



In the Flow



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Produced with Volunteer Help

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Invasive Plants

ANNUAL TRAINING BEGINS JUNE 4

6-9 p.m., basement of the courthouse
(plus two weekend field days to be determined)

- Learn how watersheds work and how to assess them
- Help needed both outdoors and indoors
- No experience necessary
- No minimum "service hour" requirement

Streamkeepers, Clallam County's volunteer stream monitoring program, is seeking new volunteers to help collect stream health data, perform data entry & analysis, and conduct education & outreach. As the program continues to expand, there is a continuing need for volunteers. New volunteers join existing stream teams and perform stream monitoring and other stewardship activities, on streams throughout the county—or volunteer to provide other kinds of program support, both outdoors and indoors. Training begins in June and consists of an introductory evening session and two full-day classes including both indoor and outdoor instruction. You will learn how watersheds provide services to fish, wildlife, and people; what threatens our watersheds; and why and how we monitor them. No previous experience or special equipment required--bring boots or waders if you have them. We schedule training around the availability of the trainees, so if you'd like to participate, contact us at 360-417-2281 or streamkeepers@co.clallam.wa.us.

Urgent Need for Volunteer Help Entering Data

None of the Streamkeepers quarterly stream-team data has been entered into the County Water Resources database since Spring 2010 because we did a massive restructuring of the database from 2008-2011. We kept entering data into the old database structure until spring 2010 because that was when the Dept. of Ecology last called for data for their statewide water quality report; then we observed a moratorium pending completion of the new database structure and entry forms. Just as we were finalizing the new structure, the program was shut down by the Dept. of Community Development, and when we re-emerged in the Road Dept., staff hours were cut in half. Finally, we've created custom-made forms for entry of quarterly Streamkeepers data. We need to get all the backlogged quarterly data entered by mid-2015, when the Dept. of Ecology will next call for data for their statewide report. **We need your help!** We're particularly looking for folks who can devote a regular (weekly?) time slot to this project over the next year. We'd hopefully create teams of two, where new folks would be trained by experienced ones. There will probably still be some revisions needed in the forms, so you'd be beta-testing as well. It's going to be a lot of work, but we've got to get it done! Please let us know if you are willing to help.

STREAMKEEPERS' WORK PLAN FOR 2014 (also available on SK website with more details)**REVIEW OF 2013 PROGRAM PRIORITIES:*****Resolve contract-language issues with outside funding sources (Olympic Forest Coalition, Lower Elwha Klallam Tribe, etc.)***

Contractual issues successfully resolved with:

Olympic Forest Coalition: donation \$2729

Lower Elwha Klallam Tribe: contract \$6000

Seek additional outside funding sources (Quileute Tribe, WDFW, WDOE)

Quileute Tribe macroinvertebrate sampling project: \$6300 in 2013 and \$5600 in 2014

WDFW macroinvertebrate sampling support: \$8235 in 2013-15 state biennium

Feiro Marine Life Center Peabody Creek partnership: \$1000 for monitoring supplies in 2013-15 state biennium

Clallam County Environmental Health partnership for Dungeness-area water quality: ~300 staff hours in 2013

Applied for DOE Watershed Implementation funding for WRIA 18—not funded

Maximize cooperation with Road Dept. priorities

Assisting on county-wide culvert inventory project being conducted by the North Olympic Peninsula Lead Entity for Salmon

Consulting with Roads planners as needed

Seek funding to re-integrate old and new datasets into the Clallam County Water Resources database

Applied to Puget Sound Stewardship & Mitigation Fund Grassroots Grants Program & DOE Watershed Implementation Fund—not funded

Examine costs and benefits of SK's long-term dataset and recommend appropriate revisions to SK sampling plan

Applied for funding under DOE Watershed Implementation Fund—not funded

Volunteer committee to examine this issue never convened

PROPOSED PRIORITIES FOR 2014:

Complete web-based data-entry interface for post-2010 Clallam County Water Resources database structure

Enter and check backlogged data from summer 2010 to present, using web-based interface

Create customized reports as requested by data users

Seek funding to migrate pre-summer-2010 data into new database structure

Seek funding to examine costs & benefits of SK's long-term dataset & recommend appropriate revisions to SK sampling plan

REGULAR MONITORING ACTIVITIES FOR 2014

WATER-QUALITY STREAM TEAMS (water chem, flow, photos, noxious weeds, fish & wildlife observations): See "2014 WQ Sampling Plan."

GRAB SAMPLING (bacterial sampling plus other "grab'n'go" parameters): See "2014 Grab Sampling Plan"; expected funding sources are City of PA and Clallam County Environmental Health/Clean Water District; sites and periodicity will be determined in conjunction with funders.

BIOLOGICAL ASSESSMENT: Decide on bug-sampling sites by summer 2014, based on results through 2013 and available funding/resources. We'll collect at 15 sites plus two replicates in partnership with the Quileute Tribe, and at least 5 additional sites plus one replicate under our WDFW grant.

Special Projects include PA WQ Monitoring, Clean Water District Long-term Monitoring, Quileute Bug Collection, Bug Sorting, WRIA 19 Stormwater, Culverts, Hoko River, Redd Counting, School Outreach, Public Education & Outreach, Research Team



Ron Sidwell and Wade Raynes consulting on data management

Streamkeepers Receives Grant for Database Consolidation Project Thanks to Mountaineers Foundation

Streamkeepers has received \$2000 from the Mountaineers Foundation to help consolidate the Clallam County Water Resources (CCWR) database. CCWR was created in 2000 to incorporate water data both from Streamkeepers' monitoring and other data projects going back to 1986. It currently contains data from more than 50 projects, involving more than 100,000 hours of data-gathering effort. As Streamkeepers began to perform special monitoring projects funded by other entities, CCWR's structure began to show its limitations. From 2008-2011, Streamkeepers staff, volunteers, and advisors worked on a new database design to incorporate a broader variety of data, simplify data submission to the WA Dept. of Ecology's database, and enable explicit portrayal of Quality Control tests

and data qualifiers, thus making data quality transparent.

Unfortunately, before Streamkeepers staff had a chance to consolidate the 2 databases, staffing was cut, so CCWR remains in two pieces and data retrieval is a laborious process. This grant will help Streamkeepers begin to bring the two parts together again, which will enable improved access to the data and positively influence environmental planning and management outcomes for Clallam County and Puget Sound. The full process of consolidation will probably require at least another \$3000.

One of the most usable, important accomplishments of Streamkeepers is the significant database created from thousands of hours of volunteer time, collecting valuable information that has been used by over 50 entities. You can find a complete listing of users, request dates, what data was requested and how it was used on the Streamkeepers' website: http://www.clallam.net/StreamKeepers/assets/applets/Data_recipients_log.pdf

Our best wishes to Hannah Merrill!

Hannah worked half to full time for DCD for the last 12 years. She started in 2002, working part time to support Streamkeepers and publish their first newsletters, and helping to keep Ed in line. Beginning in 2007, she worked full time as a natural resources planner, involved with numerous projects, including continued work on floodplain habitat restoration of the lower Dungeness River and assisting with the Shoreline Management Program update. Her new position will involve management of NatureBridge programs at Lake Crescent. She's excited to be working on environmental education programs for all ages. We thank her for her contributions and wish her the very best in her new position. (Thank you for helping the current editor get started publishing this newsletter!)

Other adventures in outside funding

The Clallam Conservation District is contracting with Streamkeepers to gather and report on all the bacterial data in the Clean Water District in the Sequim-Dungeness Valley, and to write the Quality Assurance Plan that will describe the long-term monitoring the District will be conducting once it adopts a Pollution Identification and Cleanup (PIC) plan. Streamkeepers has been asked to be in charge of that long-term monitoring and data management. Also, the Dept. of Community Development is finally moving on a Courthouse Stormwater Retrofit grant project (installing Best Practices technologies), and Streamkeepers will help monitor that.

Streamkeepers failed to win 2 grants from the WDFW-ALEA volunteer cooperative program: (1) to continue Clean Water District sampling, and (2) to enhance the work of our bug-digging and sorting teams and juvenile fish monitoring with the NOP Skills Center.



Thank you, Keith Peters for the great new gloves!

Thanks to Streamkeeper Keith Peters, we've purchased a few pair of good commercial fisher's gloves. They're strong, go all the way up your arm, and are still pretty flexible, great for holding a probe in the water, or digging bugs in the stream. We have 2 pair of Extra-Large, 2 pair of Large, and 1 pair of Medium. We can't really split them up into kits, so we're leaving them in a box on the back counter in the kitchen, and just take them when you need them (and bring them back, of course!) Thanks, Keith!



Attention Education & Outreach and any new volunteers!

Thanks for your interest in spreading the word about Streamkeepers. Theoretically, our Education & Outreach team gives public presentations about Streamkeepers, but in fact, no one on that team has done so for awhile. We're hoping someone might be willing to start that up again. We have some excellent slide shows, and even a video, designed for this purpose, so it would just be a matter of a person going through our master slide deck, choosing what they want, and then giving a presentation. Would you perhaps be interested yourself in learning to do this? We'd be happy to help anyone with this and Ed could probably find the time to give the first talk himself if he had a "trainee crew" tagging along who would carry on thereafter. Let us know.

We're looking forward to a 2nd Year of Bug Collecting



Hiking along the Sitkum River

for the Quileute
on the West End
in some beautiful
streams



Ed Chadd, Susannah Spock, Katelyn McLean



Hmmmm....
What's all
this yellow?

WRIA 19 Stormwater Sediment Project

Coleman Byrnes is working on a 4 yr. study on 7 streams in WRIA 19 (west of the Elwha River) checking on how they respond to stormwater events. They're currently focusing on the Hoko River where turbidity testing of tributary streams is showing lower NTU readings than the main stem, indicating sediment is coming from the headwaters of the main stem. This will be an interesting study to watch.

Sockeye redds, in the making, caught on film by our own Streamkeeper, Nancy Messmer

Enjoy Nancy Messmer's images of Sockeye Salmon taken from the Hoko-Ozette Bridge on their Fall return from Lake Ozette to Umbrella Creek. Web address is a place to start. Click on her name and they are posted in order. <http://youtu.be/Fxkpg4jRHD4> Thank you, Nancy!

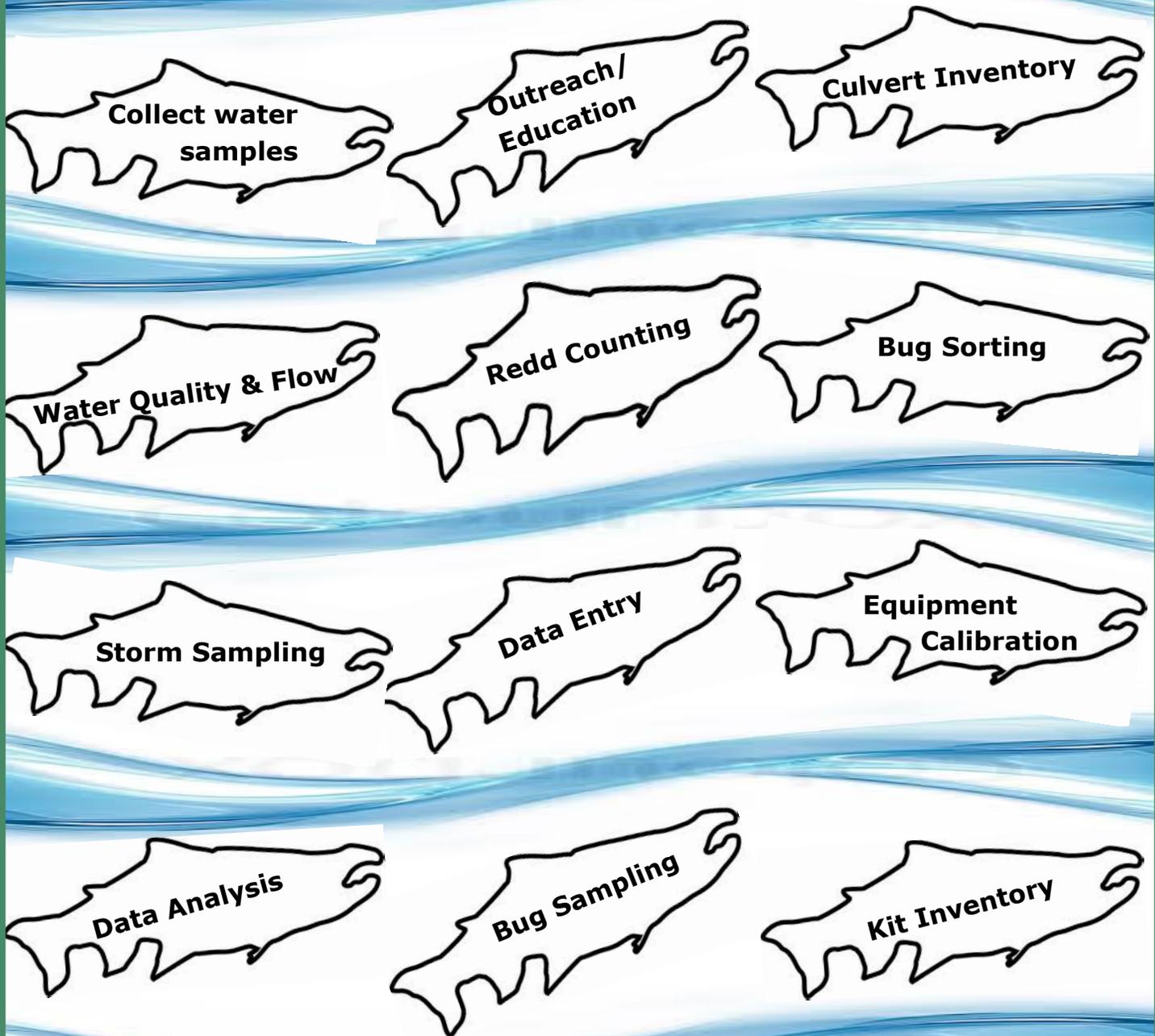
While reading this issue of "In the Flow," did you happen to notice something bright yellow sneaking in throughout the pages? And, perhaps you've noticed it along roadways taking over native plants. Scot's Broom (Scotch Broom) is hard to miss this time of year and this is the time to pull or cut and paint with herbicide. It is a highly invasive species and because it contains volatile oils that burn readily, there are concerns about increased fire risks during dry summers. Be responsible and do your part to eliminate it from your property. For helpful information, read article by Cathy Lucero, Noxious Weed Control coordinator for Clallam County, on pg.6 of this newsletter.



Be a Streamkeeper Volunteer

Make a Difference!

Many ways to help! Sign up for training now!



Scotch Broom

by Cathy Lucero, noxious weed control coordinator for Clallam County

(article printed in local newspapers)

It's June and Peninsula roadsides are blazing with the yellow flowers of Scotch broom. But Scotch broom (*Cytisus scoparius*) isn't a natural part of our roadside scenery. Brought to Pacific Northwest gardens in the 1800's, it was later planted to reduce erosion on highways. Scotch broom has since escaped into the wild and become one of the most iconic noxious weeds in the Pacific Northwest.

As soon as Scotch broom flowers open, the Clallam County Noxious Control Weed Program is inundated with calls from concerned citizens wondering what they can do to get rid of this weed.

It's always best to do something as soon as possible, before the problem gets too big. In the spring smaller plants are easy to pull by hand, and larger ones can be removed using a tool called a Weed Wrench. The Noxious Weed Control Program can provide specialized control advice if there is too much broom to pull by hand. Over the years a significant seed bank can build up in the soil allowing new plants to sprout even after larger plants are long gone. Scotch broom control is a long term commitment with a rewarding outcome!

Because Scotch broom is so prevalent and because the Noxious Weed Control Program is required by law to prioritize and focus its limited resources on less widespread invaders, Scotch broom is listed as a "selected class B" noxious weed, meaning it is only required control in specific high risk locations within the county. This includes places like quarries where seeds are likely to be moved around to start new infestations. In addition to requiring scotch broom control in high risk locations, the Noxious Weed Control program has enlisted specialized insect predators that eat broom seeds.

But what is wrong with having what this brightly flowered, European traveler? Scotch broom is a hardy survivor. It makes lots of long lived seeds, up to 12,000 or more per year that can survive for well over 50 years in the soil. But its most important weapon is the special bacteria in its roots that help it to make its own fertilizer virtually out of thin air! This ability, called nitrogen fixing, is common to all members of the pea family and it allows Scotch broom to quickly take advantage of disturbed areas even with poor soils. The changes that Scotch broom causes to the soil where it grows stunts the growth of nearby plants allowing it to gain a foothold.

Unimpeded, Scotch broom grows densely and more quickly than native plants or commercially planted tree seedlings. Indeed, experts claim that Scotch broom accounts for forest production losses exceeding a whopping million dollars annually in Washington State. Scotch broom infestations have tended to be worst in west Clallam County, likely spread inadvertently by equipment and gravel infested with broom seeds. Unmanaged, broom can easily overrun pastures, sharply reducing grazing and hay production. The last few years have seen the yellow invasion spreading farther into Sequim. There we're likely to see some other more common, everyday impacts. As Scotch broom infestations grow, many people experience increased allergies that are enhanced by the strong fragrance of Scotch broom flowers. Also, Scotch broom contains volatile oils that burn readily and there have been concerns about increased fire risks during dry summers.

But this unwanted march of Scotch broom across the County can be halted and reversed if more people are willing to get involved. No one person or group can do it all. But broom has been pushed back successfully wherever there has been concerted and sustained effort by County chain gangs, volunteer groups and private citizens. It can be as simple as pulling out one plant every day on your daily walk or getting together with a couple of neighbors to tackle bigger patches. Adopt a county road! What a great way to exercise and reduce stress!

Call the Noxious Weed Control office at 417-2442 for Weed Wrench loans or for more information about controlling Scotch broom and other noxious invasive weeds. A \$50 refundable deposit is required for each Weed Wrench at the time of pick up.

