

Kingdom: Protista

Subking.: protozoa

Phylum: sarcomastigophora

1. Super class: Sarcodina (Rhizopoda)

Class: Lobosea

Order: Amoebida

Family: Entamoebidae

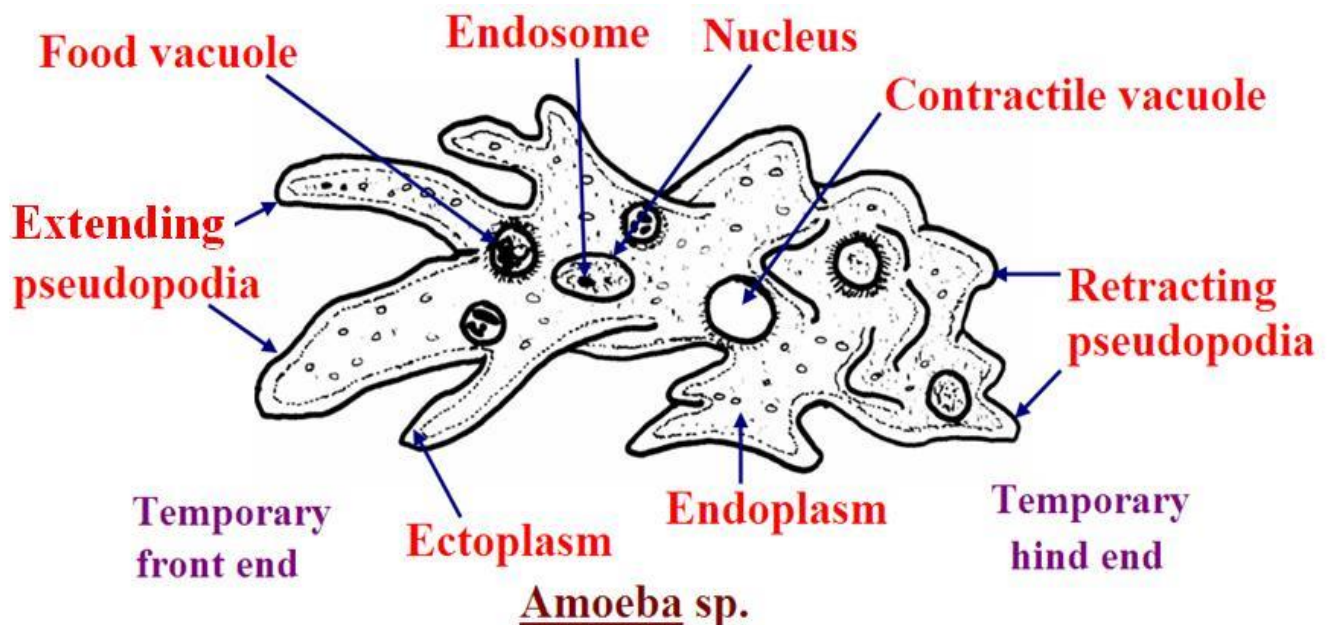
Amoeba sp.

Entamoeba histolytica

Entamoeba coli

Characteristics of Sarcodina:

1. They are either freelifving e.g., *Amoeba* sp. or parasitic in host's body, e.g., *Entamoeba histolytica*, *E. coli*.
2. Body is in the form of a mass of irregular protoplasm contains a nucleus with endosome (nucleolus; karyosome), food and contractile vacuoles and other organelles.
3. Movement is by false feet called Pseudopodia.
4. Reproduction is **asexually** by binary fission and **sexual** reproduction isn't found.
5. Lifecycle includes encystation during unsuitable conditions to form cyst but during suitable conditions the cyst under goes division then releases new Amoeba.



2. Superclass: Mastigophora

Class: Zoomastigophora

Order: Kinetoplastida

Family: Trypanosomatidae

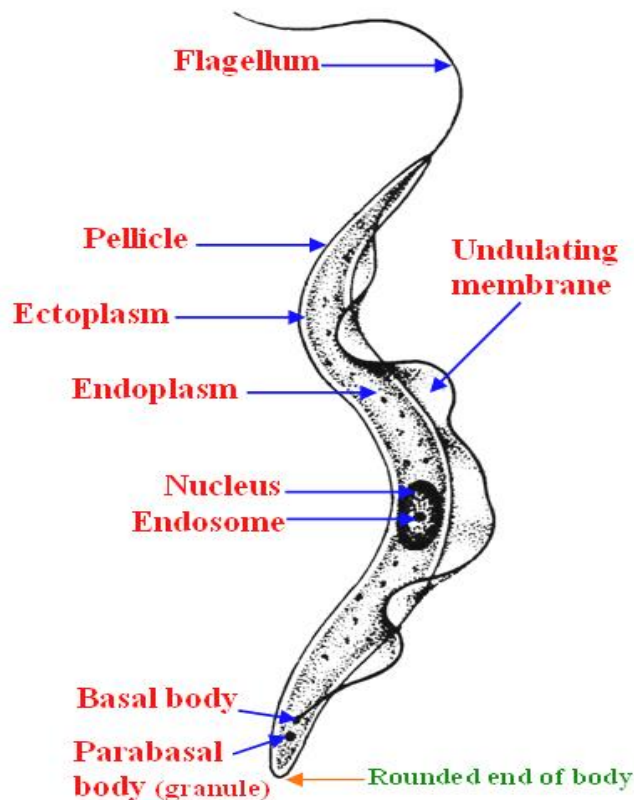
Trypanosoma brucei gambiense

Trypanosoma brucei rhodesiense

Trypanosoma cruzi

Characteristics of Mastigophora:

1. They are either freeliving in freshwater, e.g., *Euglena* sp. or parasitic inside host's blood, e.g., *Trypanosoma brucei*; *T. gambiense*, *T. rhodensiense*, *T. cruzi*, cause a disease called sleeping sickness (Chaga's). They usually live in two hosts; an invertebrate host, either insect (tsetse fly) or leech and a vertebrate host, like Man and fish.
2. Body is regular and elongated includes pellicle, undulating membrane, flagella, a nucleus with endosom, undulating membrane, basal granule, para-basal granule, food and contractile vacuoles and other organelles.
3. Movement is by flagella.
4. Reproduction is asexually by longitudinal binary fission.
5. Lifecycle includes several forms.



Trypanosoma sp.

Phylum: Sporozoa (Apicomplexa)

Class: Telospora

Order: Haemosporida

Family: Plasmodiidae

Genus: *Plasmodium*

Characteristics of Sporozoa:

1. All of them are endoparasites, live inside host's blood cells, e.g., Plasmodium falciparum, P. malariae, P. vivax, P. ovale cause a disease called malaria. They usually live in two hosts; an invertebrate host, which is Anopheles mosquito and a vertebrate host like Man and pig.
2. Body is spherical contains a nucleus with endosome, food and other organelles. Contractile vacuoles are not found.
3. Movement organ isn't found at all.
4. Reproduction is asexually by multiple fission and sexually by spore formation.
5. Lifecycle is alternation of generation, i.e., includes asexual reproduction (in Man) and sexually reproduction (in Mosquito).

