Welcome students, my name Diksha Satarkar. I'm from government college, sanquelim.Let's take the new topic under phylum Platyhelminthes, that is module name classification of phylum Platyhelminthes up to class level, module number 17. In this module you will be learning classification of phylum Platyhelminthes. General characters of class turbellaria with examples. General characters of class trematoda with examples. In general.Characters of classes to cestoda with examples. By the end of this module you will be able to classify the phylum Platyhelminthes. Compare the three classes of phylum Platyhelminthes. Cite the examples belonging to different classes of phylum Platyhelminthes. Classification .Phylum Platyhelminthes has been divided into 3 classes. Firstclass is class turbellaria. Second class is trematoda and 3rd class is classes to cestoda. We'll see all these classes in detail. First class is class turbellaria. The word turbellaria is derived from Latin word turbella, which means little string. Most of these turbellarian's are freeliving in freshwater. But in their size ranges from 1millimeter to 600 millimeter in length, most of them are predators and scavengers. That

is, they will be feeding on minute organisms, or they will be feeding on dead organisms.

But , in the turbellarian they also some terrestrial species, and although all those terrestrial species are nocturnal and they like to live in shaded and humid locations. All the turbellarian's are non parasitic organisms, none of them are parasitic ones. Turbellarian's have ciliated epidermal layer which covers their body and this ciliated epidermal layer helps them in locomotion. In the aquatic condition. Turbellarians have no cuticle., cuticle is the outermost covering which is present only in the parasitic forms but turbellarians are non parasitic ones, so cuticle is absent. They are dorsoventrally flat and their body is unsegmented. They do not have hooks and suckers. Hooks and suckers are usually present in parasitic ones. Since turbellarians are non parasitic ones, they do not show the presence of hooks and suckers for attachment. Excretory system consist of Proto nephridia,which are specialized excretory cells called flame cells.

They also showed the presence of sense organs, that is tango scepters and chemoreceptors. Tango receptors are for touch

sensation and chemoreceptors respond to chemical stimuli.

There are hermaphrodite, that is they are monocious, which means their sexes are united, both male and female sex organs are present in same individual.

Their reproduction, they reproduce, usually sexually or asexually. Along with that, they also show a great power of regeneration. Their life cycle is simple, that is without involvement of any host their life cycle is simple.

Those were the characteristics of class turbellaria, now we'll see examples. First example is planaria, planaria shows the high power of regeneration. If planarian, they are cut into small pieces. Each piece will regenerate into a complete new Organism.

Second example is divided flatworm, divided flatworm is found in seawater and it is mostly found in the region where there are coral reefs. Divided Flat worm is also known as Tiger flatworm. Next example is hammerhead warm. It is called so becaus off its distinct structure of head region, which looks like hammer and it is one of the land flat worm. Another example is mesostoma species. These very few examples of class turbellaria. Now we'll move onto next class class trematoda.

Trematod is Greek word, which means having pores or

All the trematodes are commonly called flukes, and all

of them are of parasitic ones. They can be endoparasites, or they

can be ectoparasites. Their body is usually dorsoventrally flat,

that is their life, like they have reflex structure.

Their body is undivided or their body is unsegmented and since

they are all parasitic forms, their body is covered with

cuticle for protection.

That argument is thick but without cilia, since all of them

are parasitic ones, they do not require cilia for locomotion.

They are well developed suckers usually present. Since these are

parasitic ones, suckers are present for attachment on the

surface of the host or inside the host. In the endo parasitic

form they show the presence of protonephridia with flame

cells. Life history is simple or it can be complicated. That is,

it may be involvement of just one host, or it might be

involvement of more than one host. So complicated life cycle

might be present.

All of them are hermaphrodites or monocious. That is, their

sexes are united. The development is direct, that is,

without any level stages. In the cases of ectoparasites the

development, can be indirect, that is involvement of many

developmental stages. In the cases of endoparasites with alternation

of host more than one host might be involved to complete their

life cycle. Examples of class tremetoda are liver fluke.

It is called so because it is endoparasite inside the liver.

And in order to complete its lifecycle, it requires two

hosts, first one is

snail and 2nd host can be domestic animals, or it can be

humans also. Second example is blood fluke. This is

endoparasite in the blood

capillaries. Next example is Chinese liver fluke. This is

found in fish eating mammals .This is endoparasite in the fish

eating mammals. Even human beings will come and ate.

Then another example is lung fluke. So this infects the lung.

These were some of the examples

of. class trematoda

Class cestoda. These are all endoparasites

inside the intestine of vertebrates and also students

are commonly called tapeworms because of its structure. All

this students have elongated flat and ribbon like structure,

due to which they are called tapeworms and this tapeworms.

body is divided into many segments and each segment is termed as proglottid.

The body is without epidermis and without cilia. Since these are endoparasites, they do not require cilia for locomotion, but their body is covered with cuticle. Since these are endoparasites of many hosts inside the host, there are many chemicals that are being secreted inside the digestive system of the host. There are many chemicals that have been secreted and this cuticle play very important role for protection from those chemicals.

The anterior end of.

Tapeworm is called Scolex and Scolex is provided with adhesive structures, Organ of attachment to the hooks or suckers. With the help of these hooks and suckers, they can attach themselves inside the host body. Then mouth and digestive system is totally absent since these are all endoparasite, they do not require digestive system and they directly derive the food material or digested food from the host body.

The excretory system consists of proto nephridia with specialized excretory cells with terminal flame

cells. Each mature segment proglottid, which is also called as gravid proglottid, is monocious, which means each proglottid will show the presence of male and female sex organ for reproduction purpose.

Life cycle is complicated, usually involving two or more host. If one of the host is not present then their life cycle remains incomplete. Here are some examples. First example is pork tapeworm and another example is beef tapeworm. So this is the classification of.

Phylum Platyhelminthes, that isit has been divided into 3 Classes. class trematoda , class turbellaria and class cestoda.

These are the references.

Thank you.