Application Guidelines for Scientific Fish Collection Permits

Due to the wide variety of activities that take place under the authorization of this permit, the Ministry has provided the following guidelines to help applicants describe the details and scope that suit their particular sampling program. *For all activities, you are required to familiarize yourself with the provincial and region-specific conditions of your permit, listed in Appendix 'A' of the permit application.*

Questions regarding data report standards can be made to: fishdatasub@gov.bc.ca.

	Activity	Sampling Program Description	Permit Limitations
1. **Example**	**Fish Salvage**	Regional Level - Indicate areas within a regional district such as GVRD - Include detailed project objectives and methods including isolation methods, capture techniques and relocation coordinates	**Maximum 1 year**
	Fish collection associated with in-stream works etc.		
2.	**Forestry Stream Classification**	Using the TRIM scale, identify the 4th or 5th order stream - Include detailed project objectives	
3. **Example**	**Environmental Impact Assessment**	Project Level - Include detailed project objectives	
	Pre and / or post development project monitoring (industrial, linear etc.)	- indicate the project/proponent under which the fish collection activity will take place and the water bodies involved - Include detailed project objectives	
4. **Example**	**Inventory**	Project Level - indicate the project/proponent under which the fish collection activity will take place and the water bodies involved - Include detailed project objectives	**Maximum 1 year**
	(1) Species abundance and distribution (2) Presence / Absence study		

5. **Example**	**Research** (fish collection as part of experimental procedure) Research to determine how fish populations respond to habitat manipulations	Project Level - indicate the project/proponent under which the fish collection activity will take place and the water bodies involved - Include detailed project objectives	

ACTIVITY	MOE REGION(S)	WATERBODY OR WATERSHED NAME	WATERSHED CODE
Fish Salvage	Required	Indicate area within region (GVRD, Municipality, etc.)	Required
Forestry Stream Classification	Required	TRIM scale 4th order stream or larger	Required
Environmental Impact Assessment	Required	Required	Required
Inventory	Required	Required	Required
Research	Required	Required	Required

APPENDIX A

FISH COLLECTION PERMIT TERMS

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

PROVINCIAL TERMS

1. 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.**

   NOTE: Contact the Department of Fisheries and Oceans for fish collecting permits for salmon or eulachon https://www.pac.dfo-mpo.gc.ca/fm-gp/licence-permis/forms/licence-sci-permis-eng.pdf or for SARA listed species https://www.dfo-mpo.gc.ca/species-especes/sara-lep/permits-permis/index-eng.html#apply.

2. Any specimen's surplus to scientific requirements and any species not authorized for collection in this permit must be immediately and carefully released at the point of capture.

3. Fish collected under authority of this permit must not be used for food or any purpose other than the objectives set out in this permit. Dead fish must be disposed of in a manner that will not constitute a health hazard, nuisance, or a threat to wildlife.

4. No fish collected under authority of this permit must be transplanted unless separately authorized by the Federal/Provincial Introductions and Transfers Committee.

5. The permit holder must, within 90 days (120 days for the Kootenay/Boundary region and Peace region) of the expiry of this permit, submit a report of fish collection activities. Interim reports may also be required and must be submitted as required by the permit issuer. All submissions must be filed electronically to: https://www2.gov.bc.ca/fish-data-submission-process.

   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

6. The permit holder must comply with all Workers' Compensation Board requirements and other regulatory requirements. The permit holder is responsible for ensuring authorized persons listed on the permit are properly certified for specific sampling methods or activities (e.g., electroshocking).

7. Any workers not listed on the permit must be supervised by the permit holder or one of the authorized persons named on the permit.

8. 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.

9. No electrofishing is to take place in waters having a temperature less than five degrees C.

10. No sampling of fish in waters having a temperature greater than twenty degrees C.

11. Electrofishing must 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.

12. When work requires de-watering or isolation of the worksite in the stream, a permit for the salvage of fish and wildlife (Scientific Fish Collection permit) must be obtained prior to commencing work. All required salvage permits must be obtained from FrontCounter BC: https://portal.nrs.gov.bc.ca/web/client/home.

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PROVINCIAL TERMS CONTINUED

13. Any fish or wildlife salvage must be carried out by a qualified environmental professional registered with a professional association (such as an RPBio). The qualified professional conducting salvage work must adhere to the conditions below in addition to those required in the Scientific Fish Collection permit.

- Salvage activities must be conducted to the Provincial Resource Information Standards Committee (RISC) standards for capture, data collection, handling, and release:

STREAM ISOLATION

- The QP must follow the standards and practices outlined in the Work Area Isolation Appendix found in the Standards and Best Practices for Instream Works. http://www.env.gov.bc.ca/wld/documents/bmp/iswstdsbpsmarch2004.pdf
- A QP must ensure that the worksite has be substantively isolated to prevent any fishes from entering the work area and efforts must be made to exclude fish from entrapment during installation of isolation works. (See section 14.2 of the Standards and Best Practices for Instream Works (MWLAP 2004).
- Dewatering must not result in HADD to fish habitat or the death of fish unless authorized by Fisheries and Oceans Canada.
- While dewatering the work site and dewatering during fish capture, all pump intakes are required to meet the federal COP for fish intake screening guidelines https://www.dfo-mpo.gc.ca/pnw-ppe/codes/screen-ecran-eng.html.

FISH CAPTURE

- Qualified professionals must determine appropriate sampling methods from the RISC standards based on water body type and habitat conditions https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/nr-laws-policy/risc/fishml04.pdf.
- Qualified professionals must use a risk hierarchy of passive to active and low risk to higher risk in collection methods (e.g., minnow traps, fyke nets, beach pole seines, electroshocking, angling).
- Qualified professional must conduct a **minimum of three** non-lethal collection methods in all fish salvages.
- For active collection methods a minimum of two consecutive passes of each method that produces a zero catch must be completed as per total population removal methodology (at a minimum 95% fish removal must be achieved). (https://www.wildsalmoncenter.org/resources/field-protocols-best-monitoring-practices/).
- Where work site isolation cannot be fully achieved (e.g., fast flowing streams, imperfect seal due to substrate) additional efforts are needed to prevent harm to fish. At the end of each workday, a passive form of fish capture (e.g., baited minnow traps) are to be placed in the isolation site. If fish are captured overnight, you must restart isolation procedures at the start of the workday.
- If species at risk are captured, work must stop until proper permits are obtained.

DATA COLLECTION

- Sampling/data collection is a requirement of the Scientific Collection Permit. Sample size requirements are listed in the table below.
- Scientific Fish Collection Permits require a Fish Data Submission Template to be completed. Step 4 (Stream Site Data) of the Fish Data Submission Template must be filled out for the location where fish are salvaged from. https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/fish/fish-and-fish-habitat-data-information/fish-data-submission/submit-fish-data.

FISH RELEASE

- Fish must be released following RISC standards.
- All species are to be released in the same watercourse downstream of the work areas or a sufficient distance upstream (5 channel widths to a maximum of 100 meters) into waters of equivalent baseline quality and habitat type (pool, riffle, run).

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Minimum Standards During Salvage for Fish Collection Sampling Effort*

Fish Species	Age Class	Size range	Minimum Sampling Size for lengths	Sample column required (from Individual Fish Data form)	Notes
Salmonids, including RB, CT(CCT), DV, BT, GR, LT, KO	fry	20 to 80 mm	up to 30 after 30 count	J (if possible), K	
	juvenile	81 mm-250 mm	Measure all fish caught	J, K, L	
	adult	greater than 250 mm	Measure all fish caught	J, K, L, M, N	
Coarse Fish (cyprinids, stickleback, dace, shiner, carp, pikeminnow)		under 200 mm	up to 30 after 30 count	J, K	
	Adult	over 200 mm	All	J, K, L, M	
Sport other (bass, perch, sunfish, walleye, northern pike)		all	up to 30 after 30 count	J, K, L	
Sculpin sp.		0-150mm (total length)	up to 30 after 30 count	J, K	
		Over 150mm	All	J, K, L	
Burbot, Lamprey		0-150 mm (total length)	All	J, K, L, N	
Listed Species (salish sucker, sturgeon, etc.)		All	All		Refer to SAR permit for conditions
All fishes not listed above		All	minimum 10 of each then count only	J, K, L	

Abbreviations for salmonids

- **RB-Rainbow**
- **CT(CCT)-Cutthroat**
- **DV-Dolly Varden**
- **BT- Bull Trout**
- **GR- Arctic Grayling**
- **LT- Lake Trout**
- **KO- Kokanee**

APPENDIX A

REGION SPECIFIC TERMS

West Coast Region

1. Within the boundaries of Management Units 1-1 through 1-13, there is no electrofishing in: (1) streams above 630 meters elevation, (2) in anadromous rivers from January 1 to June 30, (3) or any lake tributaries from January 1 to June 30.
2. All sampling gear follow Association of Professional Biologists' advisory practice bulletin #5. Practice Advisory – Dydimo, see: http://a100.gov.bc.ca/pub/eirs/viewDocumentDetail.do?fromStatic=true&repository=BDP&documentId=9469
3. The permit holder must advise the West Coast Region of sampling activities 24 hrs. prior to field operations. Please complete the following notification form: http://www.env.gov.bc.ca/pasb/reports/fish/permit_notify1.html

South Coast Region

1. 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.
2. 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), Oregon Spotted Frog, and Pacific Water Shrew (within the lower Fraser River Valley). Any incidental captures (alive or dead) of any red-listed or blue-listed wildlife species must be reported to the Ministry of Forest, South Coast Region. For further information on these species or to report incidental captures, please contact the Fish and Wildlife Branch by e-mail at SCFishandAquaticWildlife@gov.bc.ca.
3. All non-native fish species captured under this permit are to be humanely euthanized and disposed of appropriately. Within 48 hours of capture, a record of the species, capture location, date, waterbody, number, size range (mm) and digital imagery must be submitted to the Fish and Wildlife Branch by email at SCFishandAquaticWildlife@gov.bc.ca. Non-native fish species include but are not limited to: American Shad; Black Catfish; Black Crappie; Brown Catfish; Carp; Goldfish; Largemouth or Smallmouth Bass; Pumpkinseed Sunfish; and Weather-fish.
4. Please refer to the following website for the least risk in-stream work windows: https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-licensing-rights/working-around-water/regional-terms-conditions-timing-windows. Where possible, collection should be conducted during the least risk word windows identified. The exception is seasonal or ephemeral streams where sampling may not be possible during the prescribed window due to flow conditions.
5. The permit holder must refer to the following when sampling Salish Sucker, Nooksack Dace, and Stickleback species.

   Salish sucker sampling guidelines - https://portal.nrs.gov.bc.ca/documents/10184/0/SalishSuckerCollectionGuidelines2015.pdf/5893755c-1c3f-b85b-419c-a4ce50ffac71

   Nooksack dace sampling guidelines – https://portal.nrs.gov.bc.ca/documents/10184/0/NooksackDaceCollectionGuidelines2015.pdf/339d65e0-23b5-10bb-b33f-a7dbf74d5d39

   Stickleback species pairs sampling guidelines - http://www.dfo-mpo.gc.ca/species-especes/publications/sara-lep/stickleback-epinoches/index-eng.html

Thompson/Okanagan Region

1. Please refer to information at: https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-licensing-rights/working-around-water/regional-terms-conditions-timing-windows for the appropriate in stream work windows.

Kootenay/Boundary Region

1. No electrofishing is permitted between September 15 and June 15 in streams containing bull trout.
2. The permit holder must contact the local zone Conservation Officer Service prior to initiating the field collections.
3. All burbot traps must have a section in the top or sidewall that has been secured by a length of untreated, 100% cotton twine no greater than No. 30 (e.g., 30 thread count) or 3 mm diameter. When twine deteriorates, this must produce a square opening with a minimum size of 20 cm x 20 cm. This is intended to ensure that if the trap is lost, the section secured by the twine will rot, allowing captive fish to escape, and preventing the trap from continuing to fish.

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4. All sampling gear follow Association of Professional Biologist's advisory practice bulletin #5. Practice Advisory Dydimo, see: http://a100.gov.bc.ca/pub/eirs/viewDocumentDetail.do?fromStatic=true&repository=BDP&documentId=9469
5. All fishing gear (e.g., gill nets, minnow traps, etc.) that are left unattended must have the permit holders contact information (name and phone number).
6. Within 120 days of expiry of this permit, the permit holder must submit a report that summarizes all field and any laboratory analysis data related to the sampling program (typically location of catch, species, individual fish tissue metals analysis, moisture content, fish length, and weight, etc., and as applicable) and all associated raw laboratory data.

   The digital final written report (e.g., report, summary, memo, letter) is required and shall be submitted along with the standard format Excel data submission template.

Cariboo Region

1. Cariboo Region requires seven days (7) written notice, complete with waterbody and watershed codes for the proposed areas prior to sampling in the Cariboo Region. Please submit written email notice to: Lee.Williston@gov.bc.ca or fax to 250-398-4214.
2. Until such time as the permit holder has discussed specific activities with the Regional Manager and obtains written permission, fish collection, fish sampling or fish salvage may not be undertaken within the boundaries of Management Units 5-04 or 5-05.

Skeena Region

1. For information related to Fish Collection Permit Activities in the Skeena Region, please contact Kristin Charleton at 250-876-7131 or Kristin.Charleton@gov.bc.ca.
2. Accidental fish mortalities and or injuries that occur during salvage activities, related to this permit, must be reported to the Skeena Regional office within 48 hrs. Contact Troy Larden at Troy.Larden@gov.bc.ca or Kristin Charleton at Kristin.Charleton@gov.bc.ca to report.

Omineca Region

1. The permit holder must advise Region 7A (Omineca) of sampling activities 48 hrs. prior to field operations by completion of the following form: http://www.env.gov.bc.ca/pasb/reports/fish/permit_notify7a.html
2. No electrofishing is permitted between September 15 and June 15 in streams containing bull trout.
3. Voucher specimens for all regionally significant red and blue-listed species (3 per species), with exception to SARA-listed white sturgeon (*Acipenser transmontanus*), must be submitted to the Regional Fish Information Specialist as per RISC standards.
4. All sampling gear follow Association of Professional Biologist's advisory practice bulletin #5. Practice Advisory Dydimo, see: http://a100.gov.bc.ca/pub/eirs/viewDocumentDetail.do?fromStatic=true&repository=BDP&documentId=9469.

Peace Region

1. No electrofishing is permitted between September 15 and June 15 in streams containing bull trout.
2. All sampling gear follow Association of Professional Biologists' advisory practice bulletin #5. Practice Advisory – Dydimo, see: http://a100.gov.bc.ca/pub/eirs/viewDocumentDetail.do?fromStatic=true&repository=BDP&documentId=9469
3. All fishing gear (e.g., gill nets, minnow traps, etc.) that are left unattended must have the permit holders contact information (name and phone number).
4. Within 120 days of expiry of this permit, the permit holder must submit a report that summarizes all field and any laboratory analysis data related to the sampling program (typically location of catch, species, individual fish tissue metals analysis, moisture content, fish length and weight, etc., and as applicable) and all associated raw laboratory data.

   The digital final written report (e.g., report, summary, memo, letter) is required and shall be submitted along with the standard format Excel data submission template.

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	**Gasterosteus sp.*
Benthic Vananda Creek Stickleback	**Gasterosteus sp.*
Limnetic Paxton Lake Stickleback	**Gasterosteus sp.*
Limnetic Vananda Creek Stickleback	**Gasterosteus sp.*
Nooksack Dace	**Rhinichthys sp.*
Morrison Creek Lamprey	**Lampetra richardsoni*
Vancouver Lamprey (Cowichan Lake Lamprey)	**Lampetra macrostoma*
Cultus Pygmy Sculpin	**Cottus sp.*
Shorthead Sculpin	**Cottus confusus*
Hotwater Physa	**Physella wrighti*
Limnetic Enos Lake Stickleback	*Gasterosteus sp.*
Benthic Enos Lake Stickleback	*Gasterosteus sp.*
Salish Sucker	*Catostomus sp.*
Speckled Dace	*Rhinichthys osculus*
Charlotte Unarmoured Stickleback	*Gasterosteus aculeatus*
Columbia Mottled Sculpin	*Cottus bairdi hubbsi*
Giant Stickleback	*Gasterosteus sp.*
Green Sturgeon	*Acipenser medirostris*
Umatilla Dace	*Rhinichthys umatilla*
West Slope Cutthroat Trout	**Oncorhynchus clarki lewisi*
White Sturgeon	*Acipenser transmontanus*

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). For listed non-game freshwater fish the contact is Jordan Rosenfeld (jordan.rosenfeld@gov.bc.ca).

Table 2 – Species Names and Codes

Common name	Scientific Name	Code	Common name	Scientific Name	Code
American Shad	*Alosa sapidissima*	SH	Mottled Sculpin	*Cottus bairdi*	CBA
Arctic Char	*Salvelinus alpinus*	AC	Mountain Whitefish	*Prosopium williamsoni*	MW
Arctic Cisco	*Coregonus autumnalis*	CA	Ninespine Stickleback	*Pungitius pungitius*	NSB
Arctic Grayling	*Thymallus arcticus*	GR	Nooksack Dace	*Rhinichthys sp*	NDC
Arctic Lamprey	*Lampetra*	AL	Northern Mountain Sucker	*Catostomus platyrhynchus*	MSU
Arctic Smelt	*Osmerus mordax dentex*	ASM	Northern Pearl Dace	*Margariscus margarita*	PDC
Bering Cisco	*Coregonus laurettae*	CB	Northern Pike	*Esox lucius*	NP
Black Catfish/Bullhead	*Ameiurus melas*	BKH	Northern Pikeminnow	*Ptychocheilus oregonensis*	NSC
Black Crappie	*Pomoxis nigromaculatus*	BCB	Northern Redbelly Dace	*Phoxinus eos*	RDC
Brassy Minnow	*Hybognathus hankinsoni*	BMC	Pacific Lamprey	*Lampetra tridentata*	PL
Bridgelip Sucker	*Catastomus columbianus*	BSU	Peamouth Chub	*Mylocheilus caurinus*	PCC
Broad Whitefish	*Coregonus nasus*	BW	Prickly Sculpin	*Cottus asper*	CAS
Brook Stickleback	*Culaea inconstans*	BSB	Pumpkinseed Sunfish	*Lepomis gibbosus*	PMB
Brook Trout	*Salvelinus fontinalis*	EB	Pygmy Longfin Smelt	*Spirinchus sp*	PLS
Brown Catfish (Brown Bullhead)	*Ameiurus nebulosus*	BNH	Pygmy Whitefish	*Prosopium coulteri*	PW
Brown Trout	*Salmo trutta*	GB	Rainbow Smelt	*Osmerus dentex*	RSM
Bull Trout	*Salvelinus confluentus*	BT	Rainbow Trout	*Oncorhynchus mykiss*	RB
Burbot	*Lota lota*	BB	Redside Shiner	*Richardsonius balteatus*	RSC
Carp	*Cyprinus carpio*	CP	River Lamprey	*Lampetra ayresi*	RL
Charlotte Unarmoured Stickleback	*Gasterosteus sp*	SB3	Round Whitefish	*Prosopium cyclindraceum*	RW
Chiselmouth (Chiselmouth Chub)	*Acrocheilus alutaceus*	CMC	Salish Sucker	*Catostomus sp*	SSU
Coastrange Sculpin	*Cottus aleuticus*	CAL	Sharpnose Sculpin	*Cinocottus acuticeps*	CCA
Coastal Cutthroat Trout	*Oncorhynchus clarki clarki*	CCT	Shorthead Sculpin	*Cottus confusus*	CCN
Cultus Lake Sculpin	*Cottus sp*	CCL	Slimy Sculpin	*Cottus cognatus*	CCG
Crayfish	*Pacifastacus leniusculus*	CRA			
Deepwater Sculpin	*Myoxocephalus thompsoni*	CMT	Smallmouth Bass	*Micropterus dolomieui*	SMB
Dolly Varden	*Salvelinus malma*	DV	Speckled Dace	*Rhinichthys osculus*	SDC
Emerald Shiner	*Notropis atherinoides*	ESC	Spoonhead Sculpin	*Cottus ricei*	CRI
Eulachon	*Thaleichthys pacificus*	EU	Spottail Shiner	*Notropis hudsonius*	STC
Fathead Minnow	*Pimephales promelas*	FM	Squanga	*Coregonus sp*	SQ
Finescale Dace	*Phoxinus neogaeus*	FDC	Staghorn Sculpin	*Leptocottus armatus*	CLA
Flathead Chub	*Platygobio gracilis*	FHC	Starry Flounder	*Platichthys stellatus*	SFL
Giant Pygmy Whitefish	*Prosopium sp*	GPW	Steelhead	*Oncorhynchus mykiss*	ST
Giant Stickleback	*Gasterosteus sp*	SB8	Tench	*Tinca tinca*	TC
Golden Trout	*Oncorhynchus aguabonita*	GT	Threespine Stickleback	*Gasterosteus aculeatus*	TSB
Goldeye	*Hiodon alosoides*	GE	Tidepool Sculpin	*Oligocottus maculosus*	COM
Goldfish	*Carassius auratus*	GC	Torrent Sculpin	*Cottus rhotheus*	CRH
Green Sturgeon	*Acipenser medirostris*	GSG	Troutperch	*Percopsis omiscomaycus*	TP
Inconnu	*Stenodus leucichthys*	IN	Umatilla Dace	*Rhinichthys umatilla*	UDC
Kokanee	*Oncorhynchus nerka*	KO	Walleye	*Stizostedion vitreus*	WP
Lake Chub	*Couesius plumbeus*	LKC	Western Brook Lamprey	*Lampetra richardsoni*	BL
Lake Cisco	*Coregonus artedii*	CL	Westslope Cutthroat Trout	*Oncorhynchus clarki lewisi*	WCT
Lake Lamprey	*Lampetra macrostoma*	LL	White Sucker	*Catostomus commersoni*	WSU
Lake Trout	*Salvelinus namaycush*	LT	Yellow Perch	*Perca flavescens*	YP
Lake Whitefish	*Coregonus clupeaformis*	LW	Balkwill Lake Benthic Stickleback	*Gasterosteus sp*	SB1
Largemouth Bass	*Micropterus salmoides*	LMB	Balkwill Lake Limnetic Stickleback	*Gasterosteus sp*	SB2
Largescale Sucker	*Catostomus macrocheilus*	CSU	Emily Lake Benthic Stickleback	*Gasterosteus sp*	SB4

Least Cisco	*Coregonus sardinella*	CS	Emily Lake Limnetic Stickleback	*Gasterosteus sp*	SB5
Leopard Dace	*Rhinichthys falcatus*	LDC	Enos Lake Benthic Stickleback	*Gasterosteus sp*	SB6
Longfin Smelt	*Spirinchus thaleichthys*	LSM	Enos Lake Limnetic Stickleback	*Gasterosteus sp*	SB7
Longnose Dace	*Rhinichthys cataractae*	LNC	Paxton Lake Benthic Stickleback	*Gasterosteus sp*	SB12
Longnose Sucker	*Catostomus catostomus*	LSU	Paxton Lake Limnetic Stickleback	*Gasterosteus sp*	SB13
Morrison Creek Lamprey	*Lampetra richardsoni marifaga*	MCL	Priest Lake Benthic Stickleback	*Gasterosteus sp*	SBB
Mosquitofish	*Gambusia affinis*	GAM	Priest Lake Limnetic Stickleback	*Gasterosteus sp*	SBP