

HALIFAX FIELD NATURALISTS NEWSLETTER

c/o Nova Scotia Museum

January-February, 1979

1747 Summer Street

Halifax, Nova Scotia

B3H 3A6

HALIFAX FIELD NATURALISTS NEWSLETTER

JANUARY-FEBRUARY, 1979.

NUMBER: 19

Meetings are held on the first Thursday of every month, at 8.00 p.m. in the Auditorium on the ground level of the Nova Scotia Museum, 1747 Summer Street, Halifax.

Field Excursions are held at least once a month.

Membership is open to anyone interested in the natural history of Nova Scotia. Membership is available at any meeting or by writing to - Membership, Halifax Field Naturalists, c/o the Nova Scotia Museum. Individual membership is five dollars yearly; family membership is seven dollars. Members receive the Newsletter and note of all excursions and special programs.

Directors for 1979-80:

President	Joe Harvey
Vice-President	Anne Linton
Membership Secretary	Marjorie Willison
Treasurer	Pat Cunningham
Directors	Mike Burke Nancy Davis Erick Greene Udo Prager

<u>Newsletter</u>	Anne Linton Mike Burke Doris Butters
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Mailing Address: Halifax Field Naturalists
c/o Nova Scotia Museum
1747 Summer Street
Halifax, N. S.
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HFN is a member organization of the Canadian Nature Federation.

HFN is incorporated under the Nova Scotia Societies Act.

hfn news



PAUL KEDDY (our illustrious co-founder and past-president) will be heading east from Ontario this summer and intends to conduct some field work in Nova Scotia. We will have to persuade him to lead a field trip for old-times' sake!

The Association of Professional Engineers is presenting a series of seminars on energy alternatives for Nova Scotias. These seminars will be held every 2nd and 4th Wednesday of each month beginning 17 January and ending 25 April, at 8 p.m. in Rm. No H-19 of the Nova Scotia Technical College. Some topics to be discussed are: wood utilisation, solar and wind energy, nuclear, tidal and other power sources.

SERIOUS AMATEUR NATURALISTS NEEDED FOR SEABIRD CENSUS WORK THIS SUMMER!

Tony Lock, who works with the seabird unit of the Canadian Wildlife Service, has sent HFN members the following invitation to do seabird colony work in Nova Scotia over the coming summer.

Birds are greatly influenced by human activities and in this century there have been startling shifts in the populations and ranges of many species; but for only a few of them can we estimate with any certainty the magnitude of these changes. It is difficult to estimate the numbers of any bird species with sufficient accuracy to allow the detection of changes even as large as a halving or doubling of the population. However, accurate censuses can be made

of those species which congregate for some reason such as migrating or breeding. Because most sea-bird species are colonial breeders we can hope to estimate their numbers accurately and monitor quite small changes in their populations.

The Canadian Wildlife Service already knows the location and approximate size of most sea-bird and heron colonies in this region and over the next several years we will be working to gather data of sufficient accuracy that we will be able to detect even relatively moderate population changes. There is little historical information on Nova Scotian waterbird populations and a large amount of information must be gathered to form a baseline against which future changes can be measured. This is a field in which the interested and informed amateur can make a valuable contribution. But colony censuses are not easy to do well. Accurate counts only come with experience and training and it requires some care if colony visits are not to be too destructive: every disturbance increases the risk of egg or chick loss to predators.

I am prepared to help amateurs with a serious interest in doing colony work either in a specific area or on a particular species. I can provide training in the techniques of careful colony surveys and help co-ordinate the efforts of amateurs working in this field. If you are a naturalist with interests in this direction, let me know and I will do all I can to help.

Tony Lock, Canadian Wildlife Service
Bedford Institute
P.O. Box 1006, Dartmouth, N.S.
Phones: Work - 426-3138
Home - 479-2520.

SUMMER EMPLOYMENT OPPORTUNITY

FIELD ASSISTANT, BIRD SURVEY.

Duties: To observe birds while keeping detailed notes, along 1000-metre transects in a variety of habitats (mostly various types of forest), to conduct observations of other types (nest studies, waterfowl counts, roadside surveys, etc.) to assist in the layout and description of transects, and to prepare summary tables of observations, as part of a systematic study of the birds of Fundy National Park. Supervision by the project director will be on a once or twice a day basis during much of the study, but only weekly in late summer.

Qualifications: A good knowledge of birds, with experience identifying forest species by their songs and calls.

- - Ability to keep clear, legible notes.
- - Possession of a valid driver's licence.
- - Good physical condition.
- - Willingness to work on an unusual schedule, often beginning early in the morning when birds are most active, rarely at night to study owls, sometimes postponing days off in order to take advantage of good weather during the height of the breeding season in June.
- - Ability to recognize the principal trees and shrubs of the park would be useful.

Duration of Employment: Beginning of May to mid-August, 1979, on an irregular schedule equivalent to a 40-hour week.

Salary: \$500-\$800 per month, depending on experience.

Location of Work: Fundy National Park, Alma, N.B.

Apply to: D.S. Christie, Head,
Natural Science Department
New Brunswick Museum
277 Douglas Avenue
Saint John, N.B. E2K 1E5

phone (506) 693-1196

stating education, work experience, other interests, etc. particularly as they relate to your knowledge of birds and field experience.

NEWS FROM THE MUSEUM

COYOTES IN NOVA SCOTIA -

HFN Newsletter learns from Fred Scott, mammalogist at the Nova Scotia Museum, that so far four coyotes have been captured in Nova Scotia. Three of these are purebred animals and one appears to be a hybrid with the domestic dog but this remains to be confirmed. Details of the four are as follows:

- No.1. - February 1977, caught in a trap near Country Harbour Mines, Guysborough County. Purebred male, 28 lbs.
- No.2 - July 1977, shot near Saltsprings, Pictou Co. The animal is alleged to have been killing sheep for two years and was finally bagged by a Lands and Forests Predation Control Officer who sat up all night with a rifle equipped with a sniperscope. Purebred male, 34 lbs.
- No.3 - October 4, 1978, shot between Dean and Trafalgar in East Halifax Co. Young, purebred female, 24 lbs.



- No.4 - October 5, 1978, traffic victim on Route 103 near Hubbards, W. Halifax Co. This one is probably a hybrid since the pelt shows some dog-like features but unfortunately the skull was smashed by a truck, making measurements difficult. The shape of the skull is used to distinguish between a dog and a coyote and the National Museum in Ottawa is being sent the remains for appraisal. Male, 36.5 lbs.

Fred tells us that in the last century the coyote was more or less a western and prairie animal extending eastward about as far as Western Ontario and Minnesota. Since the turn of the century it has rapidly extended its range eastwards and northwards probably reaching Nova Scotia quite a few years before the first specimen was captured. It is a secretive, more or less nocturnal animal, although it can be active during the day, and is capable of living near human habitation without humans being aware of it. In 1977-78, 45 confirmed coyotes were trapped in New Brunswick.

What has caused this remarkable extension of range is not known but it is the subject of considerable speculation. The coyote has now extended north well into the boreal forest in Central Canada (it was already into the Yukon and Alaska) and only remains to walk over the Canso Causeway into Cape Breton and across the ice to Prince Edward Island. It looks as if Newfoundland may remain the only province without coyotes. One suggestion put forward is that there has been a genetic change in behaviour in the population enabling the species to survive in woodland conditions. Another suggestion is that extinction of the timberwolf in almost all the Northern States and Southern Canada has left a vacant habitat but this does not explain the time lag, the habitat was missing its top carnivore long before the coyote moved in,

why did it wait? In any case coyote and wolf can co-exist and do so over quite a large area of the north. Their food and hunting habits are fairly distinct. Coyotes tend to be solitary or in pairs and catch hares ('rabbits') and small rodents as well as scavenging. From this point of view their addition to the fauna of Nova Scotia is harmless and may well be beneficial. The unwelcome part of the diet is that they will kill sheep and the embryonic sheep industry is anything but leaping with joy at the news of the coyote's arrival. Feral dogs will remain a problem for the sheep but there will be a predictable tendency to blame all sheep kills on coyotes. It is in fact rather difficult to distinguish a feral mongrel dog, particularly those with a good dose of German shepherd in them, from a coyote. For this reason the Museum will not accept sight records, they need a body so that the skull can be measured.

Another fascinating fact is that dogs and coyotes will interbreed. This brings up the possibility (unproven so far) of introgression of domestic dog genes into coyote population and speculation has been put forward that this may be the source of any genetic change in the spreading population. This is all armchair science at the moment but needs to be worked on.

One characteristic is missing when coyotes live in human inhabited regions and this is the evening howling sessions. People who have camped out in the West call it prairie music. I remember one occasion in the Theodore Roosevelt Memorial Park in North Dakota at dusk when two or three animals started their chorus from a distant clump of cottonwoods along the Little Missouri: it is an enchanting, magical sound to be treasured in one's memory along with the honking of the geese as they fly north.

The question of population control will inevitably come up. Here we have a fairly definite answer. Two hundred years of trapping, shooting, poison and bounties have demonstrated that there is no way to get rid of coyotes. They are here to stay. Poison bait in fact seems to be almost counter-productive and leads to extensive

killing of non-target scavengers and carnivores, both mammal and bird, while leaving enough coyotes to restore the population the next year. They are in fact extremely intelligent, cautious animals which live very carefully controlled lives avoiding contact with humans.

Conditional welcome, little wolf.

COYOTE (ki-o-te, i as in pie) from Nahuatl 'coyotl', via Mexican Spanish.

Recent Books:

Coyotes, Biology, Behavior and Management: Mark Bekoff, Academic Press. N.Y., 1978, 384 pp. \$34.50 U.S.

Wolf and Man, Evolution in Parallel: Roberta L. Hall and Henry S. Sharp, Academic Press, N.Y., 1978, 210 pp. \$19.50 U.S.

A BOOST -

"Despite a panoply of laws intended to protect society from hazardous chemicals, the regulatory road from discovery of a hazard to its control remains rough. Bureaucratic inertia and delay are permanent features of the process; pressure from affected industries is constantly applied: and statutes are often unworkable from the start. As a result, prompt regulatory action is virtually nonexistent, and when action does occur, it is usually at the prodding of outside citizen groups."

(from Science, Vol.203:28,1979).

editorial



BELLADONNA AND BABIES or DAMN THE DUGONG!

Everyone is writing about them so why not I? The subject "seals", specifically the Canadian harp seal with the annual kill due to start in March. But is it possible to say anything new? We have had years of horrified condemnation followed in the past couple of years by some gut support for the Newfoundlanders who need the money. Yes, I think there is something new to be said, not by adding to the condemnation or to the support but through a consideration of natural history; the natural history not of the seal, that has been well enough discussed, but of the forgotten animal in the situation - man.

What are the facts of the case? Here we hit a barrage of propaganda masquerading as fact with the average citizen left bedazzled as to who or what to believe. So far as I can sort out, the following is true:

1. The harp seal is not an endangered species;
2. of all the methods used to kill wild animals in Canada the one used to kill seal pups is the least cruel;
3. the hunt does help the Newfoundland economy.

The myth that the harp seal is in danger of joining the dodo dies pretty hard, in fact the U.S.A. Congress recently passed a statute banning the importation of seal products into the U.S.A. predicated on the basis that the harp seal is an endangered species and so mentioning this "fact" in the preamble. If Congress gets the facts wrong what hope is there for the average citizen?

The cruelty of the hunt has attracted most of the public attention. Millions of people know that seal pups

are skinned alive to die slowly under conditions of intense agony. This "fact" more than any other has raised the ire of good folk in San Francisco, Munich, London, Osaka, Stockholm and Vancouver. Yet when you really get down to what goes on in the Canadian wilderness the seal pup kill starts to look really

good. Pups are killed by smashing their skulls with a club. They lose consciousness within a fraction of a second and the heart stops beating within 30 seconds or so (hearts have a semi-autonomous pacemaker and can keep on beating for a time even though the brain is dead). No cruelty - in fact a humane way to conduct a kill. Take deer or duck hunting. A number of animals are only winged by the hunter and escape to die slowly of bleeding or infection over a time period of perhaps weeks. Where is the international press campaign? Where is the Act of Congress? Where are the millions of dollars sent to interpose a human body between every deer and its hunter? Who cares?

Other methods of killing animals are worse; for one, that old Canadian tradition (as old as the Hudson's Bay Company) - the trapline. Steel traps are a cruel way of killing animals and despite efforts to design and market an effective and cheap trap that will rapidly kill the animal caught in it, the old leg-hold type is still used in the thousands across the country.

Poisons, as well, are used in large amounts to kill gophers, coyotes and wolves. Strychnine or sodium fluoride poisoning does not inflict an easy death (strychnine poisoning is particularly painful). Yet none of these issues are mentioned in the press.

So far I have written nothing new;

all the above has been common currency for a long time and yet the attack on the seal hunt persists and if anything, grows. It is obvious that at some point rational argument has ceased, patently, people do not wish to know the facts. What we are dealing with is a crusade that has caught the imagination of millions. In a crusade "facts" are irrelevant. Thus, in analysing the situation we have to take a different approach. We have to examine not the facts but the people. What is there that has converted the traditional Canadian seal hunt, a humane hunt of a non-endangered species, into an international affair? After all, the world has plenty of truly endangered species: several species of crocodile and giant lizard, tortoise, turtles, several seals and that strange seal look-alike, the dugong or sea-cow (which probably gave rise to the legend of the mermaid from the female's habit of suckling the young in an upright position in the water clasping the pup to her breasts).

Why do these species not arouse international sympathy? Why does not the Canadian public insist that Parliament pass a resolution condemning the U.S.A. for its treatment of the California condor? Now there is a species really in danger of extinction. What does the seal have that these other animals do not? I think I know the answer - let me see if you agree.

1. Baby seals are cute.
2. The ice floes are a media dream.

Yes, they really are cute. Those big, dark eyes staring at you just melt the heart. Take a trip to one of our local dime stores and go to the picture section. The sort of store I mean sells pictures painted on black velvet substitute. Look at the pictures of children and notice that they are painted with the eyes twice as large as life. The pictures are of terrible quality but one has to admit that those big, staring eyes have a certain fascination.

What is there about big eyes that rings a bell deep in the human brain? Is it "maternal instinct", that real

or imagined quality in women that we depend on for the perpetuation of the race? Maybe, but I don't want to be accused of sexism and in any case men also are attracted by big, dark eyes. Despite the old adage, men do not always prefer blondes; I know Marilyn Monroe exerted a hold over my generation but give me a dark-eyed beauty any day - Ava Gardner, where are you?

Women have been winning the battle of the sexes for millennia by increasing their apparent eye size. Two methods have been used. Belladonna is a European herb the juice of which, instilled into the eyes, causes the iris muscles to relax opening the pupil and making the eyes appear bigger, darker and even more appealing. The word 'belladonna' means beautiful woman and the plant from which the extract is obtained is called Atropa belladonna (Solanaceae, the tomato family) and contains the alkaloid atropine which is still used in eye examinations.

Ancient Egyptian tombs have been found with cosmetic boxes containing, among other substances, kohl, a compound of antimony in the form of a fine black powder used to paint around the eyes making them appear larger. Unless my eyes deceive me the habit seems to be still around, maybe not with antimony ore but with modern chemicals including blue and green in addition to black. (Al-kohl means 'the refined substance', i.e. the quintessence extracted by sublimation or distillation, this ancient term is now restricted to C_2H_5OH and related compounds).

By now you should be getting the idea of my hypothesis. There is something about binocular vision and large dark eyes which is basic to the human psyche, our natural history. Baby mammals in general are attractive because they have a large eye to head size ratio. The larger the ratio the more appealing, within limits, the animal. Baby seals are especially attractive because their eyes are very dark (sun protection), large, and contrast with the white fur. They stand a good chance of winning the world's

most appealing baby animal contest.

The conservation groups found this out by accident long ago. Run an advertisement in a magazine or on TV with a picture of a seriously endangered species of crocodile and the public response is minimal. The same goes for any of that list I mentioned earlier, they all have small beady eyes Ugh! But run an advert, with a baby seal and people reach for their crocodile-skin wallets immediately; tell them that the brutal Canucks are exterminating these beautiful creatures and they weep into their turtle soup and take the cheque down to the post office in their automatic transmission cars (high pressure oil is sperm whale oil).

This then puts the conservation groups into a not-unwelcome dilemma. The deluge of money that seal publicity elicited had to be acted on to the detriment of causes that were more in need of attention but which did not open the public purse strings. That initial money was used to finance more professional film crews to go to the sealing grounds and produce film footage that has been shown on TV around the world and in turn brought in more money and more protests, a beautiful example of positive feedback.

Here, of course, we are touching on the fact that the scene on the ice front is a cameraman's paradise (well a producer's paradise at least): no obstructing trees, dense concentrations of animals, a fantastic landscape of ice floes to the horizon, baby seals that keep still and let you get good close-ups. Then there is the human situation: the ships standing starkly out of the ice, the sealers, the blood on the snow, the confrontation between the well-intentioned 'save-the-seal' people knowing they have the goodwill of millions behind them and the RCMP and fisheries protection officers who are trying to keep the peace and administer what laws there are. Real drama there, God's gift to TV.

Notice that in all this I am not condemning anyone, we are all victims, trapped by our own natural history. It is sometimes a sobering thing to stand in front of a mirror and look at a small, moderately intelligent ape and realise

that despite the veneer of civilisation we still have an almost intact suite of instincts inherited from our not-so-distant (50-100 generations) pre-civilisation past. We may think that everything we do is the result of cool, logical reasoning but the evidence seems to be that logic is used less than we may think and the realisation of this may be of help in the future.

Let me be frank, the save-the-seal campaign, at least as regards the harp seal, is a bad cause and as such does the whole conservation movement, which I support, a disservice. Like the situation with the ecology freaks in the 60's we are finding that a basically good cause can be harmed by taking extreme and unsound positions. We owe it to ourselves and the world conservation movement to be continually examining our own actions and motives. Conservation will be stronger for it.

Many of my friends who read this article, I know, have supported the anti-sealing campaigns and will be hurt and angry at what I have written. It is not my intention to hurt their feelings and I apologise if I have done so. I do hope however that they will not dismiss the ideas I have put forward as the writings of an "industry man". I have no connections with the sealing industry or any hunting group. I do not hunt. I am strongly in favour of conservation and I share the feelings of many that too little is being done too late especially in terms of the developed nations helping the third world nations in conservation. Most third world countries are tropical, most endangered species are tropical and yet these countries do not have the political or economic ability to save the thousands of critically endangered species that live within their national boundaries. That is the major problem facing the world conservation movement for the rest of this century and well into the next.

M.J. Harvey.



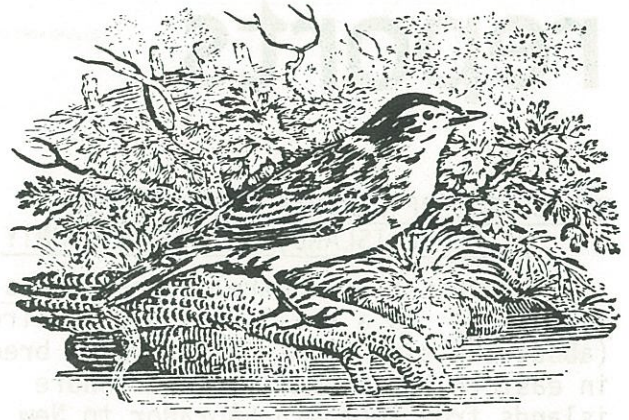
A MODEST PROPOSAL -

I was somewhat shocked the other day to discover that the Myrtle Warbler was no longer with us. Not, I hasten to add, that the species has become extinct but that the American Ornithologists Union no longer gives it that name in the Check-List of Bird Names. Moreover I gather I am five or more years behind times in this discovery. Well, the loss of this name from the list set me thinking of some logical extensions of this search for better and more sensible names. Here are the preliminary results.

Take the warblers: a lovely group of invisible birds. I claim to have wandered over hill and dale for more than 30 years without seeing a single warbler. In conditions of strict privacy some of my ornithological friends have admitted a similar failure to actually sight a specimen. What warblers do is sit under leaves and sing, and you identify them from their song. These songs are absolutely characteristic for each species and are given in bird manuals, e.g. "tweet-tweet-tweet", "beee-bz-bz-bz", "beeee-bzzz" (inhale and exhale), "tizip-tizip-tizip", "seebit", "seeeeeeeee-up", "weeta-weeta-weetee"; the latter I want to rename the Julius Caesar warbler.

No, I didn't make up any of those songs, they are straight out of Peterson. My personal hangup is that when I'm actually outside I have difficulty distinguishing say 'beee-bz-bz-bz' from 'beeee-bzzz (inhale and exhale)', whatever they sound like. If only we had the chestnut-sided warbler in this neck-of-the-woods I could actually start my warbler list. I reckon anything that comes right out and sings "I want to see Miss Beecher" should be pretty easy even for dumb mutts like me. Maybe she is the teacher the oven bird spends its days looking for.

To get to the point of discussing warbler songs, and that is that over the tremendous range of their notes not a single one of them actually warbles ('warble', v.tr. to sing with trills, runs or other melodic embellishments); they cheep and peep and chat, but when



it comes to melodic embellishments they are as dumb as I am.

Now to move to the finches and sparrows. Here we have some really melodious trillers. No one seems to keep canaries anymore, only budgies, possibly they competed too much with the Muzak, but the song of a canary, which is a finch named after a dog, is a glorious soaring cascade of sound. Out in the fields, in fact in my own backyard, we have the song sparrow (one pair raised two broods in my hedge in 1978), another glorious songster, a bit repetitive but sweet and melodious. I must admit the chipping sparrow lets the clan down a bit but by and large the finches are good songsters.

The modest proposal now becomes obvious. We have to switch names: the warblers we will call finches and the finches warblers. In order not to cause confusion a change-over date will have to be fixed. I suggested 1 January 1980, however a masochist friend of my acquaintance (up at 4 a.m. on Boxing Day to count birds) points out that this might cause confusion in the reports of the Christmas 1979-New Years Day 1980 combined bird reports so some other starting day must be agreed upon. Maybe take the financial year and start 1 April, 1984.

You will be pleased to hear that the research continues. Take the titmice for instance (if titmouse has such a plural), they don't especially look like mice, they don't even squeak, nor do they look like - well, we'll continue the report on these in a later edition. And by the way, just in case I meet one, will someone please tell me what I now call a Myrtle Warbler?

Swift

reports

HFN CENSUS OF LEACH'S STORM-PETREL AT PEARL ISLAND, LUNENBURG COUNTY.-

Leach's Storm-Petrel (*Oceanodroma leucorhoa*) is a small, pelagic seabird (about the size of a robin), which breeds in eastern North America on offshore islands from Southern Labrador to New England. The centre of the breeding range is south-eastern Newfoundland where colonies of up to 210,000 pairs have been reported. The colonies on the northern and southern fringes of the range are smaller, none exceeding 5,000 pairs. One of these fringe colonies is found on Pearl Island, at the entrance to Mahone Bay where an estimated 2,500 pairs were breeding in 1975.

In June, 1978, HFN approached the Nova Scotia Department of Lands and Forests for support in conducting a census of Leach's Storm-Petrels on Pearl. Since the size of many colonies on the fringes of the bird's breeding range have declined in the past several decades, we thought it would be of interest to begin to monitor the Pearl Island colony. A comparison of the results with those of an earlier census conducted on Pearl in 1975, might indicate some short-term changes in the population. In addition, it would give several HFN members the chance to observe typical flora and fauna of an offshore island as well as try out some simple seabird censusing techniques.

The Department of Lands and Forests was agreeable and with their donation to cover travel costs, a group of keen naturalists set sail for Pearl Island on August 12th.



The bird.

Leach's Storm-Petrel belongs to the order *Procellariiformes* in company with more familiar petrels such as the albatrosses and the shearwaters. The eastern North American population winters in the south Atlantic, returning to its breeding grounds in late April. It is a rather mysterious little seabird, only coming to land to breed and even then, visiting its colonies at night (its nocturnal habits were probably adopted to avoid predators such as the Herring Gull). The birds nest in burrows which, on Pearl are dug in the soft peat soil. They lay a single egg in early June and do not re-lay if it is lost. Chicks hatch after a long incubation period (over a month) and are soon left alone in the burrow while both parents forage at sea. Thereafter, the adults visit the nest with food, approximately once every two-three days until the chick reaches fledging age (about 50-60 days). Like most petrels, these birds can withstand long periods without food, even as chicks.

The Island

Pearl Island lies about six miles off the coast of the Aspotogen Peninsula, Lunenburg Co. (see map). It is approximately 600 metres (half mile) long and 300 metres (quarter mile) wide. The island is surrounded by a rocky coastline which rises 12-15 metres (40-50 feet) on the east side and slopes gradually to the sea on the north, south and west. The deep peat soil on the island supports dense growth of Conch Grass (*Agropyron repens*), Hair Grass (*Deschampsia flexuosa*), Sheep Sorrel (*Rumex acetocella*) and Raspberry (*Rubus* sp.). In the moist gulleys which transect the island, Large Cranberry (*Vaccinium macrocarpon*), Cinnamon Fern (*Osmunda cinnamomea*), Wild Lily-of-the-Valley (*Maianthinum canadense*) and Large Blue Flag (*Iris versicolor*) dominate the vegetation. One small spruce is the only tree on the island. Since the late 1950's the island has been uninhabited and in 1976 was designated as a provincial wildlife area. This status does not limit access to the island, but the Department of Lands and Forests

posts signs (we didn't see any) describing the island's sensitive fauna and cautions against activity there during the seabirds' breeding season.

In addition to Leach's Storm-Petrel, five other species of seabirds breed regularly on the island; Great Black-backed Gull (*Larus marinus*), Herring Gull (*Larus argentatus*), Arctic Tern (*Sterna paradisaea*), Black Guillemot (*Cepphus grylle*), Razorbill (*Alca torda*) and Common Puffin (*Fratercula arctica*).

The census

In order to obtain results which would be comparable, we used virtually the same census procedure used in the 1975 census. The timing of the census was the same in both years (early nestling period) causing minimal disturbance to incubating birds. All the burrows found in two areas censused in 1975 were counted and sampled to determine occupancy. Sampling involved

reaching back to the nest chamber at the end of the burrow (some are nearly a metre in length) to discover if there was evidence of breeding activity (an egg or a nestling). As the incubation period was largely over by this time, it was a rare event to find an adult in a burrow.

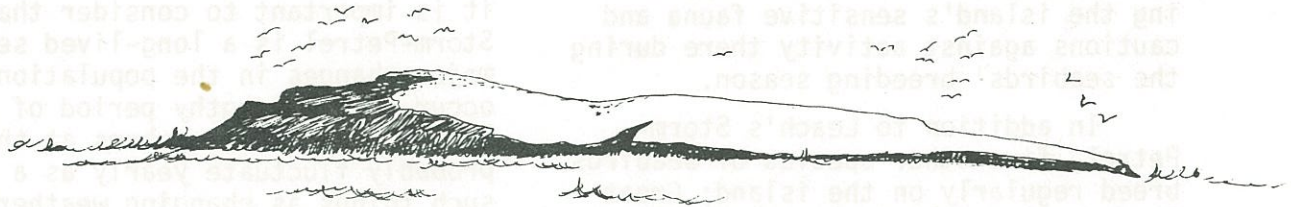
The results of our census and those from 1975 are compared in the following table:

Before interpreting these results, it is important to consider that Leach's Storm-Petrel is a long-lived seabird and major changes in the population probably occur over a lengthy period of time. During this time, numbers at the colony probably fluctuate yearly as a result of such things as changing weather and feeding conditions in a particular year. Without an idea of the extent and frequency of these fluctuations, it is difficult to draw conclusions about long-term changes in numbers on the basis of the two census periods.

With this in mind, it appears from our results, that fewer birds were occupying burrows on the Pearl Island colony in 1978 than in 1975. The numbers of burrows found in the two areas were 10 and 19% lower in 1978. Obviously burrows had become filled in and covered with vegetation, a process that would require several years of disuse. This suggests that the decline in the total number of burrows in the the areas represents a real decline in the number of birds.

The results also show that a smaller proportion of burrows were occupied by breeding birds in 1978 than in 1975. This does not necessarily indicate an additional 14 and 27% decline in the number of birds occupying the two areas as non-breeding birds (which make up a significant proportion of the colony population) may

Area.	Year.	Total burrows found	No. occupied by breeders	No. un-occupied	Number containing eggs	Number containing chicks
1.	1975	108	66 (61%)	42 (39%)	12 (11%)	54 (50%)
	1978	87	41 (47%)	46 (53%)	9 (10%)	32 (37%)
2.	1975	213	189 (89%)	24 (11%)	33 (16%)	156 (73%)
	1978	192	119 (62%)	73 (38%)	30 (16%)	89 (46%)



have been active in many of the empty burrows. Non-breeders were not detected during the sampling because these birds visit the colony only at night and are seldom in their burrows during the day. Factors such as poor feeding or nesting conditions early in 1978 breeding season may have discouraged some potential breeders and caused a shift upward in the proportion of non-breeders/breeders in the colony. It is the breeding

population, however, which is of greatest interest in census work of this kind and for 1978 at least, this appears to have declined on Pearl Island.

The census at Pearl Island and projects like it will hopefully be ongoing and provide useful information as well as valuable experience to those involved. We welcome suggestions and/or willing volunteers for such projects.

Anne Linton

About this Newsletter:

This is the official newsletter of the Halifax Field Naturalists, published every two months through the courtesy of the Nova Scotia Museum. We welcome articles from members or non-members; reports of field trips, nature notes, book reviews, observations, highlights from other publications, notices, drawings, anything pertaining to natural history.

POSTAL CODES

We are introducing a new address-label printing system and we would appreciate receiving any corrections to be made to addresses, and in particular the postal code of every address.

If we do not have the postal code of your address please use the application form to give us your full address, code included.

book review



ORNITHOLOGY IS FOR BIRDS!

That's what I thought when looking up the word in the dictionary. However, after reading a book called "Words for Birds", I decided that ornithologists "are for the birds!". Although fond of birds and concerned for their welfare, I've never been a rabid "birder". Now, however, after reading this book, I'm more sympathetic to both birds and watchers.

The book's dust jacket is eye-catching in its simplicity. It states:

WORDS FOR BIRDS

A lexicon of North American Birds
with
Biographical notes
by
Edward S. Gruson.

An ornithological, etymological, biographic and historic guide to 800 North American birds including:

** The origins of their common English names and scientific names (including some howling misnomers).

** The bizarre bird lovers who discovered them, thought they discovered them, named them, misnamed them, or, through no fault of their own had birds named after them.

** Including 238 illustrations from Alexander Wilson in the margins.

This cover is worth reading carefully as it is both instructive and humorous. It states, "contrary to accepted belief, not all bird-watchers are little old ladies in running shoes. As the number of bird-watchers grows, many are interested in knowing more about a bird than its looks. All birds have scientific names as well as common English names and Gruson is interested in their meaning and sources".

Canadian born Edward S. Gruson defines the purposes of this book in a

clearly-written introduction which reads in part -

1. To provide an etymology of the common names of the birds of North America north of the River Grande.
2. To give translations and origins of the scientific names of birds.
3. To give a brief biography of the people for whom the birds of North America were named.

To quote the jacket again, "the madly mixed-up bag of British Admirals, U.S. Army doctors, fur traders, wives of friends of ornithologists (and at least one Italian paleobotanist) whose names live on in the names of common American birds -- except for birds like the yellow warbler which is solemnly categorized in Greek as "Tree-dweller-with-red-spots-on-its-breast-like-chicken-pox". It also states, "women's Liberationists may take umbrage from the fact that it is much more difficult to find out anything about the women for whom birds are named than it is to research the men".

Feeling it useless to study birds while not knowing the meaning of their names, I have read this book with interest as the author translates not only the Latin and Greek, but also a surprising number of remote and unknown languages (Sanskrit, Celtic and Australian Aboriginal to mention a few). The following excerpt serves as an example of the amusing information this book provides -

Prothonotary Warbler - Protonotaria citrea

Protonotaria. An odd Greek-Latin word meaning "first scribe or notary," coined from protos, "first," and notarius, "scribe," In the Roman Catholic Church, the College of Prothonotaries Apostolic keep the records of consistories and

canonizations, and sign Papal Bulls. They may celebrate Pontifical High Mass and wear miter, ring and pectoral cross. It is to the color of the robes worn that the name alludes.

citrea. Latin for "pertaining to the citron," i.e., lemon-colored. This is another allusion to the plumage which in this species is a vivid orange yellow.

In only one way has this book been a disappointment to me. Near where I have parked my car on a tree-shaded side street, a kind-hearted gentleman has scattered bread crusts for the sparrows and starlings. Every time I have had to take the car out to the lake for a much-needed

wash I've referred to this book - but the "words-for-birds" I want are not there! Apart from that I've found it to be entertaining and instructive reading. It seems a pity the birds themselves can't read it. From their point of view I guess, it's "just for the humans".

WORDS FOR BIRDS

Edward S. Gruson
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Tim Randall

- Thurs. 5 April Chris Pielou on Immigrant and Emigrant Species: The Changing Geography of Nature in Nova Scotia. N.S. Museum, 8.00 pm.
- Sat. 21 April Early Morning Bird Walk with Eric Cooke to see early returning migrants in the Lawrencetown area. We are starting early, - 7.30 am from the Museum parking lot and plan to be back by 1.00 pm.
- Thurs. 3 May Mr. A.D. Gates, meteorologist with Atmospheric Environment Service will speak on the topic of Maritime weather patterns, clouds and cloud types and patterns of cold fronts, etc. N.S. Museum, 8.00 pm.
- Sun. 6 May The Daphne Walk. Hike from Upper Hammonds Plains along a segment of the Old Annapolis Trail to see the mayflower, Daphne and the basement pits, all that remain of the farms on the land grants made to veterans of the War of 1812. Round trip 8 km., easy walking but a bit muddy in places, bring lunch. Meet at the N.S. Museum parking lot 10.00 am. Leader: M.J. Harvey.

Membership in the Halifax Field Naturalists is open to anyone interested in natural history. Members are encouraged to renew their membership and new members are always welcome. Our financial year is the calendar year and since we do not mail out separate reminders please take this as notice of renewal if you have not already sent in your dues. Membership is five dollars annually, family membership seven dollars.

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

Name: _____ new ___ renewal ___

Address: _____ Postal Code _____