

Genus- **Otobius**

Morphology , Lifecycle , Pathogenesis
, Prevention & control



DR. R. K. SHARMA.
Deptt. Of Vety. Parasitology

Morphology : Otobius

- ❑ Adults are non-parasitic.
- ❑ The body is bluish gray, while the legs mouthparts, and spines are yellowish. There are four pair of legs.
- ❑ The capitulum is visible in both dorsal and ventral views .
- ❑ Over one-third of the length of larva consists of mouthparts.
- ❑ The body of nymph has a constriction in the middle giving them a shape of a violin and they are four-legged.
- ❑ The second nymphs are widest at the middle. Their skin is covered with nodular lumps and has numerous spine-like processes.



Body parts : Otobius megnini

SOURCE - GOOGLE

DR.R.K.SHARMA



Mouth parts : Otobius megnini

SOURCE - GOOGLE

DR.R.K.SHARMA



UGA1418002

Otobius megnini

Life cycle : *Otobius*

- ❑ *Otobius megnini* infests mainly domesticated and wild animals and occasionally humans.
- ❑ The number of nymphal stages in the life cycle of *O. megnini* varies from one to three .
- ❑ Only the larvae moulted to nymphs and majority of nymphs moulted into adults .
- ❑ Females survived longer than males .
- ❑ Some females laid eggs without mating.
- ❑ *Otobius megnini* successfully completed the life cycle within 123 days and has only one nymphal instar ,
- ❑ *O. megnini* infestation is a serious problem to horses and cattle and may pose a risk of spreading to dairy farms owing to its dynamic nature of the life cycle.

Life cycle of Spinose Ear Tick, *Otobius megnini* [Acarin: Argasidae]



Life cycle : Otobius

SOURCE - GOOGLE
DR.R.K.SHARMA

Pathogenesis : *Otobius*

- ❑ *O. megnini* is a one-host tick and the adult females do not feed.
- ❑ Spreading of infectious occurs by both transovarial and transstadial transmission .
- ❑ They are involve in transmission of *Coxiella burnetii*, the causative agent of Q fever.
- ❑ *C. burnetii* is recognized as an occupational hazard for many people, including farmers, veterinarians, zoo, and slaughterhouse workers.
- ❑ The pathogens of Rocky Mountain spotted fever *transmitted by* nymphs.
- ❑ *O. megnini* can be naturally infected with *Ehrlichia canis* but does not transmit.



Rocky Mountain Spotted fever

SOURCE – GOOGLE

DR.R.K.SHARMA

Prevention / Control

- ❑ Ticks should be manually removed with forceps.
- ❑ The animal should be treated with topical insecticide against ticks.
- ❑ Any secondary ear infection should be treated with appropriate topical medication.
- ❑ The animal's shed as well as premises should be treated with insecticidal sprays .
- ❑ The prognosis is good, but reinfestation can occur if adult ticks are not eliminated from the environment.
- ❑ Although these ticks are parasitic primarily on animals, but they can also infest humans.