



Darwin projects

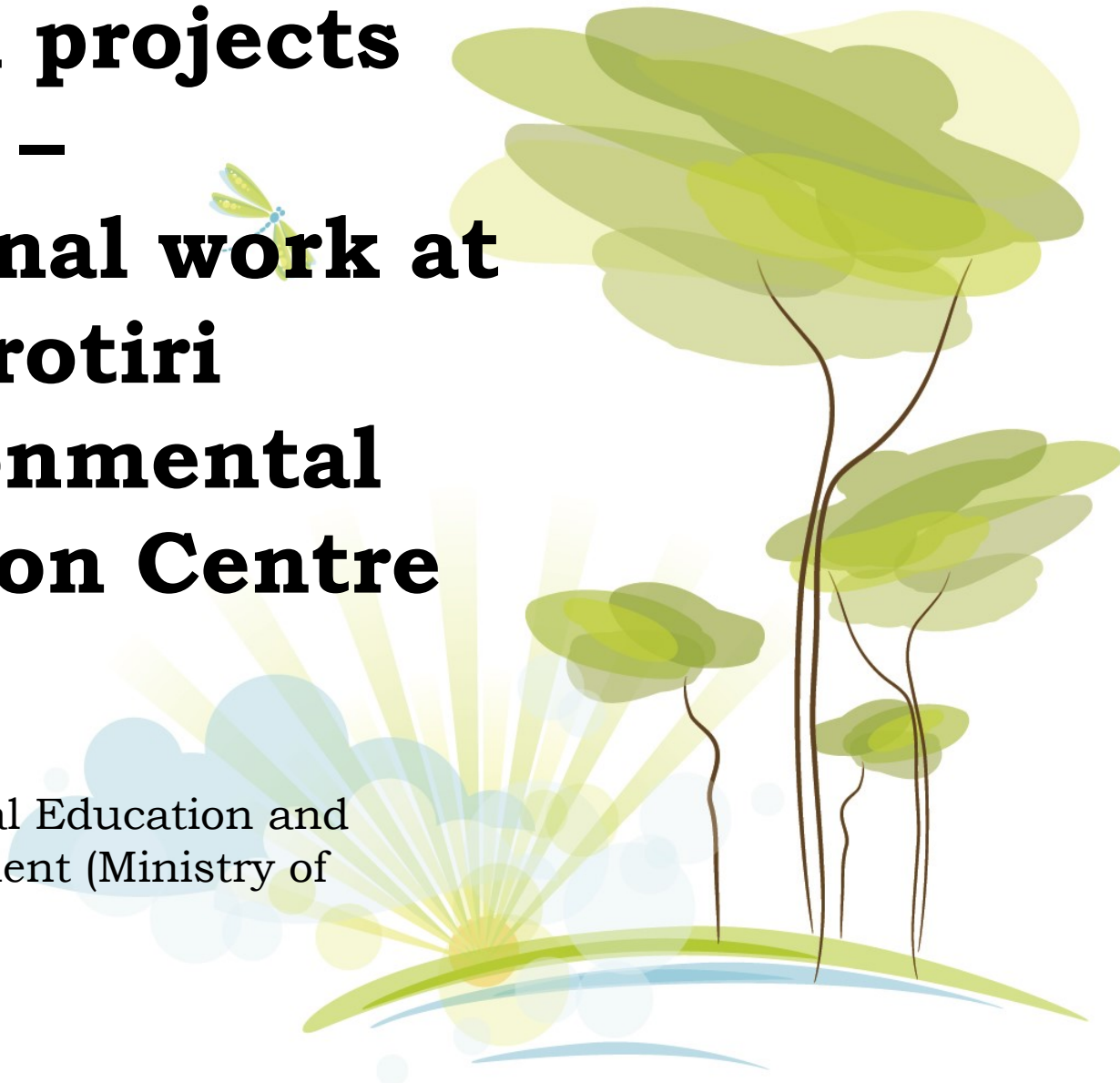
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Educational work at Akrotiri

Environmental Education Centre

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Sustainable Development (Ministry of
Education) - AEEC





Cooperation between the **unit for EESD** with **UKCEH – AEEC – JSHU**

Outcomes:

- Training on pollinators and alien species
- Freediving course Level 1 for underwater surveys on alien species
- Creation of Mini poms-ky (Poms adjusted for kids in Cyprus 10 – 15 years old)
- Creation of a new educational programme on pollinators
- Creation of a new freshwater guide
- Creation of a QR code exploring game at AEEC
- Purchase of educational material for the application of the related educational programmes

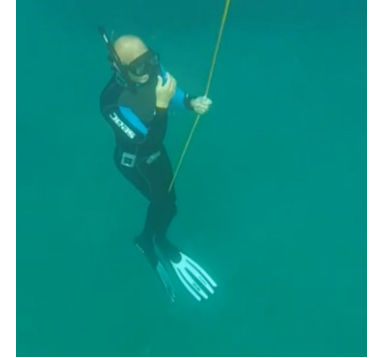


Participation at the Alien CSI meeting in Cyprus in February 2019





Freediving lesson CMAS level 1



Participation at an STSM in UKCEH in July 2019

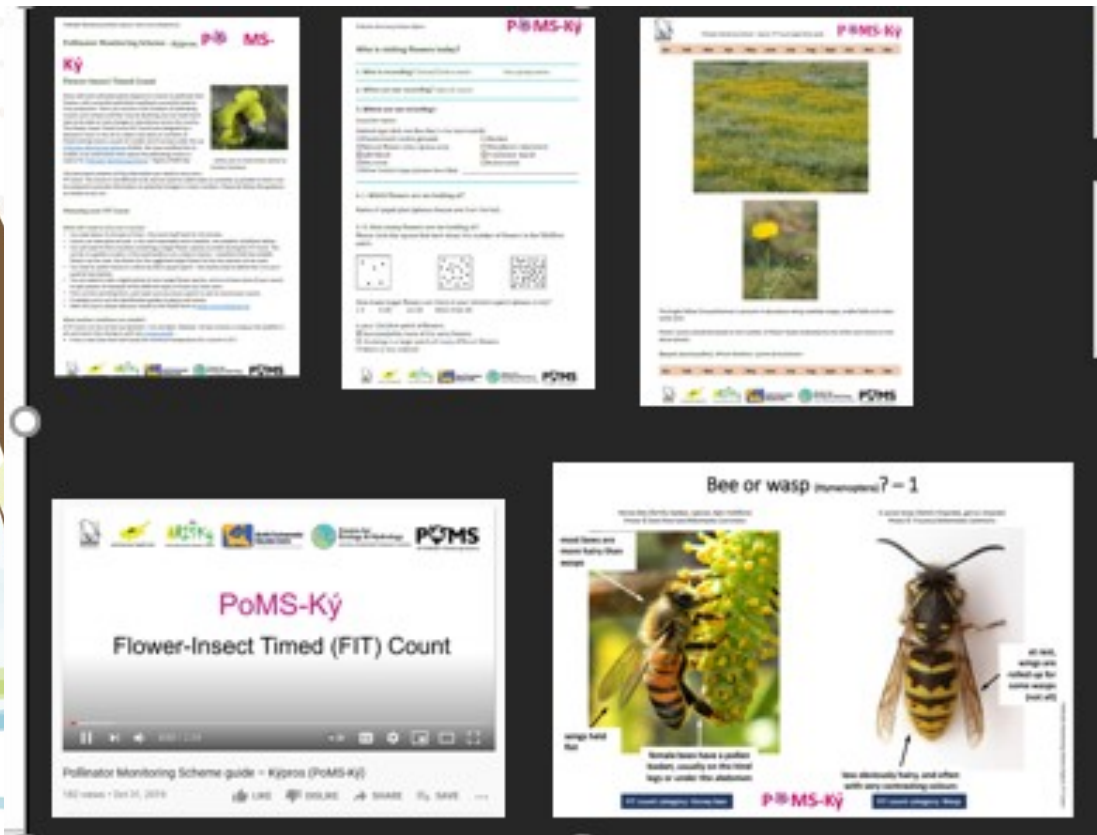
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Citizen science on alien species and Poms-ky through Environmental Educational programmes



Mini Poms-ky

Recording form, Flower guide, Instructional video, Insect guide, Teachers' guide



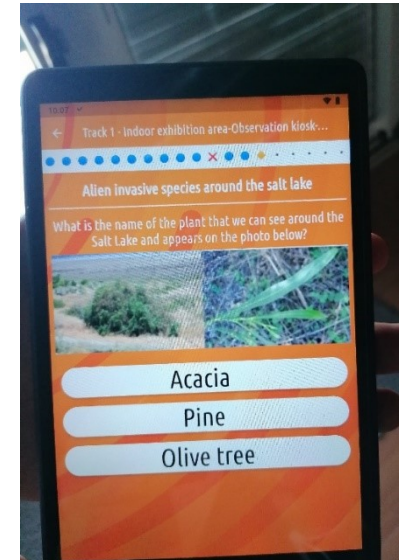
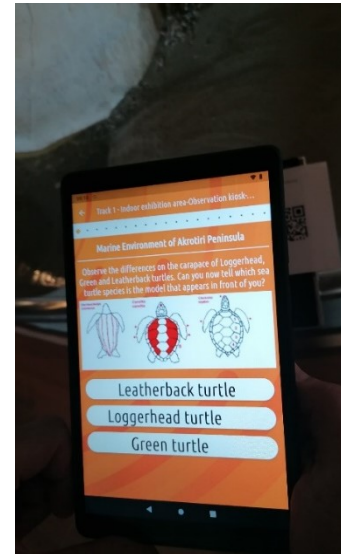
The Mini Pollinator Monitoring Scheme Flower-Insect Timed Count (FIT Count) Mini PoMS-Ký was developed for children from 10 to 15 years old and aims to collect data on numbers of flower-visiting insects in Cyprus.

Educational program based on mini-Poms-ky for Secondary school students





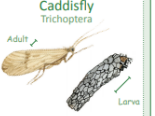



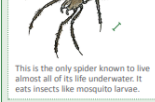
Explorers of AEEC in action (qr codes game)

- Provides school groups and other visitors of the AEEC a fun and interactive tool for exploring the Akrotiri Peninsula, through the exhibition rooms and the botanical garden of the AEEC.
- Participants have the opportunity to encounter the habitats, fauna and flora of the Akrotiri Peninsula and to gain knowledge on environmental and cultural aspects of the area.
- Includes questions about invasive species.



Fresh water guide

Sensitive SCALE 0.5 mm

<p>Dragonfly <i>Anisoptera</i></p>  <p>Adults fly and can be very colourful. Eats mosquitoes and other invertebrates. Nymphs live underwater and feed on small fish. Adults only live for a few days/weeks, whereas the nymphs can live under water for several years.</p>	<p>Damselfly <i>Zygoptera</i></p>  <p>Wings are folded above its body at rest. Similar to dragonflies but have a smaller and slimmer body. Larvae have three gills on the tip of the abdomen which look like tails.</p>	<p>Caddisfly <i>Trichoptera</i></p>  <p>The adult has hairy wings which is where its name was derived from. When the insect is at rest the wings form a tent shape over its body. The larva makes cases from plant material and sometimes sand particles which it uses for protection and camouflage.</p>
<p>Water Spider <i>Argyroneta aquatica</i></p>  <p>This is the only spider known to live almost all of its life underwater. It eats insects like mosquito larvae.</p>	<p>Freshwater Crab <i>Potamon Ibericum</i></p>  <p>Very rare species. During the day it hides under stones or burrows in tunnels. It hunts at night on land and feeds on algae, worms, frogs and fish.</p>	<p>Daphnia or Water Flea <i>Daphnia</i> spp.</p>  <p>Tiny planktonic organism.</p>
<p>Water Mite <i>Hydrachnidae</i></p>  <p>Tiny colourful mite. It is used to control mosquito numbers.</p>		

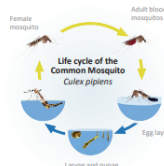
Cyprus wetland invertebrates

RISKy
Researching Invasive Species in Cyprus






Cyprus wetlands are areas of significant environmental, social and cultural importance. They are characterised by a rich biodiversity, and many terrestrial and water animal species use them for resting, feeding and as a refuge. They are used as a migration stopover for large numbers of birds and insects during their journey from Europe to Africa and vice versa. They host a rich flora including many plant species used in traditional crafts such as basketry. Cyprus wetlands are vulnerable to pressures from agricultural intensification, urbanisation, invasive alien species, climate change and pollution, which can result in their degradation.

Cyprus wetlands host a large number of invertebrate species which are the main food source for many other fauna species. This guide provides simple but important information on invertebrates of Cyprus wetlands. These species are used as bio-indicators for assessing water quality due to the different level of sensitivity or tolerance to pollution.


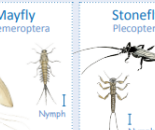

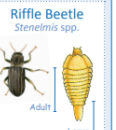
Life cycle of the Common Mosquito Culex pipiens



Very tolerant SCALE 0.5 mm










<p>Mud Snail <i>Hydrobia</i></p>  <p>Feeds mainly on algae and diatoms, usually at the bottom of the watercourse.</p>	<p>Midge <i>Chironomus</i> spp.</p>  <p>The adult looks like a mosquito but does not bite. The larva may have a bright red colour and is an important food source for fish and other invertebrates.</p>	<p>Tadpole <i>Amphibia</i></p> 
<p>Springtail <i>Collembola</i></p>  <p>Tiny and often hops at the water's surface. Feeds mainly on dead organic matter.</p>	<p>Leech <i>Hirundinea</i></p>  <p>Feeds on insect larvae and molluscs, has no teeth and can swallow prey whole.</p>	

Very sensitive SCALE 0.5 mm







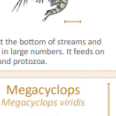



<p>Freshwater Mussel <i>Margaritifera auricularia</i></p>  <p>Very rare species. It is a filter feeder and lives partially buried in the riverbed. It can survive for over 100 years.</p>	<p>Mayfly <i>Ephemeroptera</i></p>  <p>Adults have a short lifespan. Nymphs have three long tails and side gills on their abdomens.</p>	<p>Stonefly <i>Plecoptera</i></p>  <p>Adults fold hind wings under the front wings at rest. Nymphs have two tails.</p>	<p>Riffle Beetle <i>Stenelmis</i> spp.</p>  <p>A small beetle with long legs. The larva looks like a small segmented caterpillar.</p>
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This guide was written by Peter Scarlett, Jodie Peyton, Koula Michael, Sophie Angelis & Marinos. The project was funded by the Delta Domain Initiative - Addressing drivers of ecological change at Amnont Salt Lake. Text © CEE UK Shelds 2020 and Anne Hebbington (© Field Studies Council UK 2020). All rig

Tolerant SCALE 0.5 mm

<p>Saltmarsh Mosquito <i>Aedes detritus</i></p>  <p>Reproduces in salt marshes. The female requires blood to produce eggs which it then lays on wet sand. In the Mediterranean it has been found to be a vector of diseases. It bites at dawn and dusk.</p>	<p>Common House Mosquito <i>Culex pipiens</i></p>  <p>Grows in areas where water collects, in contaminated waters and in damp places such as gutters or flowerpots. The adult female mosquito requires blood to produce eggs which it then lays on the surface of the water. It usually bites during the night and is a vector of many diseases such as the West Nile virus.</p>	<p>Anopheles Mosquito <i>Anopheles socharov</i></p>  <p>Breeds primarily in brackish marshes. The adult female mosquito needs blood to produce eggs which it then lays on the surface of the water. It mostly bites during the night and it is an important vector of malaria.</p>
<p>Blackfly <i>Simuliidae</i></p>  <p>A small black fly species whose larva looks like a worm. The adult female bites people and cattle and is a vector of diseases.</p>	<p>Sandfly <i>Phlebotomus</i> spp.</p>  <p>A small hairy fly species whose larva has a black head and hairs on the entire body. It is a vector of diseases like leishmaniasis.</p>	<p>Horsefly <i>Tabanidae</i></p>  <p>A fly species of medium to large size. The larva looks like a worm. Adult females bite humans and cattle and are vectors of diseases.</p>
<p>Hoverfly <i>Eristalis tenax</i></p>  <p>The adult hoverfly looks like a bee which protects it from predators. The larva looks like a worm and lives in water. It has a characteristic long tail which acts like a breathing tube.</p>	<p>Cranefly <i>Tipulidae</i></p>  <p>The adult looks like a giant mosquito, but it does not bite. Larvae look like worms. It is called Cranefly because of its long legs.</p>	<p>Soldierfly <i>Stratiomyidae</i> spp.</p>  <p>A small, two-winged yellow-black species which looks like a wasp. The larva looks like a caterpillar and breathes in the water through a tube.</p>

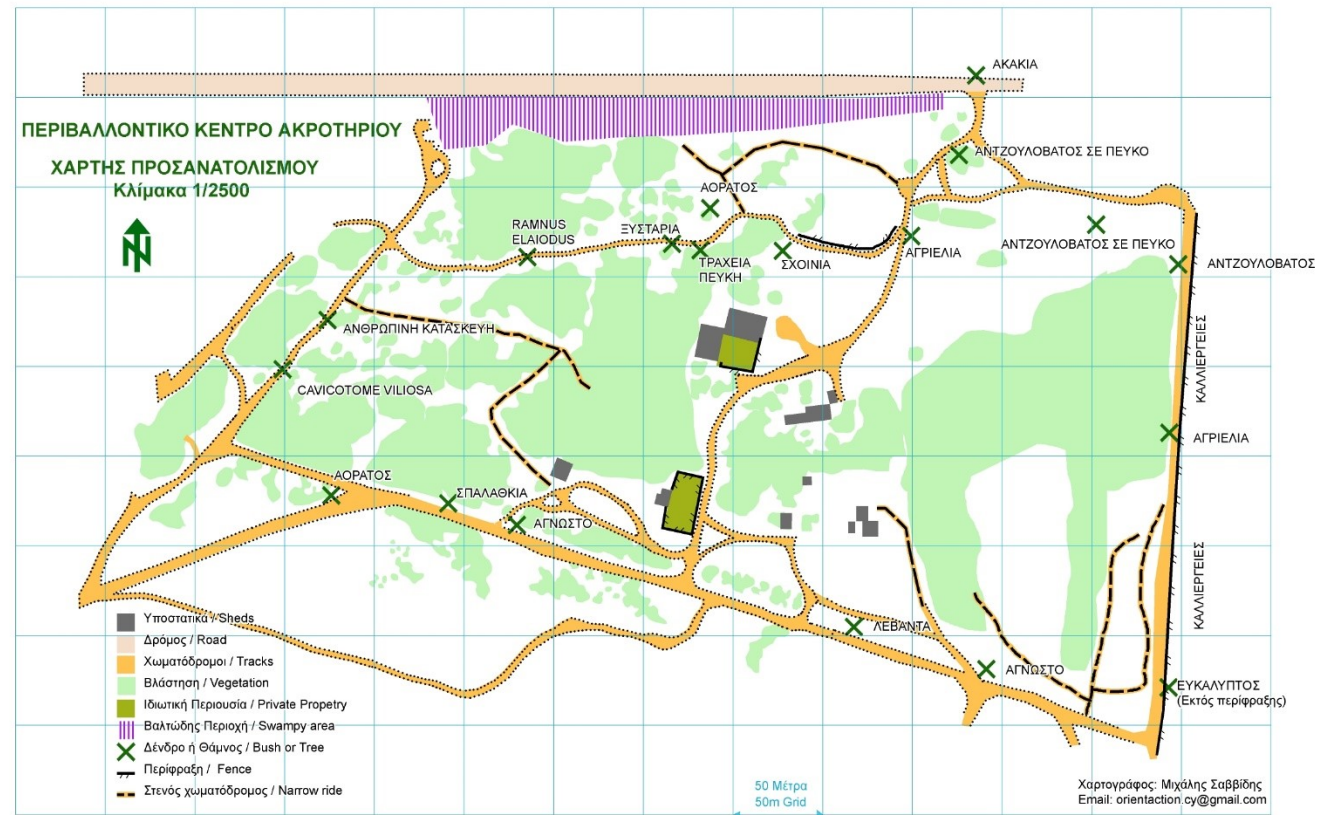
Tolerant SCALE 0.5 mm

<p>Whirlig Beetle <i>Gyrinidae</i></p>  <p>A small beetle usually found in large groups. It swims swiftly at the water's surface. It was named Whirlig as it swims in continuous circular movements when in danger. It protects itself from predators by emitting a foul-smelling liquid. The larva is also a predator and injects poison into its victims.</p>	<p>Great Diving Beetle <i>Dytiscus</i> spp.</p>  <p>A large dark brown or green beetle. It is a voracious predator and can even eat small fish or newts. It protects itself from predators by emitting a foul-smelling liquid. The larva is also a predator and injects poison into its victims.</p>	<p>Water Boatman <i>Notonecta</i> spp.</p>  <p>Feeds on mosquito larvae. Rests upside down in the water and uses its hind legs as oars to swim fast. Using its wings, it flies to new habitats.</p>
<p>Freshwater Shrimp <i>Gammarus pulex</i></p>  <p>Lives at the bottom of streams and occurs in large numbers. It feeds on algae and protozoa.</p>		
<p>Waterlouse <i>Asellus aquaticus</i></p>  <p>Looks like woodlice. It often hides under stones and feeds on decaying organic matter.</p>	<p>Red Swamp Crayfish <i>Procambarus clarkii</i></p>  <p>Native species to America and Mexico. In Cyprus it has been classified as an alien invasive species. It eats insects and plants.</p>	<p>Megacyclops <i>Megacyclops viridis</i></p>  <p>Feeds on mosquito larvae and carries parasites to mosquitoes, so may be useful for controlling mosquito numbers.</p>
<p>Water Strider <i>Gerridae</i></p>  <p>Feeds on mosquito larvae by piercing and then sucking out body contents. In turn it is eaten by birds and fish but can dive or fly to escape predators.</p>	<p>Water Measurer <i>Hydrometridae</i></p>  <p>A long and thin insect feeding on mosquito larvae. When disturbed it jumps on the surface.</p>	<p>Fairy Shrimp <i>Branchinella pulex</i></p>  <p>Small shrimp found in salt lakes or brackish ponds. It is a filter feeder and an important food source for flamingos. During drought it lays fertilised eggs with hard shells which can survive drought for long periods, and they hatch when conditions are suitable.</p>

Provides simple but important information on invertebrates of Cyprus wetlands and can be used as bio-indicators for assessing water quality in wetlands.

Orienteering game

Through this game, participants will explore a very significant area for flora and get familiar with non alien and alien species of that area.



European Commission Video Awareness

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participation of AEEEC

Mini Pomsky was selected as one of the European Union initiatives that helps in the protection of pollinators.



- Nature and biodiversity
- Biodiversity Strategy
- Nature and biodiversity law
- Natura 2000
- Species protection
- Green infrastructure
- Forests
- Global coalition "#UnitedforBiodiversity"
- Knowledge and data
- Biodiversity financing


#EUPollinators: small, precious and in need of protection!

Want to know more about pollinating insects, and what the EU is doing to address their decline? You are at the right place!


Europe is home to an amazing variety of insects that pollinate crops and wild plants. This variety is essential for a healthy nature and our wellbeing.

However, pollinators are in serious decline. Losing them would be a major risk for nature and our own existence. We can still prevent this crisis if we all pull together.



EU POLLINATORS INITIATIVE 
Find out what the EU is doing



EU POLLINATOR INFORMATION HIVE 
Find out about actions across EU Member States, and how to get involved





Thank You!