

# BIRD POX IN A NEW ZEALAND PIPIT.

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## Introduction.

Fowl pox or any other pox has not so far been recorded from wild-living birds in New Zealand, but it is likely that the disease is more common in the Dominion than realised, and this record of bird pox in a New Zealand pipit (*Anthus novaeseelandiae*) is presented in the hope that the information will attract attention among ornithologists, sportsmen and other people who study and handle birds so that possibly more material on the matter may be published in the future.

The occurrence of pox in wild birds is of more than pure scientific interest as it has been recorded overseas from a number of wild birds, including game birds, and as the possibility exists for spread of this disease to poultry through wild birds, but further experiments on this aspect are necessary.

## Pox in a New Zealand Pipit.

On March 13, 1952, when I went along the highway near the Tongariro State Hatchery, Turangi, N.I., a pipit on the roadside attracted my attention. Even without the use of binoculars it was possible to see that there was something wrong with it, and a tumor was visible on one leg. I watched the bird through my 10x50 binoculars and saw a hazel-nut sized tumor on the leg, while it was evident that the bird's right eye was closed and covered up by greyish tumor-like growth. The bird was somewhat hindered in its movements because of the tumor on its leg, but did not look really sick. I suspected that the bird was attacked by fowl-pox, a disease I have had the opportunity to see in partridges (*Perdix perdix*) and wood-pigeons (*Columba palumbus*) a number of times in Denmark, so I shot the bird for closer examination.

Unfortunately the bird was somewhat damaged by the shot. In my diary the following was recorded during examination of the bird: On the left leg there was a tumor about the size of a hazel-nut; it was attached to the underside of the tarsus (see Fig. 1) and measured 17 mm in length, 14mm. high and 16mm. wide; it was grey and hard as a rubber ball. The right leg had a small node as if the leg were broken and it looked like the beginning of a tumor. The left eye was open, but all of the right side of the face was covered with greyish, tumor-like processes. The right eye was completely blind and covered, and feathers around the eye and on the side of the neck were missing. Under the right eye there was a tumor measuring 7mm. in diameter.

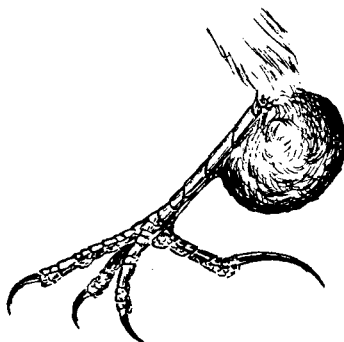


FIG. 1.—Pox Tumor on Leg of New Zealand Pipit.

During earlier work at the Danish Game Research Station, I had had the opportunity to see a number of partridges and wood-pigeons suffering

from pox, as diseased game birds were frequently sent in for examination (and turned over to Professor M. Christiansen, the Royal Veterinary and Agricultural College at Copenhagen, who was the specialist on game diseases). I had also myself shot two wood-pigeons with heavy pox infestation. Based on what I had seen in the way of pox in birds, I thought that this bird also suffered from pox, but to make sure, the bird, or rather what remained of it, was sent to Wallaceville Animal Research Station.

Mr. R. M. Salisbury, Veterinary Research Officer, examined the bird and reported that "the histology of the lesions was practically identical with that seen in cases of fowl pox," and that the bird "was suffering from a form of pox."

This appears to be the first recorded case of pox in any wild New Zealand bird.

### Fowl Pox in New Zealand.

Fowl pox is a feared poultry disease in any country. According to Mr. R. M. Salisbury fowl pox has never occurred in the South Island, but in the North Island the disease has three strongholds—the Hutt Valley, near Wellington, the Hawke's Bay area, and the Auckland area.

Howse (1949) describes the symptoms and control of fowl pox in New Zealand. In 1948 there were many outbreaks of pox in different parts of the North Island, some of which resulted in considerable loss. As fear was expressed in the report on the examined pipit: "That native birds may possibly be responsible for the spread of the disease in the North Island," it may be of interest to see what is found in the literature about the communication of pox from wild birds to poultry.

### Pox in Wild Birds.

There appear to be three varieties of pox found in birds. The more common and more important strain is the fowl pox, found in domestic fowls, turkeys, guinea fowls, ducks, geese, pheasant and other species. Of less importance is pigeon pox, found in pigeons; and finally the bird or canary pox is found in canaries and other small birds. Christiansen (1949) in Denmark found a pox in crows (*Corvus corone*) which he considers belongs to a special type, different from the varieties listed above.

It is the common fowl pox in fowls which is feared. Christiansen (1949) has examined two black grouse (*Lyrurus tetrix*) and 75 partridges suffering from fowl pox. Christiansen (1941) mentions that pheasants also may get the disease, as recorded abroad, but hitherto not in Denmark. Pox was also reported from bobwhite quail (*Colinus virginianus*) in America by Stoddard (1931), and from ruffed grouse (*Bonasa umbellus*) by Bump et al. (1947). The "bumblefeet" and "fibroid tumors on the side of the head" found by Portal & Collinge (1932) in English partridges are possibly also due to pox.

Fowl pox in game birds is hardly anywhere an important factor in checking production but nonetheless it is a disease which must be considered of some influence when it occurs. In its worst cases the diseased birds may die from hunger because their bill grows with tumors; the legs may develop such heavy tumors that walking becomes painful and difficult; and the birds may be blinded and thus completely helpless in the cases when the tumors develop on the head. Another factor is that the disease is easily communicated from individual to individual as seen from the fact that all birds within a covey regularly have been reported sick. Game birds with pox are usually of no value as game; they are either sent away for examination because of their queer look, or they are thrown away because of their unhealthy look and poor condition. Christiansen (1941) advocates only one way in dealing with this disease in game birds—the killing of every member of a diseased covey.

Wood-pigeons fairly often have pox; in Denmark no less than 45 were sent in to Professor Christiansen for examination. It is also recorded from wood pigeons in Sweden, as reported by Hulphers et al. (1943).

Pox has also been recorded by Christiansen from as different birds as: Two lapwings (*Vanellus vanellus*), 1 golden plover (*Pluvialis apricarius*) and common gull (*Larus canus*), and in addition to 8 crows as mentioned above, one raven (*Corvus corax*) and one rook (*Corvus frugilegus*).

Small birds recorded with pox are: One skylark (*Alauda arvensis*); 1 wren (*Troglodytes troglodytes*); 1 song thrush (*Turdus cricetorum*), and 1 lesser white-throat (*Sylvia curruca*). The bird or canary pox, to which variety the pox found in the mentioned passerines may belong, is found in canaries, and experiments have shown that this virus is transmissible to, for example, sparrow (*Passer domesticus*) and chaffinch (*Fringilla coelebs*), but not to fowls and pigeons (Christiansen, 1949).

#### Conclusion.

A heavy infestation of bird pox has been recorded from a New Zealand pitpit at Turangi, N.I. The bird's one eye was blind, and it had a hazel-nut large tumor on one leg. Attention is drawn to the case, as pox in wild birds has not been recorded from New Zealand before, but the disease is undoubtedly more common here, and birds with such wart-like tumors should be sent to the Wallaceville Animal Research Station for examination. Overseas, different groups of birds such as e.g., pheasants, partridges, gulls, wild pigeons, crows, rooks, skylarks, thrushes and wrens, have been recorded with pox infestations.

Sportsmen should look out for pox in bagged pheasants and quail; bird ringers who trap passerine birds such as silvereyes, thrushes, etc., should watch for pox tumors on the birds handled; pheasant breeders should look out for pox in their birds; and bird trappers who trap introduced song birds to be kept as cage birds should also watch out for pox in the caught birds.

Overseas experiments have shown that pox found in small passerine birds is not transmissible to fowls, but further investigations are of importance, and it is still not known to what extent the pox occurring in, for example, gulls and shore birds can be communicated to poultry. Further experiments are needed, and any pox-infested wild birds should be sent in for examination and transmission tests.

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#### REVIEWS.

**Stomach Contents of New Zealand Inland Shags, by P. Dickinson.** Aust. J. Marine and Freshwater Res. 2 (2): 245-53, 1951.

A study of 29 stomachs of *Phalacrocorax carbo* and 61 of *P. brevirostris* from Rotorua-Taupo district in which fish otoliths were used to determine the species and number of food fish. Lake-feeding shags in July feed almost entirely on fish (particularly bullies, *Gobiomorphus*) and crayfish. One of the *P. carbo* stomachs contained two salmonid fish, probably trout.—C.A.F.

**A Review of the Frigate Petrels (*Pelagodroma*), by R. C. Murphy and S. Irving.** Am. Mus. Novit. No. 1506, 1951.

A systematic and biogeographic study of the white-faced storm petrel of New Zealand bird books. Five sub-species are recognised, from Tristan