bosta speċi.

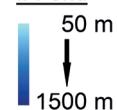
Għerien

L-għerien fil-baħar jistgħu jkunu ffurmati meta l-mewġ iħabbat dirett fuq il-blatt li jifforma xquq fil-blatt li mbagħad jifformaw f'għerien. Jistgħu jkunu ffurmati wkoll fuq l-art permezz tal-ażżejjix tal-pjan; dawn l-gherien imbagħad jispiċċaw taht il-baħar minhabba li cċeddi l-art, jew minhabba f'zieda fil-livell tal-baħar, jew inkella bl-effett tat-tnejn.

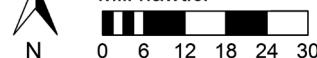
Tifsira

- Firxiet bl-alka
- Għerien max-xatt
- ▲ Għerien tal-fond
- ★ Sikek
- Parti miż-żona ta' ġestjoni tas-sajd (25 mil nawtiku madwar Malta)

Il-Fond



Mili nawtiċi



Il-kundizzjonijiet ambjentali fl-gherien ivarjaw skont id-daqi u l-ghamla tal-ghar, fuq kemm ikunu mghaddsin taħt wiċċi il-baħar, kemm ikunu mikxuha ghall-mewġ u l-kurrenti kif ukoll minhabba tibdil fit-temperatura, l-imalha tal-ilma u d-dawl. Dawn il-kundizzjonijiet jiddeterminaw x'tip ta' ħlejjaq jinstabu fl-gherien.



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L-gherien fil-baħar jgħixu fihom komunitajiet ta' invertebrati marittimi u algi qrib il-bokka tal-ghar. Dawn il-komunitajiet jinbidlu skont kemm ikunu milquta mill-qawwa tad-dawl u c-ċaqqi u l-moviment tal-ilma, liema kundizzjonijiet ivarjaw mid-dahla sa' ġewwa nett tal-ghar.

Il-kundizzjonijiet ta' dawl baxx u t-temperatura misjuba fl-gherien jistgħu jkunu jixbku lill-ambjent tal-baħar fil-fond. Għalhekk xi ħxejjex u annimali li jgħixu f'ilma aktar fil-fond insibuhom ukoll jgħixu fl-gherien, anki f'baħar relativi baxx.

Bis-saħħa tal-istħarrig tal-proġett LIFE BaHAR for N2K instabu għidha godda qrib il-kosta li jvarjaw minn dawk żgħar, li fihom biss ffit metri, għal-oħra jkbar magħħmula minn xquq fondi fil-blatt u f'sistemi ta' mini li jiddu ħafna l-ġewwa fil-blatt. Hemm ukoll sejbjet godda ta' għerien tal-baħar f'fond ta' bejn il-205-450 metri, kif ukoll għar li nstab f'fond ta' 795 metru.

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Diversity of Our Seas

Marine Habitats

The sea surrounding the Maltese Islands provides a home for a rich diversity of marine life, from plankton and sea urchins, to cold water corals, rays and shoals of fish. The sea hosts different habitats which provide shelter, food and breeding grounds for a variety of marine species. Sea caves, reefs, sandbanks and seagrass meadows are all examples of marine habitats that are important because of the roles they play in the functioning of marine ecosystems and in the maintenance of biodiversity.



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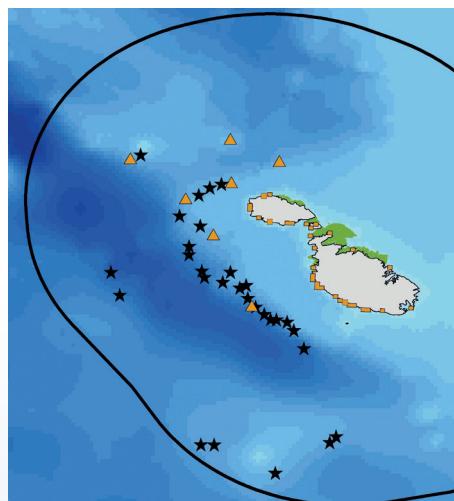
Protecting this rich biodiversity is at the core of the LIFE BaHAR for N2K project, which is generating new data through marine surveys. These data will serve to establish where such habitats occur, their condition, which species depend on them, and whether they are being impacted by human activities. Understanding our sea helps us protect the natural environment, including its habitats and species.

Reefs

There are two types of reefs - geogenic and biogenic. Geogenic reefs are natural rocky marine habitats where animal and plant communities grow on rocks protruding from the bottom, on rocky escarpments, or on collections of boulders. Biogenic reefs are structures created by the biota themselves and which provide a habitat for other species. Reefs



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can be found at varying depths and in a variety of seabed formations.

Reefs are also very diverse in terms of the communities they support and are considered to be biodiversity hotspots; algae and marine fauna, such as invertebrates and fish, are usually associated with reefs. The environmental conditions of the reef will determine the groups of species that are associated with this habitat.

Framework-forming deep-water corals occur in cold deep water since they cannot live in warm surface waters. Such deep-water reefs are considered to be a rare habitat in the Mediterranean Sea. Since many of the habitat-forming species are slow-growing, large coral frameworks may have taken hundreds of years to reach their present size.

Through the project, new areas with extensive and diverse cold water corals have been discovered at depths of 300–1000m, including black coral forests, as well as white, red and gold corals. A fossilised sponge reef was discovered at a depth of ca. 300m, and extending over a 7km wide area, which serves as a habitat for several species.

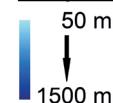
Caves

Marine caves may be formed through direct action of waves on rock at sea-level, which may turn rock fissures into clefts and eventually caves. They may also be formed on land through the action of ground water and later become submerged due to

Legend

- Seagrass meadows
- Coastal caves
- ▲ Deep-water caves
- ★ Reefs
- 25 nautical mile Fisheries Management Zone (shown partially)

Bathymetry



subsidence of the land, a rise in sea-level, or both together.

The environmental conditions within the caves vary depending on the size and structure of the caves, the extent to which they are submerged, the exposure to waves and currents, as well as changes in temperature, salinity and light. These varying conditions will in turn affect which communities of living organisms are found within.



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Sea caves harbour communities of marine invertebrates and algae near the mouth of the cave. These communities change along the gradients of light intensity and turbulence occurring from the entrance to the inner parts of the cave. The conditions of low light and temperature found in caves can be similar to deep water habitats, so that organisms usually found in deeper waters often inhabit caves, even in relatively shallow water.

Through surveys, the project has localised new caves in inshore areas, varying from small caves measuring only a few metres, to large fissures and tunnel systems penetrating deeply into the rock. There are also new records of deep-water caves at depths of 205–450m, as well as a cave recorded at 795m.