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Can We Help You Find Something?

Whether you are looking for information on winter landscaping, spring cleaning or what to do with fall leaves, you can find it all and more online in the Stream Team Reference Library.

The Stream Team Reference Library is loaded with fantastic Stream Team articles from previous issues of our newsletter and is the perfect one-stop-shop for loads of information.

Reference Library Topics Include:

- Car Leaks
- Pet Waste
- Climate
- Yard Care
- Home Stewardship
- Native Plants
- WildlifeCar Washing

Access the reference library 2 ways!

- 1. Visit **streamteam.info** and click on *Reference Library* in the top right corner of the webpage.
- 2. Go directly to the reference library by visiting **streamteam.info**/ **reference-library**.

Every article marked with the Damesfly image in Stream Team News can be found in our online reference library!



Take a look today—you never know what useful information you might find!

To keep everyone safe during this time, Stream Team is following the Governor's most up-to-date COVID-19 guidelines in response to the COVID-19 virus. We are modifying some of our programming to accommodate restrictions while still helping you learn and stay involved with Stream Team. Volunteer events will be held following State & City health guidelines. In the meantime, we will post links to exciting videos and provide additional online educational opportunities. Please visit 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.

ON THE COVER: Stream Team Amphibian Egg Mass Survey Team. Photo by Michele Burton Photographer.

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:

- **<u>f</u>** Thurston Stream Team
- thurston_stream_team
- Thurston County Stream Team

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

IN TUMWATER:

City of Tumwater Water Resources & Sustainability 555 Israel Road SW, Tumwater, WA 98501

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What do you get when nature crosses fungus with algae? Lichen!

Join us for a field trip workshop with wetland scientist and lichen enthusiast, Greg Eide. Greg has a degree from The Evergreen State College where he studied



LICHEN FIELD WORKSHOP

- 🗖 Sat., Jan 22
- 1 3 p.m.
- Priest Point Park Rose Garden, 2600 East Bay Drive NE, Olympia

botany, with a focus on rare plants, including lichens and bryophytes of southwest Washington. He also owns and manages Eide Biosurvey conducting wetland delinations and botanical surveys and is co-author of lichen and bryophyte inventory studies on South Puget Sound prairies. Greg will give a short presentation and share his collection of lichens before we seek out lichens in the park.

Lichens are unusual organisms. Unlike mosses or liverworts, lichens are not true plants. They are not a single organism like other living things but a combination of two organisms living symbiotically together. Most of the lichen is composed of fungal filaments living among algal cells, usually green alga (plural algae) or cyanobacterium (used to be called blue-green algae but they are actually a bacteria). Since fungi does not contain chlorophyll or have any other means of producing their own food, they rely on other organisms, such as algae for nutrition. The alga uses sunlight to make sugars (food) that feed both the fungus and the alga. The fungus then creates a distinctive lichen body called a thallus that houses both organisms. Each fungi-alga combination creates a unique thallus that is identifiable from others.

There are approximately 3,600 known species of lichen in North America! Approximately a quarter of all known fungi, worldwide are "lichenized". Most lichens appear different from other fungi, like mushrooms, and have a texture that is usually more fibrous and stiff, compared to non-lichenized fungi, which are usually soft, fleshy and delicate to the touch. Non-lichenized fungi lack algae and do not appear green in color.

Lichens are ecologically important as they convert carbon dioxide in the atmosphere through photosynthesis into oxygen. They play an important role in survival in harsh environments, as food and shelter. Many birds and small mammals, such as squirrels use lichen for shelter and nesting material. They are also an essential winter food for many ungulates or hoofed mammals, such as black tail deer, mountain goats, and caribou, making up 90% of caribou's winter diet. Other uses for lichens include using it as a human food source (beware some are poisonous), manufacturing of antibiotics, and for dying wool. Lichens are very slow growing and many do not recover well from collecting or disturbance.

Why should we care about lichens?

Lichens have evolved to live in a variety of climates and ecosystems. Remarkably, they are able to absorb pollutants such as heavy metals, nitric and sulfuric acids (acid rain) and carbon from the atmosphere into the thallus of the lichen. Accumulated toxins in the lichen can be extracted to determine levels of pollutants that are present in our atmosphere. When there is an excess of pollutants in the air, lichen are unable to survive. Utilizing this sensitivity to air quality makes them a dependable air quality indicator species. Throughout the world, lichens are being used to detect specific air quality changes, monitoring for pollutants and tracking climatic changes. Scientists use this information to evaluate air quality and climatic trends and to assess ecological impacts to our air.

To register for this workshop, visit **streamteam.info** and click on "register." For more information, contact Michelle at **mstevie@ci.olympia.wa.us**.

How Do They Affect Your Plants, Streams & Salmon?

Hotter, Drier Summers & Winter Rains

It may be winter, but it's never too early to start thinking about summer! In fact, winter rains are important for our streams in summer.

Our streams rely on snowpack and groundwater to keep them cool and flowing during warmer months. Groundwater comes from cool, winter rains that soak into the ground and then slowly flow underground until it seeps into streams. To learn more about this, visit **streamteam.info/** groundwater.

Most of our smaller streams experience very low flows in the summer. Hot summer temperatures can heat up the water in low flowing streams and increase evaporation, which leaves less water in streams.

Salmon need stream temperatures to be below 61° F in the summer. Summer temperatures have been steadily increasing causing streams to get closer to 61° , which can harm salmon.

What can you do to help keep streams cool and flowing in summer?



What is Evaporation?

Evaporation is the process when a liquid, such as water, is heated and turns into a gas or vapor (think steam).

1 If you live along a stream, you can help keep the water cool by planting trees along the stream. Trees help shade the stream from the hot summer sun. Make sure to plant native trees and shrubs that are well suited for growing conditions along your stream.

2 Help more water soak into the ground.

■ Remove surfaces that don't allow rain water to soak in. Water can't soak in through patios, driveways or sidewalks. The water running off of impervious surfaces also picks up heat which contributes to warmer stream temperatures. You can replace these impervious surfaces with materials that do allow water to soak in, such as permeable pavers or pathways lined with mulch or gravel.

■ Build a rain garden. Rain gardens are designed to take water that runs off your roof, driveway, patio or walkways and soak it into the ground.

■ Replace high maintenance grass lawns with native vegetation and mulch.

3 Let your lawn go "dormant" in the summer. Grasses, even the ones in your lawn, would typically go to seed in late spring/early summer. We don't usually see our lawns go to seed because we mow them. The grasses wake up again when the fall rains return.

Did you know

a dormant lawn only needs to be watered with 1" of water slowly and deeply each month if it doesn't rain in the summer?

To help keep your sleeping lawn healthy:

- Avoid heavy traffic on dormant lawns
- Water areas of your lawn where children and pets play
- Overseed bare areas when the fall rains return

4 If you water your lawn, water in the early morning or late evening when it's cooler. This will prevent less water evaporation.

5 Water slowly and deeply then use a soaker hose or drip lines to water trees, shrubs and flowers. Less water will evaporate and more water will reach your plants.

Since 2014, we've been seeing a trend of hotter, drier summers. This past June we broke all-time record highs when the average temperature in the Olympia area reached 111°F on June 28. Overall, we had three days that were over 104°F, along with very little rain. Thurston County had less than 1/10 an inch of rain from June 18 through September 16! To learn more about ways you can help, visit **epa.gov/sites/default/files/2015-10/documents/nps_urban-facts_final.pdf**.

Extreme Heat & Plants

Really hot temperatures can hurt plants. Our native plants are adapted to fairly dry summers, but they may not be adapted to the hot temperature extremes we've had in recent years. Water evaporates faster in hotter temperatures making it hard for plants to keep water in their leaves. Due to the higher rate of evaporation, plants may look "burnt."

How can you help your plants survive the heat?

- Mulch around the base of your plants to shade their roots and keep more moisture in the soil. Spread mulch about 4–6 inches deep making sure the mulch does not directly touch trunks or stems as the heat from decomposition can "burn" them.
- If you're planting new plants, make sure to pick plants that will do well in your site conditions (amount of sun or shade and soil type). Native plants generally grow well here. There are also many "water-wise" plants that can grow well in drier summers and wet winters.
- Plant trees and shrubs in the fall or winter, so they have time to establish roots before their first hot, dry summer. Place mulch around them after you plant them to help keep the soil temperatures warmer over the winter.



■ Be sure to check your newly planted trees and shrubs if temperatures start to freeze. Freezing temperatures can cause newly planted trees and shrubs to "pop up" out of the ground exposing roots. If this happens, you may need to replant them.

■ When the dry weather returns, water new plants deeply and infrequently to encourage deep root growth. Deep, slow watering allows water to soak 8–12 inches into the soil. This allows the roots to grow deeper, where the soil retains moisture longer in the drier months.

We may not be able to control the weather, but we can do simple things to help our plants, streams and salmon survive our hotter, drier summers.



LIFE HISTORY TALK

- Sat., Jan. 22
- 10 11:30 a.m.
- Webinar

AMPHIBIAN EGG MASS SURVEYING

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- Sat., Feb. 5 (Survey Training at Hansen Pond)
- Sat., Feb. 12, 26 9:30 11 a.m.
- Sat., Mar. 5, 12, 26 9:30 –11 a.m.
- Thur., Feb. & Mar. 10 3 5 p.m.
- Locations TBA

Amphibians of the Pacific Northwest Workshop

If you are curious about our northwest amphibians, then this workshop is for you! Join Stream Team and guest speaker, Lameace Hussain, for a fun, informative life history talk about our most common still water breeding amphibians. Lameace is a herpetologist who has been studying amphibians and reptiles for years. She has dedicated her career to understanding their behavior and habitat preferences, and educating student and general public audiences on conservation efforts geared towards protecting our slimy, scaly friends. Lameace is currently finishing her graduate degree at University of Florida.

This workshop will explore the ecology, habitat requirements and unique characteristics for each species. We will also learn how to identify different life stages of PNW amphibians with some emphasis on egg mass identification.

Come explore local wetlands!

This winter, join other adventurous volunteers and survey wetlands for amphibian egg masses! Surveys are held mid-February through March. Survey teams will be kept small to accommodate social distancing, and masks may be required. Signing up with a friend or family member is encouraged for ease of social distancing.

Check our online calendar for additional dates in March for more egg mass surveys. Volunteers are encouraged to attend the Amphibians of the Pacific Northwest Webinar before participating in surveys, on-site field training will also be provided.

Please register separately for the workshop and surveys.

To register for this workshop, or to help survey egg masses, visit **streamteam.info** and click on "register." For more information, contact Michelle at **mstevie@ci.olympia.wa.us**.



Winter's Haunting Cry, the Common Loon ...

Common loons are found in the freshwater habitats of northern North America including much of Canada and Alaska. Until the 1890's, common loons were a typical breeding species both east and west of the Cascade crest in Washington State. Population decline across the United States is thought to be the result of over hunting, shoreline development and habitat loss in northern lakes which are used for nesting.

In winter, common loons can be found in the waters of Puget Sound and other coastal estuaries as well as large lakes, reservoirs and rivers. They breed in freshwater lakes and reservoirs in more remote areas of Washington State and all throughout Canada and Alaska. As they require crystal-clear lakes with abundant populations of small fish, they make an excellent indicator species for water quality. Where you find loons, you usually find clean water.

Common loons are long bodied water birds that sit low in the water. They measure 26–36 inches, with a 50–55 inch wingspan and weigh 8–19 pounds. They have powerful legs set far back on their body, making them highly adapted for swimming and diving. However, they are less capable walking on land. Males are larger than females, and individuals can be territorial. It has been discovered that individuals defending territories are larger than those without.

Common loons have a thick pointed bill used primarily to eat small fish, in both fresh and saltwater. Their powerful legs make them adept swimmers, shooting through the water and allowing them to make sharp turns when their prey changes direction.

Both male and female common loons have black and white plumage during the breeding season. Breeding birds have a black and white vertical striped collar and checkerboard back. Males select the nest site on a quiet hidden lakeshore, close to a bank, often with a steep drop-off that allows the bird to approach the nest from underwater. This species is identified as a Priority Species under Washington Department of Fish and Wildlife's Priority Habitat and Species Program. In the state of Washington, priority species require protective measures for their survival based on their population status, sensitivity to loss of habitat and recreational, commercial, or tribal importance. Climate change will also likely affect this species as their food sources decline due to increased water temperature.

This winter, you can see common loons feeding in the waters near Woodard Bay, Priest Point Park, Burfoot Park, Eld Inlet and Billy Frank Jr. Nisqually National Wildlife Refuge. Sitting low in the water they are easily identified by their unmistakable haunting call!

Play along with the Nature Sleuth scavenger hunt games this winter and see if you can see common loons! streamteam.info/nature-sleuths



It Takes Just Three Small Actions

Together, we can keep pollution out of our creeks, lakes, rivers and Puget Sound. Our own actions add up to a BIG difference for Puget Sound, the Salish Sea and marine life!

When it rains, pollution from cars is washed into storm

drains and local waterways. Pollutants like oil, car wash soaps, chemicals, and bits of tire dust harm local waterways, people and wildlife, like salmon and orcas that depend on clean water to survive.

Here's how you can help:

Car Washing

Take

your car to a commercial car wash. Commercial car washes are required to treat their dirty wash water.

■ If using a commercial car wash isn't an option, wash your car on a grassy area. The

grass and soil will soak up the wash water, preventing it from running down the street into a storm drain.

When you wash your car, the rinse water contains harmful pollutants like oil, grease, heavy metals and soaps. If you wash your car on the street or in your driveway, the pollutants run onto the street and into the storm drain, and then flow untreated into our local creeks, lakes, rivers and Puget Sound. That's why in many communities it's illegal to let soapy water enter a storm drain.

Don't Drip & Drive

• Check your vehicle for leaks regularly and get them fixed promptly. Learn how to diagnose or fix a leak by visiting **fixcarleaks.org**.

■ Always dispose of used motor oil properly by bringing it to your local auto



shop for recycling. Call 1-800-RECYCLE or visit **1800recycle.wa.gov** to find a location near you.

■ Use ground cloths or drip pans if you find a leak or are doing engine work. Clean up spills immediately using an absorbent such as kitty litter then sweep it up and place it in a trash bag.

Even a small oil leak can have a big impact on your car and our creeks, lakes, rivers, and Puget Sound. Every drop on your driveway means a shorter lifespan for your car. Plus, oil and other petroleum products are toxic to people, wildlife, and plants.

Tire Maintenance

• Keep tires properly inflated to slow tire wear and increase fuel efficiency. Check your tire pressure once per month, either with your own pressure gauge or at a gas station air pump. You can find the recommended tire pressure in your owner's manual, stamped on the tire itself, or on a sticker inside the driver's side door.

■ Get your tire alignment checked and rotate tires according to the manufacturer's instructions. Proper alignment and regular rotation prevent uneven wear on your tires, reducing the amount of tire particles that wear off as you drive.

Car tires are made with many chemicals that help protect them from damage. As we drive, tires wear down, leaving tiny bits of tire behind on our roads. The chemicals in the tire bits are toxic to fish. When it rains, the runoff picks up the tire bits and carries them down storm drains and into our waterways.

Scientists recently discovered an ingredient in tires called 6PPD-Q. It's used to preserve tire rubber, but when it reacts with ozone in the air, it transforms into a new chemical that's highly toxic to coho salmon. Learn more about this by visiting **seattletimes.com/seattle-news/environment/tire-dust-is-killing-salmon**.

Taking care of your tires is the best thing drivers can do to reduce wear and prevent tire pollution.





Take the car care quiz and earn a FREE Chinook Book at pugetsoundstartshere.org/carcare.



Featured Waterbody Lake Lois

How Did Lake Lois Get Its Name?

Charles H. McKinney and David Fleetwood purchased 20 acres of the Himes Donation Land Claim. Lake Lois Park was established on this property and the lake and its accompanying resort was named for McKinney's niece, Lois.

Horse Drawn Carts

In the 1920's, Lake Lois (and the other surrounding lakes) served as a popular resort destination and campground. The café at Lake Lois included everything from grocerv items and slot machines to a dance floor complete with piano. During



this era, the lake featured a wood bridge that allowed horse drawn carts and early automobiles to cross at its narrowest point. Anglers caught large chum salmon in Woodland Creek and the lake. Later, as the Lacey area and the resulting traffic grew, the bridge was replaced with fill and a 48-inch culvert was added.

Improving Water Quality & Fish Passage

In 1993, the City of Lacey obtained what would become the Lake Lois Habitat Preserve and Park with funds provided by a State Department of Natural Resources ALEA (Aquatic Lands Enhancement Account) grant. In 2011, Lacey, in

conjunction with Thurston County, completely rebuilt Carpenter Road through the Lake Lois area and widened the road from two to four lanes. At that time, the old failing culvert was replaced by a bridged bottomless culvert, allowing for improved fish passage through the lake and upstream points in Woodland Creek.

During this same construction project, stormwater treatment facilities were installed to treat polluted runoff from Pacific Avenue before flowing into Lake Lois and eventually Henderson Inlet. Now people can picnic next to attractive stormwater treatment facilities that help keep Woodland Creek clean, benefiting the health of Henderson Inlet and its shellfish resources some five miles downstream.

An Urban Oasis

Every day, 20,000 motorists drive over Lake Lois–located along Carpenter Road between Pacific Avenue and Martin Way-yet few people are aware of this small waterbody, which is part of an urban oasis in the middle of Lacey. To the east of Carpenter Road is the Lake Lois Habitat Preserve featuring the larger portion of the lake and a wooded, rustic nature trail. To the west of Carpenter Road is Lake Lois Park, featuring lawn, park benches, picnic tables and mulched walking trails.

The Lake Lois Habitat Preserve is also accessible off Lake Lois Road on the east side of the preserve. At this location, people can stroll along the margins of the lake through mature second growth forest and observe western pond turtles sunning themselves, mallards, bufflehead, goldeneve and other waterfowl, as well as a variety of songbirds. An ADA accessible viewing platform is located on the south side of the lake.

Today, Lake Lois features a beautiful stone bridge that incorporates a fishfriendly arching culvert. The bridge is popular with local anglers who seek to catch its bluegill, yellow perch, largemouth bass and rainbow trout.

Lake Lois and its Habitat Preserve, along with the adjacent wooded parts of the Saint Martin's University campus, provide a tract of intact woods and waters within the busy city limits of Lacey. The next time you drive down Carpenter Road in Lacey, stop and enjoy this small, often ignored gem.

Lake Facts

- Part of the Henderson Inlet Watershed
- Maximum depth of 10.5 feet
- Total area of 13 acres
- Drainage area of 570 acres

Did you know?

Lake Lois is the fourth and final lake in a chain of lakes consisting of Hicks Lake, Pattison Lake, and Long Lake, located in the headwaters of Woodland Creek, the largest creek flowing into Henderson Inlet. Woodland Creek emerges from Long Lake and flows about one mile through Woodland Creek Community Park and travels under Pacific Avenue where it enters Lake Lois behind the Safeway store.



Lovely Native Plants for Your Winter Landscape

Whether you are an avid gardener or not, the quiet months of winter are a great time to pause and take notice of your landscape. It's also the time of year when we see why plants that put on a show in winter are so delightful. Adding plants that provide winter interest in your yard is often overlooked. Luckily, here in the Pacific Northwest, we are fortunate to have a variety of native plants that provide beauty even during the winter months. Here are a few that will lift your spirits through winter's darkest days.

Symphoricarpos albus: Common Snowberry is an easy-going, carefree native shrub with small green leaves. When autumn leaves drop you are left with slender branches covered with stark white berries. Berries provide food for birds in the leaner times of late winter. Tiny blossoms of pinkish-white tubes are abundant during their long bloom period from late spring to late summer. These plants will catch your eye and attract hummingbirds too!

Mahonia: Oregon grape plants are colorful western shrubs with year-round appeal. Oregon grape plants are very beneficial and attractive to wildlife. Flowers provide for pollinators like bees, moths and butterflies. Hummingbirds love the flowers and it is an important source of food for them during winter months. The fruits are enjoyed by towhees, robins and waxwings, as well as mammals. All-season cover provides habitat for arthropods, birds, reptiles, amphibians and small mammals. Bright yellow flowers appear in late winter followed by blue or blue-black berry-like fruit. There are three species to consider;

- *Mahonia aquifolium* is the variety generally known as "Oregon Grape". It can get 6 feet tall and 5 feet wide
- Mahonia compacta is smaller, about 3 feet high,
- *Mahonia repens* (Creeping Mahonia), is a good ground-cover type that stays below 1 foot in height and spreads to about 3 feet in width.

Cornus sericea: Red-Twig Dogwood has red upright stems that make it a stunning beauty in winter! Its berry-like fruits will draw birds to your garden in numbers. This Northwest native can handle areas in your yard with wet conditions. It will grow in most soils and they are drought hardy once established. In the fall, leaves turn various shades of red. Flowers and fruit provide food for insects and birds. A winter landscape isn't complete without the presence of twig-dogwoods. (Yellow-twig and variegated-leaf varieties also exist.)

Polystichum munitum: Western Sword Fern is an iconic, visually striking and tolerant evergreen fern. It's so common that it is often overlooked as a garden plant. Its beautiful dark green fronds make an excellent understory plant for layering your landscape. It is also tough once established and is often found growing in cracks between rocks, beneath established trees or on steep, north-facing banks.

Vaccinium ovatum: Evergreen Huckleberry is a small, elegant evergreen shrub that bears fruit. Adaptable and attractive, evergreen huckleberry grows densely in full sun and in shady sites in the wild. It produces dainty white, urn-shaped flowers that feed hummingbirds and insects. It's delicious fruit is enjoyed by wildlife and humans alike.

Sedum spathulifolium: Broadleaf Stonecrop is a colorful Northwest succulent. Pretty yellow flowers appear on short stems in mid-spring, providing nectar for insects. It's evergreen foliage turns pink or red in summer and is green in winter. This plant is extremely drought tolerant once established, growing best in welldrained or sandy soils.

Gaultheria shallon: Salal is so common in our region that it tends to be overlooked by home gardeners. It is a lovely evergreen shrub, 3–6 feet tall that can be used as a thick ground cover. In spring to early summer, white to pink flowers form clusters of delicate drooping bells. The blue-black berries that follow are a treat for both people and wildlife.













For tips on how to keep your plants healthy in our changing climate see the article on pgs. 4 - 5.

9



Visit STReamTeam.inFo to downLoad this page as a coloring sheet!

Did you know

Adult Bald eagles have white heads and juvenile eagles have BROWN heads.

AT Least 137

Species OF animals depend ON Spawning Salmon directly OR indirectly FOR FOOd including: Bald eagles, Bears, Turtles, Caspian Terns, grebes, garter snakes and giant salamanders. Bald eagles Follow Salmon RUNS in the late fall and winter For Food.

Join Stream Team's kayak trip this December to see bald eagles who have followed the chum salmon to the mouth of McLane Creek. See pg. 12 for details!

Stream Team *Events*

To keep Stream Team participants safe, we are limiting the number of participants and requiring safety measures such as physical distancing and wearing masks. We will provide safety guidelines in advance to anyone who registers or contacts us for more information. For additional events, event details or to register, please visit our website at streamteam.info and click on the calendar icon.

DECEMBER – JANUARY – FEBRUARY – MARCH

10th Annual Bald Eagle Kayak Tour in Mud Bay

Sat., Dec. 11 • 9:30 a.m. – 2:30 p.m.

Swantown Marina Boat House, 1210 Marine Dr. NE, Olympia

Expert staff from Olympia Parks, Arts and Recreation will team with Stream Team to experience the wildlife on Mud Bay. See page 12 for details.

To register, call City of Olympia Parks, Arts, and Recreation at 360-753-8380 or visit **olympiawa.gov/experienceit** program #10012.

Amphibians of the Pacific Northwest Workshop

LIFE HISTORY TALK

Sat., Jan. 22 • 10 – 11:30 a.m.

Webinar

Join Stream Team and guest speaker, Lameace Hussain, herpetologist for a fun, informative life history talk about our most common still water breeding amphibians. See page 5 for details.

To register, visit **streamteam.info** and click on "register." For more information, contact Michelle at **mstevie@ ci.olympia.wa.us**.





Lichen Field Workshop Sat., Jan 22 • 1 – 3 p.m. Priest Point Park Rose Garden, 2600 East Bay Drive NE, Olympia

Join us for a field trip workshop with wetland scientist and lichen enthusiast Greg Eide. See page 3 for details.

To register, visit **streamteam.info** and click on "register." For more information, contact Michelle at **mstevie@ ci.olympia.wa.us**.



Amphibian Egg Mass Surveys

Saturdays, Feb. & Mar. • 9:30 – 11 a.m. Thursdays, Feb. & Mar. • 1 – 3:30 p.m.

Locations TBA

This winter, join other adventurous volunteers and survey wetlands for amphibian egg masses! See page 5 for details.

To register, visit **streamteam.info** and click on "register." For more information, contact Michelle at **mstevie**@ **ci.olympia.wa.us**.





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



BALD EAGLE KAYAK TOUR

- **Sat., Dec. 11**
- 9:30 a.m. 2:30 p.m.
- Swantown Marina Boat House, 1210 Marine Dr. NE, Olympia

Bald Eagle Kayak Tour in Mud Bay

Grab your hat and mittens and join us for a winter kayak adventure in Mud Bay! Expert staff from Olympia Parks, Arts and Recreation are partnering with Stream Team to guide an exploration of the wildlife on Mud Bay. Come see the expanding population of bald eagles that arrive each year to forage on the last of the McLane Creek chum salmon. Other species we might see include shorebirds, waterfowl, great blue heron and possibly sea lions! NOTE: If temperatures drop to freezing or are icy, the event may be canceled.

To register, call City of Olympia Parks, Arts, and Recreation 360-753-8380 or visit **olympiawa.gov/experienceit** program #10012 (special Stream Team cost \$25).

Space is limited to 15 participants. Children ages 12–16 may attend with an adult, under 18 with signed permission. Moderate walking on uneven steep ground will be required. Kayaks, safety equipment and instruction will be provided. Masks may be required.