



**PERMIT ISSUED UNDER SECTION 73 OF THE SPECIES AT RISK ACT
FOR SCIENTIFIC RESEARCH**

Permit Number: SECT 07 SCI 001

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.

Authorized Person(s): Dr Dolph Schluter
Dr Catherine Peichel
Dr Tim Vines, Dr Sean Rogers, Dr Matt Arnegard, Dr. Patrik Nosil, and Dr Luke Harmon
Kerry Marchinko, and Rowan Barrett
Joey Courchesne and Patrick Tamkee

<u>Species :</u>	<u># mortalities</u>
Benthic Paxton Lake Stickleback	200
Limnetic Paxton Lake Stickleback	200
Benthic Enos Lake Stickleback	100
Limnetic Enos Lake Stickleback	100
Benthic Vananda Creek Stickleback	200
Limnetic Vananda Creek Stickleback	200

These populations are listed as Endangered because of their restricted distribution and extreme vulnerability to local impacts, not because of low abundance or declining viability.

Area of Field Studies:

Collections will be made at Priest Lake, Emily Lake, and Paxton Lake on Texada Island, British Columbia, and at Enos Lake on Vancouver Island. Sampling of wild fish will take place periodically during 2007.

Research Activities:

Live specimens will be collected from the field or made from crosses between wild caught fish kept in aquaria at the University of British Columbia. Research will include observations and experiments on foraging, growth, survival, predator evasion, parasite resistance, cues used in mating, natural selection pressures, and genetics. **Capture Technique:** Minnow traps, as well seine and dip nets, will be used to capture the fish. **Method of Handling:** The fish will be gently decanted from the minnow trap or net into a bucket of aerated, fresh lake water.

Mass rearing of fish: Fish are raised from eggs using filtration, aeration, and feeding techniques. Fish used in genetic studies are raised to adult size.



Terms and Conditions:

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

- This permit is only valid for the research activities described above. It (or a copy) must be carried by a member of the research crew and be made available to a Fishery or Conservation Officer upon request.
- This permit does not replace any other scientific or collecting permits required under provincial or federal legislation.
- The death of any individual of the affected species identified above, resulting from activities authorized by this permit, shall be reported immediately to the regional coordinator identified below.
- By January 31, 2007, 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 report shall be sent to :

Liane O'Grady

Species at Risk Coordinator | Coordonnateur, espèces en péril

Pacific and Yukon Region | Région du Centre et de l'Arctique

Fisheries and Oceans Canada | suite 200 401 Burrard St.

Pêches et Océans Canada | Vancouver, B.C. V6C 3S4

T: (604) 666-9909/ F: (604) 666-3295 | E-mail/Courriel: OGradyL@pac.dfo-mpo.gc.ca

Duration of Permit:

This permit is valid from the date of issue until December 31, 2007.

Date of issue: 12 March 2007

Signature of Authorizing Officer:

Species at Risk Secretariat

Department of Fisheries and Oceans

/Ministère des Pêches et des Océans/

200 rue Kent St., Ottawa, On , K1A 0E6

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