

**Family:**

**GASTEROPHILIDAE**

1. Larvae of this flies cause the condition known as **host specific myiasis**.
2. The adults are quite large in size with thick hair covering the body and have vestigial mouth part and they do not feed.
3. The only activity of this flies are restricted in mating, laying eggs on their specific host and then die.
4. Larvae have a comparatively longer life span and the nutrition required for the adults are also acquired in the larval stage.

**Genus:**

***Gasterophilus***

**Common name:**

**Horse bot fly**

**Family:** **GASTEROPHILIDAE**

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**Common name:** Horse bot fly

**Species:** recorded in

*G. intestinalis* - (India)

*G. nasalis* - (not in India)

*G. haemorrhoidalis* (not in India)

*G. pecorum* (not in India)

Larvae of this fly parasitized horses and rarely attack other animals.

### **Distribution:**

This flies are very common in north-western dry region of this country and have also been recorded from horse breeding areas particularly Sudan platu and adjoining horse breeding area.

# Morphology:

1. Quite large flies about 18 mm in length.
2. Abdomen slender and long.
3. Body reddish brown in colour and cover with thick hair.
4. A transverse irregular band passes from the anterior to posterior margin of the wings.
5. Antennae with 3-segments, which bear arista.
6. Ovipositor long and curved below the abdomen at the posterior end.

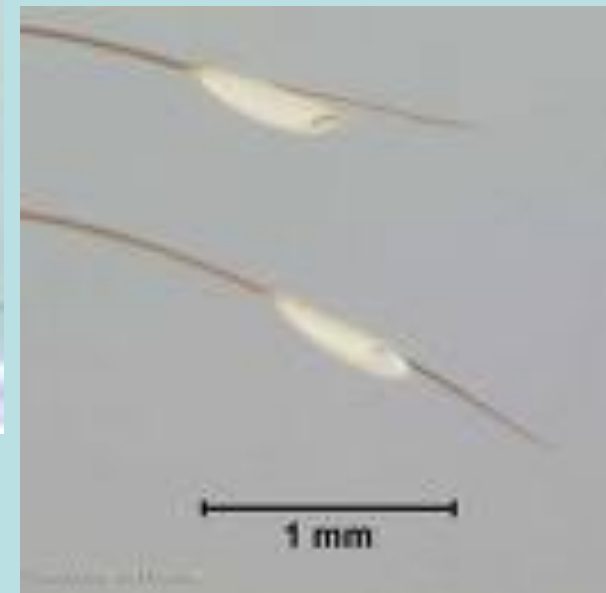


# Life cycle:

Flies are very common in hot summer months. Eggs are laid in hairs of fetlock joint of fore limb up to scapular region. Some lay near about mouth opening.



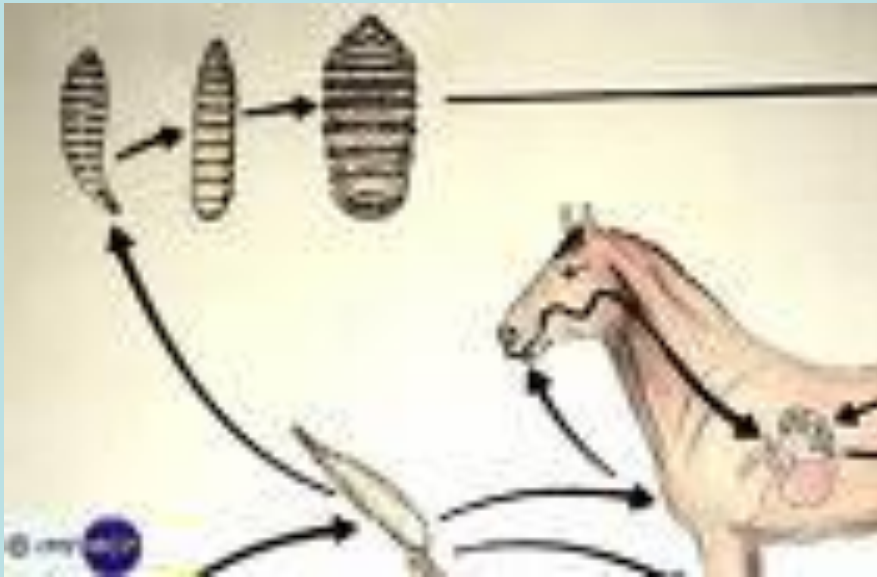
Eggs are yellowish in colour with one end broad and the end attached to the hair of the animal is pointed. The broad end is operculated.



Eggs, laid around the month opening, hatch spontaneously and those laid on other parts of the body require a stimulus in the form of licking or rubbing to hatch. They hatch in about 5-10 days.



The larvae is licked up by the animal and after reaching the mouth cavity they penetrate the tongue muscle and go through the oesophageal muscle and reach the stomach in about 21-28 days.



Larvae are thirteen-segmented maggot reddish in colour with 2 rows of spine on each body segment and a pair of very strongly developed oral hook.

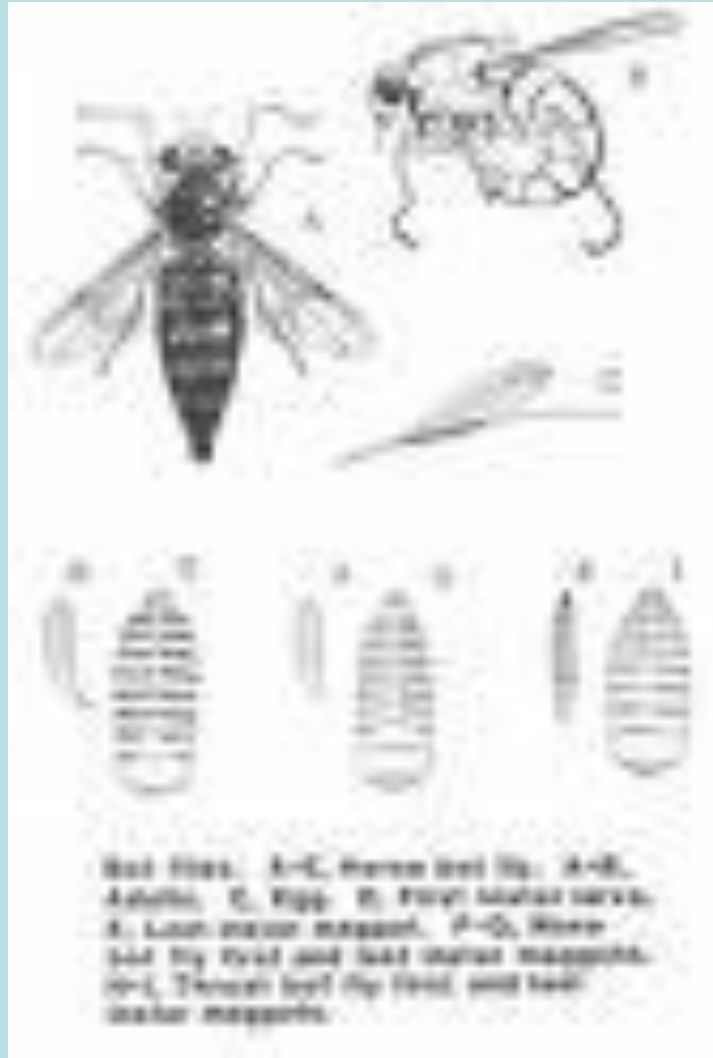




After reaching the stomach, larvae get attached on the stomach wall more commonly on the pyloric wall. They remain there for next 8-10 months and increase in size. They feed from the walls of the stomach and when fully-grown pass through the intestine and drop with the faeces on the ground then they become pupa in a very short time.



Exact number of moult is not known. Pupa is dark in colour, barrel shaped with one end almost flat. The adult emerges in about 3-5 weeks. The adults have a very short life span of about 2-3 weeks.



Wasps. A-C, Worker pupa; D-E, Queen pupa; F, Egg; G, First instar larva; H, Last instar pupa; I-Q, Worker pupa by first and last instar moults; R-S, Queen pupa by first and last instar moults.

## Habit:

1. Adults live for a very short period of about 2-3 weeks.
2. During that period they only lay eggs and die.
3. They do not feed at adult stage.
4. They attack animals both in stable and outside.
5. Females have a long ovipositor with which they can easily attach eggs to the hairs of the animals.



## Pathogenesis:



1. Horses become very nervous by seeing this flies. In the process of avoiding them, they run here and there and in this process they sometime get injured.
2. Feeding and grazing is badly affected and **crip-biting**, a vice in horse is suppose to be cause by the presence of larvae in the pharynx region during their passage from tongue to stomach.
3. Presence of large number of larvae in the stomach cause blockage of the passage of food and sometime may be developed into colic.
4. The toxic excretion of the larvae cause allergic reaction in the animals and is followed by debility.

# Diagnosis:

1. By finding the eggs at the egg-laying site on the body of the animals.
2. By finding the larvae in the faeces.



# Treatment:

1. Carbon disulphide (CS<sub>2</sub>) - @ 10 ml/50 kg b.wt.
2. Toluene - @ 10 ml/50 mg b.wt.
3. Carbon tetra chloride (CTC) - @ 10 ml/50 kg. b.wt.

All the medicines should be administered in gelatin capsule.

## **Control:**

1. By frequent grooming during fly season will remove the eggs.
2. Clipping of hairs from the egg-laying area of the body also prevent the flies from laying eggs.
3. weekly washing of egg laying area with 5% carbolic acid also give good result.