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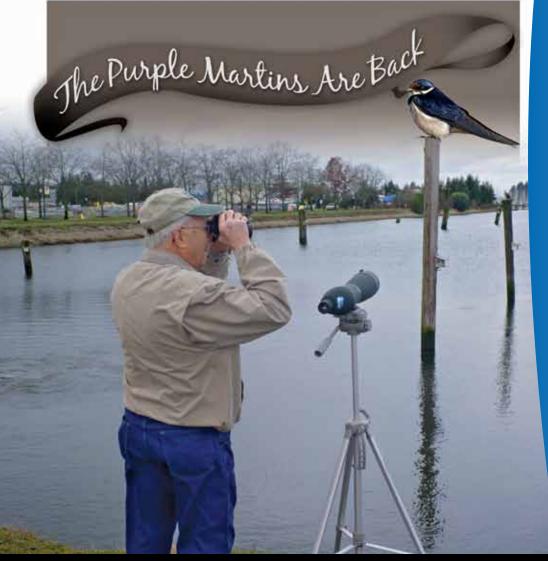
# **SPRING EDITION**

March-April-May 2013

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**ON THE COVER:** Young Stream Team volunteers from Pleasant Glade Elementary School practice teamwork to remove the invasive Scotch broom from a City of Lacey stormwater treatment facility.

Learn more about identifying invasive plants at our "Let's Map It!" Invasive Plant Workshop on May 18. See page 11 for details!



**Purple Martin Volunteer** 

# Join the 2013 East Bay Purple Martin Monitoring Team: No experience is necessary!

Training takes approximately one hour to review basic bird identification, purple martin facts and record keeping. Volunteers monitor the nest boxes weekly, on their own time. At the end of the season, volunteers help clean the nest boxes, so they are ready for the following spring. Binoculars, a bird field guide and optional spotting scope are needed for monitoring. (Stream Team has extras to loan to team members.)

For more information, and to register online, visit www.streamteam.info and click on "Register".

Staff contact: Michelle Stevie, (360) 753-8336 or mstevie@ci.olympia.wa.us

#### STREAM TEAM MISSION

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

Steam 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.

#### **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: Erin Keith**

Tel: 360-438-2687 TDD: 1-800-833-6388 ekeith@ci.lacey.wa.us

#### **IN OLYMPIA:**

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

#### Attn: Patricia Pyle

Tel: 360-570-5841 TDD: 360-753-8270 ppyle@ci.olympia.wa.us

#### **INTUMWATER:**

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

#### **Attn: Debbie Smith**

Tel: 360-754-4148 TDD: 1-800-833-6388 dmsmith@ci.tumwater.wa.us

#### IN THURSTON COUNTY:

Thurston County Water Resources Program 929 Lakeridge Dr. SW, Olympia, WA 98502

**Attn: Chris Maun or Ann Marie Pearce** Tel: 360-754-3355 EXT 6377 TDD: 360-754-2933

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Erin Keith (Editor), Ann Marie Pearce, Chris Maun, Patricia Pyle, Michelle Stevie, Debbie Smith, Anne Schuster and Katie Schmitz

#### **DESIGN & LAYOUT:**

Azure Summers Graphic Design design@azuresgd.com

#### **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.

#### FIND US ON FACEBOOK:





The following are just a few of the accomplishments from 2012 that could not have been achieved without you!

1004 people attended free workshops

1528 trees and shrubs were planted along local creeks and streams

247 storm drains were marked by 34 volunteers

1,700 leashes in Thurston County now have **portable pet waste bag**dispensers attached

30 volunteers helped collect stream bug samples from 20 local streams

24 volunteers spent 217 hours helping survey for amphibian egg masses

6 volunteers helped monitor purple martins

20 salmon stewards spoke to more than 2,200 visitors about salmon at local salmon viewing sites

,390) people attended the Haunted Hike

Thanks to all the volunteers who helped staff Stream Team booths at 24 community events.

We are looking forward to seeing you, your family and friends again this year, getting involved with Stream Team!



Stream Team conducted a survey last year to learn more about our volunteers and discover ways to improve the Stream Team experience for everyone. We received a great response and appreciate the time and thoughtful feedback our volunteers so willingly offered.

# Survey Highlights

- Workshops and classes are the most popular events, so this year we are offering more workshops and classes than ever, and hope to see you there! This newsletter includes information about eight free workshops this spring.
- · Email is an effective way to reach volunteers, though we heard from you that less email is preferred. You will now receive an email from Stream Team twice a month, instead of weekly. If you would like to get on our email list, go to www.streamteam.info and click on "Join Stream Team".
- Stream Team gear is a good way to show our appreciation. Visit our website to learn more about Kudos Cards and how you can earn your very own Stream Team gear like t-shirts, hats, water bottles or travel mugs!

Volunteers attend an average of 2-5 Stream Team events every year!



\$200 Rain Garden
Reimbursement
Available for Residents
of the City of Olympia,
City of Lacey or in
Unincorporated
Thurston County

# Let It Soak In:

# Free Two-Part Rain Garden Workshop

PART I: Thurs., April 18 • 6:30 – 8:30 p.m. • Tumwater Fire Hall PART II: Thurs., April 25 • 6:30 – 8:30 p.m. • Tumwater Fire Hall

Creating a home rain garden is a great way for you to make a big difference in protecting local waterways and Puget Sound, while also beautifying your yard. Rain gardens are shaped and sized to fit your yard and are planted with a variety of flowers, shrubs and ornamental grasses. Rain gardens act like a native forest by collecting, absorbing and filtering stormwater runoff from rooftops, driveways, patios and other areas around our homes that do not allow rainwater to soak back into the groundwater.

Join us for a free, two-part hands-on workshop to learn how to add one of these lovely "stormwater" features to your yard. The workshop will give you all the details you need to design and install a beautiful rain garden that will manage your home's stormwater drainage while protecting local water resources.

The instructional workshop on April 18 will focus on developing a sizing and planting plan right for your home landscape. At an optional session on April 25, participants will receive assistance reviewing draft rain garden plans they will have learned how to create in Part 1.

Participants will receive a free, full-color rain garden poster and a free copy of WSU's "Rain Garden Handbook for Western Washington Homeowners".

Workshops are free and registration is required, as space is limited. Visit www.streamteam.info and click on "Register".

Co-sponsored by Stream Team and WSU Native Plant Salvage Project.

If you are planning on installing a rain garden and you live in the City of Olympia city limits, City of Lacey city limits or in unincorporated Thurston County, then you may be eligible for a reimbursement of up to \$200 for plants and/or compost used in the installation of a rain garden.

To find out more about the City of Olympia rain garden reimbursement program go to:

www.olympiawa.gov/city-utilities/storm-and-surface-water/rain-gardens

To find out more about the Thurston County rain garden reimbursement program go to:

www.co.thurston.wa.us/stormwater/

To find out more about the City of Lacey rain garden reimbursement program go to:

www.ci.lacey.wa.us/streamteam

# Become a **Stormwater Steward**

# **Help Others Learn How to Protect Local Streams, Lakes** and Puget Sound

Are you concerned about polluted stormwater runoff? Do you like talking with others and sharing what you learn? Then consider becoming a Stormwater Steward! Stormwater Stewards are highly trained volunteers who can help educate and assist other community members in Green Stormwater Infrastructure (GSI) techniques that are appropriate for home, school or small commercial landscapes.

GSI techniques help manage and infiltrate rain close to where it falls, thereby preventing problems from flooding, erosion and pollution from entering our local waterways and Puget Sound. Once trained and certified. Stormwater Stewards conduct home-site assessments for interested residents and provide recommendations for ways to effectively manage stormwater on site using GSI Techniques. Stormwater Stewards receive training in topics as diverse as:

• Sustainable landscaping techniques that intercept stormwater and allows it time to return to groundwater or evapotranspire, as well as ways to avoid the use of products that harm groundwater



- Drainage improvements
- Free-draining driveways & walkways
- Healthier plants and lawns
- Rain gardens, vegetated roofs and rainwater harvest
- · Designing and constructing rain gardens that manage stormwater quantity and treat pollution
- Permeable paving strategies that allows stormwater to soak back into the ground after it has been treated
- · Vegetated roofs, minimal excavation foundations and rainwater harvesting

If you are interested in registering for the 2013 Stormwater Stewards training program, which starts in May, or if you would like more details about the training curriculum, the commitment required and training dates, please contact WSU Native Plant Salvage at nativeplantsalvage@gmail.com or call Krista at 360-867-2166.

If you are planning on installing a rain garden, or if you would like to learn about other Green Stormwater Infrastructure options that may be right for your landscape, contact Krista at WSU Native Plant Salvage to arrange for a free Stormwater Stewards site consultation at nativeplantsalvage@ gmail.com or call 360-867-2166.



# **Kennedy Creek Shorebird Field Trip**



Sun., April 14 • 10:30 a.m. - 12:30 p.m.

Van leaves Thurston County Building #4 (929 Lakeridge Dr. SW, Olympia) at 10 a.m.

Watch flocks of western sandpipers, dunlins and black-bellied plovers feed along the mudflat shoreline as the tide changes. Join us for a field trip to Kennedy Creek estuary to observe the shorebird migration and to learn of the importance of estuaries for migrating shorebirds.

Field trip speaker, Joe Buchanan is a wildlife biologist with the Washington Department of Fish and Wildlife, and on his own time, he has been monitoring shorebird migration at Kennedy Creek estuary for over 30 years.

Volunteers interested in citizen monitoring opportunities will learn how to record birding observations and how your observations can help track bird populations in South Puget Sound.

For more information and to register online for the field trip, visit www.streamteam.info and click on "Register".

# $\int$ Reasons To Go Native

As the population of Thurston County continues to grow with more impervious surface covering the landscape, the role of native plants in our landscape is more important than ever. Stream Team and WSU Native Plant Salvage continue to team up to help homeowners increase the beauty and functionality of their property while protecting and improving our local water resources.

It's better to retain deep, mature soils and the native plants growing in them with their highly developed root structures than it is to start from scratch.

Where we've already lost those, we can replant with native plants and waterwise varieties in layers, starting with large and medium size trees, then a variety of shrubs, and, finally, groundcover plants. This multi-layered structure intercepts precipitation, increasing evaporation and root absorption, thus reducing the quantity of stormwater runoff while providing habitat for a variety of birds and other small species of wildlife.

Landscapes featuring native plants slow down our winter rains and allow water to slowly infiltrate back into the ground, recharging groundwater. During the summer dry season, native plants, once established, require little to no supplemental water. This reduces the use of potable water, leaving more groundwater to recharge streams, lakes and other waterways—all while saving homeowners money.



Native plants co-evolved with native wildlife and are essential sources of forage, nectar, pollen and cover for a variety of beautiful birds, insects, mammals and amphibians. Set the table for hummingbirds, chickadees and chorus frogs with native plants.

Native plants are beautiful and part of the deep natural and cultural heritage of Thurston County and the Puget Sound region—far more so than exotic plants shipped in from other regions or foreign countries.

Interested in learning more about how you can incorporate native plants into your shoreline or upland property? This spring, Stream Team and WSU Native Plant Salvage Project are offering two classes to choose from. For more information, and to see which class is right for your situation, keep reading...

Whether you are new to the area or unfamiliar with the native flora of South Sound, or an experienced and knowledgeable gardener, Stream Team and WSU Native Plant Salvage have the class for you! The Naturescaping Field Class is a daylong comprehensive class designed for people who have perhaps taken the evening Naturescaping class offered twice a year or for gardeners interested in in-depth information on landscaping with native and drought-tolerant plants. See page 10 for more information. The "Meet the Trees of Western Washington" field class is a wonderful introductory class to the beauty and diversity of our local plant communities. Register for one or both at www.streamteam.info and click on "Calendar".

# **Crazy About Art and Nature? Create Ecosystem Stories Batik Art**

Sun., April 14 • 1 – 5 p.m.

Learn the ancient technique of batik, wax painting on cloth, to capture your favorite Stream Team memory or South Sound natural place. Draw a simple design, wax and paint. It's that simple and fun! Then, turn your batik design into a beautiful wall hanging. All supplies and instruction provided at the Procession of the Species Art Studio.

Young artists will have the opportunity to have their batik designs on display at Olympia's new City Hall for Arts Walk on April 26 and 27.

For more information and to register online, visit www.streamteam.info and click on "Register".



# **Meet the Trees of Washington Field Class**

**(** 

Sat., June 8 • 10 a.m. – 4:30 p.m.

Thurston County Courthouse, Bldg 1, Rm. 152

This class is especially beneficial for newcomers to our area or anyone else who has ever wondered about the benefits and horticultural uses of native trees and other plants. Participants will learn about a variety of different ecosystems found in Western Washington and the plants and animals that inhabit them.

Start the morning with classroom instruction, an introduction to four South Sound ecosystems and some basic hands-on native plant identification. Then take a field trip to a local nature trail and learn to identify native trees, shrubs, ferns and perennials. Bus transportation is provided for the field trip.

Field class is free and registration is required, as space is limited. For more information and to register online visit www.streamteam.info and click on "Register".





# **Re-Establishing Habitat Diversity**

**Construct a Bat House...Condo Style!** 



#### **BAT HOUSE BUILDING WORKSHOP**

Sat., March 9 • 10 a.m. – 2 p.m.

City Of Olympia's Public Works Maintenance Center Shop, 1401 Eastside Street BAT HOUSE INSTALLATION

Sat., March 16 • 10 a.m. - Noon • Black Lake Meadows, RW Johnson Boulevard

Bats naturally roost in large old trees and snags. With the changes in land use here in Thurston County, large tree and snag habitat is rare. Providing bat houses to house nursery and roosting bat populations will help enable bats to continue to inhabit local natural areas.

Join Stream Team and local bat expert, Greg Falxa to build nursery and roosting colony boxes for our local bats! The two colony-sized houses created during this Stream Team workshop will be installed at City of Olympia's Black Lake Meadows stormwater facility.

The Black Lake Meadows (BLM) Stormwater Facility is a fifty acre stormwater complex owned by the City of Olympia and located in southwest Olympia. The complex consists of

five stormwater treatment ponds, a constructed wetland and a pre-existing wetland, which effectively treat stormwater runoff from West Olympia within the Percival Creek Basin.

Black Lake Meadows is divided by approximately 3000 lineal feet of Black Lake Ditch, which was constructed in 1922 to reduce seasonal flooding on Black Lake. In addition to stream and wetland habitat, the Black Lake Meadows stormwater facility includes an upland habitat component that provides additional seasonal wildlife viewing opportunities.

In recent years, the City of Olympia has been actively restoring habitat at BLM. Restoration activities include: installation of four constructed in-stream log jams, stream buffer restoration plantings and invasive weed removal and control. Installing the bat houses will provide habitat in the near term until the restored areas mature.

For more information and to register online, visit www.streamteam.info and click on "Register".

Spring means longer, and hopefully a few drier days. Plants and wildlife are beginning to wake up from their winter slumber, and many of us are ready to clean up and clean out after a long winter. As you clean up this spring, remember that the water that runs off your lawns, sidewalks and driveways most likely leads to pipes or drainage ditches that lead directly to streams or Puget Sound. This stormwater runoff enters local waterways with little or no stormwater treatment, often carrying pollutants with it.

# Keep it Green When



# **Carpet Cleaning**

Dirty carpet wash water contains harmful pollutants such as soap, dirt, oil, grease, carpet fibers, heavy metals and other toxic chemicals. Make sure to dispose of the dirty wash water properly. If connected to a sanitary sewer system, you can dump the wash water down a sink, toilet, bathtub or shower. Make sure to filter larger debris out before dumping. Throw debris into the trash. **Do not dump** dirty wash water down a drain if you are connected to a septic system; the wash water may harm your septic system. If you are hiring a company, ensure they have a proper disposal plan.





Sweep driveways and sidewalks to remove debris instead of pressure washing or using a hose. Dispose of dirt and debris in the garbage. Cover vehicle fluid spills with kitty litter or other absorbent material and dispose of in the garbage. If you are going to use a hose or pressure washer, sweep first, then use the lowest setting possible. If possible, pressure wash with **water only**. Direct wash water (with our without soap) to a grassy or graveled area to allow the wash water to soak into the ground.





# Pressure Washing Houses & Garages

Pressure washing houses can cause paint to flake off. Cover the ground with tarps before pressure washing to help capture the paint flakes before the waste water enters the street or a storm drain. A shop vac can be used to vacuum up other flakes for disposal. If you have an older home, you may want to test your paint flakes first to find out if it has lead or other heavy metals, which may require that the paint flakes be disposed of as hazardous material at the Thurston County Waste and Recovery Center at 2418 Hogum Bay Road NE in Lacey.



It is illegal to dispose of dirty wash water into the storm drain system. To report a spill or an illicit discharge, call the WA Dept. of Ecology 24-hr. Spill Hotline: 360-407-6300.

# You Clean This Spring



# **Washing Your Car**

The best way to clean your car and keep local streams clean is to take it to a commercial car wash, where the water is cleaned and recycled on-site, and the grime is sent to the LOTT wastewater treatment plant. The next best option is to wash your car on the lawn or graveled area (not over a drinking well or septic system), so the wash water can soak into the ground.

**Planning on holding a car wash fund raiser?** The best way to raise money through charity car washing while protecting local waterways is through the sale of car wash tickets. Car wash tickets can be ordered with your organization's name imprinted on them. For more information go to www.CharityCarWash.org

If you are planning on holding a charity car wash fundraising event, contact your local Steam Team Coordinator (page 2) to find a *Clean Cars, Clean Streams* approved charity car wash location. Stream Team will also lend you a *Clean Cars, Clean Streams* car wash kit, which includes buckets, sponges, spray nozzles, ecofriendly car wash soap and signs.

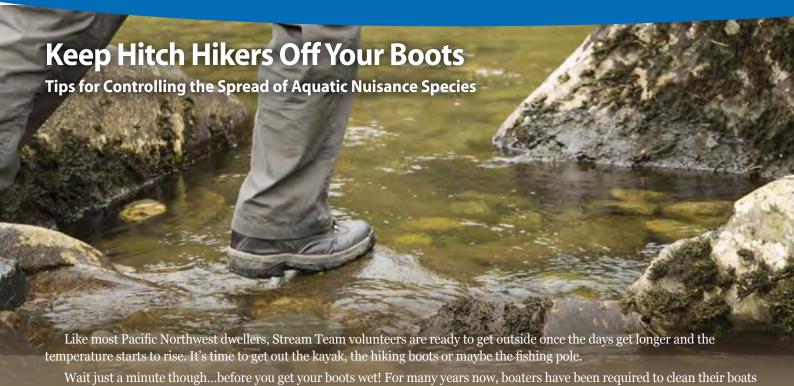




# Clean Up Pet Waste— Every Dog, Every Doo, Every Time

Pet waste contains harmful bacteria and viruses that can make young children sick and pollute our streams, beaches and shellfish. The bacteria and viruses can persist in the soil for a long time. The best way to dispose of pet waste is to scoop it, bag it and trash it - every dog, every doo, every time. Stream Team can supply you with a free pet waste bag dispenser to attach to your leash and free signs and durable bag dispensers for public places such as neighborhood common areas, multifamily housing complexes and other approved community areas. Contact your local Stream Team Coordinator to find out more information (page 2).





Wait just a minute though...before you get your boots wet! For many years now, boaters have been required to clean their boats and motors to stop the spread of invasive weeds like Eurasian water milfoil. With new threats of several non-native invasive species, recreationists are also being asked to make sure that they decontaminate their boots and gear. Decontaminating your gear is hugely important to prevent the spread of aquatic invasive or nuisance species.

**What's the big deal?** Both aquatic plant and animal invasive species are a serious threat to the biological diversity of our streams, lakes and coastal waters. Humans have carried plants, animals and diseases with them since they first began to travel. With the ease of modern travel, the rate of invasive species introduction has increased dramatically, costing billions in control and eradication efforts worldwide.

# **Attract Wildlife While Conserving & Protecting Water Resources:**

# "Naturescaping for Water & Wildlife" Field Class



**NEW full-day field class!** 

Sat., May 11 • 10 a.m. - 5 p.m. • First United Methodist Church Classroom, Olympia

Learn how to turn your yard into a lovely year-round landscape that attracts birds, butterflies and amphibians with beautiful plants that require less water and protects the quality of local water bodies. This full-day class offers more material than our evening workshops (offered in fall and winter) and includes site visits to local landscapes. A morning classroom session will be followed by field visits to local yards. Bus transportation will be provided.

- Water-wise ideas for your landscape
- · Keys to attracting birds, butterflies, beneficial insects and amphibians
- Easy ways to minimize lawn space
- How to solve drainage issues with on-site stormwater management
- · Planting for four-season interest
- Landscaping for tricky areas like slopes
- How simple landscape changes can save you time and money while protecting water quality

The class is taught by Erica Guttman, WSU Native Plant Salvage Project and Linda Andrews, owner of Patterns in Nature Landscape & Design. Both instructors have decades of professional experience in horticulture and botany, plus a passion for protecting water and creating wildlife habitat.

Field class is free. Registration is required, as space is limited. Visit www.streamteam.info and click on "Register".

Non-native invasive species spread rapidly in new environments where there are no natural controls. Many of the invasive species, as well as funguses and diseases, are accidentally introduced as they "hitch hike" on other plants and animals, or in some cases, on your boat and even on the soles of your boots! Invasive species out-compete native species, disrupting natural food chains and changing aquatic systems.

One of the most harmful hitch hiking species we are faced with locally is the New Zealand mudsnail. It is considered to be a highly invasive threat to fresh and brackish water environments. Since the mudsnail is tiny (less than 6mm), it is easily transported unknowingly on the soles of your boots. It also reproduces asexually (all by itself) at a rapid rate, and population densities easily reach 100,000 per square meter. This aquatic hitch hiker can devastate stream ecosystems and fish production in a few short years.

## Tips To Prevent the Spread of Aquatic Nuisance Species

- Never release live pets, plants, bait or seafood products into the natural environment. This includes aquariums and terrariums.
- Clean your boat before you float! Clean, drain and dry any watercraft after use—this prevents hitch hiking of any aquatic invasive species including fish and shellfish diseases, plants and other animals.
- Decontaminate fishing gear and boots.

#### **How to Decontaminate Boots and Gear**

- Thoroughly brush-off any debris from waders, boots and equipment that came in contact with stream, lake or salt water, then place into a bag.
- Drain any water used to clean equipment back into the water body from which it came.
- Keep your gear bagged until you are able to either wash it in hot water (140F) for at least 5 minutes or freeze overnight.
- Other decontamination methods use highly toxic chemical solutions for soaking boots and gear. If using harmful chemicals, remember to dump waste water into the sanitary sewer and not into streams, wetlands, storm drains or septic systems.

For more information, visit www.wdfw.wa.gov/ais. If you spot an aquatic invasive species (AIS) while you are out enjoying the outdoors, call 1-888-WDFW-AIS.



**New Zealand Mudsnail** 



# Let's Map It!

# Free Invasive Plant Identification and Mapping Workshop



**LECTURE:** Sat., May 18 • 10 – 11 a.m. • LOTT WET Science Center, 500 Adams St NE, Olympia

FIELD TRIP TO GRASS LAKE: Noon - 1:30 p.m. • Vans will be available.

Interested in learning how to identify invasive nuisance plants and map them for future eradication? Join Stream Team and Thurston County Noxious Weed Control nuisance plant expert, Mary Jo Seery to learn about common invasive plants plaguing our parks and cities.

In this workshop, you will learn to identify invasive nuisance plant species and how to record their locations. An iphone data collection option will also be discussed. Identifying and mapping locations of these plant species will help managers develop and implement long-range eradication plans. Bring your enthusiasm!

For more information, and to register online, visit www.streamteam.info and click on "Register".

# Don't Drip and Drive

Do you know if your vehicle is leaking fluids? Find out for free! During the month of April, take advantage of three opportunities to get your vehicle checked for leaks:

At participating Automotive Service Association of Washington (ASA-WA) mechanic shops through the Puget Sound Starts Here: Don't Drip and Drive campaign – free undercarriage inspections given by participating mechanic shops. Go to www.finditfixit.org\* for more information. The inspection takes about 15 minutes and you will need to make an appointment in advance. If a leak is detected, the shop will offer a 10% discount on the repair, up to \$50.

At South Puget Sound Community College Auto Club's Vehicle Safety and Leak Inspection. The inspection takes less than 15 minutes and takes place inside the automotive building. No reservation needed. April 11 from 11 a.m. to 9 p.m. at Bldg 16.

At Home with a large piece of paper or cardboard.
Learn how at www.checkforleaks.info



\* Website will not be active until mid-March 2013



The Don't Drip and Drive campaign and partnership with ASA-WA is a pilot project sponsored by Puget Sound Starts Here and organized by more than 80 local stormwater utilities throughout Puget Sound, including Lacey, Olympia, Tumwater, and Thurston County. This effort is led by King County, and funded by a grant from the Department of Ecology.

The local jurisdictions do not endorse nor guarantee the work of participating mechanics and/or businesses. Individuals are welcome to work with any mechanic of their choice; however charges may apply if they are not part of the pilot project.



Photo courtesy of Jamie Glasgow

**State Sensitive** – a native species that is vulnerable or declining and is likely to become endangered or threatened in a significant portion of its range within the state without cooperative management or removal of threats.

**Endemic** – restricted or confined to a particular geographic region

For more information about the Olympic Mudminnow and other state sensitive species, visit www.wdfw.wa.gov

# Featured Creature

# Olympic Mudminnow (Novumbra hubbsi)

The Olympic Mudminnow is endemic to Washington State west of the Cascades. Olympic Mudminnows are primarily found in the western lowlands of the Olympic Peninsula, the Chehalis River watershed, portions of the lower Deschutes River and waterways of South Puget Sound, west of the Nisqually River. Recently, a population has been found in Snohomish and King Counties which appears to be genetically related to those populations in the Chehalis basin. In Thurston County, mudminnows are primarily found in the Green Cove, Woodard Creek and Black River drainages.

# Description

- 50-75 mm (2-3 inches)
- · Brownish with vertical bars on sides. Males turn bright bluish-green during spawning.
- Dorsal fin is directly over anal fin. Caudal fin is truncated (short).

#### **Habitat/Spawning**

- · Prefers habitats with slow-moving water, muddy bottoms and abundant aquatic vegetation.
- Found in slow-moving streams, ponds, marshes, wetlands and ditches associated with these habitats.
- · Resides in habitats with low fish use (predated upon by other fish species).
- Feeds primarily on aquatic invertebrates.
- · Poor swimmers.
- Spawning occurs over an extended period from late November June.
- Males become brightly colored and aggressive during spawning.
- Females deposit eggs in vegetation and hatch in approximately 10 days.

### **State Sensitive Species**

- Limited by its restricted geographic range and loss of habitat.
- Mudminnow populations are being impacted due to habitat loss, primarily wetland degradation and loss due to land use changes.

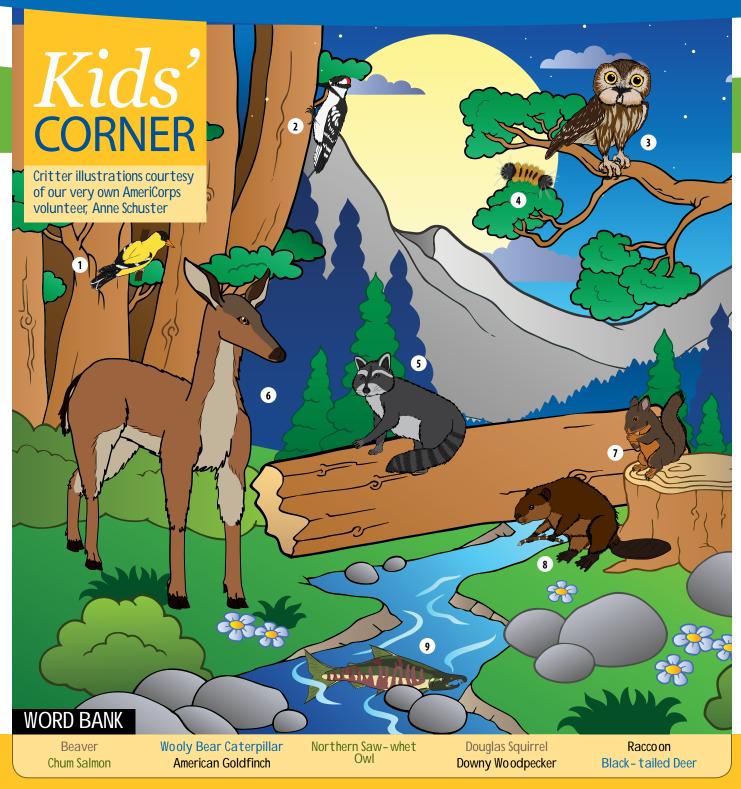
# **Olympic Mudminnow Presentation and Field Trip**



LECTURE: Sat., April 13 • 10 a.m. - 11:30 a.m. • LOTT WET Science Center, 500 Adams St NE, Olympia FIELD TRIP: Noon – 1:30 p.m. • Evergreen Park Drive and Kaiser Road • A van will be available.

Join Stream team and fisheries biologist, Jamie Glasgow to learn about this small endemic fish that resides only in Western Washington!

For more information, and to register online, visit www.streamteam.info and click on "Register".



#### Write the number of the animal from above in the circle and fill in the animal name to match each animal with its sentence.

- \_\_\_\_\_ are large animals who enjoy eating the young buds and shoots on trees.
- After they are born, young \_\_\_\_\_ need cool water shaded by the trees along the stream to thrive.
- A \_\_\_\_\_will scurry up trees to hide when it is frightened.
- On a walk, you might hear a \_\_\_\_\_knocking on a tree with its strong beak, so it can get the insects out to eat.
- The nocturnal predator, \_\_\_\_\_\_, has markings on their feathers to blend in with tree bark.
- If you look carefully, you may see the bandit-looking \_\_\_\_\_\_sleeping in trees during the day.
- The larva of a moth, \_\_\_\_\_\_, eat tree leaves before weaving itself a cocoon and metamorphosing into an adult.

Answers: 1) American Goldfinch, 8) Beaver, 6) Black-tailed Deer, 9) Chum Salmon, 7) Douglas Squirrel, 2) Downy Woodpecker, 3) Northern Saw-whet Owl, 5) Raccoon, 4) Wooly Bear Caterpillar.



# Stream Team Events

For additional events, visit www.streamteam.info and click on "Calendar". To talk with Stream Team staff about any of the events listed on this page, please call 360-438-2672, or see the inside cover of this newsletter for additional contact information.

# **MARCH**

# Percival Creek Tree Planting (\*\*)

Sun., Mar. 3 • 1 p.m. – 3 p.m.

Tumwater, Percival Creek at Sapp Road Register online.

# **Bat House Building Workshop**

Sat., Mar. 9 • 10 a.m. – 2 p.m.

City Of Olympia's Public Works Maintenance Center Shop on Eastside Street Register online.

#### Bat House Installation (



Olympia, Black Lake Meadows @ RW Johnson Boulevard Register online.

# **HOW TO** REGISTER **FOR EVENTS**



www.streamteam.info

and click on "Register"



Select the event for which you plan to register



Click on the register button near the bottom of the "Event Detail"



Follow the instructions to either log in as an existing volunteer or create a new secure profile

# **APRIL**

# **Purple Martin Nest Box Monitoring**

Starting in April

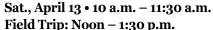
See page 2 for details.



April 11, 2013 • 11 a.m. – 9 p.m.

South Puget Sound Community College, Bldg. 16 See page 12.

# **Olympic Mudminnow** Presentation & Field Trip (\*\*)



Olympia, LOTT WET Science Center, 500 Adams St. NE Register online.

# **Kennedy Creek Shorebird** Field Trip

Sun., April 14 • 10:30 a.m. - 12:30 p.m. Kennedy Creek Estuary. Van leaves at 10 a.m. Register online.

### **Ecosystem Stories:** Create Batik Art

Sun., April 14 • 1 p.m. – 5 p.m.

Downtown Olympia, location to be announced. Register online.

## Rain Gardens Workshop (\*\*) Part I & II



Thurs., April 18 and Apr. 25 6:30 p.m. - 8:30 p.m.

Tumwater Fire Hall Register online.

# **McLane Creek Nature Trail** Work Party (\*\*)

Sat., April 20 & 25 • 10 a.m. – Noon McLane Creek Nature Trail, Delphi Road Volunteers will be issued a temporary Discover Parking Pass. Register online.

# **APRIL**

#### **Juvenile Chinook Event**

Sun., April 28 noon-4 pm

Tumwater Falls Park

To help with the event, contact Debbie at 360-754-4148 or dmsmith@ci.tumwater.wa.us

# MAY

# **Naturescaping for Water** & Wildlife Field Class (\*\*)

Sat., May 11 • 10 a.m. - 5 p.m.

Olympia, First United Methodist Church Register online.

# Let's Map It! Invasive Plant ID and Mapping Workshop (\*\*)



Sat., May 18 • 10 a.m. - 11 a.m. Field Trip: 12:30 - 1:30 p.m.

Olympia, LOTT WET Science Center, 500 Adams St. NE Register online.

# McLane Creek Nature Trail Work Party (😁

Mon., May 20 • 3 p.m. – 6 p.m.

McLane Creek Nature Trail, Delphi Road Join us anytime between 3 p.m. and 6 p.m. Volunteers will be issued a temporary Discover Parking Pass. Register online.

# **JUNE**

# Meet the Trees of Washington Field Class (\*\*)

Sat., June 8 • 10 a.m. - 4:30 p.m. See page 7.

#### EARN YOUR FREE "P.S. I LOVE YOU" BAG by participating in four types of Stream Team events:



**Wildlife or Habitat Monitoring Salmon or Sound Stewarding** Tree Planting • Educational Workshop

Look for the "P.S. I Love You" stamp next to the events in our calendar for qualifying events.



929 Lakeridge Dr SW Olympia, WA 98502 www.streamteam.info

# **Meet Stream Team's AmeriCorps Volunteers**

AmeriCorps is a federal government program, inspired by the Civilian Conservation Corps of the 1930's, which was created by the Community Service Trust act of 1993. AmeriCorps is built on the principal that civic responsibility is an inherent duty of all citizens. AmeriCorps members typically volunteer for 10 ½ months. They participate in activities ranging from environmental outreach to public education across the United States. Stream Team has been fortunate to be awarded two AmeriCorps volunteers to help increase environmental volunteerism and education in Thurston County.

Anne Schuster, with Thurston County Water Resources, is a recent graduate of The Evergreen State College, with a Bachelor of Science in Ecology. Anne has been working with Stream Team to help lead field trips to the McLane Creek Nature Trail to teach children about chum salmon. She has also assisted in a tree planting at the McElroy property at Scott Lake and trail maintenance at the McLane Creek Nature Trail.

**Katie Schmitz**, with City of Lacey Water Resources, graduated from Western Washington University last March with a Bachelor of Arts in Recreation and with minors in Environmental Education and Sport Psychology. With Stream Team, Katie

has coordinated volunteers for the ongoing revegetation of Woodland Creek and coordinated the Lacey Christmas tree program for 2012.

Anne and Katie will be serving through mid-August with Stream Team and their jurisdictions. Come and meet them at the next Stream Team event, and be sure to thank them for their volunteer service in our community!



