

to break up the jam, then checked daily to ensure that the channel stayed open until the watch ended.

WATCHERS OBSERVED MORE THAN FISH

In addition to spawner activity, salmon watchers recorded several things in the habitat:

- Tattered and decaying carcasses
- Raccoon tracks
- Eggs washed up on the sand
- Heron and seals eyeing the mouth for lunch
- Seal carcass at the mouth
- Seal Sitters protecting a pup at the mouth
- Water depth of 3 3/4" to 4 3/4"



Mark Sears (in yellow) led volunteers in keeping the mouth of the creek open during spawning season.

Year	Eggs	Released Fry	% of Fry From Eggs	Live Smolts Upper Creek	Live Smolts Lower Creek	Smolts to Salt	Spawners	Students on Releases & Field Trips ⁵	Visitors in Spawning Season ⁶
2021	1,500 ⁴	1,061		15	34	49	244	130 ²	400
2020	2,400 ²	2,069	86	22	55	77	2 ³	50 ²	5 ²
2019	2,400	2,006	83.5	4	18	22	19	730	125
2018	2,400	1,955	81	26	19	45	18	662	240
2017	2,400	1,817	---	18	14	32	4	744	?
2016	2,900	1,795	62	14	5	19	7	764	67
2015	2,700	1,700	63	2	33	35	0	750	?
2014	3,450	2,409	70	8	11	19	19	680	190
2013	2,800	1,987	71	65	76	141	3	543	40
2012	3,100	2,615	84	145	85	230 ¹	274	562	290
2011	2,900	2,027	70	147	36	183 ¹	14	647	100
2010	2,500	2,298	92	---	24	24	0	556	?
2009	2,500	1,936	77	---	18	18	18	500	68
2008	---	1,790	---	---	17	17	2	570	?
2007	---	2,276	---	---	24	42	89	432	141
2006	---	2,033	---	---	22	22	0	290	?
2005	---	1,138	---	---	10	10	48	300	?
2004	---	1,534	---	---	11	11	6	275	60
2003	---	1,254	---	---	37	37	4	320	192
2002	---	1,965	---	---	---	---	5	244	236
2001	---	1,050	---	---	---	---	167	710	?
2000	---	750	---	---	---	---	126	496	?
1999	---	875	---	---	---	---	100 ²	684	?
1998	---	unspecified	---	---	---	---	200 ²	419	---
1997	---	unspecified	---	---	---	---	2 ²	350	---
1996	---	unspecified	---	---	---	---	6	325	---
1995	---	unspecified	---	---	---	---	11 ²	200	---
1994	---	unspecified	---	---	---	---	2	---	---
1993	---	unspecified	---	---	---	---	---	---	---
1992	---	?	---	---	---	---	---	---	---
1991	---	unspecified	---	---	---	---	---	4	---
1990	---	unspecified	---	---	---	---	---	---	---

¹Corrected ²Approximate ³1 live/1 carcass at mouth ⁴Participation reduced by pandemic

⁵Does not include younger siblings and adults ⁶Not always recorded

SALMON IN THE SCHOOLS. In a year when the COVID-19 pandemic forced schools to continue in online mode, many teachers across the city opted not to participate in the Salmon in the Schools program. Eight West Seattle schools did, however, and they persevered to put 1,061 coho fry into Fauntleroy Creek in May. That number includes two groups

Thank you for another great year of salmon fry release. Please extend thanks to Dennis and Pete for the care they take every spring to make sure kids and families have a fun and educational experience. You are all West Seattle Treasures!

Sara Carter
Admiral Cooperative Preschool



Preschool students, siblings, and parents from Westside Wonderspace released fry with Dennis in the lower creek.

that released fry reared by volunteer Jack Lawless for schools that have crop failures or that don't rear their own fish. In a normal year, students would have released twice as many.

Masked students, teachers, parents, and volunteers put about two thirds of the fry into the water in Fauntleroy Park. Because we had no home hatch resulting from 2019 spawning in the lower creek, the remainder went in there to take advantage of food in that habitat.

The week before winter break in mid December, teachers scrambled to pick up eggs that normally would have been ready in early January. Water at the state's Soos Creek Hatchery was warmer than expected, hastening the development process and prompting the early deliveries.

Because our volunteers have numerous contacts with minors in public and private school buildings and on fieldtrips here, we made a point this year of providing them with details about registering as volunteers, a process that includes a background check and training to prevent abuse.

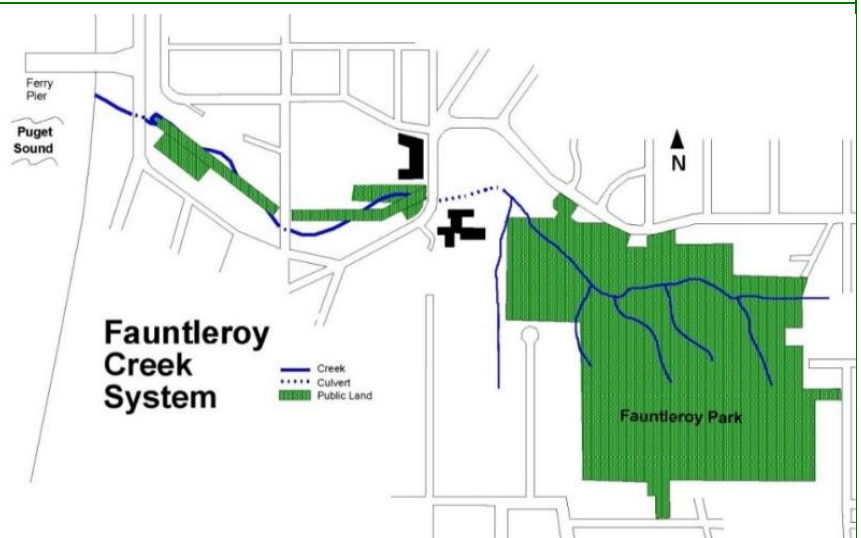
OUT-MIGRATION. Volunteer monitors Dennis Hinton and Pete Draughon documented 49 coho smolts that survived their year in Fauntleroy Creek to migrate to nearshore habitat in Fauntleroy Cove. Salmonids made use of the entire creek system and their size was comparable to prior years. Volunteer Steev Ward installed upper- and lower-creek traps on March 17 and removed them on May 22. Twice-daily checking produced the first smolt on March 24 and the last on May 22. The heaviest activity was mid to late April.

ABOUT THE WATERSHED

Fauntleroy Park, Fauntleroy Creek, and Fauntleroy Cove are the dominant natural features of the residential community in West Seattle for which they are named.

Fauntleroy Park is a 28-acre wooded ravine preserved as natural space. Its network of well-maintained trails provides access to explore and enjoy a remnant of the coastal forest ecosystem that once blanketed this region.

Fauntleroy Creek originates in the park and drops 300 feet over its one-mile course to Fauntleroy Cove in central Puget Sound. Springs and runoff from a 149-acre watershed sustain flow year round. Prior to the city's installation of a drainage system, the geologic watershed was about 493 acres.



RESEARCH & EDUCATION

MACROINVERTEBRATES. Despite limitations of the pandemic, teams of fourth-graders from Louisa Boren STEM continued two annual studies to understand if the creek offers juvenile salmonids enough food and clean water to survive their year here

On March 31, research volunteer Shannon Ninburg led spring sampling to document the size and abundance of stoneflies in the lower creek. Students counted 34 stonefly exoskeletons on trees, bridges, and wooden fences in the designated study area. This number was down from 39 in 2020 and way down from 67 in 2019. Torso size was similar to prior years. This simple study engages young students in on-the-ground research and guides them through standard reporting methodology.

On Oct. 22, Shannon also led fall sampling to document abundance and diversity of aquatic insects at sites in the upper and lower creek. Students followed established protocol and used a Surber sampler to find a variety of aquatic-insect species in both locations, most of which require good-quality water. Despite no nutrients from spawner carcasses in 2020, abundance in the lower creek was the highest since 2016. Researchers spotted what may have been a riffle beetle (a rarity since this study began in 2000), and for the first time, they found two egg sacs that could have been left by caddis flies. In lieu of preparing a report during this pandemic year, Shannon prompted the students through an on-the-spot oral summary.



Shannon Ninburg showed students how exoskeleton torso size this year compared to prior years.

PET WASTE. Since 2004, we have periodically engaged young students in a pet-waste study in Fautleroy Park, which protects the headwaters of Fautleroy Creek. The research project grew out of the State Department of Ecology's ongoing concern about levels of fecal coliform bacteria in urban creeks that feed into Puget Sound.

This year, we invited young researchers to update the study to learn if dog-walker compliance with the city's scoop requirement had changed since 2016. Supported by their parents, Estela and Vivian Martin did six monthly surveys (March - August) of a given segment of

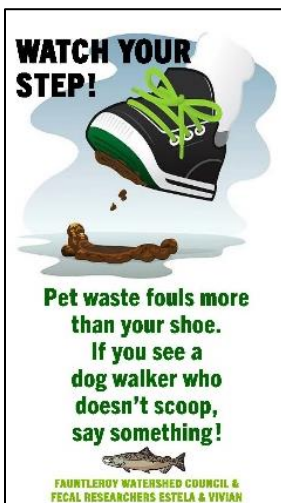
trail to find dog droppings, mark locations on a field map, and transfer those locations to a large map to reveal areas of greatest concern. At the time, Estela was in fourth grade and Vivian was in first at Arbor Heights Elementary. The project included placing biodegradable markers where they found droppings so that park users could see the magnitude of the problem. An article on the *West Seattle Blog* about their study drew many encouraging comments from the public.

The number of droppings was similar to 2008 and 2012 surveys and most were near the SW Barton Street entrance to the park, where forest stewards have been observed owners using the park as a "potty stop" for their pets. Most dog walkers with whom the girls talked while doing their surveys had their dogs on leash; those who did not usually said their dogs were well behaved and not in need of being leashed. In their

report, the girls made several recommendations about how we communicate to watershed residents about this and other concerns and advised that we keep this study going.



Estela Martin and her mother, Carine, pinpoint dog droppings in Fautleroy Park on a field map.



OUTREACH

VOLUNTEER ENGAGEMENT. At our September meeting, we celebrated the 20th anniversary of the Fautleroy Watershed Council. Over the years, our emphasis on Fautleroy Park and the Fautleroy Creek system has enhanced these and other natural amenities in the watershed and introduced nearly 13,000 students to environmental stewardship.

FAUTLEROY WATERSHED COUNCIL
Meeting #1 - July 12, 2001
Fautleroy Church Fellowship Hall

With key members on the verge of aging out of active participation, we marked the milestone by launching a concerted effort to attract new blood. We developed a list of volunteer opportunities (small and large, short- and long-term) and began disseminating it at every opportunity. Many visitors during spawning season took the list home, the *West Seattle Blog* published it, and we kept it current on our website. By following up

immediately on every inquiry, by year's end we had a mix of solid commitments and interest. We will be following up face to face as soon as pandemic safety restrictions relax.



Musician Jamie Shilling engaged everyone at the drumming. Participants left driftwood messages of encouragement and welcome along the spawning reach.

SALMON DRUMMING. Our Oct. 10 drumming to call in spawners drew 30 people from tots to elders to sing, drum, and initiate the salmon watch. Jamie Shilling and Judy Pickens tag-teamed leading the event that has been a fall staple since 2001.

HABITAT & STEWARDSHIP

FOREST STEWARDS. The pandemic's damper on forest-steward activities continued through 2021. Peggy Cummings logged only 40 volunteer hours, and after many years of volunteering to do similar work, Mike Arizona retired mid year. Before leaving, Mike purchased 60 salmonberry and twinberry and added them to Fautleroy Park. Peggy's activities included monitoring conditions in the park and reporting to Seattle Parks and Recreation when work was needed, especially removal of downed trees blocking trails. She also updated the nature walk portion of our watershed brochure and repaired fencing around our native-plant demonstration garden near the Fautleroy Schoolhouse. Outreach included making contacts for development of a self-guided tree walk in the park through the city's Tree Ambassadors program.

KILBOURNE RAVINE RESTORATION. On May 28, Aug. 26, and Nov. 10, EarthCorps crews maintained restored native habitat in this wooded ravine bisected by the middle reach of Fautleroy Creek. A six-year restoration project funded by a grant from the King Conservation District ended in 2019, and annual maintenance has continued thanks to donations to our stewardship fund. Mike Arizona graciously continued through the end of the year as our point person for EarthCorps' work in the ravine. November's crew filled in the habitat where needed with 15 conifers and 30 ferns and harvested live stakes of salmonberries and dogwoods onsite to widen the vegetation buffer along the creek channel. Also this year, we requested city maintenance of the Kilbourne Park portion of the ravine.

CULVERT REPLACEMENTS. Council members Phil Sweetland and Judy Pickens continued their leadership of the group at Fautleroy Church concerned with the city's plan to replace two creek culverts, both of which block spawner passage to headwaters habitat. While Seattle Public Utilities is continuing design work to

replace its culvert under 45th Ave. SW, the church stepped away from joint planning to replace the upstream culvert under its main parking lot. Key issues were the multi-million-dollar estimated cost to the congregation and public-safety concerns associated with daylighting the channel.

COMMUNICATION



WEBSITE. This was the year webmaster Chris Nack put her shoulder to rebuilding our website to make it more inviting and easier to use and administer. She employed WordPress to build the site, reorganized its content for ease of use, and incorporated many more images to give the site a friendly, simplified, and modern look. A list of volunteer

opportunities in the watershed is the principal addition to the site. Chris also set up an Instagram page and reactivated our Facebook page in the event we recruit a social-media point person.

Usage data for this year show that 85% of visitors were from the U.S. and that the average viewing session was just over two minutes. The park map received the most visitors and “about the creek” was second. Searching, clicking on a referral, and going directly to the website each generated about a third of the visits. Usage in recent years has been steady:

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Users						968	1,002	749	878	849
Sessions	955	1,153	3,159	2,710	1,904	1,187	1,187	1,048	1,115	1,123
Page Views	3,344	3,130	7,320	4,681	3,915	2,531	2,368	1,805	2,188	2,632
Minutes	0.12	0.08	0.06	0.04	0.07	0.06	0.05	0.04	0.14	0.10
New Visitors	685	886	2,543	2,329	1,544	955	995	74	873	847
WS Blog Referrals						76	127	24		276
Social Media Referrals						2	10	14		6

Note: Starting in 2016, teachers were no longer coming to our website for Salmon in the Schools materials.

IN THE MEDIA. Even during a pandemic, we caught the public’s eye on several topics, primarily on the *West Seattle Blog* and in *Neighbors*, the quarterly newsletter of the Fauntleroy Community Association. We also disseminated news through postings at the fish-ladder viewpoint and on the opening page of our website. We dispensed our watershed brochure at the viewpoint and at kiosks at major entrances to Fauntleroy Park.

Articles on the *West Seattle Blog* (most with photos) were as follows:

- January - Salmon in the Schools egg pick-up
- May - Boren salmon release; summary of fry releases and report of smolt out-migration
- September - breaking up of beach logjam for spawner access
- October - call for salmon watchers; salmon drumming; “open creek” invitation
- November - how to see surge of spawners; wrap-up of spawning season
- December -early egg pick-up for the 2022 Salmon in the Schools rearing season

WEST SEATTLE BLOG
NEWS 24/7

Neighbors conveyed watershed news to community residents as follows:

- June - pet-waste study; comments heard by smolt monitors
- September - council’s 20th anniversary; call for salmon watchers
- December - EarthCorps work in the Kilbourne ravine/stewardship fund; summary of spawning season

NEIGHBORS
FAUNTLEROY COMMUNITY ASSOCIATION

Also, Judy Pickens recorded an invitation to our drumming for *Podcast West Seattle’s* Oct. 7 broadcast.

SEATTLE WATERSHED ALLIANCE. Our continuing participation kept this watershed in touch with others in Seattle as well as to related agencies and nonprofits. Connections made during periodic Zoom meetings enabled us to share approaches to common concerns and learn about projects with potential to benefit this watershed. Alliance relationships resulted in this creek's being included in a national water-quality monitoring program coordinated by the SnoKing Watershed Council; in January, volunteer Raegan Goff will start doing monthly testing in the upper and lower creek.

ADVOCACY

FERRY TERMINAL UPDATE. Washington State Ferries launched a 23-member community advisory group to assist with planning upgrades to the Fautleroy Ferry Terminal. Members represent Fautleroy, Vashon, and Southworth, and Judy Pickens is on it to represent the interests of Fautleroy Creek. Public comments and discussion during online meetings developed the project's statement of purpose and need - the document on which further planning in 2022 will be based.

PETITIONS. We signed two Wild Fish Conservancy petitions to the state this year. One was to legalize fish traps that enable commercial fishers to avoid harmful by-catch. The other was in opposition to allowing a seafood company to use in-water pens to rear steelhead trout.

HONORABLE MENTION

Carol Baker for 14 years of helpful, encouraging, and collegial service as Seattle Parks and Recreation's liaison to our watershed council. She retired at the end of the year as crew chief for the department's southwest district serving West Seattle.

Mark Sears and fellow "loggers" Mike Dey, Pete Draughon, Fred Fleischmann, Bob Maughn, and Dennis Hinton for keeping the mouth of the creek open for spawners.

Our corps of salmon watchers for persevering during cold and wet weather to document this big year for spawners and talk with the hundreds of visitors who came to see the show.

Phil Sweetland and Judy Pickens for inviting salmon drummers, salmon watchers, and a record number of visitors onto their property during spawning season.

Tom Trulin for stepping up as a new volunteer to document our seven-week salmon watch with photos and videos almost every day.

Chris Nack for ably executing the formidable task of rebuilding our website.

Mike Arizona for continuing stewardship activities past his retiring as a forest steward.

Kathy Minsch for working with us in a wide variety of ways during her 35 years of public service focused on environmental stewardship. She retired this summer from Seattle Public Utilities.

All who volunteered in other ways for their extraordinary dedication as the pandemic continued to create the most challenging time in our watershed council's 20-year history.



Dennis Hinton (left) and Carol Baker swapped fish stories as they waited for students to arrive for a salmon release in Fautleroy Park.

LOOKING AHEAD

Having ended 2021 on the high of an exceptional spawning season, we begin the new year with reasons to be optimistic. Projects we expect on the horizon include:

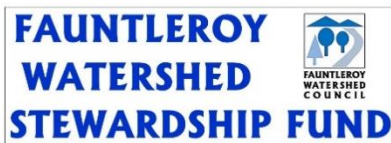
- working with the city to address an infestation of English ivy that could cause flooding and block salmon passage in the lower creek.
- getting new volunteers engaged in tasks that fit their interests and availability and continuing to recruit more to bring fresh ideas and energy.
- documenting “home hatch” from fall spawning in the lower reach.
- developing a self-guided tree walk in Fauntleroy Park.
- offering the public at least one guided walk focused on flora or fauna in Fauntleroy Park.



English ivy threatens to choke the channel in the lower creek.

COUNCIL BUSINESS

CHECKING ACCOUNT. According to council treasurer Dennis Hinton, we opened the year with \$915.35 in our checking account at Washington Federal and closed it with \$907.35, having spent \$8 to photocopy the watershed brochure.



FAUNTLEROY WATERSHED STEWARDSHIP FUND. Since 2018, this fund administered by EarthCorps has been accepting tax-deductible donations to fund stewardship work for which grants are not available. We began the year with a balance of \$17,836.52 and received \$4,375 in additional donations.

Expenditures (including a 15% administrative fee) were \$7,030.53 for plants and three EarthCorps crew days. The balance at year's end was \$15,180.99. Donations since initiating the fund have been \$26,317.10. For details about donating, visit fauntleroywatershed.org.

MEETINGS. The council met on second Thursdays in January, March, May, September, and November. Because of the continuing pandemic, meetings were on Zoom except in September, when we met outdoors. All meetings were open to any interested watershed resident or supporter.

CONTACTS. Members of the executive committee planned the agenda and took care of business between meetings. Contact them anytime with concerns, inquiries about volunteering, or project suggestions.

Peggy Cummings - peggyc@seanet.com

Dennis Hinton - denhinton43@gmail.com

Judy Pickens - judy_pickens@msn.com

For more about the watershed and what we do to restore and steward Fauntleroy Park, Fauntleroy Creek, and other natural areas, visit fauntleroywatershed.org.

Photos in this report courtesy of Dennis Hinton, Connie Hinton, Tom Trulin, West Seattle Blog, Kersti Muul, Mark Sears