

Who Eats Whom?

Teacher Background

Exploring food webs is one way of coming to understand the interdependency of life both in and around a wetland. To introduce the concept of food webs, have students complete the *Marsh Web of Life* from the poster back. When they complete the web, have them follow two or three food chains in that web as a way for them to check their answers. Find this activity in the Activity Copy Sheets, included in this kit.

A book that subtly teaches about interdependencies and connection is entitled, *Salamander Room*, by Anne Mazer, Dragonfly Books, 1991. A young boy who brings a salamander into his room learns how the salamander is connected to everything else in its environment. It teaches about food webs, interactions, ecosystems in a very subtle way.

Food Webs are a community of organisms where there are several inter-related food chains.

Food chains, also called, **food networks** and/or **trophic social networks**, describe the eating relationships between species within an ecosystem. Organisms are connected to the organisms they consume by lines representing the direction of organism or energy transfer. It also shows how the energy from the producer is given to the consumer. Typically a food chain or food web refers to a graph where only connections are recorded, and a food network or ecosystem network refers to a network where the connections are given weights representing the quantity of nutrients or energy being transferred. http://en.wikipedia.org/wiki/Food_web,_2009

Who Eats Whom examples:

X eaten by Y
→

Water Boatman	→	Backswimmer
Tadpole	→	Giant Water Bug
Damselfly Nymph	→	Water Tiger
Sideswimmer	→	Dragonfly Nymph
Water Flea	→	Whirlgig Beetle
Water Strider	→	Fishing Spider
Midge Larvae	→	Water Mite
Algae	→	Water Boatman
Snails	→	Leech
Decayed plants	→	Snails
Aquatic Plants	→	Ducks

You can also make your own scenarios or add on to these seven examples.

It is raining and neighbourhood homeowners apply fertilizers and herbicides in an attempt to win the “best lawn award”. The rain washes the chemicals into the sewer, and eventually to the wetland. (Grass-cycle or sprinkle mulch or compost on lawns to add nutrients and improve moisture retention.)



A stream is blocked by a huge pile of garbage someone dumped there. It blocks the part of the stream that usually flows into the wetland dries up. (Reduce, reuse, recycle and dispose of waste properly.)



A stream is blocked by a dam built by a beaver. The part of the stream that usually flows into the wetland dries up. (Ask students how the environment would change upstream of the dam. Discuss the impacts of beavers altering the natural environment. Are their impacts good, bad or neutral?)



The wetland is destroyed when someone buys the land and builds a shopping mall there. (Incorporate environmental features, including green roofs, into building plans rather than destroying natural features.)



Bulldozers start filling in the wetland to prepare a site for new homes. (Ensure builders have permits and report any illegal wetland activities to the Alberta Government.)

An interpretive trail is built through and along the edges of the wetland. (Ensure structures do not affect water flow. It is not a good practice to destroy the very thing we are trying to conserve or enjoy!)



Cattle graze at the edge of and in the wetland. (Pump water out of the wetland and into a holding vessel or trough for the cattle to drink from. To further reduce impacts, use a solar pump!)