

**Abstracts of Papers Presented at the Workshop  
Arachno-Entomologie  
of the Deutsche Gesellschaft für Parasitologie e. V.,  
Frankfurt a. M., 17.–18. 3. 1983**

Received May 18, 1983

**Myiasis in Austria with Special Consideration of Facultative  
Myiasis Caused by *Lucilia sericata***

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In Austria some 30 Diptera species were identified as autochthonic myiasis-producers. Besides representatives of the families Oestridae and Gasterophilidae, which cause obligatory myiasis in animals and man, several cases of facultative myiasis initiated by members of Calliphoridae, Muscidae, and Piophilidae are known. *Lucilia sericata* is the main causative agent of facultative myiasis in Austria. – The facultative myiasis-producers are larvae of saprophagous or necrophagous Diptera. The adult females are olfactory attracted and lay their eggs or larvae in wounds, on dirty or inflamed areas of the host's body. The facultative myiasis is always a secondary process, which initiation necessitates local or general predisposition.

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resulted from inhibition of alimentary infection. – (3) Ticks from sensitized rabbits had lower weights and produced less eggs ( $p < 0.05$  to  $p < 0.001$ ). – (4) Non-infected ticks were more susceptible than vertically infected ticks ( $p < 0.001$ , both for infection rates and grades).  
**Keywords:** *Rhipicephalus bursa*, *Babesia ovis*, sheep, rabbit, immunisation

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### Experimental Infestation of Cattle with Ectoparasites and the Effects on the Quality of Leather

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Four calves were infested experimentally of localized areas with ticks (*Ixodes ricinus*), mange mites (*Sarcoptes bovis* and *Psoroptes bovis*), sucking lice (*Linognathus vituli*) and chewing lice (*Bovicola bovis*) during maximally 49 days. After slaughtering the animals, the skin was examined parasitologically and histologically, tanned and then checked for surface damages. – The ticks caused a severe localized dermatitis at the side of infestation, which transformed after 15 days to a slight fibrosis. Deep, localized caverns were seen in the leather. *Sarcoptes* mange led to acanthosis, eosinophilic infiltration, formation of papules and severe perivascular infiltration of the skin. The surface of the leather showed discolouration and wrinkles. The infestation with *Psoroptes* mites didn't succeed well. Only squamification of the skin surface was observed. Histologically, a moderate infiltration with histiocytes and eosinophils was detectable in the dermis. Sucking lice caused a localized exocytosis of the skin and slightly dilatated pores of the leather. No damage resulted from exposure to chewing lice.

**Keywords:** Histology, *Ixodes ricinus*, *Sarcoptes bovis*, *Psoroptes bovis*, *Linognathus vituli*, *Bovicola bovis*

### Vectorpathology and Resistance of Vectors to Parasites

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The man-parasite-relation differs from the vector-parasite-relation: While man is in possession of a true immune system the vector is mostly genetically determined either to resist or tolerate infection. – Parasites cannot develop and cause damage in resistant vectors. Therefore the resistant insect has an advantage in natural selection. – In the case of malaria it was possible to demonstrate marked pathological changes in the non-resistant vector caused by the parasite and to select resistant and susceptible colonies in avian and rodent malaria. With the Trager-Jensen-system we are able to produce gametocytes of *Plasmodium falciparum* in vitro. We will intend to use the same system to select *Anopheles* colonies resistant to human plasmodia.

**Keywords:** Malaria, *Anopheles*, selection