Hi Xiao,

     I have some mortality rates for you.  I've been doing some more analysis, and the most parsimonious model is where mortality rates for the Interior Delta differ from everywhere else.  Here's the detail:

S = exp(-rt)

where S = probability of survival

r = instantaneous mortality rate (1/d)

t = travel time (d)

r for Interior Delta = 0.084402

r for Sacramento River = 0.048262

The "Interior Delta" starts at the entrance of Georgiana Slough and the Delta Cross Channel and continues to Chipps Island.  The "Sacramento River" starts at Freeport, includes Sutter Slough, Steamboat Slough, and the mainstem Sac., and continues until Chipps Island.

To use in the PTM, you will have a constant survival probability per 15-minute time step:

S per 15-minutes = exp(-r\*(15/3600))

where t = 15/3600 has units of days.  Here, it's the fraction of a day.

Feel free to give me a ring if you have any questions.  As we discussed, these estimates may change as the analysis evolves.  Cheers, Russ

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Questions:

is t the travel time since fish is released?

The model includes south delta? If a salmon gets to south delta channels, the instantaneous mortality rate is the same as interior delta?

does fish release location matter?