



# *Stephanofilaria*



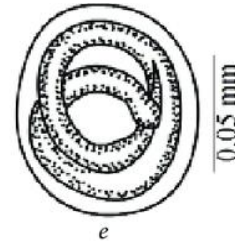
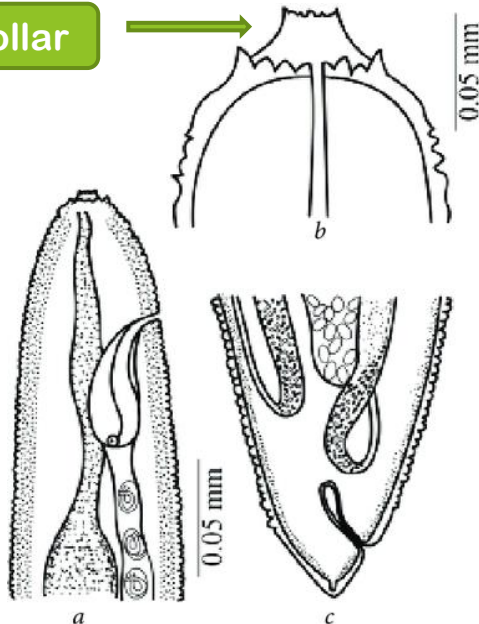
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पटना-800014 (बिहार)

# Stephanofilaria

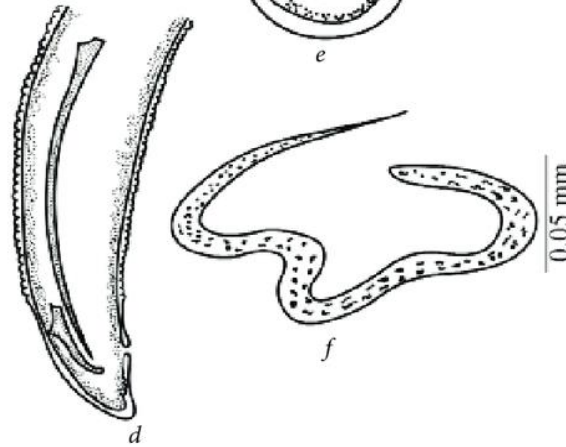
## Morphological Characters:

- Mouth opening is surrounded by spiny collar.
- Small worms, males are 3-4.5 mm and females are 7-11.5 mm long.
- Anus is vestigial.

Spiny collar



Larvated egg



Microfilaria

# Stephanofilaria

Family : Setariidae

Species:

Species	Final host	Intermediate host	Location
<i>Stephanofilaria assamensis</i>	Cattle, buffalo and goat	Muscid flies ( <i>Musca coducens</i> )	Hump
<i>Stephanofilaria zaheeri</i>	Buffaloes	Muscid flies	Inner surface of pinna
<i>Stephanofilaria kaeli</i>	Cattle	Muscid flies	leg

# Stephanofilaria

## Life-cycle:

### Indirect life-cycle

Species	Intermediate host
<i>Stephanofilaria assamensis</i>	Muscid flies ( <i>Musca conducens</i> )
<i>Stephanofilaria zaheeri</i>	Muscid flies
<i>Stephanofilaria kaeli</i>	Muscid flies

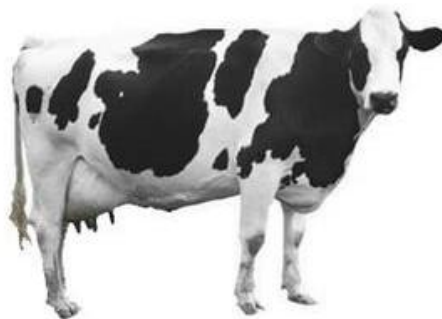


*Musca  
conducens*

# *Stephanofiliria*

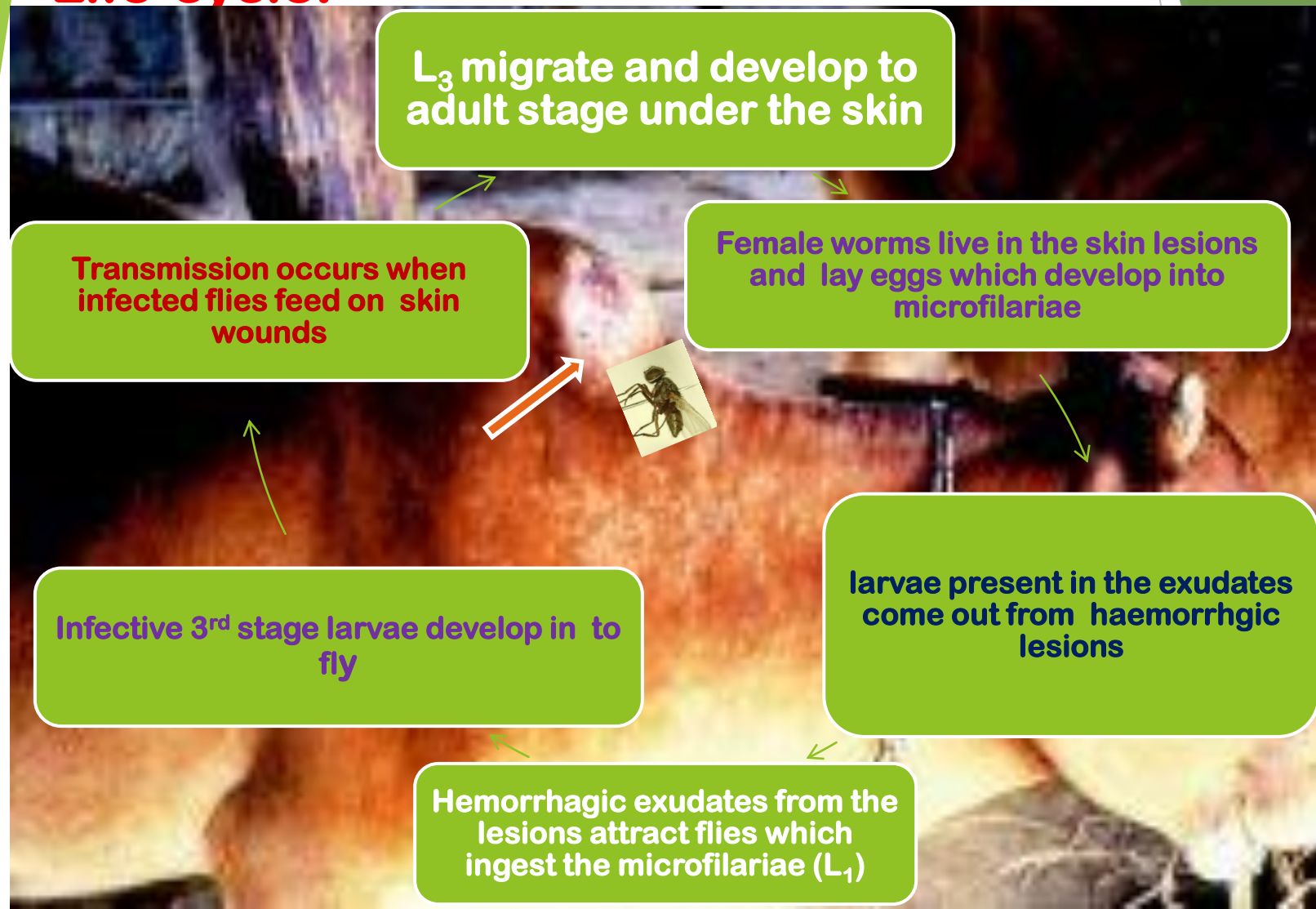
## **Transmission:**

- ⌚ Microfilariae ( $L_1$ ) are ingested by the muscid flies along with exudates during feeding on skin lesions present on the body Infected host.
- ⌚ **Infective larvae ( $L_3$ ) develop inside the flies within 3 weeks.**
- ⌚ Transmission occurs when 3<sup>rd</sup> stage larvae ( $L_3$ ) infected flies feeding on wound of final hosts.



# Stephanofilaria

## Life-cycle:



# Stephanofilaria

## Pathogenesis :

*Stephanofilaria* produce lesions at their site of predilection sites

Lesions	Species
Hump sore	<i>Stephanofilaria assamensis</i>
Ear sore	<i>Stephanofilaria zaheeri</i>
Leg sore	<i>Stephanofilaria kaeli</i>



Hump sore

# *Stephanofilaria*

## **Pathogenesis:**

- ❖ **Lesions appear usually within 2 weeks of infection.**
- ❖ **Initially formation of papules occurs.**
- ❖ **Then, sloughing of skin, haemorrhagic dermatitis and ulceration takes place at the affected body parts.**
- ❖ **Lesions are aggravated when animal rubs the affected parts which result bleeding from the lesions.**
- ❖ **These condition attract the flies to lay egg in the haemorrhagic areas.**
- ❖ **Formation of pus may also occurs due to secondary bacterial infection.**



# *Stephanofilaria*

## **Clinical signs:**

- ❖ **Initially small papules are forms which coalesces to form large lesions covered by crusts and skin become thickened.**
- ❖ **Loss of hairs, hyperkeratosis, ulceration and haemorrhages.**
- ❖ **Lesions become quiescent during the dry, cold weather but re-occur again during rainy season.**
- ❖ **Loss of body condition, retarded growth, decreased draught power quality of infected bullocks and damage of hides.**

# *Stephanofilaria*

## Clinical signs:

### *Stephanofilaria zaheeri*

- Worms lie in and around hair follicles, sebaceous gland and in the ear pinna of buffaloes.
- It causes “ear sore” in buffaloes in India.
- Clinical signs include thickening of skin, granulation, skin becomes hard all over the inner surface of the ear etc.
- Atypical lesions have scattered black spots.

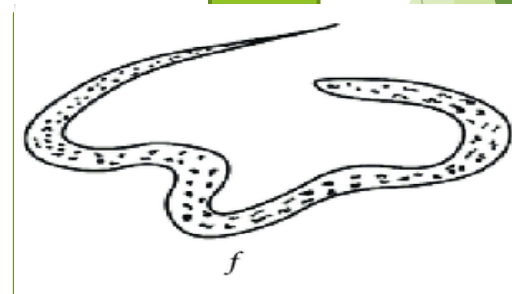
# Stephanofilaria

## Diagnosis:

- On the basis of clinical signs.
- Microscopic examination of deep scrapings of the skin crusts revealed microfilariae of worm.



Skin  
crust



Microfilaria

# *Stephanofilaria*

## **Treatment :**

- **Organophosphate compounds are highly effective in the treatment of “hump sore” :-**
  - i. **Trichlorophon ( 6-10 %)- apply daily topically**
  - ii. **Sumithion and Coumaphos - used in the form of ointment**
  - iii. **Levamisole**
  - iv. **Ivermectin**
  - v. **5 % formalin, supona 20, 4% sumithion and 6 % malathion are found effective against ear sore in buffaloes.**

# *Stephanofilaria*

## Control:

- ❖ By controlling intermediate hosts i.e. *Musca* flies by using insecticides, fly repellent etc.



**THANK  
YOU**