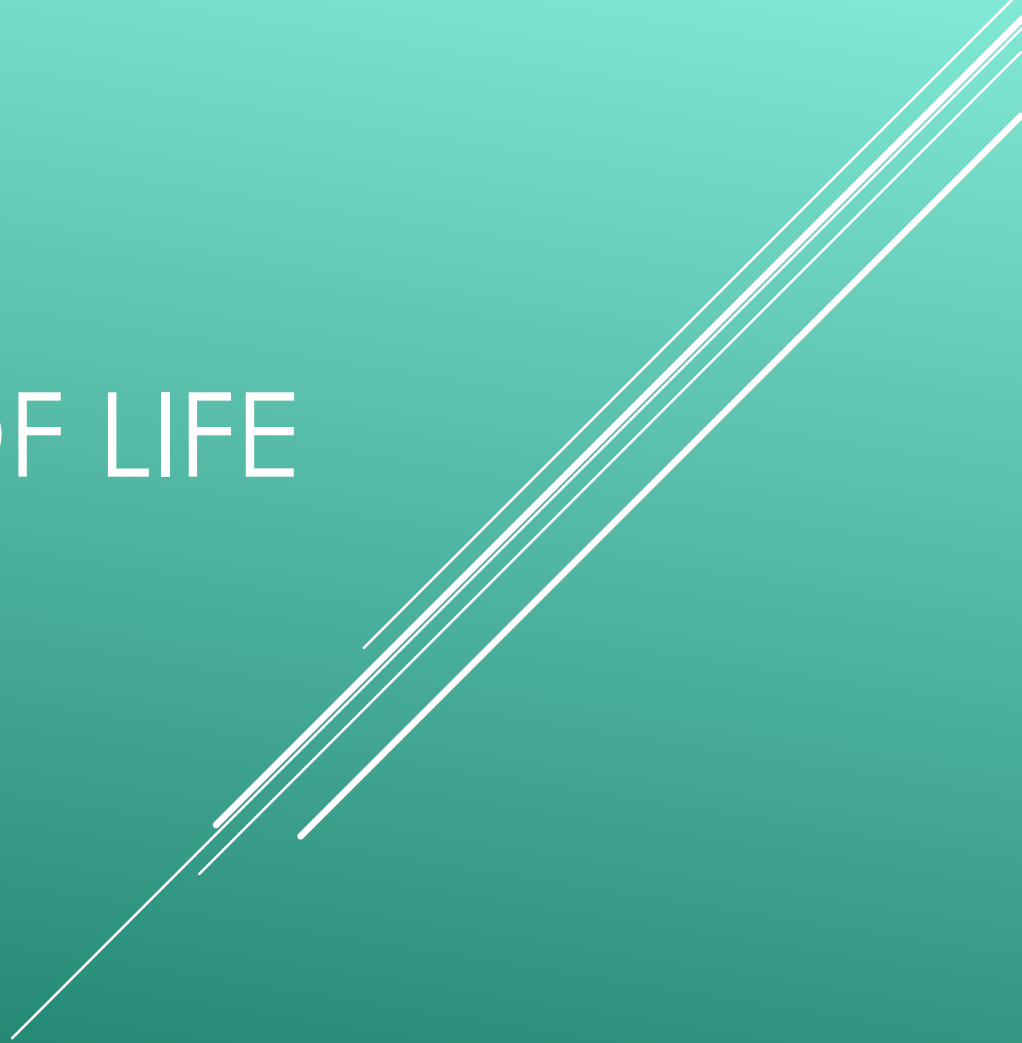
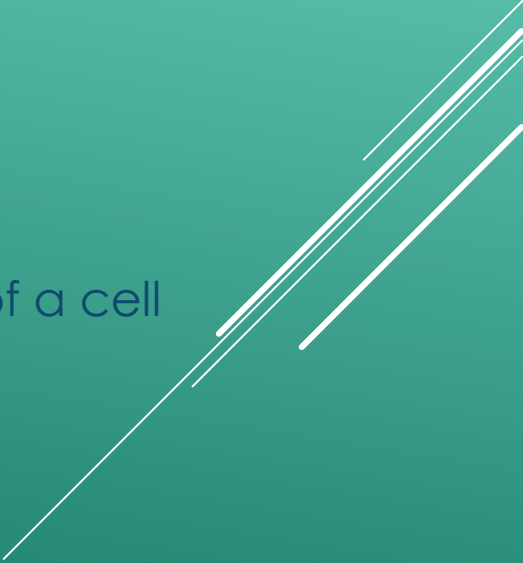


KINGDOMS OF LIFE

Protists

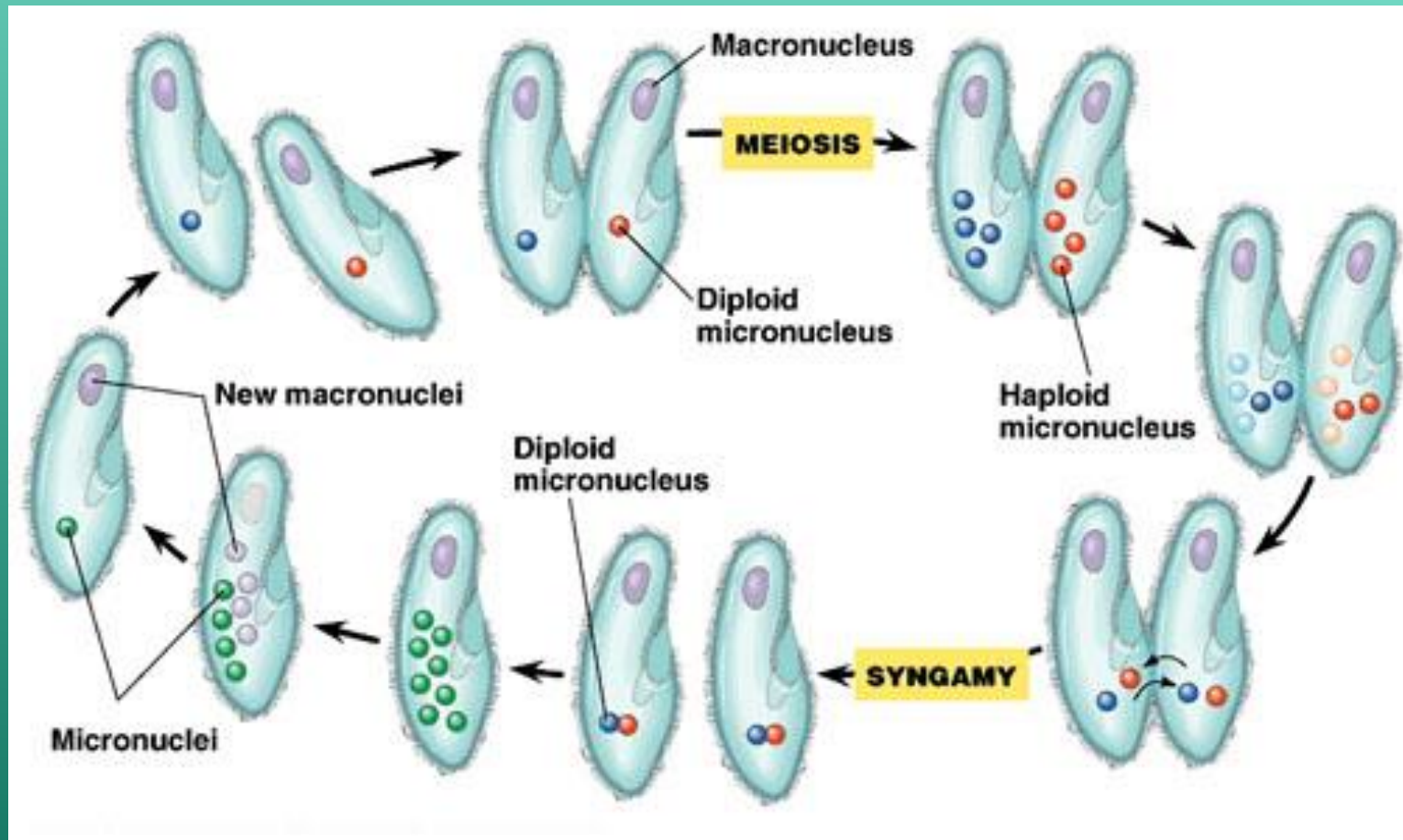


PROTISTS

- ▶ Eukaryotic
 - ▶ Both uni-cellular and multi-cellular
 - ▶ Reproduction: both asexual and sexual (depending on the organism)
 - ▶ Some do a process known as conjugation – where they attach themselves to each other and exchange genetic information
 - ▶ Two major categories of protists:
 1. Animal-like protists
 2. Plant-like protists
 - ▶ Fresh water protists:
 - ▶ Contractile vacuole: pumps excess water out of a cell (osmoregulation) – helps maintain homeostasis
- 
- A decorative graphic consisting of several parallel white lines of varying lengths, slanted diagonally from the bottom right towards the top right, set against a dark teal background.

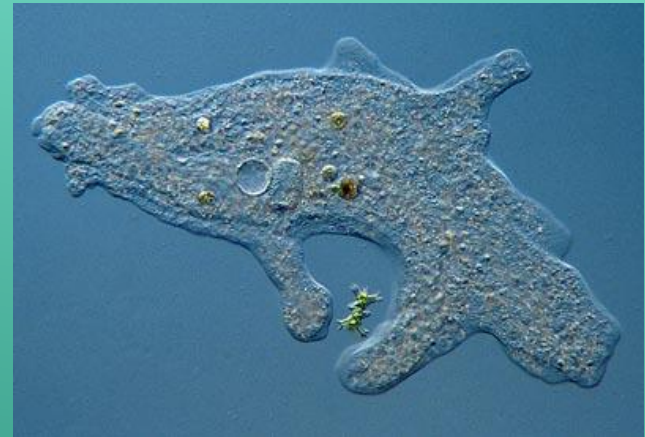
CONJUGATION

- ▶ No new organism produced
- ▶ Increases genetic variation



ANIMAL-LIKE PROTISTS

- ▶ Zooflagellates
 - ▶ Use flagella for locomotion
- ▶ Amoebas
 - ▶ Use pseudopods (false foot) for feeding and movement
 - ▶ Temporary cytoplasmic projections
- ▶ Paramecium
 - ▶ Use cilia for feeding and movement
 - ▶ Hair-like structures



ANIMAL-LIKE PROTISTS THAT CAUSE DISEASE

- ▶ Malaria – caused by the *Plasmodium* protist
 - ▶ Transmitted by mosquitos
- ▶ African-sleeping sickness – caused by the *Trypanosoma* protist
 - ▶ Transmitted by the tsetse fly
- ▶ Amebic dysentery – caused by the *Entamoeba* protist
 - ▶ Transmitted by drinking contaminated water



AMEOBIC DYSENTERY

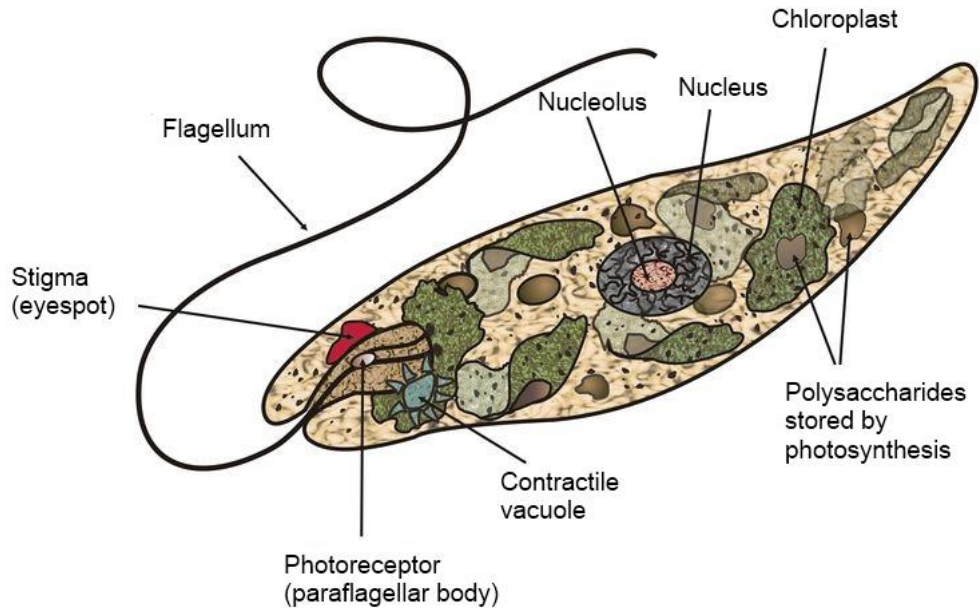
- ▶ Amebic dysentery – caused by the *Entamoeba* protest
 - ▶ Transmitted by drinking contaminated water



PLANT-LIKE PROTISTS

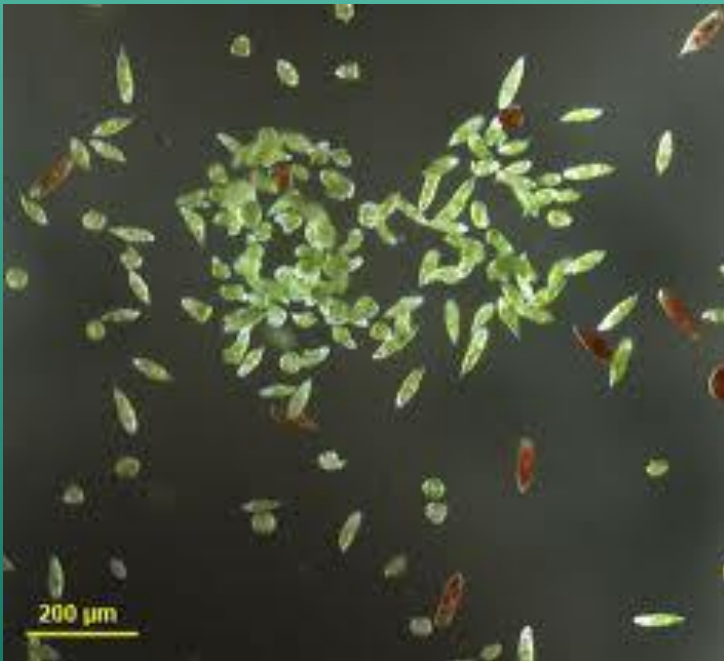
▶ Euglena

- ▶ Use an eyespot to find light for photosynthesis



PROTIST ADAPTIVE BEHAVIORS

- ▶ Chemotaxis – response to chemicals
- ▶ Phototaxis – response to light
 - ▶ Use their eyespot to detect and move toward light



Taxis – movement towards or away from a stimulus

Positive taxis – towards stimulus

Negative taxis – away from stimulus

Examples:

Chemotaxis

Phototaxis



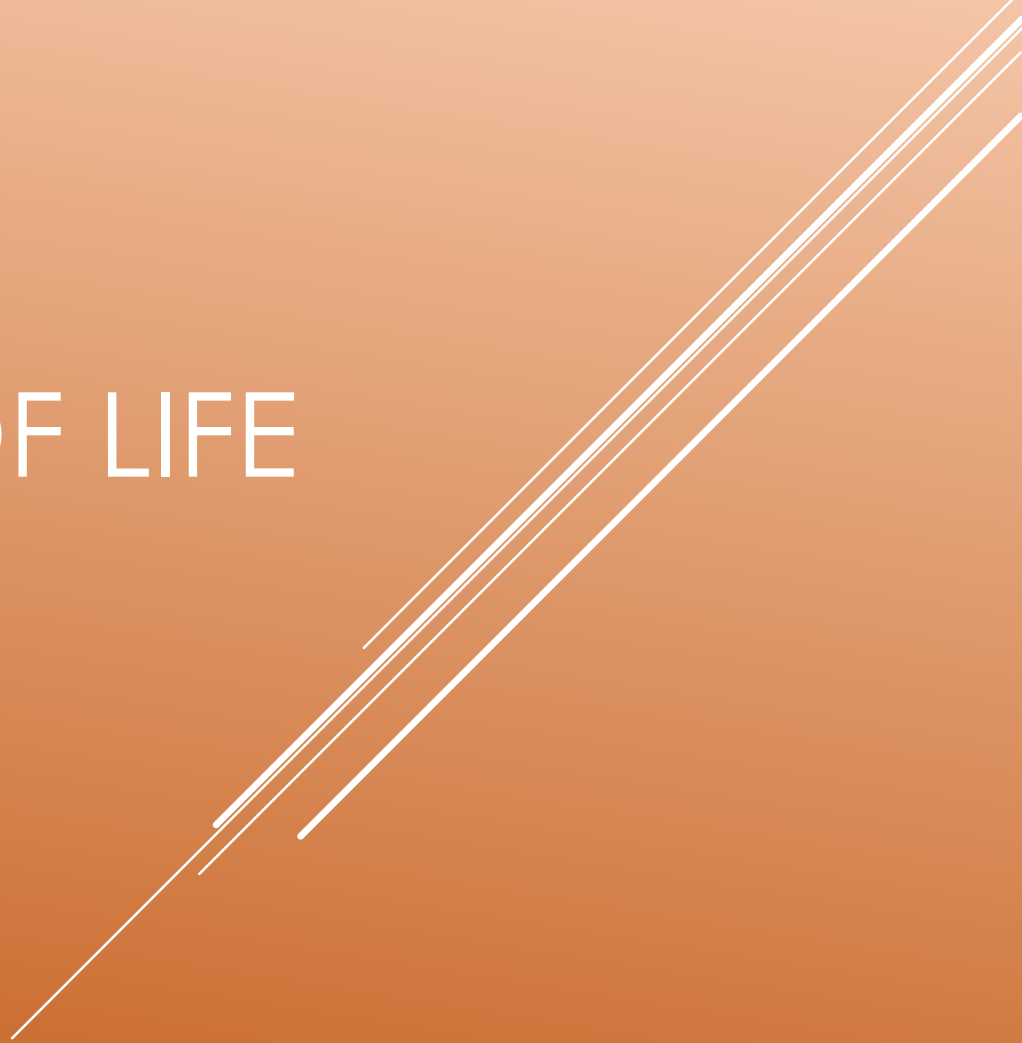
PFIESTERIA

- ▶ Toxic protists
 - ▶ Can be plant-like or animal-like
- ▶ Responsible for harmful algae blooms in North Carolina
 - ▶ Kills fish



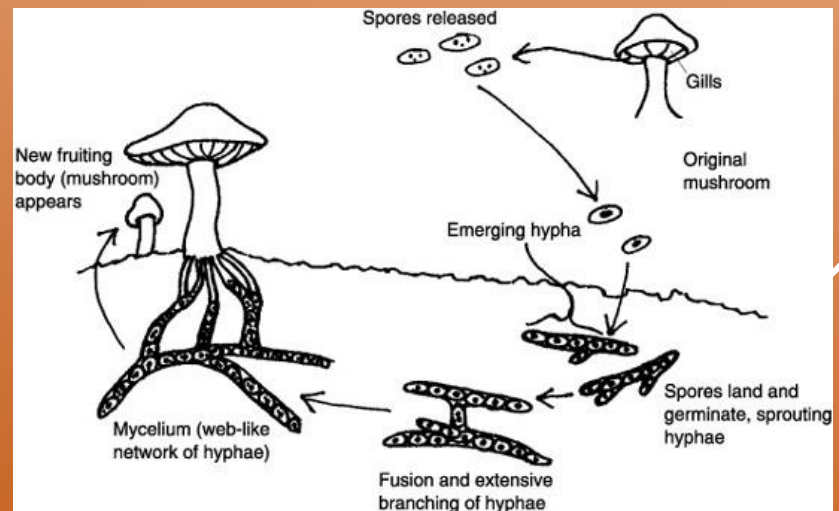
KINGDOMS OF LIFE

Fungi



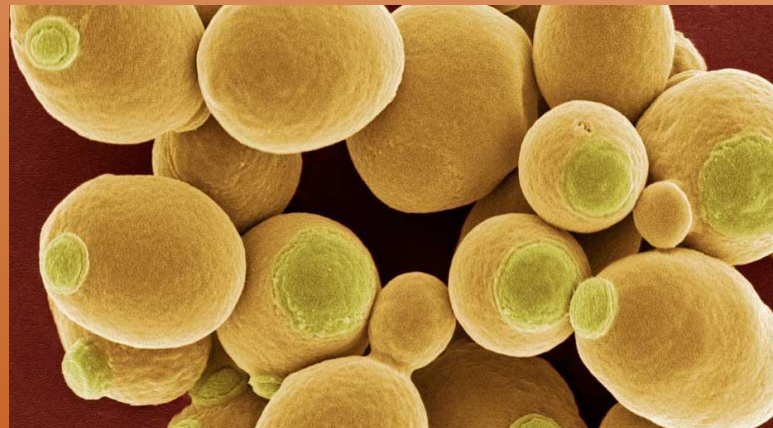
FUNGI

- ▶ Eukaryotic
 - ▶ Heterotrophs
 - ▶ Do NOT ingest their food – digest food outside their bodies and absorb it
 - ▶ Multi-cellular except for yeast
 - ▶ Have cell walls made of chitin (carb found in external skeletons of insects)
- ▶ Reproduction: both asexual and sexual
 - ▶ Spores – scatter easily



TYPES OF FUNGI:

- ▶ Molds
- ▶ Lichens – have symbiotic relationship with photosynthetic organism
- ▶ Mushrooms
- ▶ Yeasts



FUNGI

- ▶ Decomposers – recycle nutrients by breaking down bodies and wastes of other organisms

