**Fun Facts About Newts**

**Fact: all newts are salamanders, but not all salamanders are newts!**

*Editors note: at the last meeting of the Friends of Pinole Creek Watershed, Board member Bill Voigt gave an informative presentation on newts. This is a brief summary of his talk that was well attended by the community.*

During the winter and spring, you may come across newts actively walking in broad daylight. Newts are semiaquatic, alternating between aquatic and terrestrial habitats. More than 100 known species of newts are found in North America, Europe, North Africa and Asia.

Newts metamorphose through three developmental life stages: aquatic larva, terrestrial juvenile (eft), and adult. Adult newts have lizard-like bodies and return to the water every year to breed, otherwise living in humid, cover-rich land habitats.

Newts are most active during the rainy season. Following the first significant rains, they emerge from their summer retreats (burrows, rotted logs, etc) and begin their trek to their breeding sites (ponds and slow moving streams). They have been documented to migrate up to 2.5 miles. That’s a long way for a six inch salamander.

Because of their dependence on clean water for breeding and early development, newt populations are susceptible to pollution, habitat loss and fragmentation.

In some areas, roads are closed to auto traffic during the migration season. Tilden Park has been closing South Park Drive for the past 20 years to protect migrating newts. The road remains open to pedestrians and bicycles. Next time you are hiking outdoors keep an eye out for these charming creatures so you don’t step on them! ■ — Bill Voigt
FOPCW News and Events

FOPCW Updates on Events and Happenings:

We hope everyone is well and enjoying springtime in Pinole Creek Watershed. Although we can't meet in person, we're keeping busy!

- Pinole's Service Day and FOPCW’s Library Workday, scheduled for Saturday, April 18, was cancelled. When restrictions on gatherings are eased, we'll organize work parties at the garden again.
- We're delighted that the Contra Costa County Fish and Wildlife Committee has recommended funding for FOPCW’s grant proposal! We’ll use funds to enhance the Pinole Library Native Plant Garden and hold workdays next year in collaboration with the Earth Team internship program.
- Contra Costa Resource Conservation District hosted a Digital Earth Week from 4/20 to 4/24 — five days of family-friendly activities.

Using Community Science to Reduce Trash Impacts in the Pinole Creek Watershed

Does it get your blood boiling when you see trash floating in Pinole Creek? Or you see litter in the gutters that will end up in the creek? Or you come upon furniture or tires that have been illegally dumped alongside the road?

Many of us despair at the impact of trash on the watershed’s wildlife and plants. But we have seen dedicated individuals walking the creek or along Pinole Valley Road picking up litter and have heard of others who clean up the illegal trash dumps, taking large items to the landfill at their own expense. Our community seems to be aching for a way to address the situation.

To find a positive way to address trash along Pinole Creek, FOPCW (in collaboration with Pinole City Council member Norma Martinez-Rubin) submitted a project application to Thriving Earth Exchange (www.thrivingearthexchange.org/). Thriving Earth Exchange (TEX) is a program of the American Geophysical Union. Its goal is to ‘strengthen and enhance collaboration among communities, scientists, and partner organizations so that all communities can build healthy, resilient, thriving, just, and ecologically responsible futures.” Our application was accepted for a projected Summer 2020 start.

For our project, we hope to leverage the strength of Pinole residents’ love for the creek and the depth of scientific resources nearby to establish a trash reduction program for Pinole Creek. Working with a TEX technical advisor, we’ll launch community science programs to determine the impact of trash on creek health with the targeted goal of reducing those impacts on the watershed.

The priorities of this project include: gaining knowledge and understanding of the sources and paths of litter entering the watershed, as well as an understanding of how this trash affects the overall health of the creek; involving the community in monitoring the trash that enters the creek using an application such as Cleanswell or the NOAA Marine Debris Tracker, perhaps associating this app with the digital Pinole Creek Interactive Map (www.friendsofpinolecreek.org/home/pinole-creek-watershed/); testing the creek water for chemical pollutants, including microplastics; and engaging the wider community in changing behaviors based on results of the trash monitoring.

The implementation schedule may be delayed due to the COVID-19 Pandemic, but we look forward to working together as a community to address this challenge. We’ll keep you informed when we move ahead! — Ann Moriarty

Second Saturdays with FOPCW

In response to requests for more consistent opportunities to work together as a community in the Pinole Creek watershed, FOPCW is initiating monthly activities in June. We hope to have a variety of activities that give us all the chance to work in the creek and learn something new. Activities will fall on the second Saturday of the month and run from 10 a.m. to 1 p.m.

On Saturday, June 13, Chris Lim of the Contra Costa Resource Conservation District will lead our first activity introducing a citizen science project, CrowdHydrology (www.crowdhydrology.com/). CrowdHydrology harnesses the power of citizen scientists to read creek water depth and submit data via text message to a national scientific database. The data that citizens submit is then made available for public use.

We’ll let you know where we will meet and if there are any restrictions based on current social-distancing at that time. — Ann Moriarty
In November 2019, the Friends of Pinole Creek Watershed and members of Earth Team’s Sustainable Youth Internship Program at Pinole Valley High School teamed up for a delightful morning of autumn gardening at Pinole Library’s Native Plant Garden. We also removed litter in the garden and along the banks of Pinole Creek and laid out markers for a gravel path.

The Pinole Library Native Plant Garden was established by FOPCW in 2003. Recognizing the need for a major overhaul, we organized two workdays in 2019. At the first workday in May, 30 volunteers began the rehabilitation, sheet mulching more than 1,000 sq. ft. of non-native grasses. This took hundreds of cardboard boxes and mountains of mulch (and lots of muscle!).

Late autumn, as the rains begin, is the best season to plant California natives—because the wet soil encourages plants to establish strong roots. While we waited for the rain, we had plenty of planning to do! Earth Team interns researched local native plant communities and presented their findings to FOPCW. Based on feedback and discussion, the students chose which plants to add to the garden.

On the day of the planting, the interns presented their investigations to the assembled volunteers, explaining which California native plants will thrive at the garden. They also demonstrated a smart-phone app for cataloging trash and helped delegate tasks to volunteers.

After the workday, Earth Team interns continued regular garden maintenance from November until the school shutdown in March 2020, while FOPCW worked on fundraising to purchase plants and supplies for next year’s work parties. You will find an article about a new grant award on page 4 of this newsletter.

The Pinole Library Native Plant Garden is now in bloom! Please stop by for a short, safe visit. FOPCW will organize monthly garden maintenance activities when social distancing restrictions are eased, so please watch for our next event!

— Lisa Anich
Grant Awarded for Native Plant Garden

Good news! The FOPCW has been awarded $1,400 from Contra Costa County’s Fish and Wildlife Propagation Fund to improve the Pinole Library Native Plant Garden and to educate the public about Pinole Creek Watershed’s habitats! We plan to purchase more native plants, tools, and landscaping materials for volunteer workdays, to be held later in 2020 and early 2021.

Pinole Library Native Plant Garden is adjacent to Pinole Creek and provides an ideal setting for discussing native plants, which provide forage, cover, and nesting areas for pollinators and other native insects, birds, and mammals. Native gardens are also drought tolerant and eliminate the need for pesticides and fertilizers. The FOPCW are grateful to the Contra Costa County Fish and Wildlife Committee for supporting our work. — Lisa Anich

Pinole Creek Fish Passage named Outstanding Contra Costa Watershed Project for 2016-2019

The Pinole Creek Fish Passage was recognized as the Outstanding Contra Costa Watershed Project by the Contra Costa Watershed Forum (CCWF) at their Quadrennial Symposium, held at St. Mary’s College in Moraga on December 5, 2019.

For two decades the CCWF has provided a forum for the community groups, government agencies, non-profits, schools, and businesses who work to protect and restore Contra Costa’s creeks and watersheds. Every four years the CCWF holds a Quadrennial Symposium to celebrate “everything creeks” in Contra Costa County.

The award was presented to the Contra Costa Resource Conservation District (CCRCD), the lead agency for planning, funding, and constructing the project. It was accepted by CCRCD board president Igor Skaredoff and FOPCW director Carol Arnold, the former executive director of the CCRCD who initiated work on the Fish Passage Project.

Pinole Creek has regional significance as one of the few viable steelhead runs within San Francisco and San Pablo Bays and the Pinole Creek Fish Passage Project, completed in October 2016, makes an important contribution to the recovery of native steelhead trout populations. Pinole Creek’s population of steelhead/rainbow trout (Oncorynchus mykiss) is a subpopulation of the federally threatened Central California Coast Steelhead. The Pinole Fish Passage Project boosts hope for restoring these populations. Since the project was completed in late 2016, redds (nests of spawned eggs) of anadromous origin have been documented in Pinole Creek every year. This is a marked improvement over the decade prior to the project, when anadromous fish redds were observed in Pinole Creek only twice. — Lisa Anich

Handbook of Citizen Science in Ecology and Conservation

Christopher A. Lepczyk, Owen D. Boyle, Timothy L.V. Vargo

Now available from UC Press, the Handbook of Citizen Science in Ecology and Conservation is the first comprehensive and practical manual for running research projects with citizen science volunteers.

As citizen science projects become increasingly common, project leaders are seeking information on concrete best practices for planning and implementing projects—practices that allow them to guide and gauge success while also ensuring the collection of high-quality data.

This is the definitive reference guide for anyone interested in starting or improving science projects, from professors and graduate students, to agency staff and volunteers alike.

FOPCW is working with the city of Pinole and the Contra Costa County Flood Control District to remove invasive acacia trees along the Pinole Creek trail. Acacias reproduce by either root suckers or by seeds which are viable up to 50 years, forming dense thickets. Like most invasive species, acacia trees crowd out native flora and disrupt the natural ecosystem.