



Rainforest Trust Field Sampling for Conservation Code of Ethics

The Rainforest Trust Field Sampling for Conservation Code of Ethics was developed in 2016 to ensure activities we support to further conservation efforts will not negatively impact species populations, particularly those which are listed as IUCN threatened species.

The PARTNER and its representatives (e.g., field assistants, volunteers and staff) are expected to behave humanely toward animals they encounter in their field work, and their project will be evaluated in this regard by RAINFOREST TRUST.

As a conservation organization, we prioritize projects based on the best available scientific information. We understand there are times when the collection of voucher specimens and other samples are necessary and can play an important role in helping to identify and develop conservation strategies for species. However, we are also aware that with developing technologies and improved sampling techniques, the need to lethally sample animals and collect large numbers of individuals has become less necessary.

Therefore, Rainforest Trust funding cannot be used for lethal collection of mammals, birds or any IUCN threatened species or a species thought to warrant a listing under a threatened category. For projects where collection of animals is deemed necessary, the applicant should consider finding alternative sources of funding. Under exceptional circumstance Rainforest Trust funding may be used to support limited lethal collection of non threatened species, excluding mammals and birds, after full review and approval of collection methods by Rainforest Trust.

All parties intending to capture, handle and collect specimens from live or dead animals are required to obtain the appropriate permits and authorizations from the relevant government agencies and ministries in the country where these activities will occur. In addition, all parties should have knowledge of, and be fully prepared to, implement ethical, biosecurity, and health and safety standard operating procedures relevant to each taxon and species to minimize impacts to animal welfare and ecosystems, and to manage disease risk (i.e. prevent transmission of diseases and parasites to and between animals and locations as well as to humans during capture, handling and specimen collection). This is especially important when working with amphibians in order to stop the spread of chytridiomycosis.

Non-lethal specimen collection

Non-lethal collection of biological specimens is eligible for Rainforest Trust support and will be reviewed on a case-by-case basis. Only trained and experienced



personnel, or those under direct supervision, should be involved in the capture of, and sample collection from, live animals. The applicant must choose the method that causes the least amount of stress, suffering, and mortality to the individual animal, especially during capture, handling, marking, and release. Examples of non-lethal methods that may potentially be supported include: capture and release of vertebrate species for the purposes of documentation and identification using conventional trapping techniques such as mist nets and live traps (e.g., Sherman traps, weirs, pitfall traps, cage traps, etc.). Rainforest Trust may also support non-lethal tissue sampling such as collection of blood, feathers, whiskers, hair/fur, or feces. We recognize that live trapping and tissue sampling methods can result in the unintentional death of animals. We require partners seeking support for these types of non-lethal collection to describe their methods to Rainforest Trust, including which species are targeted and which species they expect to catch. We reserve the right to not fund these activities if we do not feel they meet accepted animal care standards. Project leads should provide evidence that accepted animal care standards are being followed. If a project is being conducted by an institution with an animal care and use committee, we request that partners supply details of committee review of the proposed non-lethal collecting methods. If these methods have not been reviewed by the institution's animal care and use committee, we request an explanation of why this has not occurred.

The following invasive and non-invasive methods for tissue sample collection of mammals will be considered on a case by case basis:

Invasive Methods

Ear Notching. This technique provides both tissue and hair samples. It requires restraint of the animal by 1 or more persons, exposing the ears, and taking a small half-circle notch from the margin of the ear where it is thinnest and with the least number of blood vessels.

Hole Punching. This is not a technique for obtaining tissue samples. Complete holes should not be punched through the ear unless it is for fitting of an identification tag. This is to prevent a claw or vegetation catching in the hole and tearing the ear.

Biopsy Dart. This method is used for a variety of large mammals and most frequently to remotely obtain skin and blubber samples from dolphins and whales. The most useful samples contain DNA from the blubber/epidermis interface. Dolphin calves should not be targeted using this method at a close distance less than 1.5 meters from the boat.

Biopsy Pole. A biopsy pole is made of extendable sleeves that enable pole length to be adjusted from 1.5 to 3 meters. Bow-riding dolphins, for example, can be sampled when they are close to the water surface, aiming at the body areas lateral to the base of the dorsal fin.



Skin swabs. Skin swabbing is a non-injurious technique for obtaining DNA samples from cetaceans using a specific sampling apparatus.

Skin scraping. Skin samples can be obtained from dugongs and manatees using a hand scraper of a stainless steel cylinder with a single grater tooth to lightly scrape the surface of the skin. Skin scraping is not an accepted method for cetaceans.

Non-invasive Methods.

Collection of sloughed skin. For whales, it is possible to collect skin from an individual passively. When individuals are surface-active (tail slap, pectoral fin slap, or breach), they dislodge small pieces of skin, which can be used for genetic analysis. Skin fragments can be collected from the water column using a net. This technique is not suitable for small cetacean species such as dolphins.

Carcasses. DNA will degrade if the tissue is already in an advanced state of decomposition or exposed to acids such as those from the bile duct or the stomach. It is advised to collect tissue samples from carcasses in as fresh a state as possible. The type of tissue to be collected depends on the type of study it is needed for and the means of preservation and storage. Areas of the carcass that have been exposed to the sun for long periods and/or to scavengers like flies, birds and burrowing invertebrates should be avoided. Direct sunlight damages DNA and proteins and scavengers can contribute their own proteins and DNA to the tissue, making interpretation of biochemical studies difficult.

Collection of plants and fungi

We will consider projects that include a component of essential collection of plants or fungi recognizing that in most cases these collections are non-lethal with minimal impact. Special conditions may apply for species listed as threatened in the IUCN Red List of Threatened Species (Critically Endangered, Endangered, or Vulnerable).

All lethal collections for species such as terrestrial orchids, epiphytes, etc. must be undertaken in a manner that will not significantly impact wild populations. Lethal collection of entire plants may only occur if large populations are documented to occur in the area.

Collection of Invertebrates

The use of Rainforest Trust funding for the lethal collection of invertebrates will be considered on a case by case basis. Minimal collection activities may be supported if they will not have a significant impact on the population of the species. Any collection activities that are supported must adhere to best practices for invertebrate collection, such as [“A Code of Conduct for Collecting Insects and Other Invertebrates” in the British Journal of Entomology and Natural History.](#)