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Halifax Field Naturalists Newsletter

JUNE-AUGUST, 1987. No. 48

Dutchman's Breeches

Return Address:

Halifax Field Naturalists
c/o N.S. Museum
1747 Summer Street
Halifax, N.S., B3H 3A6

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JUNE-AUGUST, 1987. No. 48

OBJECTIVES: To encourage a greater appreciation and understanding of Nova Scotia's natural history, both within the membership of HFN and in the public at large. To represent the interests of naturalists by encouraging the conservation of Nova Scotia's natural resources.

MEETINGS: First THURSDAY of every month at 8.00 pm in the Auditorium of the Nova Scotia Museum, 1747 Summer Street, Halifax.

FIELD TRIPS are held at least once a month *****and it is appreciated if those travelling in someone else's car share the cost of the gas.

MEMBERSHIP: Open to anyone interested in the natural history of Nova Scotia. Memberships are available at any meeting of the Society, or by writing to: MEMBERSHIP CHAIRMAN, HALIFAX FIELD NATURALISTS, c/o N.S. MUSEUM.

Individual memberships ... $7.00 per year
Family " ...$10.00 " "
Sustaining " ...$15.00 " "

This covers HFN fiscal year ... JANUARY 1 to DECEMBER 31.

Members receive HFN Newsletter and notices of all meetings, field trips and special programs.

EXECUTIVE 1986:

President	Michael Downing	823-2081
Treasurer	Bernice Moores	422-5292
Secretary	Leigh Mazany	455-8592
Past President . . .	John van der Meer	455-1029
Membership	John van der Meer	455-1029

DIRECTORS: 1986: Chris Corkett, Connie Eaton, Ursula Grigg, Stephanie Robertson, Clarence Stevens, Colin Stewart, John Strong, Judith Kennedy.

MAILING ADDRESS: Halifax Field Naturalists,
c/o Nova Scotia Museum
1747 Summer Street, Halifax, N.S., B3H 3A6.

NUMBERS TO CALL:

Newsletter:	Editor	Doris Butters	422 6286
	Assistant Editor . . .	Ursula Grigg	
	Editorial Staff . . .	Edna Staples	868-2919
	Marjorie Hanson and	John Strong	477-1351
Program Committee		Chris Corkett	479-1134
		Regina Maass	477-1469
		Mary Primrose	423-5165
Bird Atlas Co-ordinator HFN		Clarence Stevens	469-6144
Publicity		Connie Eaton	423-6971
		John Strong	

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HFN is a member organisation of the Canadian Nature Federation.

hfn news

WELCOME NEW AND RETURNING MEMBERS -

Victor Fisher
Mary Jane Burris and Family
Ms. Blair Hodgman
Robert Jollota
Tom, Many and Sara Ryan
Lisa Proulx

HFN AWARDS ITS FIRST HONORARY LIFE MEMBERSHIP

The directors of the Halifax Field Naturalists hope the entire membership will join with them in offering hearty congratulations to Doris Butters. At our May membership gathering at the Nova Scotia Museum, Doris became our Society's first and only Honorary Life Member.

Since she joined the club in 1977, Doris has always been active. Formally, she has been on the editorial staff of the newsletter since 1978 and held the office of editor since 1982 - not even setting it aside when serving as president during a time when no one else would do that job. Informally, she has picked up the slack, wherever anyone was needed, over many years. Other people have contributed heavily to the Halifax Field Naturalists for a time, and then moved on to other interests, but no one has given such a constant effort, over such a long period, as has Doris. During the relatively short time of my own membership I have moved from my first impression of her as the backbone of the HFN to my current notion that she is something more like its heart - the single bright-coloured thread which runs along the entire warp of our fabric of time and events, and gives it artistic unity.

Doris' Honorary Life Membership was awarded in recognition of her great contribution to the HFN over most of its life. It is our sincere hope that this gesture will cost the club heavily in membership revenues over the future years.

Michael J. Downing
President.

IN MEMORIAM

Halifax Field Naturalists lost one of its founding members on July 26, 1987, by the death of AILEEN MEAGHER, well-known in the city as an Olympic medalist in the 1930's and as an artist and art teacher for over 40 years. Her love of nature showed repeatedly in the colour and brilliance of her paintings.

Her living-room table was in frequent use as the workbench for putting together HFN's quarterly newsletter, and a number of her felt-pen sketches are often used to illustrate appropriate articles.

We extend our sincere sympathy to Aileen's family and friends in their sad loss.

NOTE re: CAR POOLING -

The Board was recently chatting about car pools and thought we should make one or two points clear on this matter.

In the past we have always informally encouraged car pooling, especially at the NSM parking lot where we are in the custom of gathering before setting out. We continue to approve of this practice. Car pooling is economical, reduces air pollution and conserves fossil fuel, and provides a means for those without cars to come with us.

We wish to make it clear, however, that a car pool is a private agreement among the provider of the car and the other persons travelling in it - whether or not they are HFN members. We do not organise car pools nor do we put people under any pressure to participate in them. The decision to let anyone else into one's car, or to get into anyone else's car, is an individual one in which the club takes no part and for which the club takes no responsibility.

Another point which bears repeating occasionally is that our informal and unsupervised style requires that participants in our field trips - whether HFN members or not - be responsible for their own safety.

Michael Downing

notices

ROSE-BREASTED GROSBEAK

Pheucticus ludovicianus

WILDLIFE '87 - HFN BIRDSEED SALE -

As part of HFN's contribution to Wildlife '87, we are sponsoring a SUNFLOWER SEED SALE to raise money for the Maritime Breeding Bird Atlas and to provide information on feeding birds (and birds in general).

Interested HFNers will be asked to sell tickets to the general public for large bags of sunflower seed (25lb bags and possibly 50 pounders), redeemable at a depot point on a specific date. Unfortunately details of the sale were not available in time for this newsletter, but updates will be announced at meetings and in the media. To make the sale a success, we need to sell as many tickets as possible. If you know anyone interested in feeding the birds, ask them to support the Atlas by buying sunflower seeds from HFN. Remind them that mixed seed often includes low-cost grains that are unappealing to many birds, and are used as filler by the seed companies.

The sale will take place in October, but tickets may be available in September. There is talk of making the seed sale a national event with each province hosting its own sale to support its favourite cause. We won't call it killing two birds with one stone, but by selling seed you'll help HFN support both the Breeding Bird Atlas and Wildlife '87.

If you'd like more information, contact Judith Kennedy at 429-4610,mornings only.

Judith Kennedy

DOROTHY OGILVIE of Dartmouth, proprietor of ATLANTIC SCIENCE FARE, can supply geology tools, natural science supplies and a wide variety of related publications. For further details or to order, call: (902) 463-8616 from 8.30 am to 4.30 pm , or write to:

21 Summit Street, Dartmouth, N.S., B2Y 2Z9.

nature notes

TERN PROTECTION AT KOUCHIBOUGUAC -

Tern Islands, a small group of islands in Kouchibouguac National Park, provide a nesting site for 7000 tern nests, about 100 red-breasted mergansers and even a few piping plovers. Increasing use of the islands by humans is causing some apprehension to park staff so from this year the park superintendent will close the park to all human visitors from April 15 to September 30.

Interested naturalists, however, can still observe the action on the islands - but from a distance. For directions to the best observation points, ask at the Information Centre in the park.

On Sunday, May 24, on the drive to Cape Split with Alex Wilson and crew, I spotted a coyote streaking across the highway just past the Sackville landfill site. He (or she) was in superb condition, with thick coat and long, straight, bushy tail..... a male and female pheasant were also seen, closer to the Valley, pecking around nonchalently on the shoulder of the #101..... At the Split itself we saw a Blackburnian warbler and a groundhog. The latter had two or more burrows in the bank of a narrow chasm on the shore path about 1000 feet from the tip of the Split.

Coming back from the airport on Saturday, July 4, another coyote was seen crossing the highway at about 10.30 pm.

On Friday, June 5, a vixen at her den was seen on the way to Louisburg fortifications. This particular fox and her habits was well-known to the jitney-bus drivers, and they had been watching her taking back food and prey to the den since the beginning, anxiously awaiting a sight of the kits.

Stephanie Robertson

On August 2, while canoeing on Keji Lake, Edna and Larry Staples found nine different species of plants along the shorelines of Ritchie and Little Muise Islands. Most of these plants would be submerged during high water periods.

Species included: Meadow Beauty, Grass Pink, Golden(Pert) Hedge Hyssop, Green Wood Orchis, White Fringed Orchis, Carolina Yellow-eyed Grass, Horned Bladderwort, Creeping Spearwort and Common Pipewort.

Edna Staples

Common Pipewort (whitish)

A CONCERN FOR ANIMALS -

Animals are a pleasant and essential part of nature. How often we have watched with pleasure a bird singing on a leafy bough, or a shy deer listening alertly among the trees.

Because we are concerned about the future of animals and to ensure that they will always be part of our environment, many of us join organisations dedicated to the preservation of animal populations.

But do we think about the suffering endured by those individual animals who become the victims of cruelty? Habitat destruction may threaten an entire species, and can't be allowed to continue - but the plight of a fox caught in a leg-hold trap is much more desperate.

Laboratories and the fur industry are among the greatest contributors to animal suffering. The agony endured by many of our beautiful fellow creatures, much of it needlessly, is an abomination that those who care about animals must fight. We must speak up for them - they can't plead for themselves. I urge concerned animal-lovers to join one or more of the organisations working for animal welfare . They include:

Animal Defence League of Canada, Box 3880, Stn.C., Ottawa, Ont., K1A 4M5;

ARK II, 542 Mount Pleasant Rd., Ste.103, Toronto, Ont., M4S 2M7;

Canadian Christian Council for Animals, 3991 Springtree Drive, Vancouver, BC, V5 V6L 3E2;

The Fur-Bearers (Association for Protection of Fur-Bearing Animals), 2235 Commercial Dr., Vancouver, BC., V5N 4B6

International Fund for Animal Welfare (Canada), 150 Bridgeland Ave., Ste.207, Toronto, Ont., M6A 1Z5.

There are other groups both in Canada and the USA. Also - please write to your MLA and ask him to ban leg-hold traps.

Charmaine Wood.

AFTERMATH OF THE PACK ICE IN EARLY SPRING - -

As many of you are no doubt aware, a very unusual thing happened along the coast of Nova Scotia this spring. The pack ice that normally stays well offshore, came right into Halifax Harbour. The fact that it blocked commercial shipping for brief periods made front page news, but that effect was trivial compared to what happened to the natural intertidal communities of plants and animals that were exposed to the ice.

Driven against the shore by wind and currents, the blocks of pack ice squashed and scraped against the rocks as each successive swell passed. The granite bedrock hardly noticed, but the intertidal plants and animals didn't have a chance. When the ice disappeared, it left behind miles of bare, polished rock, where fucus, Irish moss, kelp and dozens of less conpicuous species had been before.

For naturalists and ecologists alike this 'disaster' has provided a wonderful opportunity to observe the process of resettlement and recovery. The bare rocks have already become covered with slippery diatoms and other small fast-growing species. These will be followed by a succession of seasonal plants, and eventually by the larger perennial species. Spores from plants in refuge populations missed by the ice (plants in cracks, small bays, etc), and from plants growing deep enough to have escaped the floating ice, will find their way to the bare areas. However, it will probably take some years before the intertidal zone returns completely to normal.

One soon forgets what the intertidal zone looked like before the ice came. In this connection, the inner part of Ketch Harbour (and many other small bays) escaped the ice; the plant community in these locations can be compared with the situation on the headlands (eg., Chebucto Head or Sandy Cove) to get a first-hand impression of the ice damage.

John van der Meer

AROUND THE HIGHLANDS WITH ELAINE WALLACE,

COUNTING SALMON -

The dark brown waters of the Cheticamp River swirled up past my waist. I would have been swept downriver by the powerful current if it weren't for the steel bars I clung to. Yet, against these same forces the Atlantic salmon makes its way upstream every summer.

We were in the middle of the river at the salmon counting fence - a park warden and myself. Inside the 'cage' was a large silver adult salmon, though most of the time all we could see was a dark form beneath the murky water. Occasionally it broke surface.

Adult salmon migrate upriver to spawn after spending one or more winters at sea. On their journey they must negotiate rapids, riffles, waterfalls and anglers. For the past four years the Cheticamp run has met with one additional barrier - the counting fence. This fence stretches across the Cheticamp at a shallow section of the river, about one kilometre down the Salmon Pools Trail in Cape Breton Highlands National Park. The fish encounter the barrier and eventually funnel into the underwater cage, a large box sided with steel bars.

Here their stay is brief. Park wardens count the number of fish and estimate their size. The important distinction is whether the adult salmon is large (63cm in length) or a grilse (63cm or less). The large fish have wintered two or more years at sea, the grilse only one.

Measurements completed, the gate is opened, allowing the salmon to continue its upstream battle. Salmon don't always leave the cage right away and sometimes need to be coaxed. On this day the river was swollen with rain and in order to guide the fish out of the cage, the warden immersed both arms into the cold water - coatsleeves and all.

This is the fourth year of operation for the fish fence. To cover the complete life-cycle of salmon, the fence must operate for one more year. Data obtained will help park wardens establish catch limits. The difference between the total run (estimated by the counting fence) and the number that could successfully spawn on the river (established by earlier studies) is theoretically the number available for angling.

The Atlantic salmon is considered to be a threatened species throughout its world range. River pollution, forest clear-cutting, dams, acid rain, commercial over-fishing, poaching and angling pressure all contribute to this status. Key to the salmon's recovery is the safeguarding of breeding stocks in rivers such as the Cheticamp. Hence the need for monitoring numbers with this fish fence, and for angling regulations.

Elaine Wallace.

CAMPING FOR ALL -

A special camping facility for the physically disabled was opened on July 10, 1987, at Broad Cove in Cape Breton Highlands National Park.

Two specially designed campsites, including picnic tables, wheelchair accessible ground cover and a self-contained washroom nearby with full services are now available to campers who require the use of these special facilities. The campsites are located in the tenting section of the campground, but a large mobile home would have no trouble setting up on the campsites.

These special campsites can be reserved by contacting the Broad Cove kiosk at 285-2524 until September 20, 1987, or the Ingonish Information Bureau at 285-2535 from September 21 to October 19, 1987.

Glenn King

WILDLIFE '87 - CBHNP -

Cape Breton Highlands National Park has three projects that are being carried out for Wildlife '87, which will promote conservation - an Atlantic salmon survey in the Cheticamp River and Clyburn Brook; a trout survey in selected lakes; and a pine marten survey to confirm or dispel the presence of pine marten in the MacKenzie River Valley area.

Glenn King

THE CABOT TRAIL: FAVOURITE ROADSIDE STOPS -

The drive from Cheticamp to Ingonish takes about two hours, but to take advantage of roadside lookoffs, short trails and other points of interest you should allow three to four hours. Here are a few things to not miss. (E) indicates exhibit or interpretive signs.

Cheticamp Visitor Centre - Park map and hiking trail guide, information, continuous 10 minute slide show, nature bookstore (E).

La Bloque - Cobble beach at former Acadian fishing settlement (E).

Cap Rouge Exposition - Billion year old rocks juxtaposed against much younger sandstone and granite (E).

Veteran's Monument - Superb view of the rugged Gulf coast.

Bog Trail - A short boardwalk trail gives access to orchids and insect-eating plants. Moose are often sighted here or enroute from Veteran's Monument. This trail is wheelchair accessible. (E).

Fishing Cove Lookoff - An interpretive display tells the story of Fishing Cove, once a small community, now a wilderness campground (E).

MacKenzie Mountain Lookoffs - Some of the best views of the interior plateau and of the Gulf below (E).

Lone Shieling Trail - A replica of a Scottish crofter's hut in a setting of 300 year old sugar maples (E).

North Mountain Lookoffs - The 32 km long Aspy Fault stretches out to the Atlantic, while across the valley Beulach Ban Falls cascades over the cliffs (E).

Side trip to Meat Cove and alternate scenic route - From South Harbour to Neil's Harbour : recommended for their coastal scenery and fishing villages.

Black Brook Beach - Swim or relax at a sandy beach nestled beneath a rocky headland. Washrooms, changehouse, picnic tables on site.

Green Cove - A short trail onto a fascinating granite headland (E).

Lakie's Head Lookoff - Stop here to watch for whales and seabirds or just to enjoy the 'sun, salt and air' (E).

Keltic Lodge - From the majestic Keltic Lodge a hiking trail leads you to the tip of the Middle Head peninsula. Watch the coastal waters for guillemots and cormorants (E).

Ingonish Information Centre - Park brochures, small nature bookstore. Short lookoff trail overlooking Freshwater Lake and the Atlantic.

For those with more time, camping (with 3-way hookups) is available in Cheticamp and Broad Cove campgrounds. Unserviced sites are also available in these grounds as well as Big Intervale, McIntosh Brook, Corney Brook, and Ingonish campgrounds. While in the area why not try one of the 28 hiking trails for a different view of the Park - from canyon bottom to cliff top, from seashore to interior wilderness.

Elaine Wallace.

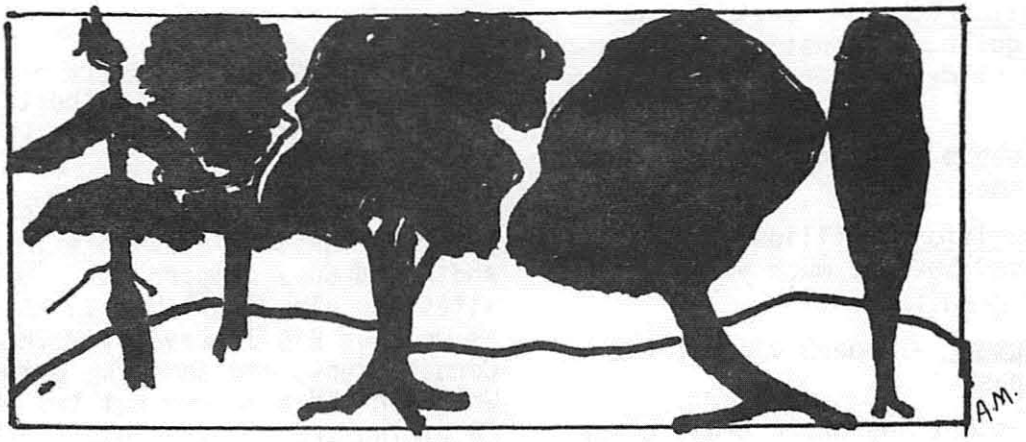
TERNS AT INGONISH -

The popular interpretive hike from Keltic Lodge to Tern Rock on Middle Head Peninsula at Ingonish, offers beautiful views, wildflowers and seabirds. Of particular interest are common and Arctic terns which return each year after wintering as far south as Antarctica. This is the only known colony in the Park and until 1984 terns nested on the grassy knoll or rock ledges on the outer end of Middle Head.

While the birds suffer predation by other species, nesting is also affected by human disturbance, such as people walking to the tip of the trail. During the past several years, monitoring has shown that since 1984 the terns have been unsuccessful in rearing their young. In 1986 they only stayed about two weeks. In an effort to help the breeding process, this year protection was increased by roping off an area near Tern Rock at the end of the trail. Visitors were requested not to go beyond that point, but to observe this small, fragile colony quietly - and from a distance.

(Abstracted from an article by Heather Dixon)

field trips



MOUNT ST. VINCENT UNIVERSITY CAMPUS ARBORETUM WALK

Date: Sunday, May 10, 1987. Participants: 30/31
Place: Mt. St. Vincent Un., Rockingham, Hfx.
Weather: Warm, sunny, calm.
Leader: Carol Godwin , head gardener at the Mount.

On a beautiful spring afternoon, thirty people met at Seton Hall for a guided walk of 'the Mount' grounds. Our guide, Carol Godwin, is a very knowledgeable and pleasant person to spend two hours with.

The hemlocks on the avenue near the highway were once part of Hemlock Ravine, and standing majestically in front of Seton Hall is a 200-year-old ash tree. After the long winter I think we were all looking for flowers - whether they be shrub, tree or ground plant flowers, and we were not disappointed. In bloom were daffodils, tulips, English primrose, grape hyacinth, a lovely bed of blue and white anemones, and early magnolia, to name just a few. The rhododendrons appeared quite healthy although one or two had brown curled-up leaves. Carol told us this was a burn resulting from the reflection of the sun on the heavy snowfalls of last winter. She recommended plenty of watering and a good plant food to help speed the plant's recovery.

English ivy, climbing hydrangea were waking up from their winter sleep, as well as the weeds - goutweed, dogtooth and coltsfoot, which are kept under control but used to give a natural look to the Arboretum.

There are two ponds: St.Joseph, a natural pond around which grows a number of birches, and Reservoir, a nice spot to sit and view the Bedford Basin.

The Arboretum is open to the public and there is a brochure obtainable at Seton Hall, in which the trees, shrubs and plants are listed with their common and botanical names. Plan a visit.

I think I speak for all when I say it was a most enjoyable afternoon. Thanks to Carol Godwin.

Millicent Lawrence.

A WALK TO CAPE SPLIT

Date: Saturday, May 23, 1987
Place: Cape Split
Weather: Wet at first, clearing later, warm
Leader: Lesley Butters

Participants: 19 (18 adults and one three-year old)

In Halifax, the day began dismally with pouring rain, and thoughts of spending the whole day trudging through the countryside in the rain seemed bleak indeed. After receiving instruction on the route, the convoy of cars set of from the Museum parking lot.

Towards Windsor the rain stopped and the sky began to clear - it looked as though the weather forecast had been accurately predicted, despite our earlier fears.

Signs of spring were in the air, with apple and pear trees beginning to blossom and everything looking fresh and clean after the rain. By the time we reached the end of the road at Scot's Bay, the sun was shining.

Many birds, particularly warblers, were abundant, and with the trees not fully in leaf, were readily identified by both the experienced as well as the not-so-experienced birders. Warblers identified included:

Black and White; Magnolia; Redstart; Northern Parula; Black-throated Green; Yellow-rump; yellow; Common Yellow-throat; Ovenbird; Black-throated Blue.

Other species spotted early in the day on the way to the Split were:

Red-winged Blackbird; Broadwinged Hawk; Northern Raven; Ruby-throated Hummingbird; Solitary Vireo; Junco; Robin; White-throated Sparrow.

Plant and wildflower enthusiasts were also busy examining and identifying specimens; species observed included:

Wild Strawberry; Red Trillium; Toothwort; Wood Violets; Blue and White Violets; Dog Violets: Bunchberry; Small-flowered Buttercup; Wild Lily-of-the-Valley; Spring-beauty; Dutchman's Breeches; Rose Twisted-stalk; Dewberry; White Baneberry; Yellow Clintonia.

What had begun as a nasty wet day, turned into a magical spring-like, warm, sunny day, with birds singing their heads off and carpets of wildflowers beneath the trees. It took our small group of five about three and a half hours to reach our destination - the Split - a breath-taking vision of the ocean divided by a huge outcrop of rock and more birds. This time the birds were nesting gulls - Black-backed and Herring. Also present were Cormorants in fairly large numbers.

We sat on a grassy slope facing the Minas Channel to eat our lunch. A bold red squirrel decided to join us and provided some diversion from the view by accepting food offered by hand. Three-year-old 'naturalist' Jennifer Stewart was enthralled by this encounter - an event I feel sure was captured on camera most adequately.

Sometime after 4 pm., after a short rest, we set out on the return journey to the cars - most of the group taking the shore road, three of us returning by the more direct route. Bird-songs were still in evidence but there was a feeling of winding-down at the end of the day. One lone chipmunk watched our progress from a hollow in a tree stump. There were far more bogs and muddy patches to negotiate than when we had come that way earlier in the day - or so it seemed! Arriving at the cars about 7 pm we felt it had been a long but worthwhile day.

While awaiting the arrival of the remainder of our party, we watched more birds swooping and sweeping - Barn and Bank Swallows and Black Guillemot.

It had been a full, interesting and rewarding day - thank you Lesley!

Connie Eaton

Footnote to Cape Split Walk -

Thinking to avoid the knee-cracking climb from the shore to the main path, which is part of our 'traditional' return route from the Split, two of us dropped behind the main group to take it easy and 'explore' on our own. A side path, wide and green, tempted us gently downward, before terminating. We looked for a continuation but there was none. Wandering among the trees we found three or four other wide grassy paths, each only a short stretch leading nowhere. They were certainly not fire roads.

Lunch in the sunshine on an open grassy bank overlooking Minas Basin afforded us a nice rest before making a serious effort to return to the main trail. Somewhere out on the Basin two fishermen were shouting to each other above the noise of their boat engine, but here in the woods it was very quiet. We turned away from the water searching for a path through dense and bushy woodland with many boggy 'cups' to skirt or plod through. But not so much as a rabbit trail could we find.

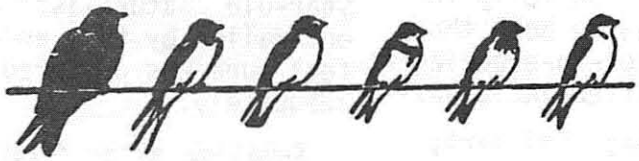
Eventually - keeping the sun on our left - we simply pushed our way uphill through the scrub. A few bird calls and the faint rustle of the trees were the only sounds - not a whisper of a human voice. At one point Mary blew her whistle but there was no response. We pressed on - ever upwards. But now the woods were more open with slender young deciduous trees amid uncurling bracken and fern fronds.

Suddenly we came out of the woods at 'the Boot Tree', after an uphill climb triple that of the one we had tried to avoid!

We rested awhile and Mary took a few pictures of violets before we returned to the car - carefully keeping to the main trail.

The only interesting observation we made while 'lost' in the woods was that of a trio of weatherworn boards nailed to old spruce trees and etched with the picture of a caribou and the words: "Caribou existed here: disappeared 1920".

Mary Primrose. Doris Butters



BIRD ATLASSING IN OUR LUNENBURG SQUARE

Dates	Meeting times	Leader	Weather	Participants
May 30.	7.15 a.m.	Eric Cooke	Overcast	9
June 20	7.15 a.m.	Fulton Lavender	Sunny & warm	7 adults, 1 child
July 4	9.00 a.m.	Clarence Stevens	Overcast	4

This year we had three atlassing days in our square. Those of us who have gone several times got to know the square quite well and love it very much.

We walked along sandy beaches and through wet marshland. We hiked through deciduous forests and along the grassy shores of bays. We looked for breeding birds in cemeteries, backyards and along roadsides.

There must be about 20 pairs of osprey in this area. We never got tired of watching these beautiful birds soaring higher and higher into the air, gliding over the tops of distant trees or returning home with a big fish. The females were usually sitting patiently on their eggs taking short breaks to stretch their wings.

At other times it was amusing to watch juvenile bank swallows sitting on a telephone wire and quarrelling with each other.

One highlight for me was a walk through a marsh. We walked between bullrushes, cattails, wild rosebushes and blue iris to a pond, trying to avoid as many deep wet spots as we could.

We saw wigeon, Green-winged Teal, and Ring-neck Ducks - but no young ones. Had they not yet hatched?

The walks through the woods were often very trying as the mosquitoes were always hungry and love city folk. Once we even abandoned our leader and retreated to the cars.

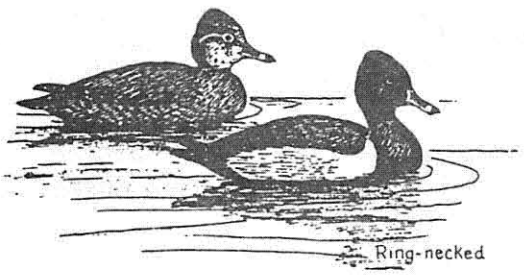
We are proud to report, however, that our May trip had international participation. A keen young man from Jugoslavia and an enthusiastic young woman from Ohio came along. During lunchtime at Hirtles Beach we had lively discussions about international ecological problems!

Each trip included a stopover at Eric Cooke's place. Eric let us peep into his robin's nest with four young birds. At a later visit Eric told us that only one young bird grew up to leave the nest. What happened to the other three birds?

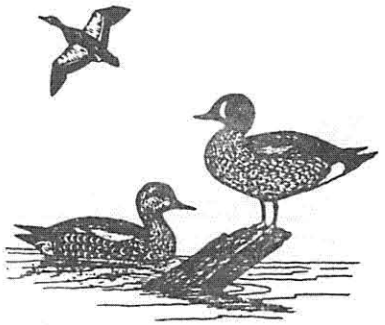
Eric also showed us a pheasant's nest with 16 eggs. This nest was later predated probably by a raccoon.

I would like to thank our three leaders, Eric, Fulton and Clarence, who shared their vast knowledge and experience so willingly and patiently, and without whom we would not have been as successful with our atlassing as we were.

Regina Maass.



Drawings on this page were taken from Summer Nature Notes by Merritt Gibson, Lancelot Press Ltd., 1982.



GREEN-WINGED TEAL
(Anas crecca)

POST SCRIPT -

May 30, June 20 and July 4 - each trip provided not only a look at the birds and their lives, but more importantly, valuable data for our atlas square.

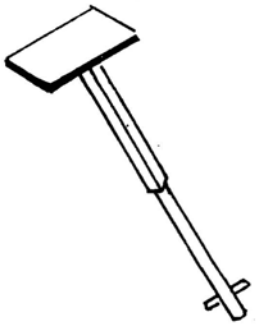
In May, paired wigeon and teal, an active bank swallow colony, a pheasant's nest and recently-fledged starlings were all indications that early nesters were well away.

Our June trip threw us right into the height of the breeding season with warblers, thrushes, wrens and others all in full song. As a result of this trip many species of birds were added to our square list.

The July trip, though short, was our main one for upgrading, as many of the birds heard on the June excursion were still singing, and some adults were busily feeding young.

Statistically speaking, our trips were very successful. We made pertinent observations of 84 species of birds. We added 28 new species to our list and upgraded another 26. As time passes, for me the numbers will begin to fade, but what I will remember will be good people, pheasant eggs, white-winged crossbills, baby mallards and cooing doves.

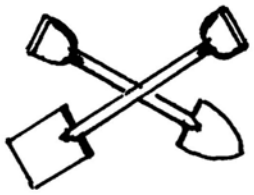
Clarence Stevens



PUBLIC GARDENS - HERE WE COME!

or

Labelling-the-unique-trees-and-shrubs-in-Halifax-Public-Gardens -July-1987,-with-barbecue-to-follow-in-Point-Pleasant-Park.



by

HALIFAX FIELD NATURALISTS

A III-Act play directed by
Colin Stewart

contracted by the
Department of Parks and Grounds of the illustrious and historical City of Halifax - "City of Trees"

Action of the play takes place in and around HALIFAX PUBLIC GARDENS during the summer of 1987.

The Gardens opened in 1836 and the first nameplates were affixed in 1889, supported by an article in The Daily Echo on May 16, 1889, p.4., - "An Outline Guide to Our Public Gardens Which will be Found Instructive", - by Prof. George Lawson.

Over the years, plantings changed, and in many cases, so did the botanical names. Hence the need for re-identifying and double-checking of the current plantings, and the mounting of this new and updated production.

Much behind-the-scenes effort was needed to supplement the work done on THE BIG DAY - SATURDAY, JULY 25, 1987.

Act I Sc.1 - Colin's preparatory work including submission of estimate, etc.
Sc.2 - Specimen-taking of 100 representative trees and shrubs.
Act II Sc.1 - Identifying and preparing specimens for NSM Herbarium.
Sc.2 - "The BIG DAY": Planting and cementing-in and painting 87 (count 'em), 87 of 100 steel posts, working from 8.00 am., to 6.30 pm.
Sc.3 - Barbecue in Point Pleasant Park.
Act III Sc.1 - Planting of remaining 17 posts.
Sc.2 - Cutting and attaching baseboard to nameplates and affixing to the pre-planted steel posts (object of whole performance).
Sc.3 - Whatever else remains to be done.

Lighting and Special Effects on "The Big Day" were provided by God: at 8 am, dull, very cool, misty with threat of rain and a roll of thunder. By noon, clear sunny skies and growing heat, followed by a blazing hot afternoon.

Costumes by 'Ragbag Unlimited' - garments no one wanted to wear again (or even be able to wear again); and by 'Sweat-n-Barebacks Menswear'.

Make-up by 'Plain Jane'. The truly natural look created especially by 'Plain Jane' with nature's own moisturizer - perspiration! - and exclusive to Plain Jane, the rediscovered ancient formula for overall intensive skin and hair care - sand, gravel, cement dust and dirt. ('Plain Jane's motto - "Go it Alone - With Nature's Own").

Props and Equipment provided by the workers or scrounged from wherever they could be obtained ; Post-hole Driller by McFarlane's Rent-it (by George, it works!); cement by Piercey's Supplies.

Production Staff -

Colin Stewart, Joe Harvey, Richard Morash, Bob Jollota, Murray Cunningham, Stephanie Robertson, Doris Butters, and Sinekka Jauhiainen. - Specimen gatherers and identifiers.

Mary Primrose	- Chief Photographer.
Bob Jollota and Colin Stewart	- Co-ordinators and Obtainers of Signposts.
Stephanie Robertson	- Minor Assistant Sign Coordinator.
Sinekka Jauhiainen	- Herbarium Specialist, identifying and mounting specimens for NSM.

Cast of Characters (more or less in order of appearance) -

* Colin Stewart	- Guiding Light, Contractee for HFN, President of 'Exact-Locations', Chief Post-hole Driller; Bucket Man, etc.
* Stephanie Robertson	- Prodder to the Chief, Barbecue Organizer, Hamburger Chef and Apprentice Corn-boiler (see review by Master Chef Michael Downing in July issue of "Gustatory Delight"), Cement Mixer and Signpost Installer.
* Susan Hawkins	- Assistant Barbecue Organizer.
* Stephen Derbyshire	- Chief Cement Expert and Mixer, Master Tamper, and sign Installer.
* Regina Maass	- Supplier of 1st Wheelbarrow.
* Regina Maass, John van der Meer, Susan Hawkins, Sinekka J., and Stephanie R.	- Cement mixers, Signpost Installers Extraordinaire, and Wheelbarrow Pushers.
* The small Jennifers - McCann and Stewart	- Signpost Carriers and Assistant signpost Holders.
* Doug McCann and Michael Downing	- Chief Assistant Signpost-hole Drillers.
* Joe Harvey	- Master Plant-Identifier and supplier of 'Really Sharp' Spade; Turf Cutter.#1.
* Doris Butters	- Divot-digger and Dirt Remover #2, and short term Cement Mixer.
* Alan Robertson	- Chief Go-fer and Master Signpost Painter.
* Stephen Robertson	- Second Chief Signpost Painter.
* Bernice Moores	- Master (Mistress?) Accountant and Chief Water-bearer.
* Connie Eaton	- PR Chairperson, #2 Water-bearer and Provider of Watermelon.
* Derek Eaton	- Post-hole Supervisor and Installer .
* Ellen Downing	- Head Nanny (no, not goat), Chief Supplier of Surprise Cookies, Muffins and Goats-milk Clabber (M-m-m-m good)
* Phyllis Gardner	- Post-hole Helper and Ice-cream Expert.
* Michael Downing, Colin S., Betty Hodgson Stewart, Doris B.	- Replacers of Grass Divots and Scatterers of Surplus Soil.

Acknowledgements to All of the above and the Point Pleasant Park Staff for making innumerable truck trips for the 'labourers in the vinyard' with tables, water, wood, supplies, and driving permits, and to Stephanie R. for devising a hamburger turner out of an old pop can (flattened and sterilized in the fire) and a pair of corn tongs, while waiting for Colin S. to bring his official burger-turner - which he unfortunately forgot.

Reviews - "Smash Hit!! If you missed "Public Gardens - Here We Come" catch the sequel. A truly meaningful statement about a powerful society fighting back against botanical ignorance and apathy. Brilliantly executed! A masterpiece of hard work and cooperation! We await future instalments with eager anticipation!" (The Robertson Horticultural Monthly).

Reviews, cont. - - -"Finally. A group daring and avant-garde enough to come out and display the whole botanical truth with no sparing of sweat and legwork. Braving (possible) rain, locked Garden gates, 50lb cement bags, thirst and sweltering sun, these brave souls faced compacted tree roots and 4 million-year-old slate to come out alive and say 'We did it!'. Congratulations!" (Herverd Psychological Review).

"Drama and North American amateur theatre will never be the same. Shakespeare rivalled in all his comedy, tragedy and brilliant skill." (Oxbridge University Press),

"Rush to get your advance tickets for the sequel to 'Public Gardens - Here We Come'. Watch for announcements of upcoming ACT III. Rumour has it that THE play that has all Halifax raving, is already almost ASO. Don't miss a most significant event in the history of the Halifax Public Gardens!". (Rabekka Corn Board of Directors).

"This unusual,exciting and innovative play is so controversial that a full text is not allowed. Be sure to watch for the continuing saga of this rivetting performance." (HFN Board of Directors).

Remarks Overheard during the Opening Performance

"Well - it's about time! What is that tree, anyway?" (Young male, Public Gardens Visitor).

"Thank you! Thank you! (awed and breathless) I just want to tell you how much we appreciate you people volunteering your Saturday to do this for us, the general public!" (Précis of a longer peroration by a truly appreciative female, a regular Gardens visitor).

"Can you tell me where the ladies' room is?" (man on behalf of his wife).

"No. No, I'm only an engineer. To find out the name of this bush just follow the sound of the post-hole driller and ask them." (Alan Robertson Chief Go-fer etc., in response to an interested bystander).

"Very satisfying. I feel I've really done something useful and meaningful for the community". (a very rough précis of remarks made to his wife at the end of a hard day, by Doug McCann, Chief Assistant Post-hole Driller, who early in the day before getting accustomed to the powerful 'kick' of the gizmo, got tossed against one of the larger trees. Hope it didn't leave any bruises, Doug. [DEB].

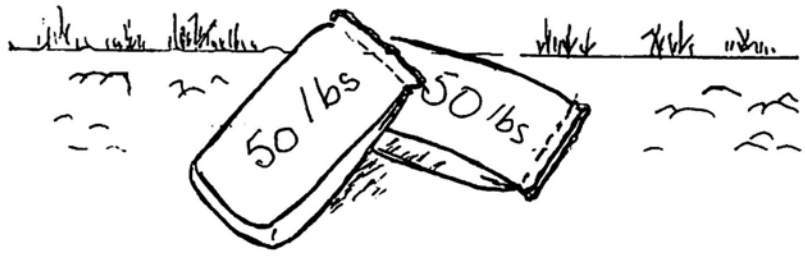
and at the Barbecue in Point Pleasant Park

"For Pete's sake! I thought they were going to arrive at 6 o'clock, as planned!" (Stephanie R. at 7.00 p.m., chief Barbecue Organizer, viewing overcooked corn and a burnt pot-handle).

"C'n I have another hamburger?" (A young Downing, commenting on his upcoming fifth pattie).

"That was just plain good!" (comment made on the hotdog, hamburger, cornboil and goodies barbecue).

Stephanie Robertson.



reports

SPECIAL PLACES IN NOVA SCOTIA

Bob Ogilvie, Colin Stewart and Chris Corkett

In 1981, the Province of Nova Scotia proclaimed the Special Places Act which was designed "to preserve, protect and study sites which are considered important parts of the natural or human heritage of the Province". The Act covers sites of archaeological, palaeontological and ecological interest but here we are only concerned with the ecological section of the Act, specifically the Ecological Sites Program. The Act is administered for the Minister of Education by the Nova Scotia Museum. Bob Ogilvie, Curator of Special Places at the Museum, works to implement the legislation and the related programme.

The Nova Scotia Museum is in the process of documenting potential sites, many of which were identified in the 1974 International Biological Programme report[1] by Pierre Taschereau[2]. Since the IBP report, the Museum and the Department of Lands & Forests have further documented these and other sites. The list now stands at 80 candidate sites[2], but hundreds are needed so that they can be evaluated and compared and only the best selected and protected. The process of categorizing these new sites will be greatly assisted by the Natural History Map of Nova Scotia[3], which has only recently been released by the Museum.

The Ecological Sites Program is primarily interested in two types of sites:

1. Those that are representative examples of ecosystems typical of the different regions of the province.

2. Those that contain rare or endangered native plants and animals in their natural habitats.

It should be understood that it takes a fair amount of research and work before a site can be declared; for example, the Minister must approve a management plan prepared for each site prior to its designation. The task of identifying priority sites is a daunting one in itself, as several thousands must be considered for their resources and for management potential. Considering the amount of work which must be done, it is obvious that the system will not be completed in the foreseeable future.

Three Ecological Sites are being considered for designation under the Special Places Protection Act in 1987-88. They are:

1. A 36 hectare site on the Tusket River, Yarmouth Co. that was identified by Dr. Paul Keddy, founding member of the Halifax Field Naturalists and presently with the University of Ottawa. The Nature Conservancy of Canada, with funds from Wildlife Habitat Canada and other donors, have acquired the land and are expected to turn it over to the Province. Once they do, this site will be managed by the Nova Scotia Museum, with assistance from the Department of Lands and Forest. The site is of particular interest because it contains several rare and endangered species including Coreopsis rosea (Pink Coreopsis), Hydrocotyle umbellata (Water Pennywort), Sabatia kennedyana (Plymouth Gentian). These and other uncommon species are part of a group of plants known collectively as the Coastal-plain element that occurs along the mid-Atlantic coast of North America. Nova Scotia is the northernmost limit for some of these species, and the only Canadian province with the three mentioned above.

The Tusket River site is not very large, and the species of interest could be quite easily damaged, consequently the site, although not secret, will not be promoted.

The HFN will be visiting this site on the weekend of 15/16th August, led by Bob Ogilvie.

Coreopsis rosea

2. Kentville Ravine which contains an old growth hemlock stand and rich herbaceous flora in the associated floodplain forest. In contrast to the Tusket River, Kentville Ravine has long had a public path through it and seems able to withstand relatively high public use.

The ravine is part of the Federal Department of Agriculture's Kentville Research Station property. Designation of it as an Ecological Site further recognizes its importance, and adds to the management practices which have for years protected this site.

We hope to schedule a visit to the station and the Ravine either this fall or in the spring of '88

3. MacFarlane Woods, Cape Breton, which is on private property. A ridge crest contains a virgin climax deciduous forest, surrounded by stands of various ages and composition. According to the landowner, Mr. James St. Clair, the family used wood from the slopes because of convenience, and the top was left alone. Mr. St. Clair recognized its aesthetic value and approached the museum as an agency which could preserve it for future generations. The family will retain the land, but designation will ensure that it will be conserved in its natural state. They will be managed within the guidelines of a Management Plan approved by the Minister, and written in cooperation with the landowner. We are investigating the possibility of visiting this site.

The Halifax Field Naturalists can contribute to the protection of ecologically significant areas in three main ways.

1. Identification and Documentation: Our field trips can provide the opportunity to identify new sites and document existing ones.

Both HFN, and you as individuals, are invited to submit species lists, nature notes and casual observations to Bob Ogilvie. The information will be filed by locality so information must be included as to where (copy of map should be attached) the observations were made. In order to assist in the process the leader of each HFN field trip will be provided with a form from the N.S. Museum - the completion of this form will assist in recording useful information gathered on our field trips.

2. Research: in addition to casual documentation, specific projects to study selected sites in detail can be undertaken in support of proposed designations of these areas as "special places". In some cases, we will undertake these projects at the request of the Museum. In other cases, we will approach them. If you have a special interest or a special area you'd like researched, contact the Special Places[4] or Program Committees[5].

3. Education: lectures, articles and brochures can be used to increase public awareness of the importance of protecting natural areas in Nova Scotia. Bob Ogilvie will give a lecture to the HFN on the Special Places program on August 6th.

The Curator and the N.S. Museum are seeking information on all sites of interest to naturalists. Why not make sure your favorite sites are on the list? If you have any suggestions or want to check the present list of habitats, contact Bob Ogilvie or members of the Special Places Committee:

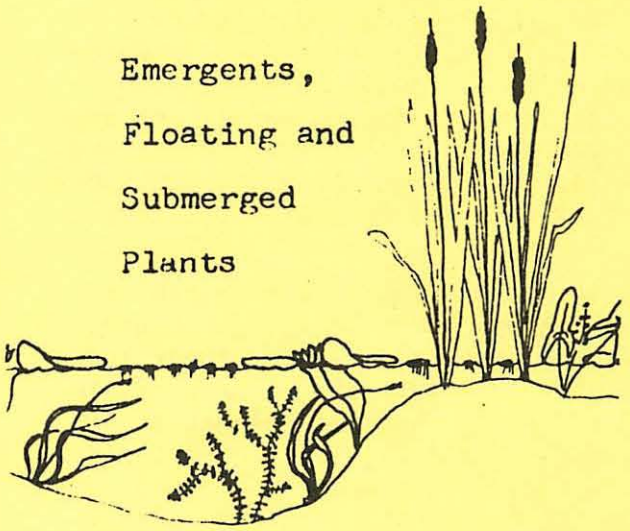
1. Taschereau, P.M., ed. Ecological Reserves in the Maritimes, Canadian Committee for the International Biological Program, Conservation of Terrestrial communities Subcommittee, Region 7, Halifax, 1974.

2. Ogilvie, Robert, Important Ecological Sites in Nova Scotia, Nova Scotia Museum Curatorial Report Number 49, N.S. Department of Education, Halifax, 1984.

3. Available from the N.S. Museum and N.S. Government Bookstore for $3.95.

4. The Halifax Field Naturalists Special Places Committee: Colin Stewart, Clarence Stevens, Chris Corkett.

5. The Halifax Field Naturalists Program Committee: Regina Maas, Mary Primrose, Chris Corkett.



FRESH-WATER PLANTS -
(taken from a report by Ralph Hoskins in Catherine Traill Naturalists Club newsletter - October 1984)

Aquatic plants include representatives of many of the broad subdivisions of the plant kingdom from microscopic phytoplankton found in environments from Arctic ponds to hot springs, to the larger aquatic macrophytes which include lower plants such as charophytes and bryophytes and higher ones such as pteridophytes (ferns) and angiosperms (flowering plants),

The charophytes are rootless and generally found in hard water and, if it is clear, will grow at depths of 120m. Mosses and liverworts (bryophytes) prefer soft water, especially when it is comparatively deep and light intensity is low as a result. The pteridophytes include ferns, club mosses and horsetails, which are all dependent on the emission of spores for their reproduction.

All the foregoing (while present and in certain situations capable of causing problems in their watery habitat) are greatly surpassed in importance by the flowering plants (angiosperms) - by far the most abundant of the aquatics. Those angiosperms which are now aquatic evolved from terrestrial ancestors and still bear many of the features of land plants. While growing in water confers certain advantages on those plants that have become adapted to it - such as adequate supplies of moisture and nutrients and protection from extremes of temperature,- it also brings disadvantages; the most important being the limited supply of carbon dioxide, the diffusion of light and the difficulties with reproducing by normal sexual means.

All plants which photosynthesize require carbon dioxide for conversion by sunlight to the complex compounds essential for growth and maintenance. When a plant is immersed in water, normal atmospheric carbon dioxide is much less available to it. Some aquatic plants have adapted by

acquiring it from the bicarbonates usually present in water. Others developed finely divided leaves, thus increasing the area of leaf surface through which the absorption of carbon dioxide takes place. As with carbon dioxide, light (and therefore sunlight) is essential to growth. The deeper and more turbid that water is, the less light will get through. Between them, these two factors - depth and turbidity - will set a limit below which the green plants cannot grow.

Most flowering plants reproduce sexually, pollen from the flowers' anthers finding its way by some means to receptive pistils of the same species. The means may be by bees, moths, wind or gravity. If a plant is immersed in water, pollination is difficult to accomplish. Thus, many aquatics depend mainly on vegetative propagation for their renewal and spread - i.e., through sprouting and rooting of cuttings, rhizomes or vegetative buds.

Aquatic angiosperms have many habits of growth. Some - the emergents such as cattails and arrowheads - have their lower parts in the water and upper parts in the air. The floating leaf plants (e.g. pond weeds and water lilies) have their leaves at the surface and the flowers probably emergent. Still others are totally submerged. The characteristics of the water body may dictate the type of plant life that can exist in it, as rough water may preclude emergents and floating-leaf plants. If polluted, and perhaps turbid, the water may cut off so much of the light that submerged plants cannot compete.

Small, shallow water bodies in which aquatic plants grow and spread feely, may develop into a problem and interfere with man in his use and enjoyment of the water. Curly Pond Weed, which grows in Scottish freshwater lakes, has managed to gain a foothold in North America and is becoming a nuisance in American and Canadian lakes. It has the unfortunate property of developing and dropping vegetative buds, which instead of at least lying dormant until the following year, take root and develop under the ice during the fall and winter, whereas our indigenous aquatic plants die back during this period. Thus one of our regular natural controls on the spread is being circumvented by the Curly Pond Weed.

Research indicates that, in shallow water of, say, 1m deep, the higher the nutrient level, the richer the plant growth. However, even at high nutrient levels, the growth becomes poorer as the depth increases to even 2 or 3m. Sewage entering a water body supplies many of the nutrients plants need. So water that receives sewage effluents is more likely to suffer from an overabundant growth of aquatic plants than water which is free of sewage - one argument in favour of ensuring adequate sewage disposal plants.

Mechanical methods of cutting and removing aquatic plants from certain water bodies have been tried in one place or another, but have not been too successful. One reason is, that the very act of cutting and harvesting produces many cuttings and broken pieces of the plants which, on sinking to the bottom, immediately sprout and take root, recreating as many, or even more, new plants than have just been so laboriously removed.

In dealing with aquatic plants one must remember that, when they are present in normal locations and in normal numbers, they are taking their proper place and filling their role in the balance of nature. Animal life in the water depends on weed beds for food and shelter and our aim must be to control them rather than eliminating them.