

What is a lichen? What are the different organisms that make up a lichen?

- Slow growing, attached to rocks/trees
- Fungus + algae (two different organisms)
- Symbiotic partnership - both organisms contribute

How do each of the organisms that make up a lichen contribute to the lichen as a whole? In other words, what purpose do each of the parts of a lichen serve?

Fungus: Shelter / structure

Algae: Provides food energy
(carbohydrates) through
photosynthesis

How do the different organisms of a lichen get food and energy?

~~food~~ sugar
↑
nutrients

(Nitrogen, Potassium
Phosphorus)

Lichens do not
have true roots . . .

NUTRIENTS: Absorbed by fungal
body from air/rain
(used by algae too)
Lichens don't need
soil or nutrient substrates

SUGAR: Algae uses photosynthesis
(carbon + water + sunlight =
sugar)
(some leaks into fungus)
Lichens need to
be "sponge-y" to
absorb this stuff
(so they're sensitive
to poor air quality)

Two tasks @ Noyes property:

1. Data collection for lichens

2. Scout out potential patterns

Data collection: " % cover "

- Find a branch on the ground
- Look for branches at least 12" long, mostly covered with lichens
- Measurements should be made from the "outward" side

Data table:

what	(mm) how long
Hypogymnia	9mm
Evernia	7mm
Bar	2mm
Parmelia	5mm
Evernia	6mm
	:

~ 30 mm total

Gr about 12"
of mostly
covered branch

WITRB the amount of lichens \neq
4 1-foot
branch data tables measurement of factor?

Look for patterns - are there more/
less of certain lichens under
different circumstances?