



United States Department of the Interior

NATIONAL PARK SERVICE

WATER RESOURCES DIVISION
301 SOUTH HOWES ST., ROOM 335
FT. COLLINS, COLORADO 80521

N 3617
Bass Harbor Marsh CC Alan O
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Acadia National Park

IN REPLY REFER TO:

July 27, 1989

AUG 30 '89

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ACAD/General

ACADIA NATIONAL PARK
RESOURCE MANAGEMENT DIVISION

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Dr. Mike Soukup, Regional Chief Scientist
NARO NPS
15 State Street
Boston, MA 02109

Dear Dr. Soukup:

I have viewed the algae samples from Bass Harbor, Acadia National Park, dated July 11 that you sent to Terry Boyle. Two of the samples were primarily collections of *Monostroma*, mostly in a mature and expanded sheet growth form. The remaining sample was primarily *Cladophora*. A view of the few diatoms that were contained in the macro-algae collections indicated a high number of fresh water forms tolerant of brackish water.

All the algae observed are what I would consider common taxa, and would be expected in habitats characteristic of fresh water influenced by intermittent brackish conditions. An incomplete comparison of the diatoms present in these collections with the periphyton samples from the Worcester Landfill study on Marshall Brook indicated waters less brackish than Site #7, located in Marshall Brook upstream from Bass Harbor Marsh.

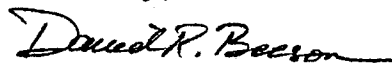
The following algae were the dominant macro-algae taxa observed, based on descriptions in Taylor 1962 (Taylor, W.R. 1962. Marine Algae of the Northeastern Coast of North America. Second printing, second revised edition. University of Michigan Press, Ann Arbor, MI. 508 pp);

- 1) *Monostroma oxyspermum* (Kutzing) Doty. Observed in the samples as faded, light green in color for older specimens and darker, brilliant green in younger specimens. Dominant algae in two entire samples.
- 2) *Cladophora flavescens* (Roth) Kutzing. The dominant *Cladophora* observed in all three samples. A limited amount of this taxa was mixed in with one of the samples of *Monostroma*.
- 3) *Cladophora rudolphiana* (C. Agardh) Harvey. Uncommon occurrence, observed tangled with *C. flavescens*.

- 4) *Cladophora albida* (?) (Hudson) Kutzing. Uncommon occurrence, observed tangled with *C. flavescens*.
- 5) *Bangia ciliaris* Carmichael. Very uncommon occurrence, observed as either tangled or epiphytic in both *Cladophora* and *Monostroma* samples.
- 6) *Bangia fuscopurpurea* (Dillwyn) Lyngbye. Uncommon occurrence, observed tangled with *C. flavescens*.

The samples were very well preserved, I appreciate the opportunity to view algae in good shape that I don't get to see very often. If I can be of any other assistance, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "David R. Beeson". The signature is written in dark ink and is positioned below the word "Sincerely,".

David R. Beeson