

Genus- Ixodes



Morphology , Lifecycle , Pathogenesis , Prevention & control



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Morphology: Ixodes tick

- ❑ *Ixodes ricinus* is an indigenous hard tick species having a wide geographical distribution.
- ❑ *Ixodes ricinus* are sensitive to climatic conditions, and are restricted to areas of moderate to high rainfall with good vegetation.
- ❑ *Ixodes ricinus* is a three-host tick .
- ❑ The larvae, nymphs and adults feed on different hosts where as larvae and nymphs prefers small to medium-sized animals and adults tend to feed on large-sized animals.
- ❑ This tick species feeds on a broad range of mammals, birds and reptiles and frequently bites humans.



<http://iStockphoto.com/parthivadas/stock-photo/1017114>



Source- Google

Ixodes ricinus



Source- Google

Ixodes canisuga



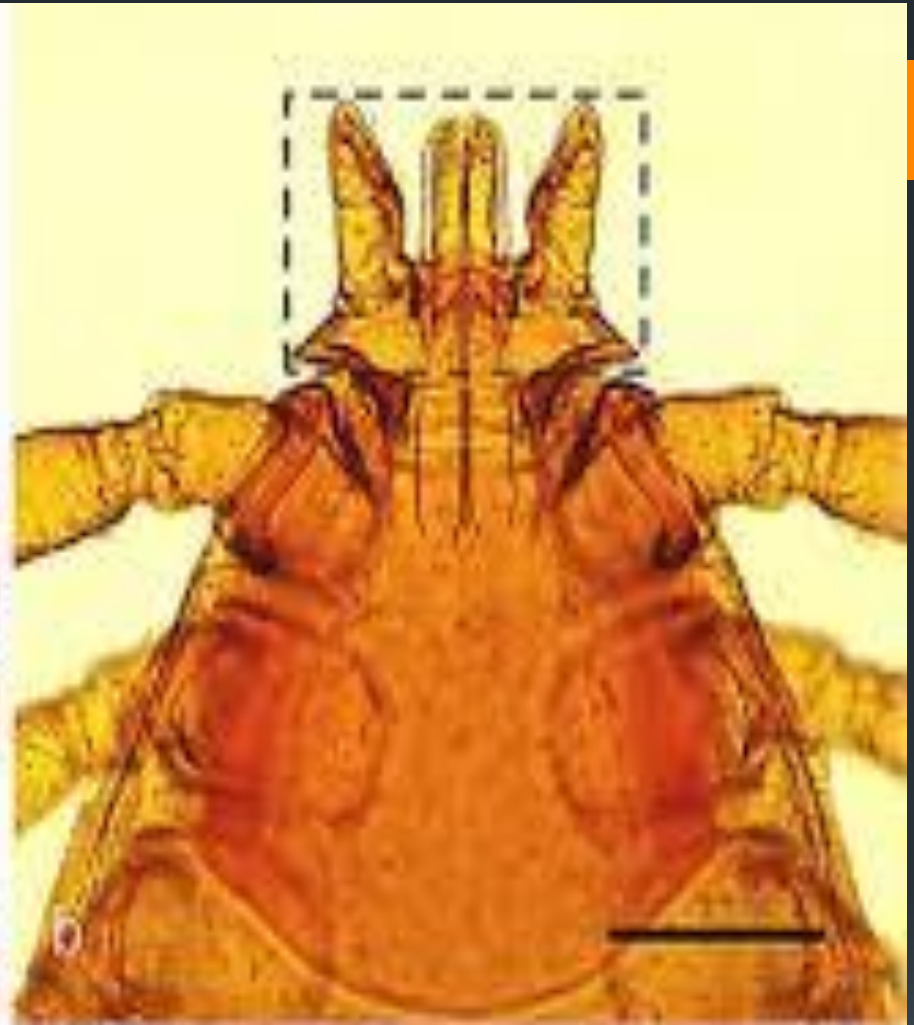
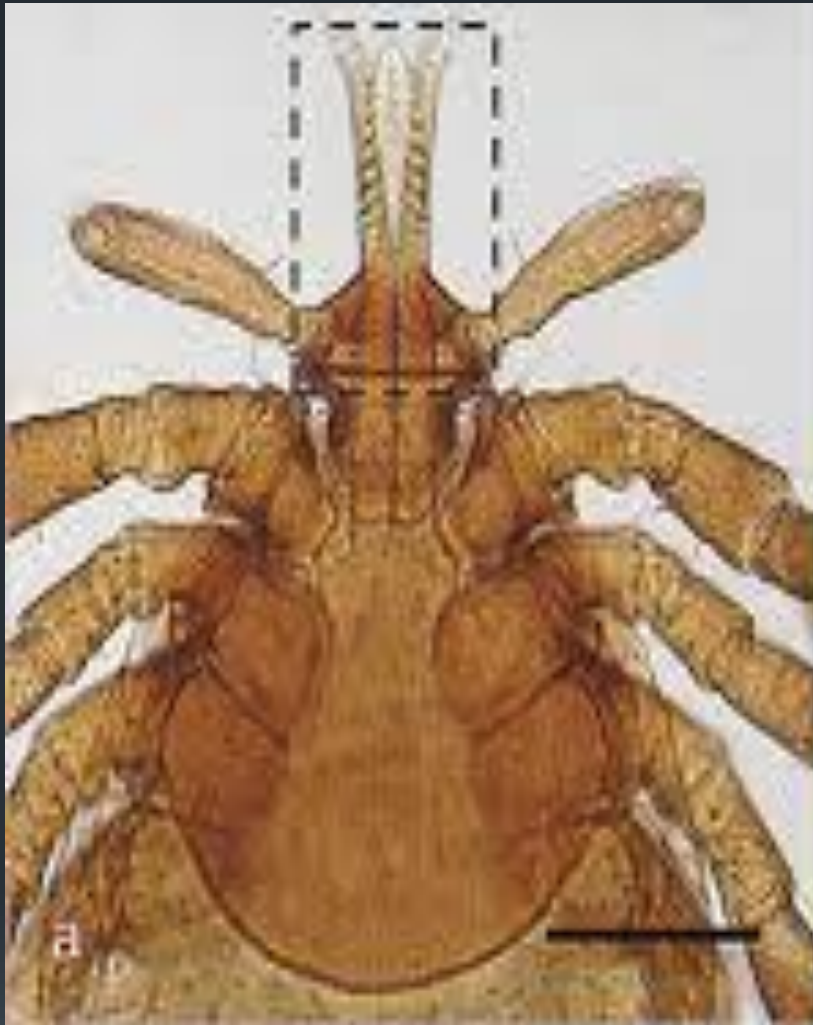
Source - Google

Ixodes hexagonus



Source-Google

Ixodes pilosus



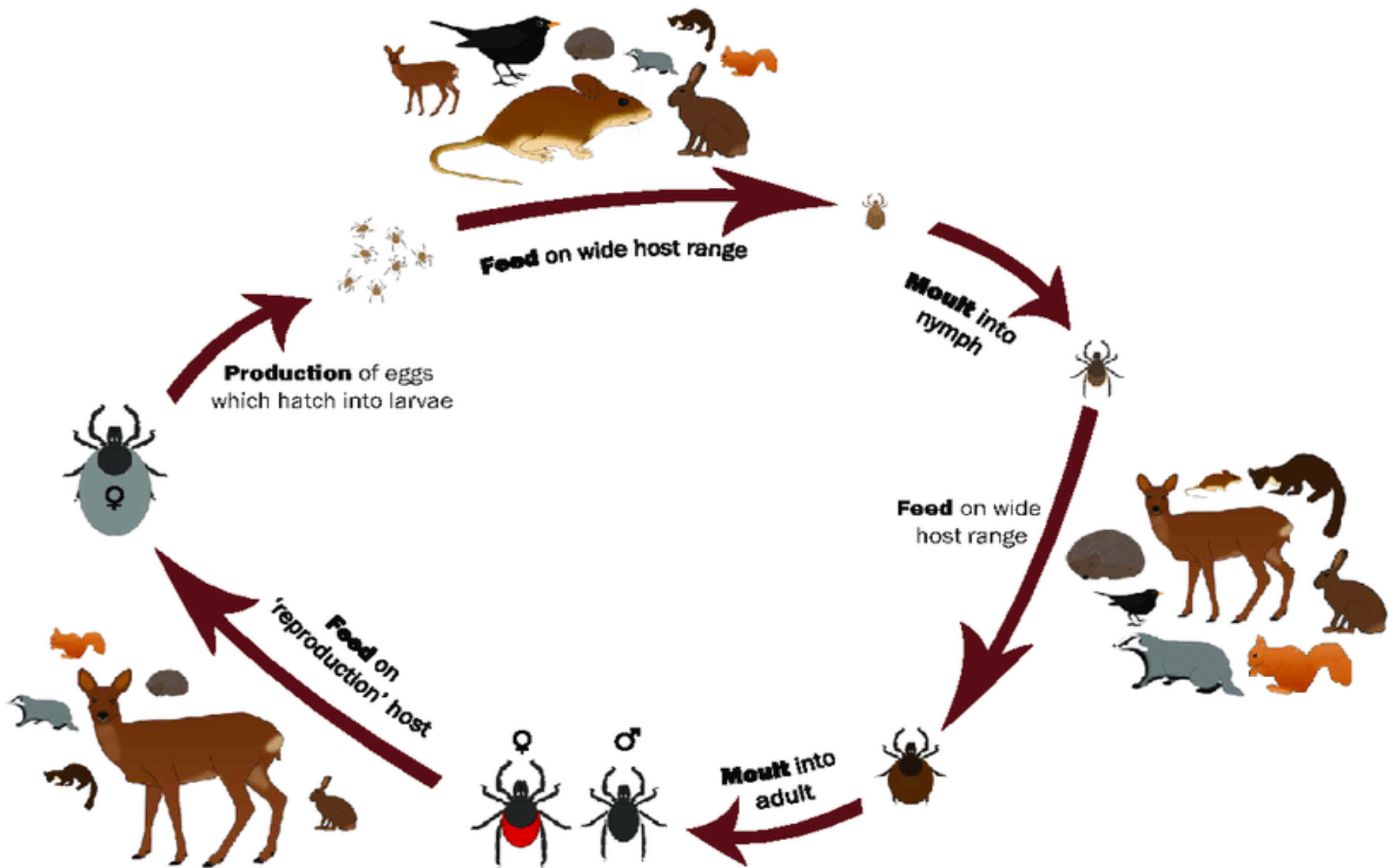
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Mouth parts of *Ixodes ricinus*

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Life cycle of Ixodes ticks

- ❑ *Ixodes ricinus* have four life stages , egg, larva, nymph and adult .
- ❑ They have three host life cycle.
- ❑ Ticks must take a blood meal in order to moult to the next life stage and produce eggs.
- ❑ An engorged female will remain in this environment for 4-8 weeks before eggs are produced.



Life cycle of Ixodes tick

Pathogenesis

- ❑ A number of tick-borne diseases can be transmitted by *I. ricinus* to a variety of mammal hosts.
- ❑ Dogs can be infected with Lyme disease (Borreliosis), caused by the spirochetes bacteria *Borrelia burgdorferi* and *B. afzelii*,
- ❑ Cattle can become infected with Red water fever (*Babesia divergens*, *B. bovis*, and *B. ovis*), Lyme disease (*B. burgdorferi*), Sheep tick pyemia (*Staphylococcus aureus*), Cattle tick-borne fever (*Anaplasma phagocytophila*), Q fever (*Coxiella burnetii*), Boutonneuse fever (*Rickettsia conorii*), and *Anaplasma marginale*.
- ❑ Horses may be infected with Lyme disease, *Anaplasma phagocytophila*, and the viral infection louping ill. Humans can become infected with Lyme disease, louping ill, Q fever, and Tick-borne encephalitis.



Tick Paralysis



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Tick Paralysis



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Lyme disease



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Staphylococcus aureus

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