

Columbia Shuswap Regional Invasive Species Watch List, Updated April 2025

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: [Report Invasive Species](#)

PROVINCIAL DEFINITIONS		
Updated: August 2023		
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 not listed by the Province, but presence/absence data collected for Columbia Shuswap region.

Amphibians	Priority	Genus	Species	Present in CSRD?	Known Location(s)
African Clawed Frog	1	<i>Xenopus</i>	<i>laevis</i>	No	US: Washington
American bullfrog	4	<i>Lithobates</i>	<i>catesbeianus</i>	Absent	BC: Creston Valley, Nelway, Lower Mainland to Sunshine Coast, Vancouver Island and some Gulf Islands USA: Washington and Idaho
Green frog	4	<i>Lithobates</i>	<i>clamitans</i>	Absent	BC: Lower Mainland, Southern Vancouver Island
Birds	Priority	Genus	Species	Present in CSRD?	Known Location(s)
American black duck	5	<i>Anas</i>	<i>rubripes</i>	Unknown	BC: Southern Vancouver Island
Eurasian collared dove	5	<i>Streptopelia</i>	<i>decaocto</i>	Present	CSRD
European house sparrow	5	<i>Passer</i>	<i>domesticus</i>	Present	CSRD
European starling	5	<i>Sturnus</i>	<i>vulgaris</i>	Present	CSRD
Mute swan	5	<i>Cygnus</i>	<i>olor</i>	Unknown	BC: Southern Vancouver Island, Vancouver
Rock pigeon	5	<i>Columba</i>	<i>livia</i>	Present	CSRD: Salmon Arm (iNaturalist observation)
Wild turkey	5	<i>Meleagris</i>	<i>gallopavo</i>	Unknown	BC: Grindrod (iNaturalist observation)

California Quail	6	<i>Callipepla</i>	<i>californica</i>	Present	CSRD: Shuswap region
Chukar partridge	6	<i>Alectoris</i>	<i>chukar</i>	Unknown	BC: South Okanagan, Kamloops
Disease	Priority	Genus	Species	Present in CSRD?	Known Location(s)
Chytrid fungus	1	<i>Batrachochytrium</i>	<i>dendrobatidis</i>	Present	Found widespread across BC
Ranavirus	1	<i>Ranavirus</i>	<i>spp.</i>	Absent	Confirmed in northern BC in 2022
Snake fungal disease	1	<i>Ophidiomyces</i>	<i>ophidicola</i>	Absent	
Whirling disease	2	<i>Myxobolus</i>	<i>cerebralis</i>	Present	BC: Kootenay Lake, Emerald Lake, Emerald River, Kicking Horse River, Wapta Lake, Finn Creek, Monarch Creek. AB: BNP, Southern Alberta including Bow, Old Man, Spray, Red Deer, North Saskatchewan and Crowsnest Rivers
White-nose syndrome	2	<i>Pseudogymnoascus</i>	<i>destructans</i>	Unknown	BC: P.D. (fungus that causes WNS) found in guano in Grand Forks in 2022. No detections in 2023 or 2024. No WNS positive bats to date. Canada: Alberta US: Washington
Dutch Elm Disease	2	<i>Ophiostoma</i>	<i>ulmi and novo-ulmi</i>	Unknown	BC: Rossland, Trail and Warfield
Bovine tuberculosis	6	<i>Mycobacterium</i>	<i>bovis</i>	Unknown	AB: Wood Buffalo National Park MB: Riding Mountain National Park
Chronic wasting disease	6	Abnormal protein called a Prion		Absent	BC: Kootenay Region as of 2024. Concern in the Peace region but not confirmed.
Fish	Priority	Genus	Species	Present in CSRD?	Known Location(s)
American Shad	1	<i>Alosa</i>	<i>sapidissima</i>	Present	CSRD: Williamson Lake
Amur goby	1	<i>Rhinogobius</i>	<i>brunneus</i>	Absent	
Bighead carp (Asian)	1	<i>Hypophthalmichthys</i>	<i>nobilis</i>	Absent	
Bitterling	1	<i>Rhodeus</i>	<i>species</i>	Absent	
Black carp (Asian)	1	<i>Mylopharyngodon</i>	<i>piceus</i>	Absent	
Channel catfish	1	<i>Ictalurus</i>	<i>punctatus</i>	Absent	
Grass carp (Asian)	1	<i>Ctenopharyngodon</i>	<i>idella</i>	Absent	
Green sunfish	1	<i>Lepomis</i>	<i>cyanellus</i>	Absent	
Monkey goby	1	<i>Neogobius</i>	<i>fluviatilis</i>	Absent	
Muskellunge	1	<i>Esox</i>	<i>masquinongy</i>	Absent	
Prussian carp	1	<i>Carassius</i>	<i>carassius</i>	Absent	AB and SK.
Red bellied piranha	1	<i>Pygocentrus</i>	<i>nattereri</i>	Absent	BC: Nanaimo (2019)
Rock bass	1	<i>Ambloplites</i>	<i>rupestris</i>	Absent	
Round goby	1	<i>Neogobius</i>	<i>melanostomus</i>	Absent	

Silver carp (Asian)	1	<i>Hypophthalmichthys</i>	<i>molitrix</i>	Absent	
Snakehead (Northern, Blotched, Rainbow)	1	<i>Channa</i>	<i>argus, bleheri, maculata</i>	Absent	BC: Northern snakehead eradicated from Burnaby Lake (2012)
Spottail shiner	1	<i>Notropis</i>	<i>hudsonius</i>	Absent	Note: Native to Peace River region
Tubenose goby	1	<i>Proterorhinus</i>	<i>semilunaris</i>	Absent	
Tui chub	1	<i>Gila</i>	<i>bicolor</i>	Absent	
Warmouth	1	<i>Lepomis</i>	<i>gulosus</i>	Absent	
Western mosquitofish	1	<i>Gambusia</i>	<i>affinis</i>	Absent	BC: Fishtrap Creek (Abbotsford, 2023), Grafton Lake (Bowen Island, 2023), and Sardis Park (Chiliwack -iNaturalist, 2024). AB: Banff National Park (Banff Hot Springs)
White cloud mountain minnow	1	<i>Tanichthys</i>	<i>albonubes</i>	Absent	BC: Lower Mainland 2023. Found being sold in pet stores, CO's responded.
Oriental weather loach	2	<i>Misgurnus</i>	<i>anguillicaudatus</i>	Absent	BC: Lower Fraser valley
Rosy red minnow (Fathead minnow)	2	<i>Pimephales</i>	<i>promelas</i>	Absent	BC: Northeast (Two Island Lake near Tupper, south of Dawson Creek), near Quesnel and Prince George, Kelowna, Fraser valley, Metro Vancouver and on Vancouver Island (near Duncan).
Goldfish	4	<i>Carassius</i>	<i>auratus</i>	Present	CSRD: White Lake, Shuswap Lake, Canoe Pond (70th Ave Canoe), McGuire Lake (Salmon Arm)
Northern Pike	4	<i>Esox</i>	<i>lucius</i>	Absent	iMap BC shows at Pearson Crossing Columbia Wetlands: this is an incorrect GPS location. Northern pike have also been confirmed a few times in Koocanusa Reservoir during Montana State gill net assessments and I have confirmed northern pike caught on two occasions in the mainstem upper Kootenay River near Canal Flats and again in the lower St. Mary River (upper Kootenay River tributary) near the St. Eugene Mission. Those are the only confirmed catch records. (Source: Fish Biologist Kootenay region via Khaylish Fraser)
Yellow perch	4	<i>Perca</i>	<i>flavescens</i>	Present	CSRD: Upper Arrow Lake, Williamson Lake, Pinaus Lake, Little Pinaus Lake, Square Lake, Cedar Creek; Reported in Forest lake which drains into Adams Lake (Brennan Lund, ALIB).
Black crappie	5	<i>Pomoxis</i>	<i>nigromaculatus</i>	Absent	BC: Lower Fraser valley, South Okanagan valley, Trail
Bluegill sunfish	5	<i>Lepomis</i>	<i>macrochirus</i>	Absent	BC: South Okanagan
Largemouth bass	5	<i>Micropterus</i>	<i>salmoides</i>	Absent	BC: Lower Fraser valley, South Okanagan, Creston, Lower Kootenay River
Bullhead (Yellow, Black, Brown)	5	<i>Ameiurus</i>	<i>natalis, melas, nebulosus</i>	Absent	<i>melas</i> - BC: Okanagan, Kootenay River near Creston

Common carp	5	<i>Cyprinus</i>	<i>carpio</i>	Present	CSRD: Shuswap Lake, Upper Arrow Lake, Canoe Pond (70th Ave Canoe), Larch Hills Lake RDNO: Shuswap River (Enderby)
Pumpkinseed sunfish	5	<i>Lepomis</i>	<i>gibbosus</i>	Absent	CSRD: rotenone treatment in Skimikin Lake
Smallmouth bass	5	<i>Micropterus</i>	<i>dolomieu</i>	Absent	CSRD: rotenone treatment in Gardom Lake
Trench	5	<i>Tinca</i>	<i>tinca</i>	Absent	BC: Okanagan, Kootenay River (near Creston)
Walleye (southern BC)	5	<i>Sander</i>	<i>vitreus</i>	Absent	BC: Castlegar, Lower Arrow Lake
Atlantic salmon	6	<i>Salmo</i>	<i>salar</i>	Absent	BC: Lower Fraser Valley
Brown Trout	6	<i>Salmo</i>	<i>trutta</i>	Present	CSRD: Trout Lake
Eastern Brook Trout	6	<i>Salvelinus</i>	<i>fontinalis</i>	Present	CSRD: Gardom Lake, Columbia River System (iMapBC). Local rod and gun club has seen population increase (anecdotal), want to ask for regulation changes to increase harvest.
Fathead minnow	6	<i>Pimephales</i>	<i>promelas</i>	Absent	BC: Lower Fraser valley, Two Island Lake (near Tupper)
Rainbow trout	6	<i>Oncorhynchus</i>	<i>mykiss</i>	Present	CSRD: all IPMAs
Red bellied pacu	6	<i>Piaractus</i>	<i>brachypomus</i>	Absent	BC: One caught in Nanaimo and one caught in Williams Lake but neither have established populations
Red shiner	6	<i>Cyprinells</i>	<i>lutrensis</i>	Absent	
Fungi	Priority	Genus	Species	Present in CSRD?	Known Location(s)
Death cap	3	<i>Amanita</i>	<i>phalloides</i>	Absent	BC: Vancouver, Victoria, Lower Fraser valley
White pine blister rust	6	<i>Cronartium</i>	<i>ribicola</i>	Present	CSRD: all IPMAs. Columbia mtns and Seymour arm have a surveillance gap
Insects	Priority	Genus	Species	Present in CSRD?	Known Location(s)
Spotted lantern fly	1	<i>Lycorma</i>	<i>delicatula</i>	Absent	
Emerald ash borer	2	<i>Agrilus</i>	<i>planipennis</i>	Absent	BC: Vancouver 2024
Asian longhorned beetle	2	<i>Anoplophora</i>	<i>glabripennis</i>	Absent	
Spongy moths (Asian & European)	2	<i>Lymantria</i>	<i>spp.</i>	Unknown	BC: Lower Mainland, Vancouver Island, Salt Spring Island, Kamloops, Kelowna, and Cranbrook. US: Washington
Japanese beetle	2	<i>Popillia</i>	<i>japonica</i>	Absent	BC: Vancouver, Burnaby, and Port Coquitlam. Kamloops 2024.
Northern giant hornet	2	<i>Vespa</i>	<i>mandarinia</i>	Absent	BC: Eradicated from Nanaimo in 2019, confirmed in the Fraser Valley in 2020. No new detections in BC or Washington since 2021 (as of 2024).
Asian needle ant	2	<i>Pachycondyla</i>	<i>chinensis</i>	Absent	
Argentine ant	2	<i>Linepithema</i>	<i>humile</i>	Absent	BC: Victoria

Apple maggot	3	<i>Rhagoletis</i>	<i>pomonella</i>	Absent	BC: Vancouver and surrounding area, Fraser Valley, Vancouver Island, Gulf Islands, and Prince George.
European fire ant	4	<i>Myrmica</i>	<i>rubra</i>	Absent	BC: Naramata/Okanagan Valley, Lower Mainland, Fraser Valley, Southern Vancouver Island
Little fire ant	4	<i>Wasmannia</i>	<i>auropunctata</i>	Absent	
Tropical stinging ant	4	<i>Hypoconera</i>	<i>punctatissima</i>	Unknown	
Impressive fire ant	4	<i>Myrmica</i>	<i>specioides</i>	Unknown	
Balsam woolly adelgid	5	<i>Adelges</i>	<i>piceae</i>	Present	BC: Interior, as far north as Horsefly and to the east as far as Nelson. Parks Canada: monitoring at MRG
Brown marmorated stink bug	5	<i>Halyomorpha</i>	<i>halys</i>	Present	CSRD: north of Salmon Arm (confirmed iNaturalist observation) BC: Southwestern BC, including Vancouver, Fraser Valley, Vancouver Island, and Kelowna
Drumming katydid	5	<i>Meconema</i>	<i>thalassinum</i>	Absent	BC: Lower Mainland
European chafer beetle	5	<i>Amphimallon</i>	<i>majale</i>	Present	BC: CSRD (Revelstoke), Vancouver
European paper wasp	5	<i>Polistes</i>	<i>dominula</i>	Present	CSRD: All IPMAs
Large yellow underwing moth	5	<i>Noctua</i>	<i>pronuba</i>	Absent	BC: Vancouver, Vancouver Island, Grand Forks and south of Penticton
European praying mantis	5	<i>Mantis</i>	<i>religiosa</i>	Present	BC: Vancouver, Okanagan and Shuswap
Spotted wing drosophila	5	<i>Drosophila</i>	<i>suzukii</i>	Present	CSRD: Columbia Basin
Winter moth	5	<i>Operophtera</i>	<i>brumata</i>	Absent	BC: Vancouver, Southern Vancouver Island
Woodlouse spider	5	<i>Dysdera</i>	<i>crocata</i>	Absent	BC: Victoria
Codling moth	6	<i>Cydia</i>	<i>pomonella</i>	Present	CSRD: orchards in Salmon Arm
Garden soldier fly	6	<i>Exaireta</i>	<i>spinigera</i>	Unknown	
Seven-spotted ladybug	6	<i>Coccinella</i>	<i>septempunctata</i>	Present	CSRD: All IPMAs
Western yellow striped armyworm	6	<i>Spodoptera</i>	<i>praefica</i>	Unknown	BC: Reported for the first time in the North Okanagan Valley (Enderby, Armstrong and Spallumcheen) in July 2018
Invertebrates	Priority	Genus	Species	Present in CSRD?	Known Location(s)
Golden Mussel	1	<i>Limnoperna</i>	fortunei	Absent	California
Apple snail	1	<i>Ampullariidae</i>	spp.	Absent	
Conrad's false mussel	1	<i>Mytilopsis</i>	<i>leucophaeata</i>	Absent	
Marbled crayfish	1	<i>Procambarus</i>	<i>fallax f. virginalis</i>	Absent	
Ringed crayfish	1	<i>Orconectes</i>	<i>neglectus</i>	Absent	
Rusty crayfish	1	<i>Orconectes</i>	<i>rusticus</i>	Absent	

Spiny waterflea	1	<i>Bythotrephes</i>	<i>longimanus</i>	Absent	
Virile/Northern crayfish	2	<i>Faxonius</i>	<i>virilis</i>	Absent	BC: Confirmed in the Kootenay's (Lillian Lake and Moyie Lake 2023). Risk assessment in prep. AB: Single individual confirmed in Bow Lake in 2022
Zebra and Quagga mussel	1	<i>Dreissena</i>	<i>polymorpha & bugensis</i>	Absent	Canada: Manitoba USA: Idaho, Snake River, Twin Falls. Flows into Columbia River (US section)
European Brown garden snail	2	<i>Cornu</i>	<i>aspersum</i>	Absent	BC: Vancouver Island and the Lower Mainland
Red swamp crayfish	2	<i>Procambarus</i>	<i>clarkii</i>	Absent	BC: Lower Mainland
Cherry shrimp	3	<i>Neocaridina</i>	<i>davidi</i>	Absent	
Chinese, Japanese and other mystery snails	3	<i>Cipangopaludina spp./Bellamya</i>	<i>chinensis</i>	Absent	BC: Lower Fraser Valley (up to Hope), Southern Vancouver Island Idaho: Priest Lake
Freshwater clam (Asian)	3	<i>Corbicula</i>	<i>fluminea</i>	Present	CSRD: Shuswap Lake (Salmon Arm, Sicamous Narrows). Pit, Coquitmand and Lower Fraser Rivers too. Washington: Pend d'Oreille
New Zealand mudsnail	3	<i>Potamopyrgus</i>	<i>antipodarum</i>	Absent	BC: Vancouver Island (Port Alberni) Washington: Spokane
Grove snail/ brown-lipped snail	5	<i>Cepaea</i>	<i>nemoralis</i>	Present	CSRD: Golden, Revelstoke
Freshwater jellyfish	5	<i>Craspedacusta</i>	<i>sowerbyi</i>	Unknown	BC: Okanagan Lake, Kamloops, Lower Mainland, Sunshine Coast, Vancouver Island
Land slugs	5	<i>Arion</i>	<i>rufus</i> and <i>vulgaris</i>	Present	<i>rufus</i> - CSRD
European black slug	6	<i>Arion</i>	<i>ater</i>	Unknown	CSRD: potentially MRG
Giant garden slug/ leopard slug/ great grey slug	6	<i>Limax</i>	<i>maximus</i>	Present	CSRD: Revelstoke
Japanese mussel / Asian date mussel	6	<i>Musculista</i>	<i>senhousia</i>	Absent	
New Zealand green-lipped mussel	6	<i>Perna spp.</i>		Absent	
Northern quahog clam	6	<i>Mercenaria</i>	<i>mercenaria</i>	Absent	
Spanish slug	6	<i>Arion</i>	<i>vulgaris</i>	Absent	
Varnish clam	6	<i>Nuttalia</i>	<i>obscurata</i>	Absent	
Mammals	Priority	Genus	Species	Present in CSRD?	Known Location(s)
Nutria	1	<i>Myocastor</i>	<i>coypus</i>	Absent	BC: No confirmed occurrences. Historically found in the Lower Fraser River valley and Salt Spring Island. US: Washington, Oregon, California

Feral pig	2	<i>Sus</i>	<i>scrofa</i>	Present	CSRD: Few reports of uncontained domestic pigs BC: reported in low numbers in the Lower Mainland, Vancouver Island, Thompson-Okanagan, Peace, Chilcotin and Kootenay Regions.
Fallow deer	3	<i>Dama</i>	<i>dama</i>	Absent	BC: Mayne and Sidney Islands
Virginia opossum	3	<i>Didelphis</i>	<i>virginiana</i>	Absent	BC: Lower mainland, Fraser Valley, Hornby island
Eastern fox squirrel	4	<i>Sciurus</i>	<i>niger</i>	Absent	BC: Southern Okanagan valley
Eastern grey squirrel	4	<i>Sciurus</i>	<i>carolinensis</i>	Absent	BC: Vancouver and surrounding area, Fraser Valley, Okanagan, Vancouver Island, 100 Mile House, Quesnel, Kamloops, Vernon, and Falkland
European rabbit	4	<i>Oryctolagus</i>	<i>cuniculus</i>	Present	BC: Vancouver Island, Triangle Island, the Southern Coast, and the Okanagan CSRD: unconfirmed in Revelstoke (Big Eddy)
Norway/Brown rat	4	<i>Ratus</i>	<i>norvegicus</i>	Present	BC: Lower Mainland and coastal islands, Okanagan Valley (Vernon, Kelowna, Penticton, Osoyoos), Kamloops, the Shuswap area, Revelstoke, and the Kootenay region (Nelson, Castlegar, New Denver, Creston) CSRD: Revelstoke, Sicamous, Shuswap
Roof/Black rat	4	<i>Ratus</i>	<i>ratus</i>	Present	BC: Lower Mainland and coastal islands, Okanagan Valley (Vernon, Kelowna, Penticton, Osoyoos), Kamloops, the Shuswap area, Revelstoke, and the Kootenay region (Nelson, Castlegar, New Denver, Creston) CSRD: Revelstoke, Sicamous, Shuswap
Eastern cottontail rabbit	5	<i>Sylvilagus</i>	<i>floridanus</i>	Absent	BC: Lower Mainland, Vancouver Island
House mouse	6	<i>Mus</i>	<i>musculus</i>	Present	CSRD
Reptiles	Priority	Genus	Species	Present in CSRD?	Known Location(s)
Italian wall lizard	1	<i>Podarcis</i>	<i>siculus</i>	Absent	BC: Single occurrence in Vancouver in 2019 US: Orcas Island Washington
Softshell turtle	1	<i>Apalone</i>	spp.	Absent	BC: One lone turtle in 2011 in Stanley Park, none since
European wall lizard	4	<i>Podarcis</i>	<i>muralis</i>	Unknown	BC: Vancouver Island and Lower Mainland CSRD: Reported at Little River Bridge (unconfirmed)
Red-eared slider	4	<i>Trachemys</i>	<i>scripta</i>	Absent	BC: Vancouver Island, Gulf Islands, the Lower Mainland, and Southern Interior CSRD: Justin DeMerchant (ISCBC) did comprehensive turtle surveys in 2022 and found none in the shuswap
Snapping turtle	3	<i>Chelydra</i>	<i>serpentina</i>	Absent	BC: Vancouver Island and Clearwater

Western fence lizard	6	<i>Sceloporus</i>	<i>occidentalis</i>	Absent	BC: Kamloops US: Washington
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