

Family: Argasidae

1. Members of this family are commonly called as **soft tick** as they do not possess **dorsal shield or scutum**.
2. Integument is leather like and frequently mammilated.
3. Capitulum and mouth parts of nymph and adults are situated anteriorly on the ventral surface and are not visible from the dorsal aspect.
4. **Eyes** are either absent or there may be two pairs situated in **superacoxal** folds.
5. One pairs of spiracles in the **postero-lateral side of third coxa**.
6. The edges of the body are sharp.
7. Sexual dimorphism is **not marked**.
8. Unlike ixodid **nymphs** and **adults**, which require **several days** to **complete engorgement** and **feed only once during one stage**, **argaside nymph and adult feed on their sleeping hosts in minutes or hours repeatedly**.
9. Argasids **larvae** feed on for **several day** and *Otobius* nymphs may remain in the external ear canal of cattle for several weeks.
10. They do not swell on engagement as much as hard tick since the females feed moderately and often.
11. Mating takes place **off the host** and eggs are laid in batches.
12. Unlike the ixodid tick, argaside ticks are **drought resistant** and capable of living for several years.

Genus: *Argas*

Species: *Argas persicus* /Fowl tick/ blue tick

Host: Fowl, pigeon, duck, turkey, wild birds and **sometime man**.

Argasids live in nests, burrows, buildings and sleeping place of their hosts.

- Due to **translucent outer covering** the **dark intestine is visible from outside**.

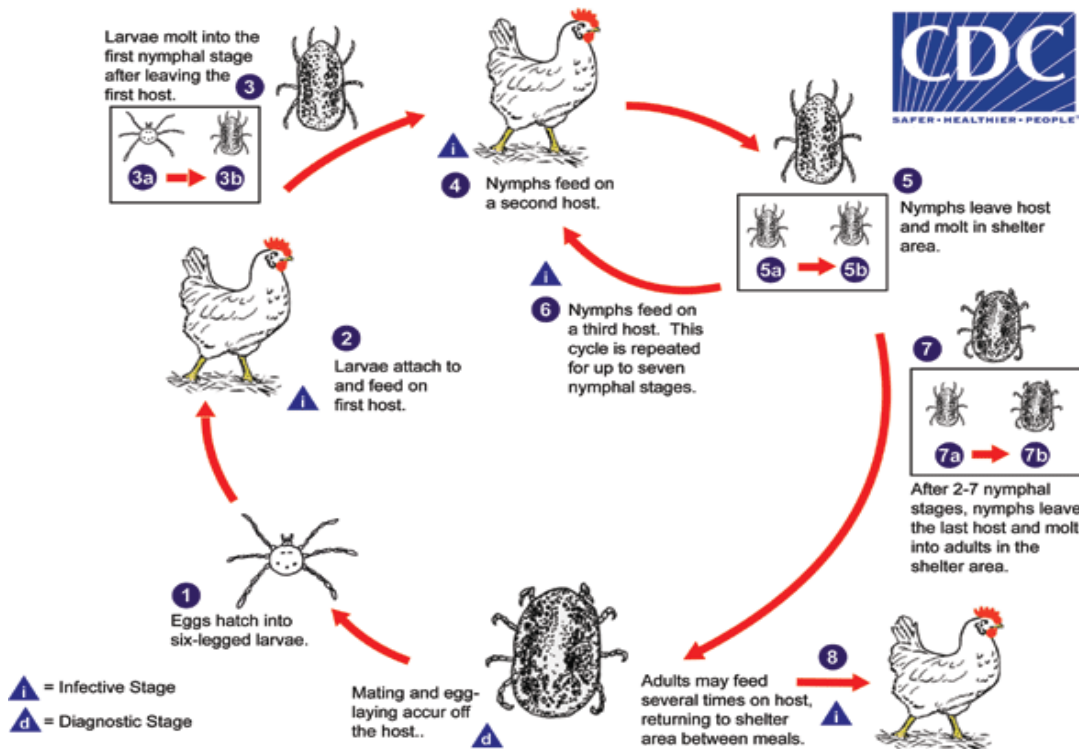
- Male and female tick differentiated only by the **shape of the genital opening** situated **anteriorly** on the **ventral surface** which is **larger in female**.
- **Multi host feeding pattern.**

Life cycle:

- Engorged female ticks lay eggs on the **floor/ cracks/crevices** of poultry house.
- Eggs are small brown in colour and laid in batches of 20-200
- **Larvae** (three pairs of legs) hatch out within 10 days to 3 weeks.
- Larvae attach to the host (neck and thigh) for 3-10 days.
- Engorged larva moults to nymph on the ground.
- There are two nymphal stages each of about two weeks.
- **Nymph** attaches to host for engorgement.
- On the ground, nymph moults to adult.
- Adults attach on the host.
- Nymph and adult hide themselves cracks/ crevices and attack their host at night.
- Larvae can live without food for 3 months and nymph and adult for about 5 years.
- Life cycle completed in 30 days.

Effect on host:

1. Suck large quantity of blood and cause **anaemia** in heavy infection.
2. **As they attach their host at night it causes disturbance in sleep** of host/restless
3. Decrease in egg **production**
4. **Tick paralysis.**
5. Act as **vector** for *Borrelia anserina*, spirochetosis in fowl, *Aegyptianella pullorum*, and *Anaplasma marginale*



Treatment and control:

- Tropical treatment of host (dusting, spraying and dipping) is adopted.
- Acaricides- deltamethrin, cypermethrin, permrthrin, carbaryl.
- Spray of poultry house on high pressure is recommended.
- Crack and crevices of poultry house should be filled up.
- Farm should be maintained properly.

Genus: *Otobius*

- **Cuticle** of nymph is **spinosed**.
- Hypostome is **well developed in nymph** while it is **vestigial** in adults.
- Eyes are **absent**.

Otobius mignini /spinosed ear tick

- **Larva** and **nymph** are **parasitic** in the **ear** of dog, sheep, horse, cattle, some time goat, pig, cat abd man.
- **Adult ticks** are **not parasitic**.
- The body is mammilated and bears numerous spines like process.

- Adult ticks are **constricted in the middle** of the body.
- **Larva** sucks **lymph** while **nymph** sucks **blood** of the host.

Life cycle:

- Females lay eggs in cracks, under the food box and crevices of wall.
- Hatching of eggs depends upon the environmental temperature 3-8weeks.
- Hexapode larvae hatchout from the eggs.
- Larva reaches the skin ear of the animal where they engorge.
- After full engorgement (5-10 days), larvae enter into **quiescent** phase.
- Now, larva moult to **octapodal nymphal** stage in the ear.
- **Two nymphal** stages occur during the lifecycle.
- Nymph is **spiny**.
- After full engorgement the nymph drops from the host and enter the cracks and crevices where they transform into adult stage.
- Adult female starts egg lying within 14-20 days.

Pathogenic significance:

- **Do not transmit any pathogens.**
- Cause direct damage to the host **ear** and **ear drum**.
- Suck blood.
- Causes severe irritation and inflammation.

Genus: *Ornithodoros*

It lives in sandy soil, in primitive housing or in shaded areas around tree.
Only adult and nymph are parasitic.

Ornithodoros lahorensis- transmit *Theileria* and *Anaplasmosis* in sheep and also involve in paralysis of body parts.

Ornithodoros moubala is **eye less tampan** of Africa.

- Sucks blood of man and various domestic and wild animals.
- Transmit *Borrelia duttoni* causing African replacing fever.
- Act as reservoir host for the African swine fever virus.
- Vector for Q fever and transmit *Borrelia anserina* and *Aegyptianella pullorum* of the fowl.

Ornithodoros savignyi is a **tampon with eye**.