

DISTRIBUTION, DETECTION AND CONTROL OF HOUSE DUST MITE *DERMATOPHAGOIDES FARINAE* HUGHES, (ACARINA: PYROGLYPHIDAE) IN A FLAT IN THE CZECH REPUBLIC

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Fifteen randomly chosen flats in Ledeč n. S. were examined for the presence of house dust mites in 1997-98. Only one species, *Dermatophagoides farinae* Hughes, was found in one flat in a brick one-family two-story house, 30 years old, 300 m above sea-level. This flat was therefore submitted to a detailed study.

The samples were collected by a vacuum cleaner (speed of vacuuming - 30 s/m² of surface) from carpet, armchair and beds in bedroom, living room and children room separately. Content of the bags with dust was examined in the laboratory and the mites were counted. The abundance of mites was expressed in number per gram of dust and per a square of the vacuumed surface.

Specimens of *D. farinae* were found in all three examined rooms. The greatest density, 22.5 individuals/m² (27 individuals/g of dust), was found in the bedroom in the bed's mattresses. None mites were found in the carpets and only few in the armchairs (0 - 1 individuals/g of dust).

Distribution of *D. farinae* in bed (bedroom) with respect to the time when the sleeper left the bed in the morning was studied next. The sampling was done by a standard technique described above from different part of the bed, namely upper- and underside of mattress, feather bed, pillow and bed sheet once a month. The highest number of mites was found in the first couple of hours after sleeper's departure on the upper side of the mattresses and this appeared to be the optimal time for sampling. After 6 hours the number of mites diminished by 50%. The effect of different physical treatments such as clapping, sun basking, ventilation, preservation and washing on density of the mites was also evaluated.

Biological control by the predatory mite *Cheyletus eruditus* (Schrank) was suggested as a one of the control means. The predators will be applied in ratio 1:10 (*C. eruditus* : *D. farinae*) between mattresses.