Elise,

Here is a reply, as promised, but (I'm sorry) a bit late. Gotta catch a plane soon, so this reply will unfortunately be hurried.

1. Improve delta hydrodyn.

a. You interpreted this incorrectly. The real message here is that "net flows" don't really exist in the hear-and-now for fish; they're reflective of a calculated monthly average condition. Pretty handy for predicting water quality in a rough way, but not for analyzing what it takes to survive in a tidally driven estuary. These parameters give us a "first order approximation" of only one hydrodynamic parameter among a LOT of them. What we're trying to say is, it's MUCH better to look at the real-tide hydrodynamics world the fish live in, which INCLUDES the ability to see what sort of "fate and effect" there is for neutral particles (a first-order approximation for passive life stages like eggs and perhaps behaviorless larvae) and a whole lot more. This stuff should be considered in conjunction with the physical habitat around which the water flows to improve the picture of life in the estuary (delta). So, your statement has little meaning, not because we can't calculate net flows, but because they don't tell us much that's useful.

The second try is better, if incomplete.

b. X2 IS a surrogate, which is what's wrong with it, but has little to do with physical conditions other than salinity (a chemical condition). I realize that people talk of X2 in conjunction with the shallows and other characteristics of Suisun Bay, and that's fine. We should be concentrating on figguring out what (specifically) X2 is a surrogate for, and address these parameters directly. If we wind up with the same thing, fine, but how will we know unless we figgure out just HOW this thing works?

c. Not quite, but close. Increasing residence time of water will FACILITATE the formation of organism-habitat relationships, and give some TIME for critters to get it right (in terms of where they want to be). I believe this is a critical factor and a very important step in "fixing" the delta.

2. Migratory pathways

a. Yes

b. Hard to say. Nobody ever really looked. I understand the "data" and I maintain it doesn't tell us just what really happens. The data are descriptive only of probability of capture, and no mechanism has been put forward to explain them. Predation? Quite possibly and definately fixable. So let's fix it.

3. Reduced Exports

a. Maybe yes, maybe no. An adult equivalence approach will help assess this; other approaches do not.

B. There is NO relationship between E/I ratios and CATCH PLUS ESCAPEMENT into the San Joaquin OR the Sacramento, even absent a cohort analysis. The analyses have never been done properly, and even so, the relationship is absent. Maybe if it was done correctly, first by doing a cohort analysis, and then asking the question...

Reduce entrainment losses

a. Yes, but how you say a thing matters. This difference can disappear if the majority hypothesis is worded differently. It's inappropriate to "assume facts in dispute" (or not in evidence).

Improve delta habitat

a. Yes, and how you say a thing still matters.

Gotta go.

Buell

D—060273