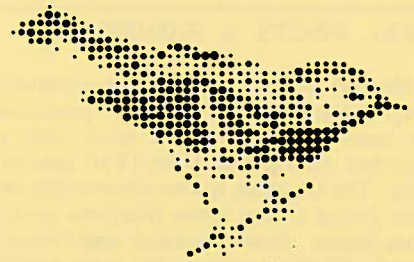


Maritimes Breeding Bird Atlas

NEWSLETTER



The Maritimes Breeding Bird Atlas is sponsored by the Nova Scotia Museum and the Canadian Wildlife Service, Atlantic Region.

No. 23 (FINAL ISSUE)

Editor: Brian Dalzell

WINTER 1990/91

THANKS, AND GOODBYE!

This will be the final issue of the Maritimes Breeding Bird Atlas newsletter, so take note! There is a lot of material to cover, so I'll keep the farewells to a minimum and get right down to business. First of all I want to thank all who took the time to write down their observations and share them with us. Without you, there would simply be no Atlas.

Some of you really put in yeoman service. At the risk of offending some, I have decided to single out about 50 of you that really made the difference. This "Hall of Fame" will be found elsewhere in this issue. Basically it includes those who went above and beyond the call of duty to ensure that we reached our goal of adequate coverage.

I must also thank all of you who replied to my request in the last issue for information on specific species. The response was gratifying and I regret not being able to write and thank each one of you, such was the volume of mail I received. Please accept my gratitude and know that your contribution has made a good project even better....

Of course, my team of 25 or so Regional Coordinators really deserve a pat on the back for volunteering in the first place. Most of you have full-time jobs and/or families, so I know it was not easy to find the time to coordinate the activities of all the volunteers in your respective regions. Some of you needed constant prodding, and a few were capable of a much better performance, but on balance you were a splendid bunch and tried hard, and that is what really counts.

The Steering Committee met several times in Sackville, N.B. to lend their talents, which were not insignificant, and they should be congratulated for making the effort. Also the Review Committee of Ian McLaren, Peter Pearce and Tony Erskine, who critically evaluated hundreds of documentation forms when they certainly had better things to do. Thanks guys!

Others who served in official and non-official capacities crucial to the smooth operation of the Atlas project include my predecessor Judith Kennedy, whose experience on the Ontario Atlas was instrumental in getting us off the ground; Bev Sarty who helped out in the office when no one else would; Fulton Lavender

who patiently endured my many requests to fill out yet another 'doc' form; Dave Currie who took care of our insurance needs; Doris Cruikshank who always



SAVANNAH 'IPSWICH' SPARROW -- This is our only truly endemic breeding bird, from a painting by Barbara Lock, who sold it and graciously donated the proceeds to the Atlas. Thanks Barbara!

volunteered to help label and stuff your newsletters; Barry Donovan who printed them; Fred Scott who was always there when I needed him; and Bob Dickie who helped out in a number of ways.

Thanks are also due to the Province of Nova Scotia through the Department of Education and the Nova Scotia Museum. They gave us a home and unlimited assistance with such necessities as mailing costs and printing this newsletter, phone bills, etc. They shared our vision, and without that vote of confidence the Atlas would not have become a reality.

Also the Canadian Wildlife Service through the Department of Supply and Services who came up with the financing

that got us rolling and allowed the hiring of a full-time coordinator who could oversee the operation of the project. When you think about it, it was a miracle that everything fell into place the way it did. No less a miracle were the hundreds of you who donated money to help underwrite my forays into the field over the past two summers. These areas would not have been covered otherwise.

Last but not least are the two people who really made this project click -- Peter and Linda Payzant. They were the catalyst that got the Atlas going, and throughout its run gave unstintingly of their time and energy to make sure the effort did not falter. I can truly say that were it not for them, we would have 'crashed and burned' some time ago. They will likely even be sifting paper for months after I leave, unless some of you feel compelled to call them and offer to help lighten the load.

We are in the home stretch now, with publication of the "ATLAS OF BREEDING BIRDS OF THE MARITIME PROVINCES" expected sometime this fall. Author Tony Erskine already has most of the species accounts written and artist Azor Vienneau is hard at work on the 200-odd drawings needed to illustrate the text and maps. A publisher has not yet been chosen, but we anticipate the Atlas will be available in all major bookstores throughout the Maritimes and perhaps further abroad.

Plans are to produce both soft and hardcover editions and we would like to see a price between \$20 and \$30. Nova Scotia artist Don Curley has been commissioned to paint a bird to grace the cover, but the species has not been decided upon. The early favorites appear to be Tree Swallow, Spotted Sandpiper and Common Grackle. It will be up to the publisher whether or not to offer a pre-publication discount to all of our volunteers.

Without further ado, here is the final issue of our newsletter and I hope you enjoy it. I have enjoyed producing it, as I have enjoyed meeting, talking and working with you all, both here in Halifax and in my travels throughout the Maritimes. I wish that I had come aboard earlier and had a chance to get to know more of you. It has certainly been the biggest challenge of my career and I know you all share my anticipation in seeing what kind of fruit our collective efforts will bear. May God bless you all.

FINAL FACTS & FIGURES

Most of the 1990 data is now entered into the computer and maps have been produced for all the species that had at least one sighting recorded during the 1986-1990 course of the Atlas. The final tally will be around 225 species of birds found in the three Maritime provinces of Nova Scotia, New Brunswick and Prince Edward Island. Of this number, 200 were confirmed as breeding at least once in one of the provinces.

First of all is party hours. I know a few of us did not have real parties, but I hope it didn't affect their birding the morning after. We collectively invested a little over 43,000 hours in the Atlas. By way of comparison there are 8760 hours in a year, so it would take one person working 24 hours a day almost five years to accomplish what we did.

As for the number of names that actually appeared on data cards, we had exactly 1,000. Some submitted only one record, others more than 1,000. The yearly breakdown of participating atlasers is: 1986-465; 1987-480; 1988-402; 1989-418; 1990-373. As you can see there is an average downward trend throughout the Atlas, with interest peaking in the second year and bottoming out in the last. This shows why Atlas projects should not go beyond five years.

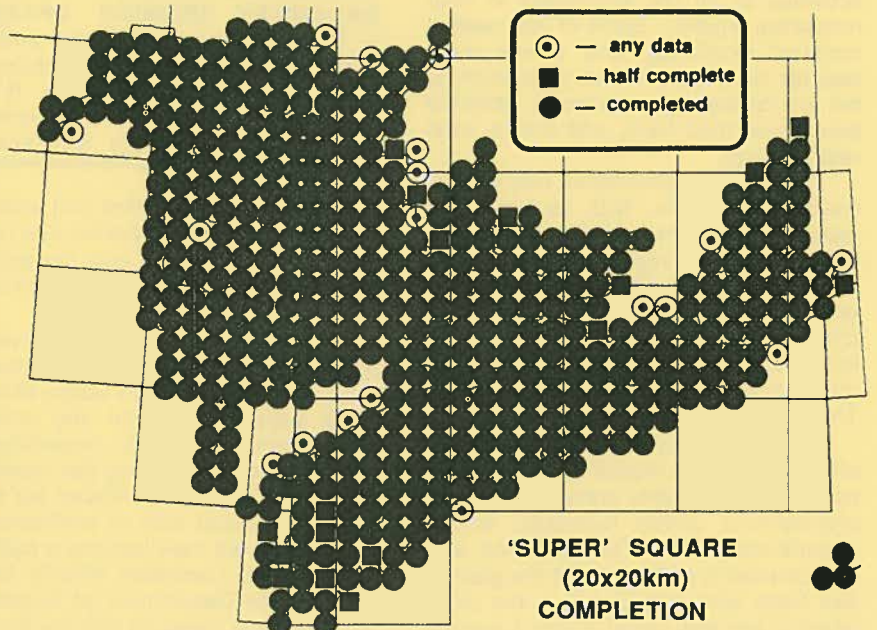
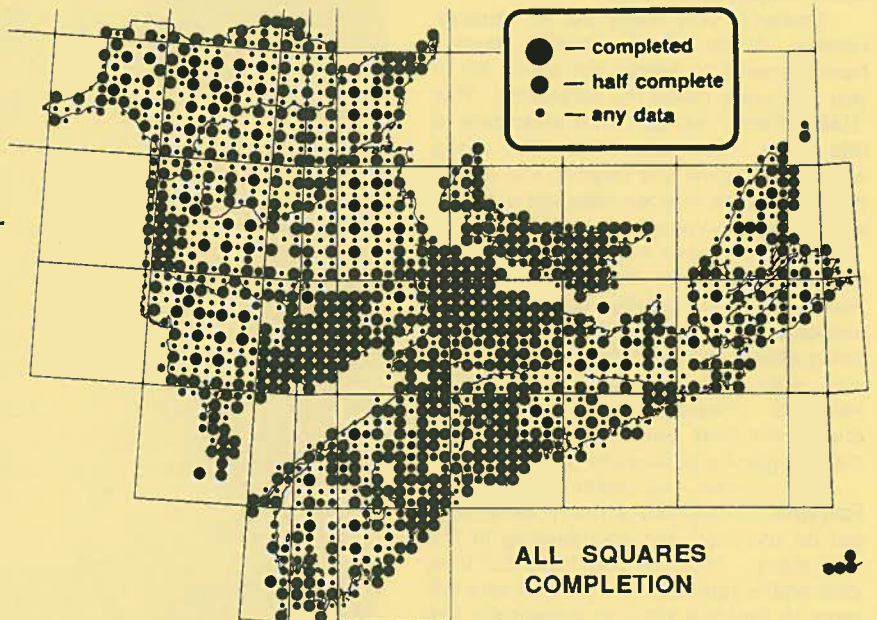
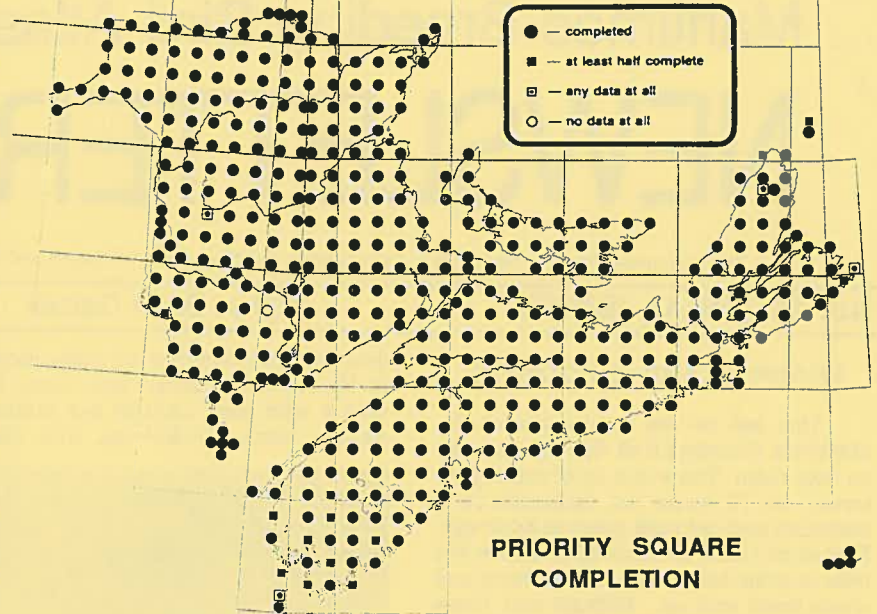
The region with the most atlasers was #21, or Prince Edward Island (the largest region) with 171 registered. I think regional coordinator Rosemary Curley is as relieved as anyone that the project is over! Next in line were regions 15 (Valley), 13 (Border), and 17 (Keji) with 134, 126 and 112 atlasers respectively. Tobique region (4) had the least with 29.

Even though the number of atlasers generally declined throughout the life of the Atlas, the number of records submitted each year increased. This shows that the volunteers who remained either worked harder or became more efficient at collecting data. The first two years were about the same and then the totals really increase, thusly: 1986-22,629; 1987-22,332; 1988-25,197; 1989-35,518; 1990-37,118; for a total of 142,784 records!

Prince Edward Island had far and away the most records submitted -- 13,633. This is most gratifying, as the island province does not have a birding community, so comparatively little was known about the island's avifauna. Thanks to Rosemary's efforts in rounding up atlasers and seeing that the island was evenly covered, P.E.I. is no longer a question mark on the map as far as most species are concerned.

The number of cards submitted also increased over the five-year run of the project. In 1986 we had 964 cards sent in, 1987-1148; 1988-1164; 1989-1483; 1990-1622; for a total of 6381. No doubt a few more cards will trickle in over the next couple of months, but the total should not exceed 6,500 at the very most.

Where it really counted, we came as close to our goal of achieving even coverage as is humanly possible without succeeding. Of the 416 priority squares we had hoped to complete, we finished 404, for a final grade of 97 per cent. Top of the class anyway you look at it. Of the 12 squares that did not get finished, one was in region 22; one in region 23; one in region 6; one in region 9 and eight in region 16. Nine were more than half done, two were less than half completed and one had no data at all.



THANKS TO OUR DONORS

The following individuals and organizations have made generous financial contributions to the Atlas project. Without your help we would have fallen far short of our goal of attaining even coverage of the Maritime provinces. This list will be printed in the final Atlas publication, so if your name is missing, spelled incorrectly or not in the form you would like it to be, let us know before Mar. 30, 1991. Our address and phone number are at the end of this newsletter.

Christopher Adam, Marc Adam, Mary K. Akerland, Rev. Ford Alward, David Ambridge, Daryl Amirault, Stephen Archibald, L. Armstrong, Jean-Paul Arsenault, Peter J. Austin-Smith.

Barbara Bain, Robert Bancroft, Stephen Barbour, Harry Beach, Judith E. Beaton, Yvon Beaulieu, Rev. Tom Bellis, Nancy Blair, Blomidon Naturalists Society, Paul Bogaard, Larry Bogan, Bowater Mersey Paper Co. Ltd., Thelma Bowers, Catherine Bradshaw, Calvin Brennan, Brian Brown, Marge Brown, Jennifer Brown & Gary Woodworth, Phyllis J. Bryson, Robert R. Buchanan, Sandy Burnett, Bruce Burns, Roger Burrows.

Roger Calkins, Ansel A. Campbell, David Campbell, Moira Campbell, Lloyd & Elsie Cannon, Eric R. Carr, John Cartwright, W. G. Caudle, Els Cawthorn, Hilaire Chiasson, C. H. Chipman, Robert Chivers, Barbara Christie, David Christie, Sheila Christie, Sandra E. Clarke, Alice Clements, Club d'Ornithologie, Jean Cochrane, Karl & Donna Cole, Donald Cormier, Bob Cotsworth, Alan Covert, Kevin Craig, Ann Crocker, Rosemary Curley, Grant A. Curtis, Joan Czapalay.

Halton Dalzell, Marcel David, Vera & Paul DeWitt, Con Desplanque, Robert & Helen Dickie, Dorothy Doak, Mr. & Mrs. Fred Dobson, Pamela Doyle, Lewis & Elizabeth Dumont, Gordon Dunphy, Lucy Dyer.

Clem & Pat Egolf, Ann Eldridge, Mr. Jim Elliott, Joseph Farquhar, Gwen J. Fichaud, David Flemming, Harriet Folkins, Harold L. Forsyth, Bernard Forsythe, Susan & Gary Foshay, Roger Foxall, Sylvia J. Fullerton.

Michael Gillis, Franklin C. Gilmore, Sherman Glazebrook, Maud Godfrey, Tommy Godfrey, Lorette Goquer, Irene Gorham, Arthur Grant, Elizabeth M Grant, Tom Greathouse, Henry H. Green, Milton Gregg, Diane Griffin.

Deborah Hearn, Mr. C. W. Helleiner, The Halifax Field Naturalists, Peter Hicklin, Barbara A. Hinds, Harold Hinds, James R. Hirtle, John W. Hollway, Peter Hope, Mr. W. D. Horne, David Hussel & Erica Dunn.

Enid M. Inch, Mr. & Mrs. Robert Inkster, James L. Baillie Memorial Fund, Joan V. Jarvis, Brian Jenkins, Bruce Johnson, Cecil Johnston, Mr. H. Winston Johnston.

Keith Keddy, Judith Kennedy, Fred & Margaret Kenney, Charles T. Laugher, Fulton Lavender, Betty Learnmouth, Mel & Ginny Lee, Charles S. Lennox, Barbara Lock, Anthony Lock, Alice Lockhart, Mr. and Mrs. John Lockhart, Georges Long, George & Kaye Love, Viola Lovitt, Zoe Lucas.

Regina Maass, Clive MacDonald, Gerald MacDonald, R. B. MacDonald, Harold & Joyce MacEachern, Gerard MacIntyre, David MacKinnon, Walter E. MacKinnon, Angus MacLean, J. A. MacLeod, Kay MacLeod, David & Kathleen MacNearney, Jack MacNeil, John MacNeil, Don & Carol MacNeill, Chris Mackie.

Alan Madden, Ray & Joan Mahabir, Mary Majka, Michel Martin, Pam Matthews, Donald McAlpine, Alison McArthur, J. Dan McAskill, Patricia McCleave, Robert & Wendy McDonald, Shannon & Laurie McGowan, Elsie McIntosh, John & Gwen McKenzie, Ruth McLagan, Ian A. McLaren, Douglas McNicol.

Ruth Miller, James Milne, Lorna Mitchell, William Modeen Jr., Josephine Smith Monkman, Nancy More, Mrs. M. C. Morehouse, Jean Morine, Jean & William Morse, Roger Mosher, Thelma R. Murchison, Sandra Myers.

N.B. Federation of Naturalists, Nova Scotia Bird Society Sanctuary and Scholarship Trust Fund, Natural History Society of PEI, John R. Nichols, Carol Nicholson, G. & M. Nickerson, Doris E. Niles, G. H. Niles, Nova Scotia Bird Society.

John C. Oland, Maxine V. Oldham, Michael Olsen, Elizabeth Otter, Stephen & Sheila Palmer, Thomas S. Parsons, Warren Parsons, Paul Raymond Photography, Linda & Peter Payzant, Peter A. Pearce, Bruce Pellerin, Ronald J. Pellerin, Lillian Perry, Stuart S. Peters, Warren & Nancy Peters, Mark Phinney, Arthur Porter, Roy Proctor, Lori Prosser, Lisa Proulx, Margaret Pugsley, Grace Pulley, Don & Joyce Purchase, Derek Quann.

Ruth Richman & Gary Schneider, J. D. Rising, Peter Roberts, Ruth Rogers, Sally Ross, Rural Delivery Magazine, Les Rutherford, Bryan Scallion, Trevis Schriver, Fred W. Scott, Barbara L. Shaw, David Shutler, Scott C. Sinclair, J. Singleton & R. Whitney, David F. Smith, Mary E. Smith, Ruth E. N. Smith, Dusan Soudek, Esther M. Sporle, Saint John Naturalists Society, Cindy Staicer, John E. Steeves, Richard Stern, Mary Stirling, Rudy Stoczek, Stora Forest Industries, John Stub, David Sweet.

James W. Taylor, Roger Taylor, The New Brunswick Museum, The Wild Bird Company, Themadel Foundation, Gaetane Theriault, Bill & Brenda Thexton, Georgette Thibodeau, Mr. & Mrs. A.W. Thomas, Alison Thomson, Jean M. Timpa, Stuart Tingley, Mr. Ralph Townsend, Elizabeth Townsend, Gordon & Judy Tufts, Julie Turner.

Cheryl Uhlman, Walter Urban, Maureitus VanZutphen, Azor Vienneau, Richard Vinson, David Winnifred Wake, Eleanor Waldron, Rob Walker, Timothy P. Walker, Lorne Weaver, Ron D. Weir, Gary & Dottie Welch, Dan Welsh, Marguerite Wheatley, Don & Alma White, Donald White, Louise White, Doug Whitman, Mary Williams, Rhys & Pixie Williams, Mary Willms, Peter Wilshaw, James G. Wilson, Mel Wilson, James Wolford, Terrie Woodrow, Frank Woolaver, John & Mary Wright, Dave & Joan Young.

HELICOPTER ATASSING

After what seemed like years of planning, I arrived at the Nova Scotia Lands & Forests heliport in Shubenacadie on the foggy morning of August 7 with equally-avid atassers Jim Taylor and Fulton Lavender. Our destination was northern Cape Breton, but things didn't look too good.

The fog refused to lift, despite the fact we could see the sun dimly through the gloom, and our pilot refused all our entreaties to take off and head northeast until we broke out of it. While waiting we went into town and had breakfast and drafted one of the ground crew to take our picture in front of a large helicopter which we assumed would be the one we took.

Needless to say we took a much smaller chopper, but it didn't matter anyway because someone forgot to put film in the camera. I won't mention any names, but the perpetrator also got several once-in-a-lifetime shots of magnificent valleys and canyons later in the day as we flew over the ancient highlands of Cape Breton. Hint: it wasn't me and Fulton doesn't have a camera. We finally got away at 10 a.m., destination: square PH70, 16km NE of Pleasant Bay.

It was the first time for any of us in a helicopter and definitely the high point (literally!) of the Atlas for all three of us. Birding was difficult from the air, but we did identify several loons, great blue herons, a sharp-shinned hawk, robin, barn swallow, cedar waxwing, black duck and 24 moose. After a stop for fuel at Baddeck, we arrived at our destination one hour and forty minutes after departure. By car it would have taken us at least six hours or more.

Our pilot set us down in a grassy meadow and promised to return in five hours so we decided to stick together. It was a hot day (28°C) and by noon most bird song had ceased, even at that latitude and elevation (1400 feet). I had found a trail marked on the map and directed the pilot to land near where I thought it should be. It turned out later we were only 100m from it, but we went east instead of west and wandered around in the bush for four hours before we found it by making a big circle back to our starting point.

We were fortunate to find 28 species of birds, thanks to the keen ears of Fulton and Jim's knack for being in the right place at the right time. A visit early in July might have turned up 50 species, but habitat consisted mostly of moth-eaten balsam fir and gnarly black spruce with a few alder swales and open areas. In retrospect, it would have been easier to hike in along the trail from Pleasant Bay and camp overnight, but you know what they say about hindsight.

None of the birds were unexpected, although young Brown Creepers (heard, not seen) identified by Fulton were nice. I still think they were Golden-crowned Kinglets, but you defer to him on such things. Also memorable was a young Downy Woodpecker that followed us most of the afternoon, resulting in 16 confirmations for that species. True to his word, our pilot did return and we were none too anxious to remain.

Of course the best part of the trip was the trip, and we owe a debt of gratitude to Peter Austin-Smith of Lands & Forests in Kentville for cutting through the red tape on short notice and getting us up there. He also arranged for a float plane to take other atlassers into Sporting Lake in the interior of the province south of Digby, for which thanks are also due. The first flight consisted of Gordon Tufts, Bill Caudle and Ian Ross, but due to fog over the lake, they could not land and had to return to base.

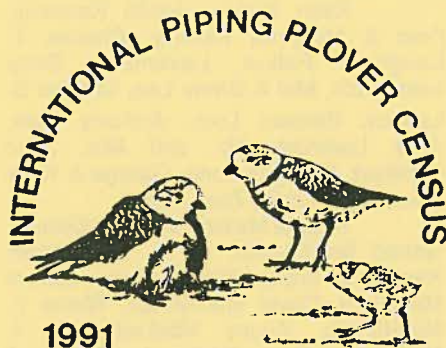
Later, Peter Hope and Thelma Bowers were able to fly into the lake, but the number of species was less than forty, something Peter attributed to the lack of habitat in the interior of that part of the province. Most of the area had been scraped clean of soil by the glaciers within the past 10,000 years, so I guess that was better than our excuse of it being too hot. As far as I know, this was the only aerial atlassing done during the project.

HELP NEEDED WITH PIPING PLOVER SURVEY

In this issue you may have already noticed a mock-up of what we envision will be a typical page in the completed Atlas. We chose the Piping Plover because it is an endangered species in Canada, and the map clearly shows how restricted its range is in the three Maritime Provinces.

Without some kind of protection, the numbers of Piping Plovers are expected to continue their steady decline in the immediate future. Efforts are already underway to educate the public and protect vital nesting areas, but it is necessary to know just how many remain in order to gauge the success or lack thereof of these programs.

With that in mind, the **International Piping Plover Census** has been organized for 1991 and your help is being requested. The survey will be conducted simultaneously throughout the United



States and Canada during the first two weeks of June. It is an enormous task, and if you live near one of the areas indicated as a breeding location for these plovers on our map, please consider volunteering your time to help count.

Any sandy beach will do, so you don't have to restrict yourself to those proven breeding areas shown on our map. If you can visit one or more of these beaches during the first half of June, get in touch with **Bruce Johnson or Stephen Flemming, CWS, P.O. Box 1590, Sackville, N.B. E0A 3A0. 506-536-3025.**

Send them your name, address and telephone number and indicate which beach(s) you would like to census. They will forward the census instructions and the forms to you. Besides their gratitude, you will have the satisfaction of knowing you are helping preserve an integral component of our natural heritage of birds -- and a charming little fellow at that.

BREEDING BIRD SURVEY OBSERVERS NEEDED

Now that you've honed your identification skills during the Atlas project and don't know what to do with them this summer, (now that it's over), why not consider participating in the North American Breeding Bird Survey?

Designed to monitor population changes in North American birds, the BBS employs roadside surveys conducted on 2,000 randomly-located routes throughout the populated parts of Canada and the United States since 1965. A volunteer observer surveys each route once each year in good weather during June, beginning half an hour before sunrise.

It takes about 4.5 hours to run a route, so compared to a season of atlassing, the amount of time involved is negligible. The numbers of birds heard or seen during a 3-minute period are tallied at each of 50 stops, half a mile (0.8 km) apart along the 24.5-mile route. In the Maritimes, depending on the area and observer, usually from 500 to 1,200 birds of from 50 to 80 species are recorded on each route. A large proportion of the passerines are recorded from their songs alone.

By repeating the counts at the same locations and time of year in successive years, changes in numbers can be

determined. Over the 25 years of the project, both increases and decreases have been demonstrated. One recent analysis showed declines in several species that winter in the tropics of Latin American countries, where forest habitat is being reduced at a great rate. These included such birds as Black-billed Cuckoos, Wood Thrush, Parula, Chestnut-sided and Canada Warblers, and Rose-breasted Grosbeak.

If you can identify our widespread nesting species by their songs and don't mind getting up early (once a year), you can be a part of this important volunteer project by contacting **David Christie, RR # 2, Albert, N.B. E0A 1A0.**, or by phoning 506-882-2100. All observers receive a special Canadian newsletter, mailed out once a year, usually in December. Several routes are available, including the following:

In Prince Edward Island - Dundas, Bedeque and Dalway. In Nova Scotia - Pleasant Bay, Pt. Michaud and Boisdale on Cape Breton Island; Tatamagouche, Chester, Kejimkujik, Barrington and perhaps others on the mainland. In New Brunswick - Lac Baker, Menneval, Grand Falls, Escuminac, Napadogan, Minto, Blackville, Oak Hill, Pennfield Ridge and Saint John.

SAMPLE MAP - PIPING PLOVER

The mock-up on the facing page shows a preliminary conception of what a page in the upcoming **Atlas of the Breeding Birds of the Maritime Provinces** may look like when it is published sometime this fall. Plans are not finalized by any means, but a page should look much like this.

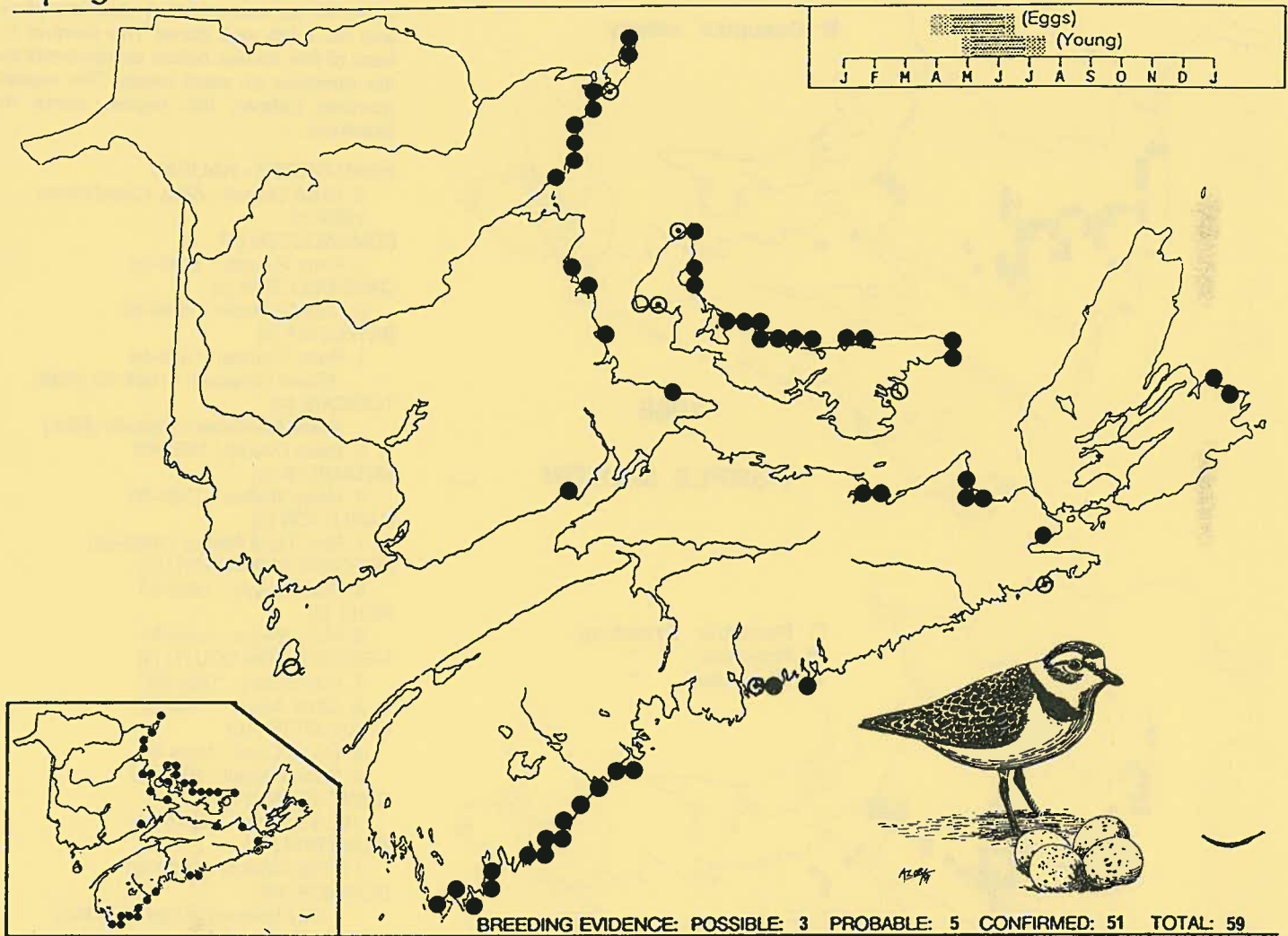
The large map is based on 10x10 km squares and shows the data obtained from 1986 through 1990 for this species, which has been declared as endangered in Canada due to human disturbance to its nesting habitat. The solid circles show confirmed nesting, the open circles represent possible nesting, and the dot surrounded by a circle is meant to show probable nesting.

It is hoped that we will be able to use colored ink to print the circles so they will stand out from the outline map of the Maritimes. The nest and eggs graph is meant to show the timing of reproduction. The smaller inset map indicates the highest breeding code obtained in a block of four squares, in effect creating 20x20km 'super square' blocks.

The reason for this is to cancel the effect that occurs when one area of the Maritimes is sampled more intensively than another. For most widespread species, confirmations are clustered in overworked areas and give the impression these species are more common there. Since one in four squares was purposely sampled, taking the highest code from a block of four squares (each containing a priority square) will help lessen this effect.

Piping Plover *Charadrius melodus*

Pluvier siffleur

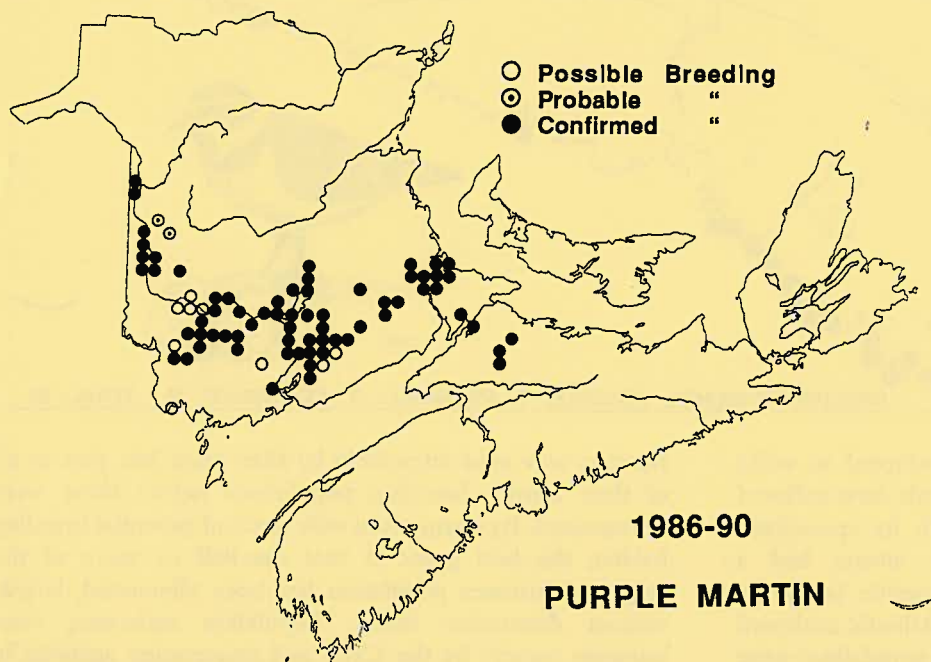
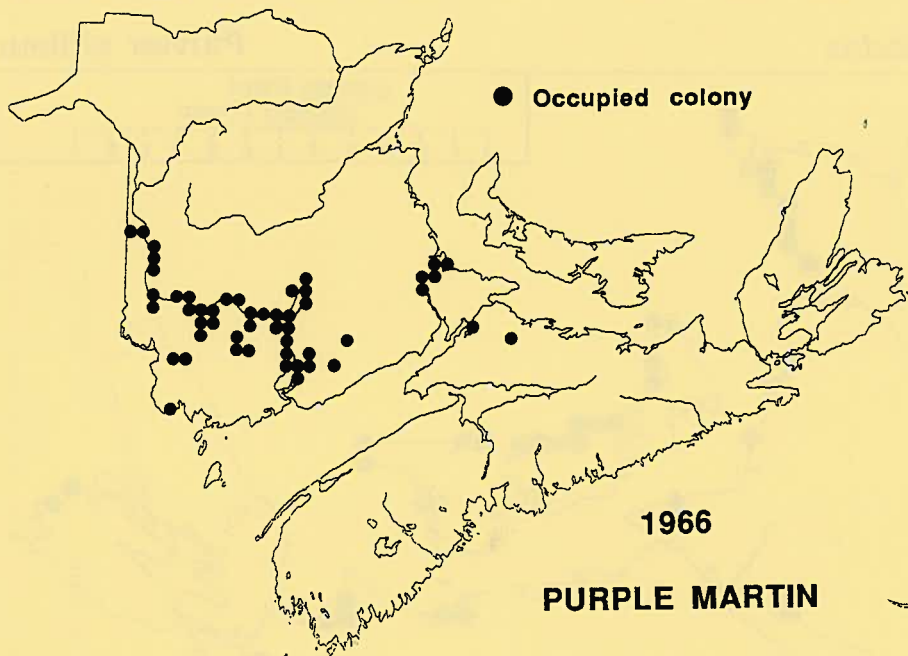


This is one of several small plovers adapted to white sand beaches that, in various parts of the earth, have suffered from Man's attraction to such sites. With its specialized habitat requirements, the Piping Plover always had a fragmented distribution, around shores of prairie lakes, the Great Lakes (nearly gone now), and the Atlantic seaboard from Newfoundland to Virginia. Many local populations were lost in the past century, and the species is designated as endangered in both the United States and Canada. Piping Plovers breed in each of the Maritime Provinces, with the shores of the Gulf of St. Lawrence (in NB and PEI) having more potential habitat but fewer inaccessible beaches than the much fragmented outer coast of NS. The birds nest and rear their young on open sand beaches, and thus are easily detected- by people alert to their presence. Nearly all the records received were of confirmed breeding, about equally divided between nests and broods of flightless young (?% and ?%, respectively, of 59 squares with the species).

This species must have declined in recent decades, with the increased use of suitable beaches by summer visitors.

Beaches now used intensively by Man often lost part or all of their former breeding populations before these were documented. By comparison with areas of potential breeding habitat, the best guess is that one-half or more of the original Maritimes population has been eliminated, largely without destructive intent. Population estimates, from intensive surveys by the CWS and cooperating agencies in 1987, are: 85 pairs in NB, 60 pairs in NS, 45 pairs in PEI; these small numbers account for about one-third of the total population of Piping Plovers in Canada. The fact that one-third to one-half of each province's breeding birds are found in National Parks- Kouchibouguac, NB, Kejimikujik (Seaside Adjunct), NS, and Prince Edward Island, complicates their future conservation. These areas have protective laws and staff to enforce them, but they also have some of the highest demands for use of their beaches. Public pressure to conserve Piping Plovers is still needed, even with official designation as an endangered species.

Add. Refs: 23, 24, 51



PURPLE MARTIN PROGRESS?

In the summer of 1966 the late Roy Hunter of Moncton travelled hundreds of miles across New Brunswick to document all the Purple Martin colonies he could find. The top map represents what he found. The bottom map shows what we found during the Atlas. This is one of very few species for which comparative data exists on which to mirror our results.

You can see the range has not changed appreciably in 25 years, but it is evident that the martins have colonized (re-colonized?) many new areas. It is likely that both Mr. Hunter and our atlasers missed some colonies, but taken together the maps give a very good idea of their range here. I will accept reports of missing colonies until Feb. 28.

OUR TEAM OF REGIONAL COORDINATORS

Without the aid of regional coordinators located in or near the 23 regions into which we divided the Maritimes for the purpose of this Atlas, data collection would have been difficult indeed. So here now to take a bow for a job well done is a collection of most of the RCs that were an integral part of this immense project. I managed to round up snaps of most of them, so here they are, for those of you who may never have had a chance to meet your local RC.

For those RCs I was not able to pry a picture out of, or would not allow me to take one of them, the dreaded initials PNA (photo not available) are listed after their names. I have listed all RCs who

were on board during the project, as there were many changes along the way. I think you will join me in congratulating them all for volunteering their services and for a job well done! The number in front of the names below corresponds to the numbers on each photo. The region number follows the region name in brackets.

HEAD OFFICE - HALIFAX

0. Brian Dalzell : Atlas Coordinator, 1988-90

EDMUNDSTON [1]

1. Peter Pearce : 1986-90

CAMPBELLTON [2]

2. David Christie : 1986-90

BATHURST [3]

1. Peter Pearce : 1986-88

Hilaire Chiasson : 1988-90 (PNA)

TOBIQUE [4]

Erwin Landauer : 1986-89 (PNA)

0. Brian Dalzell : 1989-90

MIRAMICHI [5]

3. Harry Walker : 1986-90

CARLETON [6]

4. Rev. Ford Alward (1986-90)

FREDERICTON NORTH [7]

5. Don Gibson : 1986-90

KENT [8]

6. Mary Majka : 1986-90

FREDERICTON SOUTH [9]

7. Dan Busby : 1986-88

8. Chris Adam : 1988-90

CHARLOTTE [10]

9. David Clark : 1986-87

0. Brian Dalzell : 1988-90

SAINT JOHN [11]

10. Jim Wilson : 1986-90

MONCTON [12]

11. Rob Walker : 1986-90

BORDER [13]

Gay Hansen : 1986-87 (PNA)

12. A.J. (Tony) Erskine : 1987-90

COBEQUID [14]

Michael Malone : 1986-87 (PNA)

13. Blake Maybank : 1988-90

VALLEY [15]

Jean Timpa : 1986-90 (PNA)

YARMOUTH [16]

14. Ted D'Eon : 1986-88

15. Jerome D'Eon : 1988-90

KEJIMKUJIK [17]

16. Ian & Christine Ross : 1986-90

HALIFAX [18]

17. Peter & Linda Payzant : 1986-90

GUYSBOROUGH [19]

18. Roslyn MacPhee : 1986-90

ANTIGONISH [20]

19. Vicky Bunbury : 1986-90

PRINCE EDWARD ISLAND [21]

20. Rosemary Curley : 1986-90

HIGHLANDS [22]

Al Gibbs : 1986-90 (PNA)

SYDNEY [23]

21. Dave Harris : 1986-90

(If any of you are interested, I have all of the negatives for the pictures I took of you at the last RC meeting in Sackville, and they are yours for the asking. You could blow them up into 8x10s, make up wallet sizes for the relatives...just think of the possibilities! Thanks again folks.)



NEW BONUS POINT SYSTEM

In an effort to make atlassing more fair for those of us who are constantly frustrated in our efforts to confirm just one more species for our square, the following bonus point system has been suggested by Liz Dumont. Liz, as you may recall, and husband Lew hail from New York and came further and did more work in the Maritimes than anyone else during the project.

The daunting duo returned to Cape Breton this summer to finish 11 squares which wouldn't have gotten done unless

they had volunteered to do them. The couple made many interesting observations, among which breeding Tree Sparrow in the highlands was the most spectacular, and fittingly, the last observation they made before packing up at the end of July and heading to Newfoundland for a well-needed vacation.

Liz wrote several letters during this sojourn and it is from one dated "7/26/90 Port Hood" that I have extracted the following scholarly and informed treatise on a proposed bonus system for atlassing. Thanks to both of you for a tremendous job well done!



SEWAGE SETTLING PONDS like this one near Edmundston, N.B., being scanned by Peter Pearce, are often diamond mines for waterbird confirmations. Even this rather tiny lagoon yielded a gem -- Spotted Sandpiper fledglings. All such ponds are fenced and off limits as the sign indicates, but there is no harm in looking. (Photo by Brian Dalzell)

DON'T OVERLOOK THOSE SEWAGE LAGOONS

I had intended to write this article before the atlassing season began in an attempt to alert you all to the possibilities of confirming waterfowl on these ponds, but due to lack of time I had to forget about it until now. Even though it is after the fact, it might be of help to other projects still in progress, and enrich (no pun intended) your birding in certain ways.

Contrary to popular belief, few sewage settling ponds actually smell bad, unless they are very overloaded with sewage. The agitation process mixes the waste with oxygen and the smell is hardly obvious if there is no wind. The best lagoons are those with a separate settling area for this aerated stuff. Most lagoons have off limits signs posted all around, but this is seldom enforced. I think it is more for protection in case of litigation should anyone be unfortunate to fall in and (ugh!) drown.

Most (if not all) have fences around them, but you can usually get a good look inside to see what kind of ducks are around. Don't appear suddenly over the edge or you will flush everything. Sneak up slowly and peer in before standing up in full view. In areas where I looked in

vain for ducks and accidentally found a sewage pond, it was like finding a diamond after falling into the proverbial manure pile (or pond in this case).

I did most of my atlassing in the Acadian Peninsula this past summer and found many lagoons, mostly in small towns and municipalities. After awhile I learned to hunt them down from my topographic maps or by asking local citizenry -- that got a few strange looks. The list of species confirmed included Pied-billed Grebe, Wood Duck, Green-winged Teal, Black Duck, Mallard, Northern Pintail, Blue-winged Teal, American Wigeon, Gadwall, Ring-necked Duck and Common Goldeneye.

As well, Marcel David found Northern Shoveler nesting in Caraquet at a sewage pond, as did Fred Tribe at Perth-Andover on the Saint John River. If you are ever up that way and want to check on some of these rich feeding areas, here are a few of the locations I visited: Chatham Head, St. Louis-de-Kent, Blackville, Burnt Church, Tracadie, Shipagan and Lameque. The most productive was at Tracadie and the most commonly-found species were American Wigeon and Northern Pintail, the latter being extremely fond of even the worst lagoons.

"After nine years of atlassing, I have come to the conclusion that atlas projects would go much better if a few bonus points were granted and certain exchanges allowed:

CONFIRMING the same species five times in the same block allows the atlasser to enter as confirmed one species he or she has had a hard time finding. Special exchanges and equivalents: 6 twits (YRWA) = 1 Blackburnian; 10 Mags (MAWA) = 1 Palm; 5 Lincoln's or Savannah's = 1 Sharptail. This providing it has taken the atlasser at least 15 minutes to find what has been going "Pit!" at him/her from the depths of a bush each time.

BONUS POINTS - (a) for being attacked by a belligerent bird, 5 points (10 if it's a Goshawk); (b) for each 100 blackfly or mosquito bites, 1 point; (c) for each swamped boot, 2 points; (d) for each ten consecutive minutes spent watching a treetop bird de-wing a bug, 1 point; (e) for remaining married to spouse after vociferous argument over species of fledgling observed, 2 points; (f) for each five miles of bushwhacking, 2 points (one additional point if more than two blisters ensue); (g) insert your own.

These may be exchanged in the following way: (1) 5 points buys one CONfirmed; (2) 3 points buys one PRobable; (3) 1 point = one POSSible. In all fairness, demerits could be gotten for such things as forgetting the atlas card, stepping on a Spotted Sandpiper nest, egregious (conspicuously bad) miscalls, etc. "

ATLASSER HALL OF FAME

As in every volunteer project of this sort, there are always some who go that extra mile, who do far more than we have any right to expect them to do. So it was with the Atlas project. While we ended up with about 1,000 names of people who submitted breeding bird information, most only sent in a few bits of data.

To give credit where it is due, I have decided to list the top 50 or so atlassers based on the number of reports they submitted, using 400 reports as the minimum for listing. A report is considered one breeding code for each species on a card (i.e. American Robin - FL, is considered one report).

An asterisk after the name indicates someone who came here from outside the Maritimes, and thus deserves an extra pat on the back.

Brian Dalzell (14,750); Jim Taylor (7205); David Christie (6806); Tony Erskine (5723); Ron Weir (4737)*[Ontario]; Peter Pearce (3043); Harry Walker (2948); Mary Majka (2908); Blake Maybank (2637); Roger Foxall (2635); Peter & Linda Payzant (2216); Lewis & Elizabeth Dumont (2041)*[New York]; Fred Scott (1979); Rosemary Curley (1842); Rob Walker (1839); Roslyn MacPhee (1715); Fulton Lavender (1675).

Scott Makepeace (1540); Don Kimball (1508); Marcel David (1436); Azor Vienneau (1349); Ian & Christine Ross (1347); Dwayne Sabine (1330); Ford Alward (1324); Dan McAskill (1050); Leo Sweeney (1004)*[Maryland]; Eleanor Waldron (1001)*[Massachusetts]; Stephen Farmer (990); Angus MacLean (860); Don Gibson (841); Ian McLaren (838); Mark Phinney (837); Ron Walsh (761); Fran Spalding (682); Pat MacDonald (655).

Bob Andrie (617)*[New York]; Fred Tribe (616); Peter Hope (603); Gordon & Judy Tufts (601); Roger Calkins (563); Joan Czapaly (556); Ken & Linda Taylor (499); Dusan Soudek (491); John MacNeil (488); Sharon Hawboldt (484); Gerry Parker (480); Michael Malone (459); Fred & Margaret Kenny (454); Bob & Helen Dickie (452); Jim Edsall (439); Chris Adam (419); Brian Starzowski (408).

Please keep in mind that this list is only a rough guide to atlas effort, as it was impossible to accurately assign all records on a card with more than one atlas to the correct observer. My apologies to anyone unintentionally omitted.

ATLAS ITEMS FOR SALE

As part of the winding down of the Atlas project, we have would like to offer our readers a chance to acquire some of our assets, as listed below. We will thus accept written or phoned in bids for these items until Mar. 30. If yours is the highest bid at that time, we will contact you for the method of payment. We can't ship them, so you will have to pick them up at the Nova Scotia Museum in Halifax.

Low-backed Office Chair

Made in Germany. Five wheels, pneumatic lift and recline controls, armrests, well-padded and very comfortable. Your atlas coordinator logged more than 1,500 hours in this baby. Besides it's collector value, it listed at \$600, was bought for \$300, and best offer over \$200 walks away with it.

Computer terminal

Black & white monitor and keyboard, Digital Equipment VT-220. All asynchronous speeds up to 9600 bps. In use for the last five years and in working condition. Best offer over \$150.

Modems

Rixon Executive 212 Autodialer. These are 1200 bps Hayes-compatible external modems with cases, power supplies and manuals, suitable for use with PCs. One has been in continuous use for the last five years and the other worked when last turned on in 1990. Best offer over \$50 each.

SOJOURN TO ST. PAUL'S

St. Paul's Island, or St. Paul Island as it is noted on most maps, proved to be the most difficult spot in the Maritimes to reach to sample its breeding birds, but with a little pluck and tenacity the feat was accomplished this past summer.

The first attempt in 1989 had to be scrubbed due to lack of funds, and the second attempt in 1990 was cancelled due to lack of interest on the part of the 15 or so folks who had originally expressed a desire to go. Actually there was no lack of interest, just a lack of intestinal fortitude or *joie de vivre* -- call it what you will. When most found out they could be stranded there in the event of bad weather, all but one opted out.

I thus arrived with that fellow brave (or foolish) soul, Fran Spalding, at the wharf in Dingwall on the morning of July 29 eager to tempt any weather system within 600 miles to rain on our parade. As we later learned, Tropical Storm Bertha had our number, and was just then barreling up the east coast past North Carolina on her way to keep a date with us.

Our captain was Freeman Morrison, who had been born and raised at the Southwest Light, but now fished out of Dingwall as only the north light on St. Paul's was now manned. Curiously, a condition of the terms of Confederation was that a light would always be manned on St. Paul's, because of its deathly reputation as a wrecking yard for wooden ships entering the Gulf of St. Lawrence during the century prior to 1867 and beyond.

Freeman told us that divers have found more than 100 stone ballast piles on the ocean floor off the south side of the island alone. Mute testimony to the tragic end of many a hopeful immigrant bound for what could only be a better life than that which they had left behind in the Old World. For a fairly complete and heart-wrenching account of some of the ships which went aground here, check out "St. Paul's Island, Graveyard of the Gulf" a small booklet written by Carle Rigby, a former radio operator on the island during the 1930s and 40s. Published in 1979 by Hartland Publishing Co. of that small community in New Brunswick.

After an uneventful two-hour trip across the intervening 40 km of ocean, Freeman rowed Fran and I ashore and left us on the south side of the island at Atlantic Cove, promising to return in three days. I decided to stay in an old house, dubbed the "Tiltin' Hilton" by previous visitors, and Fran elected to camp out in the open. By the time we got situated, there was only time for a cursory inspection of our surroundings, but we did find a few birds.

The building I stayed in was in amazingly good shape, and could be saved if repaired within the next five years, as could two nearby buildings used to house generators and some sort of bunkhouse. Most of the windows had

been replaced with plexiglass and there were very few holes in the roof. The building had been used as recently as 1989 by the Search & Rescue Diving Squadron from CFB Summerside in P.E.I. The island would make a splendid field station for a university such as the College of Cape Breton or St. Francis Xavier, albeit an expensive one.

Our first confirmation of many Blackpoll Warblers, the most common breeding passerine on St. Paul, was made near our quarters. A short trip into nearby cover (mostly Balsam Fir and White Spruce) produced White-throated Sparrow, Winter Wren, Lincoln's Sparrow, Tennessee Warbler, Gray-cheeked Thrush and Boreal Chickadee. We also found many holes recently dug in the ground, but didn't have a clue why they were there.

I later surmised that the perpetrators were would-be treasure seekers looking for money or valuables on the remains of the many hundreds of ship-wrecked sailors and immigrants who had perished here. Using metal detectors, the unknown parties were likely hoping to find old coins, pocket watches, jewelry, etc. that the doomed travellers had taken ashore with them, only to die of starvation.

There are no mammals on the island, it being inhabited only by birds, insects, plants, lichens and mosses. Fran and I parted the next day, I agreeing to explore the southern reaches of the island and he the north. I took an old road that had been blasted out of the side of the island in the late 1800s, but was now terribly overgrown. Freeman had said it could once be walked in 30 minutes, but it took me close to five hours to travel the 2.5km to the southern end.

In spots it was so impassible that I had to get down on my stomach and crawl, with a sheer drop-off on the seaward side and a steep hill on my right. After four hours of this, I arrived at a point about one km from the Southwest Lightstation and my heart literally sank. At Viceroy Cove the entire road had slid into the sea for a distance of perhaps 50 feet. I agonized about turning back after having come so far, and then I decided to continue.

A brook had washed the road away here and large boulders and the thickest, stunted balsam fir I had yet encountered barred my way. By picking my way delicately above where the road had been I managed to circumvent the washout, but there was one spot where a misstep or loose gravel would have sent me tumbling almost straight down into the surging Atlantic. Even had I survived such a drop, I wouldn't have lasted too long in the chilly water.

In case I had fallen, I left a note in a plastic bag tied to a bush. The trail was much better after that, and for my troubles I found a pair of agitated Northern Waterthrush, confirmed Gray-cheeked Thrush, Mourning Warbler,

Leach's Petrel and noticed single robin, Cedar Waxwing, a small bunch of Pine Siskins and singing Fox Sparrows. I arrived at the lighthouse about 11 a.m., five hours after I had left Atlantic Cove at 6 a.m. in the morning.

It was a cool, overcast day with little wind, so it had been easy to hear birds and if it had been a hot day I'm sure I would have lost a couple of pints of water just sweating. The old station was falling into decay, but I ate my lunch in the doorway and attended to several wasp bites I had managed to acquire in the last stretch of the trail. I was fortunate in having a first-aid kit with a pain killer for such stings, but in my haste to open the vial I crushed and spilled it.

I hung around for about an hour, investigating a burrow in a nearby bank that I speculated was made by a Manx Shearwater or a very deranged kingfisher, and set out to return a little after noon. Not wanting to repeat my hairy detour around the washout, I attempted to cross the area high above it. That didn't work out as the terrain was too steep and the trees too close together, so I was forced to cross in the same spot. It wasn't any easier the second time.

Back at our digs that night, Fran and I compared notes and found we had come up with about 30 species and agreed to try to hike up to the top of Grogan Mountain (at 483 feet the highest point on the island) next day. From there we hoped to cross to the north side of the island and maybe take a detour into one of the two lakes on the island. However, Mother Nature had other plans. Early the next morning, August 1, the wind was blowing hard from the south and combers were really starting to mount in the cove coming in from the open Atlantic. Figuring we would be stranded for a week,

we decided to make the most of it and strike out birding.

Just as we were about to leave I glanced out to sea and noticed a particularly large and green breaker about a kilometer out to sea. Closer inspection revealed it to be our captain Freeman and his son, who had left Dingwall at daybreak, having deduced the previous evening that Hurricane Bertha (now a tropical storm) was going to pass directly over the island and on into the Gulf of St. Lawrence. Had I not noticed him coming at that instant, we would have indeed spent at least a week there until the sea calmed down.

We beat a hasty retreat during which Fran took an unceremonious baptism in the Atlantic up to his neck, but luckily he didn't lose his grip on the rowboat and the only casualty was his new camera. It was a rough ride back to Dingwall and it was all I could do to keep my breakfast down while Fran attempted to dry out by the exhaust pipe. It was an expensive trip all told. It cost \$700 to hire the boat and along with the loss of a \$600 camera, we won't soon forget our expedition to St. Paul Island, 'The Graveyard of the Gulf.'

Some of the other species we saw or confirmed included Bald Eagle, Common Raven, Spotted Sandpiper, Merlin, American Redstart, Black Guillemot, Herring and Great Black-backed Gull, Great and Double-crested Cormorant, Common Eider, and an old Starling nest. As far as I could determine, we were the first to bird the island since a Nova Scotia Bird Society fieldtrip there in late May of 1971. Before that, John S. Erskine had visited the island in mid-August of 1953.

The NSBS group did not record many of their observations but John (father of region 13 coordinator Tony Erskine) reported a probable breeding population of 22 species. This compares favorably

with my estimate of 25 species in 1990. Birds on his list that we likely missed were Savannah Sparrow, White-winged Crossbill, Magnolia Warbler, American Crow and Golden-crowned Kinglet,

My thanks to Don Rolland of Truro for his help in arranging transportation to the island, to Freeman Morrison for delivering us safely to and from the island, to the **James L. Baillie Memorial Fund for Bird Research and Preservation** of Ontario who helped pay for the trip, and to my erstwhile companion Fran Spalding, who provided me with John Erskine's sightings and kept me company on that lonely, but ruggedly beautiful chunk of rock.

BLUEBIRDS ARE BOOMING!

During the past decade, and especially since 1983, the fortunes of the Eastern Bluebird have taken a turn for the better in the Maritimes. During the Atlas, the first breeding ever for P.E.I. was documented, it re-occupied its former range in Nova Scotia and dramatically increased throughout New Brunswick.

I have always thought that part of this increase was due to an influx of birds from the northeastern U.S., where nestbox trails have permitted a major recovery of the species. Now, thanks to the ever-observant Don Kimball, that theory has a little more fuel.

At Upper Springfield, N.B. (20mi. west of Fredericton) on July, 22, 1990, he recaptured an adult male bringing food to its young in a nestbox that had been banded in Bucktown, Pennsylvania on June 12, 1989 as a fledgling. This locale is 30 miles NE of Philadelphia and 675 miles SW of the recapture site!

If you want to start a bluebird trail, now is the time! Write me for free color brochure on how to get started.

OUR VOLUNTEER ATLASSERS

Here is the final list of all those individuals and organizations who submitted data to the Atlas. Please check the list to see if your name is spelled correctly and included if you sent in any records. Let us know by March 30 if there are any changes to be made, as this is the official list that will be printed in the final publication. A heartfelt thanks to all of you who took the time and effort to make this project a grand success!

Chris Adam, Marc Adam, Thom Adams, Jeanne U. Addelson, Marika Ainley, Roger Albert, Mr. Alder, Betty Allard, Chris Allen, Charlie Allen, Garry Allen, George & Margaret Alliston, Michael Almon, Ford Alward, Paul Alward, David Ambridge, Daryl Amirault, Diane Amirault, Robert W. Anderson, Robert F. Andrie, Chris Antle, Doug Archibald, Ronald Arseneault, Kurt Arseneault, Anne-Marie Arseneault, William O. Astle, Brian Atkinson, Lise & Normand Aubut, Peter J. Austin-Smith.

Kempton Baird, Ross Baker, Don



ATLANTIC COVE on the west side of St. Paul Island, showing the area where Fran and I stayed from July 29 - Aug. 1, 1990. The base of the triangle indicates the bank we scaled to get ashore, while the center of the triangle is where Fran pitched his tent. I stayed in the large house on the hill, nicknamed the "Tiltin' Hilton" by ham radio enthusiasts who had previously stayed there. This photo was taken looking northeast towards Newfoundland. (Photo by Brian Datzell)

Baldwin, Bob Bancroft, Stephen Barbour, Wayne Barchard, Anne Bardou, Peter Barkhouse, Bill & Eleanor Barrow, Myrtle Bateman, Mr. & Mrs. J. Bates, Kevin Bayort, Harry Beach, Charles & Betty Beany, A.M. Beaulieu, Yvon Beaulieu, Bill Beaverbank, Greg Bell, Charles L. Bell, Tom Bellis, Craig Benkman, Gerard & Denise Benoit, Ross Bernard, David Bernard, Stephen Bettles, Ronald Betts, R. G. S. Bidwell, Clare Birch, Donald J. Bird, Dan Birt, G. Bishop, Archie Black, Bruce Blackwell, Sherman Bleakney, J. Blenis, Mary & Owen Bloise, Paul Bogaard.

Larry & Alison Bogan, Barb Boiduk, Bryce R. Boswell, Simon Bouchard, Dan Bourque, Stephen Bourque, Jean & Ronald Bourque, Bowater Mersey Paper Co., Bill Bowerbank, Thelma Bowers, Martyn & Sandy Bowler, Bob Bowles, George Boyd, J. Bray, Calvin Brennan, Harry Brennan, Florence Britton, Joan Bromley, Mr. & Mrs. Carl Brown, Marge Brown, Jennifer Brown, Jim Brown, M. Brown, John Brownlie, Nico Bruinooge, Arthur & Marie Bryant, Brenda Brydon, Phyllis J. Bryson, Mr. & Mrs. E. Bull, Vicky Bunbury, Rick Burger, Beulah Burman, Sandy Burnett, Bruce Burns, Roger Burrows, Jamie Burton, Brenda & Tony Burzynski, Michael Burzynski, Dan Busby, Lee S. Bushell, Stephen Bushell, Mr. & Mrs. J. Buying, Barbara A. Byrd.

Marcel Caissie, Dorice Caissie, Pat & Bob Caldwell, Raymond R. Calhoun, Roger Calkins, Bill Cameron, Ian Cameron, Mary & Doug Cameron, Anne Camozzi, Ansel A. Campbell, David Campbell, Duff & Kay Campbell, Mrs. Ben Campbell, Mr. & Mrs. Jim Campbell, D. Campbell, Moira Campbell, Malcolm Campbell, Jean Carmichael, Eric R. Carr, Danielle Carrier, David Cartwright, Karen Casselman, W. G. Caudle, Roland D. Chaisson, Mr. Chapman, Mary Alice Chapman, Christine Chasse, Hilaire Chiasson, Rose-Aline Chiasson, Raymond Chiasson, Robert Chivers, Tom Chmiel, David Christie, Sheila Christie, Edward Christie, Margaret Churchill, J. Churchill, Lana Churchill, Ed Claridge, Will & Caryl Clark, Diane Clark, Margaret Clark, Paul Clark, David Clark, Alice Clements, R. Clifford, Pat Clifford, Jean Cochrane, Shirley Cohrs, Cyril Coldwell, Larry & Lynn Coldwell, Karl & Donna Cole, Percy Cole, Chad Coles, Harold Collete, Paul Collins, Constance Colpitts, Clayton & Jessie Colpitts, Pearl Colpitts, Lucy Colpitts, David Colville, Paul & Ruth Colville, Vivian Comeau, Peter Comeau, Weldon & Winnifred Conrad, Lynda Conrad, Ray Cook, Cathy Coombes, Arthur D. Cooper, Enid Cooper, Gerald Corbett, Mr. & Mrs. Robert Cormack, Donald Cormier, J. Albert Cormier, Bob & Mary Cotsworth, Alan Covert, Kevin Craig, Lorna Creamer, Ann Crocker, Peter & Marion Croft, Donna Crossland, Wayne & Cindy Crouse, Phyllis Crowe, Eleanor Crowley, Gary Cullins, Dorothy Curley, Georgie Curley, Rosemary Curley, David A. Currie, Barb

Currie, Ted & Linda Currie, S. Currie, Elinor Curry, Grant A. Curtis, Joan Czapalay.

Andre d'Entremont, Jacqueline D'Entremont, Raymond D'Entremont, Delisle D'Entremont, Roland D'Entremont, Jerome D'Eon, Brenda E. D'Eon, Ted C. D'Eon, Club d'Ornithologie, Linda Dakin, Louis Daley, J. Allison Dalton, Brian Dalzell, Halton Dalzell Jr., Jeff Dalziel, Ken Dance, George & Vivian Daniels, Harry N. Darrow, David Dauphinee, Marcel David, Heather Davidson, Steve Davis, Cheryl Davis, R. Davis, Mr. & Mrs. John Dawson, Tracey Dean, Richard DeBow, Hank Deichmann, Kyle DeLeavy, Queenie DeLeavy, F.P.F. DeLong.

Frank Delorey, Joe Delorey, Tom DeMarco, Peter DeMarsh, Con Desplanque, Vera & Paul DeWitt, Jan deWitte, Faith & Jane DeWolfe, Randy Dibblee, Don Dickey, G.E. Dickie, Bob & Helen Dickie, Andy & Mary Kate Didyk, Sabine Dietz, Ben K. Doane, Mr. & Mrs. Fred Dobson, James A. Dobson, Jean-Claude Doiron, Robert Doiron, Joe Dolphin, Raymond Dort, Mr. Douglas, Nancy Dowd, Guylaine Drolet, Larry Drost, Cliff Drysdale, Ken Dubberke, Carmon Dube, Ducks Unlimited Canada, Tom Duffy, John Dulanty, Lewis & Elizabeth Dumont, Charles D. Duncan, Margaret Dunphy, Gordon Dunphy, Todd Dupuis, Ann Dutton, Paul Duval, Lucy Dyer.

Jim Edsall, Phyllis Ehler, Bill & Nickey Eisenhauer, Paul Elderkin, Mark Elderkin, Ruth Eldridge, Chris Ellingwood, James Elliott, Rebecca Ellis, Helen Ellis, Dale Ellis, Alex & Darlene Ellis, Marcel Emond, Patrice Emond, A. J. Erskine, Florence Erskine, Joe & Faye Everett, Dorothy Everett.

Alonza E. Fahey, Paul Fairclough, Fred Fairley, Stephen Farmer, Joseph Farquhar, Audrey Faulkner, Cam Fenton, Ernest Ferguson, Eric Fiander, C. Field, Brian Fields, Jakko Finne, George Finney, Mary Ann Fitzpatrick, Stephen Flemming, Michael J. Fletcher, David Fletcher, Anna & John Foley, Harriet Folkins, Noel Fontaine, H. D. Ford, N.S. Department of Lands & Forests, Shirley Forrest, Fred Forsythe, Bernard Forsythe, George Foster, Ron Fournier, Patricia Fox, Pat Fox, Roger Foxall, Beatrice Fralick, Don Fraser, Cliff Friesen, Sylvia J. Fullerton.

George Gagnon, Mr. & Mrs. J. R. Gallagher, Freeman Gallant, Jean-Raymond Gallien, Wayne Garden, T. Rod Gardner, Neville Garrity, G. Garron, Tom Gatz, Leonard Gaudet, Terry Gauthier, Jocelyne Gauvin, Sharon Gay, Mary Geddes, Diana & Lloyd Geil, Ellis Gertridge, Bud Gesner, Donald G. Gibson, Margaret Gibson, John Gilhen, Scott Gilliland, Barbara & Gordon Gilliland, Mike Gillis, Kenneth Gilmour, Lionel Girouard, Bill & Elizabeth Glen, Tommy Godfrey, Alan P. Godfrey, Gilles Godin, Audard Godin, Virgile Godin, Andre Goguen, Jim Goltz, Vernon Goodfellow, Minola Goodwin, R. Allen Gorham, Irene Gorham,

H. Graham, A. Graham, Mr. & Mrs. Arthur Grant, Scott Grasman, June Graves, Ben & Anna Gray, Tom Greathouse, Henry H. Green, Lorena Green, Polly Greene, Mrs. Ronald Greene, Gary Greer, Ken Gregoire, Diane Griffin, F. Grondin, Greg Guidry.

Jean-Claude & Lily Hachey, Jane & Eric Hadley, Bernice Hafner, Halifax Field Naturalists, Ross Hall, Helen & Hubert Hall, Eddy E. Hall, D. Halliday, Gay Hansen, Hinrich Harries, Sharon Harris, Don Harris, Dave L. Harris, Griffin & Dianne Harris, Dave Harris, Tom Harrison, Lorna Hart, Edward Hartt, Frank Hatheway, Harold Hatheway, David & Betty Hatt, Robert & Shirley Hauth, Gordon Havens, Sharon Hawboldt, Nick & Gabriel Healy, Ralph Hemming, Elwin Hemphill, Peter Hicklin, Randy Hicks, Shawn Hicks, Ivy Higgins, Barb Hildebrand, Maxine & Ken Hill, Neil Hill, Marilyn Hiltz, Tammy Hiltz, Frank Himsl, Harold Hinds, Barbara A. Hinds, Eric Hiscock, Sabine Hitzelberger, Geoff Hogan, Vern Hollis, Mr. Hollis, John W. Hollway, Les Homans, Peter Hope, Sean Hope, Philip B. Hoppin, Jeff Horne, Harold Horwood, Ron Hounsell, Charles Hubbard, Etta Hudgins, Pat Hudson, Lisa C. Huff, Theresa Hughes, Jack Hughes, Marilyn Hunt, Pam Hunter, Wendy Hunter, Gordon Hunter, Earlene Hunter, Mark Hunter, Charles E. Huntington, Nelson G. Hurry, Derek & Glennys Hutton, Gisa Hynes.

Stephen Illsley, Roger & Connie Ince, Enid M. Inch, Spencer & Helen Inch, Michael Inkpen, Mr. & Mrs. Robert Inkster, Nancy Ironside, Sylvia Irvine.

Ross James, June Jarvis, Sam K. Jarvis, Joan V. Jarvis, L. Jarvis, Brian Jenkins, Roger A. Jenkins, Maude Jodrey, Linda Johns, Eric Johnson, Russ Johnson, Sheldon Johnson, Bruce Johnson, Cecil Johnston, Delbert Johnston, Leroy Johnston, H. Winston Johnston, Maude Joudrey, Robert Joudrey.

John Kearney, Donald Keith, Heather Kelley, Doug Kelly, Joe Kennedy, Judith Kennedy, D.J. Kennedy, Fred & Margaret Kenney, Mr. Ketchum, Ed Kettela, Meika Keunicke, A. Keuning, Vernon N. Kierstead, Ken L. Kierstead, Don Kimball, Richard L. Kingston, Franklin & Linda Kinney, Leslie Klapstein, Joyce Knapp, Janos Kovacs.

Pat Lacey, Todd LaFrance, Rick Lair, Victor Lamkey, Ralph & Joan Lamrock, Erwin Landauer, Joel Landry, Blaise Landry, Judy Langille, Donald E. Langille, Rosita Lanteigne, Louis LaPierre, James W. LaPointe, Ejnar Larsen, Lars Larsen, Randolph Lauff, Charles T. Laughner, Fulton Lavender, Lance Laviolette, Florida LaVoie, Madeleine LaVoie, Ken Lawson, Betty Learmouth, Rheel LeBlanc, Mel & Ginny Lee, V. Lee, Linda Leeman, Len LeGard, Jim & Carol Legge, Luc Lemieux, Elva Lewis, Mary Ann Lidstone, Diane Lindsey, Leslie Linkletter, Daryl Linton, Doug Linzey, Robert Lisk, Joan Lloyd, Anthony Lock, Mr. & Mrs. John Lockhart, Randy Loft,

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