

## **REVIEW: WATERSHED KEY TERMS...**

**Miramichi River Watershed:** This is the area of land where all the water on the surface flows into the Miramichi River and makes it's way towards the ocean.

**Tributary:** Is a stream or a brook or a spring that flows into a river (Miramichi River) and adds more water to it.

example: Renous River, Cains River, Dungarvon River, etc...

**Erosion:** Is when the current from the river or stream washes away the stream bank or river bank because there is NO vegetation (no plants, no trees, no bushes). Erosion is bad because it turns rivers and streams brown and muddy which suffocates and kills young fish and other aquatic organisms.

**Sediment:** Fine particles that are found on the bottom of a river stream (smaller than sand).

**Substrate:** The type of bottom a river or stream has (rocky, sand, mud, sediment or silt).

**Dissolved oxygen:** all water contains dissolved oxygen. We can measure how much oxygen water contains. Cold water holds more oxygen and is better for fish and other organisms.

# REVIEW HERE IS WHAT A RIVER NEEDS TO GIVE TO A SALMON OR TROUT...

## Oxygen

- *Fish will thrive in oxygen-rich waters.* Most animals cannot exist long without a supply of oxygen
- Wave action, riffles, wind, and green plants all help dissolve oxygen into the water.
- Stagnant, very warm, weed-choked water tends to have less oxygen and, as a result, fewer life forms than cool, clean, moving water.
- Indicators - an abundance of riffles in a stream, bright green healthy plants in a pond, or a rich variety of readily seen life forms all indicate a healthy body of water.

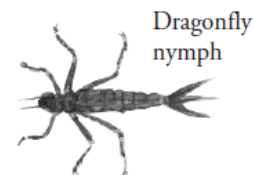


illustrations by J. O. Penanen



## Food

- *A healthy population of fish will exist only where there is a good food supply.*
- Some species have definite dietary preferences and are built to capture and eat a particular type of forage in a specific manner that is easiest for them.
- The main food items of interest to the fly fisher are baitfish of all sizes and shapes; *crustaceans*, such as crayfish and shrimp; *aquatic creatures* such as leeches and frogs, as well as insects like mayflies and stoneflies; *terrestrial creatures* that fall in the watersomehow, such as worms, caterpillars, and mice, plus insects such as grasshoppers and crickets; *miscellaneous items* such as eggs, mulberries, etc.

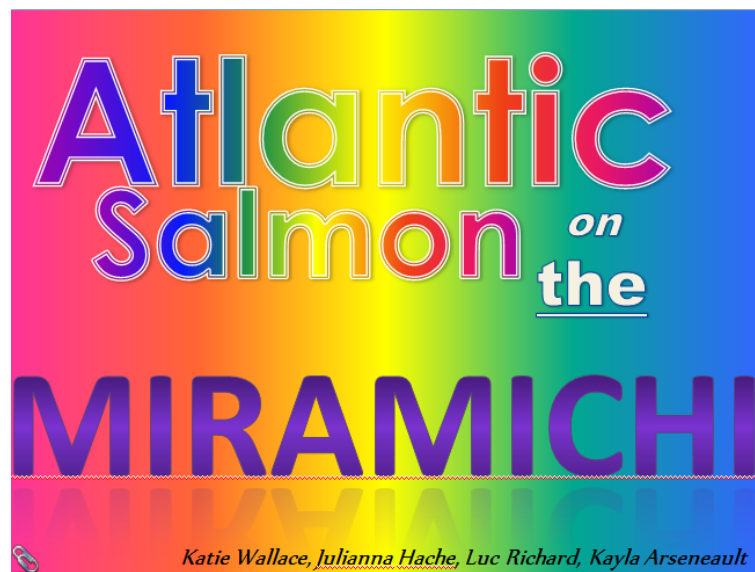


## Shelter

- *In the more confined quarters of lakes, streams, rivers, or inshore habitat, fish will usually be found confidently but cautiously feeding somewhere near an area that will provide them sanctuary if threatened.*
- On streams and lakes, this protection will come in the form of undercut banks, deadfalls (trees that have fallen into the water), weed beds, sharp drop-offs, or rock ledges.

## Comfort

- *A single body of water is likely to have a variety of temperature readings.*
- Fish will choose an area in which to feed that is within a preferred temperature range.
- Freshwater fish are usually classified into either coldwater or warmwater categories.
- Shallow water can change temperature quickly. Sun, wind, cooler evenings, and tide changes all can have a dramatic effect on water temperature in a short time.
- Deeper water will tend to be cooler and maintain a steady temperature longer.
- Temperature will also be affected by the existence of springs, inlets, power plant discharges, dam releases, and currents.



**What is Stewardship?**

Stewardship is one of those words that we hear all the time without really knowing what it means. In fact stewardship is a hard thing to define, but it is about how we are in the world: the way we care for it, respect it, live in it. It is about being actively involved in making the world be a place we want to live in. Our goals as stewards are to develop the skills necessary to make the changes we desire, and to organize ourselves and others to take action in a responsible, caring and knowledgeable way.

**Why Watershed Stewardship?**

Ninety percent of the world's water is contained in salt oceans. Of the remainder, 69 percent is in the form of ice and snow. Freshwater for human use, found in lakes, swamps, rivers and underground, makes up only 0.008 percent of the world's water. In British Columbia we are lucky: we have streams, lakes, rivers and estuaries covering 1.25 percent of our province. But as the population grows, more and more of this available water is being contaminated by human development.

Many kinds of skills are useful to a watershed steward, but all stewards share some characteristics. A steward is worthy of trust, demonstrates respect for life, carries a genuine heart, embodies constancy of mind, and acts with autonomy.

## Attachments

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Salmon Statistics Powerpoint.pptx