

---

**From:** Sarah Gallagher - NOAA Federal <sarah.gallagher@noaa.gov>  
**Sent:** Thursday, March 21, 2019 9:21 AM  
**To:** Provins, Samuel  
**Subject:** Re: [EXTERNAL] Re: CC Data

Thanks Sam, Just realized I have the plot for spring run timing from Charlie's pulse flow. I think only the redds upstream of PW since uncertainty -I am guessing the 1000 ft redd counts are in with the first plot which are mostly fall run. I think the format works but a verbal description would help (and in F). One thing this plot does is combine all redds and some difficulty in telling when they were exposed temperatures warmer than 56. Things I am thinking about are, how often and what proportion of redds are exposed to temps over 56? As far adult timing of steelhead- that would be great if Tom had anything summarized generally from video data. From my recollection, they start moving in late September, peaks in Dec and Jan, and goes through March.

**Sarah Gallagher | Fish Biologist**

[NOAA Fisheries](#) | [West Coast Region](#)

*U.S. Department of Commerce*

650 Capitol Mall, Suite 5-100, Sacramento, CA 95814

916-930-3712 | [Sarah.Gallagher@noaa.gov](mailto:Sarah.Gallagher@noaa.gov)

On Thu, Mar 21, 2019 at 6:39 AM Provins, Samuel <[samuel\\_provins@fws.gov](mailto:samuel_provins@fws.gov)> wrote:

Getting you this stuff is my priority today. Cook is on AL for a week so we will have to piece together what we have. First day of telework! so call my cell if you have thoughts

1. General SR upstream timing

-CC presented this info recently I will get you the plot

2. General Steelhead upstream timing

-I can contact Tom from the state to get you this

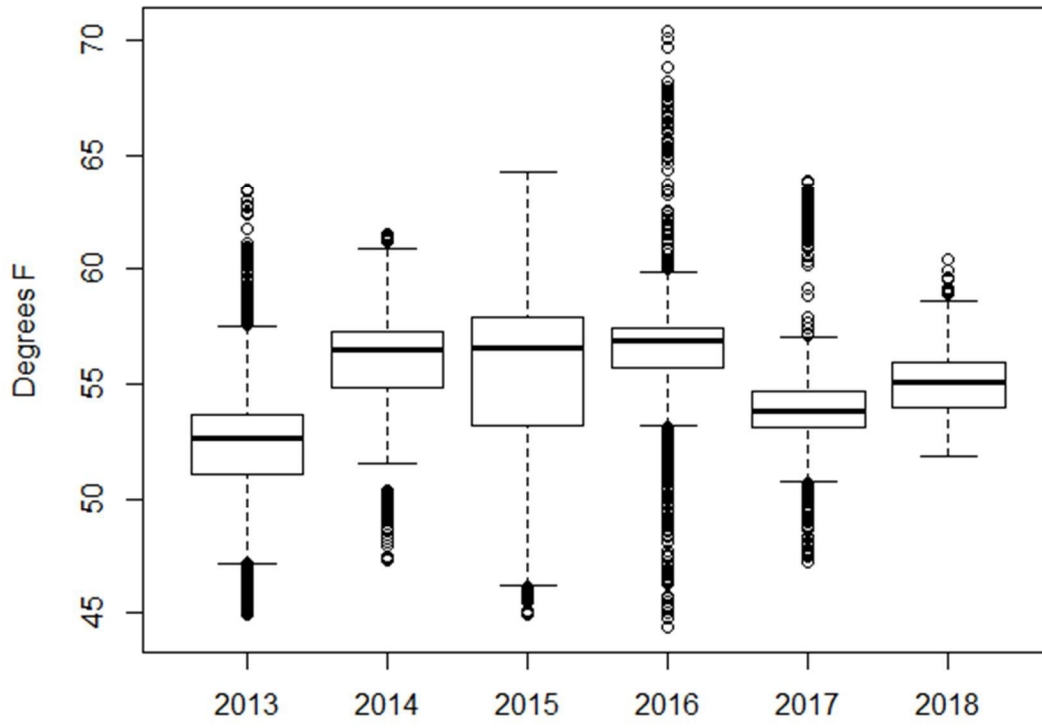
3. SR redd incubation temperature distribution

-I will get you this for all years we have clean

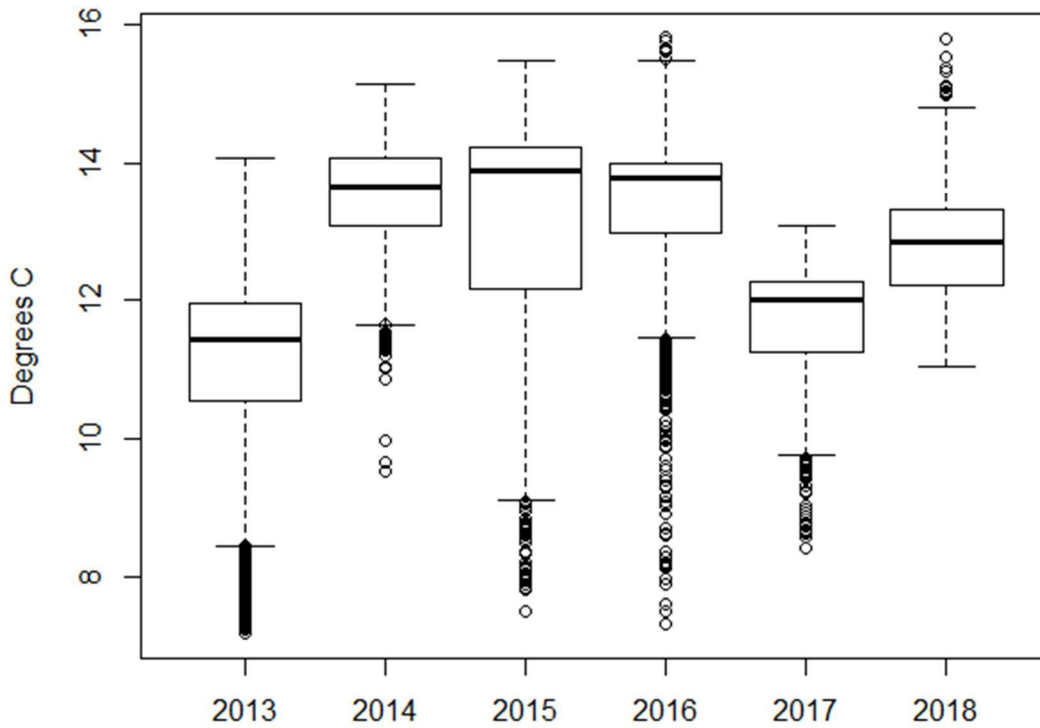
-Do you want all redds or redds above the picket weir?

-Does this data format work for you?

### All Chinook Redd observations on Snorkel



### CC SR incubation Temps (Above PW)



4 SR holding temperature distribution  
-Same data format as above maybe?

#### 5. Prop SR redds before 9/15

Working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people.

Sam Provins, Fish Biologist  
Pacific Southwest Region  
United States Fish and Wildlife Service

Red Bluff Fish and Wildlife Office  
10950 Tyler Road, Red Bluff, CA 96080  
Red Bluff Desk: (530) 527-3043 ext. 254  
Mobile:(856) 313-7455  
Anderson Field Office:(530) 365-2410  
[Samuel\\_Provins@fws.gov](mailto:Samuel_Provins@fws.gov)

On Tue, Mar 19, 2019 at 4:57 PM Sarah Gallagher - NOAA Federal <[sarah.gallagher@noaa.gov](mailto:sarah.gallagher@noaa.gov)> wrote:

Average portion of redd count constructed before Sept 15 ranged from 0-26% from 2003-15. Has that changed with recent years? And can you tell from your analysis if those were those redds more exposed to higher temperatures?

**Sarah Gallagher | Fish Biologist**

*NOAA Fisheries | West Coast Region*

*U.S. Department of Commerce*

650 Capitol Mall, Suite 5-100, Sacramento, CA 95814

916-930-3712 | [Sarah.Gallagher@noaa.gov](mailto:Sarah.Gallagher@noaa.gov)

On Mon, Mar 18, 2019 at 3:28 PM Sarah Gallagher - NOAA Federal <[sarah.gallagher@noaa.gov](mailto:sarah.gallagher@noaa.gov)> wrote:  
Perfect thank you!

**Sarah Gallagher | Fish Biologist**

*NOAA Fisheries | West Coast Region*

*U.S. Department of Commerce*

650 Capitol Mall, Suite 5-100, Sacramento, CA 95814

916-930-3712 | [Sarah.Gallagher@noaa.gov](mailto:Sarah.Gallagher@noaa.gov)

On Mon, Mar 18, 2019 at 3:23 PM Provins, Samuel <[samuel\\_provins@fws.gov](mailto:samuel_provins@fws.gov)> wrote:

Hey Sarah,

Good talking to you. Ryan and I are going to try and get you three things:

1. General SR upstream timing
2. General Steelhead upstream timing
3. SR redd incubation temperature distribution
- 4 SR holding temperature distribution

Working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people.

Sam Provins, Fish Biologist

Pacific Southwest Region

United States Fish and Wildlife Service

Red Bluff Fish and Wildlife Office

10950 Tyler Road, Red Bluff, CA 96080

Red Bluff Desk: (530) 527-3043 ext. 254

Mobile:(856) 313-7455

Anderson Field Office:(530) 365-2410

[Samuel\\_Provins@fws.gov](mailto:Samuel_Provins@fws.gov)