Stream Team News

FREE

OLYMPIA • LACEY • TUMWATER • THURSTON COUNTY

EDUCATE • PROTECT • RESTORE

SUMMER EDITION
June–July-August 2020

Inside...

To keep everyone safe during this time, Stream Team is following the Governor's "Stay Home, Stay Healthy" guidelines.

We are modifying some of our programming to accommodate COVID-19 restrictions while still helping you to learn and stay involved with Stream Team.

Stream Team will consider reopening volunteer events when Thurston County is approved for Stage 4 of Washington's Phased Approach to reopen.

In the meantime, we will be posting links to exciting videos featuring marine creatures and bats and providing additional online educational opportunities.

Please visit **www.streamteam.info** to learn more!

Don't forget to follow us on Facebook and Instagram to learn what you can do while staying home to keep our waters clean and habitat healthy for wildlife.

STREAM BUG MONITORING

Due to the Coronavirus we will be restructuring participation for our macro monitoring program. When we are able we will be providing personal protection and practicing distancing. Please check our website registration for possible dates.

Help Monitor Local Streams this Summer!

(NO EXPERIENCE NECESSARY)

Coming Soon! Macroinvertebrate Videos

See what aquatic insects are hatching in our local streams.

Visit **www.streamteam.info** for details!

Benthic macroinvertebrates or "stream bugs" are an essential part of the stream food web and make up a large percentage of a juvenile salmon's diet. Stream bugs are used as indicators of stream health as some species are tolerant of stream pollution and habitat disturbance, while others are very intolerant of disturbances and changes in water quality.

To ensure everyones safety, we are following the governor's guidelines. When appropriate we will be offering in the field monitoring training with reduced volunteer participation. For everyone's protection, gloves and masks will be worn and we will be practicing social distancing.

Volunteers will be accompanied by Stream Team staff at each monitoring location. Monitoring usually takes 2–4 hours per site, depending on the site and location. See the Stream Team calendar for various times and locations. To register, visit **www.streamteam.info** and click on "register".

ON THE COVER: Beach Seine event at Priest Point Park. Photo by Michele Burton Photographer.

DID YOU KNOW? Articles marked with a damselfly icon, like the one on the left, will be posted on our website in the Reference Library.

STREAM TEAM MISSION

To protect and enhance the water resources and associated habitats and wildlife in Thurston County through citizen action and education.

Stream Team is funded and jointly managed by the stormwater utilities of the Cities of Lacey, Olympia and Tumwater and Thurston County. Stream Team programs meet the requirements for the National Pollutant Discharge Elimination System (NPDES) permit for stormwater.

SPECIAL NEEDS?

Citizens requiring special accommodations can call one of the coordinators listed at least one week prior to an event to make special arrangements.

FOLLOW US:

ThurstonStreamTeam
thurston_stream_team

NEWSLETTER CONTRIBUTORS:

Aimee Christy, Kelsey Crane, Mandy Chen, Ann Marie Pearce, Michelle Stevie, Sarah Tolle, Emily Watts, and Michele Burton Photographer.

DESIGN & LAYOUT:

ASGD Brand Strategy + Design
www.AzureSGD.com

STREAM TEAM INQUIRIES

360-438-2672 or streamteam@ci.lacey.wa.us

IN LACEY:
City of Lacey Water Resources Program
420 College St. SE, Lacey, WA 98503

Attn: Lacey Water Resources
Tel: 360-438-2687
TDD: 1-800-833-6388
WaterResources@ci.lacey.wa.us

IN OLYMPIA:
City of Olympia Water Resources Program
P.O. Box 1967, Olympia, WA 98507-1967

Attn: Michelle Stevie
mstevie@ci.olympia.wa.us

IN TUMWATER:
City of Tumwater Water Resources Program
555 Israel Road SW, Tumwater, WA 98501

Attn: Meridith Greer
Tel: 360-754-4148
TDD: 1-800-833-6388
mgreer@ci.tumwater.wa.us

IN THURSTON COUNTY:
Thurston County Water Planning
2000 Lakeridge Dr. SW, Bldg. 4, Rm 100,
Olympia, WA 98502

Attn: Ann Marie Pearce
Tel: 360-754-3355 ext. 6857
TDD: 360-754-2933
ann.marie.pearce@co.thurston.wa.us

What's *Blooming* in Budd? Dinophysis!

This summer marks the 8th year of Stream Team's What's Blooming in Budd plankton monitoring program in partnership with Pacific Shellfish Institute. Each summer, community scientists, like you, lower nets into the water to collect data that supports the work of researchers and resource managers throughout the region. Most notably, samples are screened for harmful algal bloom species (HABs) as part of the National Oceanic and Atmospheric Administration's (NOAA's) SoundToxins program. HABs are blooms of phytoplankton that cause harm to people, animals, or local water quality. The information collected can provide early warning of HABs, track changes over time, and ultimately help scientists forecast when toxic events might occur.

Did you know that Budd Inlet holds the State's record for the highest Diarrhetic Shellfish Poisoning (DSP) toxin levels measured in mussels? HAB species Dinophysis—has become a recent hotbed of DSP activity, experiencing closures every year since 2015. In 2016, DSP toxins in Budd Inlet mussels reached 250 µg/100 grams of tissue! Washington Department of Health (WDOH) routinely monitors shellfish throughout the state and closes growing areas when DSP toxins exceed 16 µg/100 grams. Consumption of contaminated shellfish tissue can lead to nausea, vomiting, abdominal pain, and diarrhea.

What does What's Blooming in Budd data tell us about Dinophysis?

We have observed Dinophysis blooms during both early and late summer. Samples have been comprised of a mixture of 6 different species, the most common being D. fortii, D. acuminata, and D. norvegica. When coupled with WDOH toxicity data, we observe that the primary species detected during toxic blooms appear to be D. acuminata and D. fortii, whereas, the early summer blooms have consisted of much higher abundance of D. norvegica, but no apparent shellfish toxicity.

What do IFCBs do?

The upsurge in toxic events in Budd Inlet has attracted the attention of NOAA Oceanographers, Vera Trainer, Stephanie Moore and Brian Bill as well as Naomi Estrada-Packer, a graduate student at The Evergreen State College. As part of a NOAA Ecology and Oceanography of HABs grant, Trainer and collaborators are placing an Imaging Flow Cytobot (IFCB) in lower Budd Inlet this summer to intensively monitor and capture images of this species and its prey. This effort is part of a nationwide network of IFCBs used for monitoring and providing early warning of Dinophysis blooms.

What makes Budd Inlet such an attractive environment for Dinophysis? One feature, as Estrada-Packer's research suggests, is stratification, or the layering of warm fresh water over cold saltier water. Estrada-Packer observed that river discharge, surface water temperature, and high nitrogen to phosphate ratios were strongly related to Dinophysis abundance. Dinoflagellates thrive under stratified conditions where—unlike diatoms—their whip-like flagellas give them a competitive advantage, allowing them to migrate into deeper waters to access available nutrients.

Become a Community Scientist

If you haven't met a dinoflagellate up close and personal, then we invite you to attend a What's Blooming in Budd event where you will meet not only Dinophysis, but Ceratium, Akashiwo, Protoperidinium and others. In every drop of water lives a microscopic world of plankton that serves as the heartbeat of the marine ecosystem. Visit the Pacific Shellfish Institute blog at **www.pacshell.org/whats-blooming-in-budd**.asp and be part of the exciting new Dinophysis research that is currently unfolding and discover What's Blooming in Budd!

Learn more about Soundtoxins, WDOH's biotoxin program, or what's blooming in Budd at:

- **www.soundtoxins.org**
- **www.doh.wa.gov/CommunityandEnvironment/Shellfish**
- **www.pacshell.org**

PLANKTON MONITORING SCIENCE SUMMER EVENTS BLOG

WHAT'S BLOOMING AROUND BUDD?

■ **Beginning June 18!**

Follow the Pacific Shellfish Institute as they dip their nets into Puget Sound and tour favorite swimming spots. Visit PSI's blog at **www.pacshell.org** to view weekly photos, learn plankton ID and discover what plankton tell us about local water quality and what we can do to keep our waters clean and healthy.

PSI'S LIGHT TRAP MONITORING

Looking for a cool family event? Check out Pacific Shellfish Institutes' light trap to see what organisms can be seen in real time! Follow along at home to see different species featured each week. If you are feeling creative, draw a sketch of the most dominant plankton species seen. Specie identification cards will be posted complete with photo and fun facts! Visit **www.pacshell.org** to learn more!

How can you reduce Pollution in Puget Sound?

- For dog owners, Scoop It, Bag It, Trash It....every poop, every time!
- Avoid fertilizers with weed killers. Use natural-organic slow release fertilizers, compost, or grass mulch instead.
- Wash cars on the lawn or visit a commercial car washing facility.
- Properly maintain the health of your septic system.

How is *Groundwater* Connected to Streams & Rain?

In the Pacific Northwest we are known for salmon, evergreen trees, mountains and a lot of rain! With so much rain, did you know that 98% of the water we drink in Thurston County comes from groundwater?

What is Groundwater?

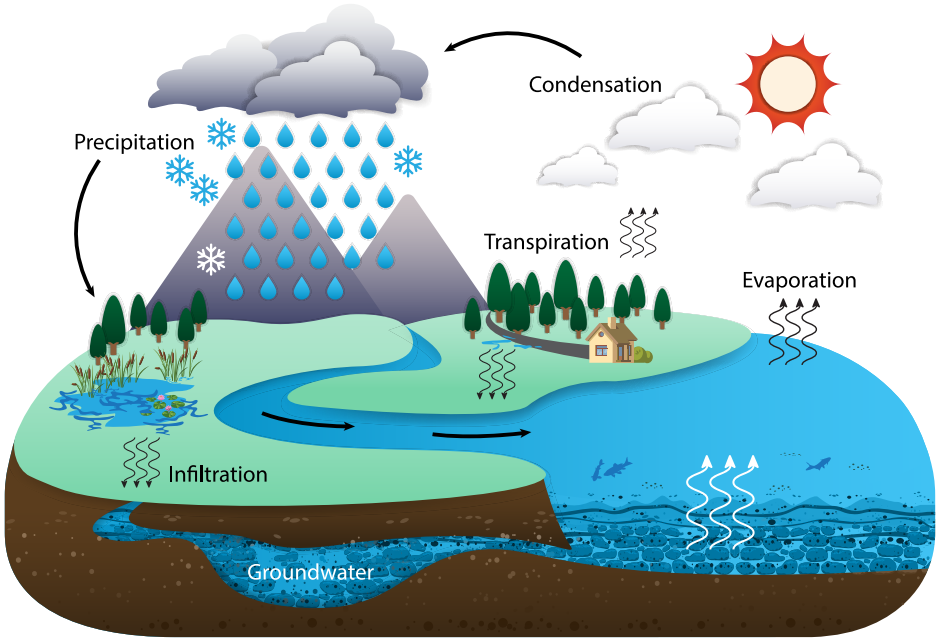
Groundwater is the water found under the Earth's surface. It is stored in and moves slowly through geologic formations of soil, sand and rocks called aquifers.

Groundwater supplies are replenished, or recharged, by rain and a little bit of snowmelt that soaks down into the spaces, or "pores," in the soil.

Groundwater keeps our streams flowing.

Sixty to ninety percent of the water in our streams comes from groundwater. While it is true that rainwater does flow into streams during heavy rains, it's groundwater that keeps our streams flowing, especially during hot, dry summer months!

When rainwater soaks into the ground, it becomes groundwater. Some of it flows slowly underground and seeps into streams, feeding them the nice, cold-water fish depend on! The rest flows deeper into underground aquifers. The majority of the water we use at home comes from those aquifers.



How can you help our streams and salmon?

1. **Plant native trees along streams (at home or with Stream Team).** Trees help shade streams and keep water temperatures cooler.
2. **Plant native or drought-tolerant plants in your landscape.** These types of plants use less water than more water-loving species.
3. **Aerate your lawn and top dress with fine compost.** Let your lawn go golden during the summer. But remember to water 1" each rainless month!
4. **Take your car to a commercial car wash.** They use less water than washing your car at home, and they capture the dirty water so it doesn't flow into storm drains or streams.
5. **Use less water at home—switch to water-saving appliances and fixtures.** Check with your local jurisdiction to see if you qualify for any water-saving rebates. If you are a LOTT wastewater customer, you can qualify for free water-saving kits or rebates by visiting **https://lottcleanwater.org/programs/conservation-rebates/offers-and-rebates/**.

Groundwater levels are lower than average.

Despite receiving some heavy mid-winter rains, we only received an average amount of our annual rainfall this past fall and winter. We did not get enough winter rain to make up for previous years' droughts. Thus, we "lost" water storage in our groundwater supplies.

The light springtime rains we are currently receiving will likely not make up for this groundwater re-supply shortage. Historically the new growth of plants and trees in spring tends to uptake most of our light spring rains before it can soak into the ground and replenish groundwater levels.

What does this mean for our streams this summer?

Current streamflow levels are below normal and we are not even into the dry season yet! If current trends continue, we may be headed not just for a summer/fall drought, but for near record lows in some of our streams and underground wells. This is because our groundwater levels have not been re-supplied by rains to average levels for the past couple of years. Thus, there is less groundwater available to recharge our streams in the hot, dry summer months.

When stream levels are low the summer sun heats up the water more quickly. This isn't good for streams or salmon. And, if stream levels are lower than normal going into the fall, then this would not be good for fall run salmon, such as chum, who need plenty of cool water in streams to dig their nests and lay their eggs.

Rainfall levels are below average for most sites in Thurston County

As of April, most of the rainfall monitoring sites in Thurston County received below average rainfall amounts. The chart below shows rainfall levels for three sites in Thurston County.

SITE NAME	WY2020	10 YR AVG	DIFFERENCE	%
Yelm	21.15	23.39	–2.24	90%
Summit Lake	49.25	54.45	–5.20	90%
Olympia Airport	35.61	34.17	1.44	104%

- The precipitation is in inches.
- The WY2020 column is rain from Oct. 2019 – Feb. 2020. The next column shows the 10-yr. average for each site for those same months.
- The Yelm site is 2" less than normal and Summit Lake is 5" less than normal. The airport site is a little above average. (This reflects that rainfall varies across the County.)
- What's important to note is that we are moving into the less wet time of year and some areas of the County are already below average in rainfall.

Help Us Care for the Trails at McLane Creek Nature Trail!

Enjoy the outdoors this summer at McLane Creek Nature Trail with Stream Team and WSU Extension's Native Plant Salvage! Since 2009, we've partnered with the Department of Natural Resources to carry out small habitat restoration projects and carefully maintain the trailside vegetation. Our goal is to protect native plants along the trail and the many ecological functions they provide to this special patch of forest—including a healthy run of chum salmon that our Salmon Stewards share with the public each fall!

Since we began caring for the trailside vegetation, we've seen less invasive plants and a resurgence in the low growing understory native plants—especially our beautiful perennial flowers! This results in enhanced beauty along the trail for all users and a bounty of thriving native plants for our native plant identification workshops.

Volunteers of all ages regularly gather in sun or rain to trim back plants from the trail, clear overhanging branches and remove invasive plants. McLane Creek is a vital salmon-bearing stream and community hub. Volunteers always encounter local wildlife and enjoy connecting with fellow nature enthusiasts. Join the fun—Volunteer at McLane Creek Nature Trail this summer!

*Volunteer work party dates are dependent upon when Thurston County is approved for Phase 4 of Washington's Phased Approach to reopen. Anyone participating in work party events will need to follow COVID-19 safety guidelines, including wearing masks and gloves and social distancing. We will provide all guidelines in advance to anyone who registers or contacts us for more information.

Register online. For more info., contact Samantha at **info@nativeplantsalvage.org**

MCLANE CREEK NATURE TRAIL WORK PARTIES*

- **Thurs., July 2, 16, August 6**
- **3:30 – 5:30 p.m.**
- **McLane Creek Nature Trail, 5044 Delphi Rd SW, Olympia**

Atmospheric Deposition & the Pollution *Globetrotters*

Yikes! Did you know that toxic industrial pollution surfs air currents? Once picked up by the wind, it travels up, down, over and throughout the globe until it is deposited into our rivers, lakes, streams and oceans—eventually accumulating within food webs. This is called atmospheric deposition.

What is biomagnification?

Industrial pollutants are persistent, meaning they do not go away. Instead, they steadily increase in concentration in plants and animals as they eat or absorb it. These contaminants are then passed along the food chain. Beginning at the bottom of a food chain, these pollutants build up exponentially into more toxic concentrations travelling upwards from aquatic insects to larger fish and mammals—a situation commonly referred to as biomagnification. This explains why whale blubber is often observed having some of the highest levels of toxic pollutants of any mammal.

Due to the direction of air currents, industrial air-surfing pollutants have been accumulating in unlikely places…pristine mountain lakes and arctic ice caps to name a few. If the thought of this makes your head spin, you are not alone. Undeveloped and isolated locations are some of the last places most of us would consider vulnerable to industrial pollution.

Results from a 2008 study of 20 national parks in the western U.S. and Alaska measured the highest concentrations of mercury in fish from Olympic National Park—despite the parks remote location on the northwestern coast of Washington state. For more information visit: **www.nps.gov/articles/understanding-mercury-concentrations-in-mountain-lake-fish.htm**.

Over the last decade, a growing amount of data has been collected by a group called the Dragonfly Mercury Project—a citizen scientist led effort with over 4,000 volunteers collecting samples of dragonfly larvae from more than 100 national parks. Collected data is lab analyzed and reported to the U.S. Geological Survey, the University of Maine, and Dartmouth College.

Why test dragonflies?

A juvenile dragonfly can live up to 9 years underwater eating insects and small fish, accumulating significant amounts of mercury in their systems as they grow. They exist in greater numbers than fish and are also easier to capture. According to Rebecca Lofgren, Aquatic Ecologist at Mount Rainier National Park, since "fish eat insects, the levels of mercury found in dragonfly larvae have proven to be a strong indicator for mercury levels in fish and the entire food web in the area." For more information or to get involved in the Dragonfly Mercury Project, visit: **www.nps.gov/articles/dragonfly-mercury-project.htm**.

The four main air-surfing industrially generated pollutants are:

- **Methyl mercury:** mostly generated in coal-burning power plants in Asian countries and gold mining operations in South America and Africa
- **Polychlorinated biphenols or PCBs:** banned toxic chemicals originating in pre-banned construction materials, paints, transformers and fluorescent light fixtures
- **Polybrominated diphenyl ethers or PBDEs:** a banned group of toxic chemicals historically used as flame retardants in indoor household items like couches and children's pajamas
- **Polycyclic aromatic hydrocarbons or PAHs:** a main component in the wood preservative creosote

Of these, mercury is by far the "ultimate globetrotter" due to its unique ability to travel extremely long distances on air currents.

How does this affect the Pacific Northwest?

Industrial toxic compounds are known to accumulate in "plumes" above cities. What is less known is that this pollution is then whisked away in any direction as the wind blows. It may shower down 100 miles later directly into waterways or thousands of miles later upon urbanized areas, farms or our forests. When industrial pollution is hitching a ride on air currents, there is essentially no limit to its global spread.

Did you know that Western North America produces roughly 20% of the continent's mercury emissions and yet receives some of the highest rates of mercury deposition in the entire world? This is largely connected to pollution crossing over the Pacific Ocean on air currents and showering down in the famously heavy rains of the Pacific Northwest.

Many of these compounds end up in stormwater pollution, although it's hard to say definitively how much stormwater pollution FIRST travelled through the air.

Atmospheric deposition reminds us how interconnected our actions are on a global scale and also cautions us that environmental relationships defy country borders.


CREDIT: JUDY GALLAGHER

What can you do to limit atmospheric pollution?

- Drive less and invest in an electric vehicle decreasing your fossil fuel combustion.
- Use untreated wood and wood alternatives for building, and if burning wood, choose a wood stove rated to burn more efficiently creating a cleaner combustion.
- Create less waste and recycle limiting waste to landfills and lowering your contribution to waste incineration.
- Properly dispose of household items keeping toxics like mercury (from thermometers and fluorescent lightbulbs) out of landfills.


CREDIT: MICHELE BURTON PHOTOGRAPHER

Celebrate World Oceans Day!

Underwater Photography Webinar with Jaqueline Winter

Explore the tranquility of the deep as Jaqueline Winter, biologist, diver and photographer shares her underwater photos and talks about her experiences with the species found in Puget Sound.

WEBINAR

- **Fri., June 5**
- **7 p.m.**
- **Webinar link:**

https://us02web.zoom.us/webinar/register/WN_Ec1WxF6uT6q54JNHWIwwAg

Marine Creature Mondays—View Underwater Videos Online

Beginning Monday, June 8, we will introduce our weekly marine education video posts on our website.

Special thanks to Matt Balder for his incredible underwater videography and Bob Wharton, marine biologist narrator, for their combined effort to bring you a mesmerizing showcase of the marine critters found under the sea in Puget Sound.

To view the videos, visit **https://streamteam.info/marine-creature-monday-videos/**.

Purple Martin Citizen Science Lollapalooza!

Looking for something new to do as you follow social distancing guidelines? Pack your mask and binoculars and head out to monitor the East Bay purple martins! While practicing social distancing guidelines, spend an hour or pack a lunch and record the activity happening at the boxes.

The martins arrived mid-April and have been busy for several weeks building nests and hatching their young. Watch as both parents take turns tending the nest. In June, through the month of August, they will be extra busy feeding their hungry demanding youngsters.

Interested in recording data on hatchlings and fledglings? It's easy! Visit **www.streamteam.info/purplemartin** where you will find data sheets and directions. Nesting boxes are located off shore on the pilings at the corner of Marine Drive & Olympic Ave, Olympia.

For more information or to return your data sheet, contact Michelle at **mstevie@ci.olympia.wa.us**.


CREDIT: MICHELE BURTON PHOTOGRAPHER

Featured Creature

Sea Otter
(Enhydra lutris)

Sea Otter (*Enhydra lutris*)

Sea otters live along the Pacific coastline from California, to Alaska, Russia, and Japan. Before their populations were decimated for their thick fur, they once inhabited a contiguous range from Japan around the Pacific coastline down to Baja California.

Sea otters are much larger than their cousin the river otter. Sea otters can weigh 60-90 pounds, where the river otter is much more slight, weighing 10-30 pounds. The sea otter's two-layer coat is also much denser, trapping air between the layers to keep them warm in the frigid waters of the Pacific Ocean. The tail of a sea otter is much shorter and flat compared to the river otter's long and pointed tail. They even swim differently: sea otters use their two webbed hind feet and tail to propel them through the water diving, several hundred feet to forage for food, while the river otter uses its four webbed feet to enable them to swim, diving around 60 feet deep. River otters usually birth several cubs in a litter while sea otters only give birth to one pup at a time.

Sea otters inhabit coastal waters preferring rocky shores with dense kelp forests. They primarily feed on crustaceans, sea urchins, mollusks and fish. In southern California, sea otters were historically abundant in coastal estuaries. Coastal estuaries provided them with an abundance of prey and sheltered areas for nurseries.

With industrialization and intense urbanization of our shorelines and coastal estuaries, otters face high exposure to chemical toxicity from stormwater pollution. Shellfish, a primary food source for otters, also contributes to high levels of toxins in sea otters. Shellfish are filter feeders. As they filter water for food, they also ingest toxins from polluted water. When otters eat shellfish, they end up ingesting the toxins that have built up in the shellfish.

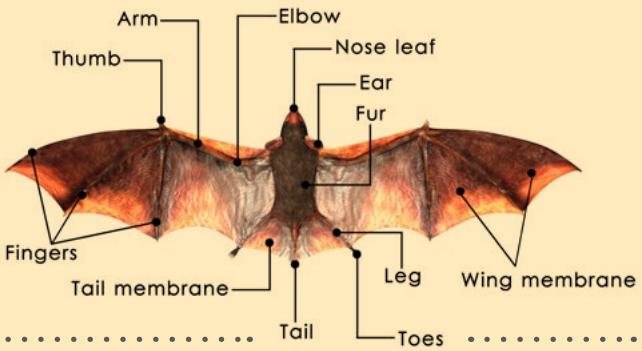
In southern California, an overpopulation of crabs and sea urchins are devastating kelps beds by overeating the kelp. In response, researchers are considering re-introducing sea otters to assist in rebalancing the shoreline ecosystem. As sea otters control the overabundant population of crabs and sea urchins, the kelp beds will no longer be overgrazed. Sea otters also rely on the kelp beds to help them hide from predators. Thus, it's a win-win for the shoreline ecosystem!

For more information visit **https://oceanconservancy.org**

Bats of the Pacific Northwest

Enjoy videos taken in real-time by local bat expert Greg Falxa. Follow along as Greg talks about the various local bat species and their adaptations for the habitat they live in. To view the videos, visit **https://streamteam.info/bat-videos-and-sounds/**.

Did you know a bat's wing consists of five digits like our hand? Visit **www.streamteam.info** to learn more!



Kids' CORNER

Did you already know these words?

Find and read about them in this newsletter!

Across

4. Tiny organism that baleen whale eats
6. I swim with my belly up
8. The largest swallow in North America
9. A remote-controlled flying robot

Down

1. A path we walk on
2. Observing, checking, keeping records
3. Water that's in the soil and the cracks of rocks underground
5. Where a large body of water meets the land
7. I may not be a dragon but I fly

otter • monitor • shoreline
dragonfly • trail
groundwater • purple martin
plankton • drone

CREDIT: MANDY CHEN




Stream Team *Events*

For additional events, event details or to register, please visit our website at streamteam.info and click on the calendar icon.

JUNE—JULY—AUGUST

Due to COVID-19, some of our regular summer events have been canceled. All activities listed on this calendar are dependent upon when Thurston County is approved for Phase 4 of Washington's Phased Approach to reopen.

For any activities that do take place, we may need to limit the number of participants and require safety measures such as social distancing, and wearing masks and gloves. We will provide guidelines in advance to anyone who registers or contacts us for more information.


CREDIT: MICHELE BURTON PHOTOGRAPHER

Purple Martin Lollapalooza!

Good social distancing event!

June – August

East Bay: Corner of Marine Drive and Olympic Ave, Olympia

Pack your mask and binoculars and head out to monitor the East Bay purple martins while practicing social distancing!

For more info., contact Michelle at mstevie@ci.olympia.wa.us.

See page 7 for more details.

Help Monitor Local Streams this Summer!

Volunteer stream bug monitoring dates are dependent upon Thurston County reaching Phase 4 of Washington's Phased Approach to reopen this summer. Check our registration page online for up to date info. on monitoring dates.

Bats of the Pacific Northwest

Visit **www.streamteam.info/bat-videos-and-sounds** for live recordings and interesting facts about our local bats.

Plankton Monitoring Science Summer Events

Beginning June 18!

Follow Pacific Shellfish Institute as they collect weekly plankton samples at select locations around Puget Sound. Visit their blog at **www.pacshell.org**.

See page 3 for more details.

Underwater Photography Webinar

Fri., June 5 • 7 p.m.

Explore the tranquility of the deep as Jaqueline Winter, biologist, diver and photographer shares her underwater photos and talks about her experiences with the species found in Puget Sound. Webinar Link: **https://us02web.zoom.us/webinar/register/WN_Ec1WxF6uT6q54JNHWIwwAg**

See page 7 for details.

Marine Creature Monday—Underwater Videos

Mon., June 8

Beginning Monday, June 8, we will introduce our weekly marine education video posts on our website at **https://streamteam.info/marine-creature-monday-videos** .

See page 7 for details.

McLane Creek Nature Trail Work Parties

Thurs., July 2, 16 & August 6
3:30 – 5:30 p.m.

McLane Creek Nature Trail, 5044 Delphi Rd SW, Olympia

Spend an afternoon with Native Plant Salvage and Stream Team as we maintain the trails and appreciate the beauty of this Puget Sound lowland forest.

For more info., contact Samantha at info@nativeplantsalvage.org

Register online. See page 9 for details.

Be A Salmon Steward!

Stay tuned for more information on these trainings. Training may be modified or canceled due to COVID-19 restrictions.

BASIC TRAINING WEBINARS

Tues., July 7, 28, Aug., 11 • 6 – 8 p.m.

Olympia City Hall, 601 E 4th Ave, Olympia

All new Salmon Steward volunteers must attend the three Basic Trainings and at least one of the field trainings. These trainings will provide all the information and materials needed to be successful as a beginner Salmon Steward.

FIELD TRAINING

Fri., Aug. 14 • 9:30 –10:30 a.m. • 5th Ave Bridge, Olympia

Sat., Sept. 12 • 10 –11:30 a.m. • Tumwater Falls Park, 110 Deschutes Way SW, Tumwater

For more info., contact Michelle at mstevie@ci.olympia.wa.us.

Register online. See page 12 for details.

COMMUNITY EVENTS

The Community Events listed below are dependent upon Washington's Phased Approach to reopening. Anyone participating will need to follow COVID-19 guidelines, including use of masks and social distancing practices. We will provide all guidelines in advance to anyone who registers or contacts us for more information.

Native Plant ID Walks & Excursions

For a current list of Native Plant Salvage events visit **www.nativeplantsalvage.org** or email Samantha at info@nativplantsalvage.org.

Stream Team

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2000 Lakeridge Dr SW
Bldg 4 #100
Olympia, WA 98502
streamteam.info

The Salmon are Coming!

Be a Salmon Steward!

Stay tuned for more information on these trainings. Training may be modified or canceled due to COVID-19 restrictions.

Each year, adult salmon make their journey back to the stream in which they hatched or imprinted to spawn. Some species travel a short distance, while others swim thousands of miles to complete their life cycle. Imagine learning about this northwest icon and being able to share the excitement of their return with others! Interested? Join Stream Team at our upcoming trainings and become a Salmon Steward (no prior experience necessary)!

At the trainings, Salmon Stewards learn basic salmon life history, the 4 H's limiting salmon survival and co-management of the salmon fishery. Salmon Stewards will also learn about the Deschutes River hatchery Chinook and South Sound chum salmon. Salmon Stewards "staff" three popular salmon viewing locations:

Each location has its own story related to the history of salmon and people in South Sound. These trainings will provide the information and materials needed to be successful as a beginner Salmon Steward.

Annual Salmon Viewing Locations:

▶ **5th Avenue Bridge**	Late August/September
▶ **Tumwater Falls Park**	Mid September/early October
▶ **McLane Creek Nature Trail off Delphi Rd SW**	November/early December*

Required Training:

All new Salmon Steward volunteers must attend the three basic trainings and at least one of the field trainings.

To register, visit **www.streamteam.info** and click on "Register". For more information, contact Michelle at **mstevie@ci.olympia.wa.us**. Webinar links and directions will be emailed to registered participants.

2020 DATE	TIME / LOCATION	CONTENT
Tues., July 7	6 – 8 p.m. / Webinar	**Basic Training Part 1:** Life History Cycle
Tues., July 28	6 – 8 p.m. / Webinar	**Basic Training Part 2:** Harvest Management
Tues., Aug. 11	6 – 8 p.m. / Webinar	**Basic Training Part 3:** The 4 H's: Habitat, Hatcheries, Hydro-Dams, Humans
Fri., Aug. 14	9:30 – 10:30 a.m. / 5th Avenue Bridge Dam / TBD	**Field Training:** Docent Skills, Dam Operation
Sat., Sept. 12	9:30 – 10:30 a.m. / Tumwater Falls Park / TBD	**Field Training:** Docent Skills, Hatchery Operation, History Walk

**** McLane Creek Chum Training:***

Trained Salmon Stewards who would like to steward at McLane Creek Nature Trail must attend two indoor Basic Trainings in late October/early November and one onsite docent training at the McLane Creek Nature Trail. Look for dates and times in the fall newsletter and on Stream Team's calendar at ***www.streamteam.info/getinvolved/calendar/****.*