



Ministry of
Environment

FISH COLLECTION PERMIT
Research

File: 34770-20

Permit No.: NA/SU07-38414

Permit Holder: University of British Columbia—Dr. Patricia Schulte
Zoology Department, 6270 University Boulevard, Vancouver, BC V6T 1Z4

Client No.: 10317

Authorized Persons: Patricia Schulte, Tim Vines and Anne Dalziel

Pursuant to section 19 of the *Wildlife Act*, RSBC 1996, Chap. 488, and section 18 of the Angling and Scientific Regulations, BC Reg. 125/90, the above named persons are hereby authorized to collect fish for scientific purposes from non-tidal waters subject to the conditions set forth in this Permit:

Permitted Sampling Period: September 14, 2007 to September 1, 2008

Permitted Waterbodies: Vancouver Island and Lower Mainland Regions—See Appendix C

Permitted Sampling Techniques: MT and SN (subject to permit terms and conditions)

Target Species: TSB (subject to permit terms and conditions)

Permitted Lethal Sampling: See Appendix D

Provincial Conditions: (Permit holders must be aware of all terms and conditions):

1. See Appendix A.

Region Specific Conditions:

- See Appendix A.

Authorized by:
Yvonne Foxall
Manager,
Permit and Authorization Bureau

Dick Heath
Regional Manager,
Environmental Stewardship Division
Vancouver Island Region

Date: September 14, 2007

Permit Fee \$25

Any contravention or failure to comply with the terms and conditions of this permit is an offense under the *Wildlife Act*, RSBC 1996, Chap. 488 and B.C. Reg. 125/90.

Ministry of Environment

Environmental Stewardship Division
Permit & Authorization Service Bureau
4th fl, 2975 Jutland Road
PO Box 9372 Stn Prov Gov
Victoria BC V8W 9M3

Telephone: 1.866.433.7272
Facsimile: (250) 387-0922

July 16, 2007

Appendix A: Fish Collection Permit Conditions

Any Variation of the following terms and conditions will require explicit authorization by the appropriate regional Fish & Wildlife Section Head.

Provincial Conditions

1. This collecting permit is not valid
 - in national parks,
 - in provincial parks unless a Park Use Permit is also obtained,
 - in tidal waters,
 - for eulachon or for salmon* other than kokanee, or
 - for collecting fish by angling unless the permittee and crew members possess a valid angling licence.

This collecting permit is **only** valid for species listed as threatened, endangered or extirpated under the Species at Risk Act (SARA) **in conjunction with a permit issued under Section 73 of SARA from Fisheries and Oceans Canada.**

*Contact the Department of Fisheries and Oceans for fish collecting permits for salmon, eulachon or SARA listed species (see Appendix B).

2. The permittee (or the project supervisor) named on the application for a scientific collection permit will carry a copy of this permit while engaged in fish collecting and produce it upon request of a conservation officer, fisheries officer or constable.
3. Any specimens surplus to scientific requirements and any species not authorized for collection in this permit shall be immediately and carefully released at the point of capture.
4. Fish collected under authority of this permit shall not be used for food or any purpose other than the objectives set out in the approved application for a scientific collection permit. The permittee shall not sell, barter, trade, or give away, or offer to sell, barter, trade or give away fish collected under authority of this permit. Dead fish shall be disposed of in a manner that will not constitute a health hazard, nuisance or a threat to wildlife.
5. No fish collected under authority of this permit shall be
 - transported alive unless authorized by this permit, or
 - transplanted unless separately authorized by the Federal/Provincial Fish Transplant Committee.
6. The permittee shall, within 90 days of the expiry of this permit, submit to the Permit and Authorization Service Bureau a summary report of collecting activities. Interim reports may also be required and shall be submitted as required by the permit issuer. All submissions must be filed electronically to: http://www.env.gov.bc.ca/fish_data_sub/index.html

Reporting specifications, information and templates are available from this website and outline the mandatory information requirements. Prior notification of submission or questions regarding data report standards can be made to: fishdatasub@gov.bc.ca

7. This collecting permit is subject to cancellation at any time and shall be surrendered to a conservation officer on demand or to the issuer upon written notice of its cancellation.
8. This permit is valid only for the activities approved on the application form and in accordance with any restrictions set out therein.

Appendix A: Fish Collection Permit Conditions Continued

9. This permit is valid only for trained, qualified staff named in the Application. The permittee will comply with all Worker's Compensation Board requirements and other regulatory requirements. Permit holders are responsible for ensuring staff members listed on the permit are properly certified for specific sampling methods or activities (e.g. electroshocking).
10. All sampling equipment that has been previously used outside of B.C. must be cleaned of mud and dirt and disinfected with 100mg/L chlorine bleach before using in any water course to prevent the spread of fish pathogens (e.g. Whirling disease) and / or invasive plant species. Any washed off dirt or mud must be disposed of in a manner such that it cannot enter a watercourse untreated.
11. No electrofishing is to take place in waters below five degrees C.
12. Electrofishing may not be conducted in the vicinity of spawning gravel, redds, or spawning fish, or around gravels which are capable of supporting eggs or developing embryos of any species of salmonid at a time of year when such eggs or embryos may be present.
13. Permits covering multiple watersheds or extended time periods:
 - a. Are applicable only in the identified regions and for the identified time periods;
 - b. Do not apply to the collection of adult salmonids unless specifically authorized;
 - c. Include electrofishing, minnow trapping and seining techniques only;
14. Angling must only occur in accordance with the regulations specified in the current BC Freshwater Fishing Regulations Synopsis.

Region Specific Conditions

Region 1 (Vancouver Island)

- There shall be no electrofishing in streams above 630 meters in elevation, in anadromous waters, or in lake tributaries from January 1 to June 30.

Region 2 (Lower Mainland)

- Any fish collection activities taking place in waters known to harbour steelhead trout must have the express approval of the Regional Fish and Wildlife Section Head.
- Electrofishing and minnow trapping can harm or kill non-target species of management concern such as the endangered Coastal Giant Salamander (within the Chilliwack River drainage system) and Pacific Water Shrew (within the lower Fraser River Valley). Any incidental captures (alive or dead) of any red- or blue-listed wildlife species must be reported to the Ministry of Environment, Lower Mainland Region. For further information on these species or to report incidental captures, please call Kym Welstead, Species at Risk Biologist, MOE, Surrey at (604) 582-5200 or by e-mail at Kym.Welstead@gov.bc.ca.
- Please refer to the following website for the least risk in-stream work windows:
http://wlapwww.gov.bc.ca/sry/wateract/terms_conditions.html

Where possible, collection should be conducted during the least risk work windows identified. The exception is seasonal or ephemeral streams where sampling may not be possible during the prescribed window due to flow conditions.

Appendix B: Table 1 - Species at Risk

The following are species at risk that have been listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as either endangered, threatened or a species of special concern. Species also listed under the Species at Risk Act (SARA) are identified with an asterisk, and are subject to additional permitting requirements through the Federal Department of Fisheries and Oceans (DFO).

Common Name	Scientific Name
Benthic Paxton Lake Stickleback	* <i>Gasterosteus sp.</i>
Benthic Vananda Creek Stickleback	* <i>Gasterosteus sp.</i>
Limnetic Paxton Lake Stickleback	* <i>Gasterosteus sp.</i>
Limnetic Vananda Creek Stickleback	* <i>Gasterosteus sp.</i>
Nooksack Dace	* <i>Rhinichthys sp.</i>
Morrison Creek Lamprey	* <i>Lampetra richardsoni</i>
Vancouver Lamprey (Cowichan Lake Lamprey)	* <i>Lampetra macrostoma</i>
Cultus Pygmy Sculpin	* <i>Cottus sp.</i>
Shorthead Sculpin	* <i>Cottus confusus</i>
Hotwater Physa	* <i>Physella wrighti</i>
Limnetic Enos Lake Stickleback	<i>Gasterosteus sp.</i>
Benthic Enos Lake Stickleback	<i>Gasterosteus sp.</i>
Salish Sucker	<i>Catostomus sp.</i>
Speckled Dace	<i>Rhinichthys osculus</i>
Charlotte Unarmoured Stickleback	<i>Gasterosteus aculeatus</i>
Columbia Mottled Sculpin	<i>Cottus bairdi hubbsi</i>
Giant Stickleback	<i>Gasterosteus sp.</i>
Green Sturgeon	<i>Acipenser medirostris</i>
Umatilla Dace	<i>Rhinichthys umatilla</i>
White Sturgeon	<i>Acipenser transmontanus</i>

Applications for permits to specifically collect and retain listed species must be reviewed by the appropriate Recovery Team, who will screen permits to ensure that any impacts on listed species are acceptable. For white sturgeon the contact is Steve McAdam (steve.mcadam@gov.bc.ca). For listed non-game freshwater fish the contact is Jordan Rosenfeld (jordan.rosenfeld@gov.bc.ca), co-chair of the Non-Game Freshwater Fish Recovery Team.

Please print out the notice verifying the information you submit as it becomes part of your permit and must be attached to your original Scientific Fish Collection Permit.

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APPENDIX C

PERMITTED WATERBODIES

Activity	WLAP Region(s)	Water Body	Watershed Code
Research	Lower Mainland	West Creek	100-041600
Research	Lower Mainland	Kanaka Creek	100-037400
Research	Vancouver Island	Bonsall Creek	920-298700
Research	Vancouver Island	Little River	920-576800
Research	Vancouver Island	Chase River	920-389300
Research	Vancouver Island	Haig-Brown Kingfisher Creek	920-627900-03559
Research	Lower Mainland	Little Campbell River	900-0005-000
Research	Lower Mainland	Salmon River	100-0388-000

APPENDIX D

PERMITTED LETHAL SAMPLING

MOE REGION	NUMBER AND SPECIES OF FISH	WATERBODY NAME	WATERSHED CODE
1	200 TSB	Bonsall Creek	920-298700
1	100 TSB	Little River	920-576800
1	100 TSB	Chase River	920-389300
1	100 TSB	Haig-Brown Kingfisher Creek	920-627900-03559
2	100 TSB	West Creek	100-041600
2	100 TSB	Kanaka Creek	100-037400
2	100 TSB	Little Campbell River	900-0005-000
2	100 TSB	Salmon River	100-0388-000

