

TRANSLATION:

A BRIEF REPORT ON VIRUS HEPATITIS IN THE EAGLE OWL*

by

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Breeding of Eagle Owls (*Bubo bubo*) started a few years ago at some places in central Sweden. The purpose was to try to re-establish the Swedish Eagle Owl population. During late years several deaths have occurred among the owls at these breeding stations and this has threatened to spoil the results of the activity.

An application of the breeders for a grant to be able to continue their activity caused us to make a survey of the material of dead Eagle Owls, sent to the National Veterinary Institute in Stockholm (SVA) for examination. This survey revealed the following.

During the time 1948-1971, about 85 dead Eagle Owls had been received at SVA for post mortem examination. Roughly three fourths of the owls had been found dead in nature, the remaining ones originating from breeding stations, zoological gardens, etc. The material consisted of about as many male as female birds.

Causes of death of different kinds were found among the owls, e.g. mercury (methyl mercury) poisoning (tables in other parts of the report), traumatic injuries, malnutrition, and infectious diseases.

Of particular interest concerning the breeding and releasing of Eagle Owls was the finding of a disease, characterized by miliary necroses in the liver and other intestinal organs. This disease was primarily found in owls from breeding stations.

The Eagle Owl disease is incompletely known as concerns ways of spread, etc. However, a disease morphologically similar to the Eagle Owl disease was briefly described a few years ago as a specific virus hepatitis in owls at Schonbrunn's zoological garden.

Among the Eagle Owls sent to the SVA, virus hepatitis was twice found in 1956, thus in one owl originating from the vicinity of the town Sala (ca 100 km northwest of Stockholm), and in one from the vicinity of the town Orebro (ca 200 km west of Stockholm). These two owls were obviously found dead in na-

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ture. They were also the only ones in the SVA material, dead of virus hepatitis during the period 1948-1966. During this time, in all about 50 Eagle Owls were submitted to SVA for examination.

The incidence of Eagle Owls suffering from virus hepatitis increased considerably since 1967. Thus, during the period 1967-1971, about 35 Eagle Owls were submitted to the institute. Virus hepatitis was found in 13 of these, all of which originated from breeding stations or zoological gardens. They are listed below.

August	1967	2 from Dala-Floda (350 km northeast of Stockholm)
May-June	1968	3 from Skansen Zoo, Stockholm
January	1969	1 from Dala-Floda
June	1969	1 from Skansen Zoo
December	1969	1 from Grabo (outside Goteborg, west Sweden)
September	1970	1 from Grabo
December	1970	1 from Geijersfors (350 km west of Stockholm)
January	1971	1 from Geijersfors
June-July	1971	2 from Skansen

(As is the case with most material submitted to SVA, the examinations of these owls were unprejudiced and as far as possible complete, yet without anything else of particular interest being found. Bacteriological examination was negative and only low residues of e.g. mercury were found.)

A few years ago, some Eagle Owls were imported to Sweden from England (Norfolk). Temporarily those owls were placed at Skansen, later to be distributed to breeding stations or to be released.

For several decades, Skansen has had a considerable number of Eagle Owls. As far as known, no case of virus hepatitis has occurred until the Norfolk owls arrived. It has appeared impossible to obtain accurate information, but obviously one or two of the deaths at Skansen hit Norfolk owls. The breeding stations at Dala-Floda, Grabo and Geijersfors seem to have had contacts with owls from Skansen or England. The source of the virus thus seems to be the same even if an indigenous source may not be excluded for sure. The SVA examinations indicate that the virus hepatitis may constitute a great menace to the breeding of Eagle Owls.

From one of the Skansen owls (July 1971), we succeeded in isolating a virus. This has been classified as a herpes virus. This virus was injected intramuscularly in one Eagle Owl, one Tawny Owl (*Strix aluco*) and one Buzzard (*Buteo buteo*). In less than 14 days, the Eagle Owl died, post mortem examination revealing lesions typical of virus hepatitis. Neither the Tawny Owl, nor the Buzzard showed any signs of disease. Some four to six weeks after injection, they were sacrificed, post mortem examination being negative.