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A STUDY ON THE VARIABILITY OF SOME POPULATIONS OF SARCOPTES SCABIEI IN RELATION TO THE HOST'S SEX AND THE ANATOMICAL SITE OF LARVAL DEVELOPMENT.

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Sarcoptes scabiei is a cosmopolitan mite found frequently in a great number of hosts, for it adapts itself morphologically to its substrate. Fain (1968) effected a taxonomical study on this parasite revealing all the morphological variations when it infests hosts of different types and acknowledged only one, but extremely variable species of *Sarcoptes*. In 1970 Kutzer claimed the existence of nine species of mites of genus *Sarcoptes*, giving a greater importance to the morphological differences of some of the varieties. Pence et alii (1975) observed the presence of many frequent anomalies in some *Sarcoptes* females from some wild dogs. In a research of ours (Principato et alii, 1987), mites from woolf turned out to have morphological characters in common with other *Sarcoptes* coming from other hosts. In the present survey, the main morphological differences among populations of mites coming from two male and female foxes are described through a detailed micrometric study. In addition, differences, though less marked, among populations of mites infesting different anatomical sites belonging to the same host, are pointed out. In fact the mites removed from the male fox had an uninterrupted dorsal chetotaxis, the idiosome of small size, a low number of scales in the "A" field (Fain, 1968) and repeated anomalies mainly as for genital bristles gp. The mites coming from the female fox presented a mixed idiosomal chetotaxis-both continuous and discontinuous ones, an idiosome of a bigger size, a greater number of scales in the "A" field and repeated anomalies only as for the genital bristle ga. Furthermore, the distribution and the seriousness of the lesions produced showed clear differences in relation to the sex of the host. Some more differences are pointed out in relation to the host's anatomical site; in fact, for instance, the length of the pretarsus \downarrow and of the sternum was definitely higher in mites coming from the host's dorsum, from the base of the tail and from the periorcular area of the female host in comparison with the male. The most remarkable distinctive characters, anyhow, were observed mainly in the populations of mites removed from the periorcular area and from the tail of the same host. On the basis of the data obtained, it is assumed that the sex of the host has a strong influence on the morphological variability of the *Sarcoptes* mites, on their tropism for definitive host's skin areas and finally also for the seriousness of lesions.