

**FISH COLLECTION PERMIT**  
**Research**

File: 34770-20

Permit No.: MRSU15-170469

Permit Holder: University of British Columbia, Zoology Department – Dolph Schluter  
6270 University Boulevard  
Vancouver BC V6T 1Z4

Authorized Persons: Dolph Schluter, Marius Roesti, Shannan McNally, Kieran Samuk,  
Seth Rudman, Diana Rennison, Sara Miller.

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:** June 3, 2015 to December 31, 2015

**Permitted Waterbodies:** West Coast Region – *See Appendix C*;  
South Coast Region – *See Appendix C*.

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

**Potential Species:** CAS, TSB (subject to permit terms and conditions)

**Permitted Lethal Sampling:** *See Appendix C* (subject to permit terms and conditions)

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

See Appendix A.

**Region Specific Conditions:**

See Appendix A.

**Authorized by:**

Michael Stalberg  
Regional Manager  
Recreational Fisheries & Wildlife Programs  
West Coast Region

Iain Lunn, Fisheries Biologist  
A Person Authorized by the Regional Manager  
Recreational Fisheries & Wildlife Programs  
South Coast Region



Date: June 3, 2015

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.**

## 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 permit holder 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 permit holder (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 permit holder 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 permit holder shall, within 90 days of the expiry of this permit, submit a report of fish collection 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](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](mailto: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.
9. This permit is valid only for trained, qualified staff named in the Application. The permit holder 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. Any workers not listed on the permit must be supervised by the permit holder or one of the additional persons as named on the permit.

## Appendix A: Fish Collection Permit Conditions Continued

11. 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.
12. No electrofishing is to take place in waters below five degrees C.
13. 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.
14. Angling must only occur in accordance with the regulations specified in the current BC Freshwater Fishing Regulations Synopsis.

### Region Specific Conditions

#### West Coast Region

- Within the boundaries of Management Units 1-1 through 1-13, 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.
- All sampling gear follow Association of Professional Biologists' advisory practice bulletin #5. Practice Advisory – Didymo, see: <https://www.professionalbiology.com/sites/default/files/pdfs/Didymo.pdf>
- The permit holder must advise the West Coast Region of sampling activities 48 hrs prior to field operations. Please complete the following notification form: [http://www.env.gov.bc.ca/pasb/reports/fish/permit\\_notify1.html](http://www.env.gov.bc.ca/pasb/reports/fish/permit_notify1.html)

#### South Coast Region

- The permit holder must notify Iain Lunn, MoE at [Iain.Lunn@gov.bc.ca](mailto:Iain.Lunn@gov.bc.ca) with the following information at least 24 hours prior to undertaking work:
  - approved SFC permit number
  - report number (where applicable)
  - company
  - contact
  - address
  - phone
  - fax
  - water body
  - watershed code
  - purpose of collection
  - start date
  - end date
- All streams sampled, for which a watershed code does not presently exist, will require a map showing the location of the stream and sampling location with the map scale identified at time of reporting.
- 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 Forests, Lands and Natural Resource Operations, Lower Mainland Region. For further information on these species or to report incidental captures, please contact Kym Welstead, Species at Risk Biologist, MOE, Surrey by e-mail at [Kym.Welstead@gov.bc.ca](mailto:Kym.Welstead@gov.bc.ca).
- Please refer to the following website for the least risk in-stream work windows: [http://www.env.gov.bc.ca/wsd/water\\_rights/licence\\_application/section9/index.html](http://www.env.gov.bc.ca/wsd/water_rights/licence_application/section9/index.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>
West Slope Cutthroat Trout	* <i>Oncorhynchus clarki lewisi</i>
White Sturgeon	<i>Acipenser transmontanus</i>

Applications for permits to specifically collect and retain listed species must be reviewed by the appropriate provincial expert, 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](mailto:steve.mcadam@gov.bc.ca)). For listed non-game freshwater fish the contact is Jordan Rosenfeld ([jordan.rosenfeld@gov.bc.ca](mailto:jordan.rosenfeld@gov.bc.ca)).

### Appendix C: Authorized Waterbodies and Lethal Sampling

Waterbody Name	Watershed Code	Authorized Species Sampling (subject to permit terms and conditions)
<i>West Coast Region</i>		
Antler Lake	930-511600-31900	Up to 30 CAS.
Bear Creek Reservoir	930-037300-48400	Up to 30 TSB.
Beavertail Lake	920-627900-25400	Up to 30 CAS.
Beck Lake	920-388500	Up to 30 TSB.
Black Lake	930-081200	Up to 30 TSB; up to 30 CAS.
Bolton Lake	930-535700	Up to 30 TSB.
Bullocks Lake	925-258500-65900	Up to 30 TSB.
Calamity Lake	930-085500-29800	Up to 30 TSB.
Cheewhat Lake	930-070100	Up to 30 TSB; up to 30 CAS.
Chemainus Lake	920-312500	Up to 30 TSB.
Cottle Lake	920-427000	Up to 30 CAS.
Drum Lakes	920-627900-55200-43300	Up to 30 CAS.
Easter Lake	930-422000	Up to 30 TSB; up to 30 CAS.
Forbush Lake	920-553200-94200	Up to 30 TSB.
Frog Lake	920-700700-84700-01700	Up to 30 CAS.
Fry Lake	920-627900-35700	Up to 30 TSB.
Gosling Lake	920-627900-29500	Up to 30 TSB.
Hell Diver Lake	920-553200-94100-70800	Up to 30 TSB.
Hoggan Lake	925-380000-26400	Up to 30 TSB.
Kathleen Lake	930-865200-42600	Up to 30 CAS.
Kemp Lake	930-026700	Up to 30 TSB; up to 30 CAS.
Keogh Lake	920-866900	Up to 30 CAS.
Kissinger Lake	930-071700-56800-34100	Up to 30 CAS.
Lake Maxwell	925-258500-20000	Up to 30 TSB.
Lake Weston	925-258500-90000	Up to 30 TSB.
Little Toquart Lake	930-230500-03800	Up to 30 TSB; up to 30 CAS.
Lower Stella Lake	920-686300-26500	Up to 30 TSB.
Mackie Lake	920-686300	Up to 30 TSB.
May Lake	930-115100	Up to 30 TSB.
McClure Lake	930-071700-25700	Up to 30 CAS.
McCoy Lake	930-137400-50300	Up to 30 TSB; up to 30 CAS.
McNair Lake	920-700700-58100-54900	Up to 30 TSB; up to 30 CAS.
Merrill Lake	920-627900-35700-05100	Up to 30 TSB; up to 30 CAS.
Morton Lake	920-643100	Up to 30 CAS.
Mukwilla Lake	920-825900-38600	Up to 30 CAS.
Muriel Lake	930-306400-02600	Up to 30 TSB; up to 30 CAS.
Poirier Lake	930-022100-02800-37100	Up to 30 CAS.
Quatse Lake	920-896200	Up to 30 TSB.
Roselle Lake	920-824200-79400	Up to 30 TSB; up to 30 CAS.
Rosseau Lake	930-085500-39200	Up to 30 TSB; up to 30 CAS.
Sherwood Pond	920-021600	Up to 30 TSB.
Shushartie Lake	920-940400	Up to 30 CAS.
Thiemer Lake	920-824200	Up to 30 TSB.
Tsuquadra Lake	930-072800	Up to 30 TSB; up to 30 CAS.
Tuck Lake	930-071700-51900	Up to 30 CAS.
Wanetta Lake	930-300800-50400-32500	Up to 30 CAS.
Willemar Lake	920-553200-94200	Up to 30 TSB.
<i>South Coast Region</i>		
Alice Lake	900-097600-07500	Up to 30 CAS.
Ambrose Lake	900-147300-93700	Up to 30 TSB; up to 30 CAS.
Daisy Lake	900-097600-12900	Up to 30 TSB; up to 30 CAS.
Goat Lake	900-284900-37100	Up to 30 CAS.
Klein Lake	900-147300-79800	Up to 30 TSB.
Little Quarry Lake	905-145000-08500	Up to 30 TSB.
McNeill Lake	900-135300	Up to 30 TSB.
Mike Lake	100-026700-06000-38500	Up to 30 TSB.
Sasamat Lake	900-050500	Up to 30 TSB; up to 30 CAS.
Shadow Lake	900-097600-12900-33800	Up to 30 CAS.
Tom Lake	905-323000-55100	Up to 30 TSB.