

2013 Summer Juvenile Coho Salmon Survey Summary

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In total, 23 main reaches and four tag reaches were surveyed in 2013. The survey protocol used is a protocol recently adopted by DFW as part of their Coastal Monitoring Plan, and is somewhat different than the ten-pool protocol MSG has used for a number of years. Survey reaches are the same as spawner survey reaches. Units to be surveyed are pools that meet specific depth, temperature and (sometimes) cover requirements. Every other pool in a reach is snorkeled (double-pass with independent counts). Some reaches have 100+ pools, some have only a few. Pool dimensions are also measured and cover is quantified. Forty-two main reaches remain in the sample frame to be completed next year.

Coho were detected in eight of the 27 reaches surveyed (see tables at end). Due to the distribution and abundance of juveniles, it seems likely that coho spawning occurred in three of these reaches, Thompson Creek downstream of Danny's Ck and Ancestor Creek (~200 juveniles were counted in each of those reaches), and Squaw Creek #481. Coho seen in other reaches were likely non-natal migrants.

While only three coho were seen in a single pool in Squaw Creek reach #481, this reach is over six kilometers from the mouth of Squaw Creek, so it seems very unlikely that these would be non-natal fish. This was a heartening discovery, since the occurrence of coho salmon had not been documented in Squaw Creek since the capture of five smolts in a downstream migrant trap at the mouth of the stream in 2006. This drainage, the fifth largest tributary by area in the Mattole, has been infrequently surveyed due to the remote nature of much of the stream and several key landowners not granting access.

A single coho was detected in both Sholes Creek, and the mainstem Mattole between Bear Creek to Sholes Creek. Only two units in this reach met the temperature, cover, and depth requirements to be surveyed. The coho was sighted in an isolated pool in a high-flow channel well-vegetated with alder and willow, at the apex of the Mattole Canyon Creek delta (see photos at end).

How important is the availability of good habitat for these non-natal fish that are wandering far from their birthplace? Were there more coho juveniles that ended up in this reach of the mainstem, and didn't find suitable summer habitat and perished, or are the few fish we saw a good proportion of the wanderers?

It was determined that the coho seen in reach #827 were fish that had been relocated from Baker Creek - due to the instream restoration project occurring there - and released into South Fork Bear Creek.

Of interest was the incidence of Chinook detections (see table next page). While over-summering Chinook juveniles have occasionally been sighted in the upper mainstem Mattole on summer surveys in past years, Chinook presence appears far more widespread this year, with Chinook noted in 12 reaches. While they have not been abundant - usually just a few fish in a few pools - they have been seen in some surprising locations, such as

disconnected pools in the lower reaches of Granny and Saunders Creeks, both very small streams <1 mi² in drainage area.

Based on results from these dives, the diving done as part of the coho rescue and relocation project, and the Summer Steelhead dive, there appears to have been successful coho spawning in at least five streams/reaches in the winter of 2012/13 – lower Thompson Creek, Ancestor Creek, Baker Creek, the mainstem above Stanley Creek, and Squaw Creek.

Juvenile steelhead were seen in abundance in all reaches, although the incidence of 1+ and larger fish varied widely.

Survey reaches completed through July 31, 2013, Mattole watershed				
Reach ID #	Reach Name	Notes	Coho presence	Chinook presence
279	MS Mattole, Lindley Bridge to Conklin Creek	No qualifying units – temps >20°C		
284	MS Mattole, Hadley Bridge to Squaw Ck	Two qualifying units with temps <20°C		Yes
292	MS Mattole, Middle Ck to Honeydew Ck	No qualifying units – temps >20°C		
307	MS Mattole, Van Arken Ck to Mattole Meadows	Coho in 1/3 of pools surveyed, 1-2 fish per pool	Yes	Yes
328	Lower Mill Creek			
353	Grizzly Creek (tag reach to 341)			
544	Granny Creek (tag reach to 284)			Yes
548	Saunders Creek (tag reach to 284)			Yes
632	Honeydew Creek, lower reach			Yes
641	Honeydew Creek, Lower East Fork (tag reach to 632)			
822	South Fork Bear Creek, Mouth to Horse Mountain CG			Yes
823	South Fork Bear Creek, Horse Mountain CG to Tolkan CG			Yes
858	North Fork Bear Creek			
972	Ancestor Creek	Coho abundant, outnumbering steelhead	Yes	

Survey reaches completed August 2013, Mattole watershed				
Reach ID #	Reach Name	Notes	Coho presence	Chinook presence
299	MS Mattole, Bear Ck to Mattole Canyon Ck segment of	Two qualifying units – temps <20°C – single coho in one	Yes	

	reach			
309	MS Mattole, Lost River to Metz Bridge (partial reach)	Incidental survey under another contract for coho relocation sites – used CMP protocol, 3-10 coho/pool	Yes	Yes
341	Lower North Fork (2 nd reach from confluence)	Access to partial reach only		
425	East Mill Creek	Access to partial reach only		
428	South Branch of East Mill Creek	Access to partial reach only		
481	Squaw Creek (middle reach)	Access to partial reach only. Three coho in one pool near DS end of reach.	Yes	Yes
483	Squaw Creek (uppermost)			
733	Sholes Creek	One coho, near mouth	Yes	Yes
749	Grindstone Creek			
827	S. Fork Bear Creek (upper reach)	*Coho seen in this reach had been relocated from Baker Creek project site*	*Yes*	
893	Eubanks Creek	Access to partial reach only		
928	Van Arken Creek	Very low to no flow, most pools disconnected		
956	Thompson Creek	Coho in nearly every pool lower half of reach, much less abundant upstream	Yes	Yes
957	Thompson Creek (upper main fork above Danny's creek)	Few coho, at DS end of reach	Yes	Yes



Map Credit: Justin Garwood, CDFW Coastal Salmonid Monitoring Program, Arcata



Juvenile coho salmon in reach #307, mainstem Mattole River, upstream from Bridge Creek confluence, on July 3, 2013. Steelhead at left. Photo by Michelle Dow.



Coho salmon in Ancestor Creek, July 2013. Photo by Kate Cenci.



Coho salmon in Squaw Creek, ~ 6 km upstream from mouth, September 2013. Photo by Michelle Dow.