Department of biology

((Invertebrates))

2 stage

Lab 9

Kinetoplasta

By

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Kinetoplasta

Its members are parasitic on vertebrates and invertebrates, containing one or two flagella.

Kinetoplastea

It is characterized by the presence of a structure called the kinetoplast located near the base of the flagellum, which is a coiled DNA strand

Found in mitochondria

Which belongs to the order Trypanosomatida and the family

Trypanosomatidae, which parasitizes in the digestive tract of some insects, especially blood-sucking flies such as

The tsetse fly (Glosina sp.) and horse flies tabanids, which transmit it to the blood of humans and some animals

One of its most important species is T. brucei, which causes African sleeping sickness in humans. and type .T

evansi, which causes sora disease in agricultural and wild animals, and the parasite has an elongated, fusiform shape

Its front end is pointed and the back is slightly round. The body is surrounded by ice and a wavy membrane. It has flagella.

arises from

One is the basal body and goes along the edge of the wavy membrane, the nucleus is lateral to the location.

Sarcodina

They are rudiments surrounded by a thin membrane, but some of them have a somewhat thick shell called test

Protoplasmic protrusions that help them move and capture nutrients are called pseudopods.

It contains a single nucleus, but in some life stages it may be multiple nuclei, all of which are predatory or saprophytic

Nutrition: Because they do not have chloroplasts, most of them are free-living in the aquatic environment or in moist soil

Some of them parasitize on vertebrates, and are divided into two main types:

Rhizopoda

False stems are formed in which the roots are marred by stringy shapes or marred by cloves, and the core is divided

Two ranks:

A- Amoeba

B- Amoebinida histolytica

Arcellinida:

It is characterized by the presence of a shell surrounding the plasma membrane with an opening at the bottom from which the pseudopodia emerge.

Which are finger-shaped and may branch in some species. The cell has a specific shape, and all its types are free. Living

Example: 1. The genus Arcella belongs to the family Arcellinidae. It lives in freshwater ponds or in soil.

The wetland containing mossy plants, surrounded by a shell composed of a chitinous substance resembling an umbrella. Vary

Some of them have only one nucleus, while others have a number of different types, with the number of nuclei being greater.