**Lake Trout Strategic Project – Conference Call 2015-10-22**

Hi everyone,

We are approximately two years into the lake trout strategic project and a conference call was held on October 22nd to provide everyone with a progress update on the three project themes.

Attendees: AJ – Adam Jeziorski; AP: Andrew Paterson; JPS – John Smol; LB – Leon Boegman; LM – Lewis Molot

Theme 1: Power of the Past (JPS)

* All fieldwork necessary for the paleolimnological project theme is complete. Sediment cores were collected from Muskrat Lake in early September, so we now have sediments from all nine study lakes Note that due to its morphological complexity, Charleston Lake, has been replaced as a study lake by Peninsula Lake (located just outside Huntsville).
* 210Pb dates have been obtained for most study lakes, sediments from those still to be analyzed have been prepared and are in the dating queue waiting on machine time.
* Spectrally inferred chlorophyll a measurements are complete for most sediment cores, only Loughborough, Muskrat and Peninsula still need to be done.
* Diatom counts have been completed for sediment cores from Harp, Red Chalk, Eagle and LotW Echo Bay.
* Clare Nelligan recently submitted a paper to *Lake and Reservoir Management* comparing diatom-inferred Total Phosphorus reconstructions for Harp, Red Chalk and Eagle (this work was also presented at IPS 2015, her slides are currently available on the project website).
* Chironomid counts have been completed for sediment cores from Harp and Red Chalk.
* Application of Quinlan and Smol 2001 chironomid-inferred volume weighted hypolimnetic oxygen (VWHO) model revealed little variation through time for Harp Lake (only slight changes through time, fluctuating between 6-8mg/L)
* The model is currently being applied to the Red Chalk chironomid data, and chironomid counts for Eagle and Peninsula are currently in progress.
* Initial analyses of spectrally-inferred DOC show a poor match with the present-day DOC values (large underestimation). We have not yet investigated the trends through time, but the next step will to examine changes in z-scores of the inferred DOC and chlorophyll a for all study lakes.

Theme 3: Forecasting the Future (LB)

* The model is up and running for 30-35 years of Harp Lake data, and 1 year of Eagle Lake data at a higher resolution (will soon be expanded to 5 years).
* Looks good so far, and the next step will be to incorporate a mixing layer in the bottom waters.
* Once it is calibrated with the monitoring data it will be ready to share with Environment Canada for incorporation into their regional model.

Theme 2: Modelling the Present (LM):

* The model has been produced and should be available to use in a few weeks, final report is coming soon.
* Infrequent sampling after 1990 introduced some uncertainty to the model.
* DOC and TP minor independent variables.
* Currently investigating the influence that nitrification may be having on the DO profile.
* The model predicts: top of depletion layer, initial springtime, and final end-of-year oxygen.
* Upcoming MNR Science Meeting may be a good venue to present the model.