

Hygiene Protocols for the Prevention
and Control of Diseases
(Particularly Beak and Feather Disease)
in Australian Birds

Field Necropsy Protocol for
Psittacine Beak and Feather Disease
in Wild Australian Psittacine Birds



Australian Government

Department of the Environment and Heritage

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Note

This document describes a *Field Necropsy Protocol for Psittacine Beak and Feather Disease in Wild Australian Psittacine Birds*, and has been developed with the involvement and cooperation of a broad range of stakeholders, but the making of this document does not necessarily indicate the commitment of individual stakeholders to undertaking any specific actions. The attainment of objectives and the provision of funds may be subject to budgetary and other constraints affecting the parties involved. Proposed actions may be subject to modification over the life of the document due to changes in knowledge.

Field Necropsy Protocol for Psittacine Beak and Feather Disease in Wild Australian Psittacine Birds

This document sets out how to collect specimens for confirmation of PBFD, or identification of BFD virus, in the field.

Read the documents [Clinical Evaluation of Captive Birds](#) and [Full Necropsy Protocol](#) before undertaking a field necropsy. Follow the Post Mortem Checklist closely. The Necropsy Protocol document also fully details precautions to be taken when conducting an avian necropsy. The Murdoch University PBFD Submission Form (last page of this document) must be completed and forwarded with specimens.

External examination

Put your findings in the “history” section of the submission form.

- Where was bird sourced?
- Is the bird in good or poor body condition?
- Are there any fractures etc of the limbs?
- Plumage
 - ▶ Normal - powder down
 - ▶ Moulting
 - ▶ Abnormal feathers ± powder down
 - ▶ Damaged misshapen feathers
- Beak
 - ▶ Normal - powder
 - ▶ Abnormal - misshapen, fractures, delaminations
- Claws
 - ▶ normal
 - ▶ overgrown
- Examine body orifices - eyes, nares, oral cavity, ear, vent for discharges, foreign bodies.
- Look for external parasites

If the bird is alive and being euthanased

- Aseptically obtain a blood sample in heparin (PCR/HI)
- Aseptically collect 1-2 suspect feathers, including the quill and place them in a labeled container (PCR and HA).

OR

Place a drop of the blood on to filter paper (Whatman No 3) and allow it to dry at room temperature overnight, or 37°C for 2 hours. Apply enough blood to spread over the area equivalent to a 5-cent piece (PCR, HI).

Internal Examination

Put your findings in the “history” section of the submission form.

Open the carcass as per the [Full Necropsy Protocol](#) and proceed with your necropsy. Note any lesions.

If the bird was received dead, ensure that the liver is not contaminated from your necropsy efforts.

- Heat a scalpel blade (attached to a handle) with a gas flame.
- Sear the surface of the liver with the flat side of the blade against the liver capsule.
- Using a new sterile scalpel blade, cut through the seared liver surface.
- Insert a sterile swab into the cut liver parenchyma and roll it a few times.
- Withdraw the swab and place it into its container, with the swab beneath the surface of the transport medium.

Note: *Due to the sensitivity of PCR, false positives due to cross-contamination of samples is common. Samples should be collected aseptically and each sample placed in a sterile labeled container. If you are collecting feather samples for PCR from more than one bird, ensure that you do not transfer contamination from one bird to the next. Gloves should be changed for each bird and sterile instruments replaced between samples.*

Equipment List

PBFD submission form (next page)
Plastic safety glasses x 2
Cling wrap
Disposable plastic forceps
Scissors - small, medium, large
Sterile swabs with transport medium
Paediatric heparin blood collection tubes
Permanent marking pen
Disposable powderless nitrile gloves
Scalpel blades No 22, Scalpel Handle 4
Sterile plastic containers 60 mL
Glass microscope slides 1 box
Cover slips 24mm x 50mm 1 box
Plastic Glass slide transporters 10
Virkon S powder 50g to make 25L 2% solution (also available in 2 and 5kg)
Overalls 2 pr
Rubber Boots 1 pr
5 litre plastic bucket, nail brush, larger form brush for cleaning rubber boots
Insect repellent
Hat
Mobile phone
Plastic overshoes x 10
Portable bunsen
Matches or lighter
Tape recorder, spare batteries
Digital camera with 512k-1Gb memory card for recording images.
Filter paper, Whatman No 3

Veterinary Diagnostic Pathology Service

PBFD SUBMISSION FORM



Date: _____ Submission: Whole blood Filter paper blood Feather Liver swab

Submitter Details

Name: _____
Department: _____
Address: _____
Suburb: _____
City, State, Pcode: _____
Phone No: _____
Mobile No: _____
Fax No: _____
Email: _____

Specimen Information

Species: _____
Identification: _____
Sex: Male Female Not determined
Age: Adult Subadult Juvenile Neonate
Origin: Captive bred Wild
Clinical information: Normal bird Suspect PBFD
 Found Dead Euthanased

History

Interim Pathology Report (lab use only)

Pathology No: _____ Date out: _____

Results: Feather HA: _____
Feather PCR: _____
Blood HI: _____
Other: _____