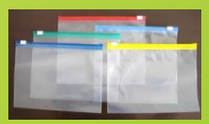
Protocol for packing and submission of samples for investigations to the Centre for Avian Ecotoxicolgy, SACON

- Keep the cool / gel packs in deep freezer at -20°C for a minimum period of 12 hours prior to dispatch. Cool packs are available in the market, particularly scientific suppliers or cold chain operators or pharmacies.
- In case deep freezer is not available, commercial ice cream parlors could be requested. Even the freezer chest compartment of a house-hold refrigerator will be sufficient. It may be noted that the gel packs are not toxic.
- On the day of dispatch, take the cool packs from the freezer and keep one layer of the cool packs at the bottom of a thermocol box or any other insulated container.
- Take out the tissue samples from the deep freezer, make sure to wrap them separately in aluminum foil or pouch and place them in polythene covers, and on the layer of cool packs.
- Keep one layer of cool packs also on the sides of the box.
- Place one layer of the cool packs on the top of the samples. Choose size of the container and number of cool packs proportionate to the sample volume.
- Seal the thermocol / container box with adhesive tape.
- Now lodge the whole thermocol box or the container in a carton
- Repeat the sealing procedure with tape.
- Tie the carton with a rope for easy handling, if necessary.
- Paste address slip and forward the same to SACON at the address given below without any delay by air cargo or cold - chain courier. If you choose to personally deliver the samples, you are welcome.
- Pass on the waybill details immediately to SACON so that early delivery of the parcel could be followed up. Also speak to the laboratory before you dispatch the samples so that your samples reach on a working day.






© D. Boominathan

Address:

Dr. S. Muralidharan
Senior Principal Scientist
National Centre for Avian Ecotoxicology
Sálim Ali Centre for Ornithology and Natural History
Anaikatty, Coimbatore - 641 108. Tamil Nadu
Website: www.sacon.in
Email: ecot_mur@yahoo.com;
ecotlaboratory@gmail.com
Mobile : +91 9443101589
Tel: 91 (422) 2203123 / 24 / 25 (O)

For assistance or clarification, please contact:
Dr. K. Nambirajan +91 9444475505
Mr. T. Manikandan +91 7598546668

POISONING IN WILDLIFE




Protocol for submission of samples for toxicological investigations

सत्यमेव जयते

Nature Protects if She is Protected

SACON

Sálim Ali Centre for Ornithology and Natural History
(A Centre of Excellence under the Ministry of Environment, Forest and Climate Change, Govt. of India)
Anaikatty
Coimbatore - 641 108
Tamil Nadu

Preamble

Man-animal conflict leading to intentional poisoning of wild animals including Tigers has become rampant in India. Fixing the cause of death is a major investigational challenge for wildlife law enforcement agencies. Realising the same, Sálim Ali Centre for Ornithology & Natural History, (Centre of Excellence under the Ministry of Environment Forest and Climate Change, Govt. of India) has come forward to extend its expertise to all the state forest departments, particularly Tiger Reserves in the country towards fixing the cause of death of any wild animal.

Due to high level of variability among different species of animals and environmental conditions under which the animals are poisoned, tracking down the culprit chemical is a complicated affair. While the post-mortem findings may suspect the cause of death to be poisoning, it is necessary to collect and preserve the samples as per protocol and submit them to a qualified laboratory for eventual identification of the poison. Equally important is the background information collected through field observations.

Field observations

Looking for an unknown chemical in an animal tissue is a bigger challenge than finding a needle in a haystack. Hence, proper submission of field investigational report to the investigating laboratory along with the samples is essential. This will help the chemist to proceed in proper direction so that time and cost of the experiments could be reduced. The field investigation should include number of animals / species found dead, approximate date and time of death, land use pattern in the nearby area (industry or agriculture), presence of a wetland or any other water body, carcass or suspected bait in the vicinity, and any dead or dying insects on the carcass.

Collection and preservation of samples for laboratory investigation

As many chemicals, particularly pesticides may degrade fast, submission of properly preserved samples to the laboratory should happen without delay. Important samples to be collected will include any carcass (left-over) on which the Tiger, Leopard, Wild Pig or any wild animal might have fed before death, any container discarded nearby, any wet soil suspected to be because of poison spillage, and any other dead animal including insects. Further, on post-mortem, tissues such as brain, heart, liver, kidney, muscle (adipose tissues), stomach contents, and any other suspected foreign material found in the dead animal are to be collected. Collect around 100g of each of the samples, place separately in thick, aluminum foil or pouches (double layer), wrap properly, label appropriately, place in zip-lock covers and store in deep freezer (-20°c).

Do not store samples in any medium (formaldehyde or saline or sodium chloride) as they may interfere with chemical analyses. Freezing is the best form of storage for all toxicological investigations.