January 9, 2017
Fish Lab Newsletter

Happy New Year!

With the new year, we have a new fish program… and our salmon are hatching! We received our eyed coho and chum eggs from DFW over the break, and several of our volunteers helped us with the transfer (pictured).

The chum began hatching on December 26th, and our first coho hatched on January 5th. They are now in the alevin stage, which means their bodies are no longer inside the egg but the sac is still attached. These fish will continue to feed off their yolk until it is depleted, which is why they are called “yolk sac fry”. We will be carefully monitoring temperature units and water quality in the upcoming months, and waiting for the right moment to move the fish to their troughs.

We will meet, as always, **Mondays and Wednesdays at 3pm, and Saturdays at 8am** whenever school is in session. As usual, we use our Saturdays for larger projects and working field trips.

Ongoing Hatchery Maintenance. Although we continue to maintain our own facilities even when we go on working field trips, it is important that all our volunteers have the opportunity to understand the regular operations of our system.

Our regular tasks include running the blow-off valve to keep our gravity-fed system clean, water quality analysis, nutrient enhancement, and fish care. This is in addition to helping maintain the Lake Swano trail.

This past weekend, we took a walk around our trail to assess needed upcoming maintenance. Did you know our trail system has been around for over 20 years? Although Lake Swano was formed in the beds of gravel pits in 1948, and the former fisheries program began in the 1970's, the trail and interpretive walk were *officially* created in the 1980's and 1990's. It has been a long-time education-driven project to keep this system alive, often driven by the students themselves. In 1972, the Daily World put out an article that stated:


Timberline

Lake Swano gets new image

"About a dozen Grays Harbor College students hit the trails each Friday in an effort to improve Lake Swano as a recreation area. The man-made lake, built in the early 1950s by Swano Katalinich, was virtually ignored until three years ago when students began volunteering their time and energy to improve the site."

The Fish Labbers are continuing this labor of love, with a lot of help from the GHC grounds department, and we are putting together plans for further work this Spring. We love seeing the morning joggers, dog walkers, and family outings during our Saturday work. However, with the recent extreme weather, there have been some shifts in the trail. We urge the users to step carefully, and pay attention to ice patches and areas with sloughing.

Thank you to everybody for your continued stewardship, if you are interested in learning more about the history of this community resource, check out the following link:

https://www.ghc.edu/content/watershed-history

Additionally, our current work-study has put together an up to date map of the trail system. Huge thanks to Alex Islas! If you are interested in learning how to create maps with GIS (geographic information systems), GHC has a class for that! Check the course catalogue for offerings, and come learn a new skill!

A larger format of this map can be found here:
https://www.ghc.edu/sites/default/files/pictures/Swano/map.pdf

January 14th – MLK Day of Service. Click on the link to sign up:

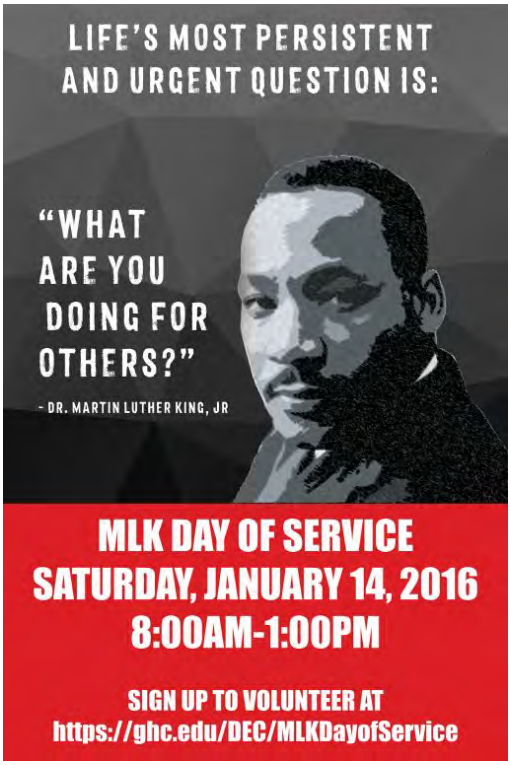
https://www.ghc.edu/calendar/mlk-day-service

"Each year, Americans across the country answer that question by coming together on the King Holiday to serve their neighbors and communities.

The MLK Day of Service is a part of United We Serve, the President's national call to service initiative. It calls for Americans from all walks of life to work together to provide solutions to our most pressing national problems. It's awesome!

The Day of Service is January 14th from 8:00am-12:30pm. We will have a kick off and welcome until 8:30am.

All volunteers will then drive to their volunteer sites and be on site from 9:00am-12:00pm. We will have a quick closing at 12:30pm."



We will be hosting volunteers for an invasive species removal on the Lake Swano Trail. With help from Grays Harbor Stream Team and members of the GHC Natural Resources Club, we hope to continue our holly eradication project. Remember to dress for the weather, because it has been COLD out there.

January 21st – Amphibian and Egg Mass Training *tentative*. We have the opportunity to train with DFW to identify amphibians, something that may lead to future side-projects in the future. This training will most likely occur on the 21st, in Olympia, but we are still working out the details. If you are interested in participating, please RSVP as soon as possible by emailing me at amanda.gunn@ghc.edu

January 28th – McDonald Creek Clean-Up. Grays Harbor Stream Team will be hosting our volunteers for a rewarding and educational event. We have had so many amazing community members contribute to the maintenance of Alder Creek, let's give back by spreading the love!

Speaking of work done by the community, in addition to the collaborations with the City of Aberdeen, GHC Natural Resources, and Grays Harbor Stream Team, we have had a little extra help keeping the Alder Creek area clean. Joshua Francy, with Clean Streams and Memes, has focused quite a few of his recent weekly clean-ups in our area. According to his posts on Facebook, Joshua and his volunteers removed approximately 212 lbs of garbage from the areas surrounding Alder Creek last quarter. Thank you, Joshua!

*note: GHST logo was designed by GHC students who took Erik Sandgren's Fall courses. The Clean Streams and Memes logo was designed by a GHC BIO100 student. Interested in learning how to express your creativity? Check the course schedule to see when your future art class is being offered. ☺

February 4th – Tree Planting. The Chehalis Basin Fisheries Task Force will be picking up 500 spruce trees from DNR, and we will have the opportunity to help plant them! This will be an amazing opportunity to learn more about stream restoration projects going on throughout the county.

We will be planting these trees on a few sites at Johns River, where several of our Fish Labbers had the opportunity to tour the stream restoration in progress last Summer. Then we need to proceed to several other sites for additional plantings.

For Johns River, the Task Force completed three culvert corrections opening between 13-14 miles of habitat. Most of the habitat is off-channel rearing, but there are spawning areas in two of the major streams, Ballon and Atwood Creeks. The third stream is Swamp Creek where the habitat is mostly rearing, although locals have historically seen adult fish in this stream.

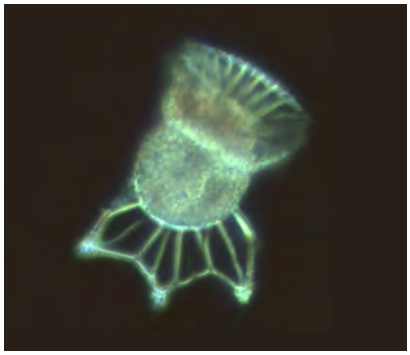
These restoration projects were completed last summer, and were funded by the Habitat Restoration Program (HRP), Salmon Recovery Funding Board, and the US Fish & Wildlife Service.

In 2017 Streamworks Consulting and the Chehalis Basin Fisheries Task Force will be completing 7 more fish barrier corrections funded by the HRP, Gaddis Creek, Eaton Creek, plus correcting three barriers on Taylor Creek, one on South Bank Road, one on Taylors Ferry Road and another between these two on an abandoned railroad line. They have an additional correction on the Middle Fork Satsop Road as well. These projects will open another 14 miles or more of habitat for tributary streams off the Lower Mainstem Chehalis River.

The Chehalis Basin Fisheries Task Force is a non-profit volunteer organization which is a Regional Fisheries Enhancement Group funded in part by the state to do restoration projects such as fish barrier corrections. The Task Force has been doing restoration projects of all types since the 1980's and has completed hundreds of projects. In recent times they have brought close to $20 million dollars of restoration funds into the basin for habitat and culvert corrections. Right now the Task Force's primary focus is fish barrier culvert corrections and off-channel habitat projects.

Thank you to Lonnie Crumley for sending us this background, and for including us in this educational opportunity. Thanks to the Task Force for their continued work creating healthy fish habitat!

February 11-12th – Phytoplankton Taxonomy Workshop. Anthony Odell, of UW-ORHAB, will be scheduling another workshop in the next month or so. Mr. Odell collaborates with Dr. Monica Baze on opportunities for the Biology majors series, along with serving as a mentor for the Fish Lab Summer Research Program. This workshop will be open to all our students, and will provide valuable experience in microscopic identification of phytoplankton. From Mr. Odell:



"*I would like to announce an upcoming ORHAB Marine Phytoplankton Identification workshop on the weekend of February 11th and 12th at Grays Harbor College in room 4328 on the 3rd floor of the Shermer 4000 Building at Grays Harbor College in Aberdeen, Washington. Talks will include the basics of phytoplankton, harmful algal blooms of the pacific northwest, taxonomic instruction on marine diatoms and dinoflagellates, basic microscopy technique and some time spent looking at fresh live marine and estuarine phytoplankton samples on the microscope. If you are interested, please RSVP Anthony Odell at odellamo@u.washington.edu"*

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*Note: Photo credit for the amazing phytoplankton pictures (above and below) goes to Mr. Anthony Odell

TBD – Applications for the Fish Lab Summer Research Program. I will be posting more information about the application process to our webpage soon. Students who think they may be interested in participating should check out last year's posters at the link to get an idea of potential projects.

https://ghc.edu/content/ghc-fish-lab-summer-research-program

Participating in an undergraduate research program gives you the opportunity to learn how to work independently on a scientific project. It is an excellent resume builder, and will also give you a chance to try out science as a career. Past participants have gone on to transfer to STEM Bachelors programs and gained employment in environmental sciences. Several of last year's research assistants are currently working on submitting their abstracts to both state and national-level conferences. Wish them luck!

It is a new year, and if your resolutions include service and/or education, come pay us a visit! With fish in-house, I expect this will be an exciting quarter.