



# Lichens at a glance

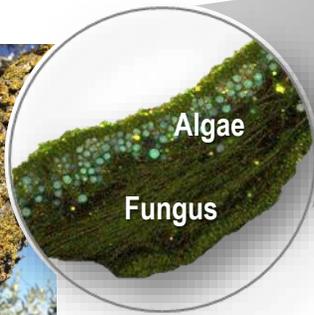
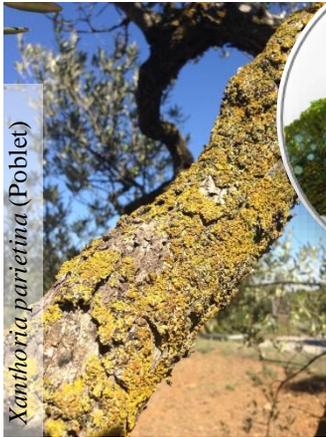


## Types of Lichens on Trees

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

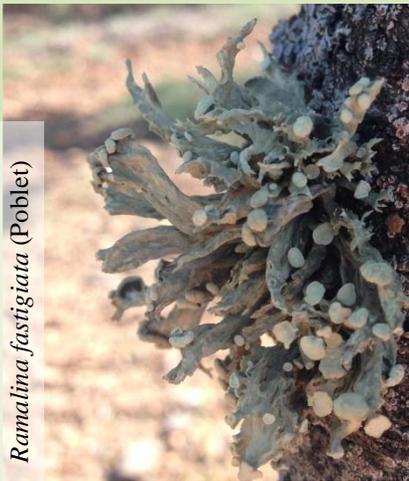


The fungus provides the body (thallus) in which the alga lives protected from the excess of light and lack of water. In return, the alga feeds the fungus by transforming carbon dioxide and water, with the aid of sunlight, into carbohydrates (photosynthesis).



## Growth Form of Lichens

### Fruticose



- Shrub-like lichens;
- attached by one point to the bark;
- three-dimensional form.

Bushy lichens

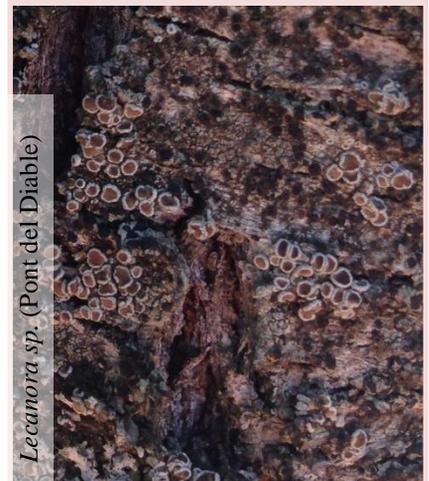
### Foliose



- Leafy-like lichens;
- attached loosely to the bark by its lower surface.

Leafy lichens

### Crustose



- Closely attached to the bark;
- cannot be removed without removing the bark.

Crusty lichens

Author (text and photo credits): Sofia Augusto (2016)



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## Fruticose



*Ramalina farinacea*  
(Pont del Diable)



*Teloschistes chrysophthalmus*  
(Pont del Diable)



*Cladonia foliacea* (on the soil)  
(Pont del Diable)



*Ramalina canariensis*  
(Pont del Diable)

## Foliose



*Xanthoria parietina*  
(Pont del Diable)



*Hypogymnia physodes*  
(Pont del Diable)



*Flavoparmelia caperata*  
(Pont del Diable)



*Parmelia sulcata*  
(Pont del Diable)

## Crustose



*Pertusaria sp.*  
(Parc Francolí)



*Caloplaca ferruginea*  
(Parc Francolí)



*Cresponea sp.*  
(Parc de la Ciutat)



*Pertusaria cf heterochroa* and  
*Buellia sp.* (Pont del Diable)



Lichens from Tarragona, Spain (2016)