



PERMIT ISSUED UNDER SECTION 73 OF THE SPECIES AT RISK ACT

Permit Number: SARA 236

Permit Authority:

This permit is issued to the person(s) listed below under the authority of the Minister of Fisheries and Oceans pursuant to section 73 of the Species at Risk Act (SARA), and authorizes them, subject to the following terms and conditions, to engage in scientific research activities (described below) that relate to the conservation of the affected species identified below or benefit the said species or are required to enhance its (their) chance of survival in the wild. This permit is granted as a privilege, not property, and is issued at the Minister's discretion and may be revoked or amended to ensure the survival or recovery of a species.

Authorized Person:

Dolph Schluter
University Of British Columbia Dept Of Zoology
6270 University Blvd.
Vancouver BC V6T 1Z4

Assistant(s):

Patrick Tamkee, Diana Rennison, Seth Rudman, Kieran Samuk, Sara Miller, Thor Veen, Matt Arnegard, and select undergraduate students of UBC.

Species and Catch Limits:

Benthic Paxton Lake Stickleback males - 120 individuals
Benthic Paxton Lake Stickleback females - 115 individuals
Limnetic Paxton Lake Stickleback males - 115 individuals
Limnetic Paxton Lake Stickleback females - 130 individuals
Benthic Vananda Creek Stickleback males - 125 individuals
Benthic Vananda Creek Stickleback females - 140 individuals
Limnetic Vananda Creek Stickleback males - 125 individuals
Limnetic Vananda Creek Stickleback females - 140 individuals

Retention of specimens collected Authorized

Area of Activity:

South Coast
Priest Lake and Paxton Lake on Texada Island
Little Quarry Lake on Nelson Island

Authorized Activities:

Trap, Gee/Minnow



Minnow traps will be used to capture fish in benthic areas. Traps will be set for a maximum of 12 hours. Seine and dip nets will be used to capture fish in open water. Sampling will occur periodically between April 1 and August 31, 2012. The fish will be gently decanted from the minnow trap or net into a bucket of aerated, fresh lake water. No more than 20 fish will be placed into a single pail at the same time.

Fish will be held in the Biosciences aquatic facilities of the zoology department at the University of British Columbia, where they will be used in behavioural laboratory experiments from April 4, 2012 to April 30, 2013. Maintaining fish in the lab: Fish are raised and kept in stand-alone 100-litre aquariums with filtration and aeration. Fish are fed twice daily with live and frozen food.

After the research is complete, fish are killed with MS222. In the rare event of animal injury, the fish will be immediately euthanized with an overdose of MS222 and preserved in pure ethanol. These fish will still be useful for morphological study. Fish will be preserved in ethanol for genetic analysis.

Terms and Conditions:

Pursuant to subsection 73(6) of SARA, the following terms and conditions apply to this permit:

- 1) This permit is only valid for the activities described above. It (or a copy) must be carried by a member of the field crew and be made available to a Fishery or Conservation Officer upon request.
- 2) This permit does not replace any other permits required under provincial or federal legislation.
- 3) By December 31 2013, a comprehensive report must be filed detailing any activity, authorized by this permit, which results in killing, harming, harassing, capturing or taking of any individuals of the affected species above. If the individuals were captured and are being held then you must also indicate where they are being held and what is planned for these captured individuals (death, release, etc.). The completed reports shall be sent to:

Tracey Sandgathe
Regional Manager, Species at Risk Program
Fisheries and Oceans Canada
Suite 200 - 401 Burrard Street
Vancouver, B.C. V6C 3S4
604-666-1331
sara@pac.dfo-mpo.gc.ca



Duration of Permit: This permit is valid from Apr 4, 2012 until Apr 30, 2013.

Date of issue: Apr 4, 2012

This permit is not valid until read and signed by the authorized person, signifying agreement with the conditions of permit:

I hereby certify that I am the authorized person named above (Dolph Schluter) and that I have read and understand the conditions of this permit,

Dolph Schluter		April 6, 2012
Print Name	Signature	Date

Signature of Authorizing Officer:

	APR 04 2012
Authorizing Officer	Date

Tracey Sandgathe
SARA Regional Manager

Fisheries & Oceans Canada, Pacific Region
#200-401 Burrard St.
Vancouver, BC V6C 3S4
on behalf of the Minister of Fisheries & Oceans Canada

Further Information about this permit is available from the above authorizing officer or from SARA@pac.dfo-mpo.gc.ca