



Spotting Salmonids with Sonar

In 2012, the National Park Service installed a new "camera" on Lagunitas Creek in Point Reyes National Seashore giving us a fresh perspective of returning [coho salmon and steelhead](https://www.nps.gov/rlc/pacificcoast/coho-steelhead.htm) (<https://www.nps.gov/rlc/pacificcoast/coho-steelhead.htm>).

The new imagery equipment is a [Dual-Frequency Identification Sonar \(DIDSON\)](http://www.soundmetrics.com/Products/DIDSON-Sonars) (<http://www.soundmetrics.com/Products/DIDSON-Sonars>) system that uses sonar imaging to produce an image of a fish. Since the image relies on sound waves, it can be produced even when the water is murky or when it is dark. This system is currently being used by the Coho and Steelhead Monitoring Program to document coho salmon and steelhead escapement (the number of adult salmon that return to the stream to spawn which have escaped both human anglers and natural predators) on Lagunitas Creek. It is anticipated that this technology will be effective as an adult fish counting station on Lagunitas Creek, and to calibrate and improve current spawner surveys.

Primary Goals of the DIDSON Project

1. Estimate salmonid escapement using data from the DIDSON system.
2. Determine the frequency of returning coho salmon and steelhead trout.
3. Decipher migratory patterns, species interactions, swimming behavior, and spawning behavior of returning salmonids.

This project was made possible through [California Department of Fish and Wildlife](http://www.dfg.ca.gov/) (<http://www.dfg.ca.gov/>) grant P1130420.

Project Reports

Atencio B and Reichmuth M. 2014. [Monitoring of Adult Coho Salmon and Steelhead Trout Using Dual-frequency Identification Sonar \(DIDSON\) in Lagunitas Creek, California, 2013 annual report](https://irma.nps.gov/DataStore/DownloadFile/504815) (<https://irma.nps.gov/DataStore/DownloadFile/504815>).

Related Links

[San Francisco Bay Area Network: Salmonid Monitoring](https://www.nps.gov/im/sfan/salmonids.htm) (<https://www.nps.gov/im/sfan/salmonids.htm>)

[Pacific Coast Science and Learning Center: Coho Salmon and Steelhead Trout](https://www.nps.gov/rlc/pacificcoast/coho-steelhead.htm) (<https://www.nps.gov/rlc/pacificcoast/coho-steelhead.htm>)

Project Contact

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coho salmon

fish

endangered species

monitoring

didson

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