

## Coho Salmon Recovery in the Russian River

### The Issue

The Russian River once sustained thousands of coho salmon, which supported commercial and recreational fisheries. As a result of habitat loss and degradation, only three of 32 historical coho streams in the watershed have coho populations. Coho salmon are listed as endangered species under the California and federal Endangered Species Acts.

To reverse this decline, a coalition of agencies, associations and volunteers collaborated with the California Department of Fish and Game to develop the Russian River Coho Salmon Captive Broodstock Program. Program partners capture yearling fish from Russian River tributaries and raise them in the Lake Sonoma Warm Springs Hatchery for two years until they spawn. The resulting offspring are released into streams in the spring and fall, where they spend their first winter before swimming to the ocean. It is anticipated that they will return to Russian River tributaries to spawn.



*Juvenile coho salmon being measured before release downstream*

### What has ANR done?

Cooperative Extension and Sea Grant advisors headed the advisory committee and secured funding through the DFG Salmon Restoration Grants Program. To document the success of this effort, ANR advisors track fish from the time of release until their downstream migration to the ocean, and their hoped-for return from the ocean to spawn. The first stream releases occurred in spring 2004 and returning adults are anticipated in winter 2006.

ANR advisors and staff are analyzing data and advising to improve the project's chances for long-term success. Coho survival through the first summer following release in Mill, Ward and Sheephouse Creeks was 56, 12, and 44 percent respectively, which spans the range observed for wild fish during this period. Based on data, rearing temperatures in the hatchery were modified to match in-stream conditions. The size of fish released was also modified to reduce competition and potential predation. Project staff are currently conducting in-stream population estimates for coho released in spring 2006 to document over-summer survival. They will survey streams in winter 2006 for returning adult spawners and to record the number of redds, or spawning sites, created by coho released as part of this recovery program.

### The Payoff

#### **More than 2,500 Russian River Coho Salmon Migrate to the Ocean!**

More than 2,500 coho were estimated to have successfully migrated out of the system on their way to the ocean as smolts in 2005. The return of these fish as adults to the Russian River in winter 2006 will be the first step in restoring these locally extinct salmon runs.

### Contact

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