

Lab-7-

Class : Pyrenomycetes :

General characteristics :

- 1- monophyletic group
- 2- fruiting body generally Perithecium or Cleistothecium and sometimes inside Ascostroma .
- 3- Hymenium layer clear.
- 4- Ascospore Oval shape monocular wall .

Order : Chaetomiales :

General characteristics :

- 1- Ascospores not clear , fruiting body Perithecium can Identified clearly by forming threads in the base.
- 2- The most members of this order live on cellulose, so most of them live on the leaves and cotton fiber , saprophytism nutrition .for example *Chaetomium sp.* Follow a family Chaetomiaceae and cause **Cloth mildew**

Order : Clavicipitales :

Family : Clavicipitaceae :

Includes two important Genes :

- 1- *Cordyceps sp.* parasitize on spiders

Cordyceps fungus attacks a host, the mycelium invades and eventually replaces the host tissue, while the elongated fruit body (ascocarp) may be cylindrical, branched, or of complex shape

Some *Cordyceps* species *C. subsessilis* are sources of biochemicals with interesting biological and pharmacological properties like cordycepin .

- 2- *Claviceps purpurea*

An important fungus that parasitic on plants, especially wheat, barley and oats, causes a disease known as Ergotism, which produces some toxic alkaloids that cause health problems for humans and animals when consumed. Some of these alkaloids are useful and are used to make medicines to prevent bleeding that accompanies birth. The most important alkaloids are Ergot novin,

Ergot metrin, Ergot amine, which is used as a medical drug to treat severe migraines.

Order :Sphaeriales or Xylariales

This order includes many families :

- 1- **Sordariaceae**: Some species are common and known. These fungi are important to humans, where most of them are used as a model in biological laboratories such as *Neurospora* sp. , *Podospora* sp. and *Sordaria* sp.
- 2- **Xylariaceae** : The fruiting body of this family is inside Ascostroma consisting of true fungal tissue and contains an cavity , this fungus characterized with ascus carrying a crown at the top, which can be distinguished under the microscope , *Xylaria* sp. is One of the most important types of this family, which lives saprophytism and sometimes living a weak parasite on tree trees .

Order: Hypocreales This order includes three families:

- 1- **Hypocreaceae**: the type of body fruit is Perithecium inside Ascostroma , *Cordyceps capitata* is the most important species of this family.
- 2- **Nectriaceae** : the type of body fruit is Perithecium and without Ascostroma a. *Necteria* sp. is one of the most important members of this family, which contains 27 genus which causes Cancer disease of shade plants.
- 3- **Hypomycetaceae** :the type of body fruit is Perithecium inside Ascostroma , *Hypomyce* sp. is the most important species of this family.

Order : Erysiphales Family : Erysiphaceae

Is divided into species according to appendage type and the number of ascus on the surface of the fruiting body , members causes **Powdery mildew** diseases included : figure (1)

- 1- More than one asci and appendagelike the *Mycelium*. **Ex:** *Erysiphae* sp.
- 2- One asci and appendagelike the *Mycelium*. **Ex:** *Sphaerotheca* sp.
- 3- More than asci and appendageBranch **Ex** : *Microsphaera* sp.

- 4- One ascus and appendage Branch **Ex** : *Podosphaera* sp.
- 5- Appendage that globular base **Ex** : *Phyllactinia* sp.
- 6- Appendage shape is Hockey **Ex** : *Uncinula* sp.

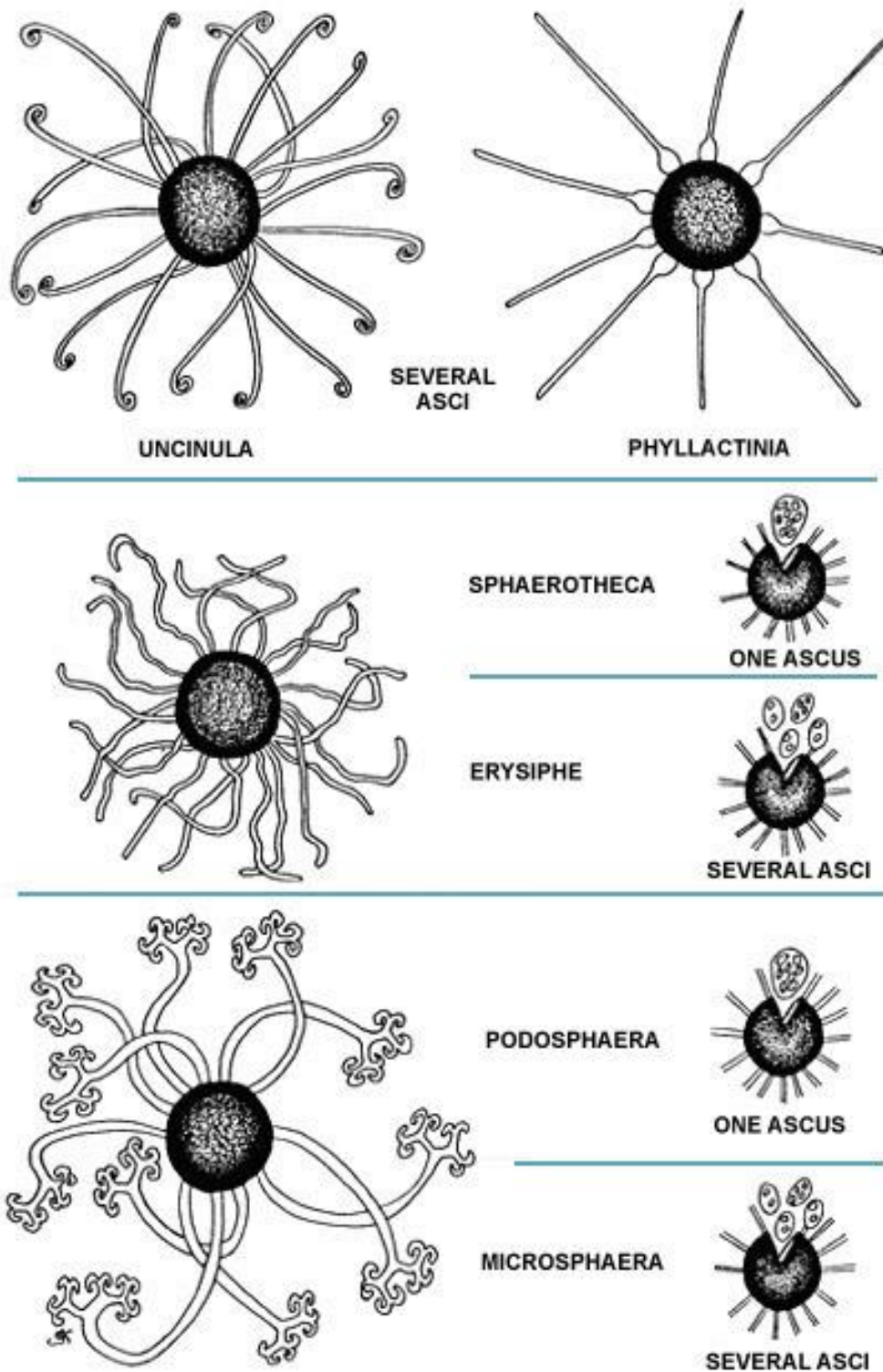


figure (1) ascus and appendage Erysiaceae species