From: Miles Daniels - NOAA Affiliate <miles.daniels@noaa.gov>

Sent: Tuesday, December 4, 2018 1:11 PM

To: Garwin Yip

Cc:Sarah Gallagher; Eric Danner - NOAA FederalSubject:Re: Temp-dependent egg survival for 2018

Hi Garwin.

I have not been involved with estimating egg-to-fry survival.

Eric, do you have any thoughts on this? Do we need to know things such as trap efficiency for the year at RBDD to estimate this for 2018?

Thanks, Miles

On Tue, Dec 4, 2018 at 12:01 PM Garwin Yip - NOAA Federal < garwin.yip@noaa.gov > wrote: Thanks!

...and can you also provide total estimate of egg-to-fry survival to RBDD without the final RBDD estimate?

-Garwin-

Garwin Yip

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On Tue, Dec 4, 2018 at 11:49 AM Miles Daniels - NOAA Affiliate < <u>miles.daniels@noaa.gov</u>> wrote: Hi Garwin,

We do not have the redd distributions for 2018 yet, but Eric will email Jason Roberts for them. I'll run them once Sara John digitizes them to the RAFT gird and send results. Using the historic redd distributions from 2012-2017, the mean temperature-dependent egg mortality is \sim 6%, median \sim 3%, lower estimate \sim 0.25%, and upper estimate of \sim 36%.

Thanks, Miles

On Tue, Dec 4, 2018 at 11:27 AM Garwin Yip - NOAA Federal < garwin.yip@noaa.gov > wrote: Miles,

Can you plug in the 2018 winter-run redd distribution and temperatures to come up with an initial temperature-dependent egg survival for the season?

-Garwin-

Garwin Yip

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