
From: Perry, Russell <rpperry@usgs.gov>
Sent: Friday, March 22, 2019 12:37 PM
To: Vamsi Sridharan - NOAA Affiliate; Eric Danner - NOAA Federal; Noble Hendrix
Cc: Adam Pope; Doug Jackson
Subject: Re: [EXTERNAL] Draft justification document for ROCon for the regional office [ROC_AR_Unsure]

Vamsi,

Thanks for putting this together. You have done a nice job documenting our workflow for the re-consultation and rationale for the modeling decisions that were made.

All,

I am a bit disappointed that we're not using STARS. Although based on a statistical model, STARS is simulating the daily reach-specific migration (travel time), routing, and survival; aggregating spatially over the Delta and temporally to the monthly level; and fully propagating statistical and process uncertainty. So I think is a better tool for the job of simulating responses to operational scenarios that fundamentally vary on a daily timescale relative to a statistical model (Newman et al.) that is based on parameters estimated over a much coarser spatial and temporal scale, and with likely greater uncertainty.

That said, I understand that exports is an important management knob to which STARS is insensitive. It is so important, in fact, that the model is rendered unusable for evaluating management actions that include exports as a facet of the action. Therefore, we are modifying our Bayesian mark-recapture model to estimate survival in reach 8 (Interior Delta) as a function of exports. The first run should finish over the weekend. We will share the results and request feedback on alternative parameterizations or covariates (e.g., IE ratio). Although it won't be done in time for the re-consultation, we need to have a model that is sensitive to key features of management actions so that it can be used in the future as one useful model among the suite of available models.

Cheers,
Russ

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On Sun, Mar 17, 2019 at 6:15 PM Vamsi Sridharan - NOAA Affiliate <vamsi.sridharan@noaa.gov> wrote:
Dear all,

I have synthesized a draft document explaining what we have done for the RoCon w.r.t. to the Delta, as well as justification for our choices. Please modify as needed.

Regards,
Vamsi

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