

Optimising
the use
of
Lichens
as
biomonitors
of atmospheric PAHs



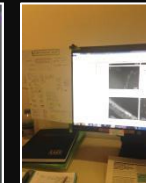
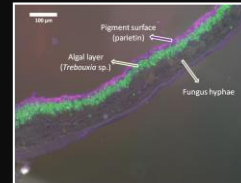
.... the project in 50 photos

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Task 1

Where do lichens accumulate PAHs?

- Studying the mechanisms of accumulation -



Task 2

Are lichens affected by PAHs? Defining a **critical** level...

A special thanks to Dr. Jordi Sierra (University of Barcelona)...





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POP LAIR lichen

Task 3

Comparing lichens with active air samplers

A special thanks to Francisco Sánchez (PhD candidate, URV).



Task 3

Lichens and passive air samplers: are they comparable?

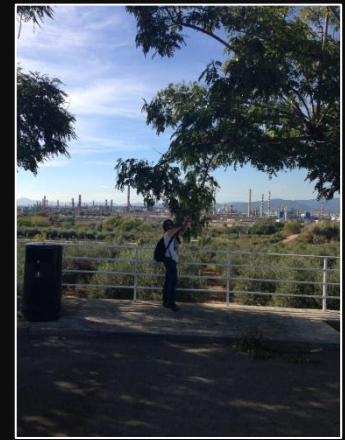
A special thanks to Noelia Domínguez-Morueco (PhD candidate, URV) and Dr. Jordi Sierra (University of Barcelona).



Task 4

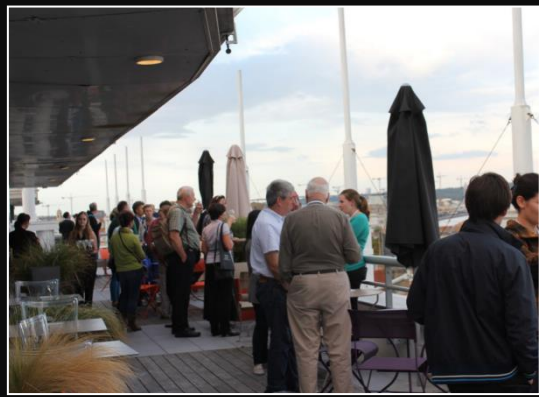
Monitoring PAHs using lichen transplants

- a ready-to-use tool?



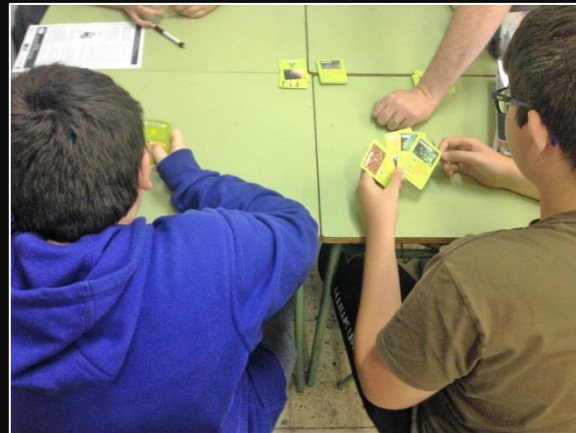
Dissemination

Conferences



Project in Schools

A special thanks to Dr. Joaquim Rovira (URV), Francisco Sánchez, Noelia Domínguez-Morueco, Carolina Sampaio Machado (University of São Paulo, Brazil), and Ana de Pablo (teacher at the school Institut Antoni de Martí i Franquès).



Lichens at a glance

Types of Lichens on Trees

Lichens are organisms composed of fungi and algae living together in an interdependent relationship known as symbiosis.

The fungus provides the body (thallus) in which the algae lives protected from excess of light and lack of water. In return, the algae feeds the fungus by transforming carbon dioxide and water, with the aid of sunlight, into carbohydrates (photosynthesis).

Growth Form of Lichens

Fruticose	Foliose	Crustose
<ul style="list-style-type: none"> Shrub-like lichens; attached by one point to the bark. three-dimensional form. <p>Dusky lichens</p>	<ul style="list-style-type: none"> Leafy-like lichens; attached loosely to the bark by its lower surface. <p>Leafy lichens</p>	<ul style="list-style-type: none"> Closely attached to the bark; cannot be removed without removing the bark. <p>Crusty lichens</p>

Lichens at a glance

Fruticose	Foliose	Crustose