

ORNITHONYSSUS BURSA IN FOWLS AND ITS TREATMENT

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Backyard rearing is one of the most popular poultry rearing systems in Kerala. Backyard poultry often suffer from endo and ectoparasitic infection which causes considerable reduction in growth and production. Among the ectoparasites lice and mites are of utmost importance in poultry. *Ornithonyssus bursa* (*Liponyssus bursa*, *Bdellonyssus bursa*) belonging to the family *Dermanyssidae* is an important mesostigmatid acarine parasite that attacks poultry and occasionally man (Soulsby, 1982). The present communication reports the occurrence of this mite from Kerala for the first time and its treatment using synthetic pyrethroids.

Materials and Methods

Ten birds reared under backyard system were brought with the complaint that they were infested with ectoparasites. The owners also complained about the attack of these parasites in human beings causing pruritis. The ectoparasites were seen actively moving on the feathers and face of the birds. The parasites were collected in 10 per cent formalin, boiled in 10 per cent potassium hydroxide solution and then dehydrated in ascending grades of alcohol. They were then cleared in Beachwood creosote, mounted in DPX and were identified based on Soulsby (1982) and Kettle(1995).

Results and Discussion

The ectoparasites were identified as *Ornithonyssus bursa*, the "tropical fowl mite" based on morphology and morphometry. The

dorsal plate was found tapering to a blunt posterior end. It was observed that the anterior end of the ventral plate was narrow and that the posterior end was bluntly pointed.

The anal plate was oval in shape with gradually tapering posterior end and the anus being located at the anterior half of the plate (Fig).The morphometry of the mite is given in the table.

Incidence of *O.bursa* has been reported from the Palam Valley of Himachal Pradesh (Chaddha *et al.*, 2005). A closely related mite, *Dermanyssus gallinae* has been reported from Kashmir valley (Mir *et al.*, 1993). Unlike *D.gallinae*, *O.bursa* remains continually on its host causing considerable injury to the skin (Sen and Fletcher, 1962). Apart from irritating the birds and causing anaemia, these mites may also transmit infections like fowl pox, Newcastle disease *etc* (Kauffmann, 1996).

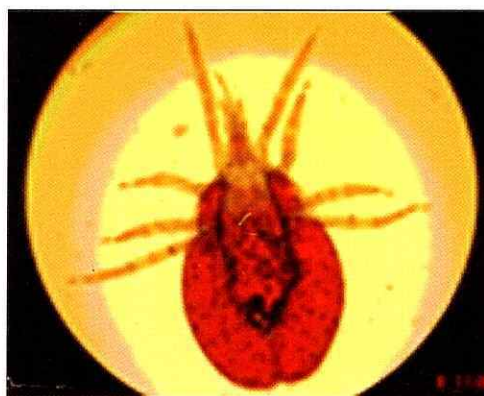


Fig. 'O.bursa

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Table. Morphometry of *O.bursa*

	Adult mite	Dorsal plate	Anal plate	Ventral plate
Length (mm)	0.93	0.63	0.15	0.35
Breadth (mm)	0.39	0.22	0.08	0.08

The condition was treated by applying deltamethrin (Butox ®- 12.5 mg/ml solution – M/s.Intervet India Ltd), at a dilution of three ml per litre of water, externally by dipping. It was also advised to spray the solution in and around the premises to control the developing stages. The owners reported an uneventful recovery.

Summary

Ornithonyssus bursa, the “tropical fowl mite” is an important acarine parasite that attacks poultry and occasionally man. *Ornithonyssus bursa* cause anaemia and considerable injury to the skin and is reported for the first time from Kerala. Its morphology, morphometry and treatment using deltamethrin are described.

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