

# Riffles & Runs

Rogue River Watershed Project Newsletter

Grand Valley State University Annis Water Resources Institute

Vol. 3 No. 2 October-December 2001

## Steelhead Caught on the Rogue River!

Nichol Stout

An angler heads out on a rainy December afternoon with a rod and reel in hopes of catching the big one – a steelhead! The Rogue River below the Rockford Dam is well known for its steelhead fishery. But why do steelhead survive here? To understand this we need to know a little about the steelhead life cycle and stream habitat.

### Life Cycle

Steelhead are the *anadromous* (refers to fish species born in the stream that migrate to the ocean for their adult phase) form of rainbow trout. They are born in fresh water streams and spend one to three years of their life there until they migrate to the ocean. Steelhead then spend one to four years in the ocean, where most of their growth occurs, returning to their native fresh water stream to spawn. Unlike salmon, steelhead do not always die after spawning and are able to spawn more than once.

### Stream Habitat

In order for steelhead eggs and fry to survive, the water has to be well-oxygenated and cool, and the stream must be free of silt, and sufficient stream habitat such as riffles, pools, and woody debris must be present. Adult steelhead also have habitat requirements. The streams must be free of barriers for migration, gravel must be present and free of sediment, there must be cool and clear water with adequate flow, and escape cover, such as pools and woody debris, must be present.



An angler catches a wild steelhead on the Rogue River below the Rockford Dam.

### Steelhead in the Rogue River

Steelhead habitat within the Rogue River is being threatened by land use activities such as logging, road construction, urban development, and agriculture. These land use activities can lead to an increase in the amount of sediment into the stream and an increase in water temperature. Both of these are pollutants that may impact steelhead populations, because they depend on cool water temperatures and a gravel stream bottom, free of sediment.

The Michigan Department of Natural Resources (MDNR) realizes that these pollutants in the Rogue River are effecting steelhead populations. To manage the Steelhead fishery, the MDNR stocks steelhead populations in the Rogue River every spring. For example,

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Please Be Aware,  
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## What is in Your Rogue River Watershed


Abigail Matzke

As we all know, the Rogue River watershed is a fountain of natural beauty. The watershed supports a very diverse environment and sometimes it is hard to notice the little things. As this watershed is studied and explored, any neat little things we stumble across we will take note of, conduct research on, and let you know about it through this newsletter.

Wild Ginger, also called Birthwort or *Asarum canadense*, is from the family Aristolochiaceae. Birthwort was seen October 19, 2001 in the Rogue Watershed. Wild Ginger receives its name because its roots smell like the ginger used in cooking, but the plants are not related.



The foliage is heart-shaped, 3-6 inches across, and it's evergreen. It likes woodland areas with rich organic soil, with part to full shade. Wild Ginger has a very distinctive flower. The flower is purple-brown in color, in a cup shape of 3 united sepals (no petals). The flower grows horizontally to the surface so that beetles and flies on the ground can pollinate it.

It has been used to induce sneezing and to treat numerous ailments. It has been effective because the roots contain aristolochic acid, which has antimicrobial (disinfectant, germicide, antimicrobial) and antitumor properties. Indigenous peoples such as the Appalachian, Cherokee, Chippewa, Fox, Iroquois, Menomonee, Micmac, Montagnais, and Ojibwa use this herb for its medicinal properties. 




"We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect." Aldo Leopold <sup>1</sup>



## Latest on the Physical Improvements on the Rogue

Nichol Stout

Work has begun with the Kent County Road Commission (KCRC) and the Schrems West Michigan Trout Unlimited (WMTU) in developing site plans for physical improvements in the Rogue River Watershed. The KCRC has submitted plans for a road stream crossing improvement for review, and is currently surveying a second road stream crossing improvement site. Both of these physical improvements will be done in Courtland Township. The WMTU is currently working on developing site plans for a streambank stabilization in Plainfield Township. All three of these physical improvements are scheduled to begin in the Summer of 2002. 




The West Michigan Trout Unlimited is currently working on site plans to stabilize this streambank.

## New Face in the Rogue Watershed

Abigail Matzke

In October, I was hired by the Grand Valley State University Annis Water Resources Institute as a Research Assistant, to work with the Information and Education portion of the Rogue River Watershed Project. I will be working with Nichol Stout, Project Manager, throughout the implementation portion of the project.

I am from the Grand Rapids area, a graduate of Aquinas College majoring in Environmental Studies and in Communication Arts. My past work experience includes working for the Utilities Department of the City of Wyoming and for Blandford Nature Center. I am looking forward to learning the specifics of the Rogue River watershed and to helping others understand why it is so important to preserve and protect the Rogue River watershed. I will also be helping Nichol with the Stormwater 319 project that AWRI is involved with. 



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## Volunteer Monitoring on the Rogue

Nichol Stout

Are you aware that there are many types of insects that live a portion of their lives in water? To identify these insects, volunteers take a day out of their busy schedules in the spring and fall to sample areas in the Rogue River Watershed. Fifteen volunteers got their "feet wet" at a volunteer monitoring day on October 13, 2001. Volunteers sampled areas of Cedar Creek, Stegman Creek, Rum Creek, Barkley Creek, and two sites on the Rogue River. Volunteers not only collected insects, but teams measured characteristics of the stream such as width, depth, and velocity. Data on river characteristics and the insect samples were sent to West Michigan Environmental Action Council and the Michigan Department of Environmental Quality to be recorded. This data are useful in determining the quality of these waters throughout the years. A simple analysis of insects found in these areas indicated that the Rogue River watershed ranged from good to fair in stream quality. ♀



"I am I plus my surroundings and if I do not preserve the latter, I do not preserve myself."- José Ortega y Gasset<sup>2</sup>



## Please Be Aware

Abigail Matzke

Aquatic resources currently are being threatened at an unparalleled rate. Freshwater, in particular, is seriously imperiled because its total quantity is relatively small and its quality is declining<sup>3</sup>. Less than 1% of all freshwater on the planet is readily available, such as in aquifers, soils, lakes, wetlands, rivers, biota, and the atmosphere<sup>4</sup>. Dam construction, river diversions, surface runoff, and land use changes, such as urbanization, development, and land clearing, are all contributing to the qualitative degradation of the resource<sup>5</sup>. Kent County is currently experiencing all of these activities as it grows. The population in the county has increased 14.7% from 1980 to 2000. Every city, township, and village located in the Rogue watershed has shown growth.<sup>6</sup> It is time for everyone to become aware that our lifestyles affect the watershed and that we should do what we can to care for this watershed as it is a precious resource. ♀



Volunteers are identifying aquatic insects in Stegman Creek.

## Steelhead (continued from page 1)

34,010 steelhead were planted in the Rogue River below the Rockford Dam, in the spring of 2000. Each fish released by the MDNR into the Rogue is marked with a fin clip, external tag, or an internal tag in order to evaluate steelhead migration, survival, and harvest of the fish stocks.

Although the MDNR stocks steelhead into the Rogue River, the river still sustains wild populations of steelhead. The angler pictured in this article caught a wild steelhead on December 12, 2001 on the Rogue River. In order for wild steelhead to thrive in the Rogue River, we must take measures to protect their habitat. Making smart land use decisions is important in protecting steelhead populations in the Rogue River. ♀



Land is cleared to make room for new development.

<sup>1</sup>Udall, S. L. 1978. *The Quiet Crisis*. New York: Avon Books, ch 14

<sup>2</sup>Ortega y Gasset, J. 2000. *Meditations on Quixote*. Chicago: University of Illinois Press.

<sup>3</sup>Steinman, A. 1998. Role of Algae in the Management of Freshwater Ecosystems. *Journal of Phycology* 34:725

<sup>4</sup>Postel, S.L., Daily, G.C. & Ehlich, P.R. 1996. Human appropriation of renewable fresh water. *Science* 271:785-8

<sup>5</sup>National Research Council. 1992. *Restoration of Aquatic Ecosystems: Science, Technology, and Public Policy*. National Academy Press, Washington, D.C., 552pp.

<sup>6</sup>Kent County Clerk/Register of Deeds Office. 2001. *Kent County Directory 2001-2002*.

<sup>7</sup>Gilpin, L.1949. *The Rio Grande: river of destiny*. New York: Duell, Sloan, Pearce.

**"A river seems a magic thing. A magic, moving, living part**

**that a river has its beginning."**

**of the very earth itself - for it**

Come  
and join us this  
Spring as we conduct helpful  
workshops throughout the Rogue  
River Watershed! Everyone is invited to  
participate and learn more about ways that  
you can protect the watershed. Look in our  
next newsletter to find specific topics,  
dates, and locations of these  
workshops.

**is from the soil, both from the depth and from its surface,**

-Laura Gilpin<sup>7</sup>



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