

The Water Ship News

A Volunteer Service of the Goldstream Volunteer Salmonid Enhancement Association

April 2019

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GVSEA publishes the Water Ship News on a monthly basis for educators, secondary students, agencies and community organizations. The 'News informs participants in Fisheries and Oceans Canada's Stream to Sea Program in the Capital Regional District. The 'News also notifies students and educators of training and volunteer opportunities concerning species enhancement and habitat restoration. In turn, community organizations find the support they require to fulfill their objectives.

Back issues of The Water Ship News can be viewed at www.salmoninschools.ca

CLASSROOM INCUBATION

TEMPERATURE CHANGE

The temperature of our local streams is increasing with the warm spring weather, so it's time to adjust the temperature in your salmon tank.

1. Change your **target temperature to 6°C today** (range stays at 2)
2. At the **end of the week, change your target temperature again up to 7°C.**

The weather is warming quickly outside, but in order to keep your alevin from experiencing temperature shock, please adjust the tank temperature in these 2 stages a few days apart.

STATUS UPDATE

You will notice that your alevin are using up their yolk sacs and becoming more streamlined in shape. They will emerge from the gravel at different times over the next month and their swimming style will be quite erratic as they fill their swim bladders and adapt to their new surroundings.

- Sooke Projects: The 7 incubation projects in Sooke released their fry before Spring Break as they received their eggs in early January. Sooke teachers, please send your release data my way at your earliest convenience (release site, number of dead eggs, dead alevin and dead fry).

DAILY MONITORING

1. Dead alevin/fry

- Each day, check for dead alevin or fry and carefully remove any (a turkey baster works well). Dead alevin don't move and will lose their colour.

2. Viewing/Styrofoam Jacket

- At this time, remove the front and/or top of the styrofoam jacket each day long enough that your class has time to make observations, record temperature, and note and remove any dead alevin/fry.

- When you begin to feed your fry (not yet – wait until 75% are free-swimming and completely buttoned-up), remove the front piece of the Styrofoam jacket (keep all others on to keep water cool) in the morning and replace it at the end of the day. This helps acclimate your fry to the daily cycle of light and darkness.

3. ATUs/temperature

- Record the tank temperature daily and maintain your ATU chart. Please remember that ATUs will vary between all projects – there is no “right” or “wrong” value.

4. Record Keeping

- You are required to keep a record of how many eggs/alevin/fry die throughout the project. Again, there is no “right” or “wrong” answer. You’ll report these numbers after fry release.

5. Feeding

- It’s not feeding time yet. You’ll know it’s time to feed your fry when at least 75% of them are completely buttoned up (no yolk sac left) and swimming around the tank.

FRY RELEASE

Fry must be released no more than 10 days after they’ve begun feeding on the fish food – usually late April/early May. It is best to not book your fry release field trip until you have begun feeding your fry. You can view a map of release sites at salmoninschools.ca. If you have questions about your release site, please let me know. **Did you know that Peninsula Streams has an education program that is an excellent lead up to your fry release! Get in touch with them if you’re interested!**

Questions, concerns or issues with your incubator? Salt Spring Island projects, please contact Drew Bodaly. Everyone else, please contact me (Kate), directly.

STORM DRAIN MARKING PROGRAM



This program gives students an active role in protecting their environment by marking storm drains with bright yellow fish and circulating information to advise residents that these drains empty into local creeks. Storm Drain Marking increases our understanding of point source pollution, and strengthens our conscious connection with the natural world.

This activity is suitable for students in Gr.3 and higher, between April and October. I will bring a marking kit to your class presentation (about 30 minutes), and will leave it with you until you have finished your project. Please contact me for more info.

*If you are a school located in the **Mt. Douglas watershed** (most of Gordon Head), volunteers from the Friends of Mt. Douglas Park Society are happy to assist you with a storm drain marking field trip. In advance of the trip, your group will need to book the 30 minute in-class workshop with Kate. Please get in touch for more details.*

COMMUNITY ACTIVITIES & RESOURCES



The 2019 SEP Community Workshop will take place at Vancouver Island University Nanaimo May 31 to June 2. The workshop is hosted by Nanaimo River Stewardship Society with support from Pacific Streamkeepers Foundation, Fisheries and Oceans Canada, Pacific Salmon Foundation and Snuneymuxw First Nation. [Event Info](#).



Peninsula Streams Society brings Environmental Education into the classroom. Our aim is to have educational programs that Connect children with their local environment at the elementary and middle school levels. We offer our programs to classes and groups in Greater Victoria. In April and May, we visit Gr. 3 classes to deliver a one hour interactive presentation, composed of two parts: Watershed Education and the Salmon Lifecycle. **This program is a perfect lead-up to the salmon fry releases** for schools that participate in the salmon classroom incubator program. Our Gr. 3 program is now delivered to schools in the SD 63 (Saanich) and SD 61 (Greater Victoria) regions, to almost 500 students annually. [Click for more info](#)



Students at Saturna Ecological Education Centre have turned their salmon tank into a BC Green Games submission! You can view their excellent video [here](#) and check out what they have to say about SEEC:

“You’ve probably never heard of us, as we are a small residential class of 10-12 students who engage in place based ecological literacy and outdoor pursuits in the Gulf Islands School District - SD64. A unique aspect of the program is that students live on the gulf islands for a school year. They come to Saturna for 3 days - Sunday night, Mon, Tues, Wed - stay in off grid cabins and go home on Wednesday night, for 40 weeks total! Every week is only 3 days of school for a complete set of 8 courses in grade 10 or in grade 11. The learning is fun and done in authentic opportunities to study the BC curriculum in the Salish Sea region: working with parks Canada, university and masters students, elders and biologists for science and conservation; hiking and kayaking and camping for outdoor education and adventure throughout the gulf islands; and connecting to the community at large through service learning and life skills.”

For more info about SEEC, you can contact Vice Principal Martin Anevich at 250-222-0463.



Become a CRD Watershed Warden – Capital Regional District Kids can earn a free CRD Watershed Warden badge by learning about and taking care of their local watersheds. Badges may be earned by participating in any local programming or stewardship activities whether with your class, family or club.

Rainwater and Watersheds – A learning resources for elementary educators in the Capital Region, is an online document (pdf) which

provides place-based lesson plans which can be easily adapted to various grade levels and can help you earn a badge!

More online resources including short videos, watershed maps, printable activities and graphics are available to enhance this place-based learning opportunity. Learn more at: www.crd.bc.ca/watersheds.

Editor's Note - The Water Ship News is an e-newsletter for CRD participants in the Classroom Incubation Program. Your email address is not contained in the header. To remove yourself from this mailing list, send an email from your address to katemacdonaldjulicher@gmail.com