

CURRENT WORK ON RAPTOR DISEASES

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Over the past four years I have been carrying out investigations into the pathology of diseases of birds of prey. This work has concentrated on birds trained by falconers but wild species have not been neglected. The studies have largely been undertaken as an extra-curricular project, separate from my full-time work, but I have been fortunate in obtaining the use of laboratory and other facilities. A considerable amount of information has been obtained and a brief summary of the work being undertaken will be outlined.

Three methods of approach have been used:

1) The post-mortem examination of dead birds of prey. To date, just over 200 specimens have been examined and the majority of these have been falconers' birds. Examination includes bacteriology and the preparation of stained histopathological sections of lesions. A full post-mortem report on each case is compiled together with, where possible, a full clinical history.

2) The examination and treatment of live birds. Diagnosis of disease in captive birds of prey poses many problems and with this in mind fairly sophisticated diagnostic tests are being investigated. An example is the taking of blood samples (from the brachial vein) from birds where aspergillosis is suspected. The serum is submitted to a veterinary laboratory for examination for antibodies. This technique is at present only experimental but it is hoped in time to collect data on the levels of such antibodies in birds of prey and their possible significance. Various drugs are also being investigated. Falconry lore abounds in old-fashioned remedies and many falconers are sceptical of modern drugs and veterinary techniques. In some respects this scepticism is justified - birds of prey are susceptible to some drugs (e.g. certain local anaesthetics) - but many modern remedies could be of immense value in the treatment of raptor diseases. Examples include methyridine which I have found useful and relatively non-toxic in the treatment of capillariasis and the various antifungal agents, which are used successfully in man but which have scarcely been tried in aspergillosis of birds of prey.

In addition to medicine, surgical techniques are being studied. Birds tend to succumb readily under anaesthesia and hence various anaesthetic agents (both volatile and systemic) are being investigated. Some encouraging results have been obtained and the use of such agents has greatly improved the prognosis in cases where surgical intervention is indicated. (e.g. chronic bumblefoot).

3) The examination of faeces, blood and other samples. This is carried out primarily for parasite examination - for example, falconers submit mutes (faeces) samples and these are examined for Nematode, Cestode and Trematode eggs, and for coccidial oocysts. Such parasites are determined. Blood smears are taken from hawks whenever possible (for instance, in the course of clinical examination), stained with Giemsa and examined for blood-borne parasites. To date three genera of Protozoa have been found - Haemoproteus, Leucocytozoon and Trypanosoma. In addition an elementary study of the haematology of raptors is being attempted.

The foregoing gives only a summary of the work currently in progress on diseases of birds of prey. It is hoped in future numbers of Raptor Research News to discuss specific conditions in detail. I should be interested to hear from veterinarians and others who are working on similar problems.

A list of published papers on the subject is appended for reference. Some are published in falconry literature and serve to inform falconers of work in progress, others in veterinary journals are of more of a technical nature.

"Diseases of Hawks". The Falconer 5 (1): 55 - 57, 1969.

"Diseases of Birds of Prey - some recent advances". The Falconer 5 (2): 97 - 102, 1968.

"Tuberculosis in Birds of Prey". Veterinary Record 82: 61, 1968.

"The Trained Falcon in Health and Disease". J. small Anim. Pract. 9: 559 - 566, 1968.

"Some Diseases of Birds of Prey". Veterinary Record 84: 454 - 457, 1969.

"Oesophageal Capillariasis in Captive Falcons". Veterinary Record 84: 634 - 636, 1969.