

Documentation Project of the Biodiversity from Municipio de Livingston, Izabal

#### Mushrooms and Lichens

**ENGLISH** 

Find it in Livingston

Session 8/8

- 1. Herbs, vines and epiphytes
- 2. Tropical trees and shrubs
- 3. Insects, amphibians and other creatures
- 4. Parks and Reserves in the Caribbean
- 5. Tropical Animals
- 6. Palms
- 7. Aquatic plants and ferns8. Mushrooms and lichens

#### CONTENT

- General introduction
- Specific data for this group of organisms
- Location of species on the FLAAR Mesoamerica catalog



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# M U S H R O O M S

POLY PORACEAE, Tapón Creek Reserva, Municipio de Livingston

# M U S H R O O M S

POLYPORACEAE, Tapón Creek Reserva, Municipio de Livingston

# LICHENS

PARMALIACEAE, Finca Gangadiwali , Municipio de Livingston



# General

# characteristics of

fungi

#### **KINGDOM FUNGI**

Unicellular and multicellular organisms

- Composed of a body (mycelium) interwoven by threadlike filaments (hyphae).
- Chitin
- Fruiting body =mushrooms.
- They get their nutrients from other organisms,
- Spread by spores.
- Sexual and asexual reproduction.
  - Asexually. Spore is deposited in a favorable place and clones identical to the original mycelium will be produced.
  - Sexually (under conditions of stress or environmental change). When a filament of one mycelium comes into contact with a filament of another mycelium.

#### **Asexual reproduction**

#### **Sexual reproduction**



In some fungi, such as bread mold, asexual reproduction alternates with sexual reproduction. This is called alternate play.

# Main 5 groups

#### ytr

#### Glomeromycota (glomadimycetes)

- Associated with plant roots, Mphae form structures within the cell (m) Crrhizae).
- They offer benefits to plants ofta
- Asexual reproduction =prod(Cd spores by mitosis at the tips of hyphae ydd side the plant host cell, and when germinates, the hyphae grow into the surrounding soil) but only survive if they reach a root.



produce





Agaicus diss minatus Agaicus diss minatus **Dasidio** mycota (basidiomycetes or fungi with club-

- shaped basidia)
- The

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#### Ascomycota (ascomycetes or sac fungi)

- Sexual and asexual reproduction
- Fuiting bodies called morels
- Molds that attack stored food



# General

# characteristics of

### lichens

#### What are lichens?

Lichens can be defined as the association of a fungus and an algae, but recent studies have shown that there are more associated organisms:

main fungus +green algae and/or cyanobacteria +yeast + bacteria +lichen-like fungi (specialized fungi to associate with lichens).

#### Lichen =scab.

- They attach themselves to a surface (they are not parasites) and absorb their nutrients from the air. They can be indicators of air quality.
- They lack a permeable membrane, facilitating the absorption of water (they can enter dormant states.
- They cover 8% of the earth's surface and inhabit all types of substrates (natural and artificial).
- They are slow growing between 3mm to 5-7cm per year.

#### Partes de un liquen

Cuando un hongo y un alga se asocian forman el talo de un liquen. Las esporas se generan en los receptáculos, que cuando tienen forma de copa se llaman Apotecios

Pasos de formación



Clasification 20.000

#### species

Τh

They are taxonomically classified within the fungi. The Ascomycetes are the most common and within these the following genera: Parmelia, Parmotrema, Parmelina, Cladonia, Usnea, among others. The most common algae are from the genera Substrate in which they grow: <u>Trentepohlia, Ti</u> Corticultural (on tree bark) the genera Gloeo thrix are Folícolas (on leaves) cyanobacteria. Aquamulous Muscícolas (on bryophytes)

- fruitful
- Filamentous

Saxicolae (on rocks)

• Earthlings (above ground).

- Gelatinous
- Mixed.

# Ecosystemservices

- They serve as food for other species.
- They reintegrate nutrients into the soil.
- They fix CO2 (algae carry out photosynthesis).
- Indicators of air quality and ecosystem continuity (due to its slow growth)



Herpothallon rubrocinc tum

**THANKS FOR** YOUR ATTENTION

### Location of species on the FLAAR Mesoamerica catalogs



#### FLAAR Mesoamerica 2022

Project: Documentation of the Biodiversity from Municipio de Livingston, Izabal Photographic record from FLAAR Mesoamerica

Project Manager: **Dr Nicholas Hellmuth** Coordination of editorial and publications: **Ing Vivian Díaz de la Roca** Field Coordinator: **María Alejandra Gutiérrez** 

Presenters: Vivian Díaz de la Roca, Vivian Hurtado

Guatemala city, Guatemala Livingston Izabal, Guatemala