



The Salmon River: Prevent Riverbank from Becoming Riverbed

By Salmon River Steward Jim Katz

What is happening to the Salmon River?

As water levels fluctuate, riverbank is scoured away by moving water in a process called bank erosion. The banks of the Salmon River seem to be more heavily eroded in some areas. Erosion causes carved out, unstable banks that can fall into the river unexpectedly.

Erosion is intensified by both human and weather influence. Brookfield Power Company manages Salmon River flows for hydropower generation. Prior to the implementation of prescribed minimum baseflows (minimum flows) in 1996, flows of the river consisted of high surges creating stronger erosive action followed by extreme lows.

Runoff from extreme rainfall or snowmelt events can increase the waterflow above the prescribed minimum baseflows of the Salmon River. Higher flows from extreme weather can remove soil more quickly from the riverbank where vegetation is absent.

According to the 2007 New York State Department of Environmental Conservation (NYSDEC) Fall Creel Survey, more than half of the angling activity on all of NY's Lake Ontario tributaries takes place on the Salmon River. Anglers spent approximately 600,000 hours on the Salmon River. Such high foot traffic creates informal trails that can wander close to the river's edge and vegetation is often killed by angler foot traffic. The soil then lacks an anchor to the bank, causing it to erode much faster. To prevent erosion, the Salmon River Stewards suggest to anglers that a better alternative to walking the riverbank or creating new trails is walking in the shallow water when possible.

The Stewards also encourage anglers, campers, hikers, birdwatchers and others who enjoy the riverbank to not trample or remove vegetation.

For more information on how you can help prevent erosion on the Salmon River, check the Oswego County Soil and Water Conservation District website at <http://oswegosoilandwater.com/>.

For more information on coastal erosion, visit the NY Sea Grant Extension webpage at <http://www.nysgextension.org/erosion/erosionpages/erosionpubs.htm>.

Salmon River Steward Jim Katz stands near the river in an area where an informal trail is close to the riverbank edge. Photo: Paul Dawson, Eastern Lake Ontario Dune and Salmon River Steward Program



The statements and views expressed in this publication are those of the Eastern Lake Ontario Dune and Salmon River Stewards who are student authors. 9/09

Slowing Erosion on the Salmon River

Background: The Salmon River

- The Salmon River's headwaters are in the Tug Hill Plateau
- 4th most heavily fish waterbody in New York State after Lake Erie, Lake Ontario and the St. Lawrence River
- In eight months in 2007, the NYSDEC Fall Creel Survey estimated that anglers spent 600,000 hours on the river
- Provides year-round sport fishing (skamania & Washington steelhead; Atlantic, coho & chinook salmon; brown & brook trout; smallmouth & largemouth bass)
- High recreational use, past and present, has likely added to riverbank erosion

Why Should You Care about Erosion?

- May result in loss of land or property damage for landowners and recreational users
- Can create unstable/unsafe banks which may collapse unexpectedly, turning riverbank into riverbed
- Can disrupt aquatic food webs by destroying aquatic habitats. Sediments eroded from stream banks can fill in the bottom of the streambed, degrading or destroying the habitat of aquatic insects, such as stoneflies, mayflies and caddisflies. Salmon and trout depend on the hatching of these insects as a food source

How Can You Help?

- Avoid trampling vegetation along the riverbank
- Although a formal trail system has not been constructed by NYSDEC yet, there are currently informal trails. Do not create new trails at the river's edge
- Walk in the water or use existing trails when possible

For More Info:

Preventing erosion on the Salmon River: Oswego County Soil and Water Conservation District - <http://oswegosoilandwater.com>

Preventing coastal erosion: NY Sea Grant Extension - <http://www.nysgextension.org/erosion/erosionpages/erosionpubs.htm>

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Salmon River Stewards Jim Katz and Emily Freeman plant stream willows along stretches of the river to prevent further erosion. Photo: Mary Penney, NY Sea Grant

