

Columbia Shuswap Regional Invasive Species Watch-list 2021

PROVINCIAL PRIORITY DEFINITIONS (as per February 2020 list: https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/guidance-resources/provincial_priority_is_list_final2019_march2_2020_posted_online.pdf)		
Prevent	1	Species determined to be high risk to BC and not yet established. Management objective is to prevent the introduction and establishment.
Provincial EDRR	2	Species is high risk to BC and is new to the Province. Management objective is eradication.
Provincial Containment	3	Species is high risk with limited extent in BC but significant potential to spread. Management objective is to prevent further expansion into new areas with the ultimate goal of reducing the overall extent.
Regional Containment/Control	4	Species is high risk and well established, or medium risk with high potential for spread. Management objective is to prevent further expansion into new areas within the region through establishment of containment lines and identification of occurrences outside the line to control.
Management	5	Species is more widespread but may be of concern in specific situations with certain high values - e.g., conservation lands, specific agriculture crops. Management objective is to reduce the invasive species impacts locally or regionally, where resources are available.
Not listed	6	Species is of concern in CSRD but is not listed provincially

Note: the purpose of this watch-list is to improve awareness and reporting in the Columbia Shuswap region. For priority ranking, risk assessments and management tools for invasive species, the Province of BC is the authority. To report invasive species, go to: www.reportinvasives.ca

Amphibians & Reptiles	Priority rank	Genus	Species	Present in CSRD?	Known Location(s)
Italian wall lizard	1	<i>Podarcis</i>	<i>siculus</i>	Absent	Vancouver (https://www.canadianfieldnaturalist.ca/index.php/cfn/article/view/248)
American bullfrog	4	<i>Lithobates</i>	<i>catesbeianus</i>	Absent	Creston Valley, Lower Mainland, Vancouver Island, Okanagan (populations may be eradicated). Idaho, US
European wall lizard	4	<i>Podarcis</i>	<i>muralis</i>		
Green frog	4	<i>Lithobates</i>	<i>clamitans</i>		Vancouver, Southern Vancouver Island
Red-eared slider	4	<i>Trachemys</i>	<i>scripta</i>	Unconfirmed	McGuire Lake (unconfirmed)
Snapping turtle	4	<i>Chelydra</i>	<i>serpentina</i>		
Softshell turtle	6	<i>Apalone sp.</i>			
Western fence lizard	6	<i>Sceloporus</i>	<i>occidentalis</i>		
Birds	Priority rank	Genus	Species	Present in CSRD?	Known Location(s)
American black duck	5	<i>Anas</i>	<i>rubripes</i>		
Eurasian collared dove	5	<i>Streptopelia</i>	<i>decaocto</i>	Present	CSR, TNRD
European house sparrow	5	<i>Passer</i>	<i>domesticus</i>	Present	CSR, TNRD
European starling	5	<i>Sturnus</i>	<i>vulgaris</i>	Present	CSR

Birds	Priority rank	Genus	Species	Present in CSRD?	Known Location(s)
Mute swan	5	<i>Cygnus</i>	<i>olor</i>		
Rock pigeon	5	<i>Columba</i>	<i>livia</i>		
Wild turkey	5	<i>Meleagris</i>	<i>gallopavo</i>		Vernon, Radium, Slocan, Armstrong, Golden?
California Quail	6	<i>Callipepla</i>	<i>californica</i>		Possibly Kamloops, Bachelor Heights
Chukar partridge	6	<i>Alectoris</i>	<i>chukar</i>		
Disease	Priority rank	Genus	Species	Present in CSRD?	Known Location(s)
Cytrid fungus	1	<i>Batrachochytrium</i>	<i>dendrobatidis</i>	Unconfirmed in Glacier and Mount Revelstoke NP.	Confirmed Creston. Unconfirmed in Glacier and Mount Revelstoke NP.
Infectious amphibian diseases (e.g. cytrid fungus, rana virus)	1	<i>multiple</i>	<i>multiple</i>		
Whirling disease	1	<i>Myxobolus</i>	<i>cerebralis</i>		
White-nose syndrome	1	<i>Pseudogymnoascus</i>	<i>destructans</i>		Washington, MB/SK border
Bovine Tuberculosis	6	<i>Mycobacterium</i>	<i>bovis</i>		Wood Buffalo NP and Riding Mountain NP.
Chronic Wasting Disease	6	<i>Abnormal protien called a Prion</i>		Absent	Current USGS map shows none in BC but there is concern in the Peace region and the Kootenays as wild populations may have it.
Fish	Priority rank	Genus	Species	Present in CSRD?	Known Location(s)
American Shad	1	<i>Alosa</i>	<i>sapidissima</i>	Present	Williamson Lake
Amur goby	1	<i>Rhinogobius</i>	<i>brunneus</i>		
Bitterling	1	<i>Rhodeus</i>	<i>species</i>		
Bighead carp (Asian)	1	<i>Hypophthalmichthys</i>	<i>nobilis</i>		
Black carp (Asian)	1	<i>Mylopharyngodon</i>	<i>piceus</i>		
Blotched snakehead	1	<i>Channa</i>	<i>bleheri</i>		
Channel catfish	1	<i>Ictalurus</i>	<i>punctatus</i>		
Grass carp (Asian)	1	<i>Ctenopharyngodon</i>	<i>idella</i>		
Green sunfish	1	<i>Lepomis</i>	<i>cyanellus</i>		
Monkey goby	1	<i>Neogobius</i>	<i>fluviatilis</i>		
Muskellunge	1	<i>Esox</i>	<i>masquinongy</i>		
Northern snakehead	1	<i>Channa</i>	<i>argus</i>		Burnaby Lk- eradicated
Prussian carp	1	<i>Carassius</i>	<i>carassius</i>		

Fish	Priority rank	Genus	Species	Present in CSRD?	Known Location(s)
Rainbow snakehead	1	<i>Channa</i>	<i>maculata, argus & bleheri</i>		
Red bellied piranha*	1	<i>Pygocentrus</i>	<i>nattereri</i>		
Rock bass	1	<i>Ambloplites</i>	<i>rupestris</i>		
Round goby	1	<i>Neogobius</i>	<i>melanostomus</i>		
Silver carp (Asian)	1	<i>Hypophthalmichthys</i>	<i>molitrix</i>		
Spottail shiner	1	<i>Notropis</i>	<i>hudsonius</i>		
Tube-nose goby	1	<i>Proterorhinus</i>	<i>semilunaris</i>		
Tui chub	1	<i>Gila</i>	<i>bicolor</i>		
Warmouth	1	<i>Lepomis</i>	<i>gulosus</i>		
Western mosquitofish	1	<i>Gambusia</i>	<i>affinis</i>		
White cloud mountain minnow	1	<i>Tanichthys</i>	<i>albonubes</i>		
Oriental weatherfish	2	<i>Misgurnus</i>	<i>anguillicaudatus</i>		
Rosy red minnow (or Fat head minnow)	2	<i>Pimephales</i>	<i>promelas</i>		
Goldfish	4	<i>Carassius</i>	<i>auratus</i>	Present	White Lake, Shuswap Lake, 70th Ave Pond, Lost Lake?, McGuire Lake?
Northern Pike	4	<i>Esox</i>	<i>lucius</i>	Absent	Incorrect information in iMap BC shows at Pearson Crossing Columbia Wetlands.
Yellow perch	4	<i>Perca</i>	<i>flavescens</i>	Present	Upper Arrow, Williamson Lake, Pinaus Lake, Little Pinaus Lake, Square Lake, Cedar Creek, Some lakes treated with Rotenone (Gardom, Skimikin, Larch Lake, Larch Pond, Nellies Lake) no re-establishment since.
Black bullhead	5	<i>Ameiurus</i>	<i>natalis</i>		
Black crappie	5	<i>Pomoxis</i>	<i>nigromaculatus</i>		Vancouver
Bluegill sunfish	5	<i>Lepomis</i>	<i>macrochirus</i>		
Brown bullhead	5	<i>Ameiurus</i>	<i>nebulosus</i>		
Common carp	5	<i>Cyprinus</i>	<i>carpio</i>	Present	Shuswap Lake, Upper Arrow, Canoe Pond, Larch Hills Lake, Shuswap River (Enderby)
Largemouth bass	5	<i>Micropterus</i>	<i>salmoides</i>	Absent	
Pumpkinseed sunfish	5	<i>Lepomis</i>	<i>gibbosus</i>	Absent	Skimikin Lake
Smallmouth bass	5	<i>Micropterus</i>	<i>dolomieu</i>	Absent	Gardom Lake, treated
Trench	5	<i>Tinca</i>	<i>tinca</i>		
Walleye (Southern BC)	5	<i>Sander</i>	<i>vitreus</i>		
Yellow Bullhead	5	<i>Ameiurus</i>	<i>melas</i>		
Atlantic salmon	6	<i>Salmo</i>	<i>salar</i>		
Black bullhead	6	<i>Ameiurus</i>	<i>melas</i>		

Fish	Priority rank	Genus	Species	Present in CSRD?	Known Location(s)
Brown Trout	6	<i>Salmo</i>	<i>trutta</i>	Present	Trout Lake
Eastern Brook Trout	6	<i>Salvelinus</i>	<i>fontinalis</i>	Present	Gardom Lake and the Columbia River System (iMapBC) ALL IPMS's (consensus at land manager meeting) Eradication in progress LLKY (Parks Canada)
Fathead minnow	6	<i>Pimephales</i>	<i>promelas</i>		
Rainbow trout	6	<i>Oncorhynchus</i>	<i>mykiss</i>	Present- Widespread	All IPMA's. Eradication in progress LLKY
Red bellied pacu	6	<i>Piaractus</i>	<i>brachypomus</i>		
Red shiner	6	<i>Cyprinells</i>	<i>lutrensis</i>		
Yellow bullhead	6	<i>Ameiurus</i>	<i>natalis</i>		
Fungi	Priority rank	Genus	Species	Present in CSRD?	Known Location(s)
Death cap	3	<i>Amanita</i>	<i>phalloides</i>		Vancouver
White pine blister rust	6	<i>Cronartium</i>	<i>ribicola</i>	Present- widespread	CSRD All
Insects	Priority rank	Genus	Species	Present in CSRD?	Known Location(s)
Spotted lantern fly	1	<i>Lycorma</i>	<i>delicatula</i>		
Asian longhorned beetle	2	<i>Anoplophora</i>	<i>glabripennis</i>		
Gypsy months (Asian & European)	2	<i>Lymantria</i>	<i>spp.</i>		Parks Canada may be monitoring in the future (unconfirmed)
Japanese beetle	2	<i>Popillia</i>	<i>japonica</i>		Vancouver
Japanese hornet	2	<i>Vespa</i>	<i>mandarinia</i>		
Apple maggot	3	<i>Rhagoletis</i>	<i>pomonella</i>		
Argentine ant	4	<i>Linepithema</i>	<i>humile</i>		
Asian needle ant	4	<i>Pachycondyla</i>	<i>chinensis</i>		
European fire ant	4	<i>Myrmica</i>	<i>rubra</i>		Naramata, Vancouver
Balsam woolly adelgid	5	<i>Adelges</i>	<i>piceae</i>	Present	CSRD- Parks Canada will be monitoring
Brown marmorated stink bug	5	<i>Halyomorpha</i>	<i>halys</i>	Present	CSRD, Kamloops
Drumming katydid	5	<i>Meconema</i>	<i>thalassinum</i>		
European chafer beetle	5	<i>Amphimallon</i>	<i>majale</i>		Vancouver
European paper wasp	5	<i>Polistes</i>	<i>dominula</i>		
Large yellow underwing	5	<i>Noctua</i>	<i>pronuba</i>		
Praying mantis	5	<i>Mantis</i>	<i>religiosa</i>		
Spotted wing drosophila	5	<i>Drosophila</i>	<i>suzukii</i>		Fraser Valley, maybe Okanagan
Winter moth	5	<i>Operophtera</i>	<i>brumata</i>		
Woodlouse spider	5	<i>Dysdera</i>	<i>crocata</i>		
Coddling Moth	6	<i>Cydia</i>	<i>pomonella</i>	Present	Salmon Arm orchards

Insects	Priority rank	Genus	Species	Present in CSRD?	Known Location(s)
Garden soldier fly	6	<i>Exaireta</i>	<i>spinigera</i>		
Impressive fire ant	6	<i>Myrmica</i>	<i>specioides</i>		
Little fire ant	6	<i>Wasmannia</i>	<i>auropunctata</i>		
Seven-spotted ladybug	6	<i>Coccinella</i>	<i>septempunctata</i>	Absent?	Revelstoke (unconfirmed)
Tropical stinging ant	6	<i>Hypoponera</i>	<i>punctatissima</i>		
Western Yellowstriped Armyworm	6	<i>Spodoptera</i>	<i>praefica</i>	Present?	Was reported for the first time in the North Okanagan valley of British Columbia in Enderby, Armstrong and Spallumcheen in July 2018
Invertebrates	Priority rank	Genus	Species	Present in CSRD?	Known Location(s)
Apple snail	1	<i>Ampullariidae</i>	<i>sp.</i>		
Conrad's false mussel	1	<i>Mytilopsis</i>	<i>leucophaeata</i>		
Marbled crayfish	1	<i>Procambarus</i>	<i>fallax f. virginalis</i>	?	Unknown species of crayfish present in Skimikin Lake
Quagga mussel	1	<i>Dreissena</i>	<i>bugensis</i>	Absent	Montana/ Manitoba
Ringed crayfish	1	<i>Orconectes</i>	<i>neglectus</i>	?	Unknown species of crayfish present in Skimikin Lake
Rusty crayfish	1	<i>Orconectes</i>	<i>rusticus</i>	?	Unknown species of crayfish present in Skimikin Lake
Spiny waterflea	1	<i>Bythotrephes</i>	<i>longimanus</i>		
Virile crayfish	1	<i>Orconectes</i>	<i>virilis</i>	?	Unknown species of crayfish present in Skimikin Lake
Zebra mussel	1	<i>Dreissena</i>	<i>polymorpha</i>	Absent	Montana/ Manitoba
European Brown garden snail	2	<i>Cornu</i>	<i>aspersum</i>		
Red swamp crayfish	2	<i>Procambarus</i>	<i>clarkii</i>		
Cherry shrimp	3	<i>Neocaridina</i>	<i>dauidi</i>		
Chinese, Japanese and other mystery snails	3	<i>Cipangopaludina spp./Bellamya</i>	<i>chinensis</i>		Idaho (Priest Lake)
Invasive freshwater clam	3	<i>Corbicula</i>	<i>fluminea</i>		Washington State (Pend D'Oreille)
New Zealand mudsnail	3	<i>Potamopyrgus</i>	<i>antipodarum</i>		Spokane and Vancouver Island
Banded garden snail	5	<i>Cepaea</i>	<i>nemoralis</i>	Present	Golden, Revelstoke
Freshwater jellyfish	5	<i>Craspedacusta</i>	<i>sowerbyi</i>		
Land slugs	5	<i>Arion spp.</i>	<i>rufus and vulgaris</i>		
European black slug	6	<i>Arion</i>	<i>ater</i>		Parks Canada- Natalie to confirm
Giant garden slug/ leopard slug/ great grey slug	6	<i>Limax</i>	<i>maximus</i>	Present	Revelstoke
Japanese mussel / Asian date mussel	6	<i>Musculista</i>	<i>senhousia</i>		
New Zealand green-lipped mussel	6	<i>Perna spp.</i>			
Northern quahog clam	6	<i>Mercenaria</i>	<i>mercenaria</i>		

Invertebrates	Priority rank	Genus	Species	Present in CSRD?	Known Location(s)
Spanish slug	6	<i>Arion</i>	<i>vulgaris</i>		
Varnish clam	6	<i>Nuttalia</i>	<i>obscurata</i>		
Mammals	Priority rank	Genus	Species	Present in CSRD?	Known Location(s)
Nutria	1	<i>Myocastor</i>	<i>coypus</i>		South Vancouver/ Oregon
Fallow deer	3	<i>Dama</i>	<i>dama</i>		
Feral swine	3	<i>Sus</i>	<i>scrofa</i>		Lumby, Christina Lk? Williams Lk?
Virginia opossum	3	<i>Didelphis</i>	<i>virginiana</i>		
Eastern fox squirrel	4	<i>Sciurus</i>	<i>niger</i>		
Eastern grey squirrel	4	<i>Sciurus</i>	<i>carolinensis</i>	Present	Revelstoke
European rabbit	4	<i>Oryctolagus</i>	<i>cuniculus</i>	Present	Revelstoke, Big Eddy, unconfirmed
Norway/Brown rat	4	<i>Ratus</i>	<i>norvegicus</i>		Nelson (unconfirmed)
Roof/Black rat	4	<i>Ratus</i>	<i>ratus</i>	Present	Revelstoke, Sicamous, Shuswap
Eastern cottontail rabbit	5	<i>Sylvilagus</i>	<i>floridanus</i>		
House mouse	6	<i>Mus</i>	<i>musculus</i>	Present	CSRD