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Bulletin of The Ornithologists

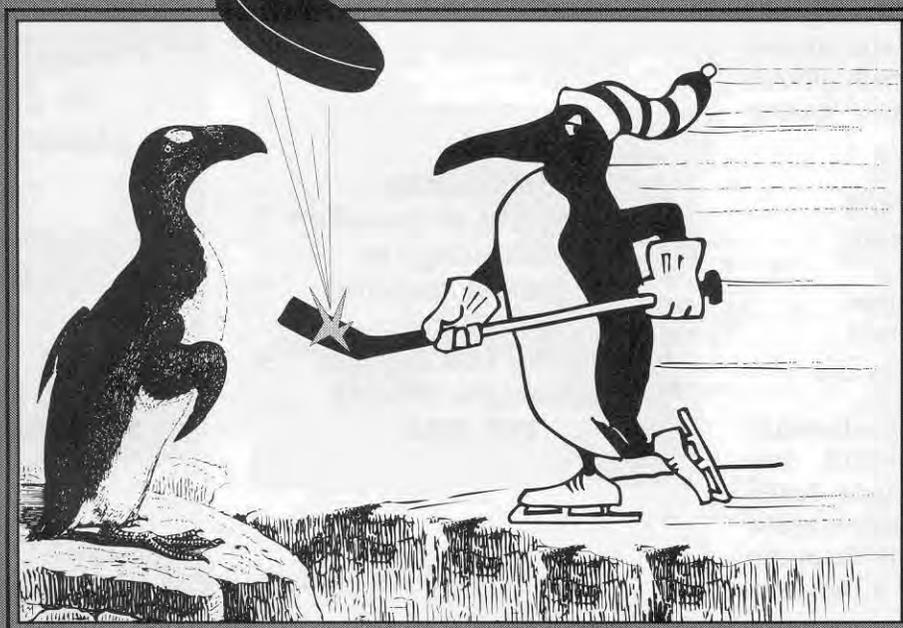
PICOIDES

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A. O. U. In Canada



1926 - 1991

Editor's Message

This issue, besides being late, is a departure from earlier *Picoides*. I've let the current literature section lapse to allow more room for feature articles. The "in press" section will return next issue.

I had some fun with the A.O.U. in Canada section. Even in the short excerpts I've taken from the Auk, the dramatic changes in the science of Ornithology and Canadian culture are obvious.

Stuart and Mary Houston have given *Picoides* a scoop with insights into the collaboration of Thomas Hutchins and

Andrew Graham.

Jill Oakes, of the University of Alberta, was kind enough to provide an article on Bird-Skin clothing. I'm not advocating a change of fashion, but I suspect the concept will be intriguing for all who have wrestled with a study skin.

An exhibit of Bird-Skin clothing is touring Canadian museums currently. It is tentatively scheduled for the Prince of Wales Northern Heritage Centre, in Yellowknife and the Canadian Museum of Civilization, in Ottawa in the next year.

I am grateful for the help I received in putting this *Picoides* together. Steve Fisher produced the lay-out and created some of the figures (credit to David Bird for the inspiration). Colleen Steinhilber handled most of the typing. Thanks to both for their efforts.

W. Bruce McGillivray

Membership Information

If you would like to be a member of the Society of Canadian Ornithologists, please send your name, address, phone number, and a cheque or money order for \$10.00 to:

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**Attn.: Dr. W. Bruce
McGillivray**

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BAILLIE AWARD 1990: RESEARCH REPORT

The Allocation of Reproductive Effort by Male Red-winged Blackbirds

Male Red-winged Blackbirds (*Agelaius phoeniceus*) are polygynous and provide parental care at some nests but not others. Males may adjust the allocation of reproductive effort between mating and parental components according to local breeding conditions. The reproductive behavior of Red-winged Blackbirds was studied at two marshes in central Alberta from April through July 1990. The objectives of this study were to determine patterns in the extent of parental care, and the social and environmental factors which influenced these patterns.

Environmental Influence

The two study marshes were similar physically but differed in their surrounding habitat. One marsh was bounded by agricultural land and the other by aspen woodland. These different habitats affected the productivity of the marsh and the supply of insect food available to breeding redwings. As Odonate prey are often fed to nestling redwings, emergence traps were built to capture Odonates and quantify abundance at each marsh. In addition, nestlings were fitted with neck collars to permit the extraction and identification of prey items brought by each parent.

Prey types differed between the two habitats. Aquatic insects were fed most often to nestlings at the agricultural marsh, whereas parents foraged for nestling prey primarily in the trees surrounding the woodland marsh. Prey and load size appeared greater at the woodland marsh and the incidence of nestling starvation was lower at the woodland marsh. This difference in prey abundance affects male reproductive behavior. Males provisioned nestlings at most nests on the agricultural marsh whereas very few broods in the woodland marsh received male parental care. Nests on the agricultural marsh, where both parents provisioned nestlings, had fledging success similar to nests on the woodland marsh, where only the female provided food. Furthermore, males at the agricultural marsh had fewer females nesting per territory than males did with territories on the woodland marsh. In summary, food availability appears to influence the allocation of male reproductive effort particularly, the extent of male parental care.

Social Influence

I tested the hypothesis that males change the allocation of reproductive effort into mating effort

and parental effort as the replacement value of nestlings changes. For males, the probability of gaining additional mates will be high early in the breeding season, and decline as the season progresses. A loss of some nestlings early in the breeding season (from lack of paternal care) may be compensated for, by gaining additional mates (increasing mating efforts). Consequently, for polygynous males, nestlings are easier to replace early in the breeding season.

The influence of nestling replacement value on male parental effort was tested by female removal experiments. Females were removed from parental care duties at first nests of some territorial males and later nests of other additional males on the woodland marsh. Males did not feed female-deserted nestlings at either early or late nests when an additional female was nest-building or egg-laying on their territory. Males that fed nestlings at early nests, deserted by females, did not gain an additional mate unless the new female settled on the territory late in the season. There is evidence that males investing heavily in parental care (full care of the brood) sacrifice potential reproductive gains obtainable through additional matings. Furthermore, the social status of the male (presence of nest-building or egg-laying female) appears to affect his allocation of reproductive effort into parental care.

I am grateful for the financial support provided by the James L. Baillie Memorial Fund through the Society of Canadian Ornithologists to conduct this research.

Linda A. Whittingham
Queen's University



Photo: E.T. Jones, courtesy Provincial Museum of Alberta

THE A.O.U. IN CANADA 1926-1991

For the tenth time in its history, the A.O.U. is meeting in Canada. To mark the occasion, we have gathered and annotated information from the AUK to give a flavor of the times and to capture the significance of these meetings.

Ottawa 1926

"For the first time in its history the American Ornithologists' Union met outside the United States and the forty-fourth stated meeting in Ottawa, Canada, in 1926."

[Before the days of cross-border shopping]

"Special arrangements were made through the Immigration Department to facilitate crossing the border, the Museum where the meetings were held was made a temporary bonded warehouse thus permitting receipt and reshipment of exhibit material with a minimum of tariff restriction".

"The public sessions were held in the Victoria Memorial Museum and the business sessions at the Chateau Laurier, the most elegant headquarters ever provided for the Union."

[An impressive executive!]

The elections resulted in the choice of the following officers for 1927: President, Alexander Wetmore; vice-presidents, Joseph Grinnell and J.H. Fleming; secretary, T.S. Palmer; treasurer, W.L. McAtee; Members of the Council: A.C. Bent, Ruthven Deane, E.H. Forbush, H.C. Oberholser, W.H. Osgood, C.W. Richmond and T.S. Roberts.

[Back in a simpler time the following resolution was passed]

That the American Ornithologists'

Union deplores the present tendency to wantonly destroy birds of prey as more likely to result in ultimate economic loss than in gain; and also deplores the use of the word 'vermin' for these birds as tending to produce an unwarranted prejudice.

"One of the leading papers was a review of 'Canadian Field Ornithology from 1750 to 1900', by E.A. Preble, which was supplemented by one of the special exhibits of the more important publications on Canadian birds illustrated by portraits of the authors, the latter loaned from the unique collection of Ruthven Deane. Each member on registering was presented with a copy of Taverner's sumptuous work on the 'Birds of Western Canada'."

Quebec City 1932

"In response to the cordial invitations of the Deputy Minister of Colonization, Game and Fisheries, and of the Provancher Society of Natural History, the American Ornithologists' Union held its fiftieth Stated Meeting in the historic city of Quebec."

[But will they in 1991?]

"The program was printed in both French and English and at one of the sessions all of the papers and the discussions were in French."

"As might naturally be expected a considerable proportion of the papers on the program dealt with Canadian birds."

"The French session which was held in the Medical Building on Wednesday afternoon was also devoted chiefly to Canadian birds. The outstanding paper was Dr. Dery's summary of the notes on birds observed by explorers and

others in the Province of Quebec from the days of Jacques Cartier, 1534, who described Bird Rock, and the accounts of Sagard, 1636, Pere Boucher, 1662, Lahontan, 1705, and others. At this session Dr. Chapin presided, introduced the speakers and led the discussion, closing the program with an account partly in French and partly in English of his observations of the life history of an African Hornbill (*Bycanistes*) observed in the Belgian Congo."

"Chapman's 'Courtship of Gould's Manakin' (see 'Natural History,' Nov., 1932, pp. 470-480) and Chapin's 'Haunts and Habits of the Africa Wood Swallow' (*Pseudochelidon*) **demonstrated that detailed life studies of exotic birds are fully as interesting as those of native species.**" [!!]

[When distinct society wasn't a four-letter phrase]

"The audience was then taken back to early frontier days by 'La Troupe du Bon Vieux Temps,' in appropriate costume, which rendered a number of French Canadian folk songs and dances interspersed with frequent applause."

Toronto 1935

"For the third time the Union met in Canada October 21-24, 1935, and held one of the largest and most successful meetings in its history."

[Ontario b.s. (before skydome)]

"One by L.L. Snyder on "Ontario and its Avifauna" served as an introduction to the ornithology of the Province and directed attention to the area of Ontario, which equals that of eight adjoining States from Maine to

Minnesota. J.L. Baillie's account of 'The Bird Collection in the Royal Ontario Museum of Zoology' brought out the fact that this collection, which is both general and local, contains about 25,000 specimens and is one of the largest in Canada. Among other local papers were Mrs. O.S. Mitchell's interesting review of the Passenger Pigeon in Ontario and Saunders' discussion of the distribution of the Prairie Warbler in the Province."

[Hard to imagine an A.O.U. without slides.]

"New methods of making colored motion pictures by the koda-chrome process were illustrated by Roberts under the title 'An Adventure in Kodachrome' and May's account of the Gannets of Bonaventure, while Sutton's paper on 'Coloration of Lantern Slides' contained directions for securing the best results in preparing still pictures for the screen."

[Isn't intraspecific variation wonderful!]

"Todd and Wallace discussed the status of the Gray-cheeked Thrushes, and while apparently not reaching the same conclusions, each seemed to think that three forms should be recognized. Todd would revive the name *bicknelli* for the form breeding in the United States and reserve *minima* for the form breeding north of the Gulf of St. Lawrence. Wallace finds a large Newfoundland race which he thinks should be recognized and apparently regards *minima* as a winter specimen of *aliciae* but suggests that it be considered unidentifiable."

[What was the government protecting us from?]

"No effort was made to hold a general exhibit of bird paintings on account of the difficulty involved in arranging for shipments through the customs."
[Try this in 1991.]

"On Wednesday afternoon the ladies of the Union were invited to inspect the Museum exhibits **of special interest to women** and then to attend a tea in the Museum Tea Room at which Mrs. J.R. Dymond was hostess."

Toronto 1947

"At the cordial invitation of the Royal Ontario Museum, the 1947 meeting of the American Ornithologists' Union was held in Toronto on September 8-12, 1947. This was the fourth meeting in Canada and the second in Toronto."

"Notice of the following deaths were received: Fellows: Wilfred H. Osgood, **Percy A. Taverner**; Corresponding Fellow: Friedrich Carl Herman von Lucanus; Members: William Lloyd Baily, Joseph Warren Jacobs, **Ernest Thompson Seton**."

"Article I, Section 2, shall be revised to read as follows: "Fellows shall be citizens or residents of the United States, **Canada, or Newfoundland**."
[We made it!]

"Taking the city ferry from the mainland to Toronto Island, 80 members and guests walked leisurely around the western end of the Island, arriving at the Royal Canadian Yacht Club at 1:00 p.m. Here they were joined by other members and guests, 105 persons sitting down to a complimentary luncheon provided by the local Committee. Dr. R. M. Saunders sketched the geological and ornithological history of the Island and Mr. Hoyes Lloyd added personal reminiscences of collecting there."

[Try this in 1991, too!]

"Dr. Alexander Wetmore, Chairman of the Committee on Classification and Nomenclature of North American Birds, stated that a complete revision of the

Check-List is under way. Almost 160 pages of manuscript are already in revised form; by 1949, the manuscript should be ready for publication." **[Want to bet!]**

Montreal 1951

"The second meeting of the Union in the Province of Quebec and the fifth meeting in Canada was held in Montreal, October 8 to 11, 1951, at the invitation of the Province of Quebec Society for the Protection of Birds."

"Dr. Harvey I. Fisher, Editor of the 'The Auk', reported that he has enough short manuscripts on hand to fill out the next two or three issues, but he is in great need of leading articles containing fundamental information. **He expressed disappointment that many manuscripts of superior quality, prepared by members, have been submitted to journals other than 'The Auk.'** It seemed to him that members of the Union should feel obliged to support their own journal."

"The report of the Special Canadian Committee, given by Mr. Hoyes Lloyd, Chairman, showed total receipts since September 15, 1950, of \$1,077.57. Total assets in Canada, as of September 15, 1951, were \$5,378.24." **[What happened to this account and committee?]**

"Section 6. Members at the time of their election shall be citizens, subjects, or residents, of the United States, Canada, or other political subdivisions of North America, **South America, or the West Indies**. Members shall be limited to two hundred in number."

"The Annual Dinner on Wednesday evening in the Ball Room of the Mount Royal Hotel was attended by 228 members and guests. A vocal quartette, Le Quatuor Alouette, under the direction of

Roger Filiatrault, entertained delightfully with French Canadian songs."

[Look for these in 1991.]

"About 180 members and guests visited the Arctic Institute, Redpath Museum and Wood Library of Ornithology at McGill University on Tuesday evening. Among the interesting exhibits at the Wood Library, which has the finest ornithological collection in Canada, was the unique Feather Book of Dionisio Minaggio, prepared in 1618, containing 151 pictures of birds made entirely of feathers."

[Some historical papers in the sessions included:]

The Story of the **Sun-Life Falcons**. G. Harper Hall, Montreal, Province of Quebec.

Sound Recordings as a Means of Trapping Birds (**with phonograph records**). W.W.H. Gunn, Wildlife Research Station, Algonquin Park, Ontario.

Regina 1959

"The Seventy-seventh Stated Meeting of The American Ornithologists' Union was held from 25 to 30 August 1959, at the Saskatchewan Museum of Natural History, Regina."

"He [Charles H. Blake, chairman of the membership committee] added that the special thanks of the Union were due Dr. C. Stuart Houston, of Yorkton, Saskatchewan, who, while not formally a member of the Committee, had made a special effort to enroll new members in Saskatchewan." **[Not surprising]**

"The dues for all dues-paying classes of members were continued at five dollars per year by vote of the Council." **[Ouch!]**

[How about reworking this

paper for Picoides, Stuart?]

Stuart Houston, Yorkton, Saskatchewan, 'Thomas Drummond, *Forgotten Ornithologist* (slides).'

"A luncheon for the Council and a dinner for Fellows and members of the Council were held at the Hotel Saskatchewan on 25 August; in the evening a reception and film program, sponsored by the Museum, were held for those not attending the business session.

On the afternoon of 26 August, wives of members and other guests were taken on a tour to Fort Qu'Appelle, and that evening an exhibition of Canadian bird art and bird photography was opened at the Norman Mackenzie Art Gallery, Regina College, followed by a reception.

Wives of members and other guests were given a tour of Regina City on the afternoon of 27 August. **[Yes, that's all it took!]**The evening was devoted to a picnic supper in Wascana Park, followed by a program of films in the auditorium of the Museum.

[This one takes some thinking.] A cocktail party, followed by the Annual Banquet, both sponsored by the Government of Saskatchewan, took place on the evening of Friday, 28 August, in the Wa-Wa Shrine Temple, with the Honorable T.C. Douglas, Premier of Saskatchewan, acting as host. The Union had not before in its history been officially entertained by a Provincial or State Government."

[The following resolution has important connotations today] ...that the American Ornithologists' Union, holding its 77th Stated Meeting in Regina, Saskatchewan, commends the Wheat Province and the Queen City for its vision in providing for all people so fine a facility as the Saskatchewan Museum of Natural History.

Toronto 1967

"The Eighty-fifth Stated Meeting

of the American Ornithologists' Union was held 21-25 August 1967 at the Royal Ontario Museum of the University of Toronto at Toronto, Ontario."

"The Brewster Memorial Award, by action of the Council, was made to W. E. Clyde Todd of the Carnegie Museum, Pittsburgh, Pennsylvania.

Mr. Todd's most recent work, the culmination of over half a century of interest in and study of the birds of the "north country," will surely be considered a classic among the regional treatises of the avifauna of the New World. The "Birds of the Labrador Peninsula" is a meticulous, comprehensive, and beautifully-written account of the systematics, distribution and habits of the birds of a large segment of north-eastern North America."

"Dr. Jon C. Barlow, [Who?] was chairman of the Local Committee on Arrangements."

"The Reception (Courtesy of the Ontario Department of Lands and Forests) and Annual Banquet on Tuesday evening were held at the Royal York Hotel. James L. Baillie served as toastmaster. President Harold Mayfield announced the several awards, presented the Brewster Medal to W.E. Clyde Todd for his book, "Birds of the Labrador Peninsula," and delivered his annual message to the Union. John A. Livingston of the Canadian Broadcasting Corporation introduced Roger Tory Peterson who presented, with commentary, the excellent film, "The C.B.C's Expedition to the Galapagos, 1965."

"A 'Farewell Party' reception was tastefully staged, with assistance by the Canadian National Sportsman's Show, on Thursday evening in the Rotunda and the Armor Court of the Royal Ontario Museum." **[Where were the**

conservators?]

"Be it further resolved that the American Ornithologists' Union extends its warm regards to Canadians in general on the occasion of their Centennial Year." [Thanks, eh!]

Winnipeg 1975

"The Ninety-third Stated Meeting of the American Ornithologists' Union was held 25-29 August 1975 at the University of Manitoba, Winnipeg, Canada, under the sponsorship of the University. Additional contributors were Environment Canada, Manitoba Department of Mines, Resources and Environmental Management, the Natural History Division of the Manitoba Museum of Man and Nature and the Manitoba Naturalist Society."

"**Spencer G. Sealy**, Chairman of the Local Committee on Arrangements, made several general announcements."

"Over 150 persons viewed a special exhibit of natural history paintings by Canadian artists at the Loch Art Gallery in St. Vital Tuesday evening."

"A number of bird exhibits were displayed in the University Centre, including a display of research at the Delta Waterfowl Research Station, a fossil *Hesperornis* from Manitoba, bluebird conservation in Manitoba, and carved water fowl decoys. The newly published second edition of Ernest Thompson Seton's "Birds of Manitoba" (1891) was featured to commemorate the meeting. Another new publication of the Manitoba Department of Mines, Resources and Environmental Management, "Manitoba bird studies, a bibliography of Manitoba ornithology," by **Martin McNicholl** was distributed as a banquet favor.

The annual banquet of the A.O.U. was held Thursday evening in Pembina Hall. **Hugh Boyd**, Director of the Migratory Birds Branch of the Canadian Wildlife Service, spoke on "Conservation as I see it: social responsibility and political accountability."

"An anticipated overnight field trip to Churchill had to be cancelled because too few persons reserved space."

[This is hard to believe.]

"Whereas there has been appointed in the Fish and Wildlife Service a governmental committee to review the matter of the issuance of scientific collecting permits and other permits and the regulations and policies relating thereto;

BE IT RESOLVED

that the American Ornithologists' Union commends the Director the Fish and Wildlife Service for recognizing that a serious problem exists and for appointing this committee, and offers assistance to this committee in considering and reviewing the various regulations and policies relating to scientific collecting permits and to importation, transportation, and loan of scientific specimens, having in mind both bird conservation and the avoidance of unnecessary, unreasonable, and costly burdens on genuinely scientific activities." [Are we better off today?]

Edmonton 1981

"The Ninety-ninth Stated Meeting of the American Ornithologists' Union was held 24-27 August 1981 at the University of Alberta, Edmonton, Alberta, under the sponsorship of the Department of Zoology."

"On Tuesday evening participants were treated to a reception at the Provincial Museum [What about the

pheasant exhibit?] and on Thursday evening the Annual Banquet was provided by a grant from the Alberta Fish and Wildlife Division."

"**David A. Boag** [was] Chairman of the Committee on Local Arrangements."

"During the week, the Ringhouse Gallery featured the Domtar Collection of bird paintings by J. Fenwick Landsdowne, and a collection of bird art by local artists was displayed in Room B38 of the Tory Building."

"On Wednesday morning Dr. Donald S. Farnier presented a Plenary Lecture entitled "Daylength in Avian Biochronometry" which he dedicated to the Memory of **Professor Rowan**."

"The annual banquet was held on Thursday evening in the Main Dining Hall of Lister Hall where each guest received, in addition to an "Auklet," a replica of the humerus of the Great Auk, *Pinguinus impennis*."

"On Friday morning buses left on two field trips. One lasting for the day visited Elk Island National Park in the Beaverhills Moraine east of Edmonton in the morning and the waterfowl staging area at Beaverhills Lake was visited in the afternoon. The second trip headed west to Jasper and Banff National Parks where participants were able to see the wildlife and spectacular natural beauty of Columbia Icefields, Bow Summit, Peyto Lake, Lake Louise, Johnson Canyon, and Third Vermillion Lake." [I hope they had more than one day!]

Perhaps a historian could read the accounts of recent A.O.U. meetings, like Edmonton, 1981 and find elements of interest. To us though, the business-like,

almost antiseptic descriptions of these meetings is a disappointment compared to the "social column" style used in earlier accounts.

What about Montreal 1991? We'd like to think it is impossible to write blandly about a week in this city.

Best wishes to David Bird and the local committee.

W. Bruce McGillivray
and
Margaret R. Ballantyne
Provincial Museum of Alberta



Jacques Auk
Montreal A.O.U. 1991

New British Columbia Ornithologist Society

BRITISH COLUMBIA FIELD ORNITHOLOGISTS is a new society intended to serve both amateur and professional ornithologists in and near British Columbia, and to foster cooperation between the two groups. Planned activities include publication of a biennial journal and a quarterly newsletter, and organization of a 2-3 day annual meeting. Short articles (generally 3000 words or less) on any aspect of avian ecology, distribution, behavior, or other field-based studies of birds in British Columbia will be welcomed for publication in the journal.

Membership dues for 1991 are \$20.00 CAN.

To join or to receive further information, write British Columbia Field Ornithologists, P.O. Box 1018, Surrey, B.C. V3S 4P5, Canada.

Association of Field Ornithologists

Interested in the study of birds? You might enjoy membership in the Association of Field Ornithologists (AFO). They offer a terrific quarterly Journal that includes articles on field research techniques and on the life history, ecology, behavior, migration and zoogeography of birds. The journal includes Spanish abstracts, reviews of scientific articles published in other journals, and an annual supplement, Resident Bird Counts. Members also receive a bimonthly Ornithological Newsletter with job opportunities (paid and unpaid) and other scientific bird news, a chance to attend the annual meeting discounts on mist nets, and more.

Send \$21 (\$15 for students, \$45 for institutions) to AFO, c/o Allen Press, Inc., P.O. Box 1897,
Lawrence KS 66044,
or ask for our brochure (same address).

THOMAS HUTCHINS, 1742(?) - 1790

Thomas Hutchins, surgeon, fur trader and meteorologist, whose name is perpetuated in Hutchins' Goose, *Branta canadensis hutchinsii*, was born somewhere in Great Britain about 1742. Following his appointment as surgeon by the Hudson's Bay Company on 12 February 1766, Hutchins arrived at York Factory on the *King George* on 11 August 1766. He made his first careful measurements of temperature and atmospheric pressure during 1771-1772 when he was with Andrew Graham at York Factory. In 1774 -1775 Hutchins added a set of observations on the dipping needle, and experimented with congealing of mercury in severe cold. For the resulting publications in the *Philosophical Transactions*, he was presented with the Copley Medal by the Royal Society in December 1783, only the second Hudson's Bay man to be awarded the Copley medal in the 18th century.

In 1969, almost 200 years after they were written, Hutchins' observations concerning 16 species of birds (11 of which had not been listed by Andrew Graham), 14 species of fish, and seven species of mammals, were published in *Andrew Graham's Observations on Hudson's Bay, 1767-1791*, edited by Glyndwr Williams. Richard Glover of Carleton University, who wrote the Introduction to the book, deduced that the remainder of the manuscript had indeed been written by Graham, and not by Hutchins, who had received credit for many of its bird observations (Latham 1781, Pennant 1784).

In 1978, Williams published in *The Beaver* a splendid account of his research titled "Andrew Graham and Thomas Hutchins: Collaboration and Plagiarism in 18th-Century Natural History." Williams wrote: "During my years as General Editor of the Hudson's Bay Record Society, the most personally stimulating and demanding of the textual volumes issued was undoubtedly *Andrew Graham's Observations on Hudson's Bay, 1767-1791*. Problems of selection, compilation and annotation were challenging enough; but the most intriguing feature of the manuscript... was the central problem of authorship." Were the *Observations*, which formed the basis of the volume, the work of Andrew Graham or Thomas Hutchins? Williams continues, "A comparison of the ornithological sections...shows that in practical terms the two men were working together...the

Hutchins manuscript in particular reveals a conscious sense of scientific research, of an advancement of knowledge...also noticeable in the Hutchins manuscript is a sense of deference to Graham, on grounds not of rank but of knowledge. Unlike Graham, who by now was an old hand at the business of writing up his natural history notes, Hutchins refers to 'we' observing, measuring, writing...The partnership was fruitful, honest, and (as far as we can tell) happy."

When we first read Graham's *Observations*, we thought it strange that Graham, a fur trader, would use an adjective such as "pilose", a noun such as "canthus", or a phrase like "the toes semi-palmated and beautifully scalloped, each finely serrated". To us, the descriptions of bird skins appear to have been written by someone with a technical, scientific background. The style was that of a man with a University medical or zoological education, resembling in part the writings of surgeon-naturalist Dr. John Richardson. Who but a surgeon, in naming a bird with no Cree name available, would use terms such as "innominata", "Hudsonias crane", or, on the birthday of King George III, "Avis Natalis"? We accepted the well-documented evidence that Graham was author of the accounts of the fur trade, the Indians and the mammals, but to us the surgeon, Thomas Hutchins, must surely have been responsible for the descriptions of the birds. Interestingly, Hutchins' bird descriptions presented as Appendix C in *Observations* had the same style as those ascribed to Graham earlier in the book.

The two of us painstakingly read, transcribed, and indexed the bird observations within the Graham/Hutchins manuscripts in five visits to the Hudson's Bay Company Archives in Winnipeg. This made us more confident of our hypothesis, but we were amazed to find that the seven manuscripts had two entirely different styles of presentation. Manuscripts E2/5, E2/7 and E2/8 were unquestionably the work of Andrew Graham. These were written in response to a request from his superiors in London to collect specimens and information about birds and mammals. Written in simple, straightforward English, without technical jargon, Graham wrote of the Snow Bunting, "They eat very fine in a pye." Graham described, in his fresh and spontaneous style, 54 bird species in E2/5 and only 40 in E2/7. In general, these early accounts were not recopied into the later accounts, E2/9, E2/10, E2/13, nor E2/12, the source of the bird accounts published in

Were the *Observations*, which formed the basis of the volume, the work of Andrew Graham or Thomas Hutchins?

Observations.

The last four manuscripts, replete with technical terminology, were as different as night and day from the first three. It seemed clear to us that Hutchins and Graham were indeed collaborators, and Hutchins not a mere copyist as Glover had inferred. While Graham had been treated badly for about 200 years, with Hutchins receiving credit from Latham and Pennant for their joint observations; Glover's Introduction, it seemed to us, had failed to give sufficient credit to Hutchins. In all respects other than the relative contributions of the two men, our studies confirmed the veracity and authenticity of the published *Observations*.

How does one proceed with one's doubts about this issue of authorship, crucial to the early history of Canadian ornithology? With whom does one share one's findings? Since Earl Godfrey, the author of *Birds of Canada*, had acted as a consultant to Professor Glover during preparation of the 1969 publication (though unfortunately Glover did not obtain Godfrey's opinion on all species and misidentified a Horned Grebe as a Pied-billed Grebe), we sent our material to Godfrey. We asked him whether either Glover or Williams were still alive and asked specifically whether Williams, if alive, was *compos mentis*. We assumed that any historian who had accomplished such important work in the 1950s and 1960s, must be quite old.

To our delight, we discovered Glyndwr Williams was to be the distinguished keynote speaker at a Fur-Trade Colloquium, in Stromness, Orkney Islands. We made the Orkney trip to hear him and present a paper on Dr. John Rae, the surgeon and fur trader who was born and raised at Stromness. Williams is indeed *compos mentis* as a Professor of History at Queen Mary's College, University of London, though his research has shifted away from Hudson Bay. He proved to be slightly younger than his doubting Houstons from Saskatchewan.

We hesitantly presented, in written form, our Hutchins/Graham hypothesis to Glyn, as he quickly became known. The three of us agreed that the next important step was to transcribe the rather neglected Hutchins manuscript in the Royal Society Archives in London. Glyn was able to arrange for copies to be made for both of us.

After years of intermittent struggling to decipher the handwriting of other fur traders and explorers, we awaited arrival of the electrostatic copy of the Hutchins manuscript with some trepidation. Contrary to the modern stereotype of a surgeon's nearly-illegible handwriting, Hutchins' proved to be

neat, regular and eminently legible, delightfully easy to transcribe.

What did we learn?

Hutchins is clearly the author, and not merely the copyist, of the manuscript in the Royal Society archives, which is in his handwriting. The Hutchins manuscript was written to describe the second, large shipment of numbered bird skins sent back to London from York Factory in 1772, the one year when Graham and Hutchins were together. This Hutchins manuscript allows a better understanding of the collaboration between Hutchins and Graham than any of the seven versions in the HBC Archives.

Graham had asked Hutchins to write the "scientific descriptions", using the zoological nomenclature in which Hutchins as a surgeon had been trained. As Hutchins says in his introduction, as quoted in Appendix E of *Observations*, 1969: "In pursuance of Mr. Graham's advice, I have described the plumage of the Birds..."

For example, there is a nice account of

Who, other than a physician ... would use 'macula' instead of 'spots' as Hutchins did for the Snowy Owl?

Hutchins' observations of lice that appeared like "very beautiful Tortoise-Shells" under the microscope, an instrument that even a surgeon was remarkably fortunate to own in 1772. Hutchins, the surgeon-

scientist, provides weights of birds, perhaps the first person to record this information in North America; 160 years later, Dr. T.S. Roberts could find only one reliable source for such weight information, from a taxidermist named Lano. Hutchins was also interested in compiling the Cree name for each species, something that Graham had initiated for about one-third (20) of the bird species in 1771. Throughout the Hutchins manuscript are the technical terms we had come to expect. Who, other than a physician used to describing a measles rash as a macular rash, would use 'macula' instead of 'spots' as Hutchins did for the Snowy Owl? The bill of the Three-toed Woodpecker is described as 'angular and cuneiform' by Hutchins, but this was rendered as 'angular and formed like a wedge' in *Observations*. Hutchins repeatedly uses technical anatomic nouns such as cere, **irides**, lorum, **fissure**, nuchal, scapulars, vent feathers, **laminae**, **apertures**, **rugae**, vibrissae, **canthus**, **undulations**, **animalcula**. [Those in bold-face are **not** defined by Pennant]. Hutchins also uses adjectives such as ferruginous, smutty, serrated, pectinated, sulcated, piscivorous, palmated, variegated, cineritious, tintured, livid, incurvated, maculated, and elliptical; and phrases such as void of the edging, cere is livid, a small rubidity over the inner canthus, ceruse colour, and rugosity.

Even good English words such as: divided into two hemispheres, livid hue, lazy flagging pace, conjugal affection, demeanor, arboreous situation, evolutions, cinereous brown, channelled, promiscuously, stupefied, assiduous, dextrous, clamorous, auricle, smack more of the educated doctor trying to be erudite, possibly in a superior or condescending manner, than it does of an observant fur trader, like Graham who wrote E.2/5-7-8.

Why did Hutchins and not Graham write the descriptions that accompany the 1772 list? There are two probable answers. Graham was too busy. As Acting Chief of York Factory, the main fur trade depot for the Hudson's Bay Company, Graham was fully occupied during the busiest two weeks of the year. Hutchins, with his training in comparative zoology and Latin, was better qualified for the purely descriptive work, and "appears to have been responsible for packing and labelling the specimens sent home." However, we found no evidence that the 1772 bird collection is solely or even mainly Graham's. It was Hutchins who shot the Gyr Falcon in the fall of 1771 and it was Hutchins not Graham who shot two Horned Larks on 12 May 1772.

The undue, unfortunate dependence of both Hutchins and Graham on Cree Indians as their source of knowledge, is indicated by the following sentence: "We have endeavoured to gain the account of each Bird with all the exactness possible, but different Natives relate different particulars." Under Red Crossbill, Hutchins said "The account I have now to give of this Bird varies greatly from that Sent by Mr Graham last year; but when it is remembered that there are a great resort of Natives to York Fort in comparison of what go to Severn, it will be imagined with justice that we are nigher the truth having more opportunities of gaining intelligence, or information."

Under the Gray Jay, Hutchins said: "Mr Graham last year [1771] sent home a specimen of this Bird and an account of it's food manners &c. We have again procured several, but having nothing new to add concerning it, I only mention it here as part [No 8] of the present collection. Hutchins made similar statements concerning the Snow Bunting, American Robin and Willow Ptarmigan.

There are two new species mentioned in the Hutchins Royal Society mss. that do not appear in *Observations*: the Killdeer, called the Misshiggitee Kisquathenapishish, and an unidentifiable gull.

An additional species, the Chepethewuck, weight about 25 ounces, incorrectly ascribed to Capercaillie by Glover's footnote in *Observations*, is

undoubtedly the Greater Prairie Chicken in E2/9: "*Pinnated Grouse*: is found about Henley Settlement in Hudson's Bay, legs covered with soft brown feathers, toes naked and pectinated. The tufts which distinguish this species from all others are rooted high in the neck, not far from the hind part of the head..."

We conclude that the bird descriptions in *Observations* were a Graham/Hutchins collaboration, to a greater degree than acknowledged

...we share Williams' amazement that Graham...showed no jealousy over Hutchins unequivocal and verbatim plagiarism...

in Richard Glovers' introduction. Clearly, Hutchins and Graham shared and collaborated to the point that their relative contributions can never be sorted out, but, if anything, Hutchins contributed more

than Graham to the bird observations. Nevertheless, we share Williams' amazement that Graham, who outlived Hutchins by 25 years, we share Williams' amazement that Graham, who outlived Hutchins by 25 years, showed no jealousy over Hutchins unequivocal and verbatim plagiarism of a Graham note on the White Whale. He seems not to have been bothered that Pennant and Latham both gave all the credit to Hutchins for what was partly his work.

After five years as surgeon at York Factory, Hutchins took a year of furlough, then was chief at Albany Fort from 1774-1782. He returned to England in 1782 and on 23 July 1783 was appointed as Corresponding Secretary of the Company, a post he held until April 1790, though by then his health was deteriorating. He died in London on 7 July 1790.

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Regional Variations in Species Used in Bird-Skin Clothing

INTRODUCTION

Indigenous peoples used bird skins to make clothing in parts of Greenland, Canada, Alaska, and Siberia. The use of bird-skin clothing is extremely rare, few contemporary seamstresses continue to produce this type of clothing (Figure 1). The objective of this paper is to identify regional variations in species used in bird-skin clothing made in the circumpolar region. Information is collected from specimens located in museums and in the field. A comparison is made of bird-skin selection techniques used in the circumpolar region.

METHODS

Data presented in this paper were gathered using participant-observation methods (Oakes, 1991). Three research assistants and I participated in preparing skins, selecting skins, constructing bird-skin clothing, and accompanying Inuit on hunts. Extensive notes, photographs, illustrations, and samples were used to record information. A film was made of the production procedures and is available on video from the author.

In addition to specimens found in 14 Alaskan communities during 1989, 2 Greenlandic communities during 1988, and 17 Canadian communities during 1983 to 1989, specimens in American, Canadian, and Greenlandic museums were examined. Illustrations, etchings, paintings, photographs, and literary references to bird-skin clothing were also studied.

REGIONAL DIFFERENCES IN SPECIES PREFERENCE

Regional variations were noted in the species selected for bird-skin clothing (Table 1). All 32 museum, archival, and field specimens of parkas from the Belcher Islands were made from Common Eiders (*Somateria mollissima*) (Figure 2). Informants stated that murre (Alcidae), loons (Gaviidae) and gulls (*Larinae*) were used occasionally. Polar Inuit in Qaanaaq, Greenland, wore parkas made from

Dovekies (*Alle alle*), while West Greenlanders used Common Eiders (Rosing 1986:49). Inuit living near Hudson Strait, northern Quebec, used loon skins (Canadian Museum of Civilization IV-B-541b). Labrador Inuit and Ungava Inuit from the Ungava Bay area in northern Quebec used murre (Uria sp.), Red-throated Loons (*Gavia stellata*) (Saunders and McGrath 1985:42), and "guillemot and sea pigeons" [*Cephus*] (Turner, 1894:209).

A wide variety of bird species was used in Alaska. Loon skins were used by Yupik on the Kuskokwim-Yukon Delta (Yugtarvik Regional Museum). Yupik from the St. Michael area near the Yukon-Kuskokwim Delta used Tufted Puffin (*Fratercula cirrhata*) skins (Turner, 1886:118). Siberian Yupik from St. Lawrence Island used cormorant (*Phalacrocorax* sp.) (Zerries 1978:90), Crested Auklets (*Aethia cristatella*) (Denver Art Museum 30-19-E, National Museum of Natural History 418612 in Gurvich 1988:17), and a mixture of other sea birds (Glenbow R755.1). They also used Crested Auklet scalps to decorate intestine parkas (Bata Shoe Museum OR#190). Kingeekuk (1987:25) states people living on the southern part of St. Lawrence Island

wore eider and other types of duck skin clothing while people from the northeastern part of the island wore gull-skin parkas. Snowy Owls (*Nyctea scandiaca*) and falcons (*Falco*) were not used in the past in the St. Lawrence Island area. Ravens (*Corvus*) and jaegers (*Stercorarius*) were not used on the St. Lawrence Island because they were considered "dirty". Hawks (*Buteo*) and birds with white plumage such as Willow Ptarmigan (*Lagopus lagopus*) and Ivory Gulls (*Pagophila eburnea*) were avoided because of superstitions (Fay and Cade 1959:83). Ravens may also have been avoided for superstitious reasons. Emperor Goose (*Chen canagica*) skins were used by Bering Sea Eskimos near Cape Vancouver (National Museum of Natural History 48336 in Fitzhugh and Kaplan, 1982:55, Nelson, 1899:31). North of St. Lawrence Island,



Bird-skin clothing is rarely made today. Silatik Meeko and Minah Iqaluk are leading seamstresses who took the time to work with assistant researchers Zarah Chun and Val Kosmenko. Belcher Islands, N.W.T. Photo Jill Oakes, 1989.

along the mainland coast near Point Barrow, Murdoch (1883:110) observed that Inupiat used eider duck inner parkas on the rare occasion.

South of St. Lawrence Island, the Aleuts on the Aleutian Islands decorated their seal-intestine parkas (Hatt, 1969:124) and their special occasion dresses (Sarytschew, 1969:8) with feathers. They used parkas made from Horned Puffin (*Fratercula*

Literature searched for information on Siberian Chukchi do not mention the use of bird skin clothing (Antropova and Kuznetsova, 1964:813-815; Dall, 1881:857-868; Sverdrup, 1978:1228). In the central Canadian Arctic references to the utilization of bird skins in clothing are rare (Lyon, 1824:314;) or nonexistent (Balicki, 1970; Boas, 1964). Lyon (1824:314) mentions that Inuit from Igloodik wore eider parkas, boots, and pants with the feathers turned inside. One example of an eider parka, allegedly from the Keewatin District, was collected by Bishop Marsh (Manitoba Museum of Man and Nature H5-21-9). As of 1985, however, seamstresses in Arviat (Eskimo Point), a community in the Keewatin, were unfamiliar with bird-skin garment production techniques.

Variations in plumage colors and skin size influences the designs created by seamstresses from different regions in similar ways. For example, a parka made from murrets by Siberian Yupik on St. Lawrence Island, Alaska (Apassingok et. al., 1987:41) is similar in design to a parka made from murrets by Inuit in Nain, Labrador (Public Archives of Canada 95202 and 172830). Seamstresses note subtle variations in the parka styles; however, the overall design is similar.

Joe Emikotailuk states that variations in skin size influenced parka size on the Belcher Islands (Nakashima and Murray, 1988:118). Eiders feeding in the southern portion of the islands had more food and were larger than those feeding in the northern area of the Belcher Islands. Seamstresses used the same number of skins regardless of where they were living on the islands. Consequently men observed that parkas made from the southern area were larger than those made in the northern area.

The seamstress' understanding of skin strength, insulative values and design are illustrated in a parka made by Therchuk in Toksook Bay, Alaska (Bata Shoe Museum OR#1). This parka includes the following bird skins: 5 Pacific Loons (*Gavia artica pacifica*), 4 male King Eiders (*Somateria spectabilis*), 6 female eiders (king or common), 20 Oldsquaws (*Clangula hyemalis*), 1 Harequin Duck (*Histrionicus histrionicus*), 7 Steller's (*Polysticta stelleri*) or Spectacled Eider (*Somateria fischeri*) (Sealy and Riewe, pers. comm., 1989). It is trimmed with ringed seal (*Phoca hispida*) and arctic fox (*Alopex lagopus*). Oldsquaw skins were used for the torso area. Breeding male oldsquaws were incorporated into the center rows; non-breeding males, and females, were placed along the parka sides. All breeding birds were harvested between late March and early June when they were not moulting. Puddleducks (*Anatinae*) are not as plentiful as diving ducks (*Aythinae*) on Nelson Island, however, when more than one type was available, diving

1. Greenland Qaanaaq, Greenland	Murres, Dovekies, Thick-billed Murre and Auks
Northern West Greenland	Eiders
2. Canada	
Hudson Strait, Quebec	Loons
Ungava Bay, Quebec	Murres, Red-throated Loons, Loon, Guillemots
	Loons, Guillemots
Kangigsuagujjuaq, Quebec	Murres
Nain, Labrador	Murres, Red-throated Loons
	Mergansers, Eiders and Loons
Igloodik, N.W.T.	Common Eiders
Keewatin, N.W.T.	Common Eiders
Sanikiluaq, N.W.T.	Common Eiders, Guillemot and Gulls
Inukjuaq, Quebec	Common Eiders
Kuujujrapik, Quebec	Common eiders
3. United States	
Kuskokwim-Yukon Delta, Alaska	Loons and Puffins
St. Lawrence Island, Alaska	Cormorant, Auklets, Crested Auklets, mixture of sea birds, Eiders, Emperor Geese and Gulls
Nelson Island, Alaska	Steller's Eiders, Spectacled Eider, King Eider, Common Eider, Arctic Loon, Oldsquaw and Harlequin Duck
Aleutian Islands, Alaska	Horned Puffins, Cormorants and other seabirds
Kodiak Island, Alaska	Puffins, Cormorants and Pelagic Cormorant
Southern Alaskan Coast	Eagles
4. Soviet Union	
Far East, U.S.S.R. (Inuit)	Common Eider
Inland on Chukotka Peninsula (Chukchi)	No bird clothing referenced

Table 1. Comparison between locality and species used in bird-skin parkas. garments such as hats and mitts made from bird skins were omitted from this study. Intensity of use is not considered in this table. Latin names of these species are provided in the text.

corniculata) skins which were made water repellent by smearing them with fish roe and red dye. These parkas were worn with the feathers to the inside (Hatt, 1969:15, Hunt, 1975:43). Koniaq Eskimos on Kodiak Island used puffin skins (Collins, et.al., 1973:64) and cormorants (Collins, 1973:19, Museum of Anthropology and Ethnology, Leningrad, 2888-84 in Chaussonnet, 1988:209). According to Ray (1981:53) the Chugach from the Alaskan coast south of Kodiak Island used Bald Eagle (*Haliaeetus leucocephalus*) skins, sometimes with the feathers plucked from the skins (Birket-Smith, 1953:65) References to the use of bird-skin clothing by Inuit living in Siberia are rarely mentioned (Bogoras, 1913; Gurvich, 1988:17; Menovshchikov, 1964:842).

ducks were preferred as they have stronger skins than puddle ducks (Wilder, 1976:96, G. Therchik, pers. comm., 1989).

CONCLUSIONS

The use of bird skins in clothing and regional variations in bird species used for clothing is directly related to species and numbers available. Areas with high populations of caribou (Keewatin District) or reindeer rarely used bird skins in clothing because caribou skin is more durable, and less work to prepare and sew than bird skins. Inuit in regions without wild caribou, and areas where introduced herds of reindeer did not flourish, such as St. Lawrence, Nunivak, Kodiak, Aleutian and the Belcher Islands, were forced to use bird skins for clothing.

In those regions that depended on bird skins for warm winter clothing regional differences in bird species preferences were directly related to the available species, hunting conditions and physical properties of the species. Inuit in regions with high populations of cliff nesting seabirds, such as dovekies or murre, relied upon these birds for their clothing. Inuit inhabiting low lying areas, with large populations of eiders, loons, geese and gulls, such as the Belcher Islands or Nunivak Island, utilized eider ducks in preference to other birds. One reason for this is that eider ducks are available in October and November, when the down is the thickest and warmest. In contrast, gulls, loons, and geese are plentiful during the spring and summer, when the down is less dense and plucked to line nests. They have migrated out of the area before their down is prime.

Changing lifestyles which reduced the number of people spending extended periods of time outdoors during the winter has reduced the need for bird-skin clothing. Modern materials have become readily available, reducing the need to use bird skins for the majority of Inuit. Some Inuit have incorporated down with modern textiles to produce clothing that is ideally suited to their contemporary, less migratory lifestyle.

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Figure 2. Bird-skin clothing is worn with the feathers to the inside or outside. Jamie and Agatha Komaksuitiksak, 1989. Photo Jill Oakes.

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