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TRICHOMONIASIS IN CAPTIVE SPARROW HAWKS

The flagellate *Trichomonas gallinae* has been recovered from the upper digestive tract of a variety of birds, but its primary host is the domestic pigeon (Levine, 1961. Protozoan Parasites of Domestic Animals and Man. Burgess Publ. Co., Minneapolis. p. 98-99). *T. gallinae* is believed to cause a disease in birds of prey called "frounce", which is characterized by yellow caseous nodules in the upper digestive system and loss of weight (Stabler, 1954, Exp. Parasitol., 3(4): 368). However, Trainer *et al.* (1968, Condor, 70(3): 276-277) found that nematodes of the genus *Capillaria* can cause oral and esophageal lesions that could be readily mistaken for "frounce" in wild Gyrfalcons. They also point out some of the reports of "frounce" being due to *T. gallinae* may be incorrect since often the diagnoses were made from gross observations alone.

During August, 1968 a female Sparrow Hawk (*Falco sparverius*) was picked up along a roadside by a boy and brought to the facility at the Three Rivers Game Management Area, Baldwinsville, New York. The bird was unable to fly and was thought to have been hit by a car, but no injury was apparent. The hawk was placed in a cage, and seemed to be recovering on a diet of raw hamburger and grasshoppers. Ten days after arrival of the female hawk, a male Sparrow Hawk was added to the cage. The male hawk had injured its left wing when accidentally taken in a wire mesh trap used in a Mourning Dove banding program. After the hawks had been together for three days the female became acutely ill. She did not feed, remained fluffed up, and had watery feces. On the fourth day of joint

captivity the female was found dead, the male had stripped the feathers from her back and eaten part of her left wing. The mouth and esophagus of the female bird contained lesions suggestive of trichomoniasis, but no laboratory examination was made. Eight days later the male developed similar signs and died. This bird was brought to the Department of Zoology of the S.U.N.Y. College of Forestry for diagnosis. Numerous caseous nodules were found in the mouth and esophagus. The neck muscles adjacent to a perforated esophageal nodule were necrotic. Live trichomonads were demonstrated microscopically from all these lesions after bits of tissue were teased apart in 0.9 percent saline solution. Contact smears from the lesions in the mouth, esophagus, and neck were stained with Giemsa and Heidenhain's hematoxylin stains. The stained slides showed organisms fitting the description of *T. gallinae* (Levine, 1961). Examination of the esophagus under a dissecting microscope did not reveal any *Capillaria* sp. or other helminths. No gross lesions were observed elsewhere in the bird.

Stabler *et al.* (1936, J. Parasitol., 22 (Suppl.): 539-540) reported a fatal case of trichomoniasis in a captive Sparrow Hawk. The source of infection was believed to be the pigeon meat diet the bird received. In the present case, the female hawk was believed to have been infected in nature, because she was isolated in a new cage and received no bird meat in the diet during captivity. The male Sparrow Hawk had ample opportunity to become infected while sharing the common cage environment, but unfortunately no positive diagnosis was possible on the female.

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