

SAMPLING PROCEDURES

Blood

Hair

Tissue

Biopsy dart

Blood – Doves

Semen



Blood Sampling Procedure

What you will need:

- A veterinarian
- Purple topped EDTA tubes
- Ice packs for shipping
- Sample submission form



Method:

1. Request your veterinarian to collect at least 1 ml blood in a purple topped vacutainer test tube with EDTA.
2. After the blood is collected in the tube, be sure to invert the tube several times. The anticoagulant (EDTA) is precipitated on the sides of the tube and the blood has to come into contact with the EDTA.
3. Clearly label the tube with the animal's identification details.
4. Tubes should preferably be refrigerated (4°C) post sampling and sent on ice to the analysis laboratory or frozen (at -20°C) for long term storage prior to sending for DNA analysis.
5. While packing, make sure the tube can't be broken and the contents spilled during transport.
6. Samples should be kept on ice or ice packs during transport.
7. Complete the sample submission form and send with the sample to the address indicated on the form.

Hair Sampling Procedure

What you will need:

- Pliers
- Envelopes
- Sample submission form



Method:

It is important that hair is plucked and not cut as the DNA of interest is contained in the root of the hair follicle, not in the shaft itself.

1. It is essential that hair submitted for DNA analysis are dry and clean. Moisture and components from urine and faeces will eventually result in DNA degradation and possible DNA analysis inhibition.
2. Collect 10 – 20 hairs containing follicles from the animal to be tested (longer hair can be tied into a knot to facilitate fitting into the envelope).
3. Ensure that each hair has a follicle attached.
4. Place each animal's hair in separate paper envelopes for storage of hair samples to allow hair follicles to dry completely in order to preserve the DNA. The use of plastic bags that cannot "breathe" is not recommended.
5. Store in a cool, dry place.
6. Complete the sample submission form and send with the samples to the address indicated on the form.

Collection areas:

Cattle – brush of the tail

Horses – brush of the tail or mane

Dogs – anywhere as long as the hair follicles are included

Wildlife – brush of the tail

Tissue Sampling Procedure

What you will need:

- Instrument to collect tissue with, such as ear marking pliers
- Blood collection tubes
- Envelopes
- Table salt
- Sample submission form



Method:

1. Collect tissue by punching a piece of cartilage from the ear (earmarking pliers can be used).
2. Place the tissue sample into a tube/envelope and add a teaspoon of table salt to dry the tissue. Ensure that the tissue is covered in table salt during the initial drying stage prior to sending of the sample to the DNA analysis lab.
3. Clearly write the animal's identification on the label.
4. Complete the sample submission form and send with the samples to the address indicated on the form.

Biopsy Dart (Wildlife)

What you will need:

- A veterinarian
- Skin biopsy darts
- Blood collection tubes
- Table salt
- Sample submission form



Method:

1. After darting the desired animal and collecting the biopsy dart, simply unscrew the barrel to retrieve the tissue sample.
2. Place the sample into the tube/envelope and add table salt to dry the tissue.
3. Clearly write the animal's identification on the label.
4. Samples can be sent without cooling.
5. Complete the sample submission form and send with the samples to the address indicated on the form.

Blood Sampling Procedure for Doves

What you will need:

- Buccal swab
- Sterile needle
- Paper towel
- Sample submission form



Method:

1. Clearly write the animal's identification on the cover of the swab.
2. Use a sterile needle to prick the base of the foot until a very small amount of blood is visible.
3. Remove the sterile swab from the packaging. Do not touch the swab. Pay attention that the swab does not get into contact with other surfaces other than the area where blood is present.
4. A small amount of blood is necessary, because avian blood contains DNA in red blood cells in addition to the white blood cells.
5. Firmly roll the swab in the blood to allow absorption of the blood into the swab.
6. Place the dry swab directly into the labelled plastic cover.
7. Complete the sample submission form and send with the samples to the address indicated on the form.

Semen Samples:



1. Semen samples can be submitted for most of the species. Semen is the recommended sample type for cattle sires.
2. Semen samples (semen straws) can be sent by courier or ordinary post, it is not necessary to keep them frozen in transit. They do however need to be packaged well so the straw does not break or leak, for example, between two pieces of cardboard or in a padded envelope.
3. Used straws can also be submitted. Used straws should be stored in a freezer if not submitted immediately after use.
4. Clearly write the animals identification on the envelope.
5. Complete the sample submission form and send with the samples to the address indicated on the form.