

Pododermatitis in captive flamingos (Phoenicopteridae)

Pododermatitis is a multifactorial problem in captive flamingos worldwide. Risk factors like substrate, nutrition, infections or individual predispositions are suspected. The aim of this dissertation was to evaluate such factors. Substrate trials as well as comparison between different institutions revealed that soft flooring e.g. mud-like sand in water ponds is beneficial for flamingo foot health. Increased weight was confirmed as risk factor for nodular lesions. Histologically, Dermatophilus-like bacteria were found to invade the stratum corneum, causing an inflammatory reaction and leading to more pronounced histologic changes like columnar proliferation and ulceration. Therefore, it is suspected that these bacteria play a role in the disease course of pododermatitis, mainly if other factors, e.g. flooring, are suboptimal. One type of lesion, papillomatous growth, were only detected in animals older than ½ year and therefore suspected to need more time to develop than other lesions. Nodular lesions, the classic bumblefoot, were found to be associated with increased weight. Deficiencies of minerals/vitamins may also play a role in the development of pododermatitis, as more lesions were found in the group of juvenile flamingos with low zinc levels compared to their free-ranging counterparts and other groups of captive flamingos. The results of this dissertation may help to improve foot health of captive flamingos.

Keywords: Flamingo, Histology, Nutrition, Pododermatitis, Substrate

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