

**MJF COLLEGE OF VETERINARY & ANIMAL SCIENCES,  
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**Genus - Syngamus**

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Species	<i>Syngamus trachea</i>
Host	Birds
Location	Trachea
Common name	Gape worm or forked worm of poultry

# MORPHOLOGY



- The female and male are always in copulation giving “Y” shaped appearance (forked worms).
- They are also known as the red worms because of their color.
- Females (up to 20 mm long) are much longer than males (up to 6 mm long).
- It has cup shaped buccal capsule.
- Leaf crowns are absent. But 6 to 10 teeth occurs at the base of buccal capsule.

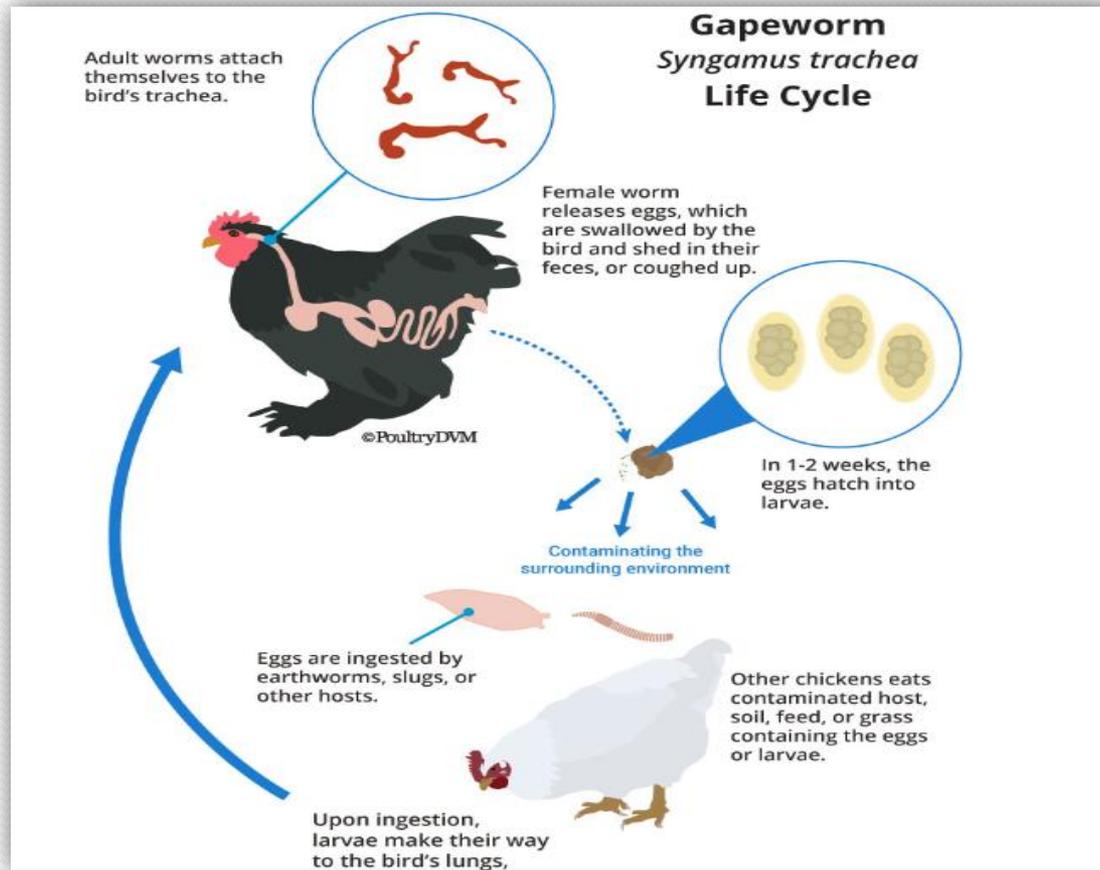
- Eggs are ellipsoidal in shape, thick shelled, operculated at both end. It contains 16 celled (Yolk) stage.





Syngamus in trachea

# LIFE CYCLE



- They have a direct life cycle.
- Transport host - earthworms, snails, slugs, beetle.
- The eggs are passed in the faeces of infected birds due to swallowing of them with mucus.
- In the environment infective L3 larvae develop inside the eggs within 1- 2 weeks.
- Infection of final host occurs in 3 ways.
- ✓ Ingestion of embryonated eggs having L3 stage.
- ✓ Ingestion of L3 larva along with feed.
- ✓ Ingestion of infected transport host.

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- Inside the bird, larvae penetrate the intestine and reach to lung via the blood circulation and moult twice there and then reaches to the trachea where they copulate and then mature within 3 weeks.

## PATHOGENESIS

- **Larvae-** Heavy infection causes ecchymoses, edema and lobar pneumonia due to migration of large number of larvae.
- **Adult worms-** Adult worms are attached to tracheal wall and suck blood causing catarrhal trachitis and excess secretion of mucus results in blockage of air passage and difficulty in breathing.
- ✓ Male worms are deeply embedded into the tracheal wall causing nodular formation.

## CLINICAL SIGNS

- Young chicken are mainly affected and dyspnoea, asphyxia, shaking and tossing the head is seen.
- Coughing and extension of neck may occur. Birds open the mouth and performs gaping movements [gapes].
- Cough, Anaemia, Emaciation



Gaping movement

## DIAGNOSIS

- Clinical signs.
- Examination of faecal sample and tracheal mucus for detection of characteristic.
- Diagnosis can be confirmed in young birds through direct observation of the trachea against a strong light. The adult worms can be seen inside the trachea.
- The worms can also be seen attached to the trachea in P.M examination.

## TREATMENT

- Mebendazole
- Fenbendazole
- Thiabendazole

## CONTROL

- Treatment of infected birds.
- Regular deworming.
- Different species and age group of birds should be reared separately.
- Rearing of birds on moist ground having transport hosts should be avoided.