**SRI Bayes Harvest Notes:**

**Meet with Hamachan and Adam:**

1. Main issues
   1. Are LB release data reliable? Big disparity between lb and swhs release data for guided harvests. 3 approaches:
      1. Howard approach; all LB releases are true
      2. Only YE lb release data is true; fit of this model shows that releases of pelagics are still way under reported
      3. Censor lb release data so that it acts as a lower bound; essentially relies on swhs biased corrected estimates.
   2. How to deal with closed fishery in Southeast? YE were closed to retention in 2020 so creel data shows proportion of YE is 0. This is fine for the harvest but not so for releases. Howard method had been applying long term average of p\_ye to generate release estimates in recent years
      1. Turning yelloweye creel data to NA doesn’t work; model treats it as a 0.
      2. Turning total RF N
      3. Separate out ye creel data from pelagic creel? But does this loose the proportional relationship?
   3. C spline only through data years; C estimated from H and pH in pre Chat years.
   4. PWSO is always a bugger… weird data and harvest history. A lot of swhs bias in pws in general.
2. Spline parameter convergence. 2 splines; one for H and one for C.
   1. H better than C
3. Tau\_beta\_black has some convergence issues… It want to be very low but has occasional spikes to high values. Truncate? Maybe OK in this case?
4. Censored models:
   1. Seems to perform better without the bias correction offset for swhs catches
      1. Better convergence, particularly the spline lambdas
      2. pH has a little harder time without the offset
5. YE\_lb model: Release data still truncated to not go below lb release data
   1. Offset for catch swhs bias works better in this model
   2. Still shows a lot of unreported releases in pelagics, in particular CSEO
   3. Proportion guided estimates start to diverge from the observed, particularly in SSEO
6. All\_lb model:
   1. Converges worse than all other models.
   2. Using all releases winds up in ye lb releases and model lb releases not agreeing; tension between pelagic release data and ye release data
   3. Fit of C and H not as good as other models. Residuals of swhs data shows some bias
   4. pG shows more divergence from observed