

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA



Eighteenth meeting of the Conference of the Parties
Geneva (Switzerland), 17-28 August 2019

TIGRIS ID: GUIDELINES AND SAMPLING PROTOCOLS

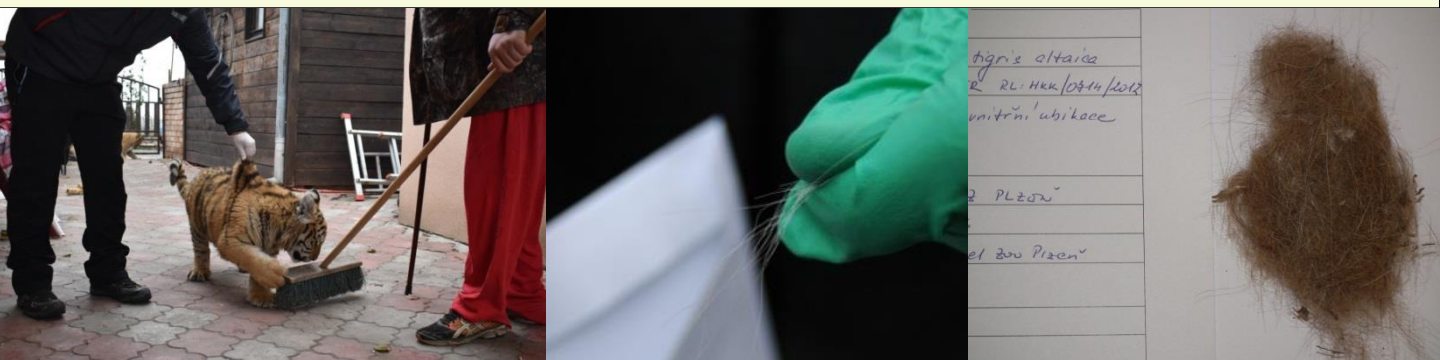
This document has been submitted by the Czech Republic in relation to agenda item 71.*

* *The geographical designations employed in this document do not imply the expression of any opinion whatsoever on the part of the CITES Secretariat (or the United Nations Environment Programme) concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries. The responsibility for the contents of the document rests exclusively with its author.*

6. Hair collection

The collection of the hair sample can be done invasively as well as non-invasively. However, in both cases, it is necessary for the hair to contain bulbs of hair. In case of invasive collection, the hair samples are pulled straight out of the animal with, for example, tweezers or a rubber gloved hand through the bars. In all cases, it is up to the zoo keeper to determine from which animal the collection of a sample is possible and perform the collection himself. This is usually possible for tigers trained for the circus, tigers raised by people like pet animals and tiger cubs taken from their mother. This collection is of course also possible for immobilized animals. The advantage of invasive collection is the certainty that the sample comes from specific animal and is freshly collected. Non-invasive sampling is done through collection of hair samples in places where the tigers scratch or rub. The hair is often trapped on bunks or bars and can be collected and put into a paper envelope (not in a plastic bag where DNA can degrade). The disposable gloves (gloves must be replaced between each collection of samples) or tweezers (between each collection of samples it is necessary to remove all hair or sterilize it with alcohol or fire which is even better) may be used.

➤ Tools: tweezers/rubber gloves, paper envelope



The storing and shipping of the samples:

➤ Blood samples

As already mentioned in the section on collecting of blood samples, wait until the sample of blood has dried completely before placing the filter paper with the sample in the paper envelope and shipping. It is always advisable to keep these samples in a dry place to prevent humidity. If samples are left in a liquid state, it is advisable to keep the blood collected in the micro-tubes frozen at -20°C . Blood in a liquid state can be sent only in the special transport medium (DNA shield) – please contact Forensic DNA service before such shipping.

➤ Saliva samples

The sample of saliva on the cotton swabs should be stored in a paper box pervious to air (sampling set) - humidity in a plastic or closed plastic box must be prevented. The paper box with the swab can be sent in a paper envelope.

➤ Tissue samples

Small tissue samples placed in sealable microtubes and treated with alcohol are suitable to store frozen at -20°C until shipping. Larger samples collected from dead animals can be treated with salt and stored frozen at -20°C . Samples of taxidermized body parts can be stored in paper envelopes, plastic boxes or frozen if taxidermy has not been completed (prevent the formation of humidity in the plastic bags containing samples).

➤ Droppings sample

If a fresh, warm dropping is collected, it should be allowed to naturally cool. It is then necessary to freeze it as soon as possible and it is the best to keep it cool until placing it in a freezer. It is advisable to prepare in advance frozen cooling inserts or ice-bags placed into thermobags or thermoboxes together with droppings packed in plastic bags/collection containers. Avoid the smudging or wetting of paper labels with the description. It is advisable to mark the samples with permanent markers or use an ordinary pencil to write on paper labels. Samples should be stored at -20°C until shipping. Please contact Forensic DNA service before shipping.

➤ Hair samples

Unlike droppings, keep hair dry in a paper envelope (not in a plastic bag) and at room temperature (do not freeze, moisture leads to DNA degradation). Send them in a paper envelope.

The sharing of DNA samples of tigers between countries can be **limited by certain restrictions**, e.g. CITES or national rules. The sending within EU should be without problems, **CITES permits** are necessary for the sending from non-EU countries. Please contact us before shipping any samples you have collected.

References:

- Biopsy / DNA Darts. *Global Supplies* [online]. Global Supplies, 2013 [QTD on 2017-12-07]. Available from: <http://www.globalsupplies.co.za/index.php/pneu-darts/biopsy>
- Biopsy Punches. *World Precision Instruments* [online]. Sarasota: World Precision Instruments, 2017 [QTD on 2017-12-07]. Available at: <https://www.wpiinc.com/product-listers/biopsy-punches/>
- Vaněk, Daniel. 2011: Forezní genetika v procesu dokazování. Nakladatelství Forensica.