

DNA Sampling Protocol

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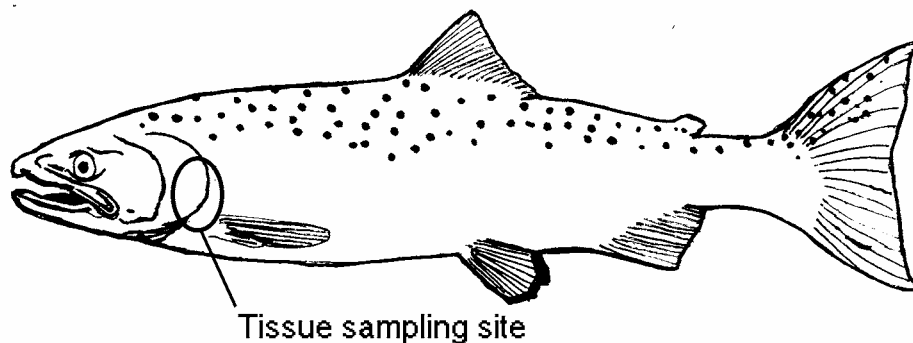
DNA tissue samples should be taken using the protocols below and submitted to the Molecular Genetics Lab, Pacific Biological Station, Nanaimo. Samples should be submitted with proper vial labeling and documentation.

1) Sampling instructions fresh tissue

- Use a common paper punch to take a tissue sample from the operculum of fish (see below) taking only one punch per fish unless otherwise noted.
- Place punch in the sample bottle containing 95% non-denatured ethanol solution. Do not dilute the ethanol. Do not use methanol or Reagent Alcohol solutions (i.e rubbing alcohol or denatured alcohol) because these chemicals disrupt DNA extraction. Do not overload the vials because DNA will degrade. Vials should contain no more than $\frac{1}{4}$ tissue to $\frac{3}{4}$ ethanol.
- Label each bottle with geographic location, statistical area, species, date and sampler. It is important that all this information be included for the sample to be useful to us.
- If labels placed inside vials-- ***Do not use paper-based waterproof paper (ie Rite in the Rain©) because chemicals interfere with DNA extraction *** Plastic paper is ok.
- If labels attached to outside vials cover the label with clear tape to ensure the writing does not get dissolved by preservative or use solvent resistant markers.
- Do not get preservative in food or drinks.

2) Sampling instructions for previously frozen tissue

- Use the same sampling procedure as above except that a small piece of muscle, heart, or liver should be sampled instead of an opercular punch. Do not add more the $\frac{1}{4}$ tissue to $\frac{3}{4}$ ethanol per vial.



3) Vial numbering

- Each vial should be given a unique alphanumeric code by collection agencies/organizations. For example, West coast of Vancouver Island Troll fisheries sample collections from 2001 collected by DFO may look like the following:

01WCTDFO56

Year + Fishery code + collection agency + vial number
(2digits)+(3digits)+(3digits)+(>=1digit)

- The fisheries code should reflect the type of fishery where the samples are collected. For example, a samples are collected in Area 12 gillnet and seine fishery maybe the code would be “JSC” standing for Johnstone Strait Commercial. The assignment of these prefixes can be left up to the sample collecting group.

4) Sampling Sheets

- A standard reporting sheet (Excel spreadsheet) should be filled out that accompanies the samples sent to the Molecular Genetics Lab, Pacific Biological Station, Nanaimo. This makes it possible to combine all collections from a given year quickly and easily and allows summary reporting of available samples so decisions can be made on priority for analysis. The following is thought to be the minimum information required on a sample sheet. Additional information such as sub-area, location, vessel name, statistical week, and comments may be needed in some circumstances Minimum requirements on DNA sampling sheets are:

DATE	GEAR	AREA	SPECIES	VIAL	#	#TISSUES	SAMPLER
1-Apr-00	Gillnet	Area	29	Chinook	00LWADFO20	30	Gord Koester

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