

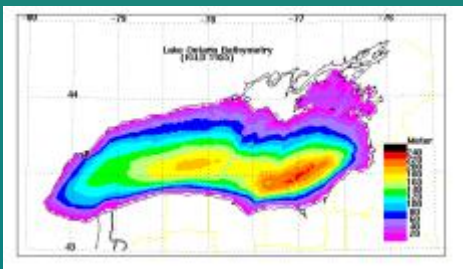
Field Sampling Design and Coordination

W. Gary Sprules, University of Toronto
Jack Kelly, USEPA, Duluth MN

Lake Ontario 2008 Intensive Sampling/Cooperative
Monitoring Year

October 23 – 24, 2006

Kingston, ON



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Program objectives required before sampling design:



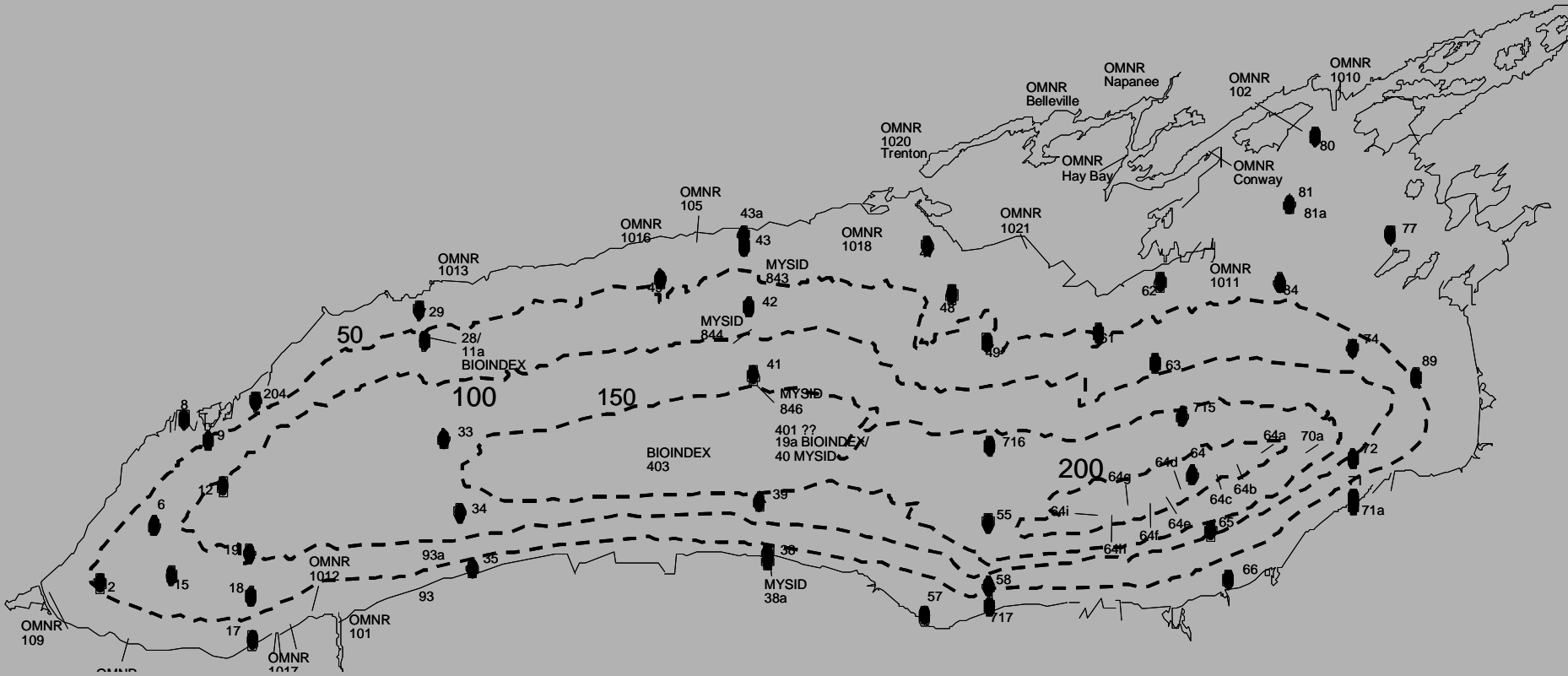
fme1.ifas.ufl.edu

- whole lake, multiple times?
- biomass/abundance only? lower food web only?
- processes such as productivity?
- integrative statement on “health” or condition?
- lake proper only, or land & tributaries included?
- nest spatial components (nearshore, offshore, embayments) in a lakewide design?

Choice of sampling stations/transects:

- balancing logistics of fixed stations versus underway sampling
- use of historical sampling stations versus new ones
- new stations required if implement a design seeking to statistically represent morphometric or biological gradients





(from Ora Johannsson)

Use of continuous sensors:



Hydroacoustics



CTD



Laser OPC



Flurometer –
single or multiple
wave lengths

Sampling considerations:



- day versus night sampling (crew availability, short nights during mid-summer, organism migrations)
- need for realistic workload so all planned activities completed within weather-day allowance
- define Data Quality Objectives detailing implications of incomplete data (lost time accordingly apportioned among sampling activities)
- identify ‘inflexible’ versus ‘flexible’ (e.g. sample interesting features) sampling elements to aid science/crew decisions while underway

Sampling considerations (cont'd):

- seek near real-time data processing where possible for immediate feedback on physical/biological gradients that may justify modification to survey design
- use satellite/buoy data for intensive time series to complement broader scale observations, ground-truthing, or possible substitution of under-way sampling



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Project considerations (Fred Luckey):



- binational, collaborative, building on existing efforts
- lower food web assessment similar to LOLA 2003
- better understanding of the ecology of nearshore and 'near nearshore' habitats
- lakewide lake trout assessment
- exploring new technologies such as buoys



Resource considerations:



- LIMNOS and LAKE GUARDIAN in dry dock Nov/07 – possibly not ready for early 2008?
- LIMNOS conducting Nov/08 mysid and *Diporeia* survey if resources allow
- OMNR summer/08 mysid acoustic survey?
- Whole-lake Sept/08 lake trout survey would require Kaho, Seth Green and OMNR vessel ca 17 d each
- SUNY Brockport vessel RV MADTOM could do some local ‘near offshore’ sampling

Resource considerations (cont'd):

- same partners involved in 2008 survey as were in LOLA 2003 or some new ones?
- coordinate 'near nearshore' sampling' being done by municipalities and academics to achieve lakewide coverage? Are techniques sufficiently uniform?



FIN

