

## 5) Ascaris lumbricoid (round worm)

classification

Phylum = Nematelminthes

class - Nematoda

Genus - Ascaris

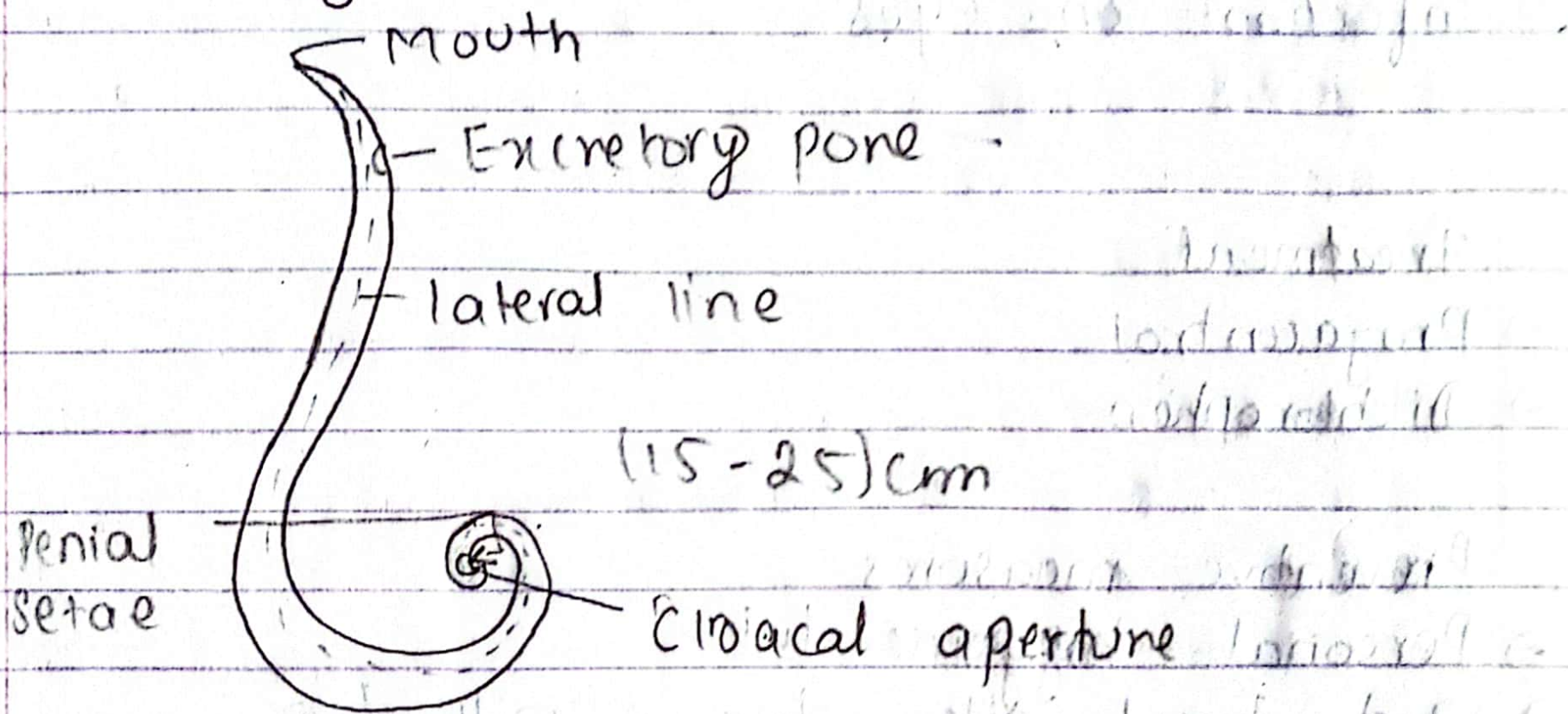
Species - lumbricoid

### Habit / Habitat

It is ~~composition~~ cosmopolitan in distribution. It is most commonly found in tropical region. Such as China, India, South east Asia including Nepal. It is the largest intestinal round worm.

Adult worm lives in the small intestine of human.

### Morphology



### Male

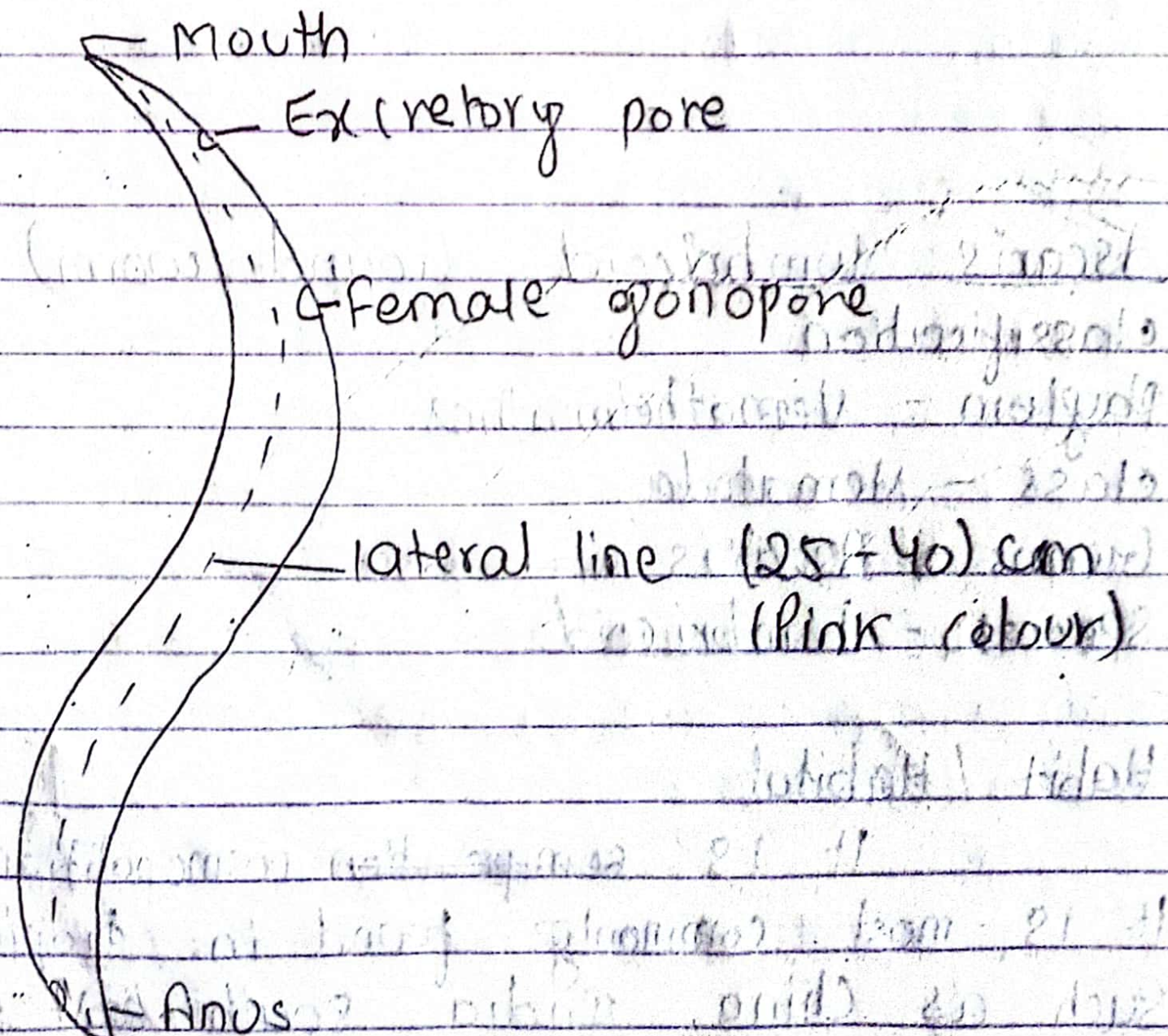


Fig: - female

It is pink in colour. It is elongated and cylindrical in shape with tapering at both end. Mouth opens at the anterior end. The excretory pore is small and lies near the anterior end. The male and female are separated. The life span of the adult worm in human host is less than 1 yrs.

i) Male Ascaris :- It is about 15 to 25 cm in length. The tail of the male Ascaris is curved. The genital pore open into the cloaco. Cloaco contain spicule called penial setea.

ii) Female Ascaris :- It is longer and thicker than the male Ascaris. It measure about 25 to 40 cm in length. Its posterior end is straight. In female anus and genital pore are separated.

iii) Eggs :- Round or oval in shape. It measure about 60-75  $\mu\text{m}$  in diameter. A single female Ascaris lay eggs about 2 lakhs daily.

### Lifecycle of Ascaris lumbricoides.

It is a ~~mono~~ monogenetic parasite. Its lifecycle is completed in a single host i.e. man. The various stage in the life cycle are as follows:-

i) Passes eggs from the infected host  
Adult worm lives in the small intestine of man. After copulation, female worm start

lay eggs. These eggs pass outside of the host through the faeces.

ii) Development of egg in the soil

In the soil eggs undergo development and develop rhabditiform larva in about 10-40 days. These eggs are infected to man.

iii) Infection by ingestion and liberation of larva.

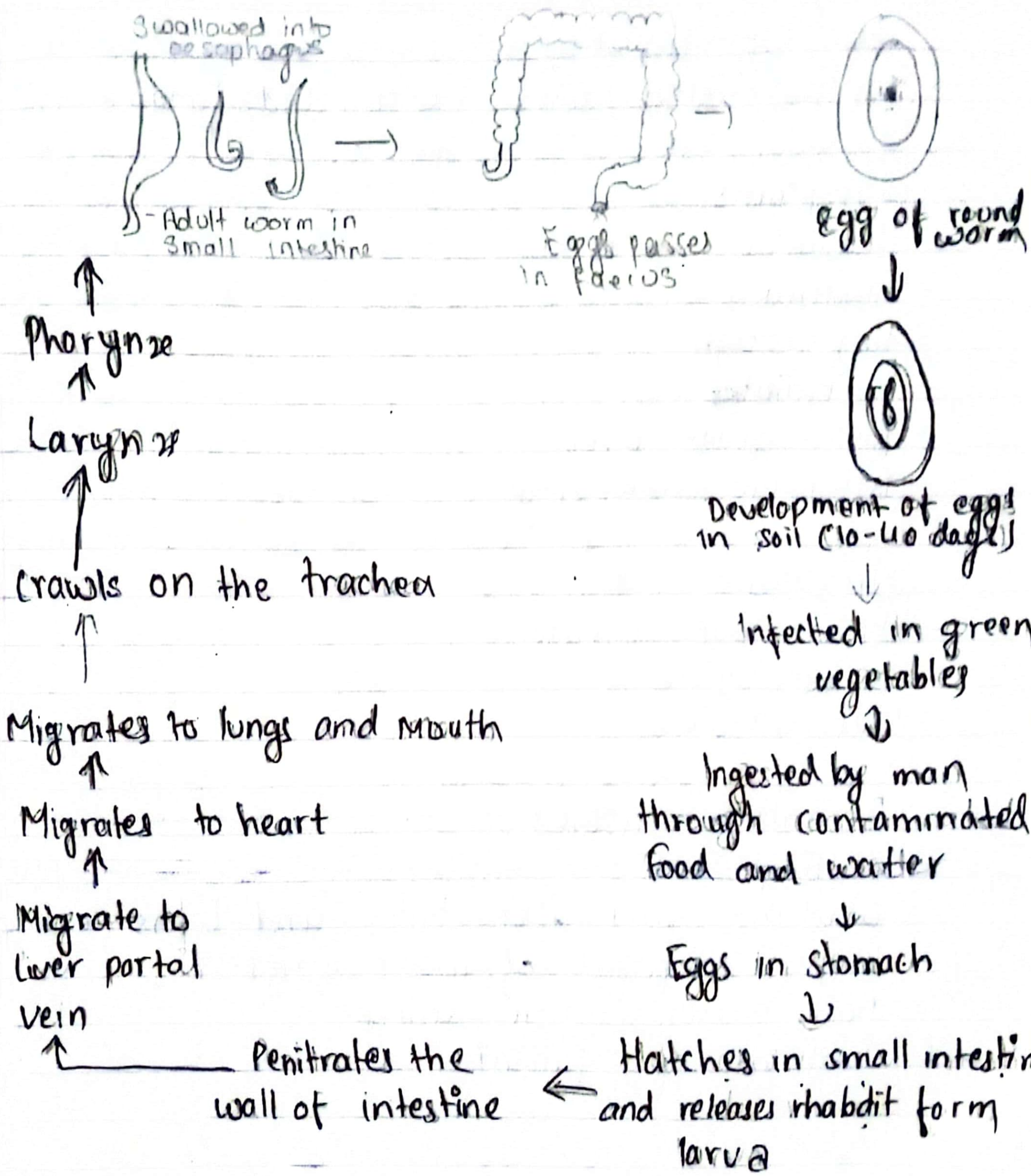
When ingested the contaminated food the embryonated egg passes into duodenum. In the duodenum egg hatches into rhabditiform larva.

iv) Migration of rhabditiform larva to the lungs.

Thus, released rhabditiform larva penetrate the wall of intestine and reach the lungs through the blood circulation from liver to the heart and heart to the lungs. In the lungs it ~~moult~~ moults 3 times and develops 4<sup>th</sup> stage larva.

v) Sexual maturity and eggs liberation

The larva on reaching the small intestine becomes sexually mature in about 6 to 10 weeks. The fertilized female *Ascaris* then start to lay eggs. In this way lifecycle of *Ascaris lumbricoides* is completed.



lifecycle of *Ascaris lumbricoides*

## Mode of infection

- contaminated soil, water and food, etc.

## Symptoms

- Headache
- Anemia
- Dry cough
- Appendicitis
- low-grade fever
- Asthmatic wheezing

## Treatment

- Piperazine citrate
- Nebendazole
- Albendazole

## Preventive measures

- cutting nail
- washing hand after toilet and before eating
- Proper disposal of waste material
- Boil water before using.
- Treatment of patient