



Innovative Biopsy Harvesting Tools & Systems
Custom Tag Head & Tether Solutions to Increase Retention

NEW PRODUCT RELEASE



How much does it cost you to acquire biopsy samples from rare or endangered species?

Do you require multiple attempts or tissue samples, needlessly injuring your test subjects?

Missed or failed sampling opportunities waste your precious time and money!

Introducing: the **TISSUEGRAB™ Biopsy Dart** “Patent No. 10,376,248” is a gamma-irradiated device designed to acquire a 1.5 cm³ tissue sample while eliminating or significantly reducing repetitive sampling.

Current biopsy devices are expensive so many researchers attempt to re-use them. Existing systems are manufactured from metal that can rust in the marine environment. Current devices are also ineffective, often requiring multiple sampling attempts and/or multiple samples. This can needlessly injure or stress test subjects. These factors can lead to sample or animal contamination¹ and potentially cause routes for infection, illness, or even death of test subjects².

Designed by fisheries biologists who were dissatisfied with current biopsy sampling systems, the **TISSUEGRAB™ Biopsy Dart** is a gamma-irradiated, minimally invasive, single-use biopsy sampling device designed to overcome the numerous short comings of existing biopsy sampling devices.



Pre-assembled dart tip and base can be separated after sample acquisition or bagged and frozen intact



TissueGrab™ biopsy darts are gamma-irradiated and enables consistent, repeatable sample

¹ Champlot S, Berthelot C, Pruvost M, Bennett EA, Grange T, Geigl E-M (2010) An efficient multistrategy DNA decontamination procedure of PCR reagents for hypersensitive PCR applications. *PLoS ONE* 5(9): e13042.

² Ford J (2016) Killer whale post mortem. Animal Health Centre, Ministry of Agriculture, British Columbia, Canada. *Final Report AHC Case: 16-1760*.

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The **TISSUEGRAB™ Biopsy Dart** is composed of medical grade nylon designed to “grab and hold” tissue samples during extraction. **TISSUEGRAB™** Features include: a Flared chamber that allows tissue to expand as it enters dart tip; Barbs in the chamber section; Rough interior of tunnel and chamber; and, Recessed cutouts in chamber to prevent positive pressure buildup. Biopsy samples are removed by unscrewing the base from the dart tip, preventing samples from being contaminated. The back of the base is threaded to accept a standard M8 bolt.



TISSUEGRAB™ Biopsy Dart include dart tip and base mounted to an M8 bolt.



OTHER **TISSUEGRAB™** features include:

- Minimally invasive
- Safely acquire biological tissue samples
- Several features to reliably acquire tissue samples on the first attempt (i.e., one strike, one sample)
- Sample volume of 1.5 cm³ suitable for multiple assays from a single sample
- Pre-assembled, gamma-irradiated, packaged, single-use tips helps prevent sample cross contamination, injury and/or infection of the test subject
- Single-use tips can be stored with the sample intact for off-site analysis (i.e., tag it and bag it)
- Certain species (e.g., sharks in mating season) pose extra challenges and in these cases, we recommend making a starter incision with a sterile instrument
- Mounted on a tethered pole, harpoon, lance, spear, arrow or other striking device using universal M8 (metric) hex bolt (1.25 x 70 mm)
- Scalable to meet requirements of particular species and body sizes
- Tapered and sharpened tips; and novel design allow for clean exit wounds (e.g., wound size insignificant compared to wounds caused by cookie cutter sharks *Isistius brasiliensis*)
- Single-use screw-on tips allow for efficient sample acquisition, storage and documentation (e.g., sample ID can be written on the tip)
- 30 day money back guarantee for unopened devices.

Contact for ordering information at: TissueGrab@gmail.com
Terms of purchase shall be outlined in our standard invoice.

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