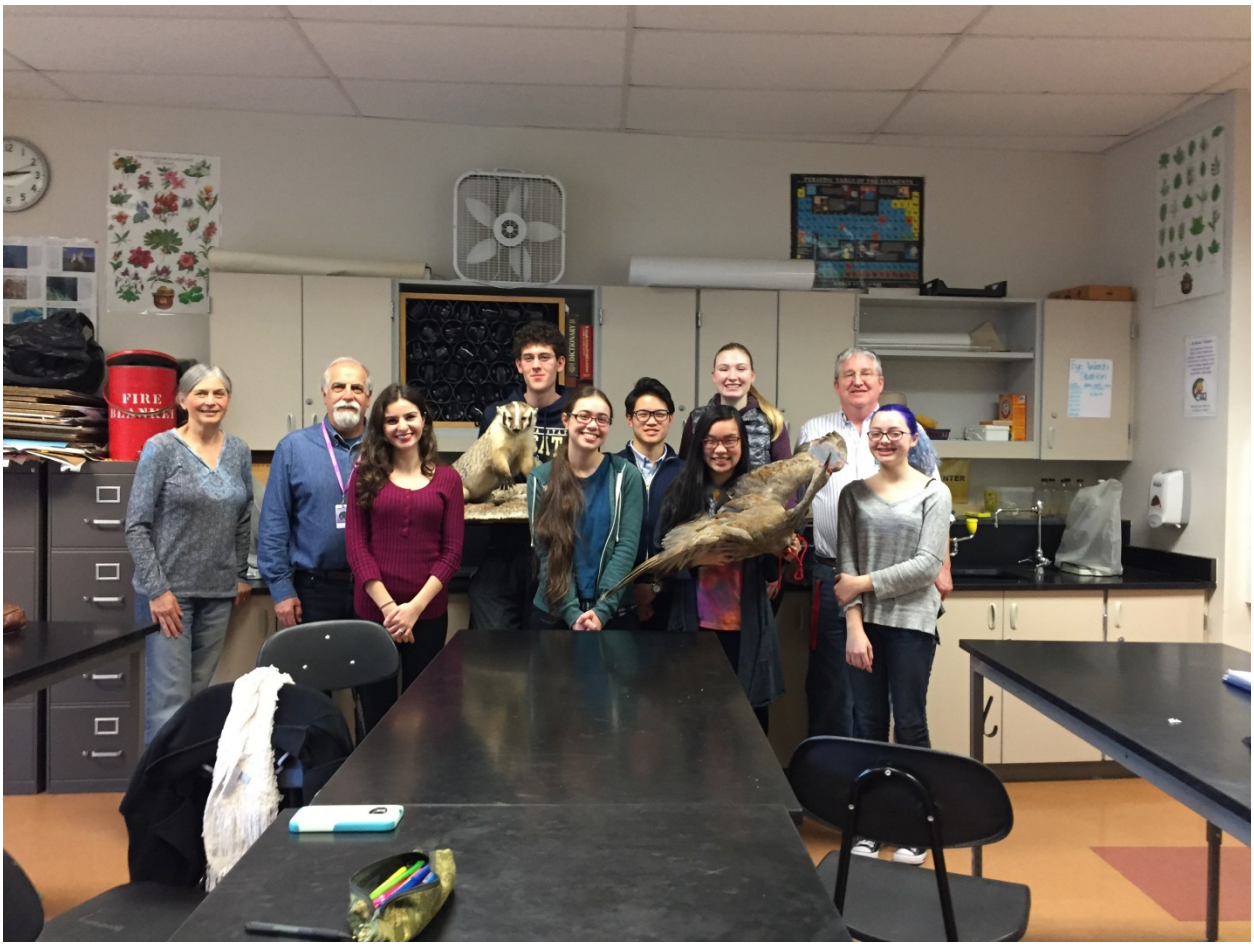
Edmonds Sustainability Heroes

Students Saving Salmon Club



On February 16, 2017, Hank Landau and Sandra Ripley Distelhorst, both members of the Edmonds Mayor's Climate Protection Committee, interviewed members of the Students Saving Salmon Club of Edmonds-Woodway High School. The following article celebrates their efforts and successes in addressing climate protection-related projects.

The Students Saving Salmon Club at Edmonds-Woodway High School, with 20 student members, has been designated as Sustainable Heroes for 2017 by the Mayor's Climate Protection Committee (CPC).

The CPC Sustainable Heroes series highlights community members who make a difference by contributing to sustainable climate-related projects. Climate change may impact Edmonds in a number of ways including an overall rise in ambient air temperature and fresh water temperature, rising sea level, wider range of fluctuation in weather (e.g., more severe storms),

change in dominant trees, shrubs and plants, and changes to bird, fish and insect populations.

Changes to the fresh water and marine environment are of particular significance to salmon that rely on and navigate both environments. Understanding how salmon navigate the available fresh water estuaries in Edmonds and identifying barriers to their successful spawning can help our community better understand how to mitigate the influences of climate change and other man-made and environmental impacts.

Hank Landau and Sandra Distelhorst – members of the Mayor's Climate Protection Committee - interviewed several members of the Students Saving Salmon Club (SSSC): Joe Cooper (President), Malia Clark (Vice President), Jared Yu (Secretary), Taylor Blevins, Emily McLaughlin Sta. Maria, Farah Al-Qurishi, and Ava Wilson. Club advisors included Biology teacher Dave Millette, retired NOAA fisheries biologist Joe Scordino, and Valerie Stewart, community advocate.

Every month the Students Saving Salmon Club members take time out of their busy weekend schedules to collect water quality data from several creeks that feed into the Edmonds Marsh as well as samples from the Marsh. Valerie Stewart, club advisor said "This is a very conscientious group who go above and beyond to volunteer their time to help our community." A few hours a month of water sampling is supported by hours of data entry.

Collecting and recording data is an important part of the project according to Joe Cooper, SSSC President: "Even if conditions are reasonable now, having a baseline is important so you can monitor future activities. In ten or 15 years we will be able to see if any change happened, gradual or dramatic. The data we collect today will still be important in the future." Students who participated in data entry include: Ava Wilson, Angela Yang, Jared Yu, Erin Francisco, Emily McLaughlin Sta. Maria, Joe Cooper, Taylor Blevins, Sabrina Liu, Malia Clark, Emily Hoang, Natalie Flaherty, Farah Al-Qurishi, Ryan Peterson, along with advisor Joe Scordino.

Students get valuable scientific training from their advisors, including proper data recording and quality control procedures for sample taking. Several students have visited the Edmonds City laboratory to see how the City monitors storm water. The group plans to present their data to the Edmonds City Council at the end of the school year. The report will also include data on stream water quality during and after storm events.

Hands on experience is another one of the most rewarding parts of the club activities according to Cooper: "In biology class everything is hypothetical . . . this happened in this ecosystem somewhere really far way. . . whereas this is a hands-on experience we get to see what is happening right here in our community."

The students also are involved in community outreach. There are three creeks that provide potential salmon spawning: Shell Creek, Willow Creek and Shellabarger Creek, with only Shell Creek currently supporting some salmon spawning.

The students have been surveying stream property owners about salmon in the creeks. Advisor Joe Scordino noted that creeks that run through private property are difficult to monitor. Scordino was impressed that the students were able to survey all 40 houses along Shell Creek with some property owners welcoming students even on a Saturday morning into their backyard and eager to share their stories of salmon sightings. There is nothing more motivating to protecting the stream in your backyard then actually seeing a salmon in the stream on your property, Scordino noted. It makes you appreciate the need and the honor of protecting their habitat.

Jared Yu, club secretary, found working with property owners challenging but rewarding "It was hard to have to talk to strangers at first but it helped build my confidence and communications skills and overall skills that could be applied to any field." Going out into the community was also something Taylor Blevins appreciated "Going out to residents' houses, interacting with residents, and being more involved in community."

"It was encouraging that a lot of the residents were already taking measures to be safe" Jared Yu said, "and we can help by spreading knowledge of what homeowners can do to prevent contamination and improve stream habitat." One of the first things the students intend to do with the data they have collected is share it with property owners and get their perspective.

A spike in warm temperatures was noted in March 2016 suggesting the need to closely monitor stream temperature. For salmon a temperature above 64 degree F is too hot for spawning. Encourage stream shading all along the stream can help mitigate spikes in temperatures too warm for salmon.

The students have also collaborated with Sound Salmon Solutions, a non-profit regional enhancement group to obtain a grant that provides funds for water quality tests at an accredited laboratory and for native plants that will be planted along Shell Creek. Students and habitat technicians will offer to work with property owners to plan and plant native vegetation along the streambeds on their properties. Salmon depend on plants for shade and shelter as well as insects as a food source. Many property owners were eager to work with students to monitor the health of the streams running through their property and still other were already taking steps to encourage salmon runs. Some property owners expressed concern about trees or shrubs blocking their view of the stream said "People have to be willing to help, and we have

to help inform more people about how to protect the environment" said EWHS Emily McLaughlin Sta. Maria.

Most of the students anticipated moving on to careers that involve environmental studies, medicine, or other paths that help people and the environment. The club gives them the opportunity to explore their future interests. When we asked the students if they were optimistic about their ability to continue to monitor and protect salmon in our streams they enthusiastically agreed. As Hank Landau noted "When young people are optimistic that makes me optimistic."

It may be difficult to predict the future, but thanks to the Students Saving Salmon Club efforts and the legacy of their database, we will know what happened in the past. Their model of sustainable community action is truly exceptional.

The City of Edmonds continues to identify opportunities for climate protection including actions to reduce greenhouse gas emissions that contribute to climate change. The City is also identifying ways to mitigate the effects of climate change through long-range planning that includes the impact of sea level rise and the rise in temperature along our shorelines and fresh water habitats. See www.edmondswa.gov. To find ways you can contribute to climate protection, check your carbon footprint at the EPA website https://www3.epa.gov/carbon-footprint-calculator/website calculator.