## Kingdom: Protozoa (Protista)
## Phylum: Myxomycota (Slime mold)
## Class: Myxomycetes

**1.** True slime mold
**2.** No cell wall.

**Life cycle are four stages or four types of cells:**

1- Three cells uninucleated, one of them flagellated
2- Somatic phase as plasmodium multinucleated
**3-** Somatic phase resisted to environment condition called **sclerotium.**
4- Reproductive phase as sporophores which contain inside of it spores that have cell wall.

❖ **Peridium**: non-cellular envelope covers spores inside sporophore.

## Type of sporophores (fruiting body)

### 1- Sporangium (sporocarp): consist of

a- Peridium
b- Columella
c- Capillitium
d- Stalk
e- Hypothallus
f- Spores

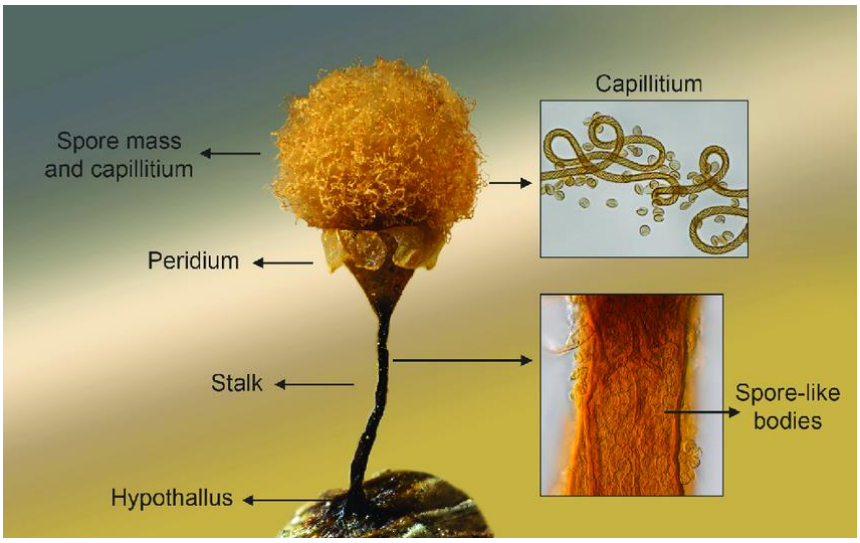



Figure (1) Sporangium consist of slime molds

2- **Aethalium:** big like cushion shape**.**
3- **Pseudoaethalium:** accumulation of several sporangium.
4- **Plasmodiocarp:** like plasmodium.

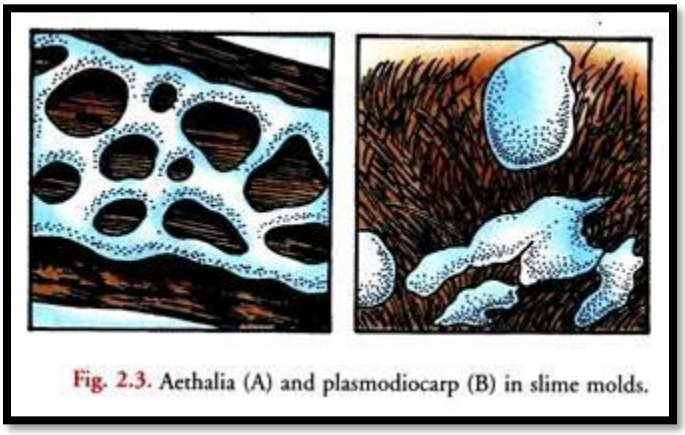
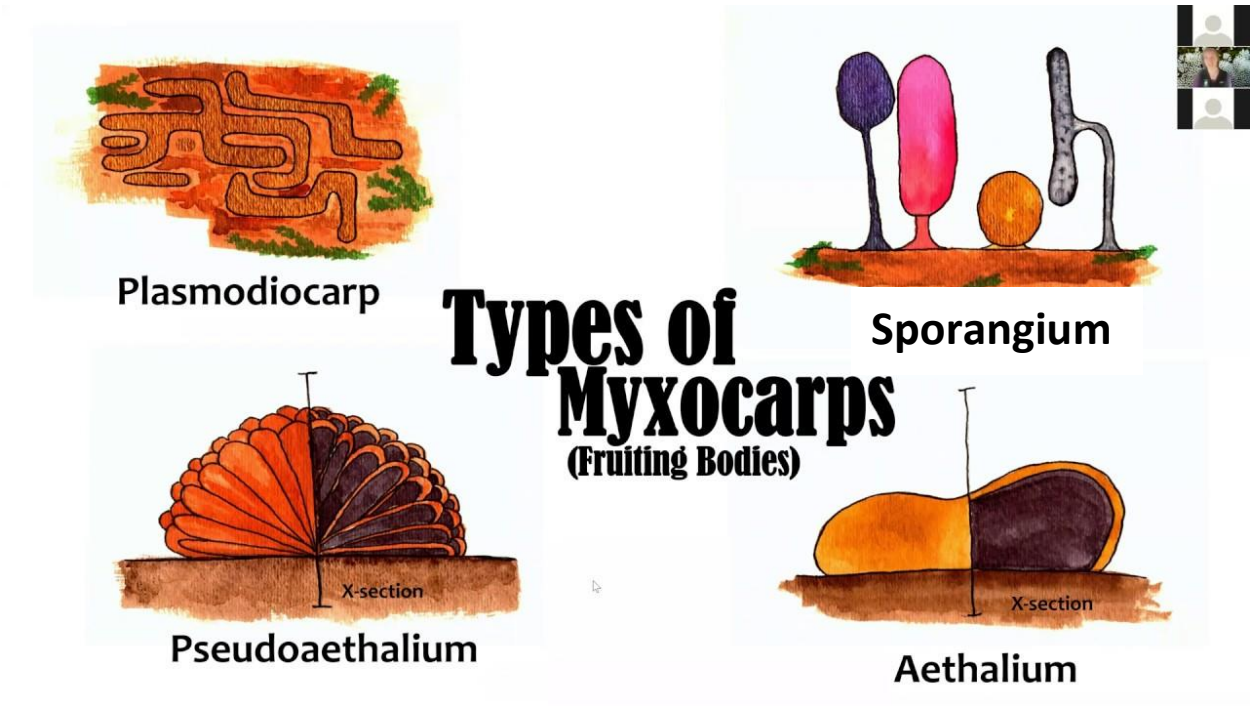



Figure (2) Aethalia and plasmodiocarp of slime molds



# Phylum 2: Plasmodiophoromycota

## Class: Plasmodiophoromycetes
## Order: Plasmodiophorales
## Family: Plasmodiophoraceae

## General characteristics of this phylum:

1- Somatic phase is plasmodium, no cell wall.
2- Multi nuclei.
3- Endobiotic or Endoparasitic on vascular plants or on kingdom Stramenopila.
4- Necrotrophic meaning: kill the host cell before feeding. not phagotrophic.
5- Forming zoospore, have two flagella type whiplash and unequal length.
6- Presence nuclear division cruciform.

## Economic importance:

1- ***Plasmodiophora brassicae****:* parasitic on Cabbage causing club root. **Slide available**

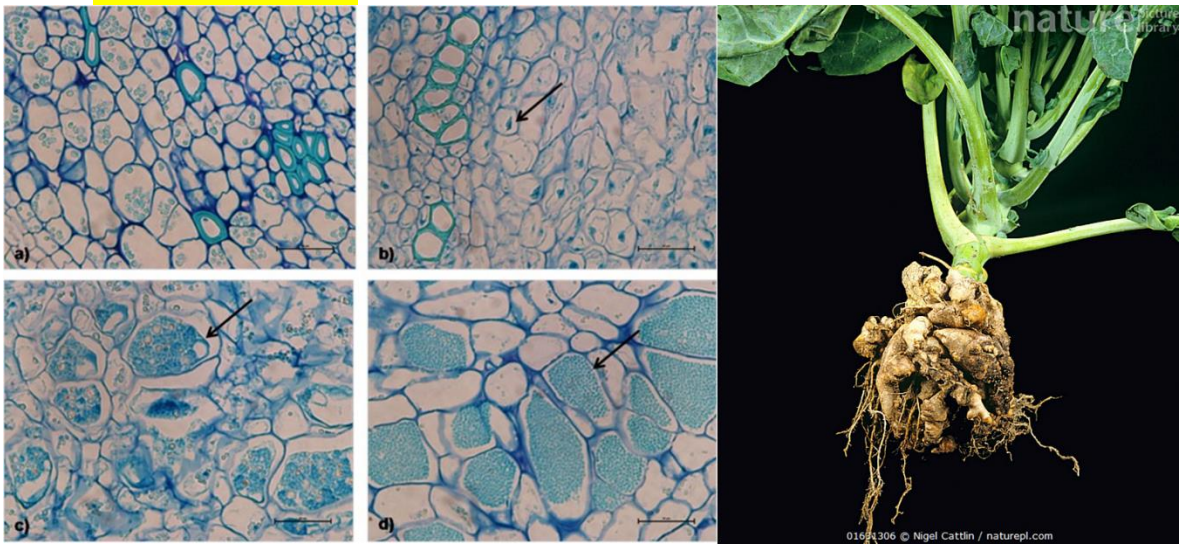



Figure (3) *Plasmodiophora brassicae* causing club root on Cabbage

**2- *Spongospora subterranea* (Powdery scab) Slide available**

Parasitic on potato causing powdery scab.

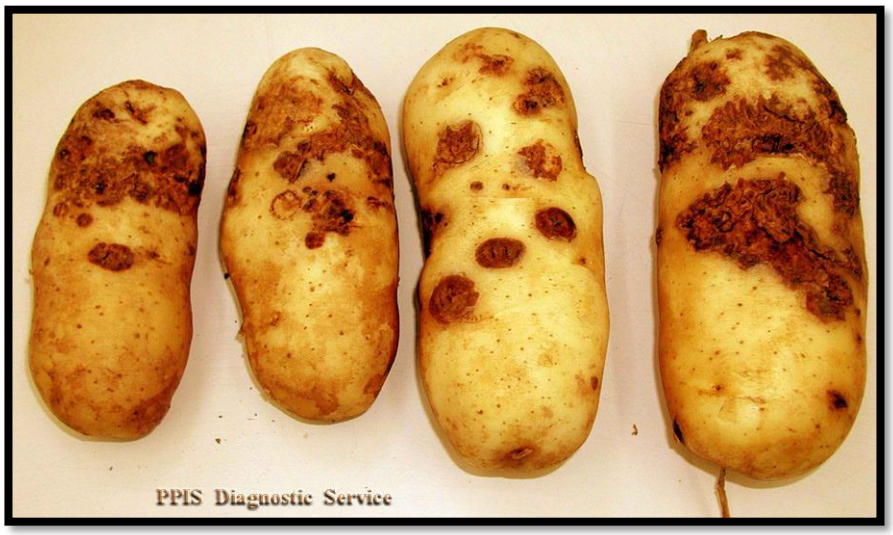



Figure (4) *Spongospora sp*. causing powdery scab on potato