
# SERVICES & SAMPLE COLLECTION GUIDELINES ON WILDLIFE DNA FORENSIC INVESTIGATIONS

## WILDLIFE GENETICS LABORATORY

Aaranyak

Govt. approved laboratory for wildlife genetics and forensics under section 329 (4) of the BNSS, 2023

**ADDRESS**
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13 Tayab Ali Path, Bishnu Rabha Path,
PO: Beltola, Guwahati 781028, Assam, India.
Tel: 0361-2230250
www.aaranyak.org

**Laboratory address:**
1st Floor, House No. 12, Kanaklata Path
Survey, Beltola, Guwahati – 781028, Assam, India.
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Design and Layout
Public Relations & Communications Cell

## DISCLAIMER

This document is meant to be used by Government departments involved in wildlife crime investigations and other agencies and individuals authorized to do so by the competent authority in this regard. Wildlife Genetics Laboratory, Aaranyak shall not be held accountable for any direct, consequential, or incidental damages that may result from the protocols outlined in this document. Brand, trade name, trademark, manufacturer, or other references to products, processes, or services do not imply Wildlife Genetics Laboratory, Aaranyak sponsorship, recommendation, or favor. This document's information and statements are not to be utilized for advertising purposes or to suggest that Wildlife Genetics Laboratory, Aaranyak endorses or recommends them.

The Wildlife Genetics Laboratory, Aaranyak, and Mr. Udayan Borthakur, Director and Head of the Wildlife Genetics Division, Aaranyak, are notified by the Government of Assam Memo. E. 656643/523 dated 4th August 2025 under Section 329 (4) of BNSS 2023 to provide services for wildlife genetic and wildlife forensic analysis.

**CITATION**

Borthakur, U (ed.). 2025. Services & Sample Collection Guideline on Wildlife DNA Forensic Investigations. Wildlife Genetics Laboratory, Aaranyak. **1-29** p.

# LIST OF CONTENTS

# LIST OF ABBREVIATIONS

| | |
|---|---|
| BNSS | Bharatiya Nagarik Suraksha Sanhita |
| DETs | DMSO-Tris-EDTA saturated salt |
| DMSO | Dimethyl Sulfoxide |
| DNA | Deoxyribonucleic acid |
| EDTA | Ethylenediaminetetraacetic acid |
| PCR | Polymerase Chain Reaction |
| SIRO | Scientific and Industrial Research Organization |
| STR | Short Tandem Repeat |
| Tris | Tris(hydroxymethyl)aminomethane |
| WGD | Wildlife Genetics Division |
| WGL | Wildlife Genetics Laboratory |

# INTRODUCTION

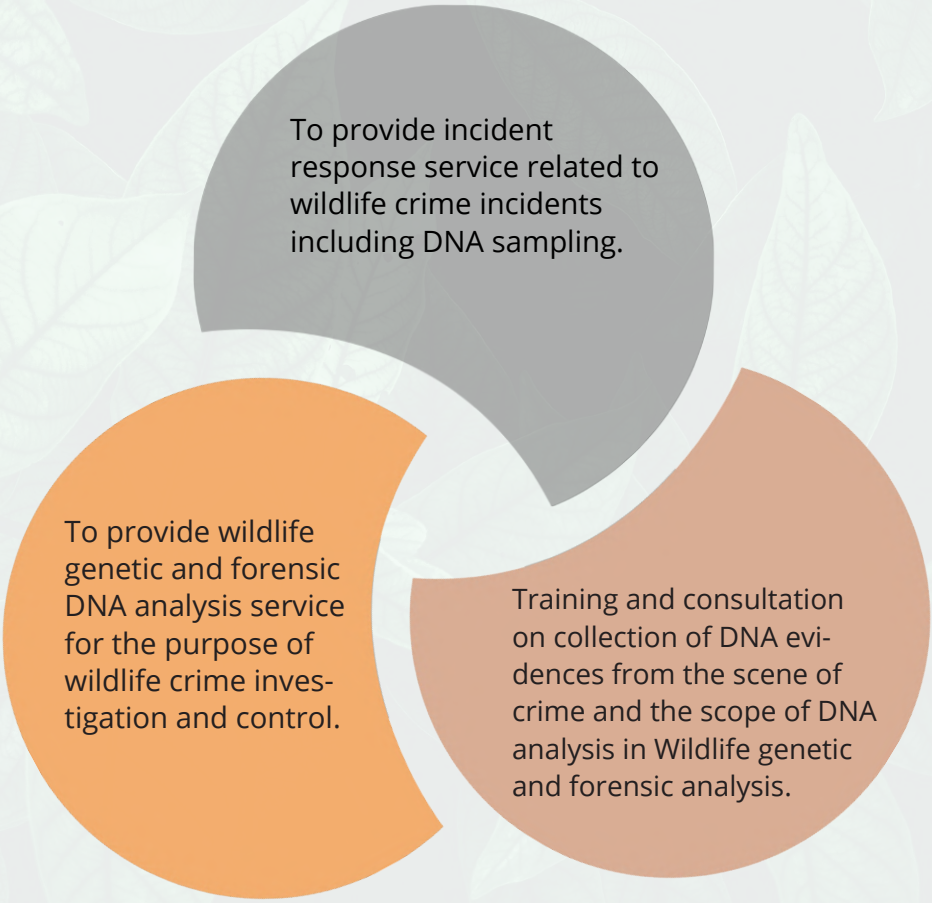
Monitoring and control of wildlife crime requires accurate identification of species that receives legal protection under Indian Wildlife (Protection) Amendment Act 2022. In addition, The Article 48(A) of the Constitution of India mandates the state to protect and improve the environment and safeguard forests and wildlife. Crime investigations also require identification of individuals within a species, to determine the magnitude of a crime and matching of biological evidence from seizures to the scene of crime. In wildlife crime cases, biological evidence is often found in trace amount and is often morphologically indistinguishable. Modern molecular tools through DNA-based analysis provides a scientifically robust way of identifying wildlife species, sex and individual identity from biological samples in trace quantities. DNA can be obtained from degraded wildlife samples, including cooked and dried meat, tanned skin, traces of blood and other body fluid, hair, faeces, feather, bone, horn, ivory, scales etc.

Aaranyak, a Scientific and Industrial Research Organization (SIRO), recognized by Department of Scientific & Industrial Research, Government of India, has pioneered the application of modern molecular genetic techniques in the field of wildlife research in Northeast India. In the year 2008, Aaranyak has established the Wildlife Genetics Laboratory (WGL) in Guwahati, which is equipped to undertake high-throughput DNA analysis of wildlife samples for non- diagnostic population genetic research. WGL, Aaranyak is the only laboratory facility dedicated to conservation genetics work in Northeast India at present.

WGL, Aaranyak has been offering wildlife genetics and forensic DNA analysis service to Assam Forest Department, following approval of the Office of the Principal Chief Conservator of Forests (Wildlife), Govt. of Assam as a facility for wildlife genetic and forensic DNA analysis in the state of Assam, vide letter no. WL/FG/FORENSIC/2014 dated 28 April 2014. Assistance in crime scene investigations and DNA sampling has also been provided by laboratory experts to Assam Forest Department and Assam Police on the ground. In addition, the laboratory has conducted multiple studies on conservation genetics of threatened fauna and biodiversity studies in India.

**Government of Assam vide Memo. E. 656643/523 dated 4th August 2025 has notified Wildlife Genetics Laboratory, Aaranyak and Mr. Udayan Borthakur, Director and Head, Wildlife Genetics Division, Aaranyak under Section 329 (4) of BNSS 2023 to facilitate wildlife genetic and wildlife forensic analysis (Annexure I).**

# OBJECTIVES


To provide incident response service related to wildlife crime incidents including DNA sampling.
To provide wildlife genetic and forensic DNA analysis service for the purpose of wildlife crime investigation and control.
Training and consultation on collection of DNA evidences from the scene of crime and the scope of DNA analysis in Wildlife genetic and forensic analysis.

# FACILITY & EXPERTISE

**WGL, Aaranyak, situated at 1st House No. 12, Kanaklata Path, Survey, Beltola, Guwahati – 781028, Assam, India has the following facilities:**

1. Biological sample processing and storage facility.
2. DNA extraction facility – With physical separation between low-quality and high-quality DNA sample processing.
3. Electrophoresis and general solvent handling facility.
4. PCR facility (Gradient Thermal Cyclers).
5. Genetic data analysis facility.
6. Enzyme Immunoassay Facility.
7. Power back-up system for uninterrupted operations of thermal cycler, electrophoresis, and freezers etc.

**WGL has in-house expertise on following areas in wildlife research and forensics:**

1. Species identification of wildlife species from various morphologically indistinguishable biological materials, such as blood, tissue, horn, bone, faeces, hair, feather, eggshell, urine etc. through DNA sequencing based genetic marker technology.

2. Identification of individuals of a species through Short Tandem Repeat (STR) or microsatellite genotyping (DNA fingerprinting) for multiple wildlife species, including greater one-horned rhino, Asian elephant, Western hoolock gibbon, tiger, leopard, snow leopard, and a variety of other feline carnivores etc.
3. Identification of gender through genetic analysis of biological samples from various species.
4. Development and standardization of various molecular markers required for genetic analysis.
5. Determination of paternity and kinship relations between individuals of species such as Asian elephant, greater one-horned rhino, tiger etc.
6. Genetic census or genetic capture-recapture based population size estimation of wildlife species.
7. Population genetic research on evaluation of genetic diversity, identification of source populations, determination of gene flow and identification of migrants etc.
8. Expertise in genetic sampling from a variety of biological material and working with trace amount of poor-quality DNA samples for forensic investigations.
9. Field expertise in undertaking genetic sampling and ecological monitoring studies in general.

# TYPES OF SERVICES

**Wildlife Genetic and Forensic Analysis**

**i. DNA analysis of wildlife crime cases, including:**

a) Identification of wildlife species from biological samples. This may include identification of authentic wildlife material such as rhino horn, ivory, snake venom, meat, bone, hair, saliva etc.

b) Individual identification (DNA profiling) and individual matching of samples with scene of crime.

c) Determining number of animals from multiple biological samples (e.g. pieces of bone, teeth, claws etc.).

d) Parentage testing of captive Asian elephants.

e) Determining source of origin (for greater one-horned rhino).

**ii. Various requirements of the Forest Department for wildlife and protected area management, including:**

a) Development of DNA database for wildlife species.

b) Wildlife population estimation through fecal DNA analysis.

c) Analysis of genetic diversity and genetic connectivity between wildlife populations, inbreeding detection, hybridization detection.

d) Identification of key wildlife source populations and identification of Conservation Significant Units (CSUs).

**iii. Assessment of wildlife corridors and connectivity between key wildlife habitats.**

**iv. Estimation of population size of various species in the protected areas through DNA analysis.**

**v. Undertake biodiversity assessment through environmental DNA analysis.**

**vi. Genetic management of captive stock of various wildlife species and scientific planning of conservation breeding, selection of genetic stock, identification of species etc.**

**Incident Response**

Services related to responding to wildlife crime incidents including:

i. DNA sampling from wildlife crime scene and seizures.

ii. Genetic sampling of wildlife articles in govt. repositories etc.

**Training and Consultation**

Mentoring various line departments and skill development in:

i. Collection of DNA evidences from the scene of crime.

ii. Understanding the scope of DNA technology in Wildlife genetic research and forensic analysis.

iii. Awareness generation on wildlife crime investigation and control through application of DNA and other molecular technology.

# SAMPLE COLLECTION, PRESERVATION & TRANSPORTATION TO THE LABORATORY

Given below is the general protocol for the collection, preservation and transportation of various types of samples for the purpose of DNA analysis in the Laboratory. For detailed protocols, the laboratory may further be contacted. The WGL, Aaranyak also offers on-site support toward sample collection, based on prior information and availability of the experts.

**BLOOD**

- Blood may be drawn from live animals or carcasses. Any restraining of animal or drawing of blood must be done in the presence of a qualified Veterinarian only.
- Blood must be drawn using sterile disposable syringe and transferred immediately to a K3 EDTA vacutainer (**Fig. 1**).
- The sample vial should be labelled with permanent markers with necessary information such as sample no., case reference, date, place of collection etc. as applicable.
- The blood sample vial should be stored in ice box till it is transferred to a refrigerator.
- The sample should be properly packed inside an ice box/ Styrofoam box with ice packs and transported to the laboratory at the earliest possible.
- The collection should be performed using sterile gloves and facemasks.
- Sanitization of the hands before and after the collection is necessary.
- In the laboratory, the samples shall be kept in deep freezers for long-term preservation.


Figure 1. K3 EDTA vacutainer to be used for collection of blood samples.

**BLOOD STAIN**

- Biological evidence in form of blood stains can be obtained from various materials such as knifes and other tools, soil, vegetation in the scene of crime, clothes (**Fig. 2**) etc.
- For soil samples with blood stain, particles of soil should be placed inside a sterile plastic container (**Fig. 3**).
- For vegetation or clothes containing blood stains, put the parts of the plant or cloth inside a plastic zip-pouch (**Fig. 3**) using sterile disposable gloves.
- For blood stains on knives or any other mechanical tool, scrap the stains using a sterile blade and collect the scapings inside a sterile plastic container.
- Label the container/ zip-pouch using permanent marker with the necessary information such as sample no., case reference, date of collection, place of collection etc.
- The sample container/ zip-pouch can be placed inside a plastic box and transported to the laboratory.
- Use of sterile disposable gloves is necessary to avoid contaminating trace quantity of samples. In case of multiple samples, changing of gloves is necessary to avoid sample cross-contamination.
- In the laboratory, the samples shall be kept in deep freezers for long-term preservation.

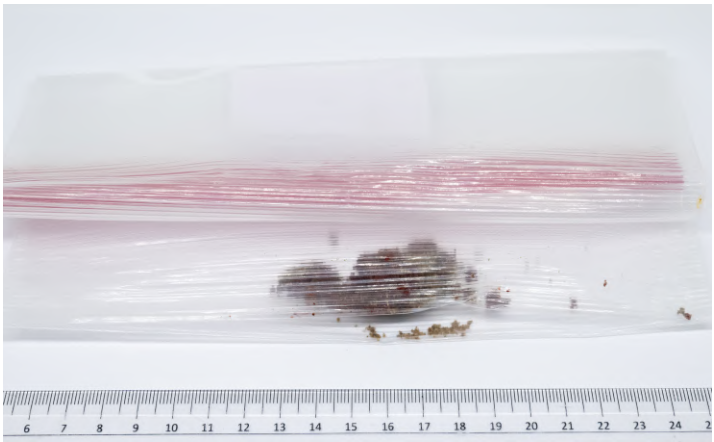
(a)

(b)

(c)

(d)

Figure 2. Examples of blood stains on various types of material: (a) Blood stain on knife; (b) Blood on soil; (c) Blood on vegetation; (d) Blood stain on cloth.



(a)

(b)

Figure 3. Collection of sample containing blood stains: (a) Soil; (b) Vegetation.

**SOFT TISSUES**

- Soft tissues include meat samples, including cooked and processed meat, smoked meat (**Fig. 4**) etc.
- A small piece of the sample (e.g. 1 to 2 cm on each side) should be cut with a sterile blade and placed inside a sterile plastic air-tight container containing ethanol or edible salt.
- Label the container using permanent marker with the necessary information such as sample no., case reference, date of collection, place of collection etc.
- For multiple samples, separate sterile blades should be used. In case of using non-disposable blades, cleaning the blade thoroughly with bleach and water followed by wiping with alcohol is required to avoid sample cross contamination.
- If the sample is kept for longer duration in the field, keeping it inside a refrigerator is advisable.

- No refrigeration or ice is required; in case the sample is transported to the laboratory within 1 to 2 days' time.
- In the laboratory, the samples shall be kept in deep freezers for long-term preservation.

Figure 4. Various types of soft tissues.

**SKIN**

- Skin sample may be collected from carcass or preserved and processed material (**Fig. 5**)
- A small piece of the skin (3-5 cm2) may be cut with a clean scissor or blade and place the piece inside a plastic container or plastic zip-pouch.
- Label the container/ zip-pouch using permanent marker with the necessary information such as sample no., case reference, date of collection, place of collection etc.
- For multiple samples, separate sterile scissor or blades should be used. In case of using non-disposable scissor or blades, cleaning them thoroughly with bleach/ water and wiping with alcohol is required to avoid sample cross contamination.

- No refrigeration or use of preservative is required during collection or transport of the sample to the laboratory.
- In the laboratory, the samples shall be kept in deep freezers for long-term preservation.


Figure 5. Collection of skin samples.

**IVORY/HORN/BONE/TEETH**

- For hard material such as ivory, horn, bone, teeth or any article suspected to be made from such wildlife material (**Fig. 6**), sample can be collected through use of mechanical drills.
- The item should be placed on a clean piece of paper and thorough surface cleaning by wiping using paper tissue or clean piece of cloth should be done.
- The drill bit should be wiped thoroughly with alcohol prior to use. For multiple samples, separate drill bits should be used, or the same bit should be cleaned thoroughly with bleach/ water first following by alcohol wiping should be done.
- Make a few drill holes into the material to collect the spiral-shaped sample (**Fig. 7**), homogenized material into sterile plastic containers.
- Label the plastic container using permanent marker with the necessary information such as sample no., case reference, date of collection, place of collection etc.
- The samples can be transported to the laboratory without any preservative or refrigeration.
- In the laboratory, the samples shall be kept in deep freezers for long-term preservation.

(a)

(b)

(c)

Figure 6. Various types of hard material such as: (a) Horn; (b) Hoof; (c) Pieces of bone.

(a)


(b)

Figure 7. Sampling of rhino horn and spiral-shaped samples collected from horn article:
(a) Use of drill machine to collect rhino horn sample; (b) Sprial-shaped sample from rhino horn.

**FECES (DUNG/SCAT/PELLETS)**

- The collected fecal samples (**Fig. 8**) should not be more than 1 to 3 days old, depending on climatic conditions, such as heat, moisture etc.
- For fecal samples, any of the following preservatives may be used for collection:
  a) DMSO-Tris-EDTA saturated salt (DETS) solution in leak-proof plastic container.
  b) 70% ethanol in leak-proof plastic container.
  (c) Dry preservation in air-tight plastic zip-pouch with silica gel (desiccant).
- Utmost precaution should be taken to avoid sample cross-contamination, in case multiple samples are collected, stored and transported together.
- Use of separate disposable gloves while collecting the samples is recommended to avoid sample cross contamination.
- Alternatively, disposable bamboo forceps developed by WGL may be used for collection of fecal samples to plastic container containing the preservatives (**Fig. 9**).
- Label the container using permanent marker with the necessary information such as sample no., date of collection, place of collection etc.
- Samples kept in DETS buffer should be kept in dark away from direct sunlight.
- Samples should be transported to the laboratory at the earliest possible.
- In the laboratory, the samples shall be kept in deep freezers for long-term preservation.

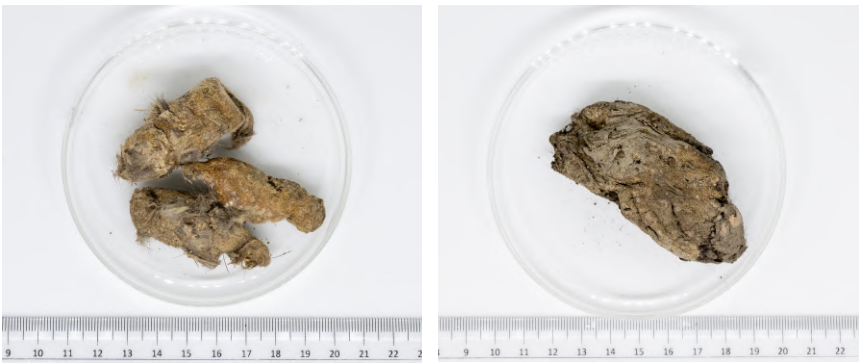


Figure 8. Fecal samples of various animal origin.

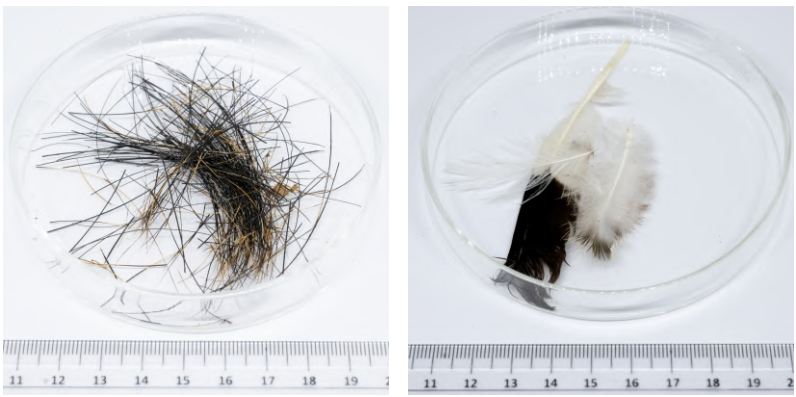
(a) (b)

(c) (d)

Figure 9. Various types of plastic containers that may be used for fecal sample collection: (a) Empty and sterile collection vial available in any chemist shop; (b) Collection vial containing silica gel crystals in a cloth bag; (c) 50 ml falcon tube containing silica gel crystals in a cloth bag; (d) 50 ml falcon tube containing 70% ethanol as preservative.

**HAIR/FEATHER**

- It is essential that the whole hair/ feather (**Fig. 10**) is collected, without cutting it. Plucked hair with hair root/ feather or fallen feather may be collected for the purpose of obtaining DNA.
- Collect the hair/feather in sterile plastic container or plastic zip-pouch bag.
- Label the container using permanent marker with the necessary information such as sample no., date of collection, place of collection etc.
- The samples can be transported to the laboratory without any preservative or refrigeration.
- In the laboratory, the samples shall be kept in deep freezers for long-term preservation.



(a) (b)

Figure 10. Hair and feather samples and suspected articles from such origin: (a) hair samples; (b) Different types of feathers (shed).

**SALIVA**

- Saliva may be collected for multiple investigations, including from surrounding bite marks from unknown predators.
- Use a sterile cotton swab (**Fig. 11**) and rub the swap on the desired area (surrounding bite mark, buccal swab etc. as applicable) and collect it in the original swab cover or cut the tip of the swab into a sterile plastic container.
- Use of face mask and sterile disposable gloves is essential during the collection procedure.
- Label the container using permanent marker with the necessary information such as sample no., date of collection, place of collection etc.
- The samples can be transported to the laboratory without any preservative or refrigeration. However, for long-term storage in the field, refrigeration is required.
- In the laboratory, the samples shall be kept in deep freezers for long-term preservation.


Figure 11. Sterile cotton swab for saliva/ mucosal sampling.

# PRECAUTIONS FOR DNA EVIDANCE HANDLING

1. **Storage**
   i. It is essential that any sample intended to be collected for DNA analysis should be kept under cold and dry condition or in preservative as recommended above.
   ii. In field conditions, where freezers or ice-preservation is not available, use of 70% Ethanol, DETS buffer or Edible salt (NaCl) in sterile plastic containers may be a practical approach.
   iii. For samples which are already dry in nature, such as ivory, horn, bone, teeth, hair, feather etc., temporary storage in sterile plastic containers or plastic zip pouch under room temperature and away from direct sunlight is possible. However, for long term storage, transporting to a facility containing deep freezers is recommended.
   iv. Proper labelling of the container/ zip-pouch with alcohol-proof permanent markers is essential.
   v. All the sample containers/ zip-pouch should be covered with cloth, sealed and stamped.
   vi. All the disposable items used during collection of samples, such as gloves, masks, blades etc., should be disposed with proper precaution. All the non-disposable items, such as drill machine, cutters, forceps etc. should be cleaned thoroughly with bleach and water, followed by wiping with ethanol to remove any traces of DNA in these items.

2. **Transport**
   i. Packaging of samples of any form should be done with utmost care, to avoid spillage and sample cross-contamination.
   ii. Avoid exposing the material to excessive moisture, heat or direct sunlight during transportation.
   iii. Maintain a detailed record of who collected and handled the samples, who transported the samples to the laboratory and who received the package in the laboratory, to maintain chain of custody and avoid any tampering of evidence.
   iv. The package should be sealed and stamped, along with authorization certificate to the laboratory for breaking the seal through proper photography documentation.

3. **Avoiding Contamination from other DNA sources**
   i. Avoiding contamination of the samples from other DNA sources, including cross-contamination needs to be ensured at several stages of collection, transport and laboratory work.

ii. During collection, avoid contaminating the sample with DNA from the collector or anyone handling the samples. This can be ensured by minimum handling of the samples, use of sterile disposable gloves or clean tools (forceps, blades etc.) (**Fig. 12**) as applicable.

iii. The storage container/ pouch should be pre-clean/ sterile and should be air-tight to avoid accidental opening and spillage during collection, storage or transportation of samples.

iv. For multiple samples collected and transported together, utmost precautio should be taken to avoid mixing of samples, through handling, spillage, aerosol contamination etc. by ensuring that the samples are handled using precautions mentioned above, the containers/ pouches of individual samples are air-tight and leak proof and a sample, once collected should not be opened again, unless it reaches the laboratory.

(a)


(b)


(c)

(d)

Figure 12. Clean and sterile items, such as: (a) Disposable gloves and various tools; (b) Blood collection syringe; (c) Scalpel; (d) Forceps that may be used for collection of samples.

# SAMPLE SUBMISSION GUIDELINE & CHAIN OF CUSTODY

The following are the addresses and contact details of WGL, Aaranyak and its authorized expert contact for submitting samples for DNA analysis.

**Laboratory Address and Authorized Expert:**

Sample for analysis, along with necessary enclosed documents, should be handed over to the authorized person in the laboratory at the following address:

**Wildlife Genetics Laboratory, Aaranyak**
1st Floor, House No. 12, Kanaklata Path
Survey, Beltola, Guwahati – 781028, Assam, India.
Tel: 0361-3513461
Email: wgl@aaranyak.org

Any service request in this regard, should be addressed to:

**Udayan Borthakur**
**Director & Head**
**Wildlife Genetics Division, Aaranyak**
1st Floor, House No. 12, Kanaklata Path
Survey, Beltola, Guwahati – 781028, Assam, India.
Tel: +91 9435728717
Email: udayan@aaranyak.org , udayan.borthakur@gmail.com

**Documentation and Chain of Custody:**

1. Request for analysis should be accompanied by a **request letter** from the Investigating Officer/ Authorized Govt. official, along with the details of the case and court order, if applicable.
2. All service requests should be accompanied by the details of Cheque/ Demand Draft/. NEFT/RTGS in favor of 'AARANYAK' payable at Guwahati, as per service costs and mode of payment mentioned below.
3. **Authorization letter** should be issued by the concerned official to the personnel transporting the sample to the laboratory.
4. All samples should be sent in sealed packages/ containers. The authorized person in the laboratory shall examine all the documents and the sealed sample packages prior to acceptance. The laboratory shall not accept any sample with seal broken at the time of submission.

5. An **Authorization Certificate** (Annexure II) to the laboratory should be issued to break and open the sealed sample package.
6. All service requests should be accompanied by the "**service request form**" presented in the annexure II of this document.
7. A copy of the service request form, duly signed by the authorized representative of the laboratory, shall be returned to the requesting agency.
8. Upon receiving a service request, along with other necessary submissions, laboratory shall assign a unique laboratory ID to the submitted samples and shall use the same for all analysis concerned. The unique ID register is maintained by the authorized expert of the laboratory. The information required for carrying out the laboratory analysis shall be provided to the laboratory staff on need-to-know basis.
9. The report produced by the laboratory shall contain all the necessary information related to the investigation, photographs of samples, details of methodology, results and conclusion, along with a cover letter from the authorized expert and an invoice against the costs of the analysis.
10. A scanned copy of the cover letter, laboratory analysis report and invoice for the analysis shall be emailed to the requesting official from the authorized contact details of WGL, along with anyone copied during the submission of request. The hard copies of the original documents shall be mailed to the requesting official through registered post.

# SERVICE COSTS & MODE OF PAYMENT

| ANALYSIS TYPE | BROAD METHOD | UNIT | COST |
|---|---|---|---|
| **1. Identification of wildlife species** | Mitochondrial DNA marker sequencing | Per sample | Rs. 7050.00 |
| **2. Gender identification of mammal species** | Size-based Sex-chromosome linked marker analysis | Per sample | Rs. 2050.00 |
| **3. Individual identity (DNA profiling) of mammal species** | Microsatellite fragment analysis using fluorescent-labeled PCR primers (available for select wildlife species) | Per sample | Rs. 10,500.00 |
| **4. Individual matching of samples (forensic matching of a pair of samples)** | Microsatellite fragment analysis using fluorescent-labeled PCR primers (available for select wildlife species) | Per pair of samples | Rs. 18,500.00 (Rs 7,500.00 for each additional sample) |
| **5. Parentage analysis of a pair of samples of captive Asian elephant** | Microsatellite fragment analysis using fluorescent-labeled PCR primers (higher number of markers than individual identify profile) | Per pair of samples | Rs. 35,000.00 (Rs 12,500.00 for each additional sample) |

Mode of payment:

- All payments to be made in advance, in form of Cheque/ Demand Draft/ NEFT/RTGS in favor of '**AARANYAK**' payable at Guwahati:

  Name of the beneficiary: AARANYAK

  Name of the Bank : Axis Bank Ltd.

  Bank Branch City : Guwahati, Assam, India

  Name of Branch : Survey

  Account Number : 925010041730633

  IFS Code : UTIB0003348

  MICD Code: 781211997

  Account Type: Savings Account

- No cash payment shall be accepted for any of the services provided by WGL, Aaranyak.

Aaranyak has been registered under Section 12AA of Income-tax Act, 1961 and the provisional registration no: AAAAA3181FE20214, dated 31-05-2021, till the assessment year 2026-27. As per the Notification No.12/2017-Central Tax (Rate) dated 28th June 2017 exempts services provided by entity registered under Section 12AA of the Income-tax Act, 1961 by way of charitable activities from whole of GST vide entry No. 1 of the notification, which specifies that "services by an entity registered under Section 12AA of Income-tax Act, 1961 by way of charitable activities" are exempt from whole of the GST. Thus as per this notification, Aaranyak satisfy the condition notified as preservation of environment including watershed, forests and wildlife.

# GENERAL RULES OF SERVICE

1. WGL, Aaranyak reserves the right to accept or refuse service requests based on maintenance of documentation and chain of custody in case of the case works.
2. Any staff of Aaranyak, other than the authorized contact of WGL, Aaranyak, shall not be contacted directly for any information related to a forensic investigation.
3. The results of an analysis shall be shared directly with the requesting official, along with anyone copied during the submission of request.
4. No cash payment shall be received by WGL, Aaranyak or any of its staff for laboratory analysis or on ground support for collection of samples. Any payment to be made should be through the mode of payment mentioned in this document only.
5. The average time for completion of analysis and submission of a report may range from one to five weeks, depending on the type of analysis, requirement of R&D and repeat analysis etc. For crucial forensic cases, processing may be done in priority mode.
6. The above costs include sample processing and storage in the laboratory, DNA extraction, specific analysis as mentioned, report preparation and submission.
7. The above costs do not include the costs of field visit for incident response and sample collection. Such costs must be borne by the requesting agency as per standard office norms or reimbursement as per actual expenditures.
8. For a large number of samples of 12 or more, the laboratory may be contacted in advance to know the reduced costs in this regard.
9. WGL, Aaranyak is not responsible for failure in obtaining results due to poor sample quality. However, the lab normally carries out repeat analysis as per standard laboratory norms and adopted methodologies, to ensure obtaining crucial data for forensic investigations and to ensure quality control of the results produced.
10. For the costs of any additional services listed in the types of services above, we encourage contacting the laboratory directly for further details.
11. The laboratory may provide sample collection kits free-of-cost for any forensic DNA sampling upon prior request by the investigating agency concerned.
12. WGL, Aaranyak reserves the right to modify and amend its service guidelines, along with the costs of various analyses. The latest version of the service guideline shall be available on the website of Aaranyak (www.aaranyak.org).
13. Any comments, suggestions and feedback should directly be communicated to the authorized contact of WGL, Aaranyak.

ANNEXURE I

**GOVERNMENT OF ASSAM Memo. E. 656643/523 dated 4th August 2025 notifying Wildlife Genetics Laboratory, Aaranyak and Mr. Udayan Borthakur, Director and Head, Wildlife Genetics Division, Aaranyak under Section 329 (4) of BNSS 2023.**

GOVERNMENT OF ASSAM
ENVIRONMENT, FOREST AND CLIMATE CHANGE DEPARTMENT
DISPUR, GUWAHATI -06.

ORDERS BY THE GOVERNOR
NOTIFICATION

E. 656643/523: In exercise of the powers conferred by section 329(4)(g) of the Bharatiya Nagarik Suraksha Sanhita, 2023, the Governor of Assam is pleased to notify the following-

Wildlife Genetics Laboratory, Aaranyak, having its registered office at 13 Tayab Ali Bylane, Bishnu Rabha Path, Beltola Tinlali-Bhetapara link Road, PO: Beltola, Guwahati 781028 and its DNA Laboratory at 1st Floor, House No. 12, Kanaklata Path, Survey, Beltola, Guwahati-781028, Assam, India along with the Director, Shri. Udayan Borthakur, Head, Wildlife Genetics Division, Aaranyak to facilitate wildlife genetics and wildlife forensic analysis.

Digitally signed by
MAHENDRA KUMAR YADAVA
Date: 04-08-2025 11:44:52

Special Chief Secretary to the Govt. of Assam,
Environment, Forest and Climate Change Department

**Memo. E. 656643/523** Dated Dispur, the....., 2025

Copy for kind information to:

1. The Principal Chief Conservator of Forests & Head of Forest Force, Assam, Panjabari, Guwahati-37.
2. The Principal Chief Conservator of Forests (Wildlife) & Chief Wildlife Warden, Assam, Panjabari,Guwahati-37.
3. The Spl. Director General of Police, CID, Assam
4. The Addl. Principal Chief Conservator of Forests, Upper Assam Zone/ Lower Assam Zone.
5. The Addl. Principal Chief Conservator of Forests & CHD, Karbi Anglong Autonomous Council/ BTAD, Kokrajhar/ Dima Hasao District, Haflong
6. Inspector General of Police, (MPC) Ulubari, Guwahati.
7. The PPS to Hon'ble Chief Minister, Assam for the kind apprisal of Chief Minister.
8. The Staff Officer to the Chief Secretary, Assam, for the kind apprisal of Chief Secretary.
9. All Divisional Forest Officers.
10. The Superintendents of Police, all Districts.
11. The P.S to Hon'ble Minister, Environment, Forest & Climate Change etc., Assam, for the kind apprisal of Minister.

**(e-signed)**
Special Chief Secretary to the Govt. of Assam,
Environment, Forest and Climate Change Department

**ANNEXURE II**



## SAMPLE SUBMISSION FORM

**Wildlife Genetics Laboratory, Aaranyak**
1st Floor, House No. 12, Kanaklata Path
Survey, Beltola, Guwahati – 781028, Assam, India.
Tel: 0361-3513461; Email: wgl@aaranyak.org

**A. Requesting Agency Information** (Authorized contact will receive the analysis report):

Name & Rank of IO: Contact No:
Forwarding Authority:
Postal Address:
P.O.: PIN: P.S.:
District: State:
Mobile no.: Email:
Case No.: Date:

**B. Sample Information:**

**Case History** (if applicable):

| |
|---|
| |

| Sl. No. | Date of Collection | Place of Collection | Sample Type (Blood, meat, hair etc.) | Number of package | Sample container label information |
|---|---|---|---|---|---|
| | | | | | |

**C. Analysis Required** (Please refer to the TYPES OF SERVICES in the service guideline of WGL):

| |
|---|
| |

**D. Payment Information:**

| | |
|---|---|
| Amount paid in Rs.: | |
| Cheque/ DD/NEFT/RTGS details: | |

**E. Sample Disposition**:

[Failure to notify WGL in writing of a request for storage beyond the routine period will be considered authorization to discard or destroy the samples (s)]

RETURN SAMPLE ☐ DISCARD SAMPLE ☐

**F. Chain of Custody** (use only if required):

| DATE | RELINQUISHED BY | RECEIVED BY | PURPOSE OF TRANSFER |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

**Date:**
**Place:**

**Signature of Investigating Officer & Seal**

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**G. For WGL office use only:**

| | | | |
|---|---|---|---|
| Received by: | | WGL Unique ID: | |
| NOTE: | | | |

Ref. Letter/Memo No.: Date:

## AUTHORIZATION CERTIFICATE

Certified that the Wildlife Genetics Laboratory, 1st Floor, House No. 12, Kanaklata Path Survey, Beltola, Guwahati – 781028, Assam, India, has the authority to examine the Case Exhibits of

P.S.: .....

Case No.: .....

Dated: ..... U/S:.....

..... and also to take portions thereof or take them to pieces for the purpose of examination.

Signature, Designation & Stamp
of the Forwarding Authority

This guideline along with submission form and the authorization certificate soft copy can be downloaded by scanning here:


**REGISTERED ADDRESS**
Wildlife Genetics Laboratory, Aaranyak
13 Tayab Ali Path, Bishnu Rabha Path,
PO: Beltola, Guwahati 781028, Assam, India.
Tel: 0361-2230250
www.aaranyak.org

**LABORATORY ADDRESS:**
Wildlife Genetics Laboratory, Aaranyak
1st Floor, House No. 12, Kanaklata Path
Survey, Beltola, Guwahati – 781028, Assam, India.
Tel: 0361-3513461
Email: wgl@aaranyak.org

**AUTHORIZED EXPERT**
Udayan Borthakur
Director & Head
Wildlife Genetics Division, Aaranyak
Tel: +91 9435728717
Email: udayan@aaranyak.org , udayan.borthakur@gmail.com