

Acknowledgements

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The Introduction to Invasive Species training was developed by [Open School BC](#).

Photo Credits

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Lesson A: What is an invasive species?		
Subheading	Photo Description	Permission
Invasive rats	Rat predating bird nest	Ngā Manu Nature Reserve
Activity: Native, non-native, and invasive	California lilac	" California Lilac Close Up (Ceanothus cuneatus) " by jkirkhart35 is licensed under CC BY 2.0
Activity: Native, non-native, and invasive	Red squirrel	Michael Mengak, University of Georgia, Bugwood.org
Activity: Native, non-native, and invasive	Ring-necked pheasant	Caleb Slemmons, National Ecological Observatory Network, Bugwood.org
Activity: Native, non-native, and invasive	Knotweed	Photo credit "Expansion of Japanese Knotweed" by U. S. Fish and Wildlife Service–Northeast Region is licensed under the Creative Commons Attribution 2.0 Generic license.
Activity: Native, non-native, and invasive	American bullfrog	Russ Ottens, University of Georgia, Bugwood.org
Activity: Native, non-native, and invasive	Goldfish	Windsor Aguirre, Bugwood.org
How do invasive species get here and how do they spread?	Asian longhorned beetle	Kenneth R. Law, USDA APHIS PPQ, Bugwood.org
How do invasive species get here and how do they spread?	Aquatic plants on boat	" InvPlantsBoat " by NYS Department of Environmental Conservation is licensed under CC BY-NC-ND 2.0

How do invasive species get here and how do they spread?	Common burdock	"common burdock 2" by annie roonie 2011 is licensed under CC BY 2.0
Using straw at the Vancouver 2010 Winter Olympics: A story of accidental introduction	Reed canary grass	"Fen with Reed Canary Grass - Invasive" by wackybadger is licensed under CC BY-SA 2.0
Influence of climate change	Kudzu	"Kudzu Barn" by streaminspector is licensed under CC BY-NC-ND 2.0

Lesson B: Why should you care about invasive species?

Subheading	Photo Description	Permission
Case Study: Invasive Mussels	Mussel background & distribution map	Photograph by Amy Benson. United States Geological Survey; image in the Public Domain.
Case Study: Invasive Mussels	Zebra mussels on dock pontoons	"Zebra Mussels" by Gene Wilburn is licensed under CC BY-NC-ND 2.0
Case Study: Invasive Mussels	Zebra mussels on native mussel	"Zebra Mussels on a Fatmucket Mussel" by U.S. Fish and Wildlife Service - Midwest Region is licensed under CC BY 2.0
Case Study: Invasive Mussels	Quagga mussels on rope	U.S. National Parks Service; image in the Public Domain.
Case Study: Invasive Mussels	Pristine Lake	"2016 - Road Trip - Lightning Lake BC - 1 of 4" by Ted's photos - For Me For You is licensed under CC BY-NC-SA 2.0
Case Study: Invasive Mussels	People enjoying recreation on lake	Image in the Public Domain.
Case Study: Invasive Mussels	Revelstoke Dam	"2016 - Road Trip - Revelstoke Dam BC - 3 of 4" by Ted's photos - For Me & You is licensed under CC BY-NC-SA 2.0
Case Study: Invasive Mussels	Mussels lining lake edge	Photo by Ryan Hodnett. Wikimedia Commons. Creative Commons Attribution – ShareAlike 4.0 International CC BY-SA 4.0 .
Case Study: Invasive Mussels	Mussels on pipe	Larry D. Hodge, Texas Parks and Wildlife Department

Case Study: Invasive Mussels	Waterskier	" Waterskier " by Justin Liew is licensed under CC BY-NC-SA 2.0
Case Study: Invasive Mussels	Man hosing canoe	" Clean, Drained, Dry! " by GlacierNPS is marked with CC PDM 1.0
Case Study: Invasive Knotweeds	Knotweed leaf identification	https://www.japaneseknotweedkillers.com/jk-identification Used by permission of japaneseknotweedkillers.com
Case Study: Invasive Knotweeds	Growing knotweed time lapse	https://www.youtube.com/watch?v=RITbJJINIPw Used by permission of Stefan Liebhold.
Case Study: Invasive Knotweeds	Dense knotweed patch	Photo by dankogreen. CCSearch. Creative Commons Attribution – 2.0 Generic CC BY-2.0
Case Study: Invasive Knotweeds	Knotweed by river	" Expansion of Japanese Knotweed " by U. S. Fish and Wildlife Service - Northeast Region is licensed under CC PDM 1.0
Case Study: Invasive Knotweeds	Knotweed root and stem	" japanese knotweed " by tom clearwood is licensed under CC BY-NC-SA 2.0
Case Study: Invasive Knotweeds	Knotweed flowers	Photo by danna § curious tangles. CCSearch. Creative Commons Attribution – NonCommerical – NoDerivs 2.0 Generic (CC BY-NC-ND 2.0)
Case Study: Invasive Knotweeds	Piles of cut knotweed	" Neighbour plot - Invasive Japanese knotweed jungle tackled! " by storebukkebruse is licensed under CC BY 2.0
Case Study: Invasive Knotweeds	Growing knotweed in garden bed	" Japanese Knotweed " by LoopZilla is licensed under CC BY-SA 2.0
Case Study: Invasive Knotweeds	Knotweed surrounding house	" Knotweed manor " by Kerry Wixted is licensed under CC BY-NC 2.0
Case Study: Invasive Knotweeds	Knotweed shoots growing after removing top-growth by mowing	" Japanese knotweed " by ian.robertson.63 is licensed under CC BY-NC-SA 2.0
Case Study: Invasive Knotweeds	Walking through thick knotweed patch	" Japanese knotweed " by Scottish Invasive Species Initiative is licensed under CC BY 2.0
Impacts	Giant hogweed	Fahrenheit_66. Licensed under CC BY-NC-SA 4.0
Impacts	Asian giant hornet	Cory Sheffield
Impacts	Watermilfoil	L. Mehrhoff, Bugwood.org

Impacts	Puncturevine on shoe	Eric Coombs, Oregon Department of Agriculture, Bugwood.org
Impacts	Berry picking	Jonathan Holmes
Impacts	American bullfrog eating native frog	Gregory Fischer
Impacts	English ivy	Chuck Bargeron, University of Georgia, Bugwood.org
Impacts	White-nose syndrome on bats	Nancy Heaslip, New York Dept. of Environmental Conservation
Impacts	Watermilfoil and poor water quality	Photograph by Mercedes Gallagher, Center Pond Weed Project. Flickr. Licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 2.0 Generic license (CC BY-SA 2.0)
Impacts	Damage by feral pigs	Karan A. Rawlins, University of Georgia, Bugwood.org
Impacts	Cheatgrass fire	Photograph by Michael Pellant/BLM. U.S. Fish and Wildlife Service Flickr page . Licensed under a Creative Commons Attribution-ShareAlike 2.0 Generic license (CC BY-SA 2.0)
Impacts	Gypsy moth close-up and damage	Karla Sap, Washington State Department of Agriculture, Bugwood.org
Impacts	Hoary alyssum flower	Catherine Herms, The Ohio State University, Bugwood.org
Impacts	Leafy spurge in natural area	JM Randall Nature Conservancy
Impacts	Feral pig in shrubs	"Feral Pig" by zackojones is licensed under CC BY-NC-SA 2.0
Impacts	Knotweed around houses	Photograph by dankogreen. Flickr. Licensed under a Creative Commons Attribution 2.0 Generic license (CC BY 2.0)
Impacts	European fire ant	Russ Ottens, University of Georgia, Bugwood.org
Activity: Applying Legislative knowledge	Western Pygmy rattlesnake	"Western Pygmy Rattlesnake (Sistrurus miliarius streckeri)" by 2ndPeter is licensed under CC BY 2.0
Activity: Applying Legislative knowledge	Common tansy	"201308021149119 common Tansy (Tanacetum vulgare) - Manitoulin island" by pverdonk is licensed under CC BY-NC 2.0

Activity: Applying Legislative knowledge	Common burdock	" Common Burdock " by Rachel Ford James is licensed under CC BY-NC-SA 2.0
Activity: Applying Legislative knowledge	Goldfish	" goldfish " by josullivan.59 is licensed under CC BY-NC-SA 2.0

Lesson C: What can you do?

Subheading	Photo Description	Permission
Best Management Practices	Inspecting boat	David Copplestone
Best Management Practices	Plant stuck on truck tire	K. George Beck & James Sebastian, Colorado State University, Bugwood.org
Best Management Practices	Using boot brush	Central Kootenay Invasive Species Council
Best Management Practices	Dog with burrs	Dog Photograph by Rossie. Flickr. Licensed under a Creative Commons Attribution-NonCommercial-NoDerivs 2.0 Generic license (CC BY-NC-ND 2.0)
Best Management Practices	Captured python	Python Caught! Photograph by MyFWC Florida Fish and Wildlife. Licensed under a Creative Commons Attribution-NoDerivs 2.0 Generic (CC BY-ND 2.0) (CC BY-NC-ND 2.0)
Best Management Practices	Yellow archangel close-up	Ansel Oommen Bugwood.org
Flashcard activity	Flowering rush stem	https://www.nwcb.wa.gov/weeds/flowering-rush Used by permission of the WA State Noxious Weed Control Board
Flashcard activity	Common teasel	Chris Evans, University of Illinois, Bugwood.org; " Common teasel by a track near South Carne " by markhorrell is licensed under CC BY-NC-SA 2.0
Flashcard activity	Common teasel	" Common teasel by a track near South Carne " by markhorrell is licensed under CC BY-NC-SA 2.0
Flashcard activity	Poison hemlock	Jurgen Adler

Flashcard activity	Blueweed	Robert Vidéki, Doronicum Kft., Bugwood.org; "Blueweed/Viper's bugloss" by urban lenny is licensed under CC BY-NC-SA 2.0
Flashcard activity	Hoary alyssum	Catherine Herms, The Ohio State University, Bugwood.org
Flashcard activity	Black henbane	"Hyoscyamus niger - black henbane" by Matt Lavin is licensed under CC BY-SA 2.0
Flashcard activity	Deathcap	http://www.discoverlife.org Malcolm Storey / Discover Life
Flashcard activity	Gypsy moth larva	"Gypsy Moth (Lymantria dispar), Larva" by Ryan Hodnett. Creative Commons Attribution-Share Alike 2.0 Generic license (CC BY-SA 2.0)
Flashcard activity	Asian giant hornet	"Asian giant hornet" by Washington State Department of Agriculture is licensed under CC BY-NC 2.0
Flashcard activity	Red swamp crayfish	"Red swamp crayfish" by USFWS Pacific is licensed under CC BY-NC 2.0
Flashcard activity	American bullfrog	Russ Ottens, University of Georgia, Bugwood.org; "American Bullfrog" by shutterbusterbob is licensed under CC BY-NC-SA 2.0
Flashcard activity	Feral pigs	"feral pigs" by USFWS Headquarters is licensed under CC BY 2.0