



Naturhistoriska
riksmuseet

Manual for preparation and storage of “State game” birds

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Handling arriving “state game” birds

When the specimen arrives directly to NRM from the collector an initial inspection and examination is done before the samples are prepared for storage. The “State game” birds that come from the National Veterinary Institute SVA are already examined and we take just muscle tissue and feather.

The following determinations and measurements are normally made:

- weight
- age
- sex
- total length (cm)
- liver weight (g)
- description of reproductive tissues
- degree of putrefaction
- state of nutrition

All measurement and other information from the vertebrate section and the bird ringing center at the Swedish Museum of Natural History are noted for each bird.

Preparation of individual organs

To avoid contamination of DNA, use a new set of tools when a new bird is sampled.

Muscle

The skin is opened by a ventral cut along the breast bone.

The breast muscle is uncovered and a sample is taken out. The entire muscles on both sides of the breastbone are extracted.

Weigh the muscle sample.

The muscle sample should be held together into as few pieces as possible (preferably two) to minimize contacts with the air.

Liver

The abdomen is opened and the breastbone is bent upwards (photo 2).

The liver is uncovered using a pair of scissors or a scalpel, and forceps and taken out.

Separate the gall-bladder from the liver.

Weigh the liver sample without gall-bladder.



Photo 1. Liver in the abdominal cavity

Kidney

The kidneys are uncovered by taking out the intestines.

Both kidneys are removed and weighed.

Gonads (Reproductive tissues)

The sex of the specimen is determined.

Reproductive tissues are not extracted unless they are to be used for further histological analysis. Uncovering of the gonads is made following the same procedure as described for kidney.

Feathers

Feathers are taken from the left wing and are stored in the environmental specimen bank. Primary 1-5 starting from the tip of the wing (figure 1)-

Big birds secondary flights 1- 3 (E.g. Sea eagle, eagle owl)

Small birds primary flights 1- 5 (E.g. Kestrel, Merlin)

Very small birds primary flights 1 – 10 (Kingfisher)

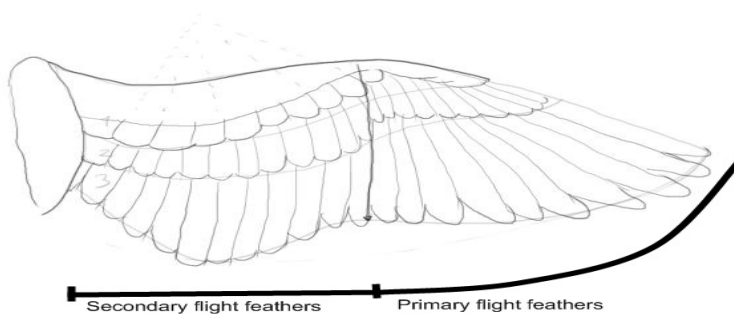


Figure 1. Primary 1-5 starting from the tip of the wing.

The feathers are withdrawn from their attachment in the wing so the entire quill is removed.

Equipment for preparation

- scale
- scalpel (stainless)
- forceps (stainless)
- plastic bags
- aluminium foil

Storage

Organs and specimens

All organs and tissues are packed separately in aluminium foil and marked with acquisition number and content. The package is placed in a thin plastic bag and sealed in a welding set.

All specimens from one individual organism are packed together in a laminate bag along with a label with necessary information such as acquisition number, species and locality. The bag is sealed in a chamber vacuum packaging machine.

All feathers from one specimen are stored together. The feathers are packed in a laminate bag along with a label with necessary information such as acquisition number, species and locality. The bag is sealed in a chamber vacuum packaging machine. The feathers are placed in a freezer for a couple of weeks, to remove pest and are then stored dark, at room temperature.

Equipment for storage

- plastic bags
- aluminium foil
- labels