

An underwater photograph of a fish swimming over a field of seagrass. The fish is elongated with a dark stripe along its side and a yellowish tip on its tail. The seagrass is green and swaying. The background is a clear blue water.

IMPACT REPORT

2020-2024

Enalia Physis
Environmental
Research Centre





**Impact Report 2020 - 2024. Enalia Physis
Environmental Research Centre. Nicosia, Cyprus**

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A MESSAGE FROM THE DIRECTOR

As we reflect on another year of progress and challenges, I am deeply proud of the remarkable strides we have made at Enalia Physis. The past four years have been marked by resilience, growth, and unwavering commitment to our mission: protecting and sustaining the marine and terrestrial ecosystems of Cyprus and beyond.

Our dedicated team, in collaboration with partners, stakeholders, and funders, has made significant contributions across multiple fields, from species conservation and fisheries management to combating marine litter and raising public awareness. Noteworthy achievements include advancing the designation of Marine Protected Areas, protecting vulnerable species, engaging communities in citizen science, and addressing the critical threats posed by invasive species and climate change. Each of these accomplishments underscores our holistic approach to environmental research, education and awareness.

The journey has not been without its challenges. In a world still grappling with the aftermath of the COVID-19 pandemic and escalating environmental crises, the stakes for our planet's health have never been higher. Yet, it is precisely in these trying times that our resolve is tested and proven. Through collaboration, scientific innovation, and community engagement, we have demonstrated that positive change is possible.

Looking ahead, our strategy remains clear and ambitious. We aim to strengthen our impact by expanding our research initiatives, deepening stakeholder collaboration, and securing sustainable funding. Transparency, accountability, and the cultivation of an environmentally conscious society will continue to guide our work as we strive to influence policies and inspire action.

I extend my heartfelt gratitude to every member of the Enalia Physis family—our talented team, generous supporters, dedicated volunteers and visionary partners. Together, we are not just imagining a sustainable future; we are actively building it. Let us continue this vital work, emboldened by our shared purpose and inspired by the beauty and fragility of the natural world.

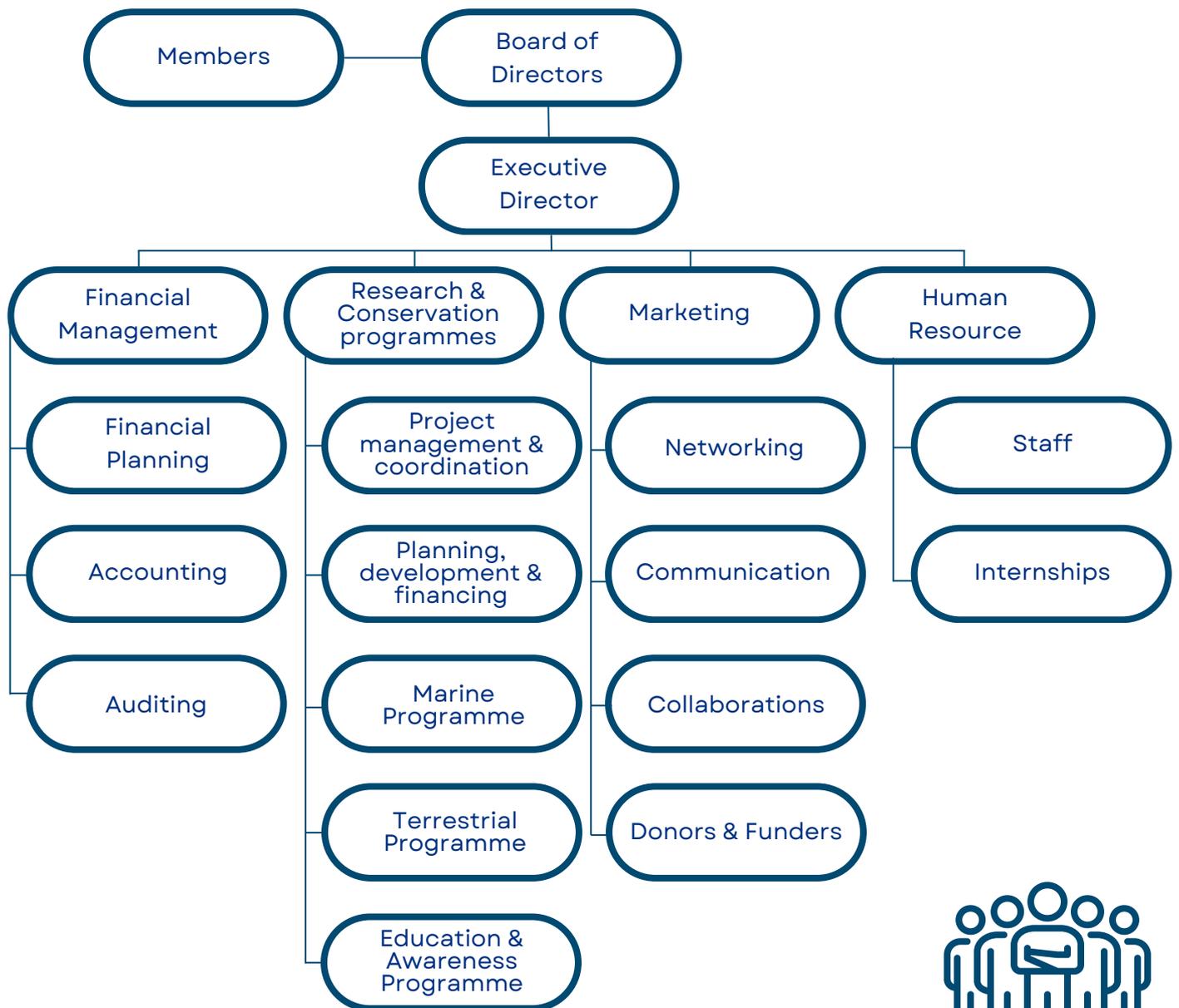
With hope and determination,
Marios Papageorgiou
Executive Director, Enalia Physis
Environmental Research Centre

ABOUT THE NGO

Founded in 2009, Enalia Physis Environmental Research Centre is a Cyprus-based non-profit organization dedicated to the protection and sustainable management of marine and terrestrial ecosystems. Our growth, both in team expertise and impact, reflects a steadfast commitment to our vision of thriving ecosystems sustainably benefiting all.

With a multidisciplinary team of environmental and biological experts, we collaborate locally and Mediterranean wide to conduct cutting-edge research, drive conservation initiatives, and foster ecological awareness.

ORGANISATIONAL STRUCTURE



OUR TEAM



Marios Papageorgiou

Executive Director



Carlos Jimenez

Senior Research
Coordinator - Marine
Programme



**Elena
Papageorgiou**
Secretary



**Marianna
Charalampous**
Communications
& Event Organiser



Vasilis Resaikos
Project Officer &
Lead Scientific
Diver - Marine
Programme



**Christiana
Tourapi**
Project Officer -
Marine
Programme



**Maria-Victoria
Tsaggara**
Project Officer -
Marine
Programme



**Ioanna
Angelidou**
Project Officer -
Terrestrial
Programme

OUR TEAM



Nicole Mavrovounioti

Project Officer -
Marine
Programme



Chara Apostolidou

Project Officer -
Environmental
Education &
Awareness
Programme



Katerina Athanasiou

Project Officer -
Terrestrial
Programme



Jakovos Demetriou

Project Officer -
Terrestrial
Programme



Evaggelos Koutsoukos

Project Officer -
Terrestrial
Programme



Andreas Josephides

Project Officer -
Education &
Awareness
Programme



Rebecca Katsaris

Educational
Associate -
Education &
Awareness
Programme



Marina Katsaris

Educational
Associate -
Education &
Awareness
Programme



Christina Pitta

Educational
Associate -
Education &
Awareness
Programme

OUR VISION

A world where marine and terrestrial ecosystems flourish and are sustainably managed for the common good.

OUR MISSION

To protect and ensure the sustainable use of natural resources in the Mediterranean through research, advocacy, education and awareness, driving conservation and societal transformation.

01.

To safeguard natural resources through science, education and awareness while influencing policy for meaningful environmental change

02.

By inspiring public participation and enhancing ecological literacy, we aim to empower communities to be stewards of the environment.

03.

Supported primarily by grant-giving foundations and EU funds, our work hinges on continued collaboration and investment.

TOGETHER, WE ARE BUILDING
A FUTURE WHERE NATURE
AND HUMANITY **COEXIST** IN
HARMONY.

OUR STRATEGY 2020-2025



Green turtle *Chelonia mydas*



Spiny globe-thistle
Echinops spinosissimus

Our strategy revolves around six key goals, each underpinned by targeted actions designed to amplify our impact by 2025. These goals are not only benchmarks of success but also pathways to a thriving and sustainable future for Cyprus and the Mediterranean Sea.

HOW WE ACHIEVE OUR GOALS



1. FINANCIAL SUSTAINABILITY

Objective: Ensure long-term viability to support conservation initiatives.

Key Actions:

- Diversify funding streams through small donors, partnerships, and commercial activities.
- Secure grants from private foundations, EU funds and other institutional sources.
- Develop and market eco-friendly products and services.



2. COMMUNITY ENGAGEMENT

Objective: Foster an informed, involved, and empowered public.

Key Actions:

- Expand citizen science initiatives to actively involve the public in research.
- Conduct educational programs, awareness campaigns, and interactive workshops.
- Enhance volunteer and internship opportunities to build a future generation of conservationists.

HOW WE ACHIEVE OUR GOALS



3. TRANSPARENCY AND ACCOUNTABILITY

Objective: Build trust and maintain credibility with stakeholders.

Key Actions:

- Regularly update communication channels, including a user-friendly website and active social media presence.
- Publish accessible annual reports and other detailed information for stakeholders.
- Host public discussions, consultations, and meetings to foster open dialogue.



4. STRENGTHENING ORGANIZATIONAL IDENTITY

Objective: Position Enalia Physis as a leading voice in environmental conservation.

Key Actions:

- Enhance visibility through strategic social media campaigns, public relations, and events.
- Build a compelling organizational narrative to attract donors, partners, and supporters.

HOW WE ACHIEVE OUR GOALS



5. OPERATIONAL EXCELLENCE

Objective: Optimize internal processes for maximum efficiency and impact.

Key Actions:

- Invest in staff training and the development of core organizational capabilities.
- Foster a collaborative and adaptive organizational culture.
- Streamline decision-making and improve internal communication structures.



6. PROTECTING ECOSYSTEMS AND BIODIVERSITY

Objective: Safeguard natural habitats and species for future generations.

Key Actions:

- Conduct innovative and impactful scientific research.
- Design and implement funded conservation programs.
- Advocate for policy change through government consultations and lobbying.
- Educate the public and stakeholders on critical environmental issues.

MEASURING IMPACT

Each action is accompanied by clear metrics to ensure accountability, track our progress, and adapt where necessary. Together, these goals form the backbone of our mission to build a sustainable, biodiverse, and environmentally conscious future.

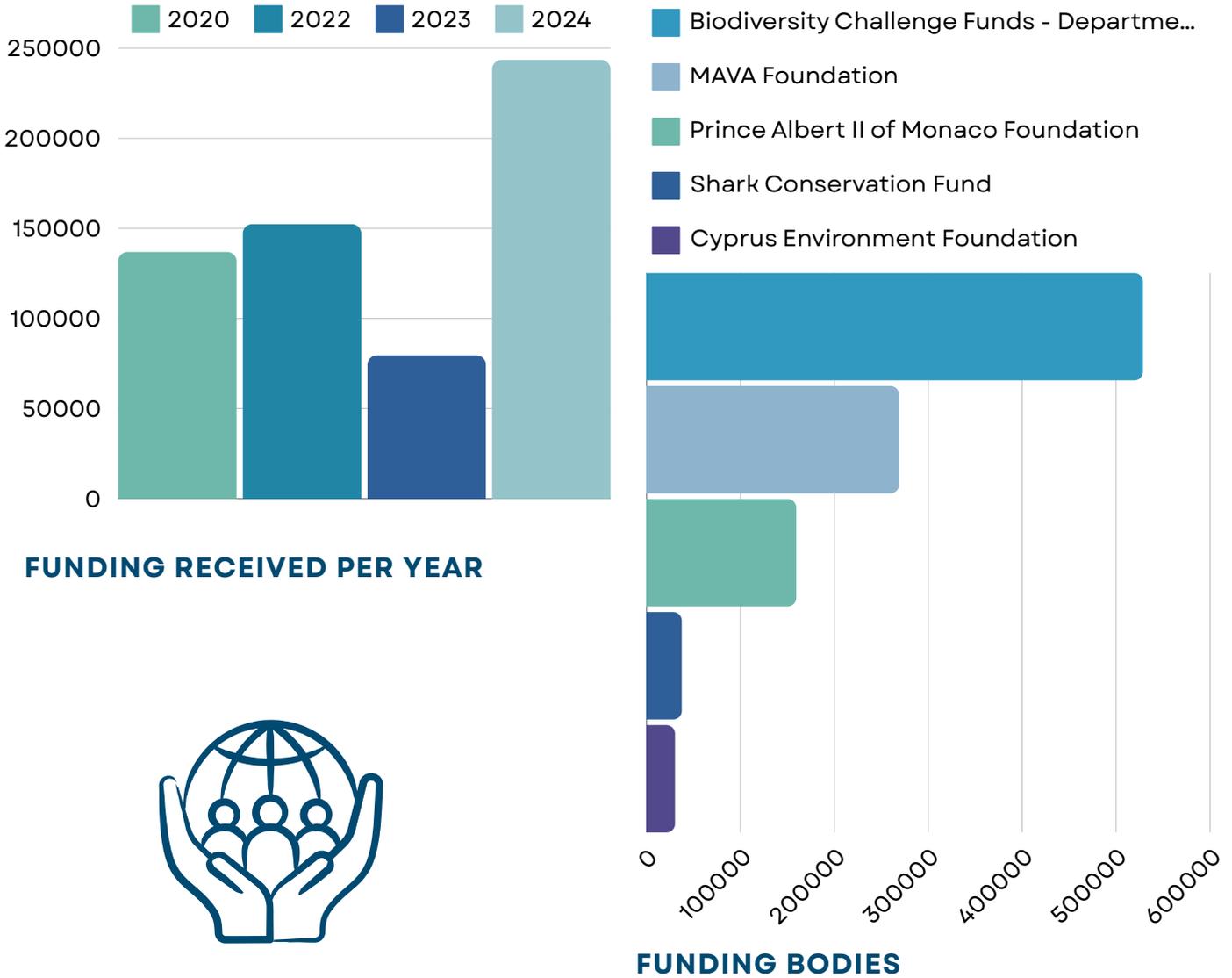
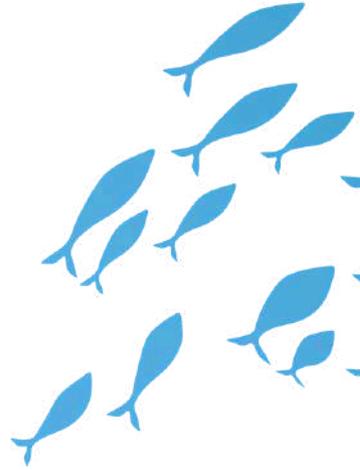


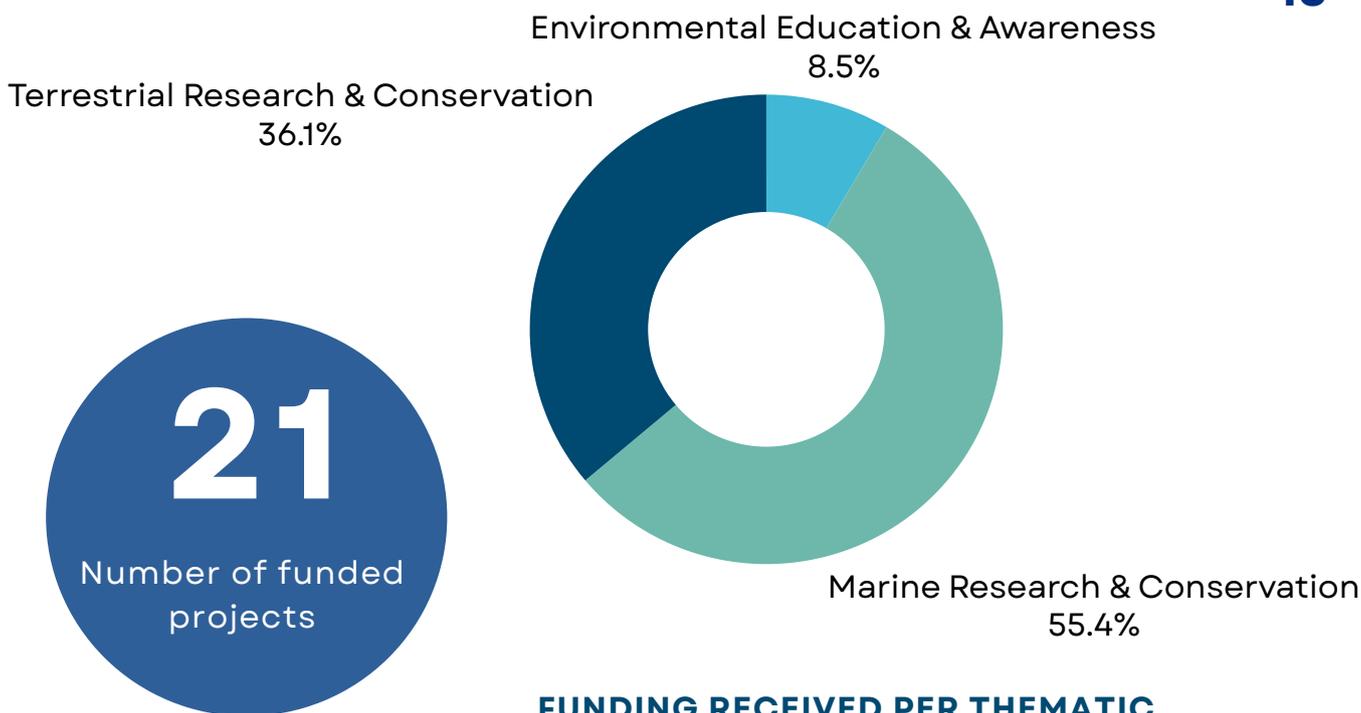
European barracuda, *Sphyraena sphyraena*

IMPACT

€1,169,990

Total funding received for 2020 - 2024



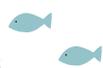


21
Number of funded projects

FUNDING RECEIVED PER THEMATIC

€633,389

Total funding allocated for marine research & conservation



€413,076

Total funding allocated for terrestrial research & conservation



€96,875

Total funding allocated for environmental education & awareness



1800
Number of kids educated



> 250
Number of fishers trained on sustainable fishing practices



60
Number of schools visited

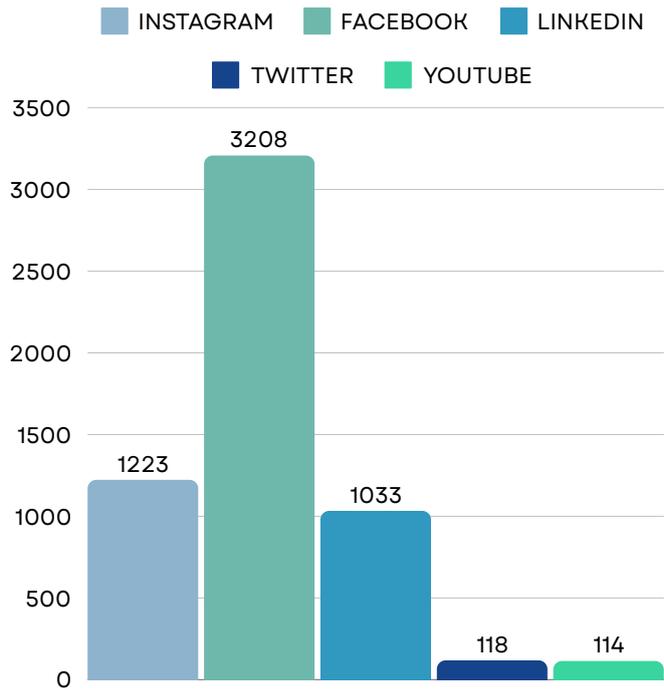


20
Beach and seabed clean ups



>1835

Number of posts across all social media platforms



NUMBER OF FOLLOWERS

10 Number of internships and thesis supervised



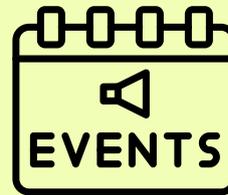
30

Press release articles



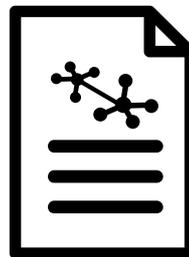
Participation at public events

6



Workshops and events

20



80

Scientific publications in peer-reviewed journals



>300

Scientific dives

1200kg

of ghost nets removed



M A R I N E

RESEARCH AND CONSERVATION

At Enalia Physis Environmental Research Centre, our marine research and conservation efforts are a beacon of hope for the fragile marine ecosystems of Cyprus. Through pioneering projects, we delve into the heart of marine biodiversity, addressing critical challenges such as invasive species, overfishing, climate change and habitat degradation. From advancing the protection of endangered species like the Mediterranean monk seal and the Shortfin mako shark to fostering sustainable fisheries and creating marine protected areas, our work is driven by a profound respect for the ocean's intricate balance. By blending cutting-edge science with community engagement and policy advocacy, we are not just safeguarding marine life but also inspiring a collective commitment to a thriving, resilient future for our seas.



MAPPING AND ASSESSING THE CONDITION OF IMPORTANT LITTORAL BIOCONSTRUCTIONS



Marine Caves, Cape Greco

Cape Greco MPA is a young MPA created in 2018 as a Natura 2000 site. Mediterranean biogenic concretions or bioconstructions (e.g. coral reefs, carbonate platforms) have an important function within marine ecosystems since they confer protection of the coastal rocky shores and improve biodiversity and ecological processes by providing heterogeneity and structural complexity. However, there is still no information available on the composition, extent and state of health of these structures within the Cape Greco MPA.

Project objectives: The project aimed at mapping three important taxa that exist in the Cape Greco MPA. These include the Scleractinian coral *Cladocora caespitosa*, Vermetid reefs (*Dendropoma sp.*) and the bioconstructions *Lithophyllum sp.*, which are all included in Annex I of the Habitats Directive (92/43/EEC). The project will establish a basis for further research, the development of a monitoring programme and the implementation of conservation measures.

Key deliverables

- Final project report

Start date: January 2020
 End date: December 2020
 Duration: 12 months
 Funded by: MedPan
 Budget: €10,000



[Project website](#)



CYPRUS BYCATCH PROJECT - UNDERSTANDING MULTI-TAXA 'BYCATCH' OF VULNERABLE SPECIES AND TESTING MITIGATION - A COLLABORATIVE APPROACH IN CYPRUS (PHASE I)

The incidental capture of vulnerable species in fishing gear (also known as 'bycatch') is a key threat in the Mediterranean Sea for several taxonomic groups, including sea turtles, seabirds, marine mammals, cartilaginous fishes as well as corals and sponges. The term 'bycatch' is used to refer to the part of the catch unintentionally captured during a fishing operation (in addition to the target species), and consists of species with or without commercial value. Little is known about the scale and the scope of the bycatch problem in Cyprus, especially for seabirds, although it is known that incidental capture in fishing gear is an important pressure to threatened species such as elasmobranchs, sea turtles and the Mediterranean Monk Seal.

Data collection on the incidental catch of vulnerable species in the Mediterranean has been lacking and/or carried out using different protocols in different countries. The absence of systematic reporting of vulnerable species captured has made data comparison at a regional level difficult, despite national and international obligations. As a result, observations and reports tend to lack standardization and continuity, making it impossible to understand the scale of the problem across the Mediterranean.

Furthermore, there is a need for developing efficient mitigation techniques for bycatch of vulnerable species in the Mediterranean and in Cyprus, as well as methods that can be implemented across the different fishing operations and gear used in the wider region.



Project objectives: This project focused on Cyprus, an important part of the already prioritised regions on two separate fishing gears: set nets and drifting pelagic longlines which are known to interact with sea turtles, seals, sharks and rays, seabirds and cetaceans. In synergy with the existing wider Med Bycatch Project, the project focused on developing and implementing standardised data collection of bycatch and testing mitigation measures for their effectiveness in reducing single and multi-taxa bycatch. The project also tested mitigation measures to reduce conflict between fishers and dolphins. Mitigation measures were developed and tested according to data gathered through the project, on the nature and extent of bycatch across different métiers. Geographic areas in which to test and implement mitigation, were prioritised according to available habitat use data, and new habitat data produced during the project's taxon-specific studies.

Key deliverables

- [Final technical report](#)
- [Animated awareness video](#)

Start date: November 2017

End date: February 2020

Duration: 30 months

Funded by: MAVA Foundation

Budget: €126,900

http://



[Project website](#)



Bycatch of loggerhead turtle, *Caretta caretta*

CYPRUS BYCATCH PROJECT - UNDERSTANDING MULTI-TAXA 'BYCATCH' OF VULNERABLE SPECIES AND TESTING MITIGATION - A COLLABORATIVE APPROACH IN CYPRUS (PHASE II)



Bycatch of a Sandbar shark (*Carcharhinus plumbeus*) on trammel nets in Cyprus

Project objectives:

- 1) Continuation of the data collection program;
- 2) Adoption of mitigation measures that effectively reduce bycatch of vulnerable species in Cyprus fisheries;
- 3) Raised awareness of fishers and other target groups on multi-taxa bycatch through communication and advocacy activities;
- 4) Capacity building of relevant actors (NGOs, fishers' organizations, authorities and administrations) and;
- 5) Implementation of pilot projects on sustainable fishing practices.

Following the efficient completion of phase one, the Cyprus Bycatch Project Partners have the knowledge and stakeholder support with which to act with confidence in phase two, to finalise mitigation measure trials and to inform and direct decision makers to take action to reduce the bycatch of vulnerable species by 2022 and beyond. In phase two the project continued to work in synergy with the Med-wide project and according to the same strategies: Partnership, Policy and Advocacy Actions, Technical solutions/mitigation measures to limit by-catch and conflict, Replication and Scaling Up, and are the same four strategies adopted by the Med-wide project.

Key deliverables

- [Policy brief](#)
- [MAVA Final evaluation report](#)

Start date: July 2020
 End date: November 2022
 Duration: 30 months
 Funded by: MAVA Foundation
 Budget: €141,959

<http://>  [Project website](#)

ASSISTED RECRUITMENT OF THE CRITICALLY ENDANGERED FAN MUSSEL *PINNA NOBILIS* IN CYPRUS (EASTERN MEDITERRANEAN)



Healthy *Pinna nobilis* community in Paralimni, Cyprus prior to the mass mortality event

Pinna nobilis is an endemic species and the largest bivalve of the Mediterranean Sea. It has a key ecological role by filtering water, retaining organic matter, thus reducing turbidity and it provides a hard substrate for benthic species. It occurs at depths until 60 m, on different substrata, but mostly within *Posidonia oceanica* meadows, the most important ecosystem of the Mediterranean Sea.

An on-going mass mortality event (MME) is affecting *Pinna nobilis* populations across the Mediterranean Sea, mostly due to an infection caused by an haplosporidan parasite (*Haplosporidium pinnae*).

Started in 2016, the MME was first identified along the southeastern coastline of Spain and in Balearic Islands; subsequently transported by ocean currents, the pathogen reached other Mediterranean regions, and mass mortality events have been reported along French and Italian coasts and shortly after in the eastern part of the Mediterranean.

Due to the dramatic population size reduction, *Pinna nobilis* has been listed as Critically Endangered on the IUCN's Red list in 2019. In addition, it is included in the EU Habitats Directive (92/43/EEC, Annex IV), in the Barcelona Convention (Annex II) and it has also been assigned a strict protection status under the national legislation of most Mediterranean countries.

Pinna nobilis is a well-studied organism, however the majority of the information come from the central and western Mediterranean. Accurate and relevant data concerning the current status, distribution and density of *P. nobilis* in Cyprus are not available or is in the process to be generated.

Historically, *P. nobilis* was present in almost all the Levantine Basin and until at least early 2018, Cyprus had large *P. nobilis* populations. Between 2016 and 2017 only few individuals (<3-5%) of various populations around the island were affected by the mass mortality event. However, in late 2018 and 2019, selected areas that were revisited reported almost 100% mortality at least until 40 m depth at all sites.

Pinna nobilis

Project objectives: The possible recovery of impacted populations will rely on the existence of unimpacted populations, resistant individuals and recruitment. The overall objectives of the project are:

- To collect and gather information on the current status of *P. nobilis* in Cyprus
- To enhance the larval recruitment of *P. nobilis*, through installation of larval collectors, and support eventual recoveries of the species
- To produce solid scientific results with implications towards the conservation of *P. nobilis* in Cyprus and elsewhere in the Mediterranean Sea
- To raise public awareness.

Key deliverables

- Final project report
- [Press release article](#)

Start date: November 2021

End date: May 2022

Duration: 6 months

Funded by: The Mohamed bin Zayed Species Conservation Fund

Budget: €10,400

[http://](#)



[Project website](#)

MONITORING & ASSISTED RECRUITMENT OF THE CRITICALLY ENDANGERED PINNA NOBILIS



Larval collector in the water

Following the successful implantation of the initial project and the need for further research, the project aimed to contribute to the scientific knowledge of the species and support its recruitment, with eventually aiding to the recovery and sustainability of its population in Cyprus.

Project objectives:

The project aimed to increase the available data and scientific knowledge on *P. nobilis* in Cyprus and support its recovery through a standardised protocol. Specifically, the aimed to assess, through SCUBA diving, the current status of *Pinna nobilis* where live specimens have been reported; use larval collectors at Paralimni MPA and Oroklini MPA, aiming to enhance *P. nobilis*' larval recruitment and settlement; analyse and identify specimens found inside the collectors; raise public awareness using social media channels and compose a final report together with data from previous surveys that provides a better understanding of the status of *P. nobilis* and its habitat in Cyprus.

Key deliverables

- Final project report
- *Pinna nobilis* information flipbook in [English](#) & [Greek](#).
- [The project was featured at the event FORO MARINO 2023.](#)

Start date: October 2021

End date: April 2023

Duration: 7 months

Funded by: Cyprus Environment Foundation

Budget: €6,500

[http://](#)



[Project website](#)



ASSESSING AND PROTECTING MARINE BIODIVERSITY (JUBILEE SHOALS, SBAA AKROTIRI, CYPRUS)

According to recent estimations, over 90% of the global marine environment has been modified by human activities with negative consequences, such as diminishing biodiversity and disrupting important ecological processes. This on-going biodiversity crisis is happening quickly, much faster than we can produce information for its understanding and conservation. In the Mediterranean, submerged marine caves, seagrasses meadows, rocky reefs, and coralligenous habitats, are considered reservoirs of native biodiversity, which is threatened, unfortunately, by human activities and Climate change. In Cyprus, important coralligenous, rocky reefs and seagrass habitats are deteriorated by fishing activities (e.g., bottom nets and derelict gear), and marine caves unknowingly by divers. Making things worse, the recent series of marine heatwaves in the Mediterranean have affected significantly Cyprus' biodiversity. The Jubilee Shoals (SBAA Akrotiri) is an example of an important place where the aforementioned habitats are under the pressure of diverse agents of deterioration. Nonetheless, the shoals' biodiversity is remarkable, and in consequence, it is deemed pressing to take actions for their protection and management. Prior to this project, no systematic assessment of the biodiversity of the shoal's habitats, their health status and the human footprint existed. Such an assessment is with the purpose to generate the knowledge needed for the protection and management of the area in order to tackle climate change effects and decrease degradation of the habitats.



Project objectives: The project assessed the biological communities that thrive in four marine habitats at the Jubilee Shoals (SBAA Akrotiri) in Cyprus: seagrass beds, rocky reefs, submerged caves, and coralligenous. The assessment took in account the physical characteristics (depth, geomorphology 3D), environmental parameters (temperature seasonality), and the human footprint (fishing, diving) on these habitats. With the participation of students and scientist, the project produced information that is essential for management and protection actions.

Key deliverables

- [Final project report](#)

Start date: April 2023

End date: March 2024

Duration: 12 months

Funded by: Biodiversity Challenge Funds -
Department for Environment, Food and Rural
Affairs, UK

Budget: €56,610

http://



[Project website](#)



Ghost nets at Jubilee Shoals

CHASING GHOSTS: MANAGING ABANDONED FISHING GEAR IN SBA AKROTIRI, CYPRUS

The environmental problem of abandoned fishing gear (hereafter ghost nets) is of planetary scale. It poses a chronic impact on marine biodiversity for decades, after the nets were lost to the sea, by continuing “fishing” by trapping and killing organisms. In consequence, ghost nets are considered the “deadliest form of marine plastic debris”. In Cyprus, ghost nets are found almost everywhere around the island, threatening marine life and scuba diving activities, and obstructing in-use fishing gear and navigation. The resilience of the marine habitats of Cyprus is already compromised by Climate Change and human activities. For example, the marine heat waves of 2023 impacted significantly the marine biodiversity of the island by producing seawater warming lasting for months, and most probably, facilitating the spread of disease killing en masse sponges and other species. Making things worse, ghost nets are a permanent feature of the seascape and a pervasive source of deterioration of the already stressed-out marine communities of Cyprus. Ghost nets are known to ensnare marine mammals and sea turtles but the widest-spread killing occurs on the sea bottom, where the nets continue “fishing” and smothering the benthic biodiversity.



Project objectives: The project “Chasing Ghosts: Managing abandoned fishing gear in SBA Akrotiri, Cyprus” aims to produce the indispensable information for the management of this pervasive type of litter in the Jubilee Shoals protecting thus, the remarkable biodiversity and habitats of the shoals.

Key deliverables:

- Final project report
- 2500 m of ghost nets removed

Start date: April 2024

End date: March 2025

Duration: 12 months

Funded by: Biodiversity Challenge Funds -
Department for Environment, Food and Rural
Affairs, UK

Budget: €58,950

http://



[Project website](#)



Jubilee Shoals



IMPACT OF TERRESTRIAL-USED PESTICIDES ON THE MARINE ENVIRONMENT

The adverse impacts of pesticide pollution on environmental and public health are major concerns in many countries where there is a lack of effective regulations and monitoring schemes on pesticide use and control in agriculture.

Based on the 2017 European Union report on EU Member States' pesticide residues in food, Cyprus had the highest maximum residual limits (MRLs) exceedance rates for food and animal feeds followed by Greece. These results indicate that there is no effective control on how farmers apply pesticides on their land and the quantities and types of pesticides they can purchase. Similar problems exist in the northern part of Cyprus. Hence, excessive use of pesticides results in environmental pollution.

Pesticide residues in ground water in the northern part of Cyprus was previously studied in 2014. The findings demonstrated the presence of various pesticides indicating the transport of these toxic compounds into the water resources. The study report prepared in relation to the implementation of Marine Strategy Framework Directive (2008/56/EC) stated the presence of pesticides in marine environment in the Republic of Cyprus (RoC). However, the study elucidated only 14 pesticides while there are hundreds of different active substances used in agriculture.

**Project objectives:**

- 1) To understand the fate of transportation of pesticides through seepage of ground- waters into the marine environment;
- 2) To determine the existing situation in terms of pesticide pollution in the marine environment and advocate for effective legislations in compliance with EU;
- 3) To contribute to the big knowledge gap and benefit different stakeholder groups that are higher or lower in the hierarchy;
- 4) To drive change on attitudes and perceptions on pesticides through education and awareness raising;
- 5) To share scientific findings and raise awareness of the issue and possibly generate new research questions and create interest among the scientific community. This may lead to a future Mediterranean-wide project on the impacts of land-used pesticides on the marine environment.

Key deliverables:

- Final project report
- Policy brief
- [Animated awareness video](#)

Start date: April 2023

End date: October 2024

Duration: 18 months

Funded by: Prince Albert II of Monaco
Foundation

Budget: €57,000



[Project website](#)

MONK SEAL PROTECTION IN THE EASTERN MEDITERRANEAN



Mediterranean Monk Seal in Ayia Napa

Project objectives:

The project aimed to improve the knowledge of the population of the Mediterranean monk seal in the eastern Mediterranean, monitoring their populations, reducing threats and raising public awareness.

The Mediterranean monk seal is catalogued as endangered by the IUCN and its estimated population worldwide is ca. 700-800 animals. Greece, Cyprus and Turkey still maintain a large population of the species, with around 350-450 individuals. Even if considered as one, the reality is that this population is the sum of an unknown number of isolated subpopulations. After several years of monitoring in the Levantine and Ionian areas, the need to include countries where it is not known if sightings are a sign of the overall use of the species' distribution range or of its expansion to new areas, to the actions and common projects, is evident.

This international project mobilises 10 partners throughout the Mediterranean to commonly monitor monk seal populations, reduce identified threats and share information using common indicators, methodologies and tools.

Key deliverables:

- [Scientific publication](#)
- [Educational video - Meet the Mediterranean Monk Seal](#)
- [Educational brochure - The Mediterranean Monk Seal](#)
- [Monk seal cave clean up](#)
- [Awareness raising meetings with fishermen](#)
- [Production of audiobook for kids](#)

Start date: April 2021

End date: March 2023

Duration: 23 months

Funded by: Prince Albert II of Monaco Foundation

Budget: €34,500



[Project website](#)

MONK SEAL CONSERVATION IN CYPRUS - PHASE III



Sea caves Ayia Napa

Touristic and other recreational activities are the main threats to the Mediterranean monk seal in Cyprus. In order to better understand those pressures and their impacts on the species, the project will study the physical disturbance and noise pollution that is primarily caused by touristic boats that take hundreds of tourists every day close to the seal caves. This will provide the first description of underwater soundscapes and physical disturbances on critical habitats of the Mediterranean monk seal in Cyprus and will provide relevant data on the acoustic environment, utilized by sound-reliant animals. Other interactions will be measured, such as those with the open-sea fish farming cages. With this data collected, Enalia Physis will educate and raise awareness of aquaculture stakeholders and touristic operators so as to improve the conservation status of the monk seal.

Project objectives:

- 1) Evaluate anthropogenic pressures linked to tourism and aquaculture;
- 2) Raise stakeholders' awareness of respectful behavior towards the species and the need to protect it.

Key deliverables:

- Increased knowledge on the anthropic pressures
- Creation of a "Handbook of Best Practices to minimize impacts on Monk Seal's population" for sea-users

Start date: April 2024

End date: March 2027

Duration: 36 months

Funded by: Prince Albert II of Monaco Foundation

Budget: €125,000

http://



[Project website](#)



Angelshark *Squatina squatina*. Credit: Simon Rogerson

MEDITERRANEAN ANGEL SHARKS: REGIONAL ACTION PLAN PHASE 2: IMPLEMENTATION

Angel sharks are a group of sharks in the genus *Squatina* of the family Squatinidae. They are benthic species, capable of excellent camouflage and they have a body dorso-ventrally flattened. Three species of angel sharks are present in the Mediterranean with overlapping ranges – the Sawback Angelshark *Squatina aculeata*, the Smoothback Angelshark *S. oculata*, and the Angelshark *S. squatina*. All three can be found in Cyprus. Due to their dramatic populations decline, they are all classified as Critically Endangered with apparently local extinctions in some areas of the Mediterranean. The main threats in the Republic of Cyprus as well as in other areas include lack of species-specific landings and identification issues in Small- and Large-Scale Fisheries, illegal, unreported, and unregulated fishing, fragmentation of the populations and low genetic diversity and habitat degradation. In the Republic of Cyprus, there is no national legislation in place for angel sharks. However, a General Fisheries Commission for the Mediterranean (GFCM) binding Recommendation prohibits the retention, transshipment, landing, storage, display, and sale of 24 species of elasmobranch including the three *Squatina* species. The European Union transposed the GFCM Recommendation into EU Regulation (EU 2015/2102), thereby this regulation is applicable in Cyprus. In addition, *S. squatina* is a Prohibited species under the Technical Measure, Regulation (EU) 2019/1241, which applies to the EU fleet in the Mediterranean and third country vessels fishing in Union waters.

**Project objectives:**

1) To document angel sharks caught in fisheries and collect information on biology, distribution, mortality rates, and bycatch hotspots; 2) To create best practice guidelines for fisheries, specific to the three *Squatina* species; 3) To develop and distribute awareness material for commercial and recreational fishers; 4) To implement training programs to educate fishers about angel sharks as well as best practice handling techniques and; 5) To identify and map Critical Angel Shark Areas (CASAs) and advise on their management.

Key deliverables:

- Distribution and bycatch hotspot maps
- Safe handling and release guidelines for fisheries
- Training workshops to fishers
- Final report

Start date: January 2023

End date: December 2025

Duration: 36 months

Funded by: Shark Conservation Fund

Budget: €37,570

http://



[Project website](#)

TERRESTRIAL

RESEARCH AND CONSERVATION

Our terrestrial research and conservation efforts have significantly advanced understanding and protection of native and non-native species across Cyprus and beyond. Highlights include the CyDAS initiative, which has increased awareness of invasive non-native species (INNS) through user-friendly online resources and citizen-science projects. The ACE Database, a cornerstone of the project, has cataloged over 346 alien insect species, enhancing knowledge of biodiversity, introduction pathways, and ecological impacts. Similarly, the conservation of rare and endangered flora within the SBAs at Akrotiri, along with their pollinators, has underscored the importance of these species through mapping, genetic material collection, and public awareness campaigns. Projects like the Eleonora's falcon forage study and the comprehensive surveys on Chalcid wasps and ants further exemplify our commitment to addressing anthropogenic pressures, advancing citizen science, and informing conservation strategies for the island's rich biodiversity. These initiatives collectively emphasize the critical role of science, community engagement, and proactive measures in ensuring a sustainable future for terrestrial ecosystems.



RAISING PUBLIC AWARENESS ON INVASIVE NON-NATIVE SPECIES AND PROVIDING ACCESSIBLE, USER-FRIENDLY ONLINE RESOURCES THROUGH THE CYDAS

Increasing awareness amongst people of the threat posed by invasive non-native species (INNS) is critical to inform decision making. The project aimed to increase local knowledge within the SBAs, Cyprus and beyond by providing accessible, user-friendly on-line resources through an on-line database alongside citizen-science to study native species-INNS interactions.

A significant part of the program is devoted to the ACE Database deciphering, cataloguing and researching the alien insect fauna of Cyprus. This database includes inter alia data on the biodiversity, taxonomy, establishment status, origin, trophic group, introduction pathways, distribution, invaded habitats and impacts of alien insects inhabiting the island. Up-to-date, the project has added more than 200 species profiles for alien insects in the Cyprus Database of Alien Species (CyDAS) and has managed to increase the known number of alien insects of Cyprus to 346. An important aspect of the project concerns the investigation for new, unreported alien insects on the island through material sampling and communication with experts. These endeavors although still ongoing have managed collect data on more than 20 new alien invaders.



PROJECT OBJECTIVES:

- 1) Raise awareness on INNS by initiating and promoting a citizen-science recording scheme for invasive non-native invertebrates;
- 2) Identify knowledge gaps regarding the impacts of non-native invertebrates on the island of Cyprus;
- 3) Review the literature and other sources, including grey literature and social media, to update and create a public-facing interface for the Cyprus Database of Alien Species developed through DarwinPlus056;
- 4) Create information sources to raise awareness and develop alert/rapid response schemes for invasive non-native insects likely to arrive and establish at SBAs that have impacts on biodiversity, economy and human health;
- 5) Create distribution maps for 10 invasive and non-native species present at the Peninsula and;
- 6) Explore impacts of alien plants on ecological networks using entomological and citizen-science data.

KEY DELIVERABLES:

- Scientific publication
- Website/database
- Final report

Start date: July 2021

End date: June 2023

Duration: 24 months

Funded by: Biodiversity Challenge Funds - Department for Environment, Food and Rural Affairs, UK

Budget: €38,500

http://



Project website

CONSERVATION AND AWARENESS RAISING OF THE RARE AND ENDANGERED FLORA OF THE RED FLORA BOOK OF CYPRUS AND THEIR POLLINATORS, WITHIN THE SOVEREIGN BASE AREAS (SBA) OF AKOTIRI, CYPRUS

The project aimed to contribute to the conservation of rare and endangered flora of the Red Flora Book of Cyprus within the SBA of Akrotiri, Cyprus, raise the awareness regarding their importance and record the diversity of their pollinators.

Project objectives:

- 1) Establish a baseline of the distribution, population, reproduction biology and threats for each target plant;
- 2) Map the distribution of each plant;
- 3) Record and identify the diversity of pollinators of each of these plants;
- 4) Collect genetic material from these plants to be stored in appropriate banks;
- 5) Propose wider conservation measures and promote awareness of these plants;
- 6) Prepare seedlings of the target plants to offer to the public and organizations during the dissemination events.

KEY DELIVERABLES:

- [Final report](#)
- [Scientific publication](#)

Start date: May 2022
End date: April 2024
Duration: 24 months
Funded by: Biodiversity Challenge Funds - Department for Environment, Food and Rural Affairs, UK
Budget: €39,400

[http://](#)



[Project website](#)

Polyommatus Icarus mating



UNDERSTANDING ON THE FACTORS AFFECTING ELEONORA'S FALCON' (FALCO ELEONORAE) FORAGE IN AKROTIRI PENINSULA IN CYPRUS

Eleonora's falcon a trans-equatorial migrant bird species, is listed in Annex I, EU Directive 2009/147/EC, requiring conservation measures to ensure its survival and reproduction. This aerial predator feeds on large flying insects (e.g. beetles, locusts, dragonflies, moths, cicadas, flying ants), while it switches its diet to primarily migratory bird prey during nestling rearing. Cyprus hosts 138 breeding pairs, all colonies within Natura 2000 sites. Colonies in Cyprus need continuous monitoring, especially as extensive development projects have been proposed at major insect feeding grounds of Eleonora's falcon, e.g. citrus plantations.

The Akrotiri Peninsula which includes a Ramsar Site, is a breeding/feeding site for Eleonora's falcon. It is currently subject to intensive anthropogenic pressures (e.g. land use change, biological invasions and climate change). These pressures could affect the diversity and abundance of the insect populations essential for the survival of Eleonora's falcon, as the feeding of falcons during the pre-breeding seasons could affect clutch size.

The project aimed to study the effects of anthropogenic and climatic pressures on insect prey of Eleonora's falcon, at feeding hotspots in SBAs and adjacent areas in Cyprus.

Eleonora's falcons.
Credit: Saviero Gatto



PROJECT OBJECTIVES:

- 1) Study the insect prey populations essential for the diet of Eleonora's falcon;
- 2) Conduct structured entomological field survey to assess insect abundance by using malaise traps and line transects, in combination with new technologies such as citizen science platforms (e.g. encouraging submission of insect records by volunteers), in order to identify the insect species that are important prey for the falcon;
- 3) Understand how anthropogenic pressures affect the insect communities and consequently Eleonora's falcon; using statistical modelling approaches;
- 4) Raise public awareness regarding Eleonora's falcon and the importance of insect conservation (online resources, publications, seminars) and;
- 5) Developing new skills in field ecology and statistical modelling.

KEY DELIVERABLES:

- Final report

Start date: October 2022

End date: September 2024

Duration: 24 months

Funded by: Biodiversity Challenge Funds - Department for Environment, Food and Rural Affairs, UK

Budget: €41,300

http://



[Project website](#)



Linum maritimum
Credit: Nicol Mavrovountioti

SPECIES RICHNESS AND BIOLOGICAL INVASIONS OF CHALCID WASPS IN AKROTIRI PENINSULA

Chalcid wasps are one of the most diverse insect groups, covering a variety of trophic regimes, however, have been greatly understudied in Cyprus. Throughout this project, native and non-native Chalcid wasp species will be studied at the protected Akrotiri Peninsula. This study will increase our knowledge of their biodiversity, biological invasions and their impacts through structured material surveys. Citizen-science will be utilized wherever possible.

Project objectives:

- 1) Provide a baseline of Chalcid wasps in the Akrotiri Peninsula to enhance scientific research around the region's fauna;
- 2) Raise public awareness, pool, supplement, and summarize our knowledge of the Chalcid wasp fauna of Cyprus by creating an online information portal about the "Chalcid wasps of Cyprus" and;
- 3) Establish the basis of a long-term project regarding the whole Chalcid wasp fauna of Cyprus. Additionally, non-native Chalcid species that will be collected, will serve to future research regarding the introduction pathways of alien species in Europe, with the integrated use of morphological and molecular tools.

KEY DELIVERABLES:

- [Website of the Chalcid wasps of Cyprus](#)
- [Scientific publication 1](#)
- [Scientific publication 2](#)
- Final report

Start date: July 2023
 End date: June 2025
 Duration: 22 months
 Funded by: Biodiversity Challenge Funds - Department for Environment, Food and Rural Affairs, UK
 Budget: €59,500

[http://](#)  [Project website](#)

Alien chalcid wasp
Encyrtus aurantia.
 Credit: Clarence Holmes.



BIODIVERSITY AND SPATIOTEMPORAL PATTERNS OF ANTS IN THE AKROTIRI PENINSULA

Ants provide a range of ecosystem services but can also inflict serious socioeconomic and environmental impacts. Throughout this project, native and non-native ants will be studied at the protected Akrotiri Peninsula. Thus, increasing our knowledge on the biodiversity, spatiotemporal patterns and impacts of biological invasions through citizen-science and material surveys.

Project objectives:

- 1) Provide a baseline of ants in the Akrotiri Peninsula to enhance scientific research around region's the fauna;
- 2) Raise public awareness, pool, supplement, and summarize our knowledge of the ant fauna of Cyprus by creating an online information portal about the "Ants of Cyprus";
- 3) Establish and promote a citizen-science recording scheme "Antovreis" for the collection of ants by citizen-scientists. The project will raise awareness on the ecological significance of ants, their role as household pests and biological invasions of non-native ants. Through this project, species richness, biological invasions and impacts of INNS as household pests will be investigated.

KEY DELIVERABLES:

- [Website](#)
- [Scientific publication](#)
- Final report

Start date: July 2023

End date: June 2025

Duration: 22 months

Funded by: Biodiversity Challenge

Funds - Department for Environment,

Food and Rural Affairs, UK

Budget: €59,500

[http://](#)  [Project website](#)



ENVIRONMENTAL

EDUCATION AND AWARENESS PROJECTS

Our environmental education and awareness initiatives aim to inspire and empower communities to take action for the environment. Innovative projects, such as an interactive educational game about pollinators, invasive species, and mosquitoes, and the Marine Environmental Awareness Through the Creative Arts project, engage children using technology, storytelling, music, and drama. These programs nurture a deeper connection to nature and foster responsibility for marine ecosystems, addressing critical issues like marine litter and seagrass conservation.

Another standout initiative, MedOnWheels, brings the Mediterranean sea closer to communities through a mobile education center equipped with Virtual Reality, 360° videos, and sensory-friendly games. Alongside efforts to raise awareness about arthropods and their ecological roles, these projects combine education and creativity to cultivate environmentally conscious behaviors and inspire a generation of passionate advocates for the natural world.



DEVELOPING AN INTERACTIVE EDUCATIONAL GAME FOR TEACHING ABOUT POLLINATORS, INVASIVE SPECIES AND MOSQUITOES

New technologies such as computer games can be extremely useful interactive learning tools. The proposed project aims to enhance children's knowledge and raise awareness about important topics such as mosquitoes, invasive alien species and pollinators through an interactive online tool (game) which will engage students inside the class but also from home.

Project objectives:

- 1) Provide an electronic interactive gaming tool that will digitize The Three Mosquiteers stories and help primarily primary school children learn about mosquitoes, pollinators and invasive alien species inside and outside the class;
- 2) Investigate the perceptions of school children and teachers for using such an educational tool;
- 3) Investigate the needs and perceptions for novel technologies and tools for learning among the SBAs.

KEY DELIVERABLES:

- Electronic interactive gaming tool
- Final report

Start date: April 2023

End date: March 2025

Duration: 24 months

Funded by: Biodiversity Challenge Funds - Department for Environment, Food and Rural Affairs, UK

Budget: €59,500

[http://](#)



[Project website](#)



Invasive Asian tiger mosquito
Aedes albopictus

RAISING AWARENESS ABOUT THE IMPORTANCE OF ARTHROPODS

Despite their great abundance, invertebrates are largely neglected in conservation practices and perceived as pests by the public. Considering the global pollination crisis and insect loss, the threat of biological invasions, and the role of invertebrates as vector of pathogens and diseases, this project aimed to raise public awareness about invertebrates as key organisms in various ecosystem functions, while highlighting the anthropogenic threats they face and practical solutions to conserve beneficial insects at the UK Sovereign Base Areas and Cyprus. The overarching aim of this project was to raise awareness on the ecological significance of flagship species and invertebrates, the ecosystem functions they provide and/or diseases they transmit, but also the threats they face in the modern time of the Anthropocene. Furthermore, by training volunteers to contribute to citizen science, the project increased biodiversity data available to inform action and inform decision-making.

Project objectives: The overarching aim of this project was to raise awareness on the ecological significance of flagship species and invertebrates, the ecosystem functions they provide and/or diseases they transmit, but also the threats they face in the modern time of the Anthropocene. Furthermore, by training volunteers to contribute to citizen science, the project increased biodiversity data available to inform action and inform decision-making.

KEY DELIVERABLES:

- Informational material
- [Awareness raising video on mosquitoes](#)
- Workshops and dissemination events
- School visits
- Conference participation
- Final report

Start date: May 2023

End date: March 2024

Duration: 12 months

Funded by: Biodiversity Challenge Funds -
Department for Environment, Food and
Rural Affairs, UK

Budget: €57,370

<http://>



[Project website](#)



ENVIRONMENTAL EDUCATION AND RAISING AWARENESS ABOUT POLLINATORS AND BENEFICIAL INSECTS

Insects are important because of their diversity, ecological role, and influence on agriculture, human health, and natural resources. Unfortunately, climate change, degradation and fragmentation of natural habitats, urbanization, monoculture farming and frequent use of pesticides, affect the diversity of insects throughout the world, and Cyprus is no exception to the rule; insects as low-fecundity organisms, are slow to recover from these perturbations. Pollinators are both ecologically and agriculturally important, they are responsible for reproduction most of the plants and production seeds, so and for evolutionary diversification. In addition, they enhance biodiversity to the ecosystem. Insects are the major pollinators of most plants, nevertheless, birds, bats, and other mammals are also important pollinators; insect pollinators include all families of bees, hoverflies, bumble bees, butterflies, and wasps. Regarding to natural enemies (e.g., predators and parasitoids), many species are used worldwide as biological control agents (e.g. predators of aphids, such as ladybirds and aphidophagous hoverflies). Natural enemies responsible nearby 33% of the natural pest control in cultivated systems; however, natural enemies are also important for natural and urban habitats. Cyprus is considered a biodiversity “hotspot” area, the only center for endemism for birds in Europe and the Middle East, a center of endemism for mammals, with six out of its 11 wild mammals being endemic, and a center of plant. The island host also a huge number of insect species, including many endemics; 369 species of wild bees have been recorded, with twenty-one of them are endemic.

European honey bee extracts nectar.
Credit: John Severns



PROJECT OBJECTIVES:

This project aims to fill the gap in lack of education about the beneficial insects. It also aims to study the impacts of urbanization and roadside verges on pollinators and create a database. In collaboration with the Akrotiri Environmental Education Centre (AEEC), we will organize workshops/presentations to inform stakeholders and public from the SBAs and the republic of Cyprus regarding research needs. We will promote the development of environmental literacy through educational tools and the use of narrative to children.

KEY DELIVERABLES:

- Environmental educational tools (children's books)
- Information sources
- Workshops and dissemination events
- School visits
- Final report

Start date: April 2024

End date: March 2025

Duration: 12 months

Funded by: Biodiversity Challenge Funds - Department for Environment, Food and Rural Affairs, UK

Budget: €58,007

http://



[Project website](#)

Photo Credit: Ioanna Economidou



INCREASING MARINE ENVIRONMENTAL AWARENESS THROUGH THE CREATIVE ARTS

Coastal and marine environments in the Mediterranean are under constant pressure from various sources which are interacting together and affecting biodiversity. In Cyprus, the most significant pressures on the marine and coastal environments result from unsustainable coastal development, pollution (e.g., eutrophication, marine litter), coastal erosion, overfishing and increasing presence of invasive alien species. Unfortunately, at present, public knowledge and awareness about the marine environment of Cyprus and the threats it is facing is very limited. Environmental education and awareness are known to be the main drivers of public positive perception and attitude toward supporting environmental conservation. Investing in more intense and systematic research in the field of the marine environment of Cyprus and subsequently communicating the knowledge to the public, and especially children is particularly important in order to ensure the long-term effectiveness of nature conservation and management efforts. Even though some schools in Cyprus are trying hard to teach children how to connect to our natural world, there is still an urgent need to develop and implement new curricula on environmental education and conservation.

Credit: Ioanna Economidou



PROJECT OBJECTIVES:

This project aims to deliver educational, creative workshops both in private and public schools as well as environmental centres, and raise awareness to as many schools and young children as possible regarding some crucial matters which concern our island such as the bycatch of marine vulnerable species, marine litter, the poor management of *Posidonia oceanica* seagrass and the threats and conservation of the Mediterranean monk seal *Monachus monachus*, to mention a few. The proposed activities seek to actively engage young children (between ages of 3 to 12) and captivate their imagination through music, the visual arts, movement, dance, drama and storytelling. Essentially by increasing the contact of our children with Cyprus' current marine challenges, leads them to a deeper understanding of how the marine life is essential, how to better comprehend the importance of protecting this planet on which we live and finally, how the ocean and humans are, essentially, inextricably interconnected.

KEY DELIVERABLES:

- 14 workshops of “The Blue Conference” creative workshop
- 14 workshops of the “Here Only Monachus” creative workshop
- 4 workshops of the “Poseidon’s Grievance” creative workshop
- 2 shows of “Poseidon’s Grievance” puppet show with live music
- 2 professional teacher training sessions following the 12 workshops
- 4 shows of the “Here Only Monachus” storytelling show with live music
- 4 professional teacher’s training sessions following the four storytelling shows
- An all-day seminar especially designed for professional educators

Start date: October 2022

End date: December 2024

Duration: 27 months

Funded by: Cyprus Environment Foundation

Budget: €23,875

[http://](#)  **Project website**

MED-ON-WHEELS: PROTECTING THE MEDITERRANEAN SEA THROUGH EDUCATION, AWARENESS AND ENGAGEMENT

Cultivating environmentally friendly behaviors, consciousness and sensitivity to matters outside of the human realm can become quite challenging these days. Our children are educated in enclosed and sterile environments with minimum interaction with nature, causing a desensitized behavior towards the environment. But another world is still out there. A greener one, a more peaceful one, a more exciting one! Nature provides countless opportunities for discovery, creativity, problem-solving, and STEM education. Interacting with natural environments allows children to learn by doing and experiment with ideas. In nature, children think, question, and make hypotheses – thereby developing inquisitive minds. Enalia Physis Environmental Research Centre wants to bring the Mediterranean sea world a little closer to home, blur the limits of earth, sea and city; through blended educational techniques, innovative and creative workshops and transformative pathways. Our vision is to instill the new generation with a sense of responsibility for the conservation of the environment, by creating knowledgeable, passionate and responsible islanders who are well-informed and can advocate on behalf of the natural world.



PROJECT OBJECTIVES:

To transfer knowledge, raise awareness and engage people of all ages in environmental conservation, Enalia Physis aspires to create a unique Education Centre on Wheels (minivan), equipped with educational material, interactive and sensory-friendly educational games, Virtual Reality and 360 videos, vivariums, stereoscopes and 3D printed mockups. All the educational curriculum will be based on the student-centred approach and will incorporate technological advances to stimulate all ages. The practical implementation of a student-centred learning approach will include (i) Problem-based learning; (ii) Group work, (iii) Student-centred active learning, (iv) Resource-based learning, (v) Using the case method, (vi) Role play, (vii) Workshops, (viii) Group presentations, (ix) Use of web conferencing environment, and (x) Use of learning logs by students to record the educational experience.

KEY DELIVERABLES:

- Educational material
- Visits to primary and lower secondary school students
- Outdoor workshops and training camps
- Events

Start date: April 2023

End date: September 2025

Duration: 18 months

Funded by: Exness (Private company)

Budget: €73,000

http://



[Project website](#)

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- Cyprus Scientists and Fishermen Cooperation Network



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