

Compilation of Masters and Doctoral Dissertations Based on the Barrow, Alaska Region: A work in progress as of May 2011

Preface

Jerry Brown (compiler)

Judie Triplehorn (bibliographer)

This compilation of masters and doctoral theses is prepared as part of a larger bibliographic project that covers the “Post World War II to Present Period” of research conducted at and around the immediate Barrow, Alaska, area. These documents are less commonly cited in the open literature, since preference is given to the author’s published papers. This compilation is intended to identify the many generations of individuals whose early careers began at Barrow, and to illustrate the diverse research that forms this rich scientific heritage of the Barrow area. Please send corrections and additions to jerrybrown@igc.org.

We think the first doctoral dissertation was completed in 1915 by Ernest William Hawkes, University of Pennsylvania, on the skeletal measurements and observations on the Point Barrow Eskimo.

The vast majority of the university-based research conducted prior to 1970 was funded by the Office of Naval Research and logistically supported by the Navy’s Arctic Research Laboratory. The detailed history of the period 1947-1966 is documented by Reed and Ronhovde (1971). A bibliography, prepared for the 25th anniversary of the Naval Arctic Research Laboratory, lists the numerous publications and other documents produced during this period (Gunn 1973). A special issue of the journal *Arctic* contains a series of well-documented thematic papers presented in conjunction with the dedication of the new NARL facility in April 1969 (Monson and Sater 1969). By the 1970s the National Science Foundation, NOAA, and other agencies became the major funding agencies. Two large interdisciplinary programs included the NSF U.S. Tundra Biome Program (Brown et al. 1983) and NOAA’s Outer Continental Shelf Environmental Assessment Program (OCSEAP). The Naval Arctic Research Laboratory officially closed in 1980. The North Slope Borough’s Department of Wildlife Management (formerly the Department of Conservation and Environmental Protection) has funded a large number of contract studies mostly associated with marine mammals and their environments, and these have fostered numerous contributions to this compilation (Albert 1998). In 1997, a 50-year tribute to NARL was convened at Barrow, and the publication of that celebration contains much of the history and documentation of this Barrow research (Norton 2001). As part of the workshop report on The Future of an Arctic Resource, an abridged bibliography on the Barrow research was prepared (Brown 1999) as was list of 252 references on bowhead whale research (Albert 1998). The abridge bibliography served as a source for the Mather Library Barrow bibliography prepared under the direction of Judie Triplehorn:

(<http://www.gi.alaska.edu/services/library/bibliographies.html>).

The above-mentioned publications were helpful in developing the initial phase of this present compilation.

The following compilation is divided into three, approximate time periods: Early to 1970; 1970-1990; and 1990 to present. Most of this compilation is based on the below listed references and additional internet searches.

The recently organized Barrow Young Researchers (BYR) plans to provide additions to the more recent list and, in turn, to benefit from the less accessible and older citations. Input to the “1990 to present” section was provided by Dr. Chanda Meek and her student at University of Alaska Fairbanks as part of this initial BYR activity. Special thanks for reviews and additions: Hajo Eicken, Lew Shapiro, Wilford Weeks, Frederick Nelson, Ken Hinkel, Robert Hollister, Craig Tweedie, John Kelley, Norbert Untersteiner, and others.

References

Albert, T. (1998) Bowhead whale studies and related documents, North Slope Borough Department of Wildlife Management, 19 pp. <http://www.arcus.org/logistics/barrow/bibs.html>

Britton, M. E. ed. (1973) Alaskan Arctic tundra proceedings of the 25th anniversary celebration of the Naval Arctic Research Laboratory. Arctic Institute of North America Technical Paper No, 25, 224 pp.

Brown, J. (1999) An abridged bibliography of research in the Barrow area. in The future of an Arctic resource: Recommendations from the Barrow area research support workshop. Arctic Research Consortium of the United States (ARCUS), Fairbanks, Alaska, pp. 73-96. <http://www.arcus.org/logistics/barrow/bibs.html>

Brown, J., N. Liston, D. Murphy, and J. Watts (1983) U.S. Tundra Biome publication list. U.S. Army CRREL Special Report 83-29, 29 pp.

Gunn, W.W. (1973) Bibliography of the Naval Arctic Research Laboratory. Arctic Institute of North America Technical Paper No, 24, 176 pp.

Monson, A.P.B. and J.E. Sater, eds. (1969) Proceedings of the U.S. Naval Arctic Research Laboratory dedication symposium, Fairbanks, Alaska, 9-12 April 1969. Arctic 22 (3): 173-364.

Norton, D. W. ed. (2001) Fifty More Years Below Zero; Tributes and Meditation for the Naval Arctic Research Laboratory's first half century at Barrow, Alaska Fairbanks, Alaska, University of Alaska, 576 pp.

Reed, J.C. and A. G. Ronhovde (1971) Arctic Laboratory. A history (1947-1966) of the Naval Arctic Research Laboratory at Point Barrow. Alaska, Arctic Institute of North America, 748 pp.

Part 1: Early to 1970

Akasofu, Syun-Ichi (1961) A study of magnetic storms and auroras. Ph.D. dissertation, University of Alaska, 209 pp.

Beal, M.A. (1968) Bathymetry and structure of the Arctic Ocean. Ph.D. dissertation, Oregon State University, 208 pp.

- Black, R.F. (1953) Fabrics of ice wedges. Ph.D. dissertation, John Hopkins University, 88 pp. University of California (Los Angeles).
- Carlson, P.R. (1957) Geology and engineering properties of Cenozoic sediments near Point Barrow, Alaska, M.S. Thesis, Iowa State University, 95 pp.
- Carsola, A.J. (1952) Marine geology of the Arctic Ocean and adjacent seas of Alaska and northwestern Canada, Ph.D. dissertation. University of California (Los Angeles). 226 pp.
- Carson, Charles E. (1962) The oriented lakes of arctic Alaska, Ph.D. dissertation, Iowa State University, 83 pp.
- Chesemore, D.L. (1967) Ecology of the arctic fox in northern and western Alaska. M.S. thesis, University of Alaska, 148 pp.
- Childs, H. E., Jr. (1959) Vertebrate ecology of coastal tundra in northwestern Alaska, Ph.D. dissertation, University of California Berkeley, 249 pp.
- Clebsch, Edward E. C. (1957) The summer season climatic and vegetational gradient between Point Barrow and Meade River, Alaska. M.S. thesis, University of Tennessee, 60 pp.
- Davis, T.N. (1961) An investigation of the morphology of the auroral displays of 1957-1958. Ph.D. dissertation, University of Alaska. 107 pp.
- Dennis, J. G. (1968) Growth of tundra vegetation in relation to Arctic microenvironments at Barrow, Alaska. Ph.D. dissertation, Duke University, 305 pp.
- Douglas, L. A. (1961) A pedologic study of tundra soils from northern Alaska. Ph.D. dissertation, Rutgers University. 147 pp. (UM 61-4184).
- Drew, James V. (1957) A pedologic study of arctic coastal plain soils near Point Barrow, Alaska. Ph.D. dissertation, Rutgers University, 117 pp.
- Essler, W.O. (1960) Radio telemetry of electrocardiograms and body temperature from surgically implanted transmitters. Ph.D. dissertation, Iowa State University.
- Faas, R. W. (1962) Micropaleontology of some Quaternary sediments from the Barrow, area, northern Alaska. M.S. thesis, Iowa State University, 38 pp.
- Faas, Richard William (1964) A study of some late Pleistocene estuarine sediments near Barrow, Alaska. Ph.D. dissertation, Iowa State University of Science and Technology. 190 pp.
- Fitts, R.W. (1969) Maximal aerobic and anaerobic power and respiratory functions of Alaska Eskimos. M. A. thesis, State University of New York at Buffalo, 77 pp.
- Gessaman, J.A. (1968) Metabolism and thermoregulation of the snowy owl, *Nyctea scandiaca*. Ph.D. dissertation, University of Illinois, 97 pp.
- Hawkes, Ernest William (1915) Skeletal measurements and observations on the Point Barrow Eskimo with comparison from other Eskimo groups. Ph.D. dissertation, University of Pennsylvania.
- Hoffman, D.J. (1965) A measurement of the spectrums of low energy primary cosmic ray hydrogen and helium at solar minimum. Ph.D. dissertation. University of Minnesota, 173 pp.

- Hollister, Louise Cline (1966) Plan for a travelling museum exhibit on the northern Eskimo and Barrow, Alaska, M. Ed. University of Alaska.
- Holmes, Richard T. (1964) Breeding ecology and annual cycle adaptations of the Red-backed Sandpiper, *Calidris alpina pacifica*. Ph.D. dissertation, University of California, Berkeley, 196 pp.
- Horner, Rita Ann (1969) Phytoplankton studies in coastal waters near Barrow, Alaska. Ph.D. dissertation, University of Washington, 261 pp.
- Humphrey, R.L., Jr, (1970) The prehistory of the Arctic Slope of Alaska: Pleistocene cultural relationships between Eurasia and North America. Ph. D. dissertation, University of New Mexico. 332 pp.
- Kalff, J. (1965) Primary production rates and the effects of some environmental factors on algal photosynthesis in small arctic ponds. Ph.D. thesis Indiana University, 122 pp.
- Koranda, John James (1954) A phytosociological study of an uplifted marine beach ridge near Point Barrow, Alaska. M.S. thesis, Michigan State College of Agriculture and Applied Science. 132 pp.
- Lewellen, R. I. (1965) Characteristics and rates of thermal erosion, Barrow, Alaska. M.A. thesis, University of Denver. 181 pp.
- Lewis, R.W. (1961) Temperature and pressure effects on the fatty acids of some marine ectotherms. M.S. thesis, University of Southern California, 33 pp.
- Lieske, B. J. (1962) Energy flux balance of the atmosphere-ice-ocean interface in the Arctic Ocean during the IGY. M.S. thesis, University of Washington, 73 pp.
- Lindquist, Evert Esplin (1959) Mites of the genus *Arctoseius* Thor from Barrow, Alaska (Acarina: Aceosejidae). M. S. thesis, University of California Berkeley.
- Lowther, J.S. (1957) Paleobotanical investigations in northern Alaska. Ph. D. dissertation, University of Michigan, 204 pp.
- MacLean, Stephen Frederick, Jr. (1969) Ecological determinants of species diversity of arctic sandpipers near Barrow, Alaska. Ph. D. dissertation, University of California, Berkeley, 188 pp.
- Maher, William J. (1961) The ecology of pomarine, parasitic, and long-tailed jaegers in northern Alaska. Ph. D. dissertation, University of California, Berkeley 381 pp.
- Michelson, Ronald W. (1965) Tundra relief features near Barrow, Alaska. M.S. thesis, Iowa State University, 52 pp.
- Milan, F.A. (1963) An experimental study of thermoregulation in two arctic races. Ph.D. dissertation, University of Wisconsin, 150 pp.
- Mullen, David A. (1965) Physiologic correlations with population density and other environmental factors in the brown lemming, *Lemmus trimucronatus*. Ph. D. dissertation, University of California (Berkeley), 177 pp.
- Ogden, Joseph Cornelli (1964) Stratigraphic interpretation of some Quaternary sediments, Barrow area, Alaska, M.S. thesis, Iowa State University.
- Olson, J.J. (1963) A study of coastal microseisms in northern Alaska. M.S. thesis. University of

Minnesota, 137 pp.

Ostdiek, J.L. (1956) ecological studies on the Alaska blackfish, *Dallia pectorali* Bean, in the Barrow, Alaska, region. M.S. thesis, Catholic University of America, 15 pp.

Ostenso, N.A. (1962) Geophysical studies in the Arctic Ocean basin. Ph.D. dissertation, University of Wisconsin.

O'Sullivan, John Blandford (1958) Geology and bituminous stabilization of soil materials at Point Barrow, Alaska. M.S. thesis, Iowa State College of Science and Technology. 141 pp.

O'Sullivan, John Blandford (1961) Quaternary geology of the arctic coastal plain, northern Alaska, Ph.D. dissertation. Iowa State University, 191 pp.

Ogden, Joseph Cornelius (1964) Stratigraphic interpretation of some quaternary sediments, Barrow area, Alaska. M.S. thesis, Iowa State University of Science and Technology, 48 pp.

Peyton, Harold R. (1967) Sea ice strength. Ph.D. dissertation, University of Alaska Fairbanks, 270 pp.

Pieper, R.D. (1963) Production and chemical composition of arctic tundra vegetation and their relation to the lemming cycle. Ph.D. dissertation, University of California Berkeley, 95 pp.

Schafer, Pedro Joaquin (1965) Computation of a storm surge at Barrow, Alaska, by a method of numerical integration. M.S. thesis, University of Washington.

Sonnenfeld, Joseph (1957) Changes in subsistence among the Barrow Eskimo. Ph.D. dissertation, Johns Hopkins University. 561 pp.

Stevens, Gary Leslie (1966) Density and home range of Lemmus trimucronatus at Point Barrow, Alaska. M.A. thesis, University of California Davis.

Swade, R.H. (1964) Circadian rhythms in the Arctic. Princeton University.

Thompson, Daniel Quale (1955) The ecology and population dynamics of the brown lemming (*Lemmus trimucronatus*) at Point Barrow, Alaska. Ph.D. dissertation, University of Missouri, 137 pp.

Tibbs, S. (1967) On the distribution, morphology and variation of arctic Ceratium. M.S. thesis, University of Southern California

Van Cleve, K. (1967) Nutrient loss from organic matter placed in soil in different geographic regions, Ph.D. dissertation, University of California Berkeley, 290 pp.

Walker, H. Jesse (1960) The changing nature of man's quest for food and water as related to snow, ice permafrost in the American Arctic. Ph.D. dissertation, Louisiana State University, 256 pp.

Ward, Ira John (1955) Mechanical stabilization of a gravelly sand from the beach at Barrow, Alaska. M.S. thesis, Iowa State University.

Werner, Marian Adair (1959) A study of shallow water sediments in the Barrow, Alaska area. M.A. thesis, Smith College, 67 pp.

Wohlschlag, Donald E. (1953) Age and growth studies of two species of whitefish from Point Barrow, Alaska. M.A. thesis, Stanford University.

Part 2: 1970 to 1990

a. Tundra Biome Barrow Dissertations

- Ashkenazie, Shoshana (1975) Time-energy budget of the semipalmated sandpiper *Calidris pusilla* at Barrow, Alaska. M.S. thesis, Hebrew University of Jerusalem. Note: In Hebrew and English, with English abstract, 152 pages.
- Barkley, Sylvia A. (1976) The influence of mineral nutrition on the lemmings of Point Barrow, Alaska. M.S. thesis, San Diego State University, 110 pp.
- Buechler, Dennis G. (1972) Phosphorus regeneration studies in fresh-water ciliates. M.S. thesis, University of South Dakota Vermillion, 35 pp.
- Bunnell, Fred L. (1973) Computer simulation of nutrient and lemming cycles in an arctic tundra wet meadow ecosystem. Ph.D. dissertation, University of California Berkeley, 312 pp.
- Challinor, Josephine Lucie (1971) Vehicle perturbation effects upon a tundra soil-plant system. M.S. thesis, University of California Berkeley, 240 pp.
- Chapin, F. Stuart III (1973) Morphological and physiological mechanisms of temperature compensation in phosphate absorption along a latitudinal gradient. Ph.D. dissertation, Stanford University, 134 pp.
- Cheslak, Edward F. (1976) Activity patterns and runway utilization of the brown lemming, *Lemmus trimucronatus*. M.S. thesis, San Diego State University, 97 pp.
- Clement, Lawrence E. (1975) The ecology of *Tipula carinifrons* Holm. (Diptera, Tipulidae) in the arctic coastal tundra of northern Alaska. M.S. Thesis, University of Alaska, 96 pp.
- Coady, John W. (1975) Bioenergetics of the brown lemming (*Lemmus sibiricus*). Ph.D. dissertation, University of Alaska, 117 pp.
- Custer, Thomas W. (1975) Population ecology and bioenergetics of the Lapland longspur (*Calcarius lapponicus*) near Barrow, Alaska. Ph.D. dissertation, University of California Berkeley, 189 pp.
- Douce, Gail Keith (1973) The population dynamics and community analysis of the *Acarina* of the arctic coastal tundra. M.S. thesis, University of Georgia, 69 pp.
- Douce, Gail Keith (1976) The role of soil fauna in litter decomposition processes in arctic tundra, evaluated by field and systems analysis techniques. Ph.D. dissertation, University of Georgia, 116 pp.
- Federle, Thomas W. (1976) The interaction of seston and zooplankton in arctic ponds. M.S. thesis, University of Cincinnati, 50 pp.
- Goodwin, Cecil W. (1972) An annual active layer simulator for permafrost regions. M.S. thesis, University of Michigan, 71 pp.
- Goodwin, Cecil Wayne (1976) Process interaction and soil temperature near Point Barrow, Alaska. Ph.D. dissertation, University of Michigan, 258 pp.

- Harris, Richard W. (1975) Estimation of microbial biomass in natural and perturbed by the ASP bioluminescence assay, M.S. thesis Virginia Polytechnic University.
- Johnston, Mary H.S. (1975). Bacterial biomass and nitrogen transformation in arctic tundra soils near Barrow, Alaska. M.S. thesis, University of Alaska, 78 pp.
- Kallendorf, Robert J. (1974) Population dynamics and productivity of *Lepidurus arcticus* and its ecological relation to benthic processes in arctic coastal ponds. M.S. thesis, University of Cincinnati, 107 pp.
- Keller, S. (1967) On the distribution, morphology and variation in arctic Ceratium. M.S. thesis, University of Southern California, 47 pp.
- Laursen, Gary A. (1975) Higher fungi in soils of coastal arctic tundra plant communities. Ph.D. dissertation, Virginia Polytechnic Institute and State University, 370 pp.
- Lawrence, Bruce A. (1974) A model of population dynamics *DuPontia fisheri*. M.S. thesis, San Diego State University, 104 pp.
- Munn, Norton R. (1973) An examination of the inorganic nitrogen status of a soil of the Alaskan coastal tundra plain. M.S. thesis, Utah State University, 52 pp.
- Norton, D.W. (1970) Thermal regime of nests and bioenergetics of chick growth in the dunlin (*Calidris alpina*) at Barrow, Alaska. University of Alaska, 78 pp.
- Norton, David W. (1973) Ecological energetics of calidridine sandpipers breeding in northern Alaska. Ph.D. dissertation, University of Alaska, 163 pp.
- Penhale, Polly Ann (1972) Food requirements of the ninespine stickleback, *Pungitius pungitius*, in an arctic tundra lake of northern Alaska. M.S. thesis, North Carolina State University at Raleigh, 35 pp.
- Peterson, K. M. (1978) Vegetational successions and other ecosystemic changes in two arctic tundras. Ph.D. dissertation, Duke University, 305 pp.
- Prentki, Richard Thomas (1976) Phosphorus cycling in tundra ponds. Ph.D. dissertation, University of Alaska Fairbanks, 275 pp.
- Rau, Thomas George (1977) Fungi in decomposing litter from tundra plants near Point Barrow. Alaska. M.S. Virginia Polytechnic Institute and State University.
- Reed, James P. (1974) Benthic metabolism in arctic tundra ponds, M.S. thesis, University of Cincinnati, 118 pp.
- Rublee, Parke. (1974) Production of bacteria in a pond. M.S. thesis, North Carolina State University, 39 pp.
- Shaver, Gaius Robert (1976) Ecology of roots and rhizomes in graminoid plants of the Alaskan coastal tundra. Ph.D. dissertation, Duke University, 213 pp.
- Simons Alex P. (1973) A pedological investigation of high-centered polygons in the vicinity of Barrow, Alaska. MS thesis. University of California (Berkeley), 151 pp.
- Smith, David K. (1974) Floristics, ecologic, and phytogeographic studies of bryophytes in tundra around Barrow, Alaska, University of Tennessee, 202 pp.
- Stanley, Donald Wayne (1974) Production ecology of epipelagic algae in Alaskan tundra ponds.

Ph.D. dissertation, North Carolina State University, 155 pp.

Stoner, Wayne Alan (1974) Water relations in the wet coastal tundra around Barrow, Alaska. M.S. thesis, San Diego State University, 71 pp.

Strome, D.J. (1976) Decomposition of dissolved humic materials in arctic ponds. M.S. thesis, University of Cincinnati, 60 pp.

Sveinbjörnsson, Bjartmar (1979) Controls on CO₂ exchange in arctic *Polytrichum* mosses. Ph.D. dissertation, McGill University, 190 pp.

Trent, Alex W. (1972) Measurement of root growth and respiration in arctic plants. M.A. thesis. Duke University, 75 pp.

Underwood, L.S. (1971) The bioenergetics of the arctic fox (*Alopex lagopus* L.). Ph.D. dissertation, Pennsylvania State University, 85 pp.

Walker, Donald Arthur (1977) The analysis of the effectiveness of a television scanning densitometer for indicating geobotanical features in an ice-wedge polygon complex at Barrow, Alaska. M.A. thesis, University of Colorado at Boulder, 129 pp.

Walters, David M. (1974) Thermoregulation in brown lemming (*Lemmus trimucronatus*) and the collared lemming (*Dicrostonyx groenlandicus*). M.A. thesis, San Diego State University, 86 pp.

b. Non Tundra Biome Dissertations (1970-1990)

Antibus, Robert Kenneth (1980) Mechanisms of acclimation to lowered growth temperatures in isolates of arctic and temperate ectomycorrhizal fungi. Ph.D. dissertation, Virginia Polytechnic Institute, 172 pp.

Bohlen, J.G. (1972) Circumpolar chronobiology, Ph.D. dissertation, University of Wisconsin Madison, 186 pp.

Brigham, Julie Kay (1985) Marine stratigraphy and amino acid geochronology of the Gubik Formation, western Arctic Coastal Plain, Alaska. Ph.D. dissertation, University of Colorado, Boulder, 379 pp.

Burk, Robert Leon (1979) Factors affecting [Oxygen-18/Oxygen-16] ratios in cellulose. Ph.D. dissertation, University of Washington, 125 pp.

Butler, Malcolm George (1980) The population ecology of some arctic Alaskan Chironomidae (Diptera). Ph.D. dissertation. University of Michigan, 157 pp.

Harper, John R. (1978) The physical processes affecting the stability of tundra cliff coasts. Ph.D. dissertation, Louisiana State University, Baton Rouge, 212 pp.

Jamison, AW. (1970) Biological distance between Eskimo populations isolates. Ph.D. dissertation, University of Wisconsin,

Kangas, Donald Answlm (1972) Ecology of some arctic tundra ponds. Ph.D. dissertation, University of Missouri, 343 pp.

Kelley, John J., Jr. (1973) Dynamic of the exchange of carbon dioxide in arctic and subarctic regions. Ph.D. dissertation, Nagoya University, 171 pp.

- Johnson, Larry Lee (1971) The migration, harvest and importance of waterfowl at Barrow, Alaska. M.S. thesis, University of Alaska Fairbanks, 87 pp.
- Lewellen, Robert I. (1974) Studies on the Fluvial Environment Arctic Coastal Plain Province, Northern Alaska, Ph.D. dissertation, University of Denver. 177 pp.
- Mellor, Jack C. (1982) Bathymetry of Alaskan Arctic lakes; a key to resource inventory with remote-sensing methods. Ph.D. dissertation, University of Alaska Fairbanks.
- Matheke, Grant (1973) The ecology of the benthic microalgae in the sublittoral zone of the Chukchi Sea near Barrow, Alaska. University of Alaska, 58 pp.
- Mountain, D.G. (1975) Bering Sea water on the North Alaskan shelf. Ph. D. dissertation University of Washington, 166 pp.
- Philo, L. Michael (1986) Water metabolism of wolves in winter: effects of varying food intake and exercise. Ph.D. dissertation, University of Alaska, 200 pp.
- Raatz, Wolfgang E. (1983) Arctic haze: meteorological aspects of long-range transport. Ph.D. thesis, University of Alaska, 216 pp.
- Redburn, Douglas Ray (1974) The ecology of the inshore marine zooplankton of the Chukchi Sea near Point Barrow, Alaska. 172 pp.
- Stanford, Dennis J. (1973) The origins of Thule culture. Ph.D. dissertation, University of New Mexico.
- Timmcke, Timothy (1981) Palynology of the Lower Cretaceous Pebble Shale Unit, Point Barrow, Alaska, M. S. thesis, Arizona State University.
- Utermohle, Charles James (1984) From Barrow eastward: cranial variation of the eastern Eskimo, Ph. D. dissertation, Arizona State University, 2 v.

Part 3: 1990 to present

a. Bowhead Whale Masters and Doctoral Theses (Albert 1998)

*** included with 1990-present; with recent theses added to original compilation.**

- Angliss, R. (1994) The effects of density dependence on the length structure of the Bering-Chukchi-Beaufort seas stock of bowhead whales, *Balaena mysticetus*. M.S. thesis, University of Washington, 96 pp.
- Baker, S. (1986)* The effect of eskimo subsistence hunting on the population of the bowhead whale, *Balaena mysticetus*. M.S. thesis, Hood College, 88 pp.
- Budelsky, R. (1992) Underwater behavior and vocalizations of the bearded seal (*Erignathus barbatus*), off Point Barrow. Alaska. M.S. thesis, University of Minnesota, 99 pp.
- Campbell, D. (1986) Morphological characteristics of the respiratory conducting zone of *Balaena mysticetus*, the bowhead whale. M.S. thesis. Louisiana State University, 76 pp.
- Davies, J. (1997) The Impact of an offshore drilling platform on the Fall migration path of bowhead whales: A GIS-based assessment. M.S. thesis, Western Washington University, 52 pp.
- Davis, R. (1982)* Microflora of the Alaskan bowhead whale, *Balaena mysticetus*; An

Overview with Special Emphasis on Skin Lesions. M.S. thesis, University of Georgia, 32 pp.

George, John C. (2009) Growth, morphology and energetics of bowhead whales (*Balaena mysticetus*). Ph. D. dissertation, University of Alaska Fairbanks.

Givens, G. (1993) A Bayesian framework and importance sampling methods for synthesizing multiple sources of evidence and uncertainty linked by a complex mechanistic model. Ph.D. dissertation, University of Washington, 157 pp.

Huntington, H. (1991) Management and regulation of local subsistence hunting in Northern Alaska. Ph.D. dissertation. University of Cambridge, 232 pp.

Kreiton, K. (1990) Bowhead whale (*Balaena mysticetus*) biostereometrics. M.S. thesis. University of Maine, 72 pp.

Mullan, D. (1991) A classification of epidermal lesions observed on the bowhead whale, *Balaena mysticetus*, and the initial steps in the development of a probe for the identification of lesion associated bacteria. M.S. thesis. Louisiana State University, 84 pp.

Oen, E. (1995) Killing methods For minke and bowhead whales. Dissertation Doktor Medicinæ Veterinaria, Norwegian College of Veterinary Medicine.

Rosa, Cheryl (2006) Health assessment in the bowhead whale. Ph.D. dissertation. University of Alaska Fairbanks.

Schoenfuss, H. (1997) Laryngeal anatomy and mechanisms of sound production in the bowhead whale, *Balaena mysticetus*. M.S.thesis, Louisiana State University, 45 pp.

Suydam, Robert (2009) Age, growth, reproduction, and movements of beluga whales (*Delphinapterus leucas*) from the eastern Chukchi Sea. Ph.D. dissertation, University of Washington, 152 pp.

Tarpley, R. (1985)* Gross and microscopic anatomy of the tongue and gastrointestinal tract of the bowhead whale (*Balaena mysticetus*). Ph. D. dissertation. Texas A&M University, 141 pp.

Thompson, S. (1996) Two bowhead whale projects: Historic catch uncertainty and length, girth, mass modeling. M.S. thesis, Colorado State University, 46 pp.

Turet, P. (1987)* Population size estimation for the western arctic stock of bowhead whale; a Bayes empirical Bayes approach. M.S. thesis, University of Washington, 114 pp.

Zhu, Q. (1996) Studies on the eyes of the bowhead whale (*Balaena mysticetus*), ringed seal (*Phoca hispida*), and caribou (*Rangifer tarandus*). Ph. D dissertation, Institute of Oceanology, Chinese Academy of Sciences, Qingdao, 382 pp.

b. 1990-Present

- Aguirre, Adrian (2011) Patterns and controls of erosion along the Barrow Environmental Observatory coastline, northern Alaska. M.S. thesis, University of Texas El Paso, 86 pp.
- Ajmi, Amal Romona (1996) Underwater bioacoustic analysis of bearded seal behavior off Barrow, Alaska. M.S. thesis, University of Alaska, 115 pp.
- Alvarez-Avilés, L. (2008) Chemical composition of ice surfaces; implications for springtime bromine chemistry. Ph.D. dissertation, University of Alaska at Fairbanks, 129 pp.
- Amstrup, S.C. (1995) Movements, distribution and population dynamics of polar bears in the Barufort Sea, Ph.D. dissertation, University of Alaska, 299 pp.
- Backstrom, Lars G. E. (2007) Capacitance measurements of bulk salinity and brine movement in first-year sea ice. M.S.thesis, University of Alaska Fairbanks. 101 pp.
- Blair, Berill (2010) Risk society on the Last Frontier: Indigenous knowledge and the politics of risk in oil resource management at Alaska's North Slope. M.A. thesis, University of Alaska Fairbanks. 144 pp.
- Bourne, Stefanie M. (2008) A climate perspective of observed and modeled surface-based temperature inversions in Alaska. M.S. thesis, University of Alaska, 106 pp.
- Brewster, Karen (1998) An Umialik's life: Conversation with Harry Brower, Sr. M.A. thesis, University of Alaska Fairbanks, 307 pp.
- de Boer, G. (2009) An improved understanding of the lifecycle of mixed-phase stratiform clouds through observations and simulation. Ph.D. dissertation, University of Wisconsin at Madison. 140 pp.
- Carlson, Dan (2010) Design, function, and applicability of a new multiple axis-differential optical absorption spectrometer for observing halogen chemistry in the Arctic. M.S. thesis, University of Alaska Fairbanks.
- Clark, J. V. (2009) Observed and reanalysis cloud fraction. M.S. thesis, University of Illinois, 102 pp.
- Cox, Christopher James (2009) Atmospheric and cloud conditions over Barrow, Alaska and Eureka, Canada; flux calculations using atmospheric emitted radiance interferometers (AERI). M. S. thesis, University of Idaho.
- Deering, Michele (2002) Steller's eiders nesting in Barrow, Alaska: philopatry, individual nest site selection and nesting association with pomarine jaegers. Ph.D. dissertation. University of California, Davis. 189 pp.
- Druckenmiller, Matthew L. (2011) Alaska shorefast Ice: Interfacing geophysics with local sea ice knowledge and use, Ph.D. thesis, University of Alaska Fairbanks.

- Dubuis, Guy (2007) Orientation-dependence of the complex dielectric permittivity in single-crystal NaCl-Ice at 50 MHz, M.S. thesis, Ecole polytechnique fédérale de Lausanne, 41 pp.
- Fagan, John Douglas (1995) Sampling designs for the measurement of active-layer thickness, M.S. thesis, Rutgers University, 118 pp.
- Francis-Chythlook, Oceana (2004) Coastal processes in Elson Lagoon, Barrow, Alaska. M.S. thesis, University of Alaska Anchorage, 130 pp.
- Fritz, Stacey A. (2011) DEW Line Passage: Tracing the legacies of Arctic militarization. Ph.D. dissertation, University of Alaska Fairbanks.
- George, John Craighead (2010) Growth, morphology and energetics of bowhead whales (*Balaena mysticetus*). Ph.D. dissertation, University of Alaska Fairbanks, 188 pp.
- Gerst, Steven Gregory (2000) The deuterium content of atmospheric molecular hydrogen. Ph.D. dissertation, University of Washington, 214 pp.
- Grinage, Beverly P. (2008) Inupiat self-determination through higher education. M.A. thesis. University of Alaska Fairbanks, 71 pp.
- Hollister, Robert D. (1998) Response of wet meadow tundra to interannual and manipulated temperature variation: Implications for climate change research. M.S. thesis, Michigan State University, 150 pp.
- Hollister, Robert D. (2003) Response of tundra vegetation to temperature: Implications for forecasting vegetation change. Ph.D. dissertation. Michigan State University. 385+XXIV pp.
- Holloway, Shirley Jean Edwards (1985) A comparison of personal values of Inupiaq school board members and Caucasian school administrators: in North Slope Borough School District, Barrow, Alaska, Gonzaga University, 95 pp.
- Houston, Stan (2004) Separating arctic tundra vegetation types based on photosynthetic light-use efficiency and optical properties. M.S. thesis, California State University Los Angeles, 67 pp.
- Huff, Deanna M (2010) The role of ice surfaces in affecting nighttime removal of nitrogen oxides in high latitude plumes. Ph.D. dissertation, University of Alaska Fairbanks, 155 pp.
- Hurd, John (2007) A GIS method to estimate snow depth using Differential GPS and high-resolution digital elevation data. M.S. thesis, University of Cincinnati.
- Ikuta, Hiroko (2004) We dance because we are Inupiaq", Inupiaq dance in Barrow: performance and identity, M.A thesis, 103 pp.
- Jaurrieta de Velasco, Edith (2010) Hydrological characteristics of a large-scale flooding and draining experiment, Barrow, Alaska. M.S. thesis, University of Texas at El Paso. 82 pp.

- Jensen, Anne M. (2009) Nuvuk: Point Barrow, Alaska: the Thule cemetery and Ipiutak occupation. Ph. D. dissertation, Bryn Mawr College, 388 pp.
- Jones, Benjamin M. (2006) Spatiotemporal analysis of thaw lakes and basins, Barrow Peninsula, Arctic Coastal Plain of Northern Alaska. M.A. thesis, University of Cincinnati, 105 pp.
- Keil, A.D. (2005) A quantitative study of atomic and molecular halogens in the lower atmosphere, Ph.D. dissertation, Purdue University, 145 pp.
- Kinoshita, Glen Y. (2005) The effects of three seasons of elevated temperature and water table manipulation on ecosystem carbon fluxes, soils, biomass, and plant nutrient status of an arctic coastal tundra ecosystem near Barrow, Alaska. M.S. thesis, San Diego State University, 104 pp.
- Kirk, Cassandra M. (2011) Sentinels of Arctic ecosystem health: Polar bear and arctic fox. Ph.D. dissertation, University of Alaska Fairbanks, 224 pp.
- Klene, Anna E. (2005) Urbanization, climate, and frozen ground in Barrow, Alaska. Ph. D. dissertation, University of Delaware.
- Little, Jon. (2006) Frost heave and thaw settlement in tundra environments: Applications of differential global positioning system technology. M.S. thesis, University of Delaware, 160 pp.
- Liljedahl, Anna K. (2011). The hydrologic regime at sub-arctic and arctic watersheds: present and projected. Ph. D. dissertation, University of Alaska Fairbanks, 257 pp.
- Lyons, Evan A. (2010) Analysis of error contributing factors in Landsat-based multitemporal lake mapping. M.A.thesis, University of California at Los Angeles.
- MacLean, Edna Ahgeak (1995) Inupiaq narratives: Interaction of demonstratives, aspect, and tense, Volume I and II, Ph.D. dissertation, Stanford University, 482 pp.
- Manes, Sarah Story (2008). Identifying seasonal trends of photosynthetic activity in Arctic sea ice algae as captured by pulse amplitude modulated (PAM) fluorometry. M.S. thesis, University of Alaska Fairbanks, 72 pp.
- Manire, Macie (2005) Pregnancy, prenatal care, and ultrasound fetal imaging among Inupiaq women in Barrow, Alaska : a qualitative study. M.A. thesis. University of Alaska Anchorage, 99 pp.
- McConnell, Brenna (2010) Growth rates of juvenile *Scolelepis squamata* (Polychaeta: spionidae) from the Chukchi Sea fast ice. M.S. thesis, University of Alaska Fairbanks, 43 pp.
- Meek, Chanda (2009). Comparing marine mammal co-management regimes in Alaska: three aspects of institutional performance. Ph.D. dissertation, University of Alaska Fairbanks, 244 pp.
- Merkel, Heike (2008) Impact of ice permeability and under-ice water currents on nutrient dynamics in Arctic sea ice. M.S.thesis, University of Alaska Fairbanks, 82 pp.

- Mahoney, Andy (2006) Alaska landfast sea ice dynamics. Ph. D. dissertation, University of Alaska Fairbanks, 135 pp.
- Nielson, Mette R. (2006) Estimating ^{13}C and ^{15}N turnover rates in the Arctic amphipod *Onisimus litoralis*: implications for analyzing the transfer of sea ice production to under-ice fauna. M.S. thesis, University of Alaska Fairbanks, 73 pp.
- Noyle, Brian Michael (1999) The vegetation and a Landsat assisted land cover map of the Barrow Region, Northern Alaska. M.S. thesis, Michigan State University, 183 pp.
- Olivas, Paulo (2007) The interactive roles of microtopography and moss cover for whole-ecosystem carbon flux in coastal wet tundra of Alaska. M.S. thesis. Florida International University, Miami, 46 pp.
- Prell, Jenni Ann (2009) Meteorological instrumentation performance and data quality using temperature, relative humidity and wind speed sensors in Barrow, Alaska. M.S. thesis, Northern Illinois University.
- Pringle, Daniel James (2004) Thermal conductivity of sea ice and Antarctic permafrost. Ph.D. dissertation, Victoria University of Wellington, 191 pp.
- Rettig, Andrew J. (2010) An Open Geospatial Consortium Standards-based Arctic Climatology Sensor Network Prototype. M.A. thesis, University of Cincinnati, 45pp.
- Reynolds, Georgeanne Lewis (1993) Storage practices, abandonment processes, and site structure: an example from the Utqiagvik, Alaska. Ph.D. dissertation. State University of New York Binghamton.
- Rewa, Steven P. (2003) Thirty years of recovery from vehicle disturbance in Alaskan Arctic tundra. M.S.thesis, Michigan State University, 97 pp.
- Sakakibara, Chie (2007). Cetaceousness and global warming among the Iñupiat of Arctic Alaska. Ph.D dissertation. University of Oklahoma 206 pp.
- Sheehan, Glenn W. (1992) Proto-historic social organization of the coastal whaling communities of North and Northwest Alaska. Ph.D. dissertation, Bryn Mawr College, 347 pp.
- Simonetti, J.P. (2001) DNA mismatch repair at an oncogenic hotspot correlated with phase of the cell cycle and environmentally relevant concentrations of the Arctic pollutant p,p'-DDE. Ph.D. dissertation, University of Alaska at Fairbanks. 178 pp.
- Singh, Praveen K. (2008) An engineering study to investigate the methane hydrate resource potential associated with the Barrow gas fields in Alaska. M.S. thesis. University of Alaska, 252 pp.
- Stierle, Aaron Patrick (2001) Spatial distribution and temporal variability of lithogenic particles in first-year sea ice and conditions responsible for particle entrainment. M.S. thesis, University

of Alaska Fairbanks. 70 pp.

Streletskiy Dmitry A. (2005) Spatial and temporal regularities of permafrost active layer formation on the North Slope of Alaska. M.S. thesis, Moscow State University, Moscow, Russia, 46 pp. (in Russian).

Sudu, Loredana G. (2007) Indirect determination of integrated chlorine and bromine concentration from hydrocarbons in Barrow, Alaska. M.S. thesis, Ohio University.

Sugiatno, Hening (1994) Shaly sand reservoir analyses of the East Barrow gas field, Alaska. M.S. thesis, Colorado School of Mines Golden, 266 pp.

Audrey Rebecca Taylor (2011), Postbreeding ecology of shorebirds on the Arctic Coastal Plain of Alaska. Ph.D. dissertation, University of Alaska Fairbanks.

Tiruchirapalli, Ramaswamy A. S. R. (2006) Micropulse lidar observations of aerosols over the atmospheric radiation measurement site at Barrow. M.S. thesis, University of Alaska.

Wade, Robert H. (1993) Studies of the geophysics of sea ice, 135 pp.

Walker, Lisa J. (1997) Plant responses to experimental warming of a dry heath tundra at Barrow, Alaska. M.S. thesis, Michigan State University, 102 pp.

Weiser, Emily L. (2010) Use of anthropogenic foods by glaucous gulls (*Larus hyperboreus*) in Northern Alaska. M.S. thesis, University of Alaska Fairbanks.

Winston, Barry (2010) Satellite remote sensing of lake ice meltout patterns near Barrow, Alaska. M.A. thesis, University of Cincinnati, 54 pp.

Wu, T.H. (2006) An analysis of using semi-permeable membrane devices to assess persistent organic pollutants in ambient air of Alaska. Ph.D. dissertation, University of Alaska, 133 pp.

Zeng, T. (2005) Three-dimensional model analysis of tropospheric photochemical processes in the Arctic and northern mid-latitudes. Ph. D. dissertation, Georgia Institute of Technology, 219 pp.

Zhao, C. (2007) Effects of Arctic haze on low-level stratus properties and the surface radiation budget. Doctoral dissertation, University of Utah, 142 pp.

Zona, Donatella (2009) Patterns and controls on methane and carbon dioxide fluxes on the Arctic Coastal Plain, Alaska. Ph. D., University of California Davis, 87 pp.