

AD-A137 441

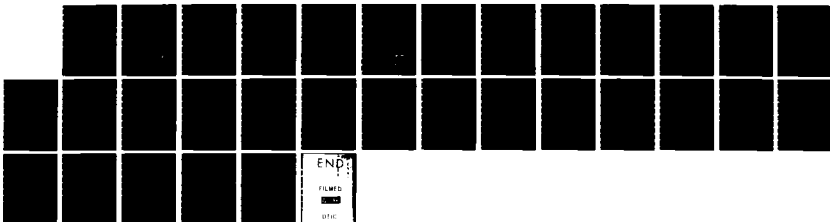
US TUNDRA BIOME-INTERNATIONAL BIOLOGICAL PROGRAM US  
TUNDRA BIOME PUBLICAT. (U) COLD REGIONS RESEARCH AND  
ENGINEERING LAB HANOVER NH J BROWN ET AL. SEP 83  
CREEL-SR-83-29

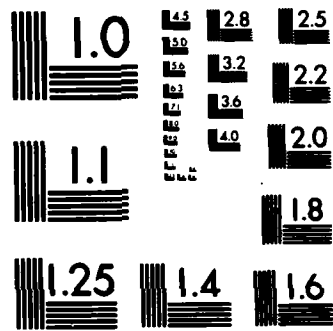
1/1

UNCLASSIFIED

F/G 6/6

NL





MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

IBP



12

U.S. Tundra Biome-International Biological Program

AD A 137441

# U.S. TUNDRA BIOME PUBLICATION LIST



DTIC  
ELECTE  
S FEB 2 1984 D  
B

DTIC FILE COPY

DISTRIBUTION STATEMENT A  
Approved for public release;  
Distribution Unlimited

# **U.S. TUNDRA BIOME PUBLICATION LIST**

**J. Brown, N. Liston and D. Murphy  
U.S. Army Cold Regions Research and Engineering Laboratory  
Hanover, New Hampshire**

**J. Watts  
Oak Ridge National Laboratory  
Oak Ridge, Tennessee**

**Final Report to Division of Polar Programs, National Science Foundation  
under  
NSF - CRREL Interagency Agreement CA - 40**

**September 1983**

**CRREL Special Report 83 - 29**

## INTRODUCTION

The U.S. Tundra Biome program, a part of the Ecosystem Analysis Studies of the U.S. International Biological Program, was divided into three phases:

1. Pre-Biome planning and initiation of field activities (1968-1970)
2. Formal field activities (1971-1973)
3. Post-field-activity period (1974-1980)

The pre-Biome phase included planning workshops, participating in international meetings, and organizing of existing data bases. This phase started informally in the late 1960s and included the 1970 field season. Three general objectives were formulated that governed the development of the program (1) to develop a predictive understanding of how the tundra system operates, particularly as exemplified by the wet coastal tundra of northern Alaska; (2) to obtain the necessary data base from a variety of cold-dominated ecosystems represented in the United States so that their behavior could be modeled and simulated and the results compared with similar studies underway in other circumpolar countries; and (3) to bring basic environmental knowledge to bear on problems of degradation, maintenance, and restoration of the temperature-sensitive and cold-dominated tundra and taiga ecosystems. These objectives were related to both the U.S. National IBP objectives and the international Tundra-IBP projects.

By the 1971 field season, the integrated research was recognized nationally as a full-fledged Biome program. During this second phase data were collected over three summers of intensive field investigations at Barrow, and at lesser intensity and funding levels at Eagle Summit and Prudhoe Bay in Alaska and Niwot Ridge, Colorado. Included in phase 2 were numerous workshops and international and national meetings.

Phase 3 began in 1974, the last formal year of the IBP. It included the U.S. synthesis activities for publication of an aquatic and two terrestrial books on arctic tundra, and emphasized open-literature publication and internal report preparation.

The published or open literature and the dissertations prepared under the U.S. Tundra Biome program offer a reasonably complete record of the Biome research. Although some additional papers are still in press, this report is a nearly complete list of papers and dissertations. Some of these have been accomplished in cooperation with other agencies and institutional funding and resources, and are so indicated as cooperative contributions (\*).

Our compilation also attempts to cross-reference the entries to other sources, since it is not our intention to provide reprints of each paper or dissertation to the recipient of this list. Most dissertations are accessioned by University Microfilms International and our list contains the UM order number. Abstracts of almost all papers are available through the Oak Ridge National Laboratory publication entitled "Abstracts—U.S. International Biological Program. Ecosystem Analysis Studies." Computerized searches of these abstract files and the abstract publication can be obtained from Julia Watts, EDFB Data Center, Oak Ridge National Laboratory, P.O. Box X, Oak Ridge, TN 37830. The open literature list has also been accessioned in the "Bibliography on Cold Regions Science and Technology," and numbers set off by // indicate these citations. The Bibliography is published annually by CRREL, and is available from the National Technical Information Service, Springfield, VA 22161 for \$15.00. Microfiches of each entry are available from the Library of Congress Photoduplication Service, Washington, D.C., or the CRREL Library.

In addition to this open literature list, a number of books on the Tundra Biome, both national and international, are available as long as supplies last. Titles, first-printing prices, and ordering information are as follows:

11. *Proceedings, IV International Meeting on the Biological Productivity of Tundra, Leningrad, U.S.S.R., October 1971* (F.E. Wielgolaski and Th. Rosswall, Eds.). Stockholm: IBP Tundra Biome Steering Committee, April 1971. (Available from: Swedish IBP Committee, Wenner-Gren Center, Sveavagen 166 15 tr, S-113 46, Stockholm, Sweden. Price: Sw.Cr. 20—Approx. \$4.75.)
2. *Proceedings of the Conference on Primary Production and Production Processes, Tundra Biome, Dublin, Ireland, April 1973* (L.C. Bliss and F.E. Wielgolaski, Eds.). Stockholm: IBP Tundra Biome Steering Committee, December 1973. (Available from: Dr. L.C. Bliss, Department of Botany, University of Washington, Seattle, Washington. Price: \$4.00.)
3. *Soil Organisms and Decomposition in Tundra* (A.J. Holding, O.W. Heal, S.F. MacLean, Jr., and P.W. Flanagan, Eds.). Stockholm: IBP Tundra Biome Steering Committee, October 1974. (Available from: Swedish IBP Committee, Wenner-Gren Center, Sveavagen 166 15 tr, S-113 46, Stockholm, Sweden. Price: Sw.Cr. 25—Approx. U.S. \$6.00.)
4. *Structure and Function of Tundra Ecosystems* (Th. Rosswall and O.W. Heal, Eds.). Ecological Bulletins, NFR 20, Stockholm, August 1975. (Available from: Swedish Natural Science Research Council, Wenner-Gren Center, Box 23136, S-104 35, Stockholm, Sweden. Price: Sw.Cr. 50—Approx. U.S. \$11.90.)
5. *Ecological Investigations of the Tundra Biome in the Prudhoe Bay Region, Alaska* (J. Brown, Ed.). Biological Papers of the University of Alaska, Special Report No. 2, October 1975. (Available from: Biological Papers, 202 Bunnell Building, University of Alaska, Fairbanks, AK 99701. Price: \$10.00.)
6. *Truelove Lowland, Devon Island, Canada: A High Arctic Ecosystem* (L.C. Bliss, Ed.), 1977. (Available from: The University of Alberta Press, 450 Athabasca Hall, Edmonton, Alberta, Canada T6G 2E8. Price: \$20.00 plus \$1.00 postage and handling.)
7. *Fennoscandian Tundra Ecosystems: Part 1. Plants and Microorganisms* (F.E. Wielgolaski, Ed.), 1975. Ecological Studies 16. New York: Springer-Verlag. (Price: \$73.00.)
8. *Fennoscandian Tundra Ecosystems. Part 2. Animals and Systems Analysis* (F.E. Wielgolaski, Ed.), 1976. Ecological Studies 17. New York: Springer-Verlag. (Price: \$73.00.)
9. *An Arctic Ecosystem: The Coastal Tundra of Northern Alaska* (J. Brown, P.C. Miller, L.L. Tieszen and F.L. Bunnell, Eds.), 1980. Stroudsburg, Pa.: Hutchinson Ross Publishing Company. (Price: \$34.00.)
10. *Limnology of Tundra Ponds, Barrow, Alaska* (J.E. Hobbie, Ed.), 1980. Stroudsburg, Pa.: Hutchinson Ross Publishing Company. (Price: \$34.00.)
11. *Vegetation and Production of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.), 1978. New York: Springer-Verlag. (Price: \$34.80.)

12. *Geobotanical Atlas of the Prudhoe Bay Region, Alaska* (D.A. Walker, K.R. Everett, P.J. Webber and J. Brown, Eds.), 1980. U.S. Army Cold Regions Research and Engineering Laboratory, CRREL Report 80-14, 73 pp. (Available from: CRREL/TIB, 72 Lyme Road, Hanover, NH 03755. Price: \$25.00.)
13. *Tundra Ecosystems: A Comparative Analysis* (L.C. Bliss, O.W. Heal and J.J. Moore, Eds.), 1981. Cambridge: Cambridge University Press. (Price: \$120.00.)
14. *Ecology of a Subarctic Mire* (M. Sonesson, Ed.), 1980. Ecological Bulletins No. 30, Stockholm. (Available from Swedish Natural Science Research Council, Wenner-Gren Center, Box 23136, S-104 35, Stockholm, Sweden. Price: Sw.Cr. 125—Approx. U.S. \$30.00.)
15. *Production Ecology of British Moors and Montane Grasslands* (O.W. Heal and D.R. Perkins, Eds.), 1978. Berlin: Springer-Verlag, 426 pp. (Price: \$49.80.)

Reprints of journal articles are best obtained directly from the author. Bound sets of the U.S. Tundra Biome internal reports, newsletters, proposals, and other documentation are on file at: USACRREL; University of Alaska, Institute of Arctic Biology; National Science Foundation, Ecosystems and Analysis Section and Division of Polar Programs.

This report constitutes the final report to the National Science Foundation by Dr. Jerry Brown, U.S. Tundra Biome Director, USACRREL, under NSF-CRREL Interagency Agreement CA-40. CRREL and Dr. Brown were responsible for the management of the U.S. Tundra Biome Program and the program's final documentation.

Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
<b>PER FORM 50</b>	
By _____	
Distribution/ _____	
Availability Codes	
Dist	Avail and/or Special
<b>A-1</b>	



## OPEN LITERATURE

- Alexander, V.** (1974) A synthesis of the IBP Tundra Biome circumpolar study of nitrogen fixation. In *Soil Organisms and Decomposition in Tundra* (A.J. Holding et al., Eds). Stockholm: IBP Tundra Biome Steering Committee, pp. 109-121. (2411)\* /Bib 29-3353/†
- Alexander, V.** (1975) Nitrogen fixation by blue-green algae in polar and subpolar regions. In *Nitrogen Fixation by Free-Living Micro-Organisms* (W.D.P. Stewart, Ed.). IBP Series. Cambridge: Cambridge University Press, Chapter 11, pp. 175-188. (2412) /Bib 30-3669/
- Alexander, V. and D.M. Schell** (1973) Seasonal and spatial variation of nitrogen fixation in the Barrow, Alaska, tundra. *Arctic and Alpine Research*, 5(2): 77-88. (2414) /Bib 28-154/
- Alexander, V., M. Billington and D.M. Schell** (1974) The influence of abiotic factors on nitrogen fixation rates in the Barrow, Alaska, arctic tundra. *Reports from the Kevo Subarctic Research Station*, 11: 3-11. (2413) /Bib 30-27/
- Alexander, V. and R.J. Barsdate** (1975) Studies of nitrogen cycle processes in arctic tundra systems. In *Proceedings of the Circumpolar Conference on Northern Ecology, Ottawa, 1975*. Ottawa: National Research Council of Canada, Scientific Committee on Problems of the Environment, pp. III-53 to III-64. (2921) /Bib 31-2564/
- Alexander, V., M. Billington and D.M. Schell** (1978) Nitrogen fixation in arctic and alpine tundra. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 23, pp. 539-558. /Bib 33-4578/
- Alexander, V., D.W. Stanley, R.J. Daley and C.P. McRoy** (1980) Primary producers. In *Limnology of Tundra Ponds, Barrow, Alaska* (J.E. Hobbie, Ed.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 179-250. /Bib 35-1752/
- Allesio, M.L. and L.L. Tieszen** (1973) Patterns of translocation and allocation of <sup>14</sup>C-photoassimilate *in situ* studies with *Dupontia fisheri* R. Br., Barrow, Alaska. In *Primary Production and Production Processes, Tundra Biome* (L.C. Bliss and F.E. Wielgolaski, Eds.). Stockholm: IBP Tundra Biome Steering Committee, pp. 219-229. (1774) /Bib 31-1223/
- Allesio, M.L. and L.L. Tieszen** (1975) Leaf age effect on translocation and distribution of <sup>14</sup>C assimilate in *Dupontia fisheri* at Barrow, Alaska. *Arctic and Alpine Research*, 7(1): 3-12. (2415) /Bib 31-4114/
- Allesio, M.L. and L.L. Tieszen** (1975) Patterns of carbon allocation in arctic tundra grass, *Dupontia fisheri* (Gramineae), at Barrow, Alaska. *American Journal of Botany*, 62(8): 797-807. (2416) /Bib 30-1778/
- Allesio, M.L. and L.L. Tieszen** (1978) Translocation and allocation of <sup>14</sup>C-photoassimilate by *Dupontia fisheri*. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 17, pp. 393-413. (4018) /Bib 33-4572/
- Anderson, J.H., S.F. MacLean, Jr. and R. Weeden** (1981) Eagle Summit, Alaska. In *Tundra Ecosystems: A Comparative Analysis* (L.C. Bliss, O.W. Heal and J.J. Moore, Eds.). Cambridge: Cambridge University Press, pp. 779-780. /Bib 35-3402/
- Ashkenazie, S. and U.N. Safriel** (1979) Breeding cycle and behavior of the semi-palmated sandpiper at Barrow, Alaska. *The Auk*, 96: 56-67. (2922) /Bib 33-3384/
- Ashkenazie, S. and U.N. Safriel** (1979) Time-dependent budget of the semi-palmated sandpiper *Calidris pusilla* at Barrow, Alaska. *Ecology*, 60(4): 783-799. (4019) /Bib 35-1561/

\* (number) Abstract published in "Abstracts—U.S. IBP Ecosystem Analysis Studies."

† / / refers to CRREL Cold Regions Bibliography accession number.



- Atwater, M.A. and J.P. Pandolfo** (1975) Tundra environmental changes induced by urbanization. In *Climate of the Arctic* (G. Weller and S. Bowling, Eds.). Proceedings of the AAAS-AMA Symposium, Fairbanks, Alaska, August 1973. Geophysical Institute, University of Alaska, pp. 312-315. (2417) /Bib 31-4050/
- Banks, E.M., R.J. Brooks and J. Schnell** (1975) Radiotracking study of home range and activity of the brown lemming (*Lemmus trimucronatus*). *Journal of Mammalogy*, **56**(4): 888-901. (2418) /Bib 31-4046/
- Barel, D. and R.J. Barsdate** (1978) Phosphorus dynamics of wet coastal tundra soils near Barrow, Alaska. In *Environmental Chemistry and Cycling Processes: Proceedings of Symposium, Augusta, Georgia, 28 April-1 May 1976* (D.C. Adriano and I.L. Brisbin, Jr., Eds.). U.S. Department of Energy, CONF-760429, pp. 516-537. (2923) /Bib 34-909/
- Barkley, S.A., D. Barel, W.A. Stoner and P.C. Miller** (1978) Controls on decomposition and mineral release in wet meadow tundra—A simulation approach. In *Environmental Chemistry and Cycling Processes: Proceedings of Symposium, Augusta, Georgia, 28 April-1 May 1976* (D.C. Adriano and I.L. Brisbin, Jr., Eds.). U.S. Department of Energy, CONF-760429, pp. 754-778. (2924) /Bib 34-911/
- Barkley, S.A., G.O. Batzli and B.D. Collier** (1980) Nutritional ecology of microtine rodents: A simulation model of mineral nutrition for brown lemmings. *Oikos*, **34**: 103-114. /Bib 35-1786/
- Barry, R.G., G.M. Courtin and C. Labine** (1981) Tundra climates. In *Tundra Ecosystems: A Comparative Analysis* (L.C. Bliss, O.W. Heal and J.J. Moore, Eds.). Cambridge: Cambridge University Press, pp. 81-114. /Bib 33-3378/
- Barsdate, R.J., V. Alexander and R.E. Benoit** (1973) Natural oil seeps at Cape Simpson, Alaska: Aquatic effects. *Proceedings of the Symposium on the Impact of Soil Resource Development on Northern Plant Communities*. Occasional Publications on Northern Life No. 1, University of Alaska, pp. 91-95. (2419) /Bib 28-2320/
- Barsdate, R.J., R.T. Prentki and T. Fenchel** (1974) The phosphorus cycle of model ecosystems: Significance for decomposer food chains and effect of bacterial grazers. *Oikos*, **25**: 239-251. (2421) /Bib 31-4045/
- Barsdate, R.J. and V. Alexander** (1975) The nitrogen balance of arctic tundra: Pathways, rates, and environmental implications. *Journal of Environmental Quality*, **4**: 111-117. (2420) /Bib 31-4113/
- Barsdate, R.J., M.C. Miller, V. Alexander, J.R. Vestal and J.E. Hobbie** (1980) Oil spill effects. In *Limnology of Tundra Ponds, Barrow, Alaska* (J.E. Hobbie, Ed.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 388-406. /Bib 35-1756/
- Batzli, G.O.** (1975) The role of small mammals in arctic ecosystems. In *Small Mammals: Productivity and Dynamics of Populations* (F. Golley et al., Eds.). Cambridge: Cambridge University Press, Chapter 11, pp. 243-268. (2422) /Bib 31-4051/
- Batzli, G.O.** (1975) Influence of grazers on tundra vegetation and soils. In *Proceedings of the Circumpolar Conference on Northern Ecology, Ottawa, 1975*. Ottawa: National Research Council of Canada, Scientific Committee on Problems of the Environment, pp. I-215 to I-225. (2926) /Bib 31-4052/
- Batzli, G.O.** (1978) The role of herbivores in mineral cycling. In *Environmental Chemistry and Cycling Processes: Proceedings of Symposium, Augusta, Georgia, 28 April-1 May 1976* (D.C. Adriano and I.L. Brisbin, Jr., Eds.). U.S. Department of Energy, CONF-760429, pp. 95-112. (2927)
- Batzli, G.O.** (1981) Populations and energetics of small mammals in the tundra ecosystem. In *Tundra Ecosystems: A Comparative Analysis* (L.C. Bliss, O.W. Heal and J.J. Moore, Eds.). Cambridge: Cambridge University Press, pp. 377-396. /Bib 35-3386/

- Batzli, G.O., N.C. Stenseth and B.M. Fitzgerald** (1974) Growth and survival of suckling brown lemmings *Lemmus trimucronatus*. *Journal of Mammalogy*, 55: 828-831. (2423) /Bib 31-4047/
- Batzli, G.O. and F.R. Cole** (1979) Nutritional ecology of microtine rodents: Digestibility of forage. *Journal of Mammalogy*, 60(4): 740-750. /Bib 35-989/
- Batzli, G.O., R.G. White and F.L. Bunnell** (1981) Herbivory: A strategy of tundra consumers. In *Tundra Ecosystems: A Comparative Analysis* (L.C. Bliss, O.W. Heal and J.J. Moore, Eds.). Cambridge: Cambridge University Press, pp. 359-375. /Bib 35-3385/
- Batzli, G.O., R.G. White, S.F. MacLean, Jr., F.A. Pitelka and B.D. Collier** (1980) The herbivore-based trophic system. In *An Arctic Ecosystem: The Coastal Tundra at Barrow, Alaska* (J. Brown, P.C. Miller, L.L. Tieszen and F.L. Bunnell, Eds.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 335-410. /Bib 35-1939/
- Batzli, G.O., H.G. Jung and G. Gunterspergen** (1981) Nutritional ecology of microtine rodents: Linear functional response curves for brown lemmings. *Oikos*, 37: 112-116. /Bib 36-0997/
- Benson, C., R. Timmer, B. Holmgren, G. Weller and S. Parrish** (1975) Observations on the seasonal snow cover and radiation climate at Prudhoe Bay, Alaska, during 1972. In *Ecological Investigations of the Tundra Biome in the Prudhoe Bay Region, Alaska* (J. Brown, Ed.). Biological Papers of the University of Alaska, Special Report No. 2, pp. 12-50. (2424) /Bib 30-3306/
- Billings, W.D.** (1973) Arctic and alpine vegetations: Similarities, differences and susceptibility to disturbance. *Bioscience*, 23(12): 697-704.\* (1775) /Bib 28-3418/
- Billings, W.D.** (1974) Arctic and alpine vegetation: Plant adaptations to cold summer climates. In *Arctic and Alpine Environments* (J.D. Ives and R.G. Barry, Eds.). London: Methuen and Co., Chapter 8A, pp. 403-443.\* (2425) /Bib 29-2631/
- Billings, W.D., G.R. Shaver and A.W. Trent** (1973) Temperature effects on growth and respiration of roots and rhizomes in tundra graminoids. In *Primary Production and Production Processes, Tundra Biome* (L.C. Bliss and F.E. Wielgolaski, Eds.). Stockholm: IBP Tundra Biome Steering Committee, pp. 57-63. (1776) (Bib 31-1206/
- Billings, W.D., K.M. Peterson, G.R. Shaver and A.W. Trent** (1977) Root growth, respiration, and carbon dioxide evolution in an arctic tundra soil. *Arctic and Alpine Research*, 9(2): 129-137. (4020 and 2929) /Bib 31-4423/ [Also in *The Belowground Ecosystem: A Synthesis of Plant-Associated Processes* (J.K. Marshall, Ed.). Ft. Collins: Colorado State University, Range Sciences Department Series No. 26, p. 111-116.] (2928)
- Billings, W.D., G.R. Shaver and A.W. Trent** (1976) Measurement of root growth in simulated and natural temperature gradients over permafrost. *Arctic and Alpine Research*, 8(3): 247-250. (2736) /Bib 31-276/
- Billings, W.D., K.M. Peterson and G.R. Shaver** (1978) Growth, turnover, and respiration rates of roots and tillers in tundra graminoids. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 18, pp. 415-434. (4021) /Bib 33-4573/
- Bliss, L.C. and D.R. Klein** (1981) Current extractive industrial development, North America. In *Tundra Ecosystems: A Comparative Analysis* (L.C. Bliss, O.W. Heal and J.J. Moore, Eds.). Cambridge: Cambridge University Press, pp. 751-771. /Bib 35-3399/
- Bonde, E.K. and M.F. Foreman** (1973) Growth and development of arctic and alpine grasses in experimental gardens at various altitudes in Colorado, U.S.A. In *Primary Production and Production Processes, Tundra Biome* (L.C. Bliss and F.E. Wielgolaski, Eds.). Stockholm: IBP Tundra Biome Steering Committee, pp. 87-97. (177) /Bib 31-1209/
- Bonde, K.K., M.F. Foreman, T.A. Babb, S. Kjelvik, J.D. McKendrick, W.W. Mitchell, L.L. Tieszen, F.J. Wooding and W. Younkin** (1973) Growth and development of three agronomic species in pots ("phytometers"). In *Primary Production and Production Processes*,

- Tundra Biome* (L.C. Bliss and F.E. Wielgolaski, Eds.). Stockholm: IBP Tundra Biome Steering Committee, pp. 99-110. (1778) /Bib 31-1210/
- Braun, C.E.** (1980) Alpine bird communities of western North America: Implications for management and research. In *Workshop Proceedings of Management of Western Forest and Grasslands for Non-game Birds* (R.M. DeGraff and N.G. Tilghman, compilers). U.S. Forest Service, General Technical Report INT-86, pp. 280-291. /Bib 35-4235/
- Braun, C.E., R.K. Schmidt and G.E. Rogers** (1973) Census of Colorado whitetailed ptarmigan with tape-recorded calls. *Journal of Wildlife Management*, 37(1): 90-93. (1779) /Bib 31-4115/
- Brown, J.** (1970) Tundra Biome applies new look to ecological problems in Alaska. *Northern Engineer*, 2(2): 9. (2426) /Bib 31-4048/
- Brown, J.** (1970) Tundra Biome Program. *Science*, 167: 1278. (2427) /Bib 31-4049/
- Brown, J.** (1973) Summary of the 1971 U.S. Tundra Biome Program. *Proceedings, IV International Meeting on the Biological Productivity of Tundra, Leningrad, U.S.S.R.* (F.E. Wielgolaski and T. Rosswall, Eds.). Stockholm: IBP Tundra Biome Steering Committee, pp. 306-313. (1780) /Bib 27-2697/
- Brown, J.** (1975) U.S. Tundra Biome Seminar/Symposium. *Arctic Bulletin*, pp. 22-23. (2428) /Bib 30-2518/
- Brown, J. (Ed.)** (1975) *Ecological Investigations of the Tundra Biome in the Prudhoe Bay Region, Alaska*. Biological Papers of the University of Alaska, Special Report No. 2, 215 pp. (2429) /Bib 30-3304/
- Brown, J.** (1981) Introduction to Part II: Abiotic components. In *Tundra Ecosystems: A Comparative Analysis* (L.C. Bliss, O.W. Heal and J.J. Moore, Eds.). Cambridge: Cambridge University Press, p. 79. /Bib 35-3377/
- Brown, J.** (1981) Point Barrow, Alaska, U.S.A. In *Tundra Ecosystems: A Comparative Analysis* (L.C. Bliss, O.W. Heal and J.J. Moore, Eds.). Cambridge: Cambridge University Press, pp. 775-776. /Bib 35-3400/
- Brown, J., H. Coulombe and F.A. Pitelka** (1970) Structure and function of the tundra ecosystem at Barrow, Alaska. In *Productivity and Conservation in Northern Circumpolar Lands* (W.A. Fuller and P.G. Kevan, Eds.). Morges, Switzerland: IUCN, pp. 41-71. (2431) /Bib 31-4099-4102/
- Brown, J. and G.C. West** (1973) The Tundra Biome Program. *Arctic Bulletin*, 1(2): 56-60. (2432) /Bib 28-3125/
- Brown, J. and A.K. Veum** (1974) Soil properties of the international Tundra Biome sites. In *Soil Organisms and Decomposition in Tundra* (A.J. Holding et al., Eds). Stockholm: IBP Tundra Biome Steering Committee, pp. 27-48. (1781) /Bib 29-3348/
- Brown, J., R.K. Haugen and S. Parrish** (1975) Selected climatic and soil thermal characteristics of the Prudhoe Bay region. In *Ecological Investigations of the Tundra Biome in the Prudhoe Bay Region, Alaska* (J. Brown, Ed.). Biological Papers of the University of Alaska, Special Report No. 2, pp. 2-11. (2430) /Bib 30-3305/
- Brown, J., K.R. Everett, P.J. Webber, S.F. MacLean, Jr., and D.F. Murray** (1980) The coastal tundra at Barrow. In *An Arctic Ecosystem: The Coastal Tundra at Barrow, Alaska* (J. Brown, P.C. Miller, L.L. Tieszen and F.L. Bunnell, Eds.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 1-29. /Bib 35-1930/
- Brown, J., P.C. Miller, L.L. Tieszen and F.L. Bunnell** (Eds.) (1980) *An Arctic Ecosystem: The Coastal Tundra at Barrow, Alaska*. Stroudsburg, Pa.: Dowden, Hutchinson and Ross, 571 pp. (Bib 35-1929/
- Buechler, D.G. and R.D. Dillon** (1974) Phosphorus regeneration in freshwater paramecia. *Journal of Protozoology*, 21(2): 339-343. (1782) /Bib 34-201/
- Bunnell, F.L.** (1972) Lemmings—Models and the real world. *Proceedings, Summer Computer Simulation Conference, 1972, San Diego*, pp. 1183-1197. (1786) /Bib 31-4043/

- Bunnell, F.L.** (1972) Theological ecology or models and the real world. *Forestry Chronicle*, 49(4): 1-5. (1783) /Bib 31-4137/
- Bunnell, F.L.** (1973) Decomposition: Models and the real world. *Bulletins of the Ecological Research Commission* (Stockholm), 17: 407-415. (1784) /Bib 31-4148/
- Bunnell, F.L.** (1981) Ecosystem synthesis—A 'fairytale.' In *Tundra Ecosystems: A Comparative Analysis* (L.C. Bliss, O.W. Heal and J.J. Moore, Eds.). Cambridge: Cambridge University Press, pp. 637-646. /Bib 35-3394/
- Bunnell, F.L., L. Karenlampi and D.E. Russell** (1973) A simulation model of lichen-Rangifer interactions in northern Finland. *Reports from the Kevo Subarctic Research Station*, 10(I-IX): pp. 1-8. (1788) /Bib 31-4147/
- Bunnell, F.L. and D.E. Russell** (1973) A reindeer's view of the boreal forest ecosystem. *Proceedings, Summer Computer Simulation Conference, 1973, Montreal*, 2: 722-728. (1785) /Bib 31-4044/
- Bunnell, F.L. and P. Dowding** (1974) ABISKO—A generalized decomposition model for comparisons between tundra sites. In *Soil Organisms and Decomposition in Tundra* (A.J. Holding et al., Eds). Stockholm: IBP Tundra Biome Steering Committee, pp. 227-247. (1787) /Bib 29-3360/
- Bunnell, F.L. and D.E.N. Tait** (1974) Mathematical simulation models of decomposition processes. In *Soil Organisms and Decomposition in Tundra* (A.J. Holding et al., Eds). Stockholm: IBP Tundra Biome Steering Committee, pp. 207-225. (2435) /Bib 29-3359/
- Bunnell, F.L., S.F. MacLean, Jr. and J. Brown** (1975) Barrow, Alaska, U.S.A. In *Structure and Function of Tundra Ecosystems* (T. Rosswall and O.W. Heal, Eds.). *Ecological Bulletins INFR* 20, pp. 73-124. (2433) /Bib 30-2199/
- Bunnell, F.L. and K.A. Scoullar** (1975) ABISKO II—A computer simulation model of carbon flux in tundra ecosystems. In *Structure and Function of Tundra Ecosystems* (T. Rosswall and O.W. Heal, Eds.). *Ecological Bulletins INFR* 20, pp. 425-448. (2434) (Bib 30-2212/
- Bunnell, F.L. and K.A. Scoullar** (1981) Between-site comparisons of carbon flux in tundra by using simulation models. In *Tundra Ecosystems: A Comparative Analysis* (L.C. Bliss, O.W. Heal and J.J. Moore, Eds.). Cambridge: Cambridge University Press, pp. 685-715. /Bib 35-3396/
- Bunnell, F.L., D.E.N. Tait, P.W. Flanagan and K. Van Cleve** (1977) Microbial respiration and substrate weight loss. I. General model of the influence of abiotic variables. *Soil Biology and Biochemistry*, 9(1): 33-40. (2737) /Bib 31-4110/
- Bunnell, F.L., D.E.N. Tait and P.W. Flanagan** (1977) Microbial respiration and substrate weight loss. II. A model of the influence of chemical composition. *Soil Biology and Biochemistry*, 9(1): 41-47. (2738) /Bib 31-4111/
- Bunnell, F.L., O.K. Miller, P.W. Flanagan and R.E. Benoit** (1980) The microflora: Composition, biomass, and environmental relations. In *An Arctic Ecosystem: The Coastal Tundra at Barrow, Alaska* (J. Brown, P.C. Miller, L.L. Tieszen and F.L. Bunnell, Eds.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 225-290. /Bib 35-18937/
- Butler, M., M.C. Miller and S. Mozley** (1980) Macrobenthos. In *Limnology of Tundra Ponds, Barrow, Alaska* (J.E. Hobbie, Ed.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 297-339. /Bib 35-1754/
- Cade, T.S. and C.M. White** (1973) Breeding of Say's Phoebe in arctic Alaska. *Condor*, 75: 360-361. /Bib 35-4008/
- Caldwell, M.M.** (1972) Biologically effective solar ultraviolet irradiation in the Arctic. *Arctic and Alpine Research*, 4: 39-43. (1789) /Bib 26-3072/
- Caldwell, M.M., L.L. Tieszen and M. Fareed** (1974) The canopy structure of tundra plant communities at Barrow, Alaska, and Niwot Ridge, Colorado. *Arctic and Alpine Research*, 6: 15-59. (1790) /Bib 32-19/

- Caldwell, M.M., D.A. Johnson and M. Fareed** (1978) Constraints on tundra productivity: Photosynthetic capacity in relation to solar radiation utilization and water stress in arctic and alpine tundras. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 13, 323-342. (4022) /Bib 33-4568/
- Callaghan, T.V. and N.J. Collins** (1981) Life cycles, population dynamics and the growth of tundra plants. In *Tundra Ecosystems: A Comparative Analysis* (L.C. Bliss, O.W. Heal and J.J. Moore, Eds.). Cambridge: Cambridge University Press, pp. 257-284. /Bib 35-3383/
- Cameron, J.N.** (1974) Application of low latitude microbial ecology to high latitude deserts. In *Polar Deserts and Modern Man* (T.L. Smiley and J. Zumberge, Eds.). Tucson: University of Arizona, pp. 71-90. (2436) /Bib 29-871/
- Cameron, J.N., J. Kistoris and P.A. Penhale** (1973) Preliminary energy budget of the nine-spined stickleback (*Pungitius pungitius*) in an arctic lake. *Journal of the Fisheries Research Board, Canada*, **30**(3): 1179-1189. (1791) /Bib 32-17/
- Cameron, J.N., A.D. Knox and F.A. Morelli** (1978) The role of algae in tundra soils. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 8, pp. 207-227. /Bib 33-4563/
- Campbell, W.B., R.W. Harris and R.E. Benoit** (1973) Response of Alaskan tundra microflora to crude oil spill. *Proceedings of the Symposium on the Impact of Soil Resource Development on Northern Plant Communities*. Occasional Publications on Northern Life No. 1, University of Alaska, pp. 53-62. (2473) /Bib 28-2315/
- Challinor, J.L. and P.L. Gersper** (1975) Vehicle perturbation effect upon a tundra soil-plant system. II. Effects on the chemical regimes. *Soil Science Society of America Proceedings*, **39**: 689-695. (2438) /Bib 30-1687/
- Chapin, F.S. III** (1974) Phosphate absorption capacity and acclimation potential in plants along a latitudinal gradient. *Science*, **183**: 521-523.\* (2441) /Bib 32-14/
- Chapin, F.S. III** (1974) Effect of low phosphate treatment of plant species with different relative growth rates on subsequent phosphate uptake. *Science*, **186**: 847. (2439) /Bib 32-15/
- Chapin, F.S. III** (1974) Morphological and physiological mechanisms of temperature compensation in phosphate absorption along a latitudinal gradient. *Ecology*, **55**(6): 1180-1198. (2440) /Bib 32-16/
- Chapin, F.S. III** (1974) Nutrient/carbon costs associated with tundra adaptations to a cold nutrient-poor environment. *Proceedings of the Circumpolar Conference on Northern Ecology, Ottawa, 1975*. Ottawa: National Research Council of Canada, Scientific Committee on Problems of the Environment, pp. I-183 to I-194. (2930) /Bib 31-2556/
- Chapin, F.S. III** (1977) Temperature compensation in phosphate absorption occurring over diverse time scales. *Arctic and Alpine Research*, **9**(2): 139-148. (2931) /Bib 31-4424/ [Also in *The Belowground Ecosystem: A Synthesis of Plant-Associated Processes* (J.K. Marshall, Ed.). Ft. Collins: Colorado State University, Range Sciences Department Series No. 26, pp. 99-108, 1977. (2932)]
- Chapin, F.S. III** (1978) Phosphorus uptake and nutrient utilization by Barrow tundra vegetation. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 21, pp. 483-507. /Bib 33-4576/
- Chapin, F.S. III** (1979) Nutrient uptake and utilization by tundra plants. In *Comparative Mechanisms of Cold Adaptation* (L.S. Underwood, L.L. Tieszen, A.B. Callahan and G.E. Folk, Eds.). New York: Academic Press, pp. 215-234. /Bib 34-2144/
- Chapin, F.S. III** (1981) Field measurements of growth and phosphate absorption in *Carex aquatilis* along a latitudinal gradient. *Arctic and Alpine Research*, **13**(1): 92-94. /Bib 35-4086/
- Chapin, F.S. III** (1979) Nutrient uptake and utilization by tundra plants. In *Comparative Mechanisms of Cold Adaptation* (L.S. Underwood, L.L. Tieszen, A.B. Callahan and G.E. Folk, Eds.). New York: Academic Press, pp. 215-234. /Bib 34-2144/

- Chapin, F.S. III, K. Van Cleve and L.L. Tieszen** (1975) Seasonal nutrient dynamics of tundra vegetation at Barrow, Alaska. *Arctic and Alpine Research*, **7**(3): 209-226. (2443) /Bib 30-1545/
- Chapin, F.S. III and A. Bloom** (1976) Phosphate absorption: Adaptation of tundra graminoids to a low temperature, low phosphorus environment. *Oikos*, **26**(1): 111-121. (2442) /Bib 32-18/
- Chapin, F.S. III, R.J. Barsdate and D. Barel** (1978) Phosphorus cycling in Alaskan coastal tundra: A hypothesis for the regulation of nutrient cycling. *Oikos*, **31**: 189-199. (2933) /Bib 33-3814/
- Chapin, F.S. III and K. Van Cleve** (1978) Nitrogen and phosphorus distribution in an Alaskan tussock tundra ecosystem: Natural patterns and implications for development. In *Environmental Chemistry and Cycling Processes: Proceedings of Symposium, Augusta, Georgia, 28 April-1 May 1976* (D.C. Adriano and I.L. Brisbin, Jr., Eds.). U.S. Department of Energy, CONF-760429, pp. 738-753. /Bib 33-3845/
- Chapin, F.S. III, P.C. Miller, W.D. Billings and P.I. Coyne** (1980) Carbon and nutrient budgets and their control in coastal tundra. In *An Arctic Ecosystem: The Coastal Tundra at Barrow, Alaska* (J. Brown, P.C. Miller, L.L. Tieszen and F.L. Bunnell, Eds.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 458-482. /Bib 35-1941/
- Chapin, F.S. III, L.L. Tieszen, M.C. Lewis, P.C. Miller and B.H. McCown** (1980) Control of tundra plant allocation patterns and growth. In *An Arctic Ecosystem: The Coastal Tundra at Barrow, Alaska* (J. Brown, P.C. Miller, L.L. Tieszen and F.L. Bunnell, Eds.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 140-185. /Bib 35-1934/
- Chapin, F.S. III and G.R. Shaver** (In press) The physiological ecology of arctic plants. In *The Physiological Ecology of North American Vegetation* (B.F. Chabot and H.A. Mooney, Eds.). London: Chapman and Hall.
- Chapin, F.S. III and M.C. Chapin** (1981) Ecotypic differentiation of growth processes in *Carex aquatilis* along latitudinal and local gradients. *Ecology*, **62**(4): 1000-1009. /Bib 35-4316/
- Chisholm, S.W., R.G. Stross and P.A. Nobbs** (1975) Environmental and intrinsic control of filtering and feeding rates in arctic *Daphnia*. *Journal of Fisheries Research Board, Canada*, **32**(2): 219-226. (2445) /Bib 32-20/
- Chisholm, S.W. and P.A. Nobbs** (1976) Simulation of algal growth and competition in a phosphate-limited cyclostat. In *Modeling Biochemical Processes in Aquatic Ecosystems* (R.P. Canale, Ed.). Ann Arbor, Mich.: Ann Arbor Science Publishers, pp. 337-338. (2444) /Bib 32-13/
- Chisholm, S.W., R.G. Stross and P.A. Nobbs** (1975) Light-/dark-phased cell division in *Euglena gracilis* (Z) (euglenophyceae) in PO<sub>4</sub>-limited continuous culture. *Journal of Phycology*, **11**(4): 367-373. (4023) /Bib 32-1331/
- Chisholm, S.W. and R.G. Stross** (1976) Phosphate uptake kinetics in *Euglena gracilis* (Z) (euglenophyceae) grown in light/dark cycles. I. Synchronized batch cultures. *Journal of Phycology*, **12**(4): 210-217. /Bib 32-1329/
- Chisholm, S.W. and R.G. Stross** (1976) Phosphate uptake kinetics in *Euglena gracilis* (Z) (euglenophyceae) grown in light/dark cycles. II. Phase PO<sub>4</sub>-limited cultures. *Journal of Phycology*, **2**(2): 217-222. (4024) /Bib 32-1330/
- Collier, B.D., N.C. Stenseth and S. Barkley** (1975) A simulation model of energy acquisition and utilization by the brown lemming (*Lemmus trimucronatus*) at Barrow, Alaska. *Oikos*, **26**: 276-294. (2446) /Bib 32-10/
- Collins, N.J. and W.C. Oechel** (1974) The pattern of growth and translocation of photosynthate in a tundra moss, *Polytrichum alpinum*. *Canadian Journal of Botany*, **52**: 355-363. (2447) /Bib 32-12/

- Coulon, C. and V. Alexander** (1972) A sliding-chamber phytoplankton settling technique for making permanent quantitative slides with applications in fluorescent microscopy and autoradiography. *Limnology and Oceanography*, **17**(1): 149-152. (2448 and 1792) /Bib 32-11/
- Coyne, P.I. and J.J. Kelley** (1971) Release of carbon dioxide from frozen soil to the arctic atmosphere. *Nature*, **234**(5329): 407-408. (1794) /Bib 26-2491/
- Coyne, P.I. and J.J. Kelley** (1974) Carbon dioxide partial pressures in arctic surface waters. *Limnology and Oceanography*, **19**(6): 928-938. (2449) /Bib 30-897/
- Coyne, P.I. and J.J. Kelley** (1974) Variations in carbon dioxide across an arctic snowpack during spring. *Journal of Geophysical Research*, **79**(6): 799-802. (1793) /Bib 28-3533/
- Coyne, P.I. and J.J. Kelley** (1975) CO<sub>2</sub> exchange over the Alaskan arctic tundra: Meteorological assessment by an aerodynamic method. *Journal of Applied Ecology*, **12**(2): 587-611. (2450) /Bib 32-22/
- Coyne, P.I. and J.J. Kelley** (1978) Meteorological assessment of CO<sub>2</sub> exchange over an Alaskan arctic tundra. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 12, pp. 299-321. /Bib 33-4567/
- Custer, T.W.** (1973) Snowy owl predation on Lapland longspur nestlings recorded on film. *Auk*, **90**(2): 433-435. (1795) /Bib 32-9/
- Custer, T.W. and F.A. Pitelka** (1975) Correction factors for digestion rates for prey taken by snow buntings (*Plectrophenax nivalis*). *Condor*, **77**(2): 210-212. (2451) /Bib 32-8/
- Custer, T.W. and F.A. Pitelka** (1977) Demographic features of a Lapland longspur population near Barrow, Alaska. *The Auk*, **94**: 505-525. /Bib 35-1682/
- Custer, T.W. and F.A. Pitelka** (1978) Seasonal trends in summer diet of the Lapland longspur near Barrow, Alaska. *The Condor*, **80**: 295-301. /Bib 34-2512/
- Daley, R.J. and J.E. Hobbie** (1975) Direct counts of aquatic bacteria by a modified epifluorescence technique. *Limnology and Oceanography*, **20**(5): 875-882. (2452) /Bib 32-6/
- Deneke, F.J., B.H. McCown, P.I. Coyne, W. Rickard and J. Brown** (1975) Biological aspects of terrestrial oil spills—USACRREL oil research in Alaska, 1970-1974. U.S. Army Cold Regions Research and Engineering Laboratory, Research Report 346, 66 pp. (2453) /Bib 31-4108/
- Dennis, J.G.** (1977) Distribution patterns of belowground standing crop in arctic tundra at Barrow, Alaska. *Arctic and Alpine Research*, **9**(2): 113-127. (2934) /Bib 31-4422/ [Also in *The Belowground Ecosystem: A Synthesis of Plant-Associated Processes* (J.K. Marshall, Ed.). Ft. Collins: Colorado State University, Range Sciences Department Series No. 26, 1977, pp. 53-62.]
- Dennis, J.G., L.L. Tieszen and M.A. Vetter** (1978) Seasonal dynamics of above- and belowground production of vascular plants at Barrow, Alaska. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 4, pp. 113-140. (4026) /Bib 33-4559/
- Dillon, R.D. and J.T. Hobbs** (1973) Estimating quantity and quality of the biomass of benthic protozoa. *Proceedings of the South Dakota Academy of Science*, **52**: 47-48. (1796) /Bib 32-23/
- Dingman, S.L., R.G. Barry, G. Weller, C. Benson, E.F. LeDrew and C.W. Goodwin** (1980) Climate, snow cover, microclimate, and hydrology. In *An Arctic Ecosystem: The Coastal Tundra at Barrow, Alaska* (J. Brown, P.C. Miller, L.L. Tieszen and F.L. Bunnell, Eds.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 30-65. /Bib 35-1931/
- Dodson, S.I.** (1975) Predation rates of zooplankton in arctic ponds. *Limnology and Oceanography*, **20**(3): 426-433. (2454) /Bib 32-1/
- Dodson, S.I. and D.L. Egger** (1980) Selective feeding of red phalaropes on zooplankton of arctic ponds. *Ecology*, **61**(4): 755-763. /Bib 35-2239/
- Douce, G.K.** (1976) Biomass of soil mites (Acari) in arctic coastal tundra. *Oikos*, **27**: 324-330. (2739 and 2740) /Bib 32-21/

- Douce, G.K. and D.A. Crossley** (1977) Acarina abundance and community structure in an arctic coastal tundra. *Pedobiologia*, **Bd. 17**: 32-42. (2741 and 4025) /Bib 32-7/
- Douce, G.K. and D.A. Crossley** (1982) The effect of soil fauna on litter mass loss and nutrient loss dynamics in arctic tundra at Barrow, Alaska. *Ecology*, **63**(2): 523-537. /Bib 36-2932/
- Douce, G.K. and D.P. Webb** (1978) Indirect effects of soil invertebrates on litter decomposition: Elaboration via analysis of a tundra model. *Ecological Modeling*, **4**: 339-359. (2935) /Bib 33-873/
- Douglas, L.A. and A. Bilgin** (1975) Nutrient regimes of soils, landscapes, lakes, and streams, Prudhoe Bay, Alaska. In *Ecological Investigations of the Tundra Biome in the Prudhoe Bay Region, Alaska* (J. Brown, Ed.). Biological Papers of the University of Alaska, Special Report No. 2, pp. 60-70. (2455) /Bib 30-3308/
- Dowding, P., F.S. Chapin III, F.E. Wielgolaski and P. Kilfeather** (1981) Nutrients in tundra ecosystems. In *Tundra Ecosystems: A Comparative Analysis* (L.C. Bliss, O.W. Heal and J.J. Moore, Eds.). Cambridge: Cambridge University Press, pp. 647-683. /Bib 35-3395/
- Edwards, J.S.** (1972) Arthropod fallout on Alaskan snow. *Arctic and Alpine Research*, **4**(2): 167-176. (2456) /Bib 32-4/
- Edwards, J.S. and P.C. Banko** (1976) Arthropod fallout and nutrient transport: Quantitative study of Alaskan snow patches. *Arctic and Alpine Research*, **8**(3): 237-245. (2742) /Bib 32-5/
- Ehleringer, J.R. and P.C. Miller** (1975) Water relations of selected plant species in the alpine tundra, Colorado. *Ecology*, **56**(2): 370-380. (2458) /Bib 29-3927/
- Ehleringer, J.R. and P.C. Miller** (1975) A simulation model of plant water relations and production in the alpine, Colorado. *Oecologia*, **19**: 177-193. (2457 and 2936) /Bib 32-3/
- Emerick, J.C. and P.J. Webber** (1982) The effects of augmented winter snow cover on the canopy structure of alpine vegetation. In *Ecological Studies in the Colorado Alpine* (J.C. Halfpenny, Ed.). University of Colorado, Institute of Arctic and Alpine Research, Occasional Paper No. 37, pp. 63-72. /Bib 37-625-635/
- Everett, K.E.** (1975) Soil and landform associations at Prudhoe Bay, Alaska: A soils map of the Tundra Biome area. In *Ecological Investigations of the Tundra Biome in the Prudhoe Bay Region, Alaska* (J. Brown, Ed.). Biological Papers of the University of Alaska, Special Report No. 2, pp. 52-59. (2459) /Bib 30-3307/
- Everett, K.R. and R.J. Parkinson** (1977) Soil and landform associations, Prudhoe Bay area, Alaska. *Arctic and Alpine Research*, **9**(1): 1-19. (2937) /Bib 32-50/
- Everett, K.R., P.J. Webber, D.A. Walker, R.J. Parkinson and J. Brown** (1978) Geocological mapping scheme for Alaskan coastal tundra. In *Proceedings of the Third International Conference on Permafrost, July 10-13, 1978, Edmonton, Alberta, Canada*. Vol. 1. Ottawa: National Research Council of Canada, pp. 359-365. /Bib 32-3717/
- Everett, K.R., V.D. Vassiljevskaya, J. Brown and B.D. Walker** (1981) Tundra and analogous soils. In *Tundra Ecosystems: A Comparative Analysis* (L.C. Bliss, O.W. Heal and J.J. Moore, Eds.). Cambridge: Cambridge University Press, pp. 139-179. /Bib 35-2705/
- Fareed, M. and M.M. Caldwell** (1975) Phenological patterns of two alpine tundra plant populations on Niwot Ridge, Colorado. *Northwest Science*, **49**(1): 17-23. (2460) /Bib 32-1333/
- Feist, D.D.** (1975) Population studies of lemmings in the coastal tundra of Prudhoe Bay, Alaska. In *Ecological Investigations of the Tundra Biome in the Prudhoe Bay Region, Alaska* (J. Brown, Ed.). Biological Papers of the University of Alaska, Special Report No. 2, pp. 134-143. (2461) /Bib 32-1346/
- Fenchel, T.** (1975) The quantitative importance of the benthic microfauna of an arctic tundra pond. *Hydrobiologia*, **46**(4): 445-464. (2462) /Bib 32-1332/
- Fitzgerald, B.M.** (1981) Predatory birds and mammals. In *Tundra Ecosystems: A Compara-*



- tive Analysis* (L.C. Bliss, O.W. Heal and J.J. Moore, Eds.). Cambridge: Cambridge University Press, pp. 485-508. /Bib 35-3388/
- Flanagan, P.W.** (1978) Microbial ecology and decomposition in arctic tundra and subarctic taiga ecosystems. In *Microbial Ecology* (M.W. Loutit and J.A.R. Miles, Eds.). New York: Springer-Verlag, pp. 161-168. /Bib 35-2177/
- Flanagan, P.W.** (1981) Physiological groups of decomposer fungi. In *The Fungal Community* (D.T. Wicklow and G.C. Carroll, Eds.). New York: Marcel Dekker Inc.
- Flanagan, P.W., D.D. French, O.W. Heal and D.K. Lindley** (1974) Microbiology and decomposition data bank (MAD). In *Soil Organisms and Decomposition in Tundra* (A.J. Holding et al., Eds). Stockholm: IBP Tundra Biome Steering Committee, pp. 389-396. (1797) /Bib 29-3368/
- Flanagan, P.W. and A.M. Scarborough** (1974) Physiological groups of decomposer fungi on tundra plant remains. In *Soil Organisms and Decomposition in Tundra* (A.J. Holding et al., Eds). Stockholm: IBP Tundra Biome Steering Committee, pp. 159-181. (2463) /Bib 29-3356/
- Flanagan, P.W. and A.K. Veum** (1974) Relationships between respiration, weight loss, temperature and moisture in organic residues on tundra. In *Soil Organisms and Decomposition in Tundra* (A.J. Holding et al., Eds). Stockholm: IBP Tundra Biome Steering Committee, pp. 249-277. (1798) /Bib 29-3361/
- Flanagan, P.W. and F.L. Bunnell** (1976) Decomposition models based on climate, substrate variables, microbial respiration, and production. In *The Role of Terrestrial and Aquatic Organisms in Decomposition Processes: The 17th Symposium of the British Ecological Society, 15-18 April 1975* (J.M. Anderson and A. MacFadyen, Eds.). London: Blackwell Scientific Publications, pp. 437-457. (2464 and 4027) /Bib 34-2006/
- Flanagan, P.W. and F.L. Bunnell** (1980) Microflora activities and decomposition. In *An Arctic Ecosystem: The Coastal Tundra at Barrow, Alaska* (J. Brown, P.C. Miller, L.L. Tieszen and F.L. Bunnell, Eds.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 291-334. /Bib 35-1938/
- Flint, P.S.** (1973) Problems related to use of the ammonia electrode. In *Advances and Innovations in Procedures for Soil, Plant and Water Analyses*, Davis, California, pp. 51-53.
- Flint, P.S. and P.L. Gersper** (1974) Nitrogen nutrient levels in arctic tundra soils. In *Soil Organisms and Decomposition in Tundra* (A.J. Holding et al., Eds). Stockholm: IBP Tundra Biome Steering Committee, pp. 375-378. (1799) /Bib 29-3367/
- Flock, J.W.** (1978) Lichen-bryophyte distribution along a snow-cover/soil-moisture gradient, Niwot Ridge, Front Range, Colorado. *Arctic and Alpine Research*, **10**(1): 31-47. (4028) /Bib 32-3300/
- Gersper, P.L. and J.L. Challinor** (1975) Vehicle perturbation effects upon a tundra soil-plant system. I. Effects on morphological and physical environmental properties of the soils. *Soil Science Society of America Proceedings*, **39**: 737-744. (2465) /Bib 32-354/
- Gersper, P.L., V. Alexander, S.A. Barkley, R.J. Barsdate and P.S. Flint** (1980) The soils and their nutrients. In *An Arctic Ecosystem: The Coastal Tundra at Barrow, Alaska* (J. Brown, P.C. Miller, L.L. Tieszen and F.L. Bunnell, Eds.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 219-254. /Bib 35-1936/
- Giesen, K.M., C.E. Braun and T.A. May** (1980) Reproduction and nest-site selection by white-tailed ptarmigan in Colorado. *Wilson Bulletin*, **92**(2): 188-199. /Bib 36-1414/
- Goodwin, C.** (1976) Human activity and underground ice in the Arctic Coastal Plain. *Earth and Mineral Sciences*, **46**(3): 20-22. (2743 and 2744) /Bib 32-350/
- Goodwin, C.W. and S.I. Outcalt** (1975) The development of a computer model of the annual snow-soil thermal regime in arctic tundra terrain. In *Climate of the Arctic* (G. Weller and S. Bowling, Eds.). Proceedings of the AAAS-AMA Symposium, Fairbanks, Alaska, August 1973. Geophysical Institute, University of Alaska, pp. 227-229. (2466) /Bib 30-2573/

- Guymon, G.L.** (1976) Summer moisture-temperature for arctic tundra. *ASCE: Journal of the Irrigation and Drainage Division*, **102**(IR 4): 403-411.\* /Bib 31-1070/
- Guymon, G.L. and J.N. Luthin** (1974) A coupled heat and moisture transport model for arctic soils. *Water Resources Research*, **10**(5): 995-1001.\* (2938) /Bib 30-3259/
- Halfpenny, J.C.** (Ed.) (1982) Ecological studies in the Colorado alpine. Institute of Arctic and Alpine Research, University of Colorado, Occasional Paper No. 37, 147 pp. /Bib 37-625-635/
- Heal, O.W. and S.F. MacLean, Jr.** (1975) Comparative productivity in ecosystems—Secondary productivity. In *Unifying Concepts in Ecology* (W.H. van Dobben and P.H. Lowe-McConnell, Eds.). The Hague: D.W. Junk, pp. 89-108. (2744) /Bib 32-357/
- Heal, O.W., P.W. Flanagan, D.D. French and S.F. MacLean, Jr.** (1981) Decomposition and accumulation of organic matter in tundra. In *Tundra Ecosystems: A Comparative Analysis* (L.C. Bliss, O.W. Heal and J.J. Moore, Eds.). Cambridge: Cambridge University Press, pp. 587-633. /Bib 35-3393/
- Hobbie, J.E.** (1973) Using kinetic analyses of uptake of carbon-14 to measure rates of movement of individual organic compounds into aquatic bacteria. *Bulletin of the Ecological Research Commission (Stockholm)*, **17**: 207-214. (2467) /Bib 32-352/
- Hobbie, J.E.** (1973) Arctic limnology: A review. In *Alaskan Arctic Tundra* (M.E. Britton, Ed.). Arctic Institute of North America, Technical Paper No. 25, pp. 127-168. (1800) /Bib 28-3609/
- Hobbie, J.E.** (1975) Some controls in tundra pond ecosystems. In *Proceedings of the Circumpolar Conference on Northern Ecology, Ottawa, 1975*. Ottawa: National Research Council of Canada, Scientific Committee on Problems of the Environment, pp. III-43 to III-51. (2939) /Bib 31-2560/
- Hobbie, J.E.** (Ed.). (1980) *Limnology of Tundra Ponds, Barrow, Alaska*. Stroudsburg, Pa.: Dowden, Hutchinson and Ross, 514 pp. /Bib 35-1747/
- Hobbie, J.E.** (1980) Major findings. In *Limnology of Tundra Ponds, Barrow, Alaska* (J.E. Hobbie, Ed.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 1-18. /Bib 35-1748/
- Hobbie, J.E.** (1980) Introduction and site description. In *Limnology of Tundra Ponds, Barrow, Alaska* (J.E. Hobbie, Ed.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 19-50. /Bib 35-1749/
- Hobbie, J.E. and L.R. Pomeroy** (1972) Experimental concentration of aquatic microorganisms. *Verhandlung Internationale Vereinigung für Limnologie*, **18**: 696-700. (1801) /Bib 32-346/
- Hobbie, J.E. and P. Rublee** (1975) Bacterial production in an arctic pond. *Verhandlung Internationale Vereinigung für Limnologie*, **19**: 466-471. (2468) /Bib 32-355/
- Hobbie, J.E., T. Traaen, P. Rublee, J.P. Reed, M.C. Miller and T. Fenchel** (1980) Decomposers, bacteria and microbenthos. In *Limnology of Tundra Ponds, Barrow, Alaska* (J.E. Hobbie, Ed.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 340-387. /Bib 35-1755/
- Hobbie, J.E. and J. Tiwari** (1978) Ecosystem models vs biological reality. Experiences in the systems analysis of an arctic pond. *Verhandlung Internationale Vereinigung für Limnologie*, **20**: 105-109. /Bib 35-2890/
- Holleman, D.F., R.G. White and J.R. Luick** (1975) New isotope methods for estimating milk intake and yield. *Journal of Dairy Science*, **58**: 1814-1821.\* (2745 and 2746) /Bib 32-351/
- Holmgren, B., C. Benson and G. Weller** (1975) A study of the breakup of the arctic slope of Alaska by ground, aircraft and satellite observations. In *Climate of the Arctic* (G. Weller and S. Bowling, Eds.). Proceedings of the AAAS-AMA Symposium, Fairbanks, Alaska, August 1973. Geophysical Institute, University of Alaska, pp. 358-366. (2469) /Bib 30-2585/

- Ives, J.D.** (1971) Permafrost. In *Arctic and Alpine Environments* (J.D. Ives and R.G. Barry, Eds.). London: Methuen, pp. 159-195. /Bib 29-2623/
- Ives, J.D.** (1971) Permafrost and its relationship to other environmental parameters in a mid-latitude, high-altitude setting, Front Range, Colorado Rocky Mountains. In *Permafrost: North American Contribution to the Second International Conference*. Washington, D.C.: National Academy of Sciences, pp. 121-125. (1802) /Bib 35-1900/
- Ives, J.D.** (Ed.) (1980) *Geocology of the Colorado Front Range: A Study of Alpine and Subalpine Environments*. Boulder, Colorado: Westview Press, 484 pp. /Bib 35-1900/
- Ives, J.D. and B.D. Fahey** (1971) Permafrost occurrence in the Front Range, Colorado Rocky Mountains, U.S.A. *Journal of Glaciology*, **10**: 105-111. /Bib 25-4272/
- Johnson, D.A., M.M. Caldwell and L.L. Tieszen** (1973) Photosynthesis in relation to leaf water potential in three alpine plant species. In *Primary Production and Production Processes, Tundra Biome* (L.C. Bliss and F.E. Wielgolaski, Eds.). Stockholm: IBP Tundra Biome Steering Committee, pp. 205-210. (1803) /Bib 31-1221/
- Johnson, D.A. and M.M. Caldwell** (1974) Field measurements of photosynthesis and leaf growth rates of three alpine plant species. *Arctic and Alpine Research*, **6**(3): 3245-3251. (1804) /Bib 29-1373/
- Johnson, D.A. and M.M. Caldwell** (1975) Gas exchange of four arctic and alpine tundra plant species in relation to atmospheric and soil moisture stress. *Oecologia*, **21**: 93-108. (2470) /Bib 32-353/
- Johnson, D.A. and M.M. Caldwell** (1976) Water potential components, stomatal function, and liquid phase water transport resistances of four arctic and alpine species in relation to moisture stress. *Physiologia Planta*, **36**: 271-278. (2471) /Bib 32-358/
- Johnson, D.A. and L.L. Tieszen** (1976) Aboveground biomass allocation, leaf growth and photosynthesis patterns in tundra plant forms in arctic Alaska. *Oecologia*, **224**: 159-173. (2746 and 2747) /Bib 32-206/
- Johnson, P.L. and L.L. Tieszen** (1973) Vegetation research in arctic Alaska. In *Alaska Arctic Tundra* (M.E. Britton, Ed.). Arctic Institute of North America, Technical Paper No. 25, pp. 169-198. (2472) /Bib 28-3610/
- Kelley, J.J. and P.I. Coyne** (1973) A case for comparison and standardization of carbon dioxide reference gases. *Proceedings of the Interbiome Workshop on Gaseous Exchange Methodology, Terrestrial Primary Production*. Oak Ridge National Laboratory, pp. 163-181. (1805) /Bib 32-675/
- Komárková, V.** (1979) Alpine vegetation of the Indian Peaks area, Front Range, Colorado Rocky Mountains. In *Flora et Vegetatio Mundi 7* (R. Tuxen, Ed.). Cramer, Vaduz, 2 volumes, 591 pp. /Bib 35-3604/
- Komárková, V.** (1980) Classification and ordination of the Indian Peaks area, Colorado Rocky Mountains. *Vegetation*, **42**: 149-163. /Bib 35-3767/
- Komárková, V. and P.J. Webber** (1978) Alpine vegetation map of Niwot Ridge, Colorado. *Arctic and Alpine Research*, **10**(1): 1-29. (4030) /Bib 32-3299/
- Koranda, J.J., B. Clegg and M. Stuart** (1978) Radio-tracer measurement of transpiration in tundra vegetation, Barrow, Alaska. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 15, pp. 359-369. (4029) /Bib 33-4570/
- Laursen, G.A., O.K. Miller, Jr. and H.E. Bigelow** (1976) A new *clitocybe* from the Alaskan Arctic. *Canadian Journal of Botany*, **54**(9): 976-980. (2747 and 2748) /Bib 32-670/
- Laursen, G.A. and O.K. Miller, Jr.** (1977) The distribution of fungal hyphae in arctic soil on the International Biological Programme Tundra Biome site, Barrow, Alaska. *Arctic and Alpine Research*, **9**(2): 149-156. (2940) /Bib 31-4425/ [Also in *The Belowground Ecosystem: A Synthesis of Plant-Associated Processes* (J.K. Marshall, Ed.). Ft. Collins: Colorado State University, Range Sciences Department Series No. 26, 1977, pp. 273-278.]

- Lawrence, B.A., M.C. Lewis and P.C. Miller** (1978) A simulation model of population processes of arctic tundra graminoids. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 26, pp. 599-619. (4031) /Bib 33-4581/
- Leck, M.A.** (1980) Germination in Barrow, Alaska, tundra soil cores. *Arctic and Alpine Research*, 12: 343-349. /Bib 35-1669/
- LeDrew, E.F.** (1975) Estimation of clear sky atmospheric emittance at high altitudes. *Arctic and Alpine Research*, 7(3): 227-236. (2472) /Bib 32-673/
- LeDrew, E.F.** (1975) Energy balance of a mid-latitude alpine site during the growing season, 1973. *Arctic and Alpine Research*, 7(4): 301-314. (2473) /Bib 30-2974/
- LeDrew, E.F. and J.C. Emerick** (1974) A mechanical balance-type lysimeter for use in remote environments. *Agricultural Meteorology*, 13: 253-258. (2475) /Bib 32-672/
- LeDrew, E.F. and G. Weller** (1978) A comparison of the radiation and energy balance during the growing season for an arctic and alpine tundra. *Arctic and Alpine Research*, 10(4): 665-678. /Bib 33-1420/
- Lord, N.W., J.P. Pandolfo and M.A. Atwater** (1972) Simulations of meteorological variations over arctic coastal tundra under various physical interface conditions. *Arctic and Alpine Research*, 4(3): 1809-209. (1807) /Bib 27-1418/
- Lord, N.W., M.A. Atwater and J.P. Pandolfo** (1974) Influence of the interaction between tundra thaw lakes and surrounding land. *Arctic and Alpine Research*, 6(2): 143-150. (1806) /Bib 29-524/
- Luick, J.R.** (1977) Diets for freely grazing reindeer. In *CRC Handbook Series in Nutrition and Food*. Section G: *Diets, Culture Media, and Food Supplements*. Vol. 1. *Diets for Mammals* (M. Rechcigl, Jr., Ed.). Cleveland: CRC Press, Inc., pp. 267-278. (2749) /Bib 32-629/
- Luick, J.R.** (1977) Diets for captive reindeer. In *CRC Handbook Series in Nutrition and Food*. Section G: *Diets, Culture Media, and Food Supplements*. Vol. 1. *Diets for Mammals* (M. Rechcigl, Jr., Ed.). Cleveland: CRC Press, Inc., pp. 279-294. (2748) /Bib 32-630/
- MacLean, S.F., Jr.** (1973) The life cycle and growth energetics of the arctic crane fly *Pedicia hannah antennata*. *Oikos*, 24: 436-443. (2479) /Bib 32-674/
- MacLean, S.F., Jr.** (1974) Lemming bones as a source of calcium for arctic sandpipers (*Calidris* spp.). *Ibis*, 116: 552-557. (2478) /Bib 32-607/
- MacLean, S.F., Jr.** (1974) Primary production, decomposition, and the activity of soil invertebrates in tundra ecosystems: A hypothesis. In *Soil Organisms and Decomposition in Tundra* (A.J. Holding et al., Eds). Stockholm: IBP Tundra Biome Steering Committee, pp. 197-206. (1808) /Bib 29-3358/
- MacLean, S.F., Jr.** (1975) Ecological adaptations of tundra invertebrates. In *Physiological Adaptation to the Environment* (F.J. Vernberg, Ed.). New York: Intext Educational Publishers, pp. 269-300. (2476) /Bib 32-628/
- MacLean, S.F., Jr.** (1975) Ecology of tundra invertebrates at Prudhoe Bay, Alaska. In *Ecological Investigations of the Tundra Biome in the Prudhoe Bay Region, Alaska* (J. Brown, Ed.). Biological Papers of the University of Alaska, Special Report No. 2, pp. 114-123. (2477) /Bib 33-4677/
- MacLean, S.F., Jr.** (1980) The detritus-based trophic system. In *An Arctic Ecosystem: The Coastal Tundra at Barrow, Alaska* (J. Brown, P.C. Miller, L.L. Tieszen and F.L. Bunnell, Eds.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 411-457. /Bib 35-1940/
- MacLean, S.F., Jr.** (1981) Introduction to Part IV: The fauna component of tundra ecosystems. In *Tundra Ecosystems: A Comparative Analysis* (L.C. Bliss, O.W. Heal and J.J. Moore, Eds.). Cambridge: Cambridge University Press, pp. 509-516. /Bib 35-3389/
- MacLean, S.F., Jr., B.M. Fitzgerald and F.A. Pitelka** (1974) Population cycles in arctic lemmings: Winter reproduction and predation by weasels. *Arctic and Alpine Research*, 6(1): 1-12. (1809) /Bib 32-631/

- MacLean, S.F., Jr., G.K. Douce, E.A. Morgan and M.A. Skeel** (1977) Community organization in the soil invertebrates of Alaskan arctic tundra. In *Soil Organisms as Components of Ecosystems: International Zoology Colloquium, Uppsala, Sweden, June 21-25, 1976* (U. Lohm and T. Persson, Eds.). Ecological Bulletins 25. Stockholm: Swedish Natural Science Research Council, pp. 90-101. (4032) /Bib 32-606/
- McCown, B.H.** (1973) The influence of soil temperature on plant growth and survival in Alaska. *Proceedings of the Symposium on the Impact of Oil Resource Development on Northern Plant Communities*. University of Alaska, Occasional Publications on Northern Life No. 1, pp. 12-33. (2481) /Bib 28-2312/
- McCown, B.H.** (1975) Physiological responses of root systems to stress conditions. In *Physiological Adaptation to the Environment* (F.J. Vernberg, Ed.). New York: Intext Educational Publishers, pp. 225-237. (2480) /Bib 32-671/
- McCown, B.H.** (1978) The interaction of organic nutrients, soil nitrogen, and soil temperature and plant growth and survival in the arctic environment. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 19, pp. 435-456. /Bib 33-4574/
- McCown, B.H., P. Coyne, J. Brown and R.P. Murrmann** (1972) Chemical indicators of arctic biological and environmental activities. U.S. Army Cold Regions Research and Engineering Laboratory, Research Report 301, 27 pp. (1812) /Bib 27-993/
- McCown, B.H., J. Brown and R.J. Barsdate** (1973) Natural oil seeps at Cape Simpson, Alaska: Localized influences on terrestrial habitat. *Proceedings of the Symposium on the Impact of Soil Resource Development on Northern Plant Communities*. Occasional Publications on Northern Life No. 1, University of Alaska, pp. 86-90.\* (2482) /Bib 28 2319/
- McCown, B.H., F.J. Deneke, W. Rickard and L.L. Tieszen** (1973) The response of Alaskan terrestrial plant communities to the presence of petroleum. *Proceedings of the Symposium on the Impact of Soil Resource Development on Northern Plant Communities*. Occasional Publications on Northern Life No. 1, University of Alaska, pp. 34-43. (2483) /Bib 28-2313/
- McCown, D.D. and F.J. Deneke** (1973) Plant germination and seedling growth as affected by the presence of crude petroleum. *Proceedings of the Symposium on the Impact of Soil Resource Development on Northern Plant Communities*. Occasional Publication on Northern Life No. 1, University of Alaska, pp. 44-51. (2484) /Bib 28-2314/
- McEwan, E.H., P. Whitehead, R.G. White and J.O. Anvik** (1976) Effect of digestible energy intake on glucose in reindeer and caribou. *Canadian Journal of Zoology*, 54(5): 737-751.\* (2751) /Bib 32-1335/
- McGaw, R.W., S.I. Outcalt and E. Ng** (1978) Thermal properties and regime of wet tundra soils at Barrow, Alaska. *Proceedings, Third International Conference on Permafrost, July 10-13, Edmonton, Alberta, Canada*. Vol. 1. Ottawa: National Research Council of Canada, pp. 47-53. (2941) /Bib 32-3670/
- McKendrick, J.D., V.J. Ott and G.A. Mitchell** (1978) Effect of nitrogen and phosphorus fertilization on carbohydrate and nutrient levels in *Dupontia fisheri* and *Arctagrostis latifolia*. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 22, pp. 509-537. (4033) /Bib 33-4577/
- McRoy, C.P. and V. Alexander** (1975) Nitrogen kinetics in aquatic plants in arctic Alaska. *Aquatic Botany*, 1: 3-10. (2485) /Bib 32-1334/
- Mattheis, P.J., L.L. Tieszen and M.C. Lewis** (1976) Responses of *Dupontia fisheri* to simulated lemming grazing in an Alaskan arctic tundra. *Annals of Botany*, 40: 179-197. (2750) /Bib 32-1341/
- May, D.E. and P.J. Webber** (1982) Spatial and temporal variation of the vegetation and its productivity, Niwot Ridge, Colorado. In *Ecological Studies in the Colorado Alpine* (J.C. Halfpenny, Ed.). University of Colorado, Institute of Arctic and Alpine Research, Occa-

sional Paper No. 37, pp. 35-62. /Bib 37-625-635/ [Also *Journal of Applied Ecology*, in press.]

**May, D.E., P.J. Webber and T.A. May** (1982) Success of transplanted alpine plants on Niwot Ridge, Colorado. In *Ecological Studies in the Colorado Alpine* (J.C. Halfpenny, Ed.). University of Colorado, Institute of Arctic and Alpine Research, Occasional Paper No. 37, pp. 73-81. /Bib 37-2556/ [Also *Journal of Applied Ecology*, 19: 965-976.]

**May, T.A. and C.E. Braun** (1972) Seasonal food of adult white-tailed ptarmigan in Colorado. *Journal of Wildlife Management*, 36(4): 1180-1186. (1811) /Bib 32-1336/

**May, T.A. and C.E. Braun** (1973) Gizzard stones from adult white-tailed ptarmigan (*Lagopus leucurus*) in Colorado. *Arctic and Alpine Research*, 5(1): 49-57. (1810) /Bib 32-1337/

**Miller, M.C. and J.P. Reed** (1975) II. Lakes. 3. North America. Benthic metabolism of arctic coastal ponds, Barrow, Alaska. *Verhandlung Internationale Vereinigung fur Limnologie*, 19: 459-465. /Bib 32-1338/

**Miller, M.C., R.T. Prentki and R.J. Barsdate** (1980) Physics. In *Limnology of Tundra Ponds, Barrow, Alaska* (J.E. Hobbie, Ed.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 51-75. /Bib 35-1750/

**Miller, O.K., Jr., G.A. Laursen and B.M. Murray** (1973) Arctic and alpine agarics from Alaska and Canada. *Canadian Journal of Botany*, 51(1): 43-49. (2487) /Bib 32-1339/

**Miller, O.K., Jr. and G.A. Laursen** (1974) Belowground fungal biomass on U.S. Tundra Biome sites at Barrow, Alaska. In *Soil Organisms and Decomposition in Tundra* (A.J. Holding et al., Eds). Stockholm: IBP Tundra Biome Steering Committee, pp. 151-158. (2488) /Bib 29-3355/

**Miller, O.K., Jr. and G.A. Laursen** (1978) Ecto- and endomycorrhizae of arctic plants at Barrow, Alaska. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 229-237. /Bib 33-4564/

**Miller, O.K., Jr., H.H. Burdsall, G.A. Laursen and I.B. Sachs** (In press) The status of *Calvatia cretacea* in arctic and alpine tundra. *Canadian Journal of Botany*.

**Miller, P.C.** (1978) Problems of synthesis in mineral cycling studies: The tundra as an example. In *Environmental Chemistry and Cycling Processes: Proceedings of Symposium, Augusta, Georgia, 28 April-1 May 1976* (D.C. Adriano and I.L. Brisbin, Jr., Eds.). U.S. Department of Energy, CONF-760429, pp. 57-71. (2942) /Bib 34-908/

**Miller, P.C.** (1979) Quantitative plant ecology. In *Analysis of Ecosystems* (D. Horn, G.R. Stairs and R.D. Mitchell, Eds.). Columbus: Ohio State University Press, pp. 179-232. /Bib 34-2495/

**Miller, P.C. and L.L. Tieszen** (1972) A preliminary model of processes affecting primary production in the arctic tundra. *Arctic and Alpine Research*, 4: 1-18. (1813) /Bib 26-3070/

**Miller, P.C., B.D. Collier and F.L. Bunnell** (1975) Development of ecosystem modeling in the Tundra Biome. In *Systems Analysis and Simulation in Ecology* (B.C. Patten, Ed.). New York: Academic Press, III: 95-115. (2489) /Bib 32-1340/

**Miller, P.C., W.A. Stoner and L.L. Tieszen** (1976) A model of stand photosynthesis for the wet meadow tundra at Barrow, Alaska. *Ecology*, 57(3): 411-430. (2752 and 2753) /Bib 31-2021/

**Miller, P.C., W.C. Oechel, W.A. Stoner and B. Sveinbjornsson** (1978) Simulation of CO<sub>2</sub> uptake and water relations for four arctic bryophytes at Point Barrow, Alaska. *Photosynthetic*, 12(1): 7-20. /Bib 34-1262/

**Miller, P.C., W.A. Stoner and J.R. Ehleringer** (1978) Some aspects of water relations of arctic and alpine regions. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 14, pp. 343-369. /Bib 33-4569/

**Miller, P.C., W.A. Stoner, L.L. Tieszen, M.L. Alessio, B.H. McCown, F.S. Chapin, III and G.R. Shaver** (1978) A model of carbohydrate, nitrogen, phosphorus allocation and growth in tundra production. In *Vegetation and Production Ecology of an Alaskan Arctic*

- Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 25, pp. 577-498. (4034) /Bib 33-4580/
- Miller, P.C., W.D. Billings and W.C. Oechel** (1979) A modeling approach to understanding plant adaptation to low temperatures. In *Comparative Mechanisms of Cold Adaptation* (L.S. Underwood, L.L. Tieszen, A.B. Callahan and G.E. Folk, Eds.). New York: Academic Press, pp. 181-214. /Bib 34-2144/
- Miller, P.C. and W.A. Stoner** (1979) Canopy structure and environmental interactions. In *Topics in Plant Population Biology* (O. Solbrig, S. Jain, G.B. Johnson and P.H. Raven, Eds.). New York: Columbia University Press, pp. 428-458. /Bib 35-1784/
- Miller, P.C., P.J. Webber, W.C. Oechel and L.L. Tieszen** (1980) Biophysical processes and primary production. In *An Arctic Ecosystem: The Coastal Tundra at Barrow, Alaska* (J. Brown, P.C. Miller, L.L. Tieszen and F.L. Bunnell, Eds.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 66-101. /Bib 35-1932/
- Mitchell, W.W. and J.D. McKendrick** (1975) Responses of arctic, boreal, and alpine biotypes in reciprocal transplants. In *Ecological Investigations of the Tundra Biome in the Prudhoe Bay Region, Alaska* (J. Brown, Ed.). Biological Papers of the University of Alaska, Special Report No. 2, pp. 92-111. (2490) /Bib 30-3311/
- Moore, R.T., J.R. Ehleringer, P.C. Miller, M.M. Caldwell and L.L. Tieszen** (1973) Gas exchange studies of four alpine tundra species at Niwot Ridge, Colorado. In *Primary Production and Production Processes, Tundra Biome* (L.C. Bliss and F.E. Wielgolaski, Eds.). Stockholm: IBP Tundra Biome Steering Committee, pp. 211-217. (1814) /Bib 31-1222/
- Murray, B.M. and D.F. Murray** (1975) Provisional checklist to the vascular, bryophyte, and lichen flora of Prudhoe Bay, Alaska. In *Ecological Investigations of the Tundra Biome in the Prudhoe Bay Region, Alaska* (J. Brown, Ed.). Biological Papers of the University of Alaska, Special Report No. 2, pp. 203-212. (2481) /Bib 30-3312/
- Murray, B.M. and D.F. Murray** (1978) Checklists of vascular plants, bryophytes, and lichens for the Alaskan U.S. IBP Tundra Biome study areas—Barrow, Prudhoe Bay and Eagle Summit. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Appendix I, pp. 647-677. (4035)
- Murray, D.M.** (1978) Vegetation, floristics, and phytogeography of northern Alaska. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 2, p. 19-36. (4036) /Bib 33-4557/
- Myers, J.P. and F.A. Pitelka** (1979) Variations in summer temperature patterns near Barrow, Alaska: Analysis and ecological interpretation. *Arctic and Alpine Research*, 11: 131-141. /Bib 34-1277/
- Nakano, Y. and J. Brown** (1972) Mathematical modeling and validation of the thermal regimes in tundra soils, Barrow, Alaska. *Arctic and Alpine Research*, 4: 19-38. (1815) /Bib 26-3071/
- Nelland, B.J. and J.R. Hok** (1975) Vegetation survey of the Prudhoe Bay region. In *Ecological Investigations of the Tundra Biome in the Prudhoe Bay Region, Alaska* (J. Brown, Ed.). Biological Papers of the University of Alaska, Special Report No. 2, pp. 72-78. (2492) /Bib 30-3309/
- Ng, E. and P.C. Miller** (1975) A model of the effect of tundra vegetation on soil temperatures. In *Climate of the Arctic* (G. Weller and S. Bowling, Eds.). Proceedings of the AAAS-AMA Symposium, Fairbanks, Alaska, August 1973. Geophysical Institute, University of Alaska, pp. 222-226. (2493) /Bib 30-2572/
- Ng, E. and P.C. Miller** (1977) Validation of a model of the effect of tundra vegetation on soil temperature. *Arctic and Alpine Research*, 9(2): 89-104. (2943) /Bib 31-4420/
- Norton, D.W.** (1971) Two Soviet recoveries of dunlins banded at Pt. Barrow, Alaska. *Auk*, 88(4): 927. (2494) /Bib 33-4680/

- Norton, D.W.** (1972) Incubation schedules of four species of calidridine sandpipers at Barrow, Alaska. *Condor*, **74**(2): 164-176. (1816) /Bib 32-1342/
- Norton, D.W. and U.N. Safriel** (1971) Homing by nesting semipalmated sandpipers displaced from Barrow, Alaska. *Bird-Banding*, **42**(4): 295-297. (1817 and 2496) /Bib 32-1328/
- Norton, D.W., I.W. Ailes and J.A. Curatolo** (1975) Ecological relationships of the inland tundra avifauna near Prudhoe Bay, Alaska. In *Ecological Investigations of the Tundra Biome in the Prudhoe Bay Region, Alaska* (J. Brown, Ed.). Biological Papers of the University of Alaska, Special Report No. 2, pp. 124-133. (2495) /Bib 32-1343/
- Oechel, W.C.** (1976) Seasonal patterns of temperature response of CO<sub>2</sub> flux and acclimation in arctic mosses growing *in situ*. *Photosynthetica*, **10**: 447-456. (4037) /Bib 32-1344/
- Oechel, W.C. and N.J. Collins** (1973) Seasonal patterns of CO<sub>2</sub> exchange in bryophytes at Barrow, Alaska. In *Primary Production and Production Processes, Tundra Biome* (L.C. Bliss and F.E. Wielgolaski, Eds.). Stockholm: IBP Tundra Biome Steering Committee, pp. 197-203. (1818) /Bib 31-1220/
- Oechel, W.C., P. Hicklenton, B. Sveinbjörnsson, P.C. Miller and W.A. Stoner** (1975) Temperature acclimation of photosynthesis in *D. fuscescens* growing *in situ* in the Arctic and Subarctic. *Proceedings of the Circumpolar Conference on Northern Ecology, Ottawa, 1975*. Ottawa: National Research Council of Canada, Scientific Committee on Problems of the Environment, pp. I-131 to I-144. (2944) /Bib 31-2553/
- Oechel, W.C. and N.J. Collins** (1976) Comparative CO<sub>2</sub> exchange patterns in mosses from two tundra habitats at Barrow, Alaska. *Canadian Journal of Botany*, **54**: 1335-1369. (4038) /Bib 33-4679/
- Oechel, W.C. and B. Sveinbjörnsson** (1978) Primary production processes in arctic bryophytes at Barrow, Alaska. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 11, pp. 269-298. (4039) /Bib 33-4566/
- Outcalt, S.I.** (1974) Gradient mapping of patterned ground characteristics from a photo-mosaic of the IBP Tundra Biome site near Barrow, Alaska. *Journal of Mathematical Geology*, **6**(3): 235-244. (1819) /Bib 32-1345/
- Outcalt, S.I., C. Goodwin, G. Weller and J. Brown** (1975) Computer simulation of the annual snowmelt and soil thermal regime at Barrow, Alaska. U.S. Army Cold Regions Research and Engineering Laboratory, Research Report 331. Also *Water Resources Research*, **13**(5): 709-715. (2497) /Bib 29-4001/
- Packer, J.G. and G.D. McPherson** (1974) Chromosome numbers in some vascular plants from northern Alaska. *Canadian Journal of Botany*, **52**: 1095-1099. (2498) /Bib 32-2826/
- Parkinson, R.J.** (1978) Genesis and classification of Arctic Coastal Plain soils, Prudhoe Bay, Alaska. Ohio State University, Institute of Polar Studies, Report No. 68, 147 pp. /Bib 33-2806/
- Person, S.J., R.G. White and J.R. Luick** (1975) *In vitro* digestibility of forages utilized by *Rangifer tarandus*. *Proceedings of the First International Reindeer and Caribou Symposium* (J.R. Luick, P.C. Lent, D.R. Klein and E.G. White, Eds.). Biological Papers of the University of Alaska, Special Report No. 1, pp. 251-256.\* (2499) /Bib 33-4675/
- Person, S.J., R.E. Pegau, R.G. White and J.R. Luick** (1980) *In vitro* and nylon-bag digestibilities of reindeer and caribou forages. *Journal of Wildlife Management*, **44**(3): 613-622. /Bib 35-848/
- Peterson, K.M. and W.D. Billings** (1975) Carbon dioxide flux from tundra soils and vegetation as related to temperature at Barrow, Alaska. *The American Midland Naturalist*, **94**(1): 88-98. (2500) /Bib 32-2802/
- Peterson, R.M. and G.O. Batzli** (1975) Activity patterns in natural populations of the brown lemming (*Lemmus trimucronatus*). *Journal of Mammalogy*, **56**(3): 718-720. (2051) /Bib 32-2801/



- Peterson, R.M., G.O. Batzli and E.M. Banks** (1976) Activity and energetics of the brown lemming in its natural habitat. *Arctic and Alpine Research*, **8**(2): 131-138. (2753) /Bib 32-2803/
- Pitelka, F.A.** (1973) Cyclic pattern in lemming populations near Barrow, Alaska. In *Alaska Arctic Tundra* (M.E. Britton, Ed.). Arctic Institute of North America, Technical Paper No. 25, pp. 199-215. (2503) /Bib 32-2807/
- Pitelka, F.A.** (1974) An avifaunal review for the Barrow region and North Slope of arctic Alaska. *Arctic and Alpine Research*, **6**(2): 161-184. (2502) /Bib 32-2827/
- Pitelka, F.A., R.T. Holmes and S.F. MacLean, Jr.** (1974) Ecology and evolution of social organization in arctic sandpipers. *American Zoologist*, **14**: 185-204. (2504) /Bib 32-2828/
- Prentki, R.T., M.C. Miller, R.J. Barsdate, V. Alexander, J.J. Kelley and P.I. Coyne** (1980) Chemistry. In *Limnology of Tundra Ponds, Barrow, Alaska* (J.E. Hobbie, Ed.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 76-178. /Bib 35-1751/
- Rastorfer, J.R.** (1972) Bryophyte taxa lists of the high Alaskan Arctic. Ohio State University, Institute of Polar Studies, 54 pp. (2505) /Bib 26-3878/
- Rastorfer, J.R.** (1974) Element contents of three Alaskan-Arctic mosses. *Ohio Journal of Science*, **74**(1): 55-59. (1820) /Bib 32-2806/
- Rastorfer, J.R.** (1976) Caloric values of three Alaskan-Arctic mosses. *The Bryologist*, **79**(1): 76-78. (2754) /Bib 32-2805/
- Rastorfer, J.R.** (1978) Composition and bryomass of the moss layers of two wet-tundra-meadow communities near Barrow, Alaska. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 6, pp. 169-183. (4040) /Bib 33-4561/
- Rastorfer, J.R., H.J. Webster and D.K. Smith** (1973) Floristic and ecologic studies of bryophytes of selected habitats at Prudhoe Bay, Alaska. Ohio State University, Institute of Polar Studies, Report No. 49, 20 pp. (1821 and 2506) /Bib 28-2202/
- Rickard, W.E., Jr. and J. Brown** (1974) Effects of vehicles on Arctic tundra. *Environmental Conservation*, **1**: 55-62. (1822) /Bib 30-1126/
- Safriel, U.N.** (1980) The semipalmated sandpiper in Alaska: Reproductive strategies and tactics. *British Ornithologists' Union*, **122**: 425. /Bib 35-4236/
- Schamel, D.M. and D. Tracy** (1977) Polyandry, replacement clutches, and site tenacity in the red phalarope (*Phalaropus fulicarius*) at Barrow, Alaska. *Bird-Banding*, **48**: 314-324. (4041) /Bib 34-2497/
- Schell, D.M. and V. Alexander** (1970) Improved incubation and gas sampling techniques for nitrogen fixation studies. *Limnology and Oceanography*, **15**(6): 961-962. (1824) /Bib 32-2804/
- Schell, D.M. and V. Alexander** (1973) Nitrogen fixation in arctic coastal tundra in relation to vegetation and microrelief. *Arctic*, **26**: 130-137. (1823) /Bib 28-1003/
- Seastedt, T.R. and S.F. MacLean** (1979) Territory size and composition in relation to resource abundance in Lapland longspurs breeding in arctic Alaska. *Auk*, **96**: 131-142. /Bib 35-4237/
- Shaver, G.R. and W.D. Billings** (1975) Root production and root turnover in a wet tundra ecosystem, Barrow, Alaska. *Ecology*, **56**(2): 401-409. (2507) /Bib 29-3928/
- Shaver, G.R. and W.D. Billings** (1976) Carbohydrate accumulation in tundra graminoid plants as a function of season and tissue age. *Flora*, Bd. **165**(4): 247-267. (2756) /Bib 32-2809/
- Shaver, G.R. and W.D. Billings** (1977) Effect of day length and temperature on root elongation in tundra graminoids. *Oecologia*, **28**: 57-65. /Bib 32-2810/
- Shaver, G.R., F.S. Chapin III and W.D. Billings** (1979) Ecotypic differentiation in *Carex aquatilis* on ice-wedge polygons in the Alaskan coastal tundra. *Journal of Ecology*, **67**: 1025-1046. (4042) /Bib 34-2496/

- Stanley, D.W.** (1976) Productivity of epipellic algae in tundra ponds and a lake near Barrow, Alaska. *Ecology*, **57**:1015-1024. (2759) /Bib 31-1285/
- Stanley, D.W.** (1976) Carbon flow model of epipellic algae productivity in Alaskan tundra ponds. *Ecology*, **57**: 1034-1042. (2757) /Bib 31-1287/
- Stanley, D.W. and R.J. Daley** (1976) Environmental control of primary productivity in Alaskan tundra ponds. *Ecology*, **57**: 1025-1033. (2759) /Bib 31-1286/
- Steere, W.C.** (1976) Ecology, phytogeography, and floristics of arctic Alaskan bryophytes. *Journal of Hattori Botanical Laboratory*, (41): 47-72. (2760) /Bib 32-2813/
- Steere, W.C.** (1978) Floristics, phytogeography, and ecology of arctic Alaskan bryophytes. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 4, pp. 141-167. (4043) /Bib 33-4560/
- Steere, W.C. and B.M. Murray** (1974) The geographical distribution of *Bryum wrightii* in arctic and boreal North America. *The Bryologist*, **77**(2): 172-178. (2508) /Bib 32-2812/
- Stoner, W.A. and P.C. Miller** (1975) Water relations of plant species in the wet coastal tundra at Barrow, Alaska. *Arctic and Alpine Research*, **7**(2): 109-124. (2509) /Bib 29-3909/
- Stoner, W.A., P.C. Miller and P.M. Miller** (1978) A test of a model of irradiance within vegetation canopies at northern latitudes. *Arctic and Alpine Research*, **10**: 761-767. /Bib 33-1426/
- Stoner, W.A., P.C. Miller and W.C. Oechel** (1978) Simulation of the effect of the tundra vascular plant canopy on the productivity of four moss species. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 16, pp. 371-387. /Bib 33-4571/
- Stoner, W.A., P.C. Miller, S.P. Richards and S.A. Barkley** (1978) Internal nutrient cycling as related to plant life-forms: A simulation approach. In *Environmental Chemistry and Cycling Processes: Proceedings of Symposium, Augusta, Georgia, 28 April-1 May 1976* (D.C. Adriano and I.L. Brisbin, Jr., Eds.). U.S. Department of Energy, CONF-760429, pp. 165-181. (2946)
- Stoner, W.A., P.C. Miller and L.L. Tieszen** (1978) A model of plant growth and phosphorus allocation for *Dupontia fisheri* in coastal, wet meadow tundra. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 24, pp. 559-576. (4044) /Bib 33-4579/
- Stross, R.G.** (1975) Causes of daily rhythms in photosynthetic rate of phytoplankton. II: Phosphate control of expression in tundra ponds. *Biology Bulletin*, **149**: 408-418. (2510) /Bib 32-2811/
- Stross, R.G. and S.M. Penrick** (1974) Nutrient uptake kinetics in phytoplankton, a basis for niche separation. *Journal of Phycology*, **10**(2): 164-169. (1825) /Bib 32-2815/
- Stross, R.G., P.A. Nobbs and S.W. Chisholm** (1979) SUNDAY, a simulation model of an arctic *Daphnia* population. *Oikos*, **32**: 349-362. /Bib 35-1785/
- Stross, R.G., M.C. Miller and R.J. Daley** (1980) Zooplankton. In *Limnology of Tundra Ponds, Barrow, Alaska* (J.E. Hobbie, Ed.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 251-296. /Bib 35-1753/
- Sveinbjörnsson, B. and W.C. Oechel** (1981) Controls on CO<sub>2</sub> exchange in two *Polytrichum* moss species. 1. Field studies on the tundra near Barrow, Alaska. *Oikos*, **36**: 114-128. /Bib 36-3562/
- Sveinbjörnsson, B. and W.C. Oechel** (1981) Controls on CO<sub>2</sub> exchange in two *Polytrichum* moss species. 2. The implications of belowground plant parts on the whole plant carbon balance. *Oikos*, **36**(3): 348-354. /Bib 47-1525/
- Tieszen, L.L.** (1972) The seasonal course of aboveground production and chlorophyll distribution in a wet arctic tundra at Barrow, Alaska. *Arctic and Alpine Research*, **4**(4): 307-324. (1828) /Bib 28-3281/

- Tieszen, L.L.** (1972) Photosynthesis in relation to primary production. *Proceedings, IV International Meeting on the Biological Productivity of Tundra, Leningrad, U.S.S.R.* (F.E. Wielgolaski and T. Rosswall, Eds.). Stockholm: IBP Tundra Biome Steering Committee, pp. 52-62. (1827) /Bib 27-2657/
- Tieszen, L.L.** (1973) Photosynthesis and respiration in arctic tundra grasses: Field light intensity and temperature responses. *Arctic and Alpine Research*, 5(3): 239-251. (2511) /Bib 28-667/
- Tieszen, L.L.** (1974) Photosynthetic competence of the subnivean vegetation of an arctic tundra. *Arctic and Alpine Research*, 6(3): 253-256. (1826) /Bib 29-1374/
- Tieszen, L.L.** (1975) CO<sub>2</sub> exchange in the Alaskan arctic tundra: Seasonal changes in the rate of photosynthesis of four species. *Photosynthetica*, 9(4): 376-390. (2947) /Bib 32-2814/
- Tieszen, L.L.** (Ed.) (1978) *Vegetation and Production Ecology of an Alaskan Arctic Tundra*. New York: Springer-Verlag, 686 pp. /Bib 34-4556-4581/
- Tieszen, L.L.** (1978) Introduction. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 1, pp. 3-18. (4045) /Bib 33-4556/
- Tieszen, L.L.** (1978) Photosynthesis in the principal Barrow, Alaska, species: A summary of field and laboratory responses. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 10, pp. 241-268. /Bib 33-4565/
- Tieszen, L.L.** (1978) Summary. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 27, pp. 621-645. /Bib 33-4556/
- Tieszen, L.L., D.A. Johnson and M.M. Caldwell** (1973) A portable system for the measurement of photosynthesis using carbon-14 dioxide. *Proceedings of Interbiome Workshop on Gaseous Exchange Methodology in Terrestrial Primary Production*. Oak Ridge National Laboratory, EDFB-IBP-73-6, pp. 79-93. [Also *Photosynthetica*, 8(3): 151-160, 1974.] (2512 and 2948) /Bib 32-2829/
- Tieszen, L.L. and D.C. Sigurdson** (1973) Effect of temperature on carboxylase activity and stability in some Calvin cycle grasses from the Arctic. *Arctic and Alpine Research*, 5(1): 59-66. (2515) /Bib 27-3069/
- Tieszen, L.L., D.A. Johnson and M.L. Alessio** (1974) Translocation of photosynthetically assimilated <sup>14</sup>CO<sub>2</sub> in three arctic grasses in situ at Barrow, Alaska. *Canadian Journal of Botany*, 52(10): 2189-2193. (2514) /Bib 32-2830/
- Tieszen, L.L., D.A. Johnson and M.M. Caldwell** (1974) A portable system for the measurement of photosynthesis using <sup>14</sup>CO<sub>2</sub>. *Photosynthetica*, 8(3): 151-160. /Bib 32-2829/
- Tieszen, L.L. and D.A. Johnson** (1975) Seasonal pattern of photosynthesis in individual grass leaves and other plant parts in arctic Alaska with a portable <sup>14</sup>CO<sub>2</sub> system. *Botanical Gazette*, 136(1): 99-105. (2513) /Bib 32-2831/
- Tieszen, L.L. and N.K. Wieland** (1975) Physiological ecology of arctic and alpine photosynthesis and respiration. In *Physiological Adaptation to the Environment* (F.J. Vernberg, Ed.). New York: Intext Educational Publishers, pp. 157-200. (2516) /Bib 33-4669/
- Tieszen, L.L., P.C. Miller and W.C. Oechel** (1980) Photosynthesis. In *An Arctic Ecosystem: The Coastal Tundra at Barrow, Alaska* (J. Brown, P.C. Miller, L.L. Tieszen and F.L. Bunnell, Eds.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 102-139. /Bib 35-1933/
- Tieszen, L.L., M.C. Lewis, P.C. Miller, J. Mayo, F.S. Chapin III and W. Oechel** (1981) An analysis of processes of primary production in tundra growth forms. In *Tundra Ecosystems: A Comparative Analysis* (L.C. Bliss, O.W. Heal and J.J. Moore, Eds.). Cambridge: Cambridge University Press, pp. 285-356. /Bib 35-3384/
- Timin, M.E. and B.D. Collier** (1972) Simulating the arctic tundra ecosystem near Barrow,

- Alaska. *Proceedings, Summer Computer Simulation Conference, 1972, San Diego*, pp. 1198-1204. (1829) /Bib 32-2833/
- Tiwari, J.L.** (1979) A modeling approach based on stochastic differential equations, the principles of maximum-entropy, and Bayesian inference for parameters. In *Compartmental Analysis of Ecosystem Models* (J.H. Matis, B.C. Patten and G.C. White, Eds.). Fairland, Maryland: International Cooperative Publishing House, pp. 167-194. /Bib 35-4234/
- Tiwari, J.L. and J.E. Hobbie** (1976) Random differential equations as models of ecosystems: Monte Carlo simulation approach. *Mathematical Biosciences*, **28**: 25-44. (2517 and 2949) /Bib 32-2818/
- Tiwari, J.L. and J.E. Hobbie** (1976) Random differential equations as models of ecosystems. II. Initial conditions and parameter specifications in terms of maximum entropy distribution. *Mathematical Biosciences*, **31**: 37-53. /Bib 32-2816/
- Tiwari, J.L., J.F. Haney and B.J. Peterson** (1976) Computer simulation of the empirically determined diet feeding rhythm of *Daphnia*. *The Biological Bulletin*, **151**(2): 433. (2760) /Bib 32-2817/
- Tiwari, J.L., J.E. Hobbie, J.P. Reed, D.W. Stanley and M.C. Miller** (1978) Some stochastic differential equation models of an aquatic ecosystem. *Ecological Modeling*, **4**(1): 3-27. (4046) /Bib 32-2832/
- Tiwari, J.L., J.E. Hobbie and B.J. Peterson** (1978) Random differential equations as models of ecosystems. III. Bayesian inference for parameters. *Mathematical Biosciences*, **38**(3-4): 247-258. (4047) /Bib 34-533/
- Tiwari, J.L., R.D. Daley, J.E. Hobbie, M.C. Miller, D.W. Stanley and J.P. Reed** (1980) Modeling. In *Limnology of Tundra Ponds, Barrow, Alaska* (J.E. Hobbie, Ed.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 407-456. /Bib 35-1757/
- Tolbert, W.W., V.R. Tolbert and R.E. Ambrose** (1977) Distribution, abundance, and biomass of Colorado alpine tundra arthropods. *Arctic and Alpine Research*, **9**(3): 221-234. (4048) /Bib 32-2834/
- Tryon, P.R. and S.F. MacLean, Jr.** (1980) Use of space by Lapland longspurs breeding in arctic Alaska. *The Auk*, **97**: 509-520. /Bib 35-1683/
- Ulrich, A. and P.L. Gersper** (1978) Plant nutrient limitations of tundra plant growth. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 20, pp. 457-481. (4049) /Bib 33-4575/
- Underwood, L.S.** (1975) Notes on the arctic fox (*Alopex lagopus*) in the Prudhoe Bay area of Alaska. In *Ecological Investigations of the Tundra Biome in the Prudhoe Bay Region, Alaska* (J. Brown, Ed.). Biological Papers of the University of Alaska, Special Report No. 2, pp. 144-149. (2518) /Bib 32-2819/
- Van Cleve, K.** (1974) Organic matter quality in relation to decomposition. In *Soil Organisms and Decomposition in Tundra* (A.J. Holding et al., Eds). Stockholm: IBP Tundra Biome Steering Committee, pp. 311-324. (1830) /Bib 29-3363/
- Van Cleve, K.** (1979) Recovery of disturbed tundra and taiga surfaces in Alaska. In *Recovery and Restoration of Damaged Ecosystems* (J. Cairns, Jr., K.L. Dickson and E.E. Herricks, Eds.). Charlottesville, Va.: University Press of Virginia, pp. 422-455. (4050) /Bib 31-4434/
- Van Cleve, K. and V. Alexander** (1981) Nitrogen cycling in tundra and boreal ecosystems. In *Terrestrial Nitrogen Cycles* (F.E. Clark and T. Rosswall, Eds.). Stockholm: Ecological Bulletins, **33**: 375-404. /Bib 37-2557/
- Van Cleve, K. and R.G. White** (1980) Forest floor nitrogen dynamics in a 60-year-old paper birch ecosystem in interior Alaska. *Plant and Soil*, **54**: 359-381. /Bib 35-988/
- Walker, D.A.** (1981) Prudhoe Bay, Alaska, U.S.A. In *Tundra Ecosystems: A Comparative Analysis* (L.C. Bliss, O.W. Heal and J.J. Moore, Eds.). Cambridge: Cambridge University Press, pp. 776-777. /Bib 35-3401/

- Walker, D.A., P.J. Webber, K.R. Everett and J. Brown** (1978) Effects of crude oil and diesel oil spills on plant communities at Prudhoe Bay, Alaska, and the derivation of oil spill sensitivity maps. *Arctic*, 31: 242-259. /Bib 33-2793/
- Walker, D.A. and P.J. Webber** (1979) Relationships of soil acidity and air temperature to the wind and the effect on vegetation at Prudhoe Bay, Alaska. *Arctic*, 32: 224-236. /Bib 34-688/
- Walker, D.A., K.R. Everett, P.J. Webber and J. Brown** (1980) Geobotanical atlas of the Prudhoe Bay region, Alaska. U.S. Army Cold Regions Research and Engineering Laboratory, CRREL Report 80-14, 73 pp. /Bib 35-2150/
- Walker, D.A., S.K. Short, J.T. Andrews and P.J. Webber** (1981) Late Holocene pollen and present-day vegetation, Prudhoe Bay and Atigun River, Alaskan North Slope. *Arctic and Alpine Research*, 13(2): 153-172. /Bib 35-4089/
- Webber, P.J.** (1974) Tundra primary productivity. In *Arctic and Alpine Environments* (J.D. Ives and R.G. Barry, Eds.). London: Methuen, pp. 445-473. (1831) /Bib 32-2821/
- Webber, P.J.** (1977) Belowground tundra research: A commentary. *Arctic and Alpine Research*, 9(2): 105-112. (2952) /Bib 31-4421/
- Webber, P.J.** (1978) Spatial and temporal variation of the vegetation and its production, Barrow, Alaska. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 3, pp. 37-112. (4051) /Bib 33-4558/
- Webber, P.J.** (1981) Niwot Ridge, Colorado, U.S.A. In *Tundra Ecosystems: A Comparative Analysis* (L.C. Bliss, O.W. Heal and J.J. Moore, Eds.). Cambridge: Cambridge University Press, pp. 780-781. /Bib 35-3403/
- Webber, P.J. and D.A. Walker** (1975) Vegetation and landscape analysis at Prudhoe Bay, Alaska: A vegetation map of the Tundra Biome study area. In *Ecological Investigations of the Tundra Biome in the Prudhoe Bay Region, Alaska* (J. Brown, Ed.). Biological Papers of the University of Alaska, Special Report No. 2, pp. 80-91. (2519) /Bib 30-3310/
- Webber, P.J. and D.E. May** (1977) The magnitude and distribution of belowground plant structures in the alpine tundra of Niwot Ridge, Colorado. *Arctic and Alpine Research*, 9(2): 157-174. (2954) /Bib 31-4426/
- Webber, P.J. and J.D. Ives** (1978) Damage and recovery of tundra vegetation. *Environmental Conservation*, 5(3): 171-182. (2953) /Bib 33-1266/
- Webber, P.J., P.C. Miller, F.S. Chapin, III and B.H. McCown** (1980) The vegetation: Pattern and succession. In *An Arctic Ecosystem: The Coastal Tundra at Barrow, Alaska* (J. Brown, P.C. Miller, L.L. Tieszen and F.L. Bunnell, Eds.). Stroudsburg, Pa.: Dowden, Hutchinson and Ross, pp. 187-218. /Bib 35-1935/
- Weller, G. and B. Holmgren** (1974) The microclimates of the arctic tundra. *Journal of Applied Meteorology*, 13: 854-862. (2520) /Bib 29-2395/
- Weller, G., S. Cubley, S. Parker, D. Trabant and C. Benson** (1972) The tundra microclimate during snow-melt at Barrow, Alaska. *Arctic*, 25(4): 291-300. (1832) /Bib 27-2485/
- West, G.C.** (1975) Tundra. In *McGraw-Hill Yearbook of Science and Technology*. New York: McGraw-Hill, pp. 407-410. (2521) /Bib 32-2820/
- West, G.C.** (1976) Environmental problems associated with arctic development, especially in Alaska. *Environmental Conservation*, 3(3): 218-224. (4052) /Bib 32-2822/
- West, G.C. and B.B. DeWolfe** (1974) Populations and energetics of taiga birds near Fairbanks, Alaska. *Auk*, 91(4): 757-775. (2522) /Bib 32-2823/
- West, G.C. and D.W. Norton** (1975) Metabolic adaptations of tundra birds. In *Physiological Adaptation to the Environment* (F.J. Vernberg, Ed.). New York: Intext Educational Publishers, pp. 301-329. (2523) /Bib 33-4672/
- White, C.M. and T.J. Cade** (1971) Cliff-nesting raptors and ravens along the Colville River in arctic Alaska. In *The Living Birds*, Cornell Laboratory of Ornithology, pp. 107-150. (1833) /Bib 32-2824/

- White, R.G.** (1975) Some aspects of nutritional adaptation of arctic herbivorous mammals. In *Physiological Adaptation to the Environment* (F.J. Vernberg, Ed.). New York: Intext Educational Publishers, pp. 239-268. (2524) /Bib 33-4671/
- White, R.G.** (1975) Factors regulating the food intake of caribou and reindeer on tundra ranges. *Proceedings of the Circumpolar Conference on Northern Ecology, Ottawa, 1975*. Ottawa: National Research Council of Canada, Scientific Committee on Problems of the Environment, pp. I-227 to I-233. (2955) /Bib 34-0564/
- White, R.G.** (1979) Nutrient acquisition and utilization in arctic herbivores. In *Comparative Mechanisms of Cold Adaptation* (L.S. Underwood, L.L. Tieszen, A.B. Callahan and G.E. Folk, Eds.). New York: Academic Press, pp. 13-50. /Bib 34-2144/
- White, R.G. and A.M. Gau** (1975) Volatile fatty acid (VFA) production in the rumen and cecum of reindeer. *Proceedings of the First International Reindeer and Caribou Symposium* (J.R. Luick, P.C. Lent, D.R. Klein and R.G. White, Eds.). Biological Papers of the University of Alaska, Special Report No. 1, pp. 284-289. (2525) /Bib 33-4676/
- White, R.G., B.R. Thomson, T. Skogland, S.J. Person, D.E. Russell, D.F. Holleman and J.R. Luick** (1975) Ecology of caribou at Prudhoe Bay, Alaska. In *Ecological Investigations of the Tundra Biome in the Prudhoe Bay Region, Alaska* (J. Brown, Ed.). Biological Papers of the University of Alaska, Special Report No. 2, pp. 150-201. (2526) /Bib 32-2825/
- White, R.G. and J.R. Luick** (1976) Glucose metabolism in lactating reindeer. *Canadian Journal of Zoology*, **54**(1): 55-64.\* (2761) /Bib 32-2808/
- White, R.G. and M.K. Yousef** (1978) Energy expenditures in reindeer walking on roads and tundra. *Canadian Journal of Zoology*, **56**(2): 215-223. (4053) /Bib 32-3645/
- White, R.G., F.L. Bunnell, E. Gaare, T. Skogland and B. Hubert** (1981) Ungulates on arctic ranges. In *Tundra Ecosystems: A Comparative Analysis* (L.C. Bliss, O.W. Heal and J.J. Moore, Eds.). Cambridge: Cambridge University Press, pp. 397-483. /Bib 35-3387/
- Whitney, P.** (1977) Seasonal maintenance and net production of two sympatric species of subarctic microtine rodents. *Ecology*, **58**: 314-325. (4054) /Bib 32-2935/
- Williams, M.E., E.D. Rudolph and E.A. Schofield** (1975) Selected data on lichens, mosses, and vascular plants on the Prudhoe Bay tundra. In *Ecological Investigations of the Tundra Biome in the Prudhoe Bay Region, Alaska* (J. Brown, Ed.). Biological Papers of the University of Alaska, Special Report No. 2, pp. 213-215. (2527) /Bib 30-3313/
- Williams, M.E., E.D. Rudolph, E.A. Schofield and D.C. Prasher** (1978) The role of lichens in the structure, productivity, and mineral cycling of the wet coastal Alaskan tundra. In *Vegetation and Production Ecology of an Alaskan Arctic Tundra* (L.L. Tieszen, Ed.). New York: Springer-Verlag, Chapter 7, pp. 185-206. (4055) /Bib 33-4562/

## Ph.D. DISSERTATIONS

- Bilgin, Aytakin** (1975) Nutrient status of surface waters as related to soils and other environmental factors in a tundra ecosystem. Rutgers University, 219 pp. (4056) /Bib 30-1499/ (UMF 75-17432)
- Bunnell, Fred L.** (1973) Computer simulation of nutrient and lemming cycles in an arctic tundra wet meadow ecosystem. University of California (Berkeley), 312 pp.\* (4058)
- Chapin, F. Stuart III** (1973) Morphological and physiological mechanisms of temperature compensation in phosphate absorption along a latitudinal gradient. Stanford University, 134 pp.\* (4060) /UMF 76-6456/
- Chisholm, Sallie W.** (1974) Studies on daily rhythms of phosphate uptake in *Euglena* and their potential ecological significance. State University of New York (Albany), 150 pp. (4061) (UMF 75-4288)
- Coady, John W.** (1975) Bioenergetics of the brown lemming (*Lemmus sibiricus*). University of Alaska, 117 pp.\* (4063) (UMF 76-20242)
- Custer, Thomas W.** (1975) Population ecology and bioenergetics of the Lapland longspur (*Calcarius lapponicus*) near Barrow, Alaska. University of California (Berkeley), 189 pp. (4065)
- Douce, G. Keith** (1976) The role of soil fauna in litter decomposition processes in arctic tundra, evaluated by field and systems analysis techniques. University of Georgia, 117 pp. (4067) (UMF 77-04115)
- Emerick, John C.** (1976) Effects of artificially increased winter snow cover on plant canopy architecture and primary production in selected areas of Colorado alpine tundra. University of Colorado, 193 pp. (4069) /Bib 31-3254/ (UMF 76-23605)
- Flock, JoAnn Walton** (1976) The influence of snow cover and soil moisture on bryophyte and lichen distribution, Niwot Ridge, Boulder County, Colorado. University of Colorado, 168 pp. (4071) /Bib 31-3255/ (UMF 76-23609)
- Goodwin, Cecil W.** (1976) Process interaction and soil temperature near Point Barrow, Alaska. University of Michigan, 258 pp. (4073) (UMF 76-19143)
- Johnson, Douglas A.** (1975) Gas exchange and water relations of two alpine and two arctic tundra plant species. Utah State University, 122 pp. (4075) (UMF 76-25612)
- Komárková, Vera** (1976) Alpine vegetation of the Indian Peaks area, Front Range, Colorado Rocky Mountains. University of Colorado, 450 pp.\* (4077) /Bib 32-1048/ (UMF 77-11304)
- Laursen, Gary A.** (1975) Higher fungi in soils of coastal arctic tundra plant communities. Virginia Polytechnic Institute and State University, 370 pp. (4078) /Bib 32-1786/ (UMF 76-11116)
- May, Diane E.** (1976) The response of alpine tundra vegetation in Colorado to environmental variation. University of Colorado, 164 pp. (4083) /Bib 31-3256/ (UMF 76-23653)
- May, Terry A.** (1975) Physiological ecology of white-tailed ptarmigan in Colorado. University of Colorado, 311 pp. (4084) (UMF 75-23622)
- Norton, David W.** (1973) Ecological energetics of calidridine sandpipers breeding in northern Alaska. University of Alaska, 163 pp. (4087) (UMF 73-22700)

---

\* Cooperative.  
(UMF) University Microfilms International order number.

- Person, Steven J.** (1975) Digestibility of indigenous plants utilized by *Rangifer tarandus*. University of Alaska, 97 pp.\* (4090) (UMF 76-16371)
- Prentki, Richard T.** (1976) Phosphorus cycling in tundra ponds. University of Alaska, 275 pp. (4093) (UMF 77-8562)
- Shaver, Gaius R.** (1976) Ecology of roots and rhizomes in graminoid plants of the Alaskan coastal tundra. Duke University. (4097) /Bib 32-1049/ (UMF 77-11860)
- Smith, David K.** (1974) Floristic, ecologic, and phytogeographic studies of the bryophytes in the tundra around Barrow, Alaska. University of Tennessee, 202 pp.\* (4099) /Bib 30-567/ (UMF 75-3641)
- Stanley, Donald W.** (1974) Production ecology of epipelagic algae in Alaskan tundra ponds. North Carolina State University, 151 pp. (4100) (UMF 75-15165)
- Sveinbjörnsson, Bjartmar** (1979) Controls on CO<sub>2</sub> exchange in arctic *Polytrichum* mosses. McGill University, Montreal, 190 pp. /Bib 36-3584/
- Walker, Donald A.** (1981) The vegetation and environmental gradients of the Prudhoe Bay region, Alaska. University of Colorado, 484 pp. /Bib 36-1374/
- Whitney, Paul H.** (1973) Population biology and energetics of three species of small mammals in the taiga of interior Alaska. University of Alaska, 258 pp.\* (4104) (UMF 73-26149)

#### MASTERS THESES

(M.S. unless otherwise stated)

- Ashkenazie, S.** (1975) Time-energy budget of the semipalmated sandpiper *Calidris pusilla* at Barrow, Alaska. Hebrew University of Jerusalem, 152 pp.
- Barkley, Sylvia A.** (1976) The influence of mineral nutrition on the lemmings of Point Barrow, Alaska. San Diego State University, 110 pp.
- Buechler, Dennis G.** (1972) Phosphorus regeneration studies in freshwater ciliates. University of South Dakota (Vermillion), 35 pp. (4057)
- Challinor, Josephine L.** (1971) Vehicle perturbation effects upon a tundra soil-plant system. University of California (Berkeley), 240 pp. (4059)
- Cheslak, Edward F.** (1976) Activity patterns and runway utilization of the brown lemming, *Lemmus trimucronatus*. San Diego State University, 94 pp.
- Clement, Lawrence E.** (1975) The ecology of *Tipula carinifrons* Holm. (Diptera, Tipulidae) in the arctic coastal tundra of northern Alaska. University of Alaska, 96 pp. (4062)
- Cole, Frederick R.** (1974) Food habits and digestive efficiencies of two microtine rodents, *Lemmus trimucronatus* and *Microtus ochrogaster*. University of Illinois, M.S. Research Report, 31 pp. (4064)
- Douce, G. Keith** (1973) The population dynamics and community analysis of the Acarina of the arctic coastal tundra. University of Georgia, 69 pp. (4066)
- Ehleringer, James R.** (1973) Water relations in the alpine tundra, Niwot Ridge, Colorado. San Diego State University, 111 pp. (4068)
- Fareed, Marcee** (1973) Canopy structure and phenology of alpine tundra vegetation. Utah State University, 43 pp. (4070)
- Federle, Thomas W.** (1976) The interaction of seston and zooplankton in arctic ponds. University of Cincinnati, 60 pp.
- Goodwin, Cecil W.** (1972) An annual active layer simulator for permafrost regions. University of Michigan, 71 pp. (4022)
- Harris, Richard W.** (1975) Estimation of microbial biomass in natural and perturbed tundra by the ATP bioluminescence assay. Virginia Polytechnic Institute and State University.
- Johanson, Douglas A.** (1973) Field measurements of photosynthesis and leaf growth rates of three alpine plant species. Utah State University, 30 pp. (4074)



- Johnston, Mary H.S.** (1975) Bacterial biomass and nitrogen transformations in arctic tundra soils near Barrow, Alaska. University of Alaska, 85 pp.
- Kallendorf, Robert J.** (1974) Population dynamics and productivity of *Lepidurus arcticus* and its ecological relation to benthic processes in arctic coastal ponds. University of Cincinnati, 107 pp. (4076)
- Lawrence, Bruce A.** (1974) A model of the population dynamics of *Dupontia fisheri*. San Diego State University, 104 pp.\* (4079)
- LeDrew, Ellsworth F.** (1974) The radiation and energy budget of an alpine tundra in Colorado during the growing season, 1973. University of Colorado, 147 pp. and appendix. (4080)
- Lindholm, George R.** (1972) Studies of nitrate reduction of Eagle Summit soils and isolate cultures. University of Alaska, 64 pp. (4081)
- May, Diane E.** (1973) Models for predicting composition and production of alpine tundra vegetation from Niwot Ridge, Colorado. M.A., University of Colorado, 99 pp. (4082)
- Munn, Norton R.** (1973) An examination of the inorganic nitrogen status of a soil of the Alaskan coastal tundra plain. Utah State University, 58 pp. (4085)
- Ng, Edward** (1974) Soil moisture relations in chaparral. San Diego State University, 114 pp.\* (4086)
- Parkinson, Robert J.** (1977) Genesis and classification of arctic coastal plain soils, Prudhoe Bay, Alaska. The Ohio State University, 170 pp.
- Penhale, Polly A.** (1972) Food requirements of the nine-spined stickleback, *Pungitius pungitius*, in an arctic tundra lake of northern Alaska. North Carolina State University, 35 pp. (4089)
- Peterson, Roy M., Jr.** (1973) The effects of different degrees of thinning on the rate of decomposition of organic matter in a white spruce forest in interior Alaska. University of Alaska, 124 pp.\* (4092)
- Reed, James P.** (1974) Benthic metabolism in arctic coastal ponds. University of Cincinnati, 118 pp. (4094)
- Rublee, Parke** (1974) Production of bacteria in a pond. North Carolina State University, 39 pp. (4095)
- Russell, Donald E.** (1976) Computer simulation of *Rangifer* energetics. University of British Columbia, 93 pp. (4096)
- Simons, Alex P.** (1973) A pedological investigation of high-centered polygons in the vicinity of Barrow, Alaska. University of California (Berkeley), 156 pp. (4098)
- Stoner, Wayne A.** (1974) Water relations in the wet coastal tundra around Barrow, Alaska. San Diego State University, 71 pp. (4101)
- Strome, D.J.** (1976) Decomposition of dissolved humic materials in arctic ponds. University of Cincinnati, 60 pp.
- Trent, Alex W.** (1972) Measurement of root growth and respiration in arctic plants. M.A., Duke University, 75 pp. (4102)
- Walker, Donald A.** (1977) The analysis of effectiveness of a television scanning densitometer for indicating geobotanical features in an ice-wedge polygon complex at Barrow, Alaska. M.A., University of Colorado, 132 pp. (4103)
- Walters, David M.** (1974) Thermoregulation in the brown lemming (*Lemmus trimucronatus*) and the collared lemming (*Dicrostonyx groenlandicus*). M.A., San Diego State University, 86 pp.

END

FILMED

02 - 84

DTIC