Hello everyone, this module is a part

of Unit 6 parasitic vertebrates.

The module name is a brief account

of parasitic vertebrates candiru.

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This module comprises of distribution

and habitat of candiru fish morphology

of the fish and a brief account

of candiru fish as a parasite of

humans or other fishes and treatment

which is involved in candiru Parasitism on humans.

By the end of the module,

the student will be able to describe

the morphology of the candiru

fish, will be able to explain the

parasitism of candiru in fishes

and humans and also the treatment

methods used in candiru attacks.

Candiru, also known as Vandalia Serosa,

is also known as Canero, Camero,

urethra fish, toothpick,

fish or vampire fish.

This fish is a parasitic freshwater

catfish in the family Trichmycteridae, native to the Amazon Basin,

where it is found in the

countries of Bolivia, Brazil,

Colombia, Ecuador and Peru.

The genus name originates from

Professor Vandelli of Lisbon,

who first presented a specimen of

candiru from Brazil for study.

The candirus are the inhabitants of Amazon

and Orinoco basins of lowland Amazonia,

where they constitute a major part

of the neotropical fish fauna.

these fishes live in shallow,

slow moving acidic waterways

with muddy or sandy bottoms.

These are demersal fishes,

which are often found burrowed in the

riverbed most of the time and only

they emerge out to feed or to mate.

Candiru are small thin catfishes.

The most of the specimen are smaller,

but members of genus Vandalia can

reach up to 17 centimeters in length,

but some can grow up to

for 40 centimeters in length.

The body is narrow and cylindrical,

which is a parasitic adaptation

with a slightly flattened head.

The head is small and abdomen appears

distended after a large blood meal.

Large black eyes are also

present on the top of the head.

The eyes are larger compared

to the body size.

These are pictures of candiru fish.

As you can note that the body is narrow,

elongated and the head is also small,

which is a parasitic adaptation

to attach to the host.

The body is scaleless and translucent.

And the body becomes

colored only after feeding.

Therefore, it is very difficult to spot this Catfish is in the turbid waters.

There are also short sensory

barbels lined with minute needle

like teeth near their mouths.

This sensory barbels are known to allow

them to sense of presence of host nearby.

There are short backward pointing

spines also present on the gill covers

which help them to prevent from being

dislodged while feeding on the host.

In this picture you can see the

barbels present near the mouth

and also near the gill covers.

There are short backward pointing spines.

Candiru are the blood feeding or

hematophagic parasites of other fish is

that locates a fish post through visual and

chemical cues and approaches its skills,

forcing itself under the operculum

or waiting for it to open naturally.

The most of the host of the candiru

fish are the larger catfishes,

and when the fish respire,

the upper column is known to open naturally.

That is the point when Candiru parasitizes.

On its host.

Once the candiru fish is past

the approval of the host,

it latches itself onto the

ventral or dorsal aortal arteries.

The ocular spines of the candiru

helps it to stay attached to host

gills and aid in releasing blood.

It is the host blood pressure that

pumps blood straight into the

candirus mouth so it is so far,

hypothesize that candiru does

not suck blood from the host.

It is because of the pressure of the

blood that the blood of the host

is pumped straight into the mouth

of the candiru.

The length of a single blood

meal is usually short,

that is,

from 30 to 145 seconds.

The candiru also occasionally

parasitizes humans,

and has been known to enter the

urethra and other body openings of

unprotected bathers and swimming animals.

It is not obligate parasite of human beings,

but it is a occasional parasite.

Candiru fish parasitizes humans not

because it is. urinophilic

It is not attracted towards

the urine of the host,

but there is a normal tendency

for this candiru fish to swim

upstream into the water streaming

out of a larger fishes gill cavity.

So therefore it mistakes the urine of

the host or urine of the human being

as the water streaming out of the vicious,

guilty and therefore it

enters the urethral opening.

Once into the urethra urethra it locks

itself onto the urethral membrane.

By erecting the short spines

on its gill covers,

thereby causing inflammation of

the urethral membrane haemorrhages

in the urethra and even death of

the victim due to blood loss.

candirus Due to its gill cover spine.

Pointed to the rare cannot

simply be pulled out.

If it is pulled out, the gill covers

spines which are pointed backwards,

embed deeper into the urethral membrane,

causing further damage,

and therefore it is advisable that

surgery is the most commonly used

method for extraction of candiru fish

is from the urinary tract of the victim.

This surgery requires a lot

of caution and skill.

What the local natives usually do is

that they amputate the penis as a

means of ending the candiru attack.

But a suprapubic opening into the

bladder is often made to remove

the fish which has penetrated

into the bladder of the host.

These are my references. Thank you.