

WHAT IS THE LARGEST LIVING ORGANISM?

WRONG !!

How about : *Armillaria ostoyae*

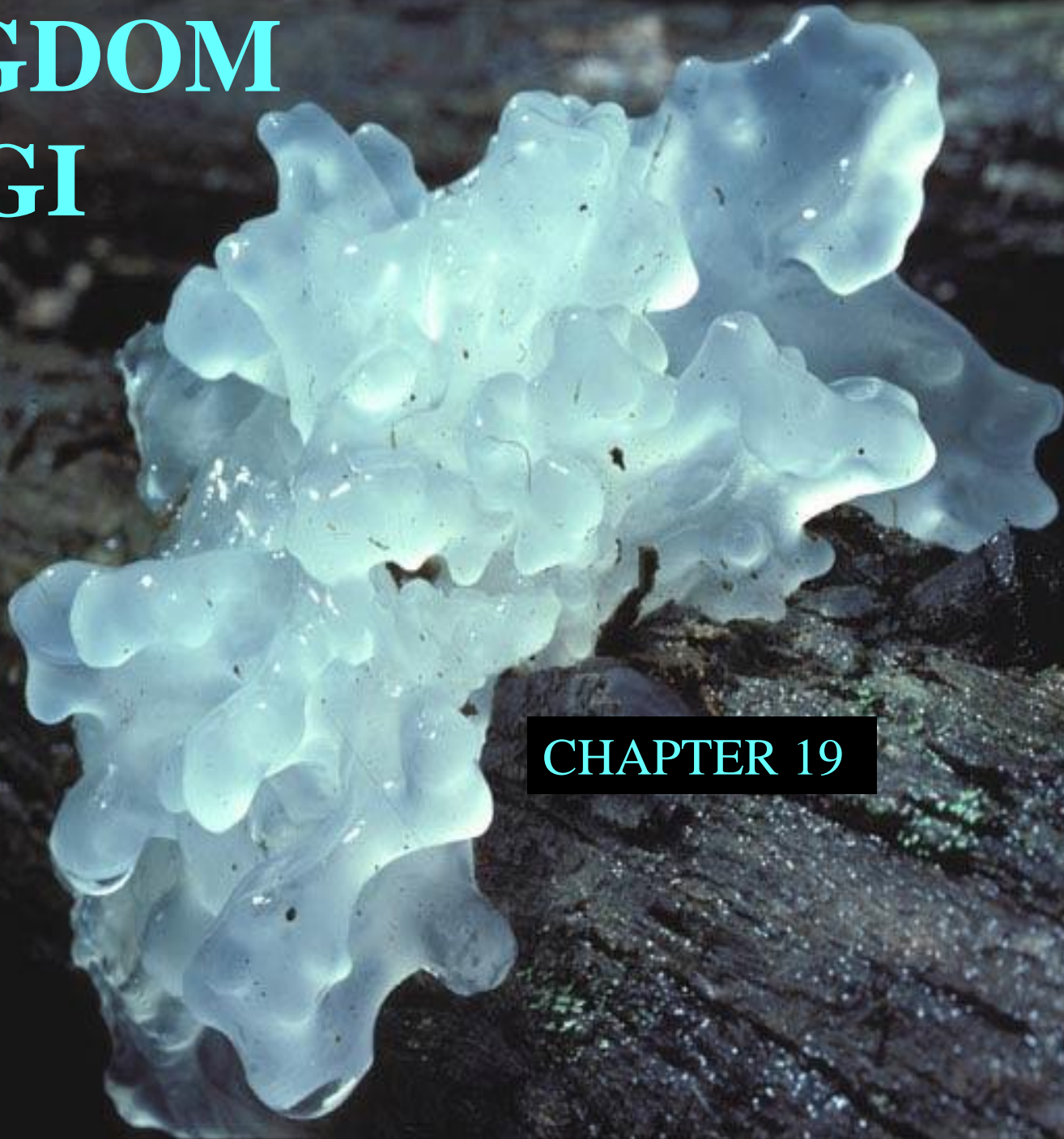
SIZE : Over
2,200 acres

AGE : Over
2400 years old



HUMUNGIOUS FUNGUS AMONG US

KINGDOM FUNGI



CHAPTER 19

WHAT IS A FUNGUS?

FUNGAL FEATURES.....

- EUKARYOTIC CELLS.
- 99.99% of species are multi-cellular
- Most are SAPROPHYTIC HETEROTROPHS – Decomposers.
- Others don't wait - PARASITIC
- CELL WALL MADE OF CHITIN.
- BODY CONSISTS OF FILAMENTOUS THREADS CALLED **HYPHAE**. HYPHAE INTERTWINE TO FORM THE FUNGAL BODY - **MYCELIUM**
- TEND TO PRODUCE **FRUITING BODIES** TO PRODUCE AND DISPERSE SPORES



AT FIRST YOU MAY NOT BE ALL THAT TAKEN WITH LEARNING ABOUT FUNGUS.

BUT IF YOU GIVE THEM SOME TIME AND GIVE THEM A CHANCE, THEY WILL REALLY START TO GROW ON YOU!



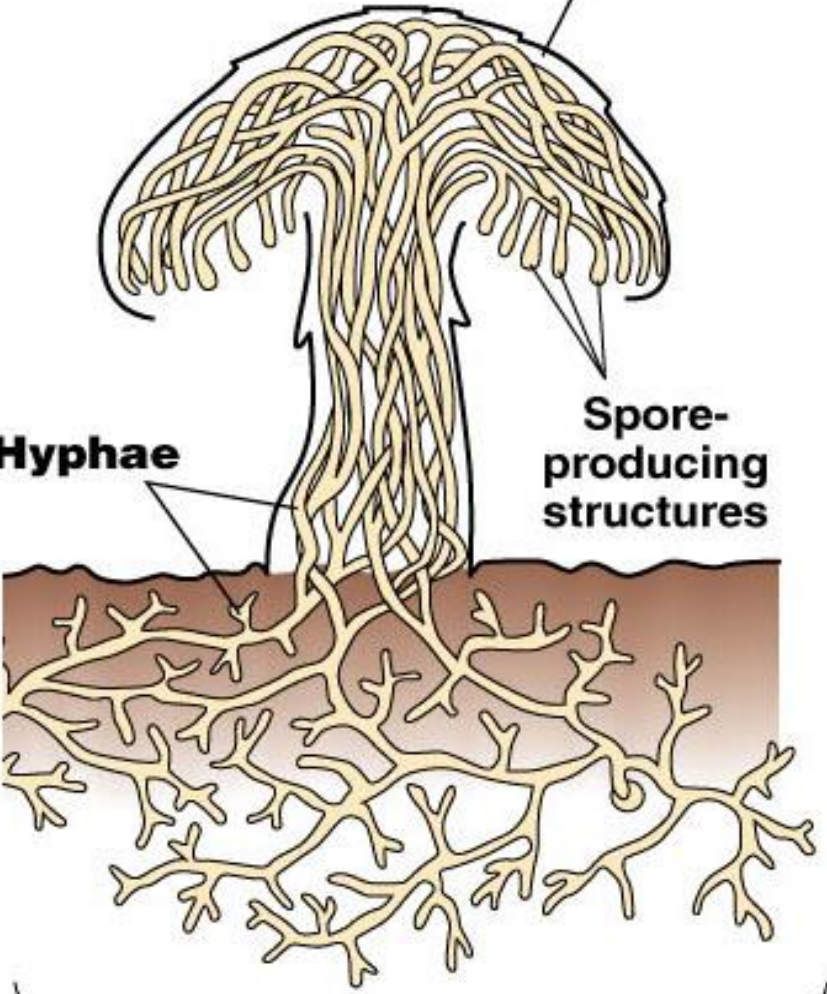
Reproductive structure



Spore-producing structures



Hyphae



Mycelium

FIVE MAIN PHYLA TO GET FAMILIAR WITH. Classified according to their method of reproduction and reproductive structures.

1. OOMYCOTA - EGG FUNGUS

2. ZYGOMYCOTA – ZYGOSPORE PRODUCING FUNGUS

3. ASCOMYCOTA – SAC FUNGUS

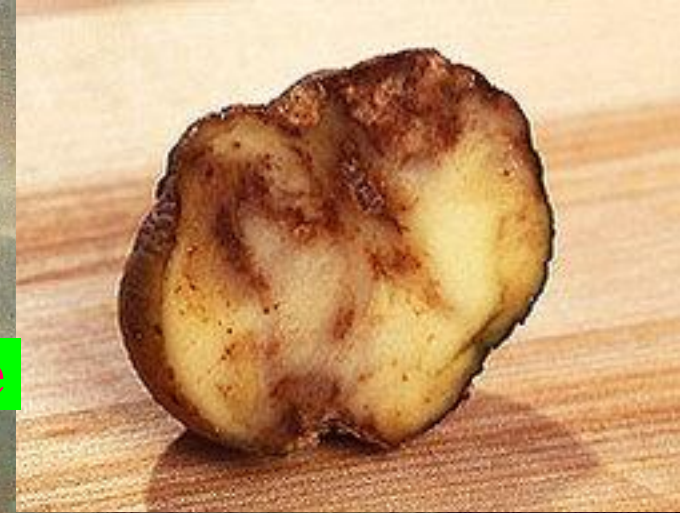
4. BASIDIOMYCOTA – CLUB FUNGUS

5. DEUTEROMYCOTA – IMPERFECT FUNGUS

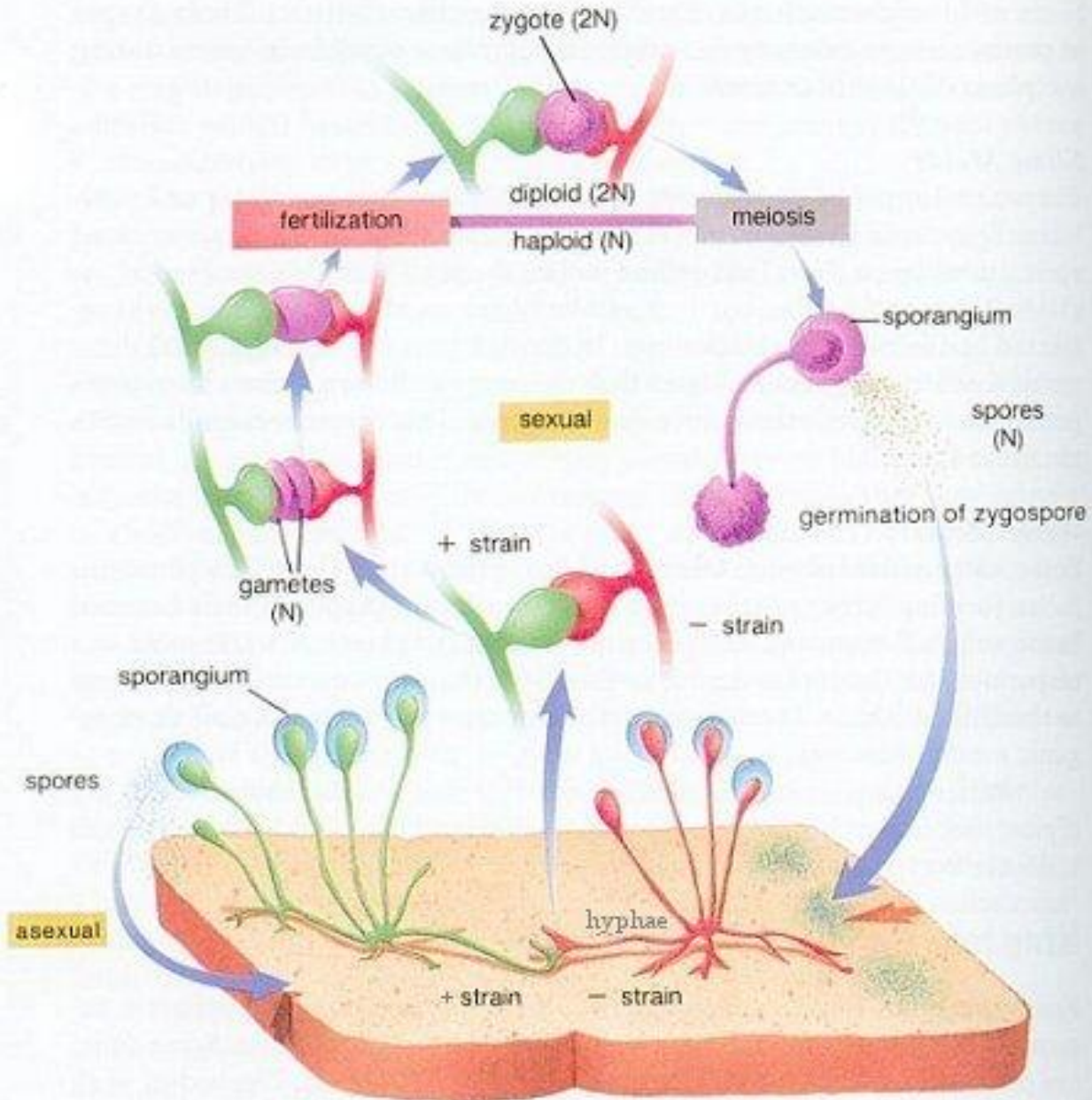
OOMYCOTA (OOMYCETES)

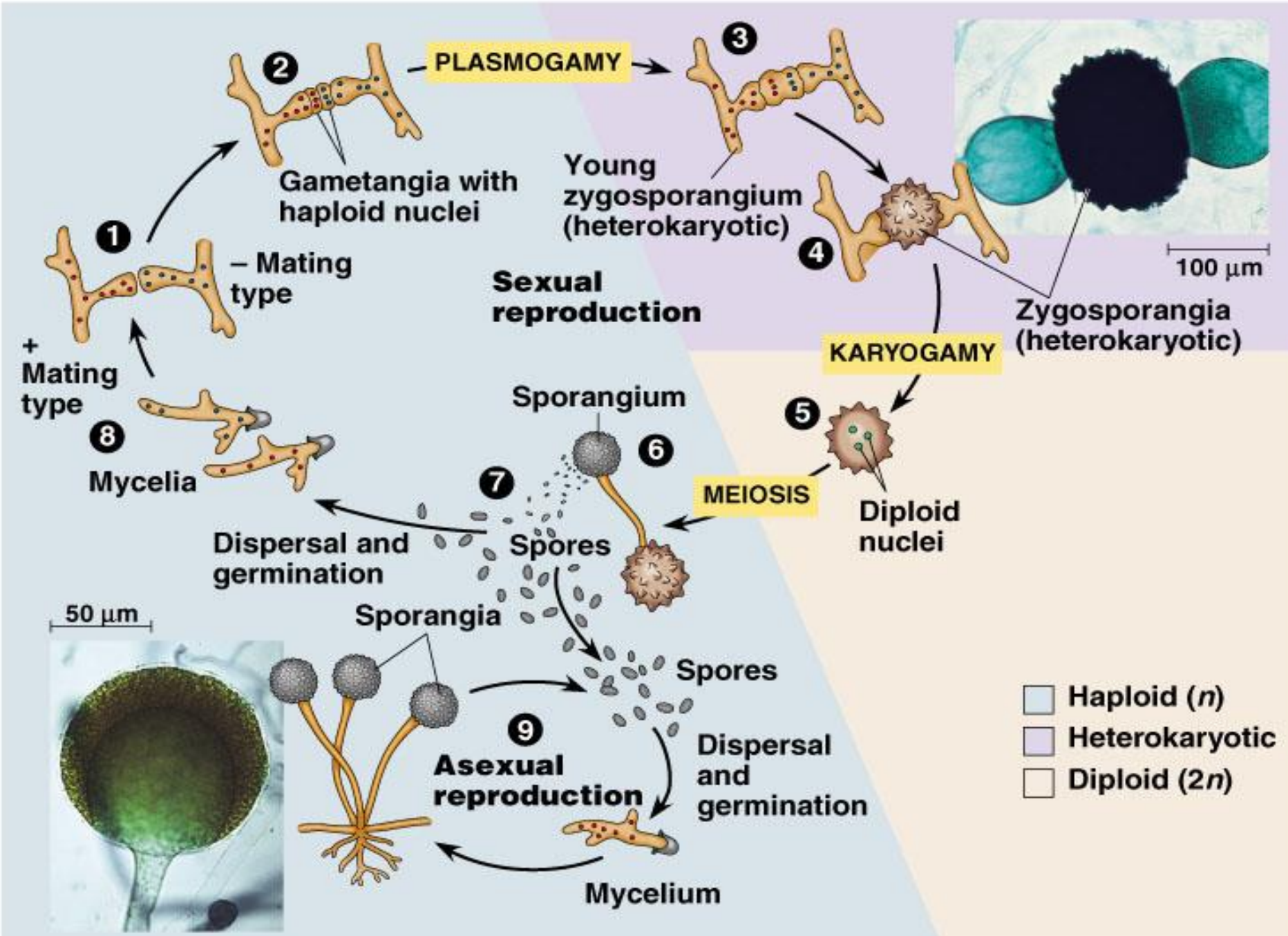


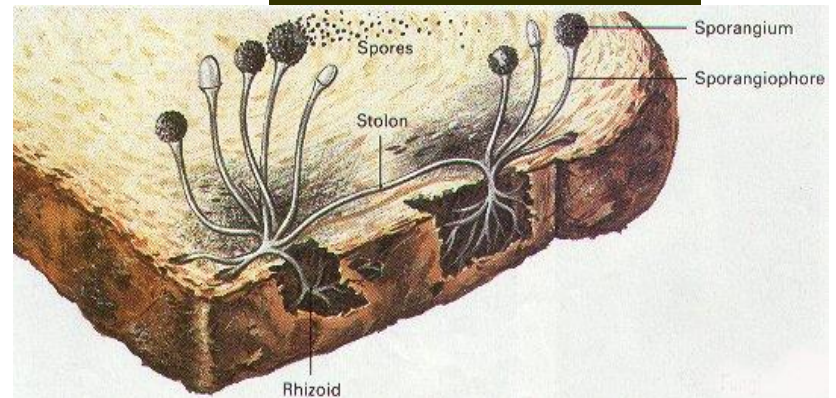
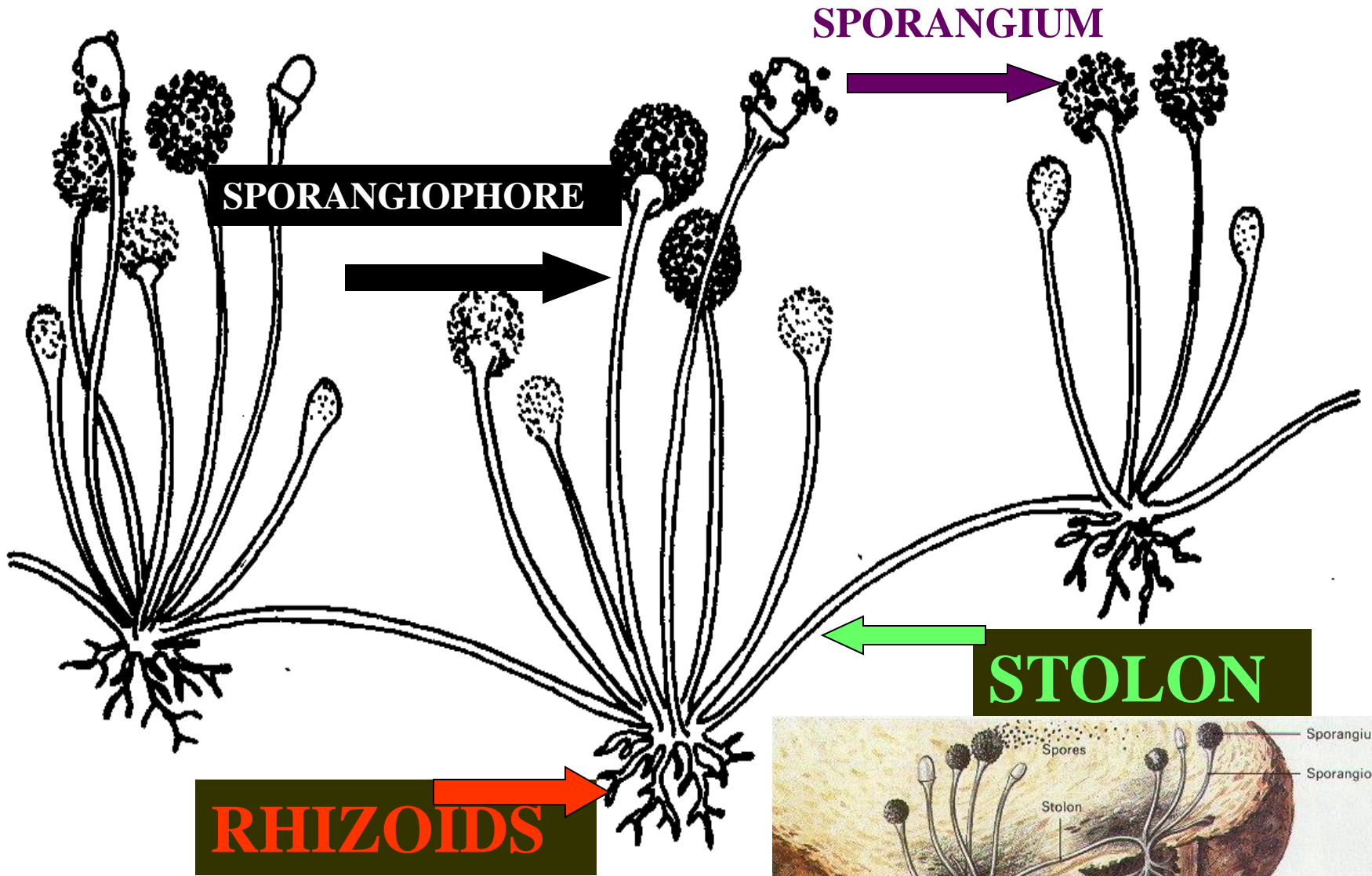
In 1854, a widespread outbreak of a species of oomycetes (*Phytophthora infestans*) devastated the potato crops in Ireland and Europe. This potato blight caused the death of over one million people in Ireland over the next couple of years due to starvation.



ZYGOMYCOTA - ZYGOMYCETES







WHY DID THE FUNGUS AND THE ALGA GET MARRIED?

Because they really took a
“**LICHEN**” to each other !



Q: Why did everyone invite Mushroom to the party?

A: Because he was a “**FUNGI**”.

Q: Why did he leave the party as soon as he got there?

A: Because it was really packed and there wasn't “**MUSHROOM**”.



ASCOMYCOTA - ASCOMYCETES

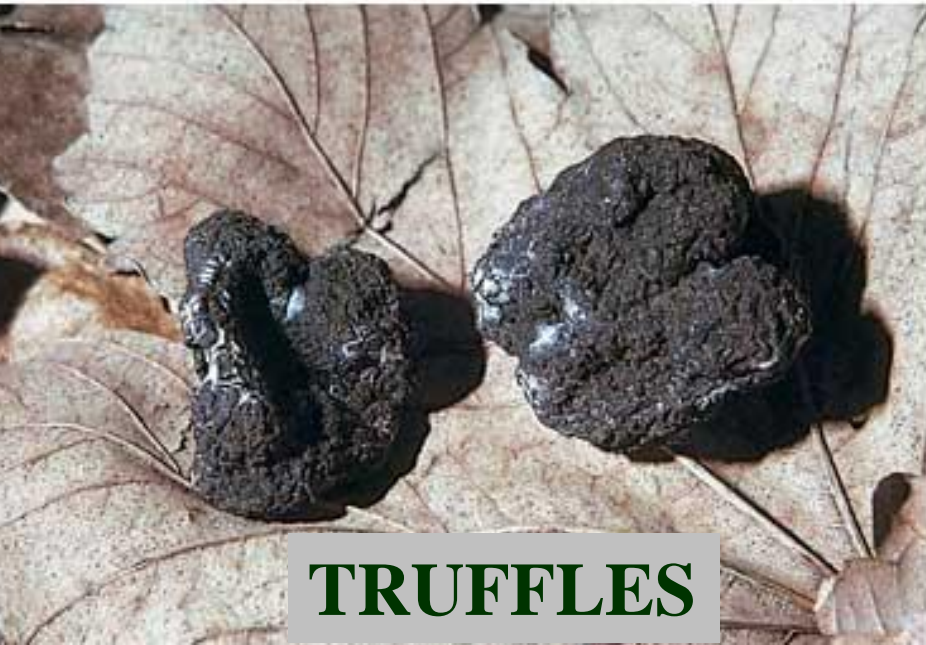
CUP FUNGUS



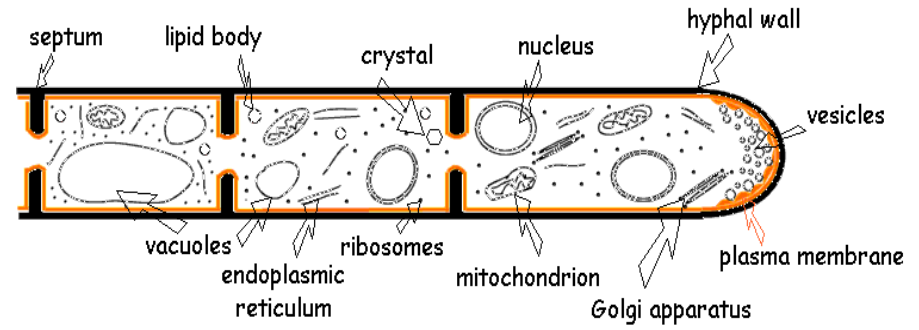
MORELS



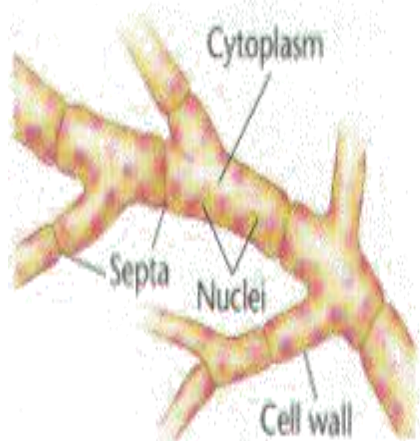
TRUFFLES



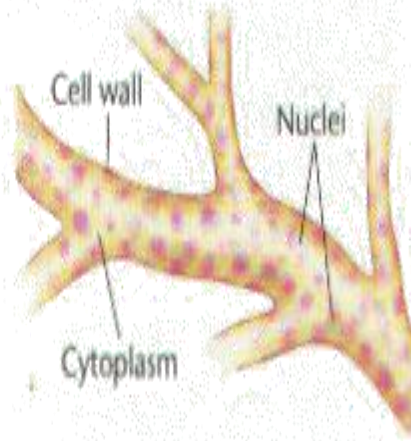
ADVANCEMENTS IN HYPHAE



Hyphae with cross-walls



Hyphae without cross-walls



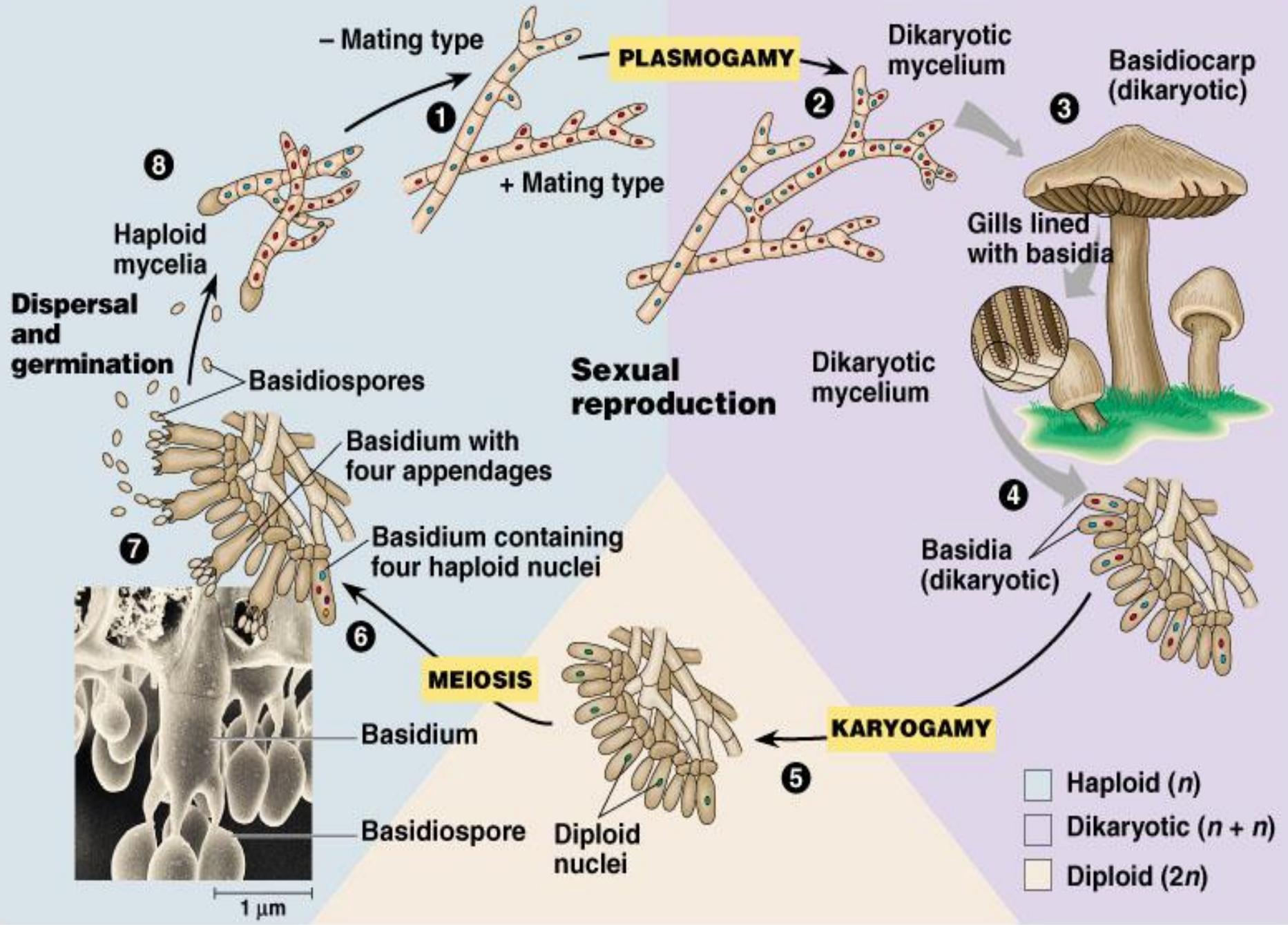
Ophiocordyceps unilateralis AKA – **Zombie Ant Fungus**

<https://www.youtube.com/watch?v=vijGdWn5-h8>



BASIDIOMYCOTA - BASIDIOMYCETES





MUSHROOMS



FOREST FUNGUS SPECIMENS
by the 30s

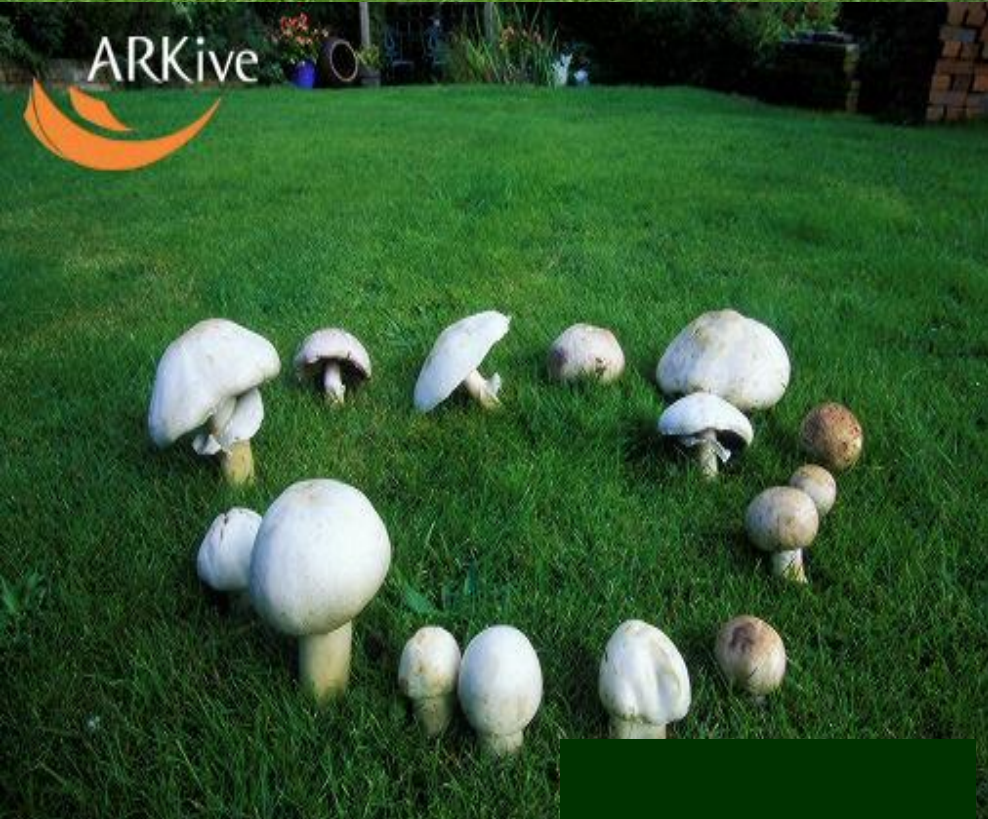
POISONOUS & PSYCHOTROPIC MUSHROOMS



by the 30s

BRACKET FUNGUS







DEUTEROMYCOTA - DUETEROMYCETES

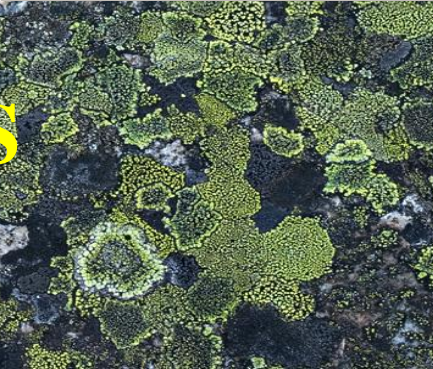
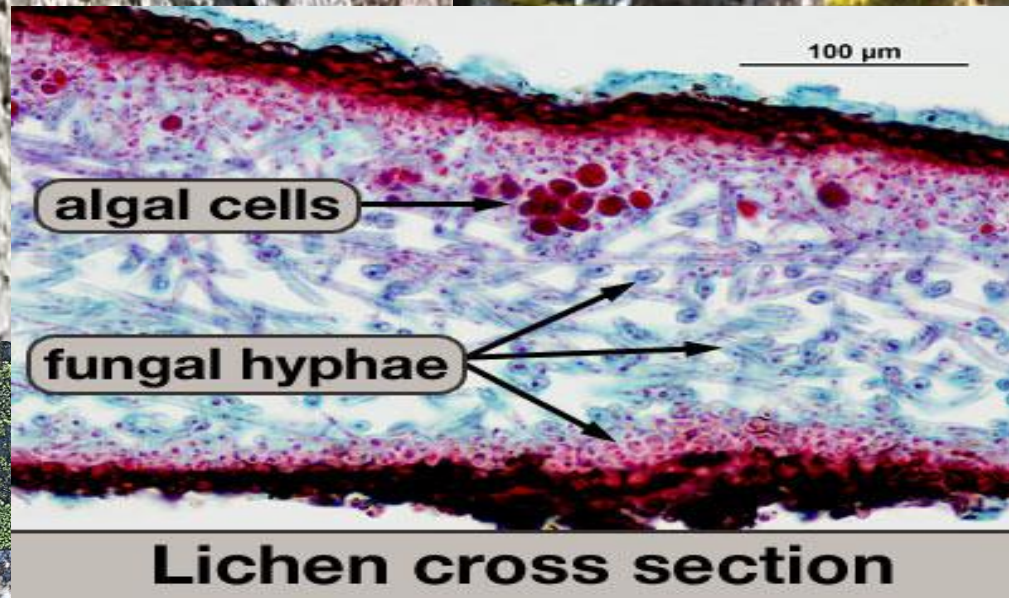


“deuteromycetes” -- no known sexual state, usually reproduces by conidia as asexual state



FUNGI IN NATURE





SYMBIONTS





Antibiotics to fight bacteria



Other Helpful Roles



Mycorrhizae – Fungi helps plant absorb nutrients and water and fungus the plant in turn shares products of photosynthesis

