Genus : Anoplocephala

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Anoplocephala : morphology

- Adult is usually 25 to 40 mm long and 8 and 14 mm width.
- The scolex is distinct and much smaller than the body.
- The scolex of has four ear-shaped lappets, situated posterior to the four apical muscular suckers.
- *A. magna* is larger and *A. mamillana* is smaller but the scolices of the latter two species do not have lappets as does *A. perfoliata*.
- The individual proglottids are always much wider than long.
- Each proglottid is hermaphroditic.
- Each proglottid also contains a muscular system, a tegument, and an excretory system.

Anoplocephala: Adult

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Anoplocephala

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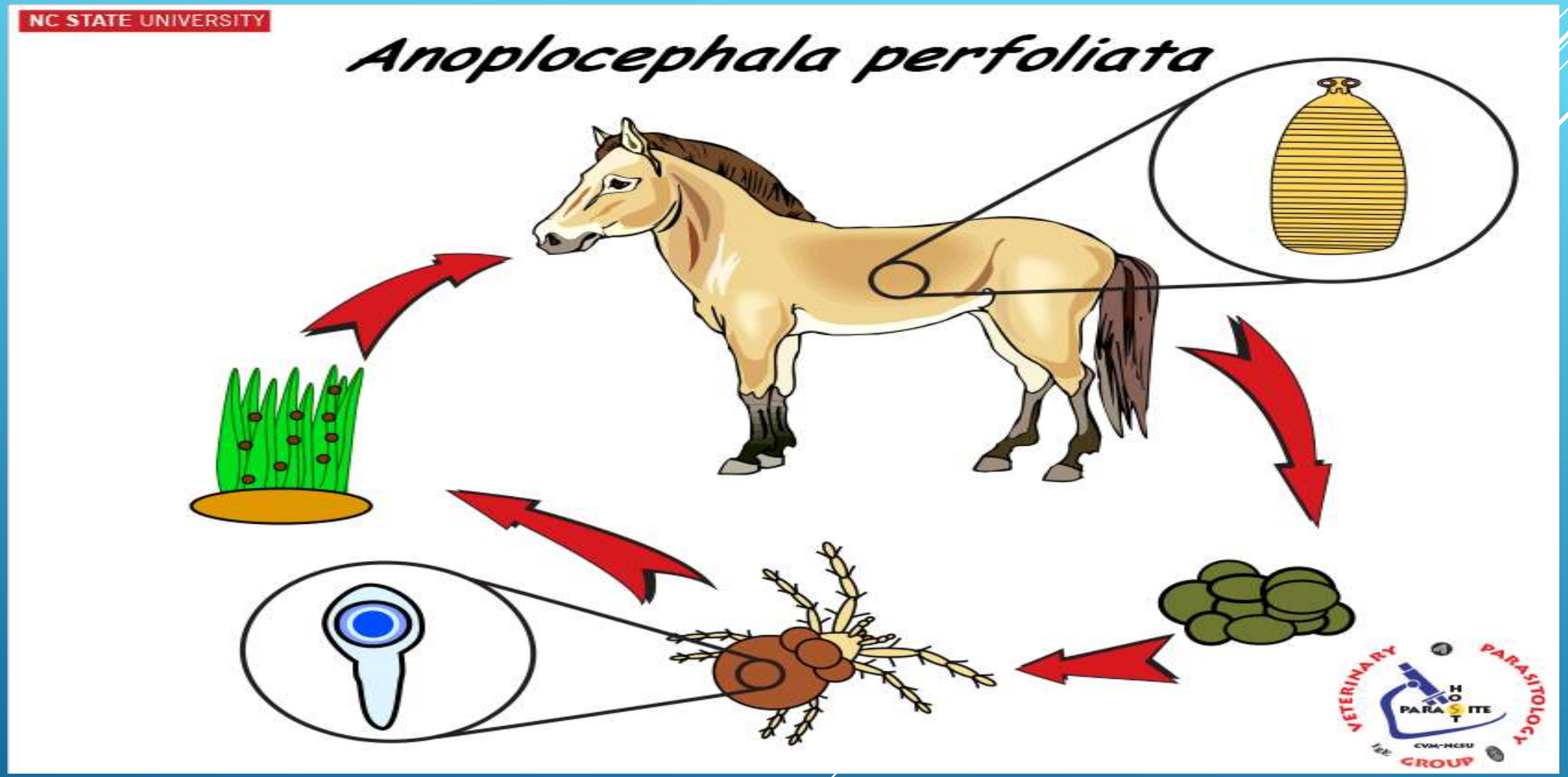
Anoplocephala : life cycle

- The worm has separate male and female segments i.e **hermaphrodite**.
- The male segment fertilizes the female segment.
- The uterus full of eggs then detaches from the rest of the worm and migrates to the large intestine, where it ruptures releasing the eggs.
- The eggs released are infective to **oribatid mites**, the intermediate host.
- The mites ingest the egg. **Cysticercoid** larvae hatch, and live within the mite for its entire life.
- These cysticercoids become infective around two weeks after hatching.
- The horse, the definitive host , ingests the mites in spring, when grazing the pasture.
- They attach to the mucosa, and transform into adults in around 6- 10 weeks.
- The adults live in the **ileum**, at the **ileocaecocolic valve**, and within the **caecum**.
- The adults are capable of shedding large numbers of eggs.
- The adults live for 4-6 months, and disease is most commonly seen between October and November.



Anoplocephala: life cycle

Source: Google

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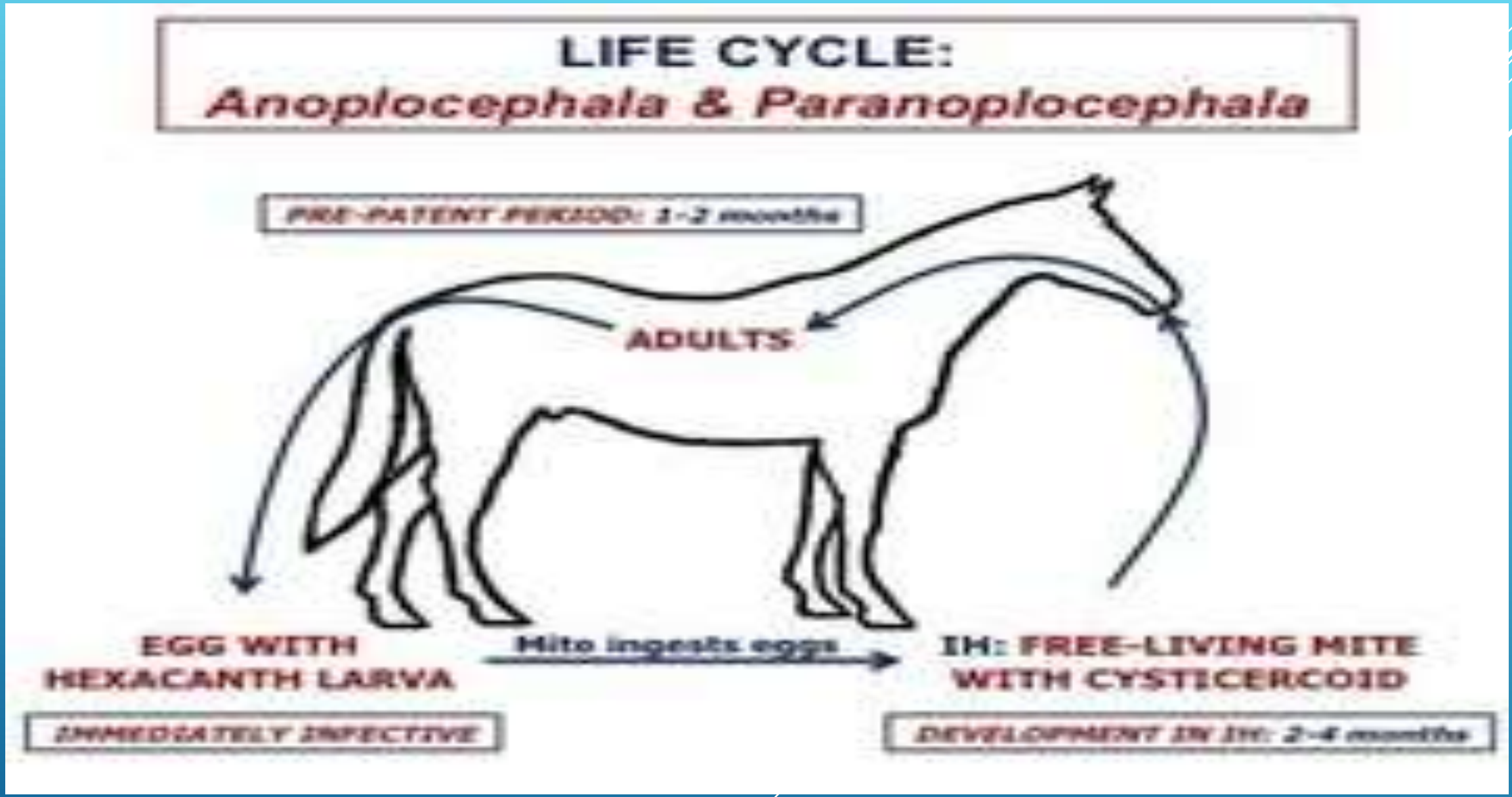

Source: Google

Anoplocephala: life cycle

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Anoplocephala : pathogenesis

- A light infection within a horse is asymptomatic .
- But heavy infection can cause GI disturbance, weakness and anemia.
- Immunocompromised horses (ex: extremely old and extremely young) can have only a light parasite load.
- The tapeworm perforating through the intestinal wall and ulcerating the mucosal layer of the stomach at the site of attachment has also been seen with this parasite leading to the intussusception.
- Horses that have cases of infection *Anoplocephala perfoliata* are at an increased risk of suffering from colic while infected and after being treated.
- An infected horse can also suffer from peritonitis and abscesses at the site of attachment.
- Impaction of the intestine is also a possible symptom.
- In rare cases, the intestinal tract itself can twist and even rupture.

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Anoplocephala : pathogenesis

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Anoplocephala : diagnosis

- A fecal float can diagnose the presence of an infection however they may not always be present in a sample, especially if the host has a light infection.
- Presence of proglottids in faeces can also confirm an infection of *Anoplocephala perfoliata.*
- Immunodiagnostic methods can also be used.

Source - google

Anoplocephala : eggs

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Anoplocepahala : management

- Chemotherapy.
- Cyst puncture.
- PAIR (percutaneous aspiration, injection of chemicals and reaspiration) have been used to replace surgery as effective treatments for cystic echinococcosis.
- The treatment of alveolar echinococcosis is more difficult than cystic echinoccosis.