

From: Perry, Ian <Ian.Perry@dfo-mpo.gc.ca>
Sent: Wednesday, May 19, 2010 1:59 PM
To: Brown, Robin <Robin.Brown@dfo-mpo.gc.ca>; Saunders, Mark <Mark.Saunders@dfo-mpo.gc.ca>
Subject: RE: Status of Str of Georgia zooplankton samples and plans for Beamish samples

Thanks Robin -

It is good to be doing an inventory of what data and samples we might have to explore further some of these leading hypotheses (but it is obviously not going to happen overnight).

Cheers -

Ian

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-----Original Message-----

From: Brown, Robin
Sent: May 19, 2010 1:52 PM
To: Saunders, Mark; Perry, Ian
Subject: FW: Status of Str of Georgia zooplankton samples and plans for Beamish samples

Dave Mackas has provided this summary of "where we are" on the question of secondary productivity/zooplankton biomass/composition for the Strait of Georgia in 2007, relative to other years.

You will remember that Dick Beamish made the "pitch" that low food abundance resulted in increased mortality/reduced survival/poor growth across many species of juvenile salmon and herring. Dave's contribution here is to see if we can verify the hypothesized reduced plankton levels.

Of course, 2007 (for a variety of reasons) has the fewest samples of recent years, but if the effect is big, it may well show up in a limited number of samples.

I have asked Jim Gower to do a similar review for chlorophyll/phytoplankton data.

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Regards

Robin

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From: Mackas, Dave

Sent: May 19, 2010 12:43 PM

To: Brown, Robin; Galbraith, Moira

Subject: Status of Str of Georgia zooplankton samples and plans for Beamish samples

The SofG samples we have in the IOS database are summarized in the attached powepoint. Slide 5 shows a map of our stat regions. Slide 6 shows the distribution of samples across years, by data originator. Slide 7 shows the main differences in field sampling and lab analysis among these subsets.

2007 was unfortunately a minimum in DFO and university sampling effort. UBC Stratogem had just ended. Marc Trudel's sampling in the Strait had not yet ramped up. Chrys Neville says the Beamish group did not collect samples that year because they were so far behind in sample processing.

Moira has recently located a few more samples from 2007. These include

- a set of 20 from the PBS Herring Group that were processed after Deb downloaded their data in spring 2008. These are identified to their usual taxonomic standard and we now have the numeric data. However, they are all October, so they will contribute little to the Fraser sockeye question. They are also mostly very near shore.

- a set of 24 Tucker Trawl samples collected by Dower and Evgeny Pakhomov in April 2007 (there is also a 2X bigger set from April 09). These are all 0-50m oblique tows targetting larval fish, and have been sorted for larval fish and shrimps/crabs. Moira and Kelly will start to process these after they finish Marc Trudel's sets from 2008-2009. The sampling is before the main burst of sockeye ocean entry. The difference in net type, tow path, and mesh size will also inhibit comparison with other data. But these are probably our best hope for knowing if anything was very strange in spring of 2007.

- 4 GEO1 (off Nanaimo) bongo tows were collected in May and June 2007 (during WCVI and Line P/eddy cruises). 2 of these are shallow, 2 sampled the full water column. We don't know where these jars are - they were not with the other samples from the same cruise.

What about the status of Beamish samples from other years? I get differing answers at different times and from different people. When we talked to Carol Cooper in March 2008, she said the Beamish group collected about 35-50 samples per year, and that 1994-2000 had been lab processed, post 2000 are all or mostly unprocessed. According to Chrys Neville, all or most of the processed samples were entered into some form of electronic archive by Isobel Pearsoll. I suspect from conversations with both Dick and Chrys that this is a spreadsheet rather than a database, and is poorly linked to important metadata (date, location, depth, flow meter).

Beamish submitted the attached ERI proposal this year. When questioned about details by the ERI review committee, Chrys said that Dick is now willing to transfer (by year end) the data to the IOS database, but that he wants Carol Cooper to ID the subset of samples that he feels are most critical to interpreting their results. This was

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to be half their budget. The other half was for Pearsoll to clean up the digital archive, and pass this numeric data to us in some form.

<< File: MackasFaustGalbraith10Zooplankton Data Recovery.ppt >> << File: BeamishPlanktonProposal.doc >>

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