

Lab-2-

Order :Chytridiales

General Characters of Chytridiales:

- 1- This order includes 65 genus and 300 species. They are the most primitive and simplest members of true fungi. They are often called the chytrids. The latter are restricted to the wet soil. A few species are marine. Many chytrids are parasitic and others saprophytic. The fresh water species parasitize algae
- 2- Members live within the host cell and in some of them reproductive structures are produced within the host cell.
- 3- The rhizomycelium is embedded in the host tissue. The endobiotic species are considered primitive. The thallus in all the chytrids is a single cell. The cell wall consists of fungal chitin or both fungal chitin and cellulose. In the eucarpic species, the thallus develops a system of rhizoid- like fine hyphal branches constituting rhizomycelium.
- 4- forming zoospores that escape through an opening formed by the separation of a minute, circular cap-like lid or operculum at the end of a discharge tube.

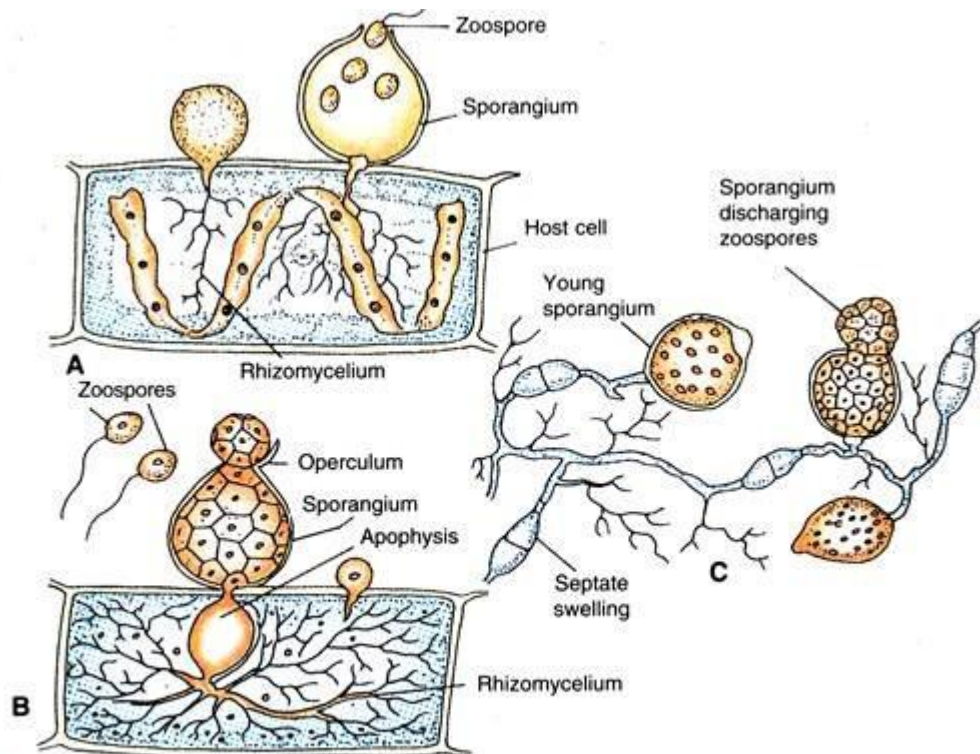


Fig. 4.2 (A-C). Epibiotic chytrids. A, *Rhizophidium* on algal host; B, *Chytridium lagenaria* on algal host (monocentric); C, *Cladochytrium tenue* (Polycentric).

Family :synchytriaceae

The family was described by German mycologist Joseph Schröter in 1892. The type genus, *Synchytrium*, contains about 200 species of fungi that are parasitic on flowering plants, ferns, and algae.

EX: *Synchytrium endobioticum* is a chytrid fungus that causes the **potato wart** disease or **black scab**. It also infects some other plants of the *Solanum* genus, an economically important disease of cultivated potato.

Order :Spizellomycetales

is an order of fungi in the Chytridiomycetes. chytrids are essentially ubiquitous zoospore-producing fungi found in soils where they decompose pollen. Recently they have also been found in dung and harsh alpine environments.

EX: *Spizellomyces punctatus*

Role in the environment:

chytrids have **beneficial** roles in the soil for nutrient recycling and as parasites of organisms that attack plants, such as nematodes and oospores of downy mildews. On the other hand, they also have **harmful** roles as parasites of mycorrhizae, symbiotic fungi that help plants gain essential nutrients .