



A discovery journey at night to explore the dune habitat and its vulnerable inhabitants that are easily overseen when practicing marine sports.



Learning experience



Topic

Fauna and flora in dune systems  
Dunes as vulnerable habitat



1 hour (10 min. introduction + 40 min exploring + 10 min reflection /discussion)



Participants

- have a basic knowledge of flora and fauna in dunes
- know about the impact marine water sports can cause on the flora and fauna in dune habitats
- understand how vulnerable the dune system is
- are able to practice their sport with minimal impact on the dune habitat



Suitable for  
outdoor sport instructors  
(and course participants)



Practical sessions



Outdoor F2F



Materials needed

Flashlight and Guidebook



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## Preparation

The facilitator needs to have some dune flora and fauna guidebooks, flashlights and some images of animal species that inhabit the dunes in case if it is not possible to see them; also, a sound guide of specific species can be useful.

## Activity instruction

- explore with the participants what a dune system consists of; how it forms, and its importance
- explore the main threats to a dune system - natural and anthropogenic (e.g. invasive alien species, trampling, habitat destruction, construction, erosion, breakwaters (altering ocean currents and causing erosion south of the breakwater))
- present the main flora of the dune system and its relationship with the distribution of species, particularly nocturnal ones
- start a journey along the dune system in order to try to identify sounds and catch sight of species
- with the support of the guidebooks and the facilitator, try to identify species found and their main characteristics (where they live in the dune, what they feed on, when they reproduce, etc.)

## Reflection and discussion

- what was the expectation when going through a dune system at night
- how can we describe the dynamic of a dune system
- what are the main issues we must consider in order to not disturb this specific ecosystem
- suggestions to share the knowledge and promote environmental awareness among other people





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## Potential Variations

Varies with weather conditions and time of the year (the activity should preferably be done in spring or summer).



## Background knowledge

A biologist or someone in the field of ecology and nature conservation should be included as an expert.

Note: Participants must follow the trail and maintain maximum silence; never touch an animal without asking the facilitator first; avoid stepping on plants

Attention: It is recommended to only undertake this activity with permission and a specialist on dunes ecology and nature protection.

Examples for sound guides: bird apps (ex. BirdNET, Merlin)

Websites which include the sound of the animal in the description of the species:

<https://amphibiaweb.org/>, <https://xeno-canto.org/>, <http://www.avesdeportugal.info/>



### Key words

#water sports  
#marine habitat #dune habitat  
#fauna #flora



### Source

Essentially species identification guidebooks; citizen platform (<https://ambiente.cm-viana-castelo.pt/bioregisto>)



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## Materials

Pictures from dune animals

