



# Psittacine Beak and Feather Disease

## A threat to our native parrots



PBFD-infected red-crowned parakeet. Note the balding on the head and the loss of tail feathers.

*Photo: Auckland Zoo.*



Healthy red-crowned parakeet.

*Photo: DOC.*

### What is Psittacine Beak and Feather Disease?

Psittacine Beak and Feather Disease (PBFD) is an infectious viral disease that only affects parrots. It is also known as Psittacine Circovirus or Beak and Feather Disease Virus (BFDV). The virus attacks the cells responsible for growing a bird's feathers and beak, causing feather loss and abnormal beak growth in some parrots. The disease also has a general immunosuppressive effect on the bird, clearing the path for secondary viral and bacterial infections, which can lead to death.

The disease has been reported in more than 60 parrot species worldwide. Currently there is no vaccine.

### PBFD in native parrots

PBFD has been confirmed in a native wild parrot population: red-crowned parakeets (also known as kākāriki) on Hauturu/Little Barrier Island in 2009. This is the first report of PBFD in a population of native wild parrots in New Zealand.

### PBFD in exotic parrots

The virus is commonly found in aviary-kept parrot species all over New Zealand. In the wild, the virus is known to be widespread in the North Island amongst exotic parrots, such as sulphur-crested cockatoos and eastern rosellas. The presence of the disease in the South Island is unknown.

Department of Conservation  
*Te Papa Atawhai*



Healthy orange-fronted parakeet in captivity. It's essential to maintain good hygiene practices in aviaries to prevent the spread of PBFD.

Photo: John Kearvell.

## How will our native parrots be affected?

New Zealand has 8 species of native parrot: kākāpō, kea, kākā (including North Island and South Island subspecies), red-crowned parakeet, yellow-crowned parakeet, orange-fronted parakeet, Antipodes Island parakeet, and Forbes' parakeet (also known as the Chatham parakeet). It is not known what impact PBFD will have on

them. Evidence from around the world indicates that PBFD affects parrots in different ways, with some species more impacted than others. All native parrots (many of which are classified as nationally critical or endangered) are potentially at risk from the emergence of this disease.



New Zealand's rarest parrot, the kākāpō.  
Photo: Tama Pugsley.

In Australia, PBFD has been declared as a 'key threatening process' to native parrots. PBFD has been identified in 18% of the critically endangered Echo Parakeet in Mauritius, and those infected parakeets

have a mortality rate of 83%<sup>1</sup>. In Southern Africa, the disease threatens the survival of the indigenous endangered Cape parrot and the vulnerable black-cheeked lovebird<sup>2</sup>.

## How is PBFD spread?

PBFD is highly contagious to parrot species, spreading through direct contact with infected birds, including by ingestion or inhalation of feather dust, dander and faeces. The virus can also be transmitted via contact with contaminated sources such as nesting materials and roosting holes. Younger birds appear to be more susceptible to infection.

<sup>1</sup> Ortiz-Catedral, L., McInnes, K., Hauber, M.E., and Brunton, D.H. 2009: First report of beak and feather disease virus (BFDV) in wild red-fronted parakeets (*Cyanoramphus novaezelandiae*) in New Zealand. *Emu Austral Ornithology* 109: 244-247.

<sup>2</sup> Heath, L., Martin, D.P., Warburton, L., Perrin, M., Horsfield, W., Kingsley, C., Rybicki, E.P., and Williamson, A.L. 2004: Evidence of Unique Genotypes of Beak and Feather Disease Virus in Southern Africa. *Journal of Virology* 78 (17): 9277-9284.

## What is the Department of Conservation doing about this disease?

The Department of Conservation (DOC) has introduced a national ban on moving parrots from areas with known PBFD exposure to areas of unknown or negative PBFD status (as of 2009). This ban currently still stands.

DOC is also leading a nationwide programme (with support from the Ministry of Agriculture and Forestry) investigating the presence of PBFD in native parrots. A long-term strategy is being developed to manage the risk of this disease.

## How you can help

**Never release captive parrots into the wild** unless you have a DOC permit. PBFD is well established in the avicultural industry, and any unpermitted releases are illegal and present a significant risk of infecting native species.

**Protect your birds** by maintaining good hygiene practices within your aviaries (including regular cleaning using antiviral disinfectants). Quarantining and testing new parrots before freeing them into an aviary is vital to maintaining the health of the flock.

**Report any sick or dead wild native parrots** to your local DOC office. Gathering this information and collecting samples is critical to understanding what effect the virus has on our native birds.

## For more information

See the DOC website ([www.doc.govt.nz/wildlifediseases](http://www.doc.govt.nz/wildlifediseases)) or contact your local veterinarian.

