Halifax Harbour Water Quality Monitoring Project
Weekly Summary #53

Survey Date: 21 June 2005
Nature of Survey: Complete Survey
Report File (this document): HHWQMP_report053_050621.doc
Data File: HHWQMP_data053_050621.xls
Data Return:

Profile:	100%
Bacteria:	100%
Chemical:	100%
Overall:	**100%**

Sample Notes:

Dartmouth Cove monthly chemical. sampling initiated.

QA/QC samples:

No chemistry QA/QC sample this week**.**

Fecal Coliform (CFU/100ml)

Site	F1-1m	F3-10m	EE3-1m
Reference	1	3	4
QA/QC	0	4	4

Regulated parameters with all samples below detection (<EQL)

Parameter	**EQL(µg/L)**	**Parameter**	**EQL(µg/L)**	**Parameter**	**EQL(mg/L)**
Cadmium	3	Manganese	20	Oil and Grease	5
Chromium	20	Nickel	20		
Copper	20	Zinc	50		
Lead	5				

Detectible non regulated metals

Metal	**EQL (µg/L)**	**Number >EQL**	**Mean (µg/L)**	**Range (µg/L)**
Thallium	1	1	1	1
Boron	500	14	3821	3400-4100
Lithium	20	14	178	160-210
Strontium	50	14	6014	5700-6300
Titanium	20	14	58	53-64
Uranium	1	14	3.9	3.5-4.2

Dartmouth Cove sample had the following relevant values at 1m:

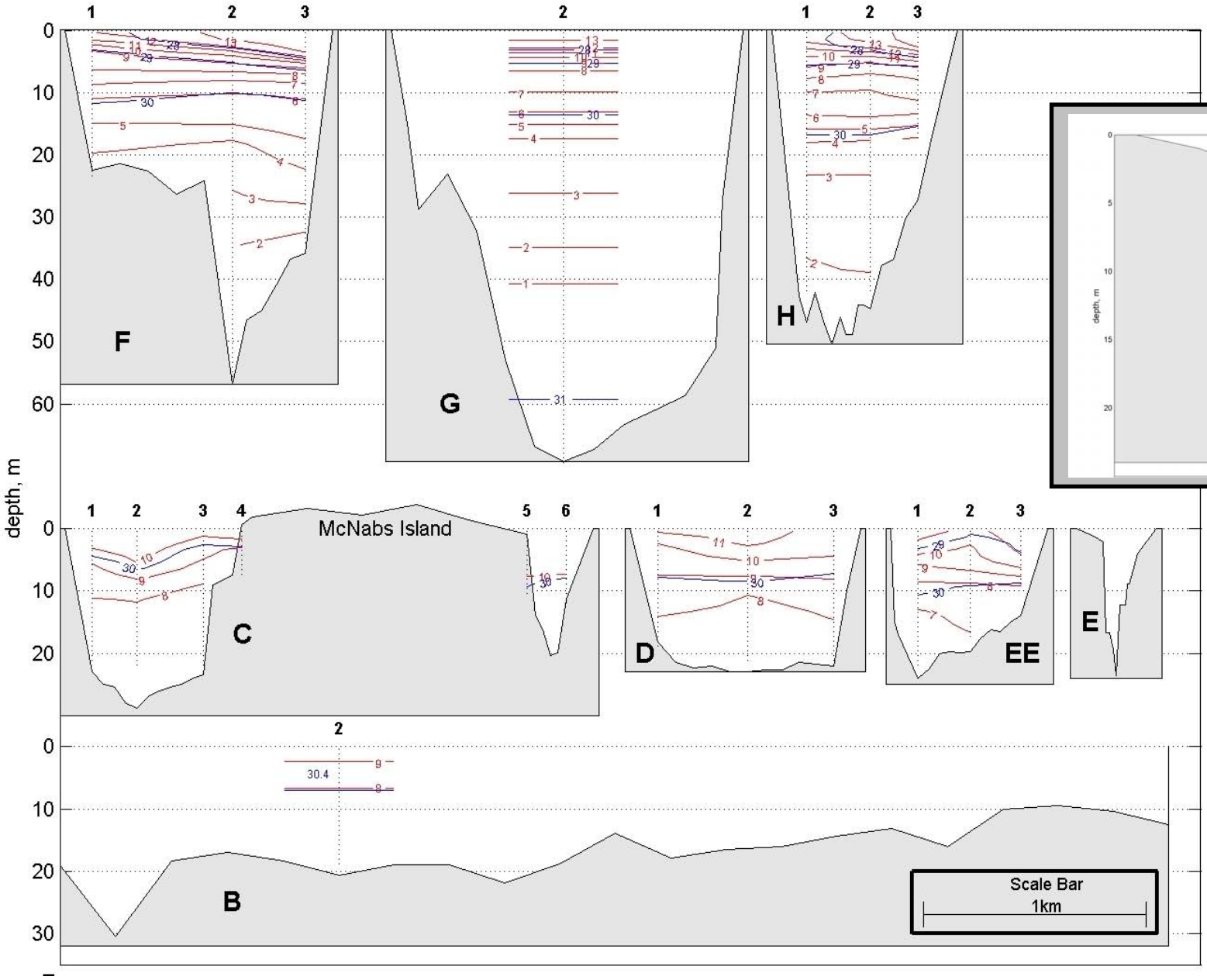
Detectable Parameter	**Units**	**Value**	**Detectable Parameter**	**Units**	**Value**
Fecal Coliform	CFU/100mL	22	Ammonia (as N)	mg/L	0.08
			TSS	mg/L	7.9

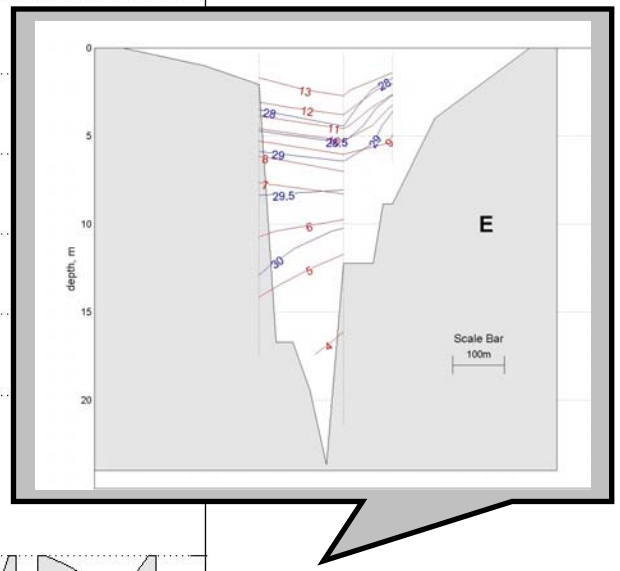
Comments:

Dissolved Oxygen: The only location where oxygen levels are below guidelines is in the deepest water of Bedford Basin, where levels are about 6.5 mg/L. In the surface waters, Bedford Basin has levels of 9-10 mg/L with profile maximums at approximately 5-10m throughout. The surface waters in the remainder of the Harbour have DO levels of 8-9 mg/L.

Chlorophyll: There are some higher fluorescence levels (up to 5-6 mg/m^3) occurring in the Basin, which are above the normal minimums (1-2 mg/m^3). The maximums tend to occur at a water depth of 10-20 m. In the Outer Harbour (sections B and C), values drop to more typical minimums of approximately 2 mg/m^3.

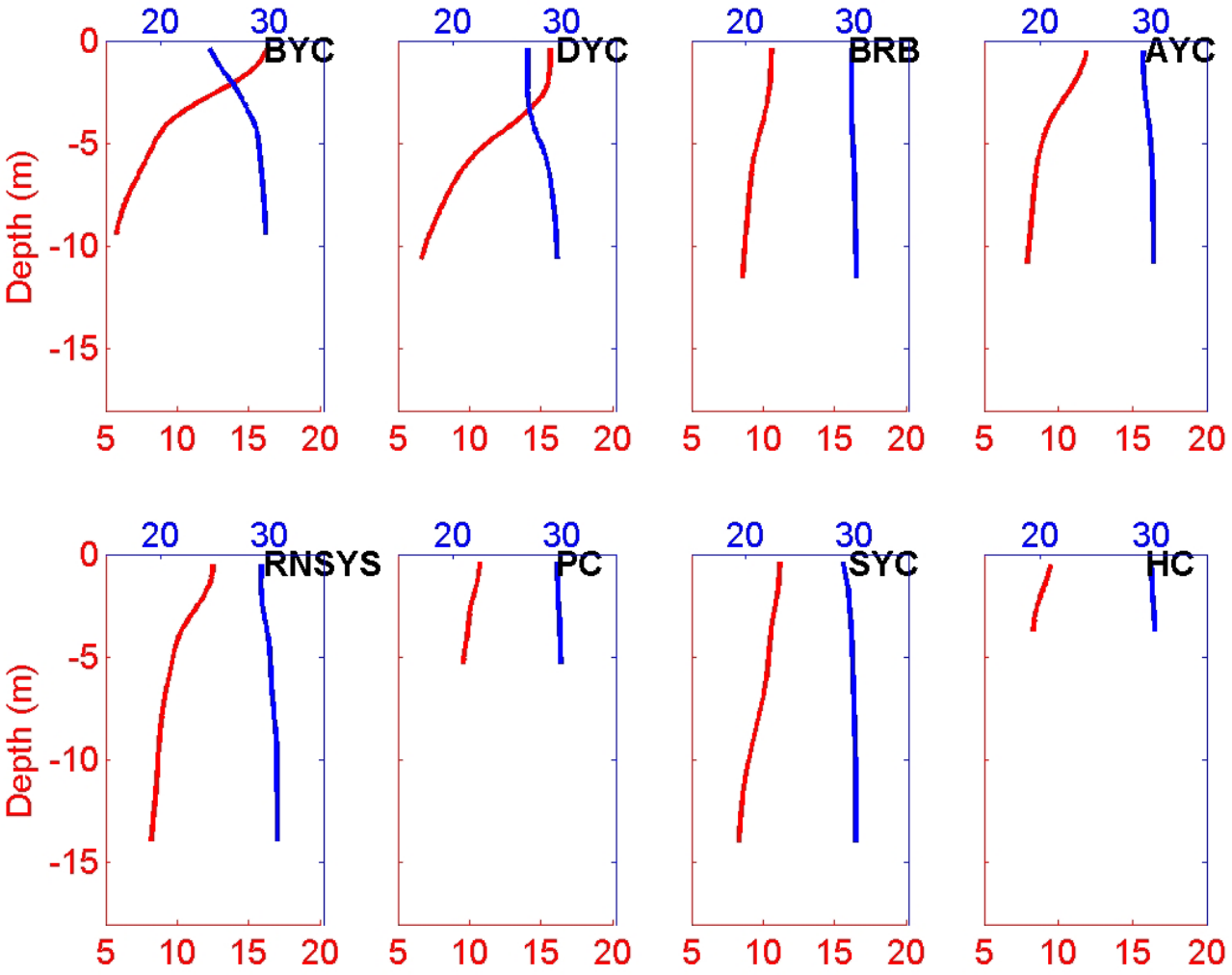
General: This has been a dry week with almost no rainfall. The Harbour is more evenly stratified than last week, (i.e. less stratified in the Basin but more stratified in the Inner Harbour). This condition no doubt reflects the effect of continued runoff from the very wet weather in May. The Outer Harbour (B2) remains well mixed. Overall the fecal coliform values are relatively very low throughout the Harbour. This condition is likely at least partially caused by reduced source strength (dry weather) and increased die-off due to clear weather in the previous two days.

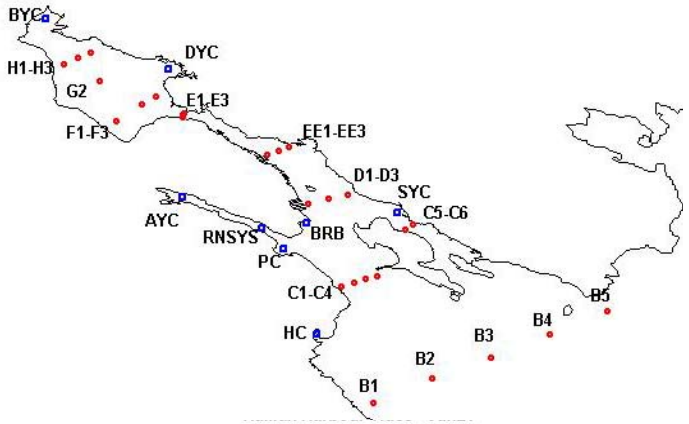


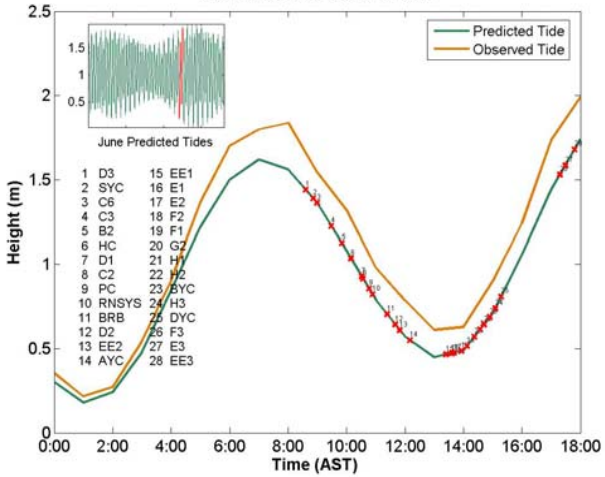


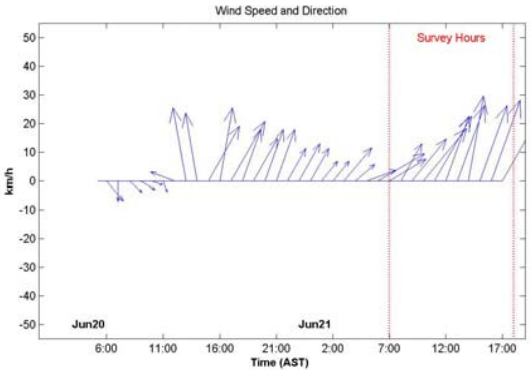
Unless otherwise labeled:
- **salinity** contour interval is 1 PSU
- **temperature** contour interval is 1ºC.

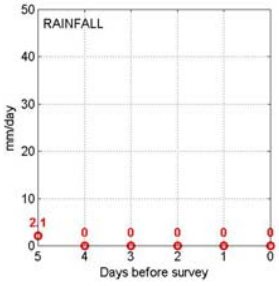
Yacht Clubs

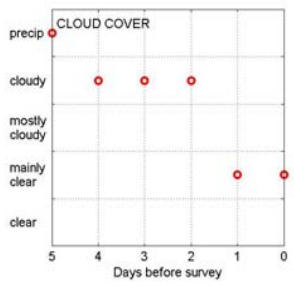




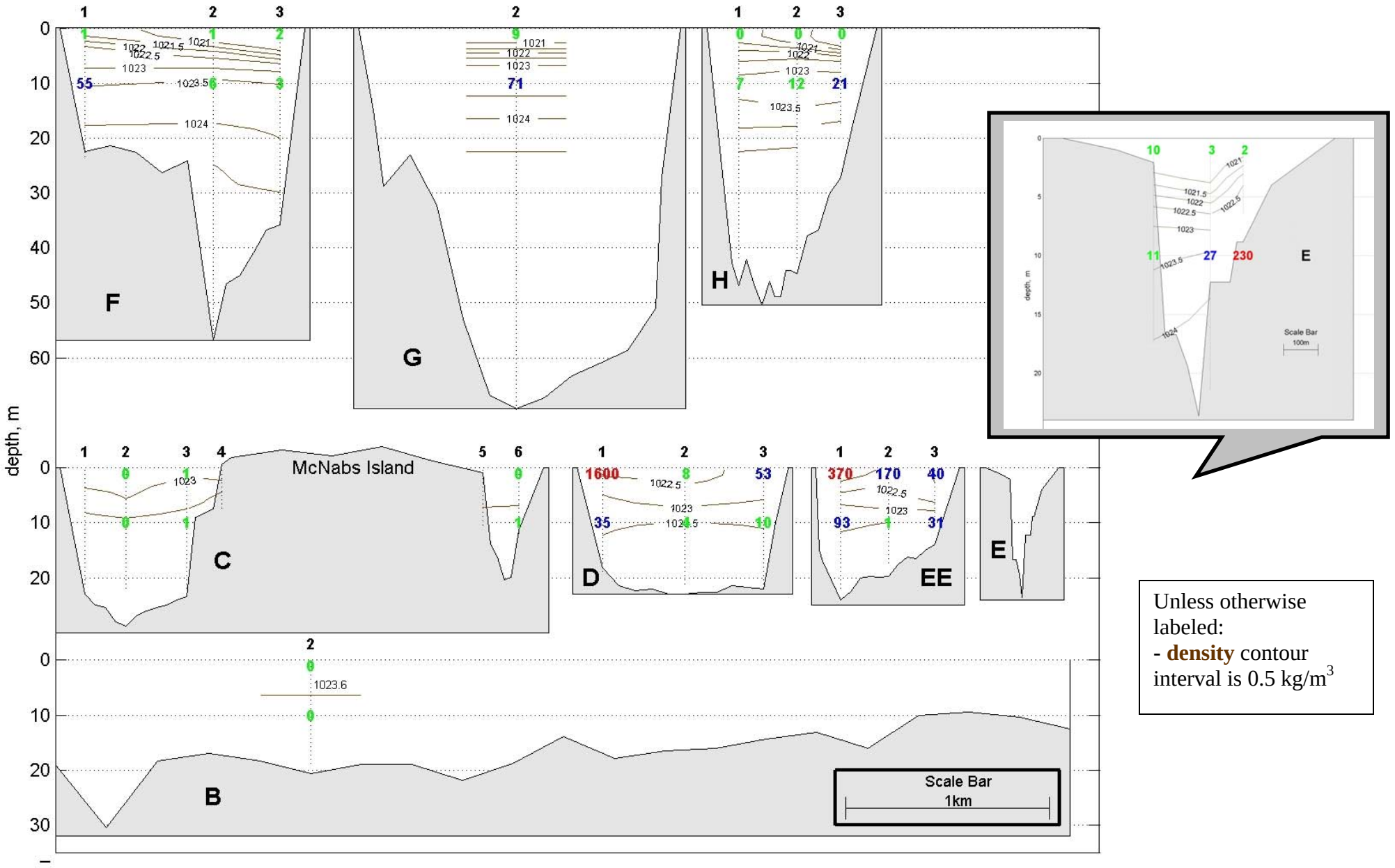






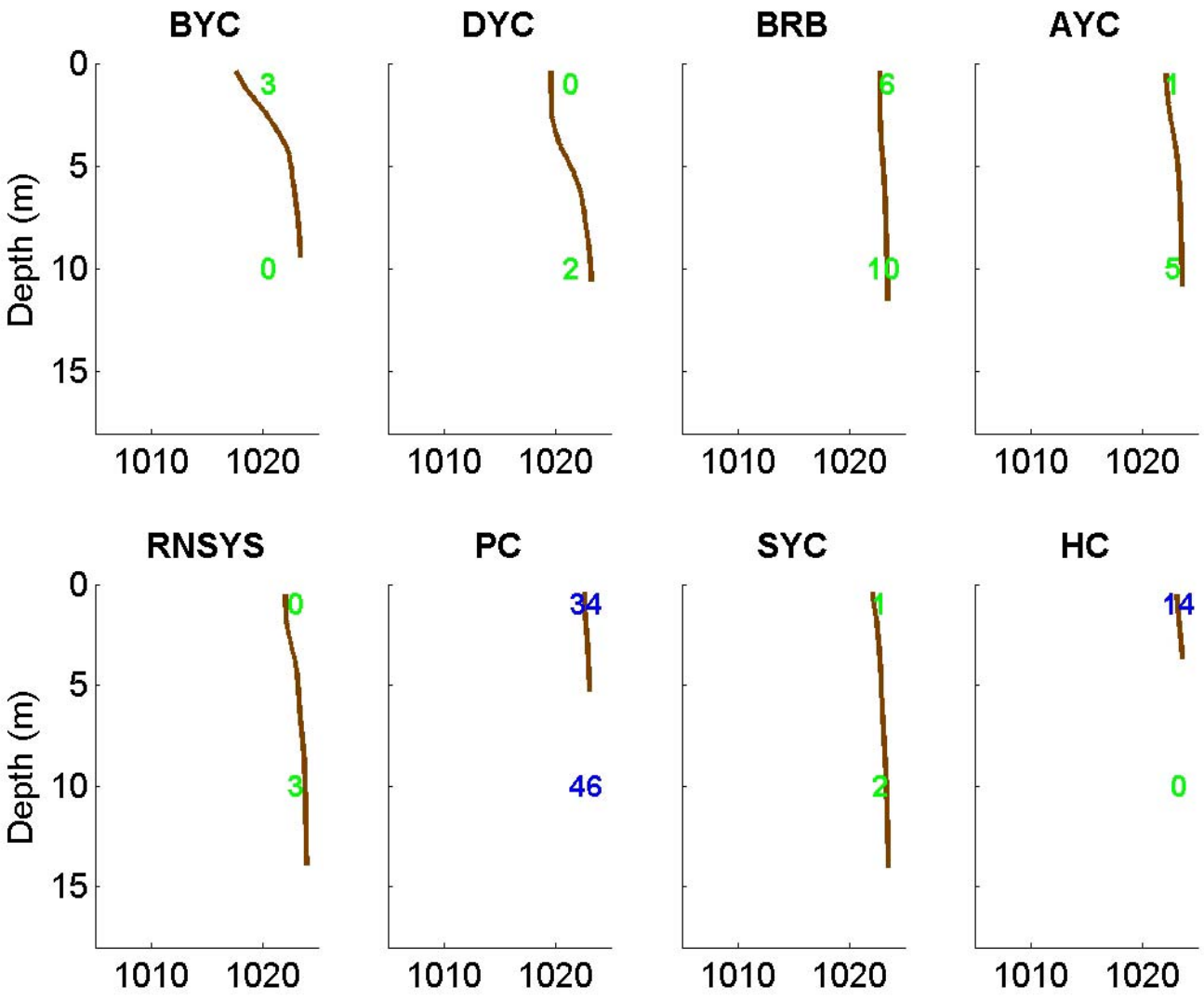


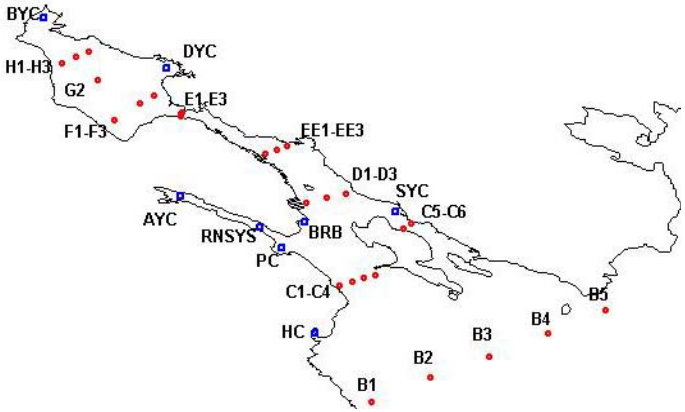
Salinity in PSU **Temperature in ^{o}C**

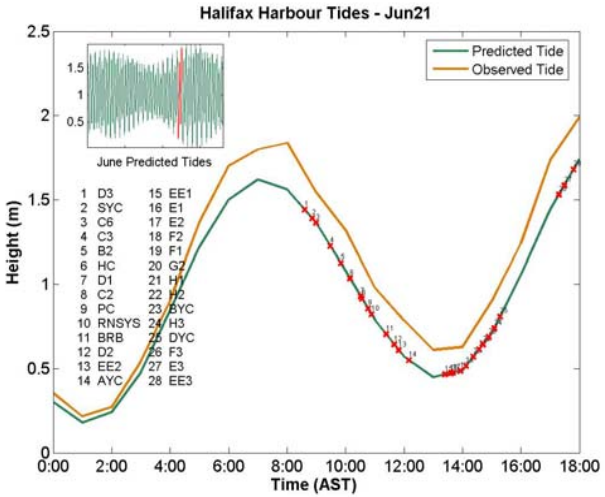


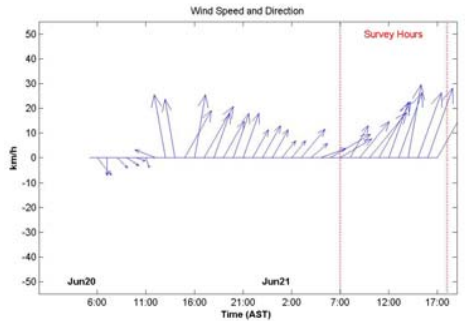
Unless otherwise labeled:
- **density** contour interval is 0.5 kg/m^3

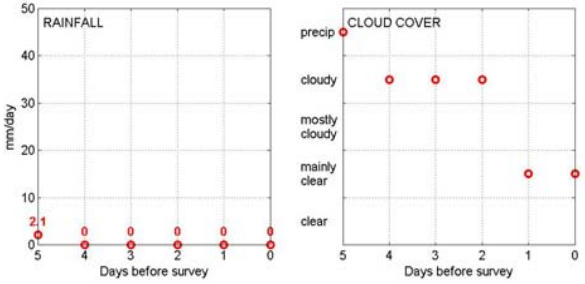
Yacht Clubs





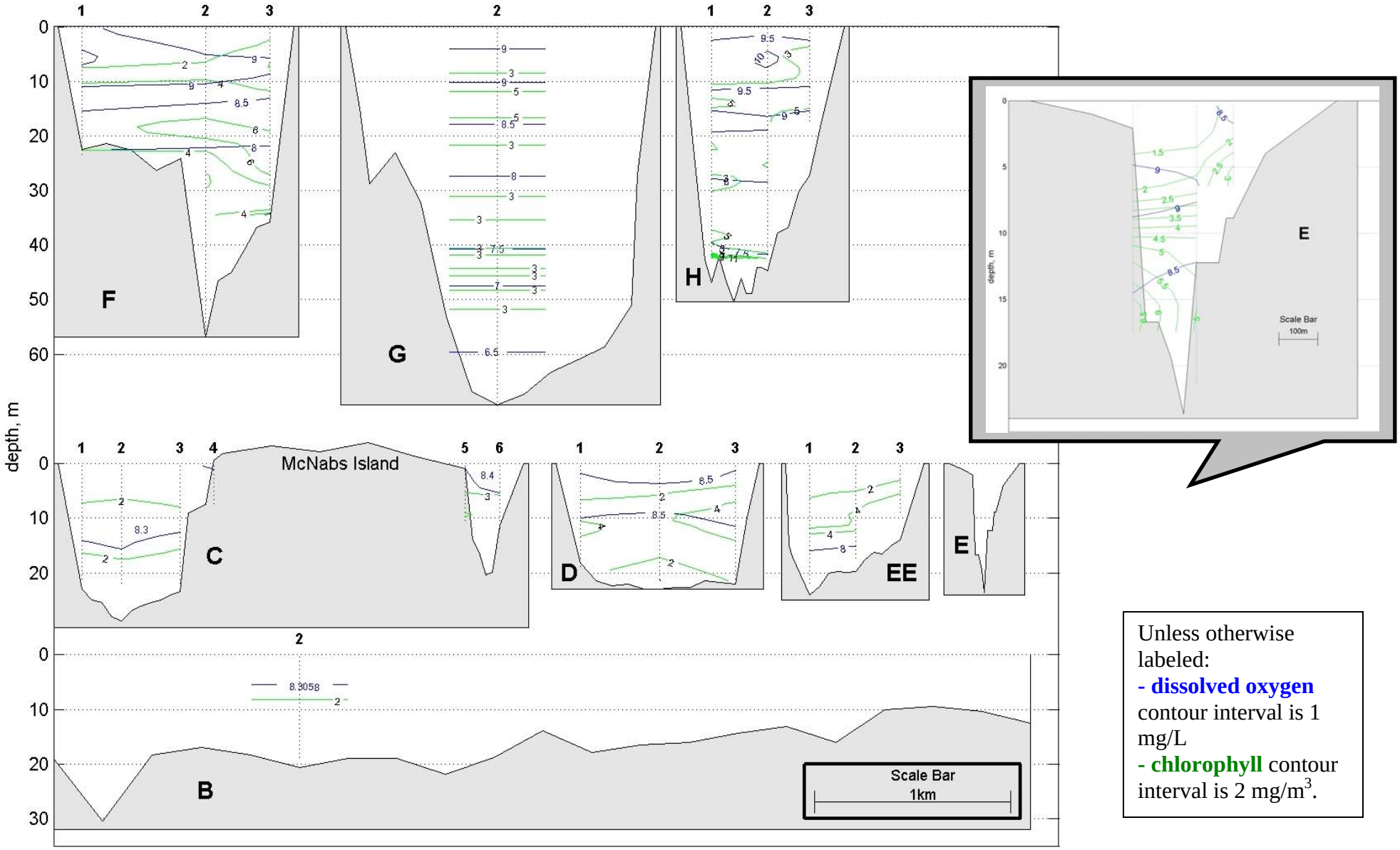






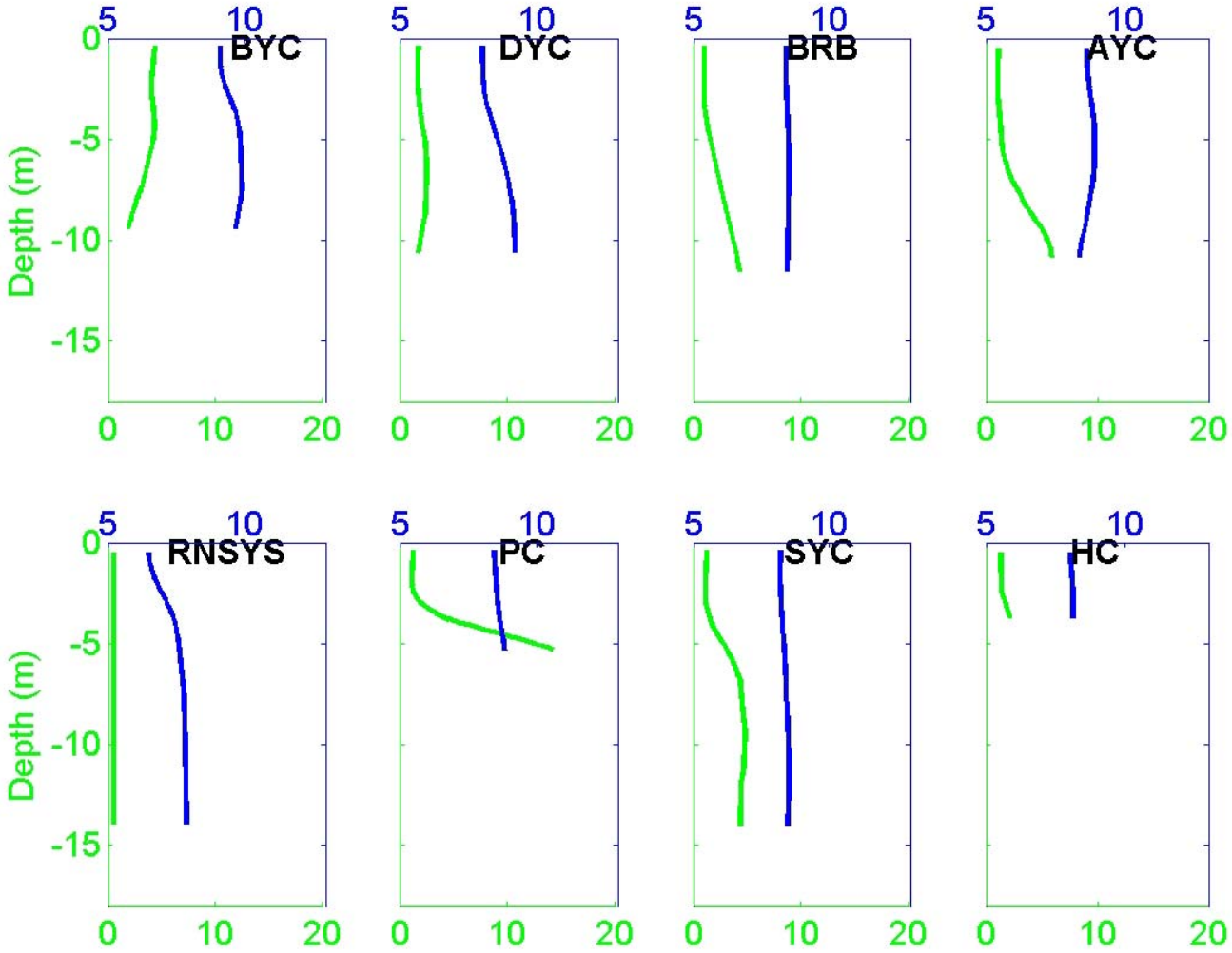
Potential Density in kg/m^3

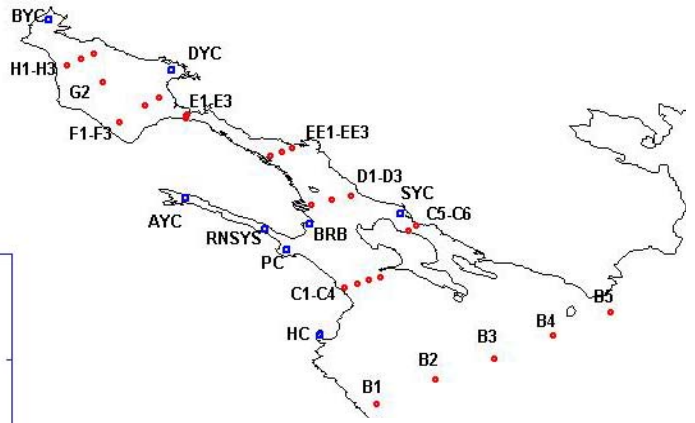
Fecal coliform: above swimming limit (200 cfu/100mL)
above shellfish limit (14 cfu/100mL)
below limits

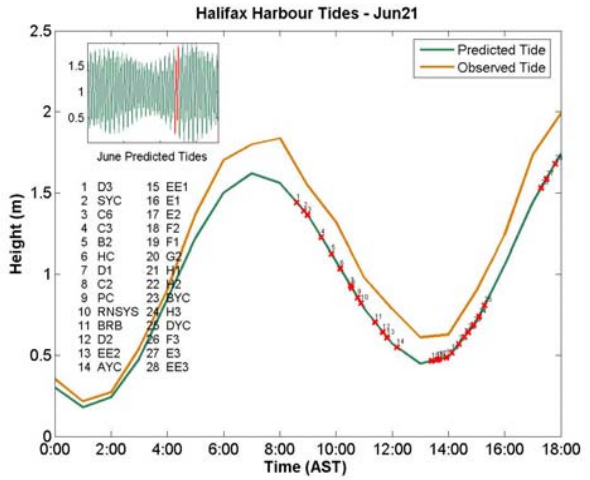


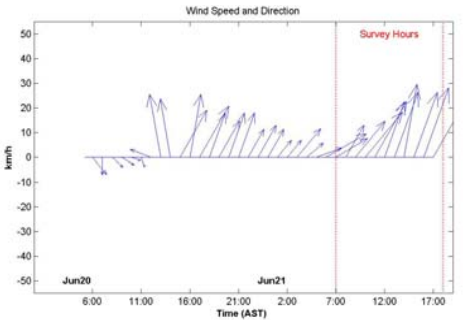
Unless otherwise labeled:
- dissolved oxygen contour interval is 1 mg/L
- chlorophyll contour interval is 2 mg/m^3.

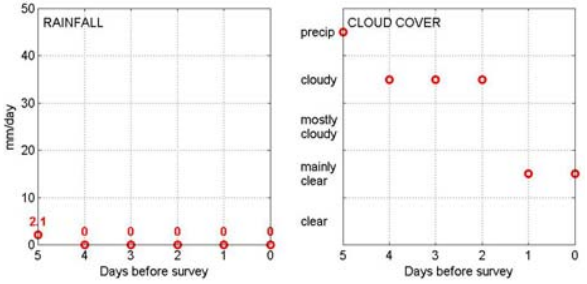
Yacht Clubs



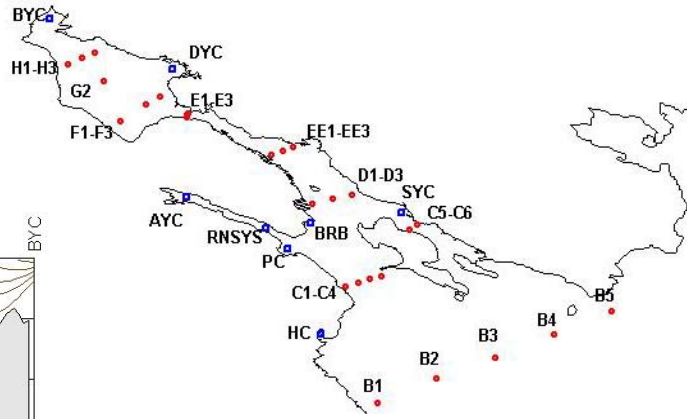


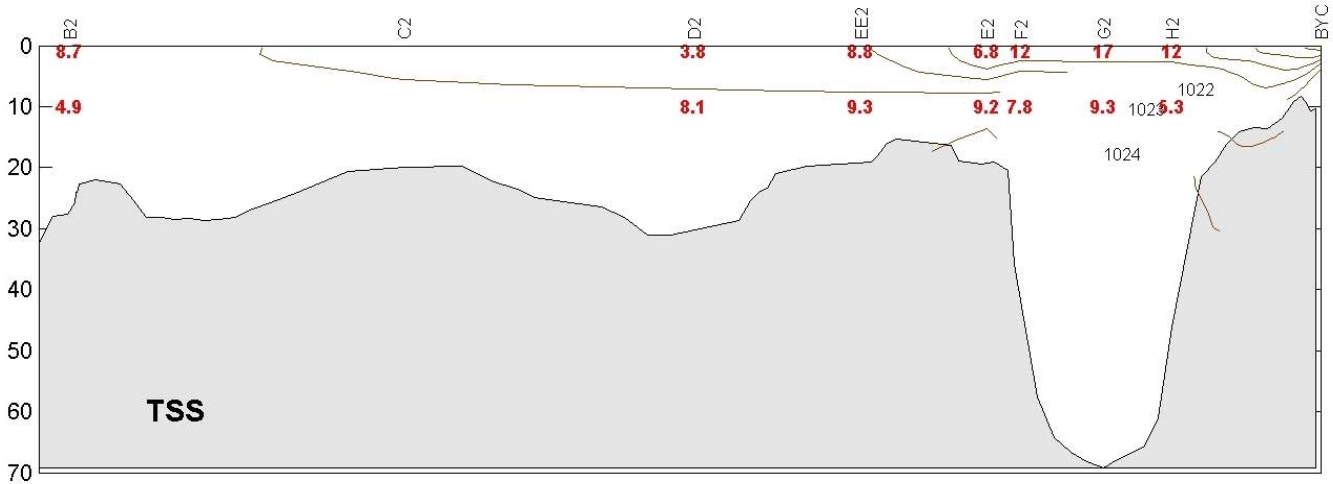


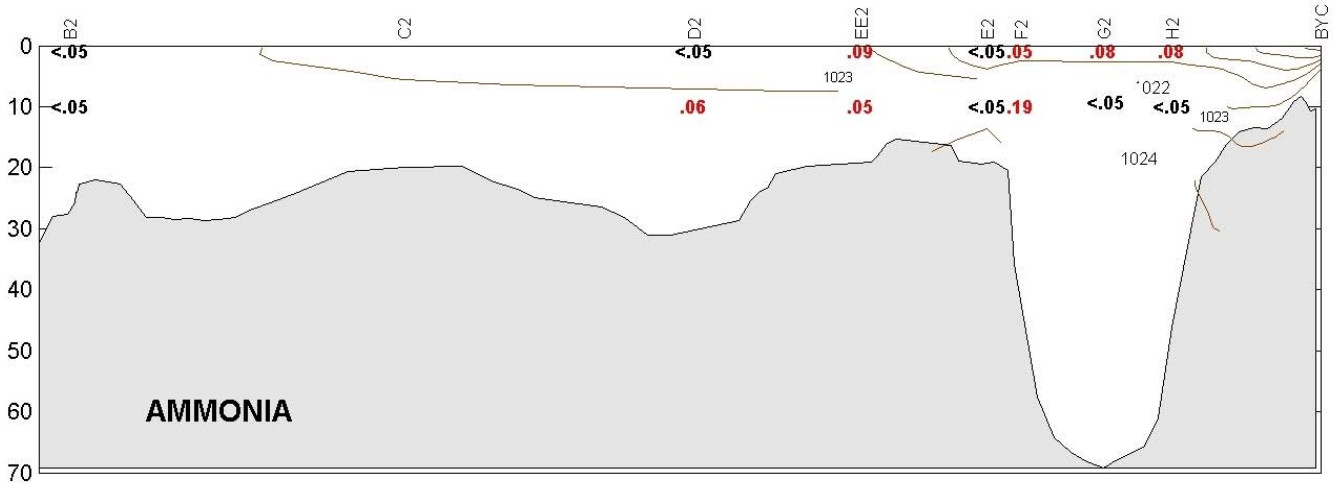


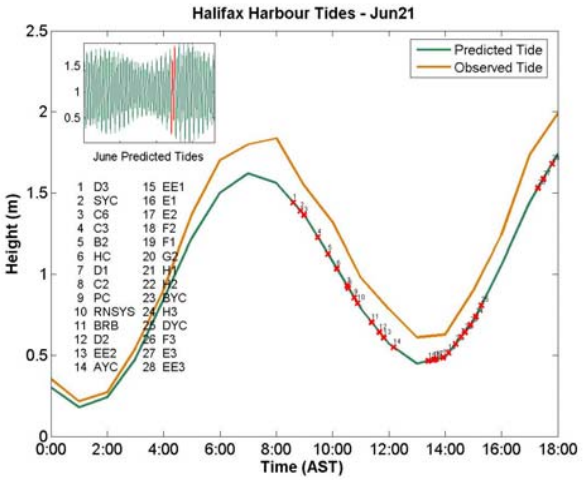


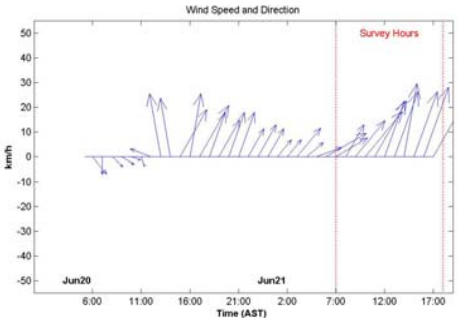
DO in mg/L **Chlorophyll in mg/m^3**

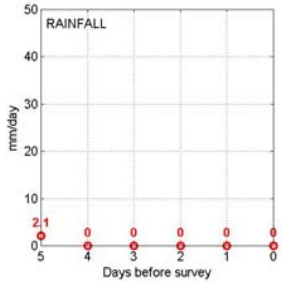


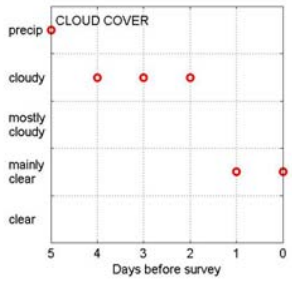












Potential Density in kg/m^3 **Ammonia in mg/L** **TSS in mg/L**