

Grade Seven Resources

TRC's Education Program Director/Consultant, Dave Taylor, has put together a variety of resources for teachers and students that can be used to enhance the learning experience of field trips at Riverwood.

This document contains a list of recommended videos and questions to help guide discussion. These resources follow the appropriate curriculum for the various grades and will help your students to connect their time at Riverwood to their classroom learning.

Video recommendations for the Ecosystems and Climate Change field trips are included.

Recommended Videos for Ecosystems (Full Day – Spring and Fall) Field Trip

Title	Vimeo Ref #
Full Length Videos	
Canada The Wild Land 1867	https://vimeo.com/251389071
Bird Series	
The Year of the Bird	https://vimeo.com/253190310
S-System of Bird I.D.	https://vimeo.com/255196466
Passerines (Song Birds)	
American Robin	https://vimeo.com/140211420
Barn Swallows	https://vimeo.com/139288244
Birds at a Feeder I	https://vimeo.com/138465867
Birds at a Feeder II	https://vimeo.com/138465868
Colourful Birds at a Feeder	https://vimeo.com/167872836
Birds of Riverwood (Passerines)	https://vimeo.com/341462482
Blue Jay: At the feeder	https://vimeo.com/145749832
Blue-gray Gnatcatcher	https://vimeo.com/138396455
Chickadees at a Feeder	https://vimeo.com/144213763
Finches at the Feeder	https://vimeo.com/145785409
The House Wren	https://vimeo.com/248047456
Tree Swallow Spring	https://vimeo.com/142759487
Yellow Warbler Nest	https://vimeo.com/172460379
Waterfowl Series	
Canada Goose	https://vimeo.com/139764575
Wood Duck	https://vimeo.com/136303259
Trumpeter Swans: Fall	https://vimeo.com/147677940
Mute Swan: New Life	https://vimeo.com/147805880
Long-tailed Duck: December	https://vimeo.com/149522781
American White Pelican	https://vimeo.com/228865047
Double Crested Cormorant	https://vimeo.com/138113983
Red-neck grebe I	https://vimeo.com/138113981
Red-neck grebe II	https://vimeo.com/138113982
Birds of Prey Series	
Bald Eagle Nest	https://vimeo.com/136310292
Bald Eagle Journal	https://vimeo.com/138396452
Osprey	https://vimeo.com/138188060
Osprey and Hawk	https://vimeo.com/234912270

Woodpecker Series	
Downy Woodpeckers: feeder	https://vimeo.com/145754085
Hummingbirds	
Ruby-throated Hummingbird	https://vimeo.com/228854826
Ruby-throated Hummingbird II	https://vimeo.com/248055066
Wading Bird Series	
Great Blue Heron	https://vimeo.com/138188085
Great Blue Heron: Nesting...	https://vimeo.com/140252114
Sandhill Crane: Fall Migration	https://vimeo.com/149531081
Sandhill Cranes: Southern ON	https://vimeo.com/228903477
Game Bird Series	
Wild Turkey	https://vimeo.com/142160748
Owl Series	
Great Horned Owl Nest	https://vimeo.com/167631462
Great Horned Owllet: Feeding	https://vimeo.com/167631461
Miscellaneous	
Common Loon: seasonal changes	https://vimeo.com/316845111
Mammal Series	
Carnivores:	
River Otter	https://vimeo.com/149074624
Raccoon: The Masked Bandit	https://vimeo.com/228866461
Canine Series	
Coyote	https://vimeo.com/138113980
Red Fox Hunting	https://vimeo.com/228858600
Gray Wolves Summer	https://vimeo.com/141294225
Bears * See also Salmon Series	
Black Bear	https://vimeo.com/138113984
Black Bear Big Males	https://vimeo.com/228899188
Black Bear Red Berries	https://vimeo.com/228854076
Three Cubs and a Bull Bison	https://vimeo.com/316811578
Brown Bear/ Red Salmon I*	https://vimeo.com/144924550
Brown Bear/ Red Salmon II*	https://vimeo.com/145041154
Brown Bear/Red Salmon III*	https://vimeo.com/145126332
Salmon Story 2917 v2 Full Story	https://vimeo.com/236629272
Grizzly Bear: Cubs of the year	https://vimeo.com/292608660
Nature: Grizzly Bear: Cubs of the year	https://vimeo.com/292606506
Rodent Series	
Muskrat Dawn	https://vimeo.com/147546097
Cottontail Rabbit: Spring	https://vimeo.com/149039850
Company's Coming: Prairie Dogs and Bison	https://vimeo.com/293470500
Nature: Company's Coming: Prairie Dogs and Bison	https://vimeo.com/293471621
Yellow-bellied Marmot	https://vimeo.com/343317201
Yellow-bellied Marmot (narrated)	https://vimeo.com/343531283
Ungulate Series:	
White-tailed Deer Series	

White-tailed Fawn	https://vimeo.com/136302906
White-tailed Kindergarten	https://vimeo.com/138188058
White-tailed Deer: The Rut Begins	https://vimeo.com/145217845
White-tailed Deer: Six-point and the doe	https://vimeo.com/145698474
Big Buck and the Does	https://vimeo.com/147281198
White-tail Buck: Summer	https://vimeo.com/147403643
Whitetails in January	https://vimeo.com/229480453
White-tail Buck: Fall	https://vimeo.com/147414945
Nature: White Tails Sparring	https://vimeo.com/292577632
White Tails Sparring	https://vimeo.com/292576279
Fish Series	
Salmon Series	
Credit River Salmon	https://vimeo.com/142070570
Fishing for Salmon	https://vimeo.com/142810905
Leaping Salmon	https://vimeo.com/142571891
Salmon Spawning (Underwater)	https://vimeo.com/143154590
Salmon Spawning (above)	https://vimeo.com/143171639
Chinook Salmon: Life Continues	https://vimeo.com/144807457
Brown Bear/ Red Salmon I	https://vimeo.com/144924550
Brown Bear/ Red Salmon II	https://vimeo.com/145041154
Brown Bear/Red Salmon III	https://vimeo.com/145126332
Salmon Story 2917 v2 Full Story	https://vimeo.com/236629272
Amphibian Series	
Time of the Toads	https://vimeo.com/136310291
Song of the Toads	https://vimeo.com/165717571
Some Frogs of Riverwood	https://vimeo.com/139878092
Spotted Salamander	https://vimeo.com/165057810
Reptile Series	
Snapping Turtle	https://vimeo.com/139764574
Snaggle-tooth: Bull Alligator	https://vimeo.com/149577993
Gator Gaits	https://vimeo.com/165717599
Green Sea Turtle underwater	https://vimeo.com/165057838
Insects and Invertebrate Series	
Honey Bees in the Hive	https://vimeo.com/142680332
Pollinators and Predators	https://vimeo.com/138188061
Monarch	https://vimeo.com/138188059
Habitat Series	
Wild Riverwood (no narration)	https://vimeo.com/247240424
Wild Riverwood (narration)	https://vimeo.com/246723815
The Credit River	https://vimeo.com/136302909
The Gardens of Riverwood	https://vimeo.com/139156254
The Marsh: Late Summer	https://vimeo.com/139921652
Water Falls	https://vimeo.com/141351235
Forest Wildlife in Summer	https://vimeo.com/140056479
Fall Comes to Riverwood	https://vimeo.com/143640179
Photographing Water	https://vimeo.com/168405948

Riverwood in Summer	https://vimeo.com/316859894
Africa Safari Videos	
Elephants in the Rain	https://vimeo.com/228869078
Serengeti	https://vimeo.com/228862548
Lesser Flamingos	https://vimeo.com/229265604
Wildebeest and Crocodiles	https://vimeo.com/199820283
Nature: New Born Hippo	https://vimeo.com/292744028
New Born Hippo	https://vimeo.com/292748557
At the Kill	https://vimeo.com/344423233
At the Kill (narrated)	https://vimeo.com/344633590

Recommended Videos for Climate Change (Full Day – Winter) Field Trip

Title	Vimeo Ref. #
Habitat Series	
Wild Riverwood (no narration)	https://vimeo.com/247240424
Wild Riverwood (narration)	https://vimeo.com/246723815
The Credit River	https://vimeo.com/136302909
The Gardens of Riverwood	https://vimeo.com/139156254
The Marsh: Late Summer	https://vimeo.com/139921652
Water Falls	https://vimeo.com/141351235
Forest Wildlife in Summer	https://vimeo.com/140056479
Fall Comes to Riverwood	https://vimeo.com/143640179
Photographing Water	https://vimeo.com/168405948
Riverwood in Summer	https://vimeo.com/316859894

General Discussion Questions: Based on Grade 7 Understanding Life Systems: Interactions in the Environment

Q: Riverwood bans chemical sprays to control pests. How does this affect the ecosystem?

A: Chemicals which in the past would have entered the ecosystem through the water system and the soil are no longer present. This promotes a healthier ecosystem but it also leaves plants and animals more vulnerable to infestations by organisms that prey on them. It also means that invasive species, like garlic mustard, must be controlled by labour intensive human effort such as pulling out the plants.

Q: If the ban were lifted, how would it change the ecosystem?

A: Invasive species would be better controlled. Garden plants would be healthier and would our lawns. Insect populations would decline, large fish (salmon) would contain more pollutants, bird populations would be reduced and that is just for starters.

Q: Riverwood is surrounded by urban development. How does this impact the areas' ecosystem?

A: Human activity has directly brought in at least five of the most invasive species; garlic mustard, starlings, giant hogweed, phragmites and purple loosestrife. Noise and air pollution from traffic affect birds. Domestic dogs and cats compete with native predators. A warming climate due in part to human activities has changes plant and wildlife distribution. Non-native Chinook salmon and rainbow trout have been introduced into the river. Forests have been cleared for homes. The water table has declined. Species such as black bear have been extirpated. On the positive side, humans created Riverwood and have stewarded the land to restore it to something approaching its former biodiversity.

Q: How would climate change effect the species featured?

A: Climate change has led to an expansion in the range of some species found at Riverwood (cottontail rabbit, opossum). Promoted better conditions for some invasive species to live and thrive (garlic mustard, Nile virus). Likely led to the decline of some native trees like the ash trees because the warming climate supported the spread of the invasive Emerald ash borer insect. It has also created conditions where weather events tend to be more severe in than in the past which has caused strong wind gusts to blow down trees more frequently.

Q: If it was important to restore black bears to Riverwood, what steps would have to be taken to ensure the species could survive here?

A: To establish a breeding population if black bears in the Credit River watershed (which includes Riverwood) large tracts of forested land would have to be re-established. These tracts of land would need to be connected by wildlife corridors that linked them. A major change in human attitudes towards large predators would need to occur as well as a management plan that would ensure the safety of humans and their pets.

Q: Would this be a good species to try and bring back? Why or Why not?

A: No. However the Greater Riverwood Ecosystem is not large enough to support a viable breeding population. The lack of enough natural foods in the local environment would lead to bear-human conflict as the animals invaded gardens and garbage bins for food. Black bears can be an indicator species of a healthy ecosystem. However the Greater Riverwood Ecosystem is not large enough to support a viable breeding population. The lack of enough natural foods in the local environment would lead to bear-human conflict as the animals invaded gardens and garbage bins for food.

Q: What is the top predator found in Riverwood (it is featured in the videos)?

A: Coyote

Q: List the biotic elements seen in the videos.

A: Plants, animals

Q: List the abiotic elements seen in the videos.

A: Water, air, soil, rocks, mud

Q: Which producers are featured in the video?

A: Any of the plants seen in the video would be on the list

Q: Which consumers are featured in the videos?

A: All animals are consumers.

Q: Which species are predators as well as prey for larger predators?

A: Some examples: Toads prey on insects, snakes prey on toads. Raccoons prey on bird's eggs and insects, coyotes prey on young raccoons.

Q: Which species compete with other species for resources?

A: Some examples: Birds at a feeder compete for the sunflower seeds. Deer compete with Canada geese for grains.

Q: Which species are at the top of the food chain?

A: Gray wolf, Coyote, Black bear, Red-tailed Hawk

Q: Which species are at the bottom of the food chain?

A: Generally the smaller the species the lower it is on the food chain.

Q: Describe the transfer of energy up the food chain based on the species seen in the videos.

*A: **Simple Food Chain (3 links):** Plant (producer) > Deer (consumer/herbivore) > Coyote (consumer/carnivore).*

***Complex Food Chain (many links):** Water plant (producer) > Insect (consumer) > Green frog (consumer) > Green Heron (consumer) > Fox (consumer) > Coyote (consumer)*

Q: What would happen if one of these links in the food chain disappeared?

A: The food chain would change and some species may decline or even disappear.

Q: Human intervention has restored two species to Riverwood and the Credit River; the wild turkey and the Atlantic salmon. How successful have these restorations been? What factors have limited their success?

A: Neither has been that successful to date. Lack of habitat and the presence of coyotes, raccoons and human pets have all probably been factors that limited wild turkey's nesting success. Outside the GTA the turkey reintroduction was very successful. The Atlantic salmon has only been partially successful due to the presence of Alewife (a small fish) that arrived in Lake Ontario in the 1800's after the building the Erie Canal. When Atlantic salmon eat this fish their breeding systems are disrupted and females cannot lay fertile eggs.

Q: Human intervention introduced the Chinook salmon into the Credit River. What are the pros and cons of this introduction?

*A: **Pros:** Helped develop a viable sport fishing industry on the Credit River and in Lake Ontario. Added a new food source to the watershed. **Cons:** The species is non-native and competes with other fish in the watershed.*

[Supplemental: Grade 7 Understanding Structures and Mechanisms: Form and Function](#)

Students are encouraged to analyze the form (structure) and function of the various animals and plants. Why do deer walk on their toes? Bears on the soles of their feet? How do the beaks of birds reflect their food preferences? There are great many images contained in the videos where students can observe how the various plants and animals are adapted to their environment.

Additional Resources

Dave Taylor's Wildlife

www.DaveTaylorWildlife.com

Dave Taylor's Youtube

<https://www.youtube.com/channel/UCZATOyhjleb9Tte9neU1CBQ>

About Dave Taylor

The videographer and creator of these resources is Dave Taylor, TRC's Education Director/Consultant. Dave is a retired Peel Teacher who for most of his 30 plus years taught science and geography to grade 7 & 8's. He was also a Science Resource Teacher and he spent two years at the Britannia School Farm when it first opened. He has written over 40 books on natural history including resource books for teachers.

He is one of Canada's best known wildlife photographers. His company, *J. D. Taylor "Senses of Wildness" Inc.* produces and holds the copyright on these productions. Schools may use them for educational purposes but no unauthorized use other than as stated above may be undertaken without the written consent of *J. D. Taylor "Senses of Wildness" Inc.* He can be reached via this website.

Created by Dave Taylor (M.Ed.)
Education Program/Director Consultant
The Riverwood Conservancy
J. D. Taylor "Senses of Wildness" Inc.
Copyright: 2019

Follow Dave for more content!

