

# HOWARD DEAN CLUFF

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Yellowknife, NWT X1A 1G2  
(867) 920-7275

## EDUCATION:

### UNIVERSITY OF ALBERTA

Master of Science (Zoology)  
Convocation: June 1992

Edmonton, Alta.

### UNIVERSITY OF GUELPH

Bachelor of Science (Wildlife Biology)  
Convocation: May 1984

Guelph, Ont.

### SAINT CHARLES COLLEGE

Ontario Secondary School Honours Graduation Diploma  
Graduation: June 1980

Sudbury, Ont

## RELEVANT WILDLIFE EXPERIENCE:

Government of the Northwest Territories - Resources, Wildlife & Economic Development  
(formerly Renewable Resources)

### **Regional Biologist** - North Slave Region

August 1995 to present

Supervisor: E. Campbell, Manager of Wildlife & Environment

Yellowknife, NWT

Government of the Northwest Territories - Renewable Resources

### **Polar Bear Biologist I** - Wildlife Management Division

October 1993 to July 1995

Supervisor: Dr. M.K. Taylor

Yellowknife, NWT

Gabriel Dumont Institute for Native Studies and Applied Research

### **Co-ordinator** - Integrated Resource Management Program

November 1992 - September 1993 (end of program)

Supervisors: L. Hardy, V. McCaffery

Buffalo Narrows, Sask.

Freshwater Institute

### **Contractor** - Impact of ice-breaking ships on ringed seals

May-June 1992 (Arctic Bay, N.W.T.)

Supervisor: Dr. S. Innes

Winnipeg, Man.

### **Research Assistant** - Arctic Beluga Populations in the N.W.T.

Summers 1985 (Arviat) and 1986 (Pangnirtung & Grise Fiord)

Supervisor: Dr. R.E.A. Stewart

Winnipeg, Man.

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University of Alberta - Department of Zoology

**Graduate Teaching Assistant**

Introductory Zoology (Zool 120). Winter & Fall 1988, Fall 1990

Wildlife Conservation (Zool 467). Fall 1989

Mammalogy (Zool 309). Fall 1990

Supervisors: M.J. Turnell, J. Fuller, M. Haag

Edmonton, Alta.

**Capture and Radio-Location of Coyotes** in Manitoba and Yukon

Summers 1988-90, Winters 1989-90, September 1991 (Yukon)

Supervisors: Drs. S. Boutin & L.N. Carbyn

Edmonton, Alta.

University of British Columbia - Department of Zoology

**Research Assistant** - Lemming/Vole Population Cycles in the N.W.T.

Summer 1987 (Pearce Point)

Supervisor: Dr. C.J. Krebs

Vancouver, B.C.

Alberta Fish and Wildlife

**Assistant** - Elk Management Plan - Preliminary Draft

Fall and Winter 1985/86

Supervisor: J.R. Gunson

Edmonton, Alta.

**SPECIAL SKILLS:**

Supervisory

- project leader for wolf research in the NWT
- field supervisor for 3 graduate students (1 Ph.D, 2 M.Sc.)
- supervisor to Laboratory Technician for the NWT Polar Bear Harvest Program.
- supervised 3 staff, instructed 14 students, and administered a budget of over \$500,000 in a resource management diploma program (forestry, fisheries, wildlife, and parks).

Data Analysis & Scientific Writing

- strong mapping and spatial data analysis with ArcView 3.
- excellent experience with Excel, Access, and dBASE; word processing with Word and WordPerfect, graphics packages Illustrator, SigmaPlot, and CorelDraw; mapping with OziExplorer; statistics with SPSS and Stata.
- analysis of radio-telemetry data and population viability analysis.
- critically reviewed manuscripts intended for publication in peer-reviewed journals.

Wildlife Techniques

- net-gunning and darting of wolves from helicopter.
- darting of grizzly bears from helicopter and black bears from the ground.
- darting of polar bears by helicopter and snowmobile.
- capture, mark, and release of small to medium-sized mammals.
- aerial- and ground-tracking of radio-collared wolves, bears, and coyotes.
- participated in co-ordinating a population-level research program in the High Arctic.

### Public Speaking

- participated in community meetings on research & management of a variety of wildlife.
- regularly give presentations at scientific conferences, school groups, and the public.
- lectured as the wildlife instructor for the Integrated Resource Management Program.

### Extra-curricular

- actively involved in a variety of wildlife pursuits including hiking, camping, canoeing, hunting and fishing.

## **CURRENT MEMBERSHIPS AND PROFESSIONAL AFFILIATIONS:**

- The Wildlife Society
- Society for Conservation Biology
- International Bear Association
- Canadian Parks and Wilderness Society
- Wolf Specialist Group - World Conservation Union (IUCN)
  - appointed March 2001 as member for Canada

## **REFERENCES:**

**Dr. Mitchell Taylor**, Polar Bear Biologist II, Department of Sustainable Development, Government of Nunavut, Igloolik, NU X0A 0L0.  
office: (867) 934-2068 (tel)      (867) 934-2058 (fax)

**Dr. Stan Boutin**, Associate Professor, Department of Biological Sciences, University of Alberta, Edmonton, Alberta. T6G 2E9.  
office: (780) 492-1297      (780) 492-9234

**Dr. Lu Carbyn**, Research Scientist, Canadian Wildlife Service, Environment Canada, 2nd floor, 4999 - 98 Avenue, Edmonton, Alberta. T6B 2X3.  
office: (780) 435-7357      (780) 435-7359 (fax)

## **PUBLICATIONS:**

McLoughlin, P.D. L.R. Walton, **H.D. Cluff**, P.C. Paquet, and M.A. Ramsey. 2004. Hierarchical habitat selection by tundra wolves. *Journal of Mammalogy* 85 (in press).

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**Cluff, H.D.** 2003. Book review. *Keepers of the wolves. The early years of wolf recovery in Wisconsin.* by Richard P. Thiel. 2001. University of Wisconsin Press, Madison. *Wildlife Society Bulletin* 31:911-912.

McLoughlin, P.D., M.K. Taylor, **H.D. Cluff**, R.J. Gau, R. Mulders, R.L. Case, S. Boutin, and F. Messier. 2003. Demography of barren-ground grizzly bears. *Canadian Journal of Zoology* 81:294-301.

- McLoughlin, P.D., M.K. Taylor, **H.D. Cluff**, R.J. Gau, R. Mulders, R.L. Case, and F. Messier. 2003. Population viability of barren-ground grizzly bears in Nunavut and the Northwest Territories. *Arctic* 56:185-190.
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- Gipson, P.S., E.E. Bangs, T.N. Bailey, D.K. Boyd, **H.D. Cluff**, D.W. Smith, and M.D. Jimenez. 2002. Color patterns among wolves in western North America. *Wildlife Society Bulletin* 30:821-830.
- McLoughlin, P.D., R.L. Case, R.J. Gau, **H.D. Cluff**, R. Mulders, and F. Messier. 2002. Hierarchical habitat selection by barren-ground grizzly bears in the central Canadian Arctic. *Oecologia* 132:102-108.
- McLoughlin, P.D., **H.D. Cluff**, R.J. Gau, R. Mulders, R.L. Case, and F. Messier. 2002. Effect of spatial differences in habitat on home ranges of grizzly bears. *EcoScience* 10 (1).
- McLoughlin, P.D., **H.D. Cluff**, R.J. Gau, R. Mulders, R.L. Case, and F. Messier. 2002. Population delineation of barren-ground grizzly bears in the central Canadian Arctic. *Wildlife Society Bulletin* 30:728-737.
- McLoughlin, P.D., **H.D. Cluff**, and F. Messier. 2002. Denning ecology of barren-ground grizzly bears in the central arctic. *Journal of Mammalogy* 83:188-198.
- Taylor, M.K., J. Laake, **H.D. Cluff**, M. Ramsay, and F. Messier. 2002. Managing the risk from hunting for the Viscount Melville Sound polar bear population. *Ursus* 13:185-202.
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- Cluff, H.D.** 2001. Thinking like a wolf. *Howlings* 11:6-8.
- Walton, L.R., **H.D. Cluff**, P.C. Paquet, and M.A. Ramsay. 2001. Movement patterns of barren-ground wolves in the central Canadian Arctic. *Journal of Mammalogy* 82:867-876.
- Walton, L.R., **H.D. Cluff**, P.C. Paquet, and M.A. Ramsay. 2001. Performance of 2 models of satellite collars for wolves. *Wildlife Society Bulletin* 29:180-186.
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- Wilson, P.J., S. Grewal, I.D. Lawford, J.N.M. Heal, A.G. Granacki, D. Pennock, J.B. Theberge, M.T. Tehberge, D.R Voigt, W. Waddell, R.E. Chambers, P.C. Paquet, G. Goulet, **D. Cluff**, and B.N. White. 2000. DNA profiles of the eastern Canadian wolf and the red wolf provide evidence for a common evolutionary history independent of the gray wolf. *Canadian Journal of Zoology* 78:2156-2166.
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- Cluff, H.D.** 1999. Wolves and eskers in Canada's central arctic. *International Wolf* 9:13-15.
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- Cluff, H.D.**, and D.L. Murray. 1995. Review of wolf control methods in North America. Pages 491-504 in L.N. Carbyn, S.H. Fritts, and D.R. Seip. Ecology and conservation of wolves in a changing world. Canadian Circumpolar Institute, University of Alberta, Edmonton, Canada.
- Taylor, M.K., and **H.D. Cluff**. 1995. Oil-spill preparedness for polar bears. Northern Oil & Gas Action Paper (NOGAP) Project H65. Final Report.
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- Cluff, H.D.** 1993. Wolf scientists meet in Edmonton. News and Comment section. *Canadian Field-Naturalist* 106(4):531-533. A revised edition was published in *Canid News*, International Union for the Conservation of Nature and Natural Resources (IUCN) - Canid Specialists Group.
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- Cluff, H.D.** 1992. *Coyote movements in southwestern Manitoba*. M.Sc. thesis, Department of Zoology,

University of Alberta. Edmonton. 127 pp.

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**Cluff, H.D.** 1991. Book review. *Analysis of wildlife radio-tracking data.* by G.C. White and R.A. Garrott. 1990. Academic Press. *Journal of Wildlife Management* 55:358.

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Boutin, S., and **H.D. Cluff**. 1989. Coyote prey choice: optimal or opportunistic foraging? A comment. *Journal of Wildlife Management* 53: 663-666.

#### **Manuscripts Submitted for Publication**

**Cluff, H.D.**, R. Mulders, P.C. Paquet, G. Bihun, L. Yonge, L.R. Walton, M Musiani. (in review). The "Rennie Lake" wolf hunt controversy in the Northwest Territories, Canada. Submitted to *Wildlife Society Bulletin*.

Frame, P.F., D.S. Hik, **H.D. Cluff**, and P.C. Paquet. (in review). Long distance foraging movement of a tundra wolf during summer. Submitted to *Arctic*.

Johnson, C.J., M.S. Boyce, R. Mulders, A. Gunn, R.J. Gau, **H.D. Cluff**, and R.L. Case. (in review). An approach for integrating resources occurring at multiple spatial scales within wildlife-habitat models. Submitted to *Landscape Ecology*.

Johnson, C.J., M.S. Boyce, R.L Case, **H.D. Cluff**, R.J. Gau,, A. Gunn and R. Mulders. (in review). Quantifying the cumulative effects of human developments: a regional environmental assessment for sensitive arctic wildlife. Submitted to *Wildlife Monographs*.

#### **Manuscripts in Preparation**

**Cluff, H.D.** (in prep). Range expansion of the coyote in the Northwest Territories.

McLoughlin, P.D., M.K Taylor, M. Kuc, M. Obbard, **H.D. Cluff**, B. Pond, and F. Messier. (in prep.). Riskman: Risk analysis for harvested populations of age structured, birth-pulse species.

**Cluff, H.D.**, R.W. Bethke, and M.K. Taylor. (in prep). Modular holding cages for polar bears. Manuscript initially presented at the 10<sup>th</sup> International Conference on Bear Research and Management, 16-20 July 1995, University of Alaska, Fairbanks.

**Cluff, H.D.**, S. Boutin, and L.N. Carbyn. (in prep.). Carcass site use by coyotes during winter food additions.