

**INDEX TO
FRESH WATER RESEARCH
ON MOUNT DESERT ISLAND, MAINE**

Sponsored by: MDI League of Towns
Carolyn K. Reeb
September, 1992

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INTRODUCTION

The purpose of this document is to provide a quick reference to previous water quality studies on MDI lakes and ponds. It is an expansion of all references listed in the Hydrology section of the Acadia Resource Inventory. In addition to research cited in the Acadia Resource Inventory, several private and state agency references have been incorporated into this document. Details regarding the type and frequency of the tests conducted are also included in this document. (The Acadia Resource Inventory is located at Acadia National Park, Resource Management.) *Greene et al. (1992)*

Section I of this document is an outline of the fresh water research conducted on Mount Desert Island. It is categorized by lake, and includes where, when, and what type of water quality tests were conducted. The researcher(s) who carried out the study are listed as well.

The following codes or terms are used throughout the document:

- core: refers to sampling methodology. Core samples referred to in this document are epilimnion cores, not sediment cores.
- grab: refers to sampling methodology. Grab samples are samples taken from isolated depths verses slicing through many depths with a core sample.
- sfc: sample was collected at the surface
- bottom: sample was collected directly off the lake bottom.
- eJuly, mJuly, or lJuly: the letters e, m, or l refer to the early, middle, or late time period of the month.
- Aug(3)'84: Data was collected 3 times during the month of August, 1984.
- clph: closed cell pH.
- eqph: equilibrated pH.

Citations with double names listed: The first name refers to the person or group having conducted the field research. In all cases the second citation is the DEP (Department of Environmental Protection). Copies of the data has been passed on to the DEP and is stored in their data base.

Citations without a date reference data received directly from that person or institution. Copies of such data are now filed at ANP headquarters under the author's or institution's name (Examples: US Fish & Wildlife).

Section II of this document is a bibliography referencing all citations.

AUNT BETTY'S POND

Alkalinity

Sep '62

Fish & Wildl. Svc.

Conductivity

Apr '87

Mack & Gibbs (1989)

May '87

"

Jun '87

"

Jul '87

"

Aug '87

"

Sep '87

"

Oct '87

"

Dissolved Oxygen

Sep '62

Fish & Wildl. Svc.

pH

1922-31

Myers (1931)

Sep '62

Fish & Wildl. Svc.

Apr '87

Mack & Gibbs (1989)

May '87

"

Jun '87

"

Jul '87

"

Aug '87

"

Sep '87

"

Oct '87

"

Temperature

Sep '62

Fish & Wildl. Svc.

Apr '87

Mack & Gibbs (1989)

May '87

"

Jun '87

"

Jul '87

"

Aug '87

"

Sep '87

"

Oct '87

"

BEAR BROOK POND

In October 1989, Steve Kahl (UMO), tested for the following on Bear Brook Pond:

Acid Neutralizing Capacity
Aluminum
Calcium
Chlorine
Color
Conductivity
Dissolved Organic Carbon
Dissolved Inorganic Carbon
Closed cell and equilibrated Ph

Magnesium
Nitrates
Potassium
Sodium
Sulfate

THE BOWL

Acid Neutralizing Capacity

Oct '86
Aug '88
Oct '89

Steve Kahl, UMO
"
"

Alkalinity

1982

Mitchell (1982)

Aluminum

Oct '89

Steve Kahl, UMO

Calcium

Oct '89

Steve Kahl, UMO

Chlorine

Aug '88
Oct '89

Steve Kahl, UMO
Steve Kahl, UMO

Color

Aug '88
Oct '89

Steve Kahl, UMO
Steve Kahl, UMO

Conductivity

Aug '88
Oct '89

Steve Kahl, UMO
Steve Kahl, UMO

Dissolved Organic & Inorganic Carbon

Aug '88
Oct '89

Steve Kahl, UMO
Steve Kahl, UMO

Magnesium

Oct '89

Steve Kahl, UMO

Nitrates

Aug '88
Oct '89

Steve Kahl, UMO
Steve Kahl, UMO

pH

1922-31
1982
Oct '86
Aug '88
Oct '89

clph,
clph,eqph
clph,eqph

Myers (1931)
Mitchell (1982)
Steve Kahl, UMO
Steve Kahl, UMO
"

Potassium

Oct '89

Steve Kahl, UMO

Sodium

Oct '89

Steve Kahl, UMO

Sulfate

Aug '88
Oct '89

Steve Kahl, UMO
Steve Kahl, UMO

Temperature

1982

Mitchell (1982)

BREAKNECK, UPPER

Alkalinity

Aug '62

Fish & Wildl. Svc.

Dissolved Oxygen

Aug '62

Fish & Wildl. Svc.

pH

Aug '62

Fish & Wildl. Svc.

Temperature

Aug '62

Fish & Wildl. Svc.

BREAKNECK, LOWER

Alkalinity

Aug '62

Fish & Wildl. Svc.

Dissolved Oxygen

Aug '62

Fish & Wildl. Svc.

pH

1922-31

Aug '62

Myers (1931)

Fish & Wildl. Svc.

Temperature

Aug '62

Fish & Wildl. Svc.

BUBBLE POND

Acid Neutralizing Capacity

Oct. '86		Steve Kahl, UMO
Aug. '88		"
Oct '89		"

Alkalinity

Sept. '78	sfc	Norton et al. (1981)
Oct. '82	sfc	Kahl et al. (1985)
Nov. '82	sfc	"
Feb. '83	sfc, 10m	"
Mar. '83	sfc, 10m	"
Apr. '83	sfc	"
Jun. '83	sfc, 10m	"
Jul. '83	sfc, 10m	"
Oct. '83	sfc	"
Feb. '84	sfc	"
Mar (2) '84	sfc	"
Apr. '84	sfc, 10m	"
Jul. '84	sfc, 10m	"
Mar. '83	core	DEP
Sept. '83		DEP
Sept. '86	core	DEP
lsum '90	core	DEP

Aluminum

Oct. '89		Steve Kahl, UMO
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Calcium

Sept. '78		Norton et al. (1981)
Oct. '82	sfc	Kahl et al. (1985)
Nov. '82	sfc	"
Feb. '83	sfc, 10m	"
Mar. '83	sfc, 10m	"
Apr. '83	sfc	"
Jun. '83	sfc, 10m	"
Jul. '83	sfc, 10m	"
Oct. '83	sfc	"
Feb. '84	sfc	"
Mar (2) '84	sfc	"
Apr. '84	sfc, 10m	"
Jul. '84	sfc, 10m	"
Oct. '89		Steve Kahl, UMO

Chlorine

Aug. '88		Steve Kahl, UMO
Oct. '89		Steve Kahl, UMO

Chlorophyll a

Sept. '83	core	DEP
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BUBBLE POND

Color

Sept.	'78		Norton et al. (1981)
?	'81		Welch et al. (1981)
Oct.	'82	sfc	Kahl et al. (1985)
Nov.	'82	sfc	"
Feb.	'83	sfc, 10m	"
Mar.	'83	sfc, 10m	"
Mar.	'83	9m	DEP
Apr.	'83	sfc	Kahl et al. (1985)
Jun.	'83	sfc, 10m	"
Jul.	'83	sfc, 10m	"
Sept.	'83	sfc	DEP
Feb.	'84	sfc	"
Mar (2)	'84	sfc	"
Apr.	'84	sfc, 10m	"
Jul.	'84	sfc, 10m	"
Sept.	'86	sfc	DEP
Aug.	'88		Steve Kahl, UMO
Oct.	'89		Steve Kahl, UMO
lsum	'90	core	DEP
lsum	'92	core	Reeb (1992)/DEP

Coliform, Fecal

Jul	'92	Reeb (1992)
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Conductivity

Sept.	'78	Norton et al. (1981)
Oct.	'82	Kahl et al. (1985)
Nov.	'82	"
Feb.	'83	"
Mar.	'83	"
Mar.	'83	9m
Apr.	'83	sfc
Jun.	'83	sfc, 10m
Jul.	'83	sfc, 10m
Oct.	'83	sfc
Feb.	'84	sfc
Mar (2)	'84	sfc
Apr.	'84	sfc, 10m
Jul.	'84	sfc, 10m
lsum	'86	core
Aug.	'88	
Oct.	'89	
lsum	'90	core

DEP
Steve Kahl, UMO
Steve Kahl, UMO
DEP

Depth, Elevation, S.A., Vol., Flushing Rate

??	DEP
1981	Welch et al. (1981)

Dissolved Oxygen

Aug	'42	Fuller and Cooper (1946)
Sept.	'83	DEP
Sept.	'86	DEP
lsum	'90	DEP
Aug	'92	Reeb (1992)/DEP

BUBBLE POND

Dissolved Organic Carbon

Aug. '88	Steve Kahl, UMO
Oct. '98	Steve Kahl, UMO

Dissolved Inorganic Carbon

Aug. '88	Steve Kahl, UMO
Oct. '98	Steve Kahl, UMO

Magnesium

Oct. '82	sfc	Kahl et al. (1985)
Nov. '82	sfc	"
Feb. '83	sfc, 10m	"
Mar. '83	sfc, 10m	"
Apr. '83	sfc	"
Jun. '83	sfc, 10m	"
Jul. '83	sfc, 10m	"
Oct. '83	sfc	"
Feb. '84	sfc	"
Mar (2) '84	sfc	"
Apr. '84	sfc, 10m	"
Jul. '84	sfc, 10m	"
Oct. '89		Steve Kahl, UMO

Nitrates

Aug. '88	Steve Kahl, UMO
Oct. '89	"

pH

1922-31		Myers (1931)
Aug '42		Fuller and Cooper (1946)
Oct. '82	sfc	Kahl et al. (1985)
Nov. '82	sfc	"
Feb. '83	sfc, 10m	"
Mar. '83	sfc, 10m	"
Mar. '83	9m	DEP
Apr. '83	sfc	Kahl et al. (1985)
Jun. '83	sfc, 10m	"
Jul. '83	sfc, 10m	"
Sept. '83		DEP
Oct. '83	sfc	Kahl et al. (1985)
Feb. '84	sfc	"
Mar (2) '84	sfc	"
Apr. '84	sfc, 10m	"
Jul. '84	sfc, 10m	"
Sept. '86		DEP
Oct. '86	clph	Steve Kahl, UMO
Aug. '88	clph,eqph	Steve Kahl, UMO
Oct. '89	clph,eqph	"
lsum '90		DEP

BUBBLE POND

Phosphorous

Aug	'42	sfc	Fuller and Cooper (1946)
Sept.	'83	core	DEP
lsum	'86	core	DEP
lsum	'90	core	DEP
eJul	'92	core	Reeb (1992)/DEP
lJul	'92	core	"
lAug	'92	core	"

Potassium

Sept.	'78	sfc	Norton et al. (1981)
Oct.	'82	sfc	Kahl et al. (1985)
Nov.	'82	sfc	"
Feb.	'83	sfc, 10m	"
Mar.	'83	sfc, 10m	"
Apr.	'83	sfc	"
Jun.	'83	sfc, 10m	"
Jul.	'83	sfc, 10m	"
Oct.	'83	sfc	"
Feb.	'84	sfc	"
Mar (2)	'84	sfc	"
Apr.	'84	sfc, 10m	"
Jul.	'84	sfc, 10m	"
Oct.	'89		Steve Kahl, UMO

Secchi Disk

Sept.	'78	sfc	Norton et al. (1981)
??	1981		Welch et al. (1981)
Jun.	'81		DEP
Jul.	'81		"
Mar.	'83		"
May	'83		"
Jun (2)	'83		"
Jul	'83		"
Sept.	'83		"
Jun.	'84		"
Jul.	'84		"
Aug.	'84		"
Sept.	'84		"
Oct.	'84		"
Jun.	'85		"
Aug.	'86		"
Sept. (3)	'86		"
Jun.	'87		"
Jul (3)	'87		"
Aug.	'87		"

BUBBLE POND

Secchi Disk cont.

May(2) '88	"
Jun(2) '88	"
Jul(2) '88	"
Aug(2) '88	"
Sept(3) '88	"
Oct. '88	"
May - Oct '89	DEP
May - Oct '90	DEP
Jul(2) '92	Reeb (1992)/DEP
Aug '92	Reeb (1992)/DEP
Presently,	
May-Oct, bi-monthly	ANP/DEP

Selected Metals, Fe, Pb, Zn, Mn, Al, Cl, SiO2

*Note: Not all tests are available for every date.
(ie Al, SiO2)

Sept. '78	Norton et al. (1981)
Oct. '82 sfc	Kahl et al. (1985)
Nov. '82 sfc	"
Feb. '83 sfc, 10m	"
Mar. '83 sfc, 10m	"
Apr. '83 sfc	"
Jun. '83 sfc, 10m	"
Jul. '83 sfc, 10m	"
Oct. '83 sfc	"
Feb. '84 sfc	"
Mar (2) '84 sfc	"
Apr. '84 sfc, 10m	"
Jul. '84 sfc, 10m	"

Sodium

Sept. '78	Norton et al. (1981)
Oct. '82 sfc	Kahl et al. (1985)
Nov. '82 sfc	"
Feb. '83 sfc, 10m	"
Mar. '83 sfc, 10m	"
Apr. '83 sfc	"
Jun. '83 sfc, 10m	"
Jul. '83 sfc, 10m	"
Oct. '83 sfc	"
Feb. '84 sfc	"
Mar (2) '84 sfc	"
Apr. '84 sfc, 10m	"
Jul. '84 sfc, 10m	"
Oct. '89	Steve Kahl, UMO

Sulfate

Aug. '88	Steve Kahl, UMO
Oct. '89	"

BUBBLE POND

Temperature

Aug	'42		Fuller and Cooper (1946)
Sept.	'83	12 depths	DEP
Sept.	'86	11 depths	DEP
lsum	'90	9 depths	DEP
Ejul	'92	profile	Reeb (1992)/DEP
Ljul	'92	profile	Reeb (1992)/DEP
Laug	'92	profile	Reeb (1992)/DEP

TSI (Trophic State Index)

sum	1985	Dennis (1986)
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EAGLE LAKE

Kahl et al. (1985) performed the following tests on Eagle Lake:

Color, Conductivity, pH, Alkalinity, Calcium, Magnesium, Potassium, Sodium, Iron, Manganese, Zinc, total Al and labile Al, SiO₂, Sulfate, Nitrate, and Chlorine.

The locations and dates are listed below.

*Note: Some test results are not available for each date.

North Oct '82	sfc
North Nov '82	sfc
North Feb '83	sfc, 15m
North mMar '83	sfc, 15m
North Apr '83	sfc
North Jun '83	sfc, 15m
North Jul '83	sfc, 15m
North Oct '83	sfc
North Feb '84	sfc
North mMar '84	sfc
North lMar '84	sfc
North Apr '84	sfc, 15m
North Jul '84	sfc
North Oct. '89	(Steve Kahl, UMO pers comm.)

South Oct '82	sfc
South Nov '82	sfc
South Feb '83	sfc, 20m
South mMar '83	sfc, 20m
South Apr '83	sfc
South Jun '83	sfc, 20m
South Jul '83	sfc, 20m
South Oct '83	sfc
South Apr '84	sfc, 20m
South Jul '84	sfc, 20m
South Aug '88	(Steve Kahl, UMO pers comm)
South Oct '89	"

East Inlet Nov '82	sfc
East Inlet Feb '83	sfc
East Inlet eMar '83	sfc
East Inlet mMar '83	sfc
East Inlet Apr '83	sfc
East Inlet Jun '83	sfc
East Inlet Jul '83	sfc
East Inlet Oct '83	sfc
East Inlet Feb '84	sfc
East Inlet mMar '84	sfc
East Inlet lMar '84	sfc
East Inlet Jul '82	sfc

East (N) Nov '82	
East (N) Feb '83	
East (N) eMar '83	

EAGLE LAKE

East (N) mMar '83
East (N) Apr '83
East (N) Jun '83
East (N) Jul '83
East (N) Oct '83
East (N) Feb '84
East (N) mMar '84
East (N) lMar '84
East (N) Jul '84
East (N) eNov '84
East (N) mNov '84

East (S) Nov '82
East (S) Feb '83
East (S) eMar '83
East (S) mMar '83
East (S) Apr '83
East (S) Jun '83
East (S) Jul '83
East (S) Oct '83
East (S) Feb '84
East (S) mMar '84
East (S) lMar '84
East (S) Oct '84
East (S) eNov '84
East (S) mNov '84

South Inlet Nov '82
South Inlet Feb '83
South Inlet eMar '83
South Inlet mMar '83
South Inlet Apr '83
South Inlet Jun '83
South Inlet Jul '83
South Inlet Oct '83
South Inlet Feb '84
South Inlet mMar '84
South Inlet lMar '84
South Inlet Jul '84
South Inlet Oct '84
South Inlet eNov '84
South Inlet mNov '84

West Inlet Nov '82
West Inlet Feb '83
West Inlet eMar '83
West Inlet mMar '83
West Inlet Apr '83
West Inlet Jun '83
West Inlet Jul '83
West Inlet Oct '83

EAGLE LAKE

West Inlet Feb '84
West Inlet mMar'84
West Inlet lMar'84
West Inlet Jul '84

Acid Neutralizing Capacity (ANC)

Aug '88 south sfc
Oct '89 north sfc
Oct '89 south sfc

Steve Kahl, UMO

"

"

Alkalinity

Sept '71
1982
Sept '86 core
Sept '84 .5m
lsum '90 core

Fish & Wildl. Svc.
Mitchell (1982)

DEP

DEP

DEP

Ammonia

Apr '80 sfc
Dec '81 sfc

Gerber (1982)

"

Chemical Oxygen Demand

Apr '80 sfc
Dec '81 sfc

Gerber (1982)

"

Chlorine

Apr '80 sfc
Dec '81 sfc

Gerber (1982)

"

Chlorophyll a

1981
Sep '81 core
Sep '84 core

Welch et al. (1981)

DEP

DEP

Coliform, Total

Fall '89-present
3X week at intake pipe

Bar Harbor Water Dept.

Coliform, Fecal

Jul '92 deep hole
Aug '92 deep hole, launch
Fall '89-present
3X week at intake pipe

Reeb (1992)

Reeb (1992)

Bar Harbor Water Dept.

EAGLE LAKE

Conductivity

Apr '80	sfc	Gerber (1982)
Dec '81	sfc	Gerber (1982)
Sept '84	sfc	DEP
Sept '86	core	DEP
Apr-Oct '87		Mack (1988)
lsum '90	core	DEP

Color

lsum '84	core	DEP
lsum '86	core	DEP
lsum '90	core	DEP
lsum '92	core	Reeb (1992)/DEP

Depth, Elev., S.A., Vol., Flushing Rate

1981		Welch (1981)
??		DEP

Dissolved Organic Carbon

Aug '88	south sfc	Steve Kahl, UMO
Oct '89	north sfc	"
Oct '89	south sfc	"

Dissolved Inorganic Carbon

Aug '88	south sfc	Steve Kahl, UMO
Oct '89	north sfc	"
Oct '89	south sfc	"

Dissolved Oxygen

Aug '42		Fuller and Cooper (1946)
Sep '71		Fish & Wildl. Svc.
Aug '81	2m intervals	DEP
Sep '81	2m intervals	DEP
Sep '84	1m intervals	DEP
Sep '86	1m intervals	DEP
May '88	1m intervals	DEP
May-Oct '87		Mack (1988)
lsum '90		DEP
1Aug '92	1m intervals	Reeb (1992)/DEP

Hardness

Apr '80	sfc	Gerber (1982)
Dec '81	sfc	Gerber (1982)

EAGLE LAKE

Iron

Apr '80	sfc	Gerber (1982)
Dec '81	sfc	Gerber (1982)

Nitrate

Apr '80	sfc	Gerber (1982)
Dec '81	sfc	Gerber (1982)

Nitrite

Apr '80	sfc	Gerber (1982)
Dec '81	sfc	Gerber (1982)

pH

1922-31		Myers (1931)
Aug '42		Fuller and Cooper (1946)
Sep '71		Fish & Wildl. Svc.
1981		Welch et al. (1981)
Sep '81	19m, core	DEP
1981		DEP
Sep '84	.5m	DEP
Sep '86	.5m	DEP
Apr-Oct '87		Mack (1988)

Phosphorous

Aug '42	sfc	Fuller and Cooper (1946)
lsum. 1971-73		DEP
lsum. 1981		DEP
1981		Welch et al. (1981)
Apr '80	sfc	Gerber (1982)
Dec '81	sfc	Gerber (1982)
lsum. '84	core	DEP
lsum. '86	core	DEP
lsum. '90	core	DEP
eJul '92	core	Reeb (1992)/DEP
lJul '92	core	"
lAug '92	core	"

Potassium

Apr '80	sfc	Gerber (1982)
Dec '81	sfc	Gerber (1982)

EAGLE LAKE

Secchi Disk Readings

1971	Welch et al. (1981)
1972	"
1973	"
1981	Welch et al. (1981)
Jun '81	DEP
Jul '81	DEP
Aug '81	DEP
Sep '81	DEP
May '83	DEP
Jun(2) '83	DEP
Jul '83	DEP
May '84	DEP
Jun '84	DEP
Jul '84	DEP
Aug '84	DEP
Sep(2) '84	DEP
Oct '84	DEP
Jun '85	DEP
Jul(2) '85	DEP
Aug(2) '85	DEP
Sep '85	DEP
Oct '85	DEP
Apr '86	DEP
Jul '86	DEP
Aug '86	DEP
Sep(3) '86	DEP
May '87	DEP
Jun(3) '87	DEP
Jul(4) '87	DEP
Aug '87	DEP
Sep '87	DEP
May(2) '88	DEP
Jun(2) '88	DEP
Jul(2) '88	DEP
Aug(2) '88	DEP
Sep(3) '88	DEP
Oct '88	DEP
May - Oct '89	DEP
May - Oct '90	DEP
Presently	
May-Oct	ANP/DEP

EAGLE LAKE

Sodium

Apr '80	sfc	Gerber (1982)
Dec '81	sfc	Gerber (1982)

Temperature

Aug '42		Fuller and Cooper (1946)
Sep '71		Fish & Wildl. Svc.
Aug '81	2m intervals	DEP
Sep '81	2m intervals	DEP
Sep '84	1m intervals	DEP
Sep '86	1m intervals	DEP
May '88	1m intervals	DEP
Apr-Oct '87		Mack (1988)
lsum '90		DEP
eJul '92	1m intervals	Reeb (1992)/DEP
lJul '92	1m intervals	"
lAug '92	1m intervals	"

TSI

1984	DEP
1985	DEP
1985	Dennis (1986)
1986	DEP
1987	DEP
1988	DEP

Total Dissolved Solids

Apr '80	sfc	Gerber (1982)
Dec '81	sfc	Gerber (1982)

ECHO LAKE

Acid Neutralizing Capacity (ANC)

Oct.	'86		Steve Kahl, UMO
Aug.	'88		"
Oct.	'89		"

Alkalinity

	1967		Lackey (1968)
Aug.	'75	Olday (1975)	
Jul.	'79	sfc	Norton et al. (1981)
Aug.	'81	17m, core	DEP
Oct.	'82	sfc	Kahl et al. (1985)
Nov.	'82	sfc	"
Apr.	'83	sfc	"
Jul.	'83	sfc, 18m	"
Oct.	'83	sfc	"
Jul.	'84	sfc, 18m	"
Sept.	'84	.5m, 17m	DEP
Sept.	'87	core	DEP
lsum	'90	core	DEP

Aluminum

Oct.	'89		Steve Kahl, UMO
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Ammonia Nitrogen

	1967		Lackey (1968)
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Calcium

	1967		Lackey (1968)
Jul.	'79	sfc	Norton et al. (1981)
Oct.	'82	sfc	Kahl et al. (1985)
Nov.	'82	sfc	"
Apr.	'83	sfc	"
Jul.	'83	sfc, 18m	"
Oct.	'83	sfc	"
Jul.	'84	sfc, 18m	"
Oct.	'89		Steve Kahl, UMO

Chlorine

	1967		Lackey (1968)
Aug.	'88		Steve Kahl, UMO
Oct.	'89		"

Chlorophyll a

summer	'76		Welch et al. (1981)
Nov	'76	sfc, core	DEP
summer	'77		Welch et al. (1981)
ls	'81		Welch et al. (1981)
Aug.	'81	core	DEP
Sept.	'84	core	DEP

Chlorophyll b

Nov.	'76	sfc	DEP
Jun.	'77		DEP

ECHO LAKE

Color

Jul.	'79	sfc	Norton et al. (1981)
	1981		Welch et al. (1981)
Aug.	'81	17m, core	DEP
Oct.	'82	sfc	Kahl et al. (1985)
Nov.	'82	sfc	"
Apr.	'83	sfc	"
Jul.	'83	sfc, 18m	"
Oct.	'83	sfc	"
Jul.	'84	sfc, 18m	"
Sept.	'84	.5m, 17m	DEP
Sept.	'87	core	DEP
lsum	'90	core	DEP
Aug.	'88		Steve Kahl, UMO
Oct.	'89		Steve Kahl, UMO
Aug.	'92	core	Reeb (1992)/DEP

Coliform, Fecal

Jul	'92	multiple lctions	Reeb (1992)
Aug	'92	multiple lctions	Reeb (1992)

Conductivity

Jul.	'79	sfc	Norton et al. (1981)
Aug.	'81	18m, core	DEP
Oct.	'82	sfc	Kahl et al. (1985)
Nov.	'82	sfc	"
Apr.	'83	sfc	"
Jul.	'83	sfc, 18m	"
Oct.	'83	sfc	"
Jul.	'84	sfc, 18m	"
Sept.	'87	core	DEP
lsum	'90	core	DEP
Aug.	'88		Steve Kahl, UMO
Oct.	'89		"

Depth, Elev, S.A., Vol., Flushing rate

1981	Welch et al (1981)
??	DEP

Dissolved Organic Carbon

Aug.	'88	Steve Kahl, UMO
Oct.	'89	"

Dissolved Inorganic Carbon

Aug.	'88	Steve Kahl, UMO
Oct.	'89	Steve Kahl, UMO

ECHO LAKE

Dissolved Oxygen

Aug	'42		Fuller and Cooper (1946)
	1950-52		Havey (1952)
	1967		Lackey (1968)
	1972		Speirs (1972)
Aug.	'75		Olday (1975)
Aug.	'81	1m intervals	DEP
Sept	'84	1m intervals	DEP
Sept.	'87	1m intervals	DEP
lsum	'90	1m intervals	DEP
eJuly	'92	2 locations	Reeb (1992)/DEP
lJuly	'92	2 locations	"
Laug	'92	2 locations	"

Hardness

1967	Lackey (1968)
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Magnesium

	1967		Lackey (1968)
Jul.	'79	sfc	Norton et al. (1981)
Oct.	'82	sfc	Kahl et al. (1985)
Nov.	'82	sfc	"
Apr.	'83	sfc	"
Jul.	'83	sfc, 18m	"
Oct.	'83	sfc	"
Jul.	'84	sfc, 18m	"
Oct.	'89		Steve Kahl, UMO

Nitrates

	1967		Lackey (1968)
Aug.	'88		Steve Kahl, UMO
Oct.	'89		Steve Kahl, UMO

Nitrites

	1967		Lackey (1968)
Aug.	'75		Olday (1975)
Oct.	'82	sfc	Kahl et al. (1985)
Nov.	'82	sfc	"
Apr.	'83	sfc	"
Jul.	'83	sfc, 18m	"
Oct.	'83	sfc	"
Jul.	'84	sfc, 18m	"

Ph

	1922-31		Myers (1931)
Aug	'42		Fuller and Cooper (1946)
Aug	'75		Olday (1975)
1981			Welch et al. (1981)
Aug.	'81	18m, core	DEP
Oct.	'82	sfc	Kahl et al. (1985)
Nov.	'82	sfc	"
Apr.	'83	sfc	"
Jul.	'83	sfc, 18m	"
Oct.	'83	sfc	"
Jul.	'84	sfc, 18m	"
Sept.	'84	1m, 17m	DEP

ECHO LAKE

pH cont.

lsum	'90	core	DEP
Oct.	'86	clph	Steve Kahl, UMO
Aug.	'88	clph, eqph	Steve Kahl, UMO
Oct.	'89	"	"

Phosphorous

Aug	'42		Fuller and Cooper (1946)
	1967		Lackey (1968)
Aug.	'75		Olday (1975)
lsum.	'81	bottom, core	Welch et al. (1981)
lsum.	'81	bottom, core	DEP
lsum.	'84	bottom, core	DEP
lsum	'87	bottom, core	DEP
lsum	'90	core	DEP
eJul	'92	2lcations, core	Reeb (1992)/DEP
lJul	'92	2lcations, core	Reeb (1992)/DEP
lAug	'92	2lcations, core	Reeb (1992)/DEP

Potassium

Jul.	'79	sfc	Norton et al. (1981)
Oct.	'98		Steve Kahl, UMO

Secchi Disk

Aug.	'75	Olday (1975)
Nov.	'76	DEP
Aug.	'77	DEP
Jul.	'79	Norton et al. (1981)
	1981	Welch et al. (1981)
May	'81	DEP
Jun.	'81	DEP
Jul.	'81	DEP
Aug(3)	'81	DEP
Jun.	'82	DEP
Jul (2)	'82	DEP
Sept.	'82	DEP
May(2)	'83	DEP
Jun(3)	'83	DEP
Jul(2)	'83	DEP
Aug	'83	DEP
Sept(2)	'83	DEP
Oct(2)	'83	DEP
Apr.	'84	DEP
May(3)	'84	DEP
Jun(3)	'84	DEP
Jul(3)	'84	DEP
Aug(2)	'84	DEP
Sept.(3)	'84	DEP
Oct.(3)	'84	DEP
Apr.(2)	'85	DEP
May(2)	'85	DEP
Jun(3)	'85	DEP
Jul(3)	'85	DEP

ECHO LAKE

Secchi disk cont.

Aug(2)	'85		DEP
Sept.(2)	'85		DEP
Oct.(2)	'85		DEP
Nov	'85		DEP
Apr.(2)	'86		DEP
May	'86		DEP
Jun	'86		DEP
Jul(3)	'86		DEP
Aug(3)	'86		DEP
Sept.(2)	'86		DEP
Oct	'86		DEP
May (2)	'87		DEP
Jun (4)	'87		DEP
Jul (2)	'87		DEP
Aug	'87		DEP
Sept(3)	'87		DEP
Oct	'87		DEP
Aug(2)	'88		DEP
Sept.	'88		DEP
Oct (2)	'88		DEP
Nov	'88		DEP
May - Oct	'89		DEP
May - Oct	'90		DEP
Jul(2)	'92	2lcations	Reeb (1992)/DEP
Aug	'92	2lcations	"
present			
May-Oct, bi-monthly			Volunteer ANP/DEP

Selected Metals Fe, Pb, Zn, Mn, Al, SiO₂, Cl

*Note: Not all test results for Al and SiO₂ are available on each date.
Re-Kahl et al. (1985)

	1968		Lackey (1968)
Jul.	'79	sfc	Norton et al. (1981)
Oct.	'82	sfc	Kahl et al. (1985)
Nov.	'82	sfc	"
Apr.	'83	sfc	"
Jul.	'83	sfc, 18m	"
Oct.	'83	sfc	"
Jul.	'84	sfc, 18m	"

Sodium

Jul.	'79	sfc	Norton et al. (1981)
Oct.	'82	sfc	Kahl et al. (1985)
Nov.	'82	sfc	"
Apr.	'83	sfc	"
Jul.	'83	sfc, 18m	"
Oct.	'83	sfc	"
Jul.	'84	sfc, 18m	"
Oct.	'89		Steve Kahl, UMO

ECHO LAKE

Sulfates

	1967		Lackey (1968)
Oct.	'82	sfc	Kahl et al. (1985)
Nov.	'82	sfc	"
Apr.	'83	sfc	"
Jul.	'83	sfc, 18m	"
Oct.	'83	sfc	"
Jul.	'84	sfc, 18m	"
Oct.	'89		Steve Kahl, UMO

Temperature

Aug	'42		Fuller and Cooper (1946)
1950-52			Havey (1952)
1967			Lackey (1968)
1972			Speirs (1972)
Aug.	'75		Olday (1975)
Aug.	'81	1m intervals	DEP
Sept	'84	1m intervals	DEP
Sept.	'87	1m intervals	DEP
lsum	'90		DEP
eJul	'92	2locations	Reeb (1992)/DEP
lJul	'92	2locations	"
lAug	'92	2locations	"

TSI

1983	DEP
1984	DEP
1985	DEP
1985	Dennis (1986)

HALFMOON POND

In October 1989, Steve Kahl (UMO), tested for the following on Round Pond:

Acid Neutralizing Capacity
Aluminum
Calcium
Chlorine
Color
Conductivity
Dissolved Organic Carbon
Dissolved Inorganic Carbon
Closed cell and equilibrated pH

Magnesium
Nitrates
Potassium
Sodium
Sulfate

ph

1922-31

Myers (1931)

HODGDON POND

Kahl et al. (1985) performed the following tests on Hodgdon Pond:
Color, Conductivity, pH, Alkalinity, Calcium, Magnesium, Potassium,
Sodium, Iron, Manganese, Zinc, total Al and labile Al, SiO₂, Sulfate,
Nitrate, and Chlorine.

The dates on which these tests were performed are as follows:

Oct '82	sfc
Nov '82	sfc
Apr '83	sfc
Jul '83	sfc
Oct '83	sfc
Jul '83	sfc

*NOTE: With the exception of labile Al and SiO₂, all tests were performed on each date.

Other monitoring on Hodgdon Pond includes:

Acid Neutralizing Capacity

Oct '89	Steve Kahl, UMO
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Alkalinity

1982	Mitchell (1982)
------	-----------------

Chlorophyll a

Sep '83	core	DEP
---------	------	-----

Color

Laug'92	core	Reeb (1992)/DEP
---------	------	-----------------

Coliform, Fecal

Jul '92	Reeb (1992)
---------	-------------

Dissolved Organic Carbon

Oct '89	Steve Kahl, UMO
---------	-----------------

Dissolved Inorganic Carbon

Oct '89	Steve Kahl, UMO
---------	-----------------

Dissolved Oxygen

Jul(2)'83	profile	DEP
Sep '83	profile	DEP
Aug '92	profile	Reeb (1992)/DEP

HODGDON POND

Phosphorous

1sum '83	core	DEP
Ejul'92	core	Reeb (1992)/DEP
1Jul'92	core	Reeb (1992)/DEP
1Aug'92	core	"

Secchi Disk

eJul'92		Reeb (1992)/DEP
1Jul'92		Reeb (1992)/DEP
1Aug'92		"

Temperature

eJul '92	profile	Reeb (1992)/DEP
1Jul '92	profile	Reeb (1992)/DEP
1Aug '92	profile	Reeb (1992)/DEP

JORDAN POND

Acid Neutralizing Capacity

Oct '86	south	Steve Kahl, UMO
Aug '88	south	"
Oct '89	north	"
Oct '89	south	"

Alkalinity

Aug '71		Fish & Wildl. Svc.
Jul '79	sfc	Norton et al. (1981)
Oct '82	sfc	Kahl et al. (1985)
Nov '82	sfc	"
Mar '83	core	DEP
Apr '83	sfc	Kahl et al. (1985)
Jul '83	sfc, 20m	"
Oct '83	sfc	"
Jul '84	sfc, 20m	"
Sep '87	core	DEP
lsum '90	core	DEP

Aluminum

Oct '89	north	Steve Kahl, UMO
Oct '89	south	Steve Kahl, UMO

Calcium

Jul '79	sfc	Norton et al. (1981)
Oct '82	sfc	Kahl et al. (1985)
Nov '82	sfc	"
Apr '83	sfc	Kahl et al. (1985)
Jul '83	sfc, 20m	"
Oct '83	sfc	"
Jul '84	sfc, 20m	"
Oct '89	north	Steve Kahl, UMO
Oct '89	south	Steve Kahl, UMO

Chloride

Aug '88	south	Steve Kahl, UMO
Oct '89	north	Steve Kahl, UMO
Oct '89	south	Steve Kahl, UMO

Chlorophyll a

1981		Welch et al. (1981)
Sep '81	core	DEP

JORDAN POND

Color

Jul '79	sfc	Norton et al. (1981)
1981		Welch et al. (1981)
Oct '82	sfc	Kahl et al. (1985)
Nov '82	sfc	"
Apr '83	sfc	"
Jul '83	sfc, 20m	"
Oct '83	sfc	"
Jul '84	sfc, 20m	"
Mar '83	core	DEP
Sep '87	core	DEP
lsum '90	core	DEP
Aug '88	south	Steve Kahl, UMO
Oct '89	north	Steve Kahl, UMO
Oct '89	south	Steve Kahl, UMO
Aug '92	core	Reeb (1992)/DEP

Conductivity

Aug '71		Fish & Wildl. Svc.
Jul '79	sfc	Norton et al. (1981)
Oct '82	sfc	Kahl et al. (1985)
Nov '82	sfc	"
Apr '83	sfc	Kahl et al. (1985)
Jul '83	sfc, 20m	"
Oct '83	sfc	"
Jul '84	sfc, 20m	"
Mar '83	core	DEP
Sep '87	core	DEP
Aug '88	south	Steve Kahl, UMO
Oct '89	north	Steve Kahl, UMO
Oct '89	south	Steve Kahl, UMO
lsum '90	core	DEP

Depth, Elev., S.A., Vol., Flushing Rate

1981		Welch et al. (1981)
??		DEP

Dissolved Organic Carbon

Aug '88	south	Steve Kahl, UMO
Oct '89	north	Steve Kahl, UMO
Oct '89	south	Steve Kahl, UMO

Dissolved Inorganic Carbon

Aug '88	south	Steve Kahl, UMO
Oct '89	north	Steve Kahl, UMO
Oct '89	south	Steve Kahl, UMO

JORDAN POND

Dissolved Oxygen

Aug '42		Fuller and Cooper (1946)
Aug '71		Fish & Wildl. Svc.
Sep '81	2m intervals	DEP
Mar '87	5m intervals	DEP
Sep '87	1m intervals	DEP
lsum'90		DEP
1Aug'92	1m intervals	Reeb (1992)/DEP

Magnesium

Jul '79	sfc	Norton et al. (1981)
Oct '82	sfc	Kahl et al. (1985)
Nov '82	sfc	"
Apr '83	sfc	"
Jul '83	sfc, 20m	"
Oct '83	sfc	"
Jul '84	sfc, 20m	"
Oct '89	north	Steve Kahl, UMO
Oct '89	south	"

Nitrate

Oct '89	north	Steve Kahl, UMO
Oct '89	south	"

pH

1922-31		Myers (1931)
Aug '42		Fuller and Cooper (1946)
Aug '71		Fish & Wildl. Svc.
1981		Welch et al. (1981)
Sep '81	19.5m, core	DEP
Mar '83	10m	DEP
Oct '82	sfc	Kahl et al. (1985)
Nov '82	sfc	"
Apr '83	sfc	"
Jul '83	sfc, 20m	"
Oct '83	sfc	"
Jul '84	sfc, 20m	"
Oct '86	south, clph	Steve Kahl, UMO
Aug '88	south, clph, eqph	"
Oct '89	north, clph, eqph	"
Oct '89	south, clph, eqph	"
lsum'90	core	DEP

JORDAN POND

Phosphorous

Aug '42	sfc	Fuller and Cooper (1946)
1981		Welch et al. (1981)
lsum '81	bottom, core	DEP
lsum '87	bottom, core	DEP
lsum '90	core	DEP
eJul '92	core	Reeb (1992)/DEP
lJul '92	core	Reeb (1992)/DEP
lAug '92	core	"

Photometer Reading

??

DEP

Potassium

Jul '79	sfc	Norton et al. (1981)
Oct '82	sfc	Kahl et al. (1985)
Nov '82	sfc	"
Apr '83	sfc	"
Jul '83	sfc, 20m	"
Oct '83	sfc	"
Jul '84	sfc, 20m	"
Oct '89	north	Steve Kahl, UMO
Oct '89	south	Steve Kahl, UMO

Secchi Disk Readings

Jul '79	Norton et al. (1981)
1981	Welch et al. (1981)
Jun '81	DEP
Jul '81	DEP
Sep '81	DEP
Mar '83	DEP
May '83	DEP
Jun(2) '83	DEP
Jul '83	DEP
May '84	DEP
Jun '84	DEP
Jul '84	DEP
Aug '84	DEP
Sep '84	DEP
Oct '84	DEP
Jun '85	DEP
Jul(2) '85	DEP
Aug(2) '85	DEP
Sep '85	DEP
Oct '85	DEP

JORDAN POND

Secchi Disk cont.

Jul '86	DEP
Aug '86	DEP
Sep(2) '86	DEP
Mar '87	DEP
May '87	DEP
Jun(2) '87	DEP
Jul(4) '87	DEP
Aug '87	DEP
Sep '87	DEP
May(2) '88	DEP
Jun '88	DEP
Jul(2) '88	DEP
Aug(2) '88	DEP
Sep(2) '88	DEP
Oct '88	DEP
May - Oct '89	DEP
May - Oct '90	DEP
eJul	Reeb (1992)/DEP
lJul	Reeb (1992)/DEP
lAug	"
Present	ANP/DEP
May-Oct bi-monthly	

Selected Metals Fe, Pb, Zn, Mn, Al, SiO₂, Cl

*Note: Al and SiO₂ tests are not available for each date.
Re: Kahl et al. (1985)

Jul '79	sfc	Norton et al. (1981)
Oct '82	sfc	Kahl et al. (1985)
Nov '82	sfc	"
Apr '83	sfc	"
Jul '83	sfc, 20m	"
Oct '83	sfc	"
Jul '84	sfc, 20m	"

Sodium

Jul '79	sfc	Norton et al. (1981)
Oct '82	sfc	Kahl et al. (1985)
Nov '82	sfc	"
Apr '83	sfc	"
Jul '83	sfc, 20m	"
Oct '83	sfc	"
Jul '84	sfc, 20m	"
Oct '89	north	Steve Kahl, UMO
Oct '89	south	Steve Kahl, UMO

JORDAN POND

Sulfate

Oct '89
Oct '89

north
south

Steve Kahl, UMO
Steve Kahl, UMO

Temperature

Aug '42
Aug '71
Sep '81
Mar '87
Sep '87
lsum'90
eJul
lJul
lAug

2m intervals
5m intervals
1m intervals

1m intervals
1m intervals
1m intervals

Fuller and Cooper (1946)
Fish & Wildl. Svc.
DEP
DEP
DEP
DEP
Reeb (1992)/DEP
Reeb (1992)/DEP
"

TSI

1985

Dennis (1986)

LAKE WOOD

Kahl et al. (1985) performed the following tests on Lake Wood:
Color, Conductivity, pH, Alkalinity, Calcium, Magnesium, Potassium,
Sodium, Iron, Manganese, Zinc, total Al and labile Al, SiO₂, Sulfate,
Nitrate, and Chlorine.

*Note: Al and SiO₂ tests are not available for each date.

The dates on which these tests were performed are as follows:

Oct '82	sfc
Nov '82	sfc
Apr '83	sfc
Jul '83	sfc, 5m
Oct '83	sfc
Jul '84	sfc
Aug '88	
Oct '89	

Other monitoring on Lake Wood includes:

Acid Neutralizing Capacity

Aug '88	Steve Kahl, UMO
Oct '89	"

Chlorophyll a

Aug '92	core	Reeb (1992)/DEP
---------	------	-----------------

Color

1Aug'92	core	Reeb (1992)/DEP
---------	------	-----------------

Coliform, Fecal

Jul '92		Reeb (1992)
Aug '92	deep hole, beach	Reeb (1992)

Dissolved Organic Carbon

Aug '88	Steve Kahl, UMO
Oct '89	"

Dissolved Inorganic Carbon

Aug '88	Steve Kahl, UMO
Oct '89	"

Dissolved Oxygen

Aug '92	profile	Reeb (1992)/DEP
---------	---------	-----------------

LAKE WOOD

pH

1922-31

Myers (1931)

Phosphorous

eJul '92
1Jul '92
1Aug '92

core
core
core

Reeb (1992)/DEP
Reeb (1992)/DEP
"

Secchi Disk

eJul '92
1Jul '92
1Aug '92

Reeb (1992)/DEP
Reeb (1992)/DEP
"

Temperature

eJul '92
1Jul '92
1Aug '92

profile
profile
profile

Reeb (1992)/DEP
Reeb (1992)/DEP
Reeb (1992)/DEP

LITTLE LONG POND

In October 1989, Steve Kahl (UMO), tested for the following on Little Long Pond:

Acid Neutralizing Capacity	Magnesium
Aluminum	Nitrates
Calcium	Potassium
Chlorine	Sodium
Color	Sulfate
Conductivity	
Dissolved Organic Carbon	
Dissolved Inorganic Carbon	
Closed cell and equilibrated pH	

Fecal Coliform

1Jul '92	3 locations	Reeb (1992)
1Aug '92	3 locations	Reeb (1992)

Phosphorous

1Jul '92	grab	Reeb (1992)/DEP
1Aug '92	grab	Reeb (1992)/DEP

Salinity

1Jul '92	3 locations, hi/lo tide	Reeb (1992)/DEP
1Aug '92	3 locations, hi/lo tide	Reeb (1992)/DEP

Temperature

1Jul '92	3 locations, sfc	Reeb (1992)/DEP
1Aug '92	3 locations, sfc	Reeb (1992)/DEP

LONG POND

Acid Neutralizing Capacity

Oct	'86	north	Steve Kahl, UMO
Aug	'88	north	"
Oct	'89	north	"
Oct	'89	south	"

Alkalinity

Aug	'75		Olday (1975)
Jul	'79		Norton et al. (1981)
Aug	'81	30m, core	DEP
Oct	'82	North, sfc	Kahl et al. (1985)
Nov	'82	North, sfc	"
Apr	'83	North, sfc	"
Jul	'83	North, sfc	"
Oct	'83	North, sfc	"
Jul	'84	North, sfc	"
Oct	'82	South, sfc	"
Nov	'82	South, sfc	"
Apr	'83	South, sfc	"
Jul	'83	South, sfc, 15m	"
Oct	'83	South, sfc	"
Jul	'84	South, sfc, 15m	"
Sep	'84	.5, 23m	DEP
Sep	'87	core	DEP
lsum	'90	core	DEP

Aluminum

Oct	'89	north	Steve Kahl, UMO
Oct	'89	south	"

Ammonia

Apr	'80	sfc	Gerber (1982)
Dec	'81	sfc	Gerber (1982)
1985		sfc	"

Calcium

Jul	'79	sfc	Norton et al. (1981)
Oct	'82	North, sfc	Kahl et al. (1985)
Nov	'82	North, sfc	"
Apr	'83	North, sfc	"
Jul	'83	North, sfc	"
Oct	'83	North, sfc	"
Jul	'84	North, sfc	"
Oct	'82	South, sfc	"
Nov	'82	South, sfc	"
Apr	'83	South, sfc	"
Jul	'83	South, sfc, 15m	"
Oct	'83	South, sfc	"
Jul	'84	South, sfc, 15m	"
Oct	'89	north	Steve Kahl, UMO
Oct	'89	south	"

LONG POND

Chemical Oxygen Demand

Apr '80	South, sfc	Gerber (1982)
Dec '81	South, sfc	Gerber (1982)
1985	South, sfc	Gerber (1982)

Chloride

Apr '80	South, sfc	Gerber (1982)
Dec '81	South, sfc	Gerber (1982)
1985	South, sfc	Gerber (1982)

Chlorine

Oct '82	North, sfc	Kahl et al. (1985)
Nov '82	North, sfc	"
Apr '83	North, sfc	"
Jul '83	North, sfc	"
Oct '83	North, sfc	"
Jul '84	North, sfc	"
Oct '82	South, sfc	"
Nov '82	South, sfc	"
Apr '83	South, sfc	"
Jul '83	South, sfc, 15m	"
Oct '83	South, sfc	"
Jul '84	South, sfc, 15m	"
Aug '88	North	Steve Kahl, UMO
Oct '89	North	Steve Kahl, UMO
Oct '89	South	"

Daily intake pipe SW Harbor Water Dep.

Chlorophyll a

1981	South	Welch et al. (1981)
Aug '81	core	DEP
Sep '84	core	DEP

Chlorophyll b

Aug '81	core	DEP
Sep '84	core	DEP

Color

1981	South	Welch et al. (1981)
Aug '81		DEP
Oct '82	North, sfc	Kahl et al. (1985)
Nov '82	North, sfc	"
Apr '83	North, sfc	"
Jul '83	North, sfc	"
Oct '83	North, sfc	"
Jul '84	North, sfc	"
Oct '82	South, sfc	"

LONG POND

Color cont.

Nov '82	South, sfc	"
Apr '83	South, sfc	"
Jul '83	South, sfc, 15m	"
Oct '83	South, sfc	"
Jul '84	South, sfc, 15m	"
Sep '84		DEP
lsum '87		DEP
Aug '88	North	Steve Kahl, UMO
Oct '89	North	"
Oct '89	South	"
lsum '90		DEP
laug '92	South, core	Reeb (1992)/DEP

Coliform, Total

Aug '75	14 stations Olday (1975)
1991-present bi-weekly	intake pipe SW Harbor Water Dep.

Coliform, Fecal

1991-present bi-weekly	intake pipe SW Harbor Water Dep.
Jul '92	2 shoreline
Aug '92	surveys
	Reeb (1992)
	north end

Fecal streptococci

Aug '75	14 stations Olday (1975)
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Conductivity

Jul '79	South	Norton et al. (1981)
Apr '80	South	Gerber (1982)
Dec '81	South, sfc	Gerber (1982)
Aug '81	33m, core	DEP
Oct '82	North, sfc	Kahl et al. (1985)
Nov '82	North, sfc	"
Apr '83	North, sfc	"
Jul '83	North, sfc	"
Oct '83	North, sfc	"
Jul '84	North, sfc	"
Oct '82	South, sfc	"
Nov '82	South, sfc	"
Apr '83	South, sfc	"
Jul '83	South, sfc, 15m	"
Oct '83	South, sfc	"
Jul '84	South, sfc, 15m	"

LONG POND

Conductivity cont.

1985	South, sfc	Gerber (1982)
Sep '87	core	DEP
Apr-Oct '87		Mack (1988)
Aug '88	North	Steve Kahl, UMO
Oct '89	North	"
Oct '89	South	"
lsum '90		DEP

Depth, Elev., S.A., Vol., Flushing Rate

1981	Welch (1981)
??	DEP

Dissolved Organic Carbon

Aug '88	North	Steve Kahl, UMO
Oct '89	North	"
Oct '89	South	"

Dissolved Inorganic Carbon

Aug '88	North	Steve Kahl, UMO
Oct '89	North	"
Oct '89	South	"

Dissolved Oxygen

Aug '42		Fuller and Cooper (1946)
Aug '50		Havey (1958)
Aug '51		Havey (1952)
Aug '52		"
Aug '75		Olday (1975)
Aug '81	2m intervals	DEP
Sep '84	1m intervals	DEP
Sep '87	1m intervals	DEP
1Aug'92	1m intervals	Reeb (1992)/DEP

Fluoride

Daily	intake pipe SW Harbor Water Dep.
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Hardness

Apr '80	South, sfc	Gerber (1982)
Dec '81	South, sfc	Gerber (1982)
1985	South, sfc	Gerber (1982)

LONG POND

Magnesium

Jul '79	sfc	Norton et al. (1981)
Oct '82	North, sfc	Kahl et al. (1985)
Nov '82	North, sfc	"
Apr '83	North, sfc	"
Jul '83	North, sfc	"
Oct '83	North, sfc	"
Jul '84	North, sfc	"
Oct '82	South, sfc	"
Nov '82	South, sfc	"
Apr '83	South, sfc	"
Jul '83	South, sfc, 15m	"
Oct '83	South, sfc	"
Jul '84	South, sfc, 15m	"
Oct '89	North	Steve Kahl, UMO
Oct '89	South	Steve Kahl, UMO

Nitrate

Apr '80	South, sfc	Gerber (1982)
Dec '81	South, sfc	Gerber (1982)
1985	South, sfc	Gerber (1982)
Aug '88	North	Steve Kahl, UMO
Oct '89	North	Steve Kahl, UMO
Oct '89	South	Steve Kahl, UMO

Nitrite

Apr '80	South, sfc	Gerber (1982)
Dec '81	South, sfc	Gerber (1982)
1985	South, sfc	Gerber (1982)
Oct '82	North, sfc	Kahl et al. (1985)
Nov '82	North, sfc	"
Apr '83	North, sfc	"
Jul '83	North, sfc	"
Oct '83	North, sfc	"
Jul '84	North, sfc	"
Oct '82	South, sfc	"
Nov '82	South, sfc	"
Apr '83	South, sfc	"
Jul '83	South, sfc, 15m	"
Oct '83	South, sfc	"
Jul '84	South, sfc, 15m	"

Nitrogen

Aug '75		Olday (1975)
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LONG POND

pH

1922-31		Myers (1931)
Aug '42		Fuller and Cooper (1946)
Aug '75		Olday (1975)
1981		Welch (1981)
Aug '81	South	DEP
Oct '82	33m, core	Kahl et al. (1985)
Nov '82	North, sfc	"
Apr '83	North, sfc	"
Jul '83	North, sfc	"
Oct '83	North, sfc	"
Jul '84	North, sfc	"
Oct '82	South, sfc	"
Nov '82	South, sfc	"
Apr '83	South, sfc	"
Jul '83	South, sfc, 15m	"
Oct '83	South, sfc	"
Jul '84	South, sfc, 15m	"
Sep '84	.5m, 25m, core	DEP
Oct '86	N, clph	Steve Kahl, UMO
Sep '87	.5m, 29m	DEP
Apr-Oct '87		Mack (1988)
Aug '88	N, clph, eqph	Steve Kahl, UMO
Oct '89	N, clph, eqph	"
Oct '89	S, clph, eqph	"
lsum '90		DEP

Phosphorous

Aug '42	sfc	Fuller and Cooper (1946)
Aug '75		Olday (1975)
1981	bottom, core	Welch et al. (1981)
Apr '80	South, sfc	Gerber (1982)
Dec '81	South, sfc	Gerber (1982)
Aug '81	bottom, core	DEP
Sep '84	bottom, core	DEP
1985	South, sfc	Gerber (1982)
eJul '92	4 locations	Reeb (1992)/DEP
lJul '92	4 locations	Reeb (1992)/DEP
lAug '92	2 locations	"
Daily since 1991	intake pipe	SW Harbor Water Dep.

Potassium

Jul '79	sfc	Norton et al. (1981)
Oct '82	North, sfc	Kahl et al. (1985)
Nov '82	North, sfc	"
Apr '83	North, sfc	"
Jul '83	North, sfc	"
Oct '83	North, sfc	"
Jul '84	North, sfc	"
Oct '82	South, sfc	"
Nov '82	South, sfc	"

LONG POND

Potassium cont.

Apr '83	South, sfc	Kahl et al. (1985)
Jul '83	South, sfc, 15m	"
Oct '83	South, sfc	"
Jul '84	South, sfc, 15m	"
Oct '89	North	Steve Kahl, UMO
Oct '89	South	"

Secchi Disk Readings

Aug '75		Olday (1975)
1977	South	Welch et al. (1981)
Jun '77		DEP
Jul(2) '77		DEP
Aug(2) '77		DEP
Sep(2) '77		DEP
Oct(2) '77		DEP
Jul '79	south	Norton et al. (1981)
Jun '80		DEP
Jul(2) '80		DEP
Aug(2) '80		DEP
Sep '80		DEP
Oct(2) '80		DEP
Nov(2) '80		DEP
1980	South	Welch et al. (1981)
1981	South	Welch et al. (1981)
Jun '81		DEP
Jul '81		DEP
Aug(2) '81		DEP
Jun '82		DEP
Jul(2) '82		DEP
Sep '82		DEP
May '83		DEP
Jun(2) '83		DEP
Jul '83		DEP
May(3) '84		DEP
Jun(3) '84		DEP
Jul(2) '84		DEP
Aug(2) '84		DEP
Sep(2) '84		DEP
Oct '84		DEP
Jun(2) '85		DEP
Jul '85		DEP
Aug(2) '85		DEP
Sep '85		DEP
Oct '85		DEP

LONG POND

Secchi Disk Reading Cont.

Jul '86	DEP
Aug(2) '86	DEP
Sep '86	DEP
May '87	DEP
Jul(4) '87	DEP
Aug(2) '87	DEP
Sep '87	DEP
May(2) '88	DEP
Jun(2) '88	DEP
Jul(2) '88	DEP
Aug(3) '88	DEP
Sep(2) '88	DEP
Oct '88	DEP
May - Oct '89	DEP
May - Oct '90	DEP
Jul(2) '92	Reeb (1992)/DEP
Aug '92	Reeb (1992)/DEP
Present	
May -Oct, bi-monthly	ANP/DEP

*NOTE: Some Secchi Disk DEP readings are available for basin #2, beginning in May 1980 through Aug 1981.

Selected Metals Fe, Pb, Zn, Mn, Al, SiO2, Cl

*Note: Al and SiO2 tests are not available for each date.
Re: Kahl et al. (1985).

Jul '79	sfc	Norton et al. (1981)
Oct '82	North,sfc	Kahl et al. (1985)
Nov '82	North,sfc	"
Apr '83	North,sfc	"
Jul '83	North,sfc	"
Oct '83	North,sfc	"
Jul '84	North,sfc	"
Oct '82	South,sfc	"
Nov '82	South,sfc	"
Apr '83	South,sfc	"
Jul '83	South,sfc,15m	"
Oct '83	South,sfc	"
Jul '84	South,sfc,15m	"

LONG POND

Sodium

Jul '79	sfc	Norton et al. (1981)
Oct '82	North, sfc	Kahl et al. (1985)
Nov '82	North, sfc	"
Apr '83	North, sfc	"
Jul '83	North, sfc	"
Oct '83	North, sfc	"
Jul '84	North, sfc	"
Oct '82	South, sfc	"
Nov '82	South, sfc	"
Apr '83	South, sfc	"
Jul '83	South, sfc, 15m	"
Oct '83	South, sfc	"
Jul '84	South, sfc, 15m	"
Oct '89	North	Steve Kahl, UMO
Oct '89	South	"

Sulfate

Oct '89	North	Steve Kahl, UMO
Oct '89	South	"

Temperature

Aug '42		Fuller and Cooper (1946)
Aug '50		Havey (1958)
Aug '51		Havey (1952)
Aug '52		"
Aug '75		Olday (1975)
Aug '81	2m intervals	DEP
Sep '84	1m intervals	DEP
Sep '87	1m intervals	DEP
Apr-Oct '87		Mack (1988)
eJul '92	1m intervals	Reeb (1992)/DEP
1Jul '92	1m intervals	Reeb (1992)/DEP
1Aug '92	1m intervals	"
present		
bi-monthly		ANP/DEP

TSI

1977	South	Welch et al. (1981)
1980	South	"
1985		Dennis (1986)
1984-85		DEP

Total Dissolved Solids

Apr '80	South, sfc	Gerber (1982)
Dec '81	South, sfc	Gerber (1982)
1985	South, sfc	Gerber (1982)

Water level changes

1980		Coastal Study Project
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LOWER HADLOCK POND

Kahl et al (1985) performed the following tests on Lower Hadlock Pond: color, Ca, Mg, K, Na, Fe, Mn, Zn, total Al, labile Al, SiO₂, SO₄, NO₃, CL.

The dates on which these tests were taken include:

Oct '82	sfc
Nov '82	sfc
Feb '83	sfc, 8m
mMar'83	sfc, 8m
Apr '83	sfc
Jun '83	sfc, 8m
Jul '83	sfc, 8m
Oct '83	sfc
Feb '84	sfc
mMar'84	sfc
lMar'84	sfc
Apr '84	sfc, 8m
Jul '84	sfc, 8m
Aug '88	(Steve Kahl, UMO pers comm)
Oct '89	"

Acid Neutralizing Capacity (ANC)

Aug '88	Steve Kahl, UMO
Oct '89	"

Alkalinity

Oct '82	sfc	Kahl et al. (1985)
Nov '82	sfc	"
Feb '83	sfc, 8m	"
mMar'83	sfc, 8m	"
Apr '83	sfc	"
Jun '83	sfc, 8m	"
Jul '83	sfc, 8m	"
Oct '83	sfc	"
Feb '84	sfc	"
mMar'84	sfc	"
lMar'84	sfc	"
Apr '84	sfc, 8m	"
Jul '84	sfc, 8m	"

Color

lAug'92	core	Reeb (1992)/DEP
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Coliform, Fecal

Jul '92		Reeb (1992)
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LOWER HADLOCK POND

Conductivity

Jul '72
Aug '88
Oct '89

Fish & Wildl. Svc.
Steve Kahl, UMO
"

Dissolved Organic Carbon

Aug '88
Oct '89

Steve Kahl, UMO
"

Dissolved Inorganic Carbon

Aug '88
Oct '89

Steve Kahl, UMO
"

Dissolved Oxygen

Jul '72
1Aug'92

Fish & Wildl. Svc.
Reeb (1992)/DEP

pH

Jul '72
Oct '82 sfc
Nov '82 sfc
Feb '83 sfc, 8m
mMar'83 sfc, 8m
Apr '83 sfc
Jun '83 sfc, 8m
Jul '83 sfc, 8m
Oct '83 sfc
Feb '84 sfc
mMar'84 sfc
1Mar'84 sfc
Apr '84 sfc, 8m
Jul '84 sfc, 8m
Aug '88 clph, eqph
Oct '89 clph, eqph

Fish & Wildl. Svc.
Kahl et al. (1985)
"
"
"
"
"
"
"
"
"
"
"
"
"
"
"
"
Steve Kahl, UMO
"

Phosphorous

eJul'92 core
1Jul'92 core
1Aug'92 core

Reeb (1992)/DEP
Reeb (1992)/DEP
"

Secchi Disk

eJul'92
1Jul'92
1Aug'92

Reeb (1992)/DEP
Reeb (1992)/DEP
"

Temperature

Jul '72
eJul '92 profile
1Jul '92 profile
1Aug '92 profile

Fish & Wildl. Svc.
Reeb (1992)/DEP
Reeb (1992)/DEP
Reeb (1992)/DEP

RESERVOIR

Alkalinity
1982

Mitchell (1982)

pH

1931
1982

Myers (1931)
Mitchell (1982)

Temperature
1982

Mitchell (1982)

***** RIPPLE POND *****

ph

1922-31

Myers (1931)

***** ROUND POND *****

In October 1989, Steve Kahl (UMO), tested for the following on Round Pond:

Acid Neutralizing Capacity
Aluminum
Calcium
Chlorine
Color
Conductivity
Dissolved Organic Carbon
Dissolved Inorganic Carbon
Closed cell and equilibrated pH

Magnesium
Nitrates
Potassium
Sodium
Sulfate

Alkalinity
1982

Mitchell (1982)

pH

1922-31
1982

Myers (1931)
Mitchell (1982)

Temperature
1982

Mitchell (1982)

SARGENT MOUNTAIN POND

In October of 1989, Steve Kahl (UMO), tested for the following on Sargent Mountain Pond:

Acid Neutralizing Capacity	Magnesium
Aluminum	Nitrates
Calcium	Potassium
Chlorine	Sodium
Color	Sulfate
Conductivity	
Dissolved Organic Carbon	
Dissolved Inorganic Carbon	
Closed cell and equilibrated pH	

Conductivity

Apr '87	Mack & Gibbs (1989)
May '87	"
Jun '87	"
Jul '87	"
Aug '87	"
Sep '87	"
Oct '87	"

pH

Apr '87	Mack & Gibbs (1989)
May '87	"
Jun '87	"
Jul '87	"
Aug '87	"
Sep '87	"
Oct '87	"

Temperature

Apr '87	Mack & Gibbs (1989)
May '87	"
Jun '87	"
Jul '87	"
Aug '87	"
Sep '87	"
Oct '87	"

SEAL COVE POND

Acid Neutralizing Capacity

Oct '89

Steve Kahl, UMO

Alkalinity

Aug '70
Jul '70
Sep '78 sfc
Aug '81 10m, core
Oct '82 sfc
Nov '82 sfc
Apr '83 sfc
Jul '83 sfc, 5m
Oct '83 sfc
Jul '84 sfc
Sep '85 core
lsum '90 core

Fish & Wildl. Svc.
Fish & Wildl. Svc.
Norton et al. (1981)
DEP
Kahl et al. (1985)
"
"
"
"
"
DEP
DEP

Aluminum

Oct '89

Steve Kahl, UMO

Calcium

Sep '78 sfc
Oct '82 sfc
Nov '82 sfc
Apr '83 sfc
Jul '83 sfc, 5m
Oct '83 sfc
Jul '84 sfc
Sep '85 core
Oct '89

Norton et al. (1981)
Kahl et al. (1985)
"
"
"
"
"
DEP
Steve Kahl, UMO

Chlorine

Aug '88
Oct '89

Steve Kahl, UMO
"

Chlorophyll a

1981
Aug '81 core
lsum '89 core

Welch et al. (1981)
DEP
DEP

Color

Sep '78 sfc
1981
Aug '81 10m, core
Oct '82 sfc
Nov '82 sfc
Apr '83 sfc
Jul '83 sfc, 5m
Oct '83 sfc
Jul '84 sfc
Sep '85 core
Oct '89
lsum '90
lAug '92 core

Norton et al. (1981)
Welch et al. (1981)
DEP
Kahl et al. (1985)
"
"
"
"
"
DEP
Steve Kahl, UMO
DEP
Reeb (1992)/DEP

SEAL COVE POND

Coliform, Fecal

Jul '92

Reeb (1992)

Conductivity

Jul '78
 Sep '78 sfc
 Aug '81 10m, core
 Oct '82 sfc
 Nov '82 sfc
 Apr '83 sfc
 Jul '83 sfc, 5m
 Oct '83 sfc
 Jul '84 sfc
 Sep '85 core
 Oct '89
 lsum '90

Fish & Wildl. Svc.
 Norton et al. (1981)
 DEP
 Kahl et al. (1985)
 "
 "
 "
 "
 "
 DEP
 Steve Kahl, UMO
 DEP

Depth, Elev., S.A., Vol., Flushing Rate

1981
 ??

Welch et al. (1981)
 DEP

Dissolved Organic Carbon

Aug '88
 Oct '89

Steve Kahl, UMO
 "

Dissolved Inorganic Carbon

Oct '89

Steve Kahl, UMO

Dissolved Oxygen

Aug '42
 Aug '70
 Jul '78
 Aug '81 1m intervals
 Sep '85 2m intervals
 Jul '90
 lsum '90
 Jul '91
 Aug '92 1m intervals

Fuller and Cooper (1946)
 Fish & Wildl. Svc.
 Fish & Wildl. Svc.
 DEP
 DEP
 Fish & Wildl. Svc.
 DEP
 Fish & Wildl. Svc.
 Reeb (1992)/DEP

Magnesium

Sep '78 sfc
 Oct '82 sfc
 Nov '82 sfc
 Apr '83 sfc
 Jul '83 sfc, 5m
 Oct '83 sfc
 Jul '84 sfc
 Oct '89

Norton et al. (1981)
 Kahl et al. (1985)
 "
 "
 "
 "
 "
 "
 Steve Kahl, UMO

Nitrate

Aug '88
 Oct '89

Steve Kahl, UMO
 Steve Kahl, UMO

SEAL COVE POND

pH

Aug '42		Fuller and Cooper (1946)
Aug '70		Fish & Wildl. Svc.
Jul '78		Fish & Wildl. Svc.
1981		Welch et al. (1981)
Aug '81	10m, core	DEP
Sep '85	core	DEP
Oct '82	sfc	Kahl et al. (1985)
Nov '82	sfc	"
Apr '83	sfc	"
Jul '83	sfc, 5m	"
Oct '83	sfc	"
Jul '84	sfc	"
Sep '85	core	DEP
Aug '88	clph, eqph	Steve Kahl, UMO
Oct '89	"	"
lsum '90		DEP

Phosphorous

Aug '42	sfc	Fuller and Cooper (1946)
1981		Welch et al. (1981)
Aug '81	10m, core	DEP
Sep '85	core	DEP
lsum '90		DEP
eJul '92	core	Reeb (1992)/DEP
lJul '92	core	"
lAug '92	core	"

Potassium

Sep '78	sfc	Norton et al. (1981)
Oct '82	sfc	Kahl et al. (1985)
Nov '82	sfc	"
Apr '83	sfc	"
Jul '83	sfc, 5m	"
Oct '83	sfc	"
Jul '84	sfc	"
Oct '89		Steve Kahl, UMO

Secchi Disk Readings

Sep '78		Norton et al. (1981)
1981		Welch et al. (1981)
Jun(2) '81		DEP
Jul '81		DEP
Aug(3) '81		DEP
Jul '82		DEP
Sep '82		DEP
May '83		DEP
Jun '83		DEP
Jul '83		DEP
May '84		DEP
Jun '84		DEP
Jul '84		DEP
Aug '84		DEP
Sep '84		DEP
Oct '84		DEP

SEAL COVE POND

Secchi Disk Reading Cont.

Jun(2) '85	DEP
Jul '85	DEP
Aug '85	DEP
Sep(2) '85	DEP
Oct '85	DEP
Jul '86	DEP
Aug(2) '86	DEP
Sep '86	DEP
Jun '87	DEP
Jul(4) '87	DEP
Aug(2) '87	DEP
May(2) '88	DEP
Jun(2) '88	DEP
Jul(2) '88	DEP
Aug(3) '88	DEP
Sep(2) '88	DEP
Oct '88	DEP
Oct - May '89	DEP
Oct - May '90	DEP
Jul(2) '92	Reeb (1992)/DEP
Aug '92	Reeb (1992)/DEP
present	
May-Oct, bi-monthly	ANP/DEP

Selected Metals Fe, Pb, Zn, Mn, Al, SiO₂, Cl

*Note: Tests for Al and SiO₂ are not available for each date.
Re: Kahl et al. (1985).

Sep '78	sfc	Norton et al. (1981)
Oct '82	sfc	Kahl et al. (1985)
Nov '82	sfc	"
Apr '83	sfc	"
Jul '83	sfc, 5m	"
Oct '83	sfc	"
Jul '84	sfc	"

Sodium

Sep '78	sfc	Norton et al. (1981)
Oct '82	sfc	Kahl et al. (1985)
Nov '82	sfc	"
Apr '83	sfc	"
Jul '83	sfc, 5m	"
Oct '83	sfc	"
Jul '84	sfc	"
Oct '89		Steve Kahl, UMO

Sulfate

Aug '88	Steve Kahl, UMO
Oct '89	Steve Kahl, UMO

SEAL COVE POND

Temperature

Aug '42		Fuller and Cooper (1946)
Aug '70		Fish & Wildl. Svc.
Aug '72		Fish & Wildl. Svc.
Jul '78		Fish & Wildl. Svc.
1982		Mitchell (1982)
Aug '81	1m intervals	DEP
Sep '85	2m intervals	DEP
Jul '90		Fish & Wildl. Svc.
Jul '91		Fish & Wildl. Svc.
eJul '92	1m intervals	Reeb (1992)/DEP
1Jul '92	1m intervals	"
1Aug '92	1m intervals	"

TSI

1985	Dennis (1986)
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SOMES POND

Alkalinity

lsum '80	core	DEP
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Chlorophyll a

lsum '80		DEP
lsum '81		DEP
lsum '84		DEP
lsum '92	core	Reeb (1992)/DEP

Color

lsum '80	core	DEP
lsum '81	core	DEP
1984	2 locations	Kane (1984)
lsum '92	core	Reeb (1992)/DEP

Coliform, Fecal

Jul '92f		Reeb (1992)
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Dissolved Oxygen

Aug '42		Fuller and Cooper (1946)
Sep '81		DEP
Aug(3)'84		DEP
Aug '92	1m intervals	Reeb (1992)/DEP

pH

1922-31		Myers (1931)
Aug '42		Fuller and Cooper (1946)
lsum '80		DEP
lsum '81		DEP

Phosphorous

Aug '42	sfc	Fuller and Cooper (1946)
lsum '80	core	DEP
lsum '81	core	DEP
eJul '92	core	Reeb (1992)/DEP
lJul '92	core	"
lAug '92	core	"

Secchi Disk Readings

May '84		Kane (1984)
Jun '84		"
Jul '84		"
Aug '84		"
Sep '84		"
Oct '84		"
eJul '92		Reeb (1992)/DEP
lJul '92		"
lAug '92		"

SOMES POND

Temperature

Aug '42		Fuller and Cooper (1946)
May '84		Kane (1984)
Jun '84		"
Jul '84		"
Aug '84		"
Sep '84		"
Oct '84		"
eJul '92	1m intervals	Reeb (1992)/DEP
1Jul '92	1m intervals	"
1Aug '92	1m intervals	"

STANLEY POND

pH

1988

Mack (1988)

Specific Conductance

1988

Mack (1988)

Temperature

1988

Mack (1988)

THE TARN

Acid Neutralizing Capacity

Oct '89

Steve Kahl, UMO

Alkalinity

Sep '62
1982

Fish & Wildl. Svc.
Mitchell (1982)

Aluminum

Oct '89

Steve Kahl, UMO

Calcium

Oct '89

Steve Kahl, UMO

Chlorine

Oct '89

Steve Kahl, UMO

Color

Oct '89

Steve Kahl, UMO

Conductivity

1987
Oct '89

DEP
Steve Kahl, UMO

Dissolved Organic and Inorganic Carbon

Oct '89

Steve Kahl, UMO

Dissolved Oxygen

Sep '62
Aug 75

1982
1987

Fish & Wildl. Svc.
Zabinsky-Gormley & Olday
(1977)
Mitchell (1982)
DEP

Magnesium

Oct '89

Steve Kahl, UMO

Nitrate

Oct '89

Steve Kahl, UMO

pH

1922-31
Sep '62
Aug '75

1982
1987
Oct '89

Myers (1931)
Fish & Wildl. Svc.
Zabinsky-Gormley and Olday
(1977)
Mitchell (1982)
DEP
Steve Kahl, UMO

clph,eqph

Photometer Readings

1987

DEP

THE TARN

Potassium

Oct '89

Steve Kahl, UMO

Secchi Disk Readings

1987

DEP

Sodium

Oct '89

Steve Kahl, UMO

Sulfate

Oct '89

Steve Kahl, UMO

Temperature

Sep '62

Aug 75

1982

1987

Fish & Wildl. Svc.

Zabinsky-Gormley & Olday

(1977)

Mitchell (1982)

DEP

UPPER HADLOCK POND

Acid Neutralizing Capacity (ANC)

Oct '86		Steve Kahl, UMO
Oct '88		"
Oct '89		"

Alkalinity

Sep '78		Norton et al. (1981)
Oct '82	sfc	Kahl et al. (1985)
Nov '82	sfc	"
Feb '83	sfc, 8m	"
mMar '83	sfc, 8m	"
Apr '83	sfc	"
Jun '83	sfc, 8m	"
Jul '83	sfc, 8m	"
Oct '83	sfc	"
Feb '84	sfc	"
mMar '84	sfc	"
lMar '84	sfc	"
Apr '84	sfc, 8m	"
Jul '84	sfc, 8m	"

Aluminum

Oct '88		Steve Kahl, UMO
Oct '89		"

Calcium

Sep '78	sfc	Norton et al. (1981)
Oct '82	sfc	Kahl et al. (1985)
Nov '82	sfc	"
Feb '83	sfc, 8m	"
mMar '83	sfc, 8m	"
Apr '83	sfc	"
Jun '83	sfc, 8m	"
Jul '83	sfc, 8m	"
Oct '83	sfc	"
Feb '84	sfc	"
mMar '84	sfc	"
lMar '84	sfc	"
Apr '84	sfc, 8m	"
Jul '84	sfc, 8m	"
Oct '88		Steve Kahl, UMO
Oct '89		"

Chlorine

Oct '88		Steve Kahl, UMO
Oct '89		"

Coliform, Fecal

Reeb (1992)

Fish & Wildl. Svc.
Norton et al. (1981)
Kahl et al. (1985)

Steve Kahl, UMO

Norton et al. (1981)
Kahl et al. (1985)

Steve Kahl, UMO
Reeb (1992)/DEP

Reeb (1992)

Steve Kahl, UMO
"

Oct '88
Oct '89

UPPER HADLOCK POND

Dissolved Inorganic Carbon

Oct '88

Steve Kahl, UMO

Dissolved Oxygen

Aug '42

Fuller and Cooper (1946)

Jul '72

Fish & Wildl. Svc.

Aug '92

Reeb (1992)/DEP

Magnesium

Sep '78

sfc

Norton et al. (1981)

Oct '82

sfc

Kahl et al. (1985)

Nov '82

sfc

"

Feb '83

sfc, 8m

"

mMar '83

sfc, 8m

"

Apr '83

sfc

"

Jun '83

sfc, 8m

"

Jul '83

sfc, 8m

"

Oct '83

sfc

"

Feb '84

sfc

"

mMar '84

sfc

"

lMar '84

sfc

"

Apr '84

sfc, 8m

"

Jul '84

sfc, 8m

"

Oct '88

Steve Kahl, UMO

Oct '89

"

Nitrates

Oct '82

sfc

Kahl et al. (1985)

Nov '82

sfc

"

Feb '83

sfc, 8m

"

mMar '83

sfc, 8m

"

Apr '83

sfc

"

Jun '83

sfc, 8m

"

Jul '83

sfc, 8m

"

Oct '83

sfc

"

Feb '84

sfc

"

mMar '84

sfc

"

lMar '84

sfc

"

Apr '84

sfc, 8m

"

Jul '84

sfc, 8m

"

Oct '88

Steve Kahl, UMO

Oct '89

"

UPPER HADLOCK POND

pH

1922-31		Myers (1931)
Aug '42		Fuller and Cooper (1946)
Jul '72		Fish & Wildl. Svc.
Oct '82	sfc	Kahl et al. (1985)
Nov '82	sfc	"
Feb '83	sfc, 8m	"
mMar '83	sfc, 8m	"
Apr '83	sfc	"
Jun '83	sfc, 8m	"
Jul '83	sfc, 8m	"
Oct '83	sfc	"
Feb '84	sfc	"
mMar '84	sfc	"
lMar '84	sfc	"
Apr '84	sfc, 8m	"
Jul '84	sfc, 8m	"
Oct '86	clph	Steve Kahl, UMO
Oct '89	clph, eqph	Steve Kahl, UMO

Phosphorous

Aug '42	sfc	Fuller and Cooper (1946)
eJul '92	core	Reeb (1992)/DEP
lJul '92	core	Reeb (1992)/DEP
lAug '92	core	"

Potassium

Sep '78		Norton et al. (1981)
Oct '82	sfc	Kahl et al. (1985)
Nov '82	sfc	"
Feb '83	sfc, 8m	"
mMar '83	sfc, 8m	"
Apr '83	sfc	"
Jun '83	sfc, 8m	"
Jul '83	sfc, 8m	"
Oct '83	sfc	"
Feb '84	sfc	"
mMar '84	sfc	"
lMar '84	sfc	"
Apr '84	sfc, 8m	"
Jul '84	sfc, 8m	"
Oct '88		Steve Kahl, UMO
Oct '89		"

UPPER HADLOCK POND

Secchi Disk Readings

Sep '78	Norton et al. (1981)
Jul(2)'83	DEP
Sep '83	DEP
May '84	DEP
Jun(2)'84	DEP
Jul(3)'84	DEP
Aug(2)'84	DEP
Sep(2)'84	DEP
Oct '84	DEP
1989	DEP
Jul(2)'92	Reeb (1992)/DEP
Aug '92	Reeb (1992)/DEP

Selected Metals Pb, Zn, Fe, Cl, Mn, Al, SiO2

*Note: Al and SiO2 tests are not available for each date.
Re: Kahl et al (1985).

Sep '78	sfc	Norton et al. (1981)
Oct '82	sfc	Kahl et al. (1985)
Nov '82	sfc	"
Feb '83	sfc, 8m	"
mMar'83	sfc, 8m	"
Apr '83	sfc	"
Jun '83	sfc, 8m	"
Jul '83	sfc, 8m	"
Oct '83	sfc	"
Feb '84	sfc	"
mMar'84	sfc	"
lMar'84	sfc	"
Apr '84	sfc, 8m	"
Jul '84	sfc, 8m	"

Sodium

Sep '78	sfc	Norton et al. (1981)
Oct '82	sfc	Kahl et al. (1985)
Nov '82	sfc	"
Feb '83	sfc, 8m	"
mMar'83	sfc, 8m	"
Apr '83	sfc	"
Jun '83	sfc, 8m	"
Jul '83	sfc, 8m	"
Oct '83	sfc	"
Feb '84	sfc	"
mMar'84	sfc	"
lMar'84	sfc	"
Apr '84	sfc, 8m	"
Jul '84	sfc, 8m	"
Oct '88		Steve Kahl, UMO
Oct '89		"

UPPER HADLOCK POND

Sulfate

Oct '88
Oct '89

Steve Kahl, UMO
"

Temperature

Aug '42
Jul '72
Jul(2)'83
Sep '83

profile
profile

May '84
Jun(2)'84
Jul(3)'84
Aug(2)'84
Sep(2)'84
Oct '84
Jul(2)'92
Aug '92

profile
profile
profile
profile
profile
profile
profile
profile

Fuller and Cooper (1946)
Fish & Wildl. Svc.
DEP
DEP

DEP
DEP
DEP
DEP
DEP
DEP
Reeb (1992)/DEP
Reeb (1992)/DEP

WITCH HOLE POND

In October 1989, Steve Kahl (UMO), tested for the following on With Hole Pond:

Acid Neutralizing Capacity	Magnesium
Aluminum	Nitrates
Calcium	Potassium
Chlorine	Sodium
Color	Sulfate
Conductivity	
Dissolved Organic Carbon	
Dissolved Inorganic Carbon	
Closed cell and equilibrated pH	

Alkalinity

1982

Mitchell (1982)

pH

1922-31
1982

Myers (1931)
Mitchell (1982)

BIBLIOGRAPHY

1. Bar Harbor Water Department. 337 Main Street, Bar Harbor, Maine 04609. (207) 288-3555.

Summary: Personal Communication. Contact the department for up to date information.

2. Coastal Study Project II, Town of Mount Desert 1980. Changes in water level of Long Pond, April 18 - August 31, 1980. Unpub.

Summary: Gives periodic water level measurements for Long Pond between 18 April 1980 and 31 August 1980. Daily water levels are recorded for 1 July through 6 August 1980.

Location: Mount Desert Island: Long Pond

Storage Area: RM Library Files

3. Dennis, Mary Ellen 1986. 1984 and 1985 lake monitoring report. Unpub.

Summary: Gives Trophic state index (TSI) for 6 MDI lakes for summer 1985.

Location: Mount Desert Island: Bubble Pond, Eagle Lake, Echo Lake, Seal Cove Pond, Long Pond, Jordan Pond

Storage Area: RM Library Files

4. Department of Environmental Protection 1987. Lake Surveys 1981-87. Unpub.

Summary: Gives secchi disk transparency readings for 7 lakes on MDI 1981-87. Notes an algal bloom at Echo Lake June 1987. In 1981 Jordan Pond and Eagle Lake monitoring included: water temperature readings, conductivity, and photometer readings at meter depth intervals down to 30 meters. August 1981, Eagle Lake and The Tarn had temperature, conductivity, and Ph readings taken every 2 hours from sunrise to sunset.

Location: Mount Desert Island: Echo Lake, Eagle Lake, Jordan Pond, Long Pond, Seal Cove Pond, Bubble Pond, The Tarn

Storage Area: RM Library Files

5. Department of Environmental Protection Division of Lakes and Biological Studies 1989. Maine water quality monitoring reports. Unpub.

Summary: Field work: 1976-1989.

Presents Ph data, secchi disk readings, temperature and dissolved oxygen profiles, alkalinity, color, conductivity, chlorophyll a, and periodically phosphorous levels for 8 lakes on MDI 1976-89 (not all data is available for all lakes during all years). Also notes lake depth, area, flush rates, drainage area, and IFW fisheries management.

Location: Mount Desert Island: Bubble Pond, Eagle Lake, Echo Lake, Jordan Pond, Long Pond, Seal Cove Pond.

Storage Area: RM Library Files

6. Department of Environmental Protection Division of Lakes and Biological Studies. Station #17, State House, Augusta, Maine 04333. (207) 289-3901.

Summary: Contains all of the raw data collected by the DEP as of 1991. Storage Area: ANP, 1992 Water Quality Monitoring File. Contact the DEP for up to date information.

7. Fish and Wildlife Service. Maine Department of Inland Fisheries and Wildlife, Fishery and Hatchery Division, 68 Water Street, Machias, Maine 04654. (207) 255-3772.

Summary: Contains all raw data collected by F & W as of 1992.
Storage Area: ANP, 1992 Water Quality Monitoring File. Contact the Fish and Wildlife for up to date information. Gregory Burr, Fishery Technician.

8. Fuller, John L., Cooper, Gerald P. 1946. A biological survey of the lakes and ponds of Mount Desert Island, and the Union and lower Penobscot River drainage systems. (Fish survey report no.7) Maine Dept. of Inland Fisheries and Game 221 pp.

Summary: Field work: July - September 1942.
Hydrology: Temperature, dissolved oxygen, phosphorus levels, and Ph were measured at 5 foot depth intervals for the ponds sampled. For each pond, notes pond number, elevation, acreage, maximum depth, depth above which the temperature was in excess of 70 degrees, depth above which dissolved oxygen was more than 5 p.p.m. Also maps pond depths.
Location: Mount Desert Island: Seal Cove Pond, Long Pond, Upper Hadlock Pond, Jordan Pond, Eagle Lake, Bubble Pond, Echo Lake, Somes Pond
Storage Area: ANP Library 597 Fu

9. Gerber, Robert G. 1982. Southwest Harbor landfill water quality impact study. (Report + tables, maps, graphs) South Harpswell, ME Gerber, Inc. 7 pp. + appendix, tables, maps, graphs

Summary: Fieldwork: 8 December 1982.
Hydrology, Geology: An update of Gerber's 1980 study. Presents information on ground water hydrology gathered from water samples taken at 13 sites including the landfill site, monitoring wells, the gravel pit to the north of the landfill, and Eagle Lake (used as a control). Water analysis included measurements of: conductivity, total dissolved solids (TDS), hardness, ammonia, nitrate, nitrite, chloride, iron, phosphorous, and chemical oxygen demand. Results indicated low level ground water contamination occurring at each well site sampled with slightly to significantly elevated levels of ammonia, phosphorous, and COD. Gerber notes a significant increase in leachate contamination from April 1980 to December 1981 in the east and west drainage ditches and that leachate from these sources was flowing into and contaminating Marshall Brook.
Location: Mount Desert Island: Long Pond, Marshall Brook, Worcester Landfill, Southwest Harbor, Eagle Lake.
Storage Area: RM Library Files

10. Havey, Keith Allison 1952. The freshwater fisheries of Long Pond and Echo Lake, Mount Desert Island, Maine. Unpub. M.S. thesis, Univ. of Maine, Orono 83 pp.

Summary: Field work: 1950-1952.
Hydrology: Notes the vertical distribution of temperature and dissolved oxygen in Long Pond and Echo Lake.
Location: Mount Desert Island: Long Pond, Echo Lake
Storage Area: RM Library Files (abstract); UMO Special Collections 1950 H299

11. Havey, Keith A. 1958. An investigation of the freshwater fisheries of Mount Desert Island. Augusta, ME Maine Dept. of Inland Fisheries and Game, Fishery Research and Management Div. 50 pp.

Summary: Hydrology: Lists temperatures and dissolved oxygen content of Long Pond, MDI 1942 and 1950.

Location: Mount Desert Island: Long Pond

Storage Area: ANP Library box 597 #5

12. Kahl, Jeffrey S., Andersen, Janet L., Norton, Stephen A. 1985. Technical report: water resource baseline data and assessment of impacts from acidic precipitation, Acadia National Park, Maine. Natl. Park Serv., NAR Water Resources Program #16

Summary: Field Work: 1982-1984.

Hydrology: The chemistry of 18 lakes and ponds and 23 first and second order streams were monitored (1982-1984) to provide baseline data and ascertain water quality. Constituents measured include water temperature, pH, baseflow alkalinity, specific conductance, color, sulfate, calcium, magnesium, potassium, sodium, iron, zinc, silica, aluminum, and manganese.

Location: Mount Desert Island: Bear Brook Pond, The Bowl, Bubble Pond, Eagle Lake, Echo Lake, Upper Hadlock Pond, Lower Hadlock Pond, Halfmoon Pond, Hodgdon Pond, Jordan Pond, Lake Wood, Long Pond, Little Long Pond, Reservoir, Round Pond, Sargent Mountain Pond, Seal Cove Pond, The Tarn, Witch Hole Pond. Streams: Breakneck Brook, Canon Brook, Cromwell Brook, Duck Brook, Heath Brook, Hadlock Brook, Hunter's Brook, Kebo Brook, Little Harbor Brook, Stanley Brook, Penobscot Brook, Gilmore Brook, Parkman Brook. Isle au Haut: Long Pond.

Storage Area: RM Library Files; ANP Library box 574.925 #22; ANP library 333.91 Ka

13. Kahl, Steve. University of Maine, Department of Geological Services, Environmental Chemistry Laboratory, Sawyer Environmental Research Center, Orono, Maine 04469. (207) 581-3244.

Summary: Includes raw data from 1988-89.

Storage Area: ANP, 1992 Water Quality Monitoring File.

14. Kane, Dan. 1984. Somes Pond Data, unpub.

Summary: Temperature, Dissolved Oxygen, secchi disk readings, pH, and color from 1984. Includes correspondence with the DEP regarding Mr. Kane's results and the DEP's feedback.

Storage Area: ANP, Resource Management under Kane, Dan (1984)

15. Lackey, Robert T. 1968. Seasonal abundance and availability of forage fishes and their utilization by landlocked Atlantic Salmon and Brook Trout in Echo Lake, Mount Desert Island, Maine. Unpub. M.S. thesis, Univ. of Maine, Orono 98 pp.

Summary: Hydrology: Determined dissolved oxygen levels, phenolphthalein alkalinity, total alkalinity, total hardness (as CaCO₃), calcium, magnesium, iron, copper, orthophosphate, sulfates, ammonia nitrogen, nitrate nitrogen, nitrite nitrogen, and chlorides of Echo Lake in 1967.

Location: Mount Desert Island: Echo Lake

Storage Area: RM Library Files (abstract); UMO Special Collection UNIV 1968 L118

16. Mack, Ronald G. Jr 1988. A survey of the mayflies (Ephemeroptera) of Acadia National Park, Mount Desert Island, Maine. Unpub. M.S. thesis, Univ. of Maine, Orono 102 pp.

- Summary: Hydrology: Lists water temperature, water velocity, pH, and specific conductance for a number of MDI ponds and streams.
Location: Mount Desert Island: Long Pond, Great Brook, Marshall Brook, Upper Hadlock Brook, Sargent Mountain Pond, Stanley Pond, Canon Brook, Aunt Betty Pond, Eagle Lake, Duck Brook, Northeast Creek. Isle au Haut.
Storage Area: RM Library Files (abstract); UMO Special Collection UNIV 1988 M194
17. Mack, Ronald G. ,. Jr, Gibbs, K. Elizabeth 1989. The mayflies (Ephemeroptera) of Acadia National Park. (Report + tables, maps) Natl. Park Serv. 101 pp. + tables, maps
- Summary: Field work: April-October, 1987.
Hydrology: Lists water temperature, water velocity, pH, and specific conductance for a number of ponds and streams.
Location: Mount Desert Island: Long Pond, Great Brook, Marshall Brook, Upper Hadlock Pond, Sargent Mountain Pond, Stanley Pond, Canon Brook, Aunt Betty Pond, Eagle Lake, Duck Brook, Northeast Creek
Storage Area: RM Library Files; ANP Library 595.734 Ma
18. Myers, Frank J. 1931. The distribution of rotifera on Mount Desert Island. American Museum Novitates (no. 494) 12 pp.
Summary: Field work: 1922-1931.
Hydrology: Lists the pH of a number of lakes, ponds, and streams on MDI. pH was below 7 for all lakes measured.
- Location: Mount Desert Island: The Barcelona (Old Mill Brook, Northeast Creek), Lake Wood, Lower Breakneck Pond, Eagle Lake, Somes Pond, Pond Heath, Bubble Pond, The Tarn, Aunt Betty's Pond, Long Pond, Echo Lake, Witch Hole Pond, Salisbury Cove, Halfmoon Pond, Duck Brook, Upper Hadlock Pond, Spring in Salisbury Cove, Fawn Pond, The Bowl, Round Pond, Ripple Pond, Northeast Creek, Jordan Pond, Ice Ponds in Manset, Sargent Mountain Pond, Seawall, Frenchman Bay.
Storage Area: ANP Library box 574.929 #3
19. Norton, Stephen A., Davis, R. B., Brakke, D. F. 1981. Responses of northern New England lakes to atmospheric inputs of acids and heavy metals. Univ. of Maine at Orono, Land and Water Resources Center. 90 pp.
- Summary: Field work: July through October 1978 and 1979.
Notes water chemistry, sediment chemistry, elevation, maximum depth, color, bedrock geology, coring depth, development code, and secchi disk readings for 6 MDI lakes. Water chemistry analysis include measurements of: alkalinity, conductivity, Na, potassium, calcium, magnesium, iron, lead, and zinc. Samples taken at one meter depth.
Location: Mount Desert Island: Long Pond, Upper Hadlock, Bubble Pond, Jordan Pond, Echo Lake, Seal Cove Pond.
Storage Area: RM Library Files (partial); Univ. of Maine
20. Olday, Fred C. 1975. Mount Desert Island lake study. Unpub.
- Summary: Field work: Summer 1975.
Hydrology: Presents data on the water quality of Long Pond and Echo Lake. Includes information gathered from a survey of septic systems of cottages around these lakes, and presents data on water temperature, dissolved oxygen, transparency, nitrogen and phosphorous levels, alkalinity, pH, nutrients, algae, bacteria, and benthic macro-invertebrates (identified to genus).
Location: Mount Desert Island: Long Pond and Echo Lake
Storage Area: RM Library Files; ANP Library box 574.925 #23

21. Reeb, Carolyn. 1992 Summer Monitoring Report. unpub.

Summary: Presents data regarding Long Pond, Eagle Lake, Bubble Pond, Echo Lake, Somes Pond, Seal Cove Pond, Hodgdon Pond, Upper and Lower Hadlocks, Lake Wood, and Little Long Pond. Includes temperature and D.O. profiles, phosphorous, secchi disk readings, color, and fecal coliform results.

Storage Area: ANP, 1992 Water Quality Monitoring File.

22. Speirs, Garrett D. 1972. The landlocked Alewife's value as a forage fish in Echo Lake, Mt. Desert Island, Maine. Unpub. M.S. thesis, Univ. of Maine, Orono 45 pp.

Summary: Hydrology: Gives dissolved oxygen and temperature graphs of Echo Lake.

Location: Mount Desert Island: Echo Lake

Storage Area: RM Library Files (partial); UMO Special Collections UNIV 1972 SP32

23. Southwest Harbor Water Department. Long Pond, Southwest Harbor, Maine 04609
(207) 244-3948.

Summary: Personal Communication with water department. Contact the department for up to date information.

24. Welch, Barbara, Dennis, M. E., Potvin, J. 1981. The voluntary water quality monitoring program. (Division of Lakes and Biological Studies) Maine Department of Environmental Protection

Summary: Field work: 1981.

Gives depth, pH, chlorophyll, total phosphorous levels, trophic state index, elevation, surface area, volume, flushing rate, secchi disk readings, and color for 6 lakes on MDI.

Location: Mount Desert Island: Bubble Pond, Eagle Lake, Echo Lake, Jordan Pond, Long Pond, Seal Cove Pond

Storage Area: RM Library Files

25. Zabinski-Gormley, Nina, Olday, Fred C. 1977. Trout habitat assessment of the Tarn, Acadia National Park. (Report + maps, charts) Unpub. 18 pp. + maps, charts

Summary: Hydrology: Gives temperature and dissolved oxygen profile, and pH (5.0) of The Tarn, August 1975 and 1976. Maximum depth is noted to be 4.3'.

Location: The Tarn, Mount Desert Island

Storage Area: RM Library Files; ANP Library box 597 #13 (2)