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Fisheries Crew Begins Aquatic Inventory Project

Golden Gate National Recreation Area (<https://www.nps.gov/goga/>), Muir Woods National Monument (<https://www.nps.gov/muwo/>), Point Reyes National Seashore (<https://www.nps.gov/pore/>)

By Watershed Stewards Program Corpsmember Lizzie Bear, San Francisco Bay Area Network Salmonid Monitoring Program



Scientists in Parks Intern Tim Smoot and Mosaics in Science Intern Maya Scanlon collect a particulate sample from the water at Schooner Creek in Point Reyes. Collected samples will be sent for genetic analysis to determine which aquatic animals are using the area.

NPS / Watershed Stewards Program Corpsmember Lizzie Bear

July 2023 - This summer, the San Francisco Bay Area Network's [coho and steelhead monitoring](https://www.nps.gov/im/sfan/salmonids.htm) (<https://www.nps.gov/im/sfan/salmonids.htm>) team started a two-year project to inventory aquatic species in streams across Point Reyes National Seashore and Golden Gate National Recreation Area.

Environmental DNA, or eDNA, is genetic material shed by organisms in the water column. By collecting particulate samples from the water and sending them to a partner organization for genetic analysis, we hope to learn if species of interest are utilizing certain streams on National Park Service lands. Species of particular conservation concern include steelhead trout, California red-legged frog, foothill yellow-legged frog, and the

western pond turtle. More information on the specific locations of these sensitive aquatic species will better guide resources management considerations and decisions.



Watershed Stewards Corpsmember Lizzie Bear and PRNSA Fisheries Field Assistant Tara Blake scout sample locations along Kehoe Creek.

NPS / Watershed Stewards Program Corpsmember Catherine Masatani

To collect water particulate samples from target locations, we use [a battery-operated vacuum-filter](https://www.smith-root.com/edna/edna-citizen-scientist-sampler) (<https://www.smith-root.com/edna/edna-citizen-scientist-sampler>) and self-preserving filters which will be sent to a laboratory for processing. Following the collection of the eDNA sample, we also electrofish or seine the stream sites. These common field methods allow us to capture individuals in the area and gather additional information on their health, such as age, length, and weight.

Priority sites for this summer at Point Reyes National Seashore have included Schooner, East Schooner, Home Ranch, Kehoe, and Abbotts Creeks. On Golden Gate National Recreation Area lands, priority creeks have included San Vicente, Frenchmans, Locks, Lobos, Cold, and Milagra Creeks. We are looking forward to wrapping up year one of sampling and will eagerly await laboratory results!

For more information

- San Francisco Bay Area Network [Salmonid Monitoring webpage](https://www.nps.gov/im/sfan/salmonids.htm) (<https://www.nps.gov/im/sfan/salmonids.htm>).
- Pacific Coast Science & Learning Center [Coho & Steelhead webpage](https://www.nps.gov/rlc/pacificcoast/coho-steelhead.htm) (<https://www.nps.gov/rlc/pacificcoast/coho-steelhead.htm>).
 - [San Francisco Bay Area Coho and Steelhead Blog](https://www.nps.gov/rlc/pacificcoast/coho-steelhead-blog.htm) (<https://www.nps.gov/rlc/pacificcoast/coho-steelhead-blog.htm>)
- Contact Fishery Biologist [Michael Reichmuth](https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=468CD8B39CD6A38386BE1AACF11ABEB94EBD489F4FF88B9049&r=/articles/000/sfanblog_fisheries-crew-begins-aquatic-inventory-project.htm) (https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=468CD8B39CD6A38386BE1AACF11ABEB94EBD489F4FF88B9049&r=/articles/000/sfanblog_fisheries-crew-begins-aquatic-inventory-project.htm).

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