CURRICULUM VITA

THOMAS A. HANLEY

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EDUCATION

B.S. 1973 Arizona State University
 M.S. 1976 Arizona State University
 Ph.D. 1980 University of Washington
 Wildlife Biology with Honors
 Range Ecology
 Forest Zoology

ity of Washington Forest Zoology
Emphasis on herbivore-plant interactions

Honorary Societies: Beta Beta Beta, Xi Sigma Pi

PROFESSIONAL EXPERIENCE

Wildlife Biologist, U.S. Dept. Interior, Bureau of Land Management, Cedarville, California. 1976-

Research Wildlife Biologist, U.S. Dept. Agriculture, Forest Service, Pacific Northwest Research Station, Juneau, Alaska. 1980-1991.

Chief Wildlife Biologist and Team Leader, Alaska Wildlife Habitat Team (Juneau) and Boreal Ecology Cooperative Research Unit (Fairbanks), U.S. Dept. Agriculture, Forest Service, Pacific Northwest Research Station, Juneau, Alaska. 1991-Present.

UNIVERSITY AND OTHER APPOINTMENTS

University of Alaska, Fairbanks. Department of Biology, Fisheries, and Wildlife. Affiliate Associate Professor of Wildlife Biology, 1984-1996; Affiliate Professor, 1996-Present.

Washington State University, Pullman. Department of Natural Resource Sciences. Adjunct Associate Professor of Wildlife Biology, 1985-1995.

University of Washington, Seattle. College of Forest Resources. Affiliate Associate Professor, 1990-1995.

United States Man and the Biosphere (MAB) Program. Member of High Latitude Ecosystems Directorate, 1992-2000. United States Representative to United Nations UNESCO MAB Northern Sciences Network, 1994-2000. Chair of High Latitude Ecosystems Directorate and Member of U.S. MAB National Committee, 1997-2000.

PROFESSIONAL SOCIETIES

American Association for the Advancement of Science, 1975-1994.

(Area 1 Representative of the Arctic Division, 1990-1992)

Ecological Society of America, 1978-1994.

International Association for Ecology, 1990-1994.

Northwest Scientific Association, 1980-Present.

(Board of Trustees, 1990-1993)

Society for Range Management, 1975-1989.

(Editorial Board member and Associate Editor of *Journal of Range Management*, 1985-1989)

The Wildlife Society, 1974-1989.

(Vice President of Alaska Chapter, 1982-1983)

THESES

- 1976. Carrying capacity relationships of feral burro (*Equus asinus*) habitat in a Sonoran Desert ecosystem. M.S. thesis, Arizona State University, Tempe. 156 pp.
- 1980. Nutritional constraints on food and habitat selection by sympatric ungulates. Ph.D. dissertation, University of Washington, Seattle. 176 pp.

AWARDS

- 1986. **Publication of the Year Award** for the Outstanding Article in Wildlife Ecology and Management, 1986. The Wildlife Society, Bethesda, Maryland. Shared with K.L. Parker and C.T. Robbins, "Energy expenditures for locomotion by mule deer and elk."
- 1989. Certificate of Merit "For outstanding leadership of a team of scientists on important processes of herbivory." U.S. Department of Agriculture, Washington, D.C.
- 1992. **Publication of the Year Award** for the Outstanding Article in Wildlife Ecology and Management, 1992. The Wildlife Society, Bethesda, Maryland. Shared with N.T. Hobbs, "Habitat evaluation: do use/availability data reflect carrying capacity?"
- 1998. Certificate of Merit "For high productivity of research outputs from a 10-year program of study of interactions of plants and wildlife in riparian ecosystems." U.S. Department of Agriculture, Washington, D.C.

PUBLICATIONS

Journal Articles

- Hanley, T.A. and W.W. Brady. 1977. Seasonal fluctuations in nutrient content of feral burro forages, Lower Colorado River Valley, Arizona. *Journal of Range Management* 30:370-373.
- Hanley, T.A. and W.W. Brady. 1977. Feral burro impact on a Sonoran Desert range. *Journal of Range Management* 30:374-377.
- Hanley, T.A. 1978. A comparison of the line-interception and quadrat estimation methods of determining shrub canopy coverage. *Journal of Range Management* 31:60-62.
- Hanley, T.A. 1979. Application of an herbivore-plant model to rest-rotation grazing management on shrub-steppe rangeland. *Journal of Range Management* 32:115-118.
- Hanley, T.A. and R.D. Taber. 1980. Selective plant species inhibition by elk and deer in three conifer communities in western Washington. *Forest Science* 26:97-107.
- Hanley, T.A. and J.L. Page. 1982. Differential effects of livestock use on habitat structure and rodent populations in Great Basin communities. *California Fish and Game* 68:160-173.
- Hanley, T.A. 1982. The nutritional basis for food selection by ungulates. *Journal of Range Management* 35:146-151.
- Hanley, T.A. and K.A. Hanley. 1982. Food resource partitioning by sympatric ungulates on Great Basin rangeland. *Journal of Range Management* 35:152-158.
- Hanley, T.A. 1982. Cervid activity patterns in relation to foraging constraints: western Washington. *Northwest Science* 56:208-217.
- Hanley, T.A. 1983. Black-tailed deer, elk, and forest edge in a western Cascades watershed. Journal of Wildlife Management 47:237-242.
- Hanley, T.A. 1984. Habitat patches and their selection by wapiti and black-tailed deer in a coastal montane coniferous forest. *Journal of Applied Ecology* 21:423-436.
- Parker, K.L., C.T. Robbins, and T.A. Hanley. 1984. Energy expenditures for locomotion by mule deer and elk. *Journal of Wildlife Management* 48:474-488.
- Wickstrom, M.L., C.T. Robbins, T.A. Hanley, D.E. Spalinger, and S.M. Parish. 1984. Food intake and foraging energetics of elk and mule deer. *Journal of Wildlife Management* 48:1285-1301.
- Hanley, T.A. and J.D. McKendrick. 1985. Potential nutritional limitations for black-tailed deer in a spruce-hemlock forest, southeastern Alaska. *Journal of Wildlife Management* 49:103-114.

- Hanley, T.A., D.E. Spalinger, K.A. Hanley, and J.W. Schoen. 1985. Relationships between fecal and rumen analyses for deer diet assessments in southeastern Alaska. *Northwest Science* 59:10-16.
- Spalinger, D.E., C.T. Robbins, and T.A. Hanley. 1986. The assessment of handling time in ruminants: the effect of plant chemical and physical structure on the rate of breakdown of plant particles in the rumen of mule deer and elk. *Canadian Journal of Zoology* 64:312-321.
- Hanley, T.A. 1987. Physical and chemical response of understory vegetation to deer use in southeastern Alaska. *Canadian Journal of Forest Research* 17:195-199.
- Robbins, C.T., T.A. Hanley, A.E. Hagerman, O. Hjeljord, D.L. Baker, C.C. Schwartz, and W.W. Mautz. 1987. Role of tannins in defending plants against ruminants: reduction in protein availability. *Ecology* 68:98-107.
- Robbins, C.T., S. Mole, A.E. Hagerman, and T. A. Hanley. 1987. Role of tannins in defending plants against ruminants: reduction in dry matter digestion? *Ecology* 68:1601-1615.
- Van Horne, B., T.A. Hanley, R.G. Cates, J.D. McKendrick, and J.D. Horner. 1988. Influence of seral stage and season on leaf chemistry of southeastern Alaska deer forage. *Canadian Journal of Forest Research* 18:90-99.
- Spalinger, D.E., T.A. Hanley, and C.T. Robbins. 1988. An analysis of the functional response in foraging in the Sitka black-tailed deer. *Ecology* 69:1166-1175.
- Hobbs, N.T. and T.A. Hanley. 1990. Habitat evaluation: do use/availability data reflect carrying capacity? *Journal of Wildlife Management* 54:515-522.
- Robbins, C.T., A.E. Hagerman, P.J. Austin, C. McArthur, and T.A. Hanley. 1991. Variation in mammalian physiological responses to a condensed tannin and its ecological implications. *Journal of Mammalogy* 72:480-486.
- Hanley, T.A., C.T. Robbins, A.E. Hagerman, and C. McArthur. 1992. Predicting digestible protein and digestible dry matter in tannin-containing forages consumed by ruminants. *Ecology* 73:537-541.
- Spalinger, D.E., C.T. Robbins, and T.A. Hanley. 1993. Adaptive rumen function in elk (*Cervus elaphus nelsoni*) and mule deer (*Odocoileus hemionus hemionus*). *Canadian Journal of Zoology* 71:601-610.
- Hanley, T.A. 1993. Balancing economic development, biological conservation, and human culture: the Sitka black-tailed deer *Odocoileus hemionus sitkensis* as an ecological indicator. *Biological Conservation* 66:61-67.
- Langvatn, R. and T.A. Hanley. 1993. Feeding-patch choice by red deer in relation to foraging efficiency: an experiment. *Oecologia* 95:164-170.
- Parker, K.L., M.P. Gillingham, T.A. Hanley, and C.T. Robbins. 1993. Seasonal patterns in body mass, body composition, and water transfer rates of free-ranging and captive blacktailed deer (*Odocoileus hemionus sitkensis*) in Alaska. *Canadian Journal of Zoology* 71:1397-1404.
- Parker, K.L., M.P. Gillingham, and T.A. Hanley. 1993. An accurate technique for estimating forage intake of tractable animals. *Canadian Journal of Zoology* 71:1462-1465.
- McArthur, C., C.T. Robbins, A.E. Hagerman, and T.A. Hanley. 1993. Diet selection by a ruminant generalist browser in relation to plant chemistry. *Canadian Journal of Zoology* 71:2236-2243.
- Hanley, T.A. 1994. Interaction of wildlife research and forest management: the need for maturation of science and policy. *Forestry Chronicle* 70:527-532.
- Parker, K.L., M.P. Gillingham, T.A. Hanley, and C.T. Robbins. 1996. Foraging efficiency: energy expenditure versus energy gain in free-ranging black-tailed deer. *Canadian Journal of Zoology* 74:442-450.
- Hanley, T.A. 1996. Potential role of deer (Cervidae) as ecological indicators of forest management. *Forest Ecology and Management* 88:199-204.

- Hilderbrand, G.V., S.D. Farley, C.T. Robbins, T.A. Hanley, K. Titus, and C. Servheen. 1996. Use of stable isotopes to determine diets of living and extinct bears. *Canadian Journal of Zoology* 74:2080-2088.
- Hanley, T.A. and T. Hoel. 1996. Species composition of old-growth and riparian Sitka sprucewestern hemlock forests in southeastern Alaska. *Canadian Journal of Forest Research* 26:1703-1708.
- Hanley, T.A. 1996. Small mammals of even-aged, red alder-conifer forests in southeastern Alaska. *Canadian Field-Naturalist* 110-626-629.
- Hanley, T.A. 1997. A nutritional view of understanding and complexity in the problem of diet selection by deer (Cervidae). *Oikos* 79:209-218.
- Gillingham, M.P., K.L. Parker, and T.A. Hanley. 1997. Forage intake by black-tailed deer in a natural environment: bout dynamics. *Canadian Journal of Zoology* 75:1118-1128.
- Hanley, T.A. and W.W. Brady. 1997. Understory species composition and production in old-growth western hemlock-Sitka spruce forests of southeastern Alaska. *Canadian Journal of Botany* 75:574-580.
- Reese, E.O., J.C. Barnard, and T.A. Hanley. 1997. Food preference and *ad libitum* intake of wild-captured Sitka mouse. *Canadian Field-Naturalist* 111:223-226.
- Ben-David, M., T.A. Hanley, D.R. Klein, and D.M. Schell. 1997. Seasonal changes in diets of coastal and riverine mink: the role of spawning Pacific salmon. *Canadian Journal of Zoology* 75:803-811.
- Pollock, M.M., R.J. Naiman, and T.A. Hanley. 1998. Plant species richness in riparian wetlands a test of biodiversity theory. *Ecology* 79:94-105.
- Ben-David, M., T.A. Hanley, and D.M. Schell. 1998. Fertilization of terrestrial vegetation by spawning Pacific salmon: the role of flooding and predator activity. *Oikos* 83:47-55.
- Hanley, T.A. and J.C. Barnard. 1998. Red alder, Alnus rubra, as a potential mitigating factor for wildlife habitat following clearcut logging in southeastern Alaska. Canadian Field-Naturalist 112:647-652.
- Parker, K.L, M.P. Gillingham, T.A. Hanley, and C.T. Robbins. 1999. Energy and protein balance of free-ranging black-tailed deer in a natural forest environment. *Wildlife Monographs* 143:1-48.
- Hanley, T.A. and J.C. Barnard. 1999. Food resources and diet composition in riparian and upland habitats for Sitka mice, *Peromyscus keeni sitkensis*. *Canadian Field-Naturalist* 113:401-407.
- Hanley, T.A. and J.C. Barnard. 1999. Spatial variation in population dynamics of Sitka mice in floodplain forests. *Journal of Mammalogy* 80:866-879.
- Jacoby, M.E., G.V. Hilderbrand, C. Servheen, C.C. Schwartz, S.M. Arthur, T.A. Hanley, C.T. Robbins, and R. Michenier. 1999. Trophic relations of brown and black bears in several western North America ecosystems. *Journal of Wildlife Management* 63:921-929.
- Hilderbrand, G.V., C.C. Schwartz, C.T. Robbins, M.E. Jacoby, T.A. Hanley, and S.M. Arthur, and C. Servheen. 1999. The importance of meat, particularly salmon, to body size, population productivity, and conservation of North American brown bears. *Canadian Journal of Zoology* 77:132-138.
- Hilderbrand, G.V., S.G. Jenkins, C.C. Schwartz, T.A. Hanley, and C.T. Robbins. 1999. Effect of seasonal differences in dietary meat intake on changes in body mass and composition in wild and captive brown bears. *Canadian Journal of Zoology* 77:1623-1630.
- Hilderbrand, G.V., T.A. Hanley, C.T. Robbins, and C.C. Schwartz. 1999. Role of brown bears (*Ursus arctos*) in the flow of marine nitrogen into a terrestrial ecosystem. *Oecologia* 21:546-550.
- Hilderbrand, G.V., C.C. Schwartz, C.T. Robbins, and T.A. Hanley. 2000. Effect of hibernation and reproductive status on body mass and condition of coastal brown bears. *Journal of Wildlife Management* 64:178-183.
- Hanley, T.A. and D.E. Russell. 2000. Ecological role of hunting in population dynamics and its implications for co-management of the Porcupine Caribou Herd. *Rangifer* Special Issue

- 12:71-78.
- Gillingham, M.P, K.L. Parker, and T.A. Hanley. 2000. Partial consumption of shield fern, *Dryopteris dilatata*, rhizomes by black-tailed deer, *Odocoileus hemionus sitkensis*, and its potential implications. *Canadian Field-Naturalist* 114:21-25.
- Gillingham, M.P., K.L. Parker, and T.A. Hanley. 2001. Habitat use by black-tailed deer in relation to rate of forage intake. *Alces* 37:339-352.
- Decamps, H., G. Pinay, R.J. Naiman, G.E. Petts, M.E. McClain, A. Hillbricht-Ilkowska, T.A. Hanley, R.M. Holmes, J. Quinn, J. Gilbert, A. Planty Tabacchi, F. Schiemer, E. Tabacchi, and M. Zalewski. 2004. Riparian zones: where biogeochemistry meets biodiversity in management practice. *Polish Journal of Ecology* 52:3-18.
- Hanley, T.A. 2005. Potential management of young-growth stands for understory vegetation and wildlife habitat in southeastern Alaska. *Landscape and Urban Planning* 72:95-112.
- Hanley, T.A., W.P. Smith, and S.M. Gende. 2005. Maintaining wildlife habitat in southeastern Alaska: implications of new knowledge for forest management and research. *Landscape and Urban Planning* 72:113-133.
- Hanley, T.A., R.L. Deal, and E.H. Orlikowska. 2006. Relations between red alder composition and understory vegetation in young, mixed forests of Southeast Alaska. *Canadian Journal of Forest Research (in press)*.

U.S. Government Publications

- Hanley, T.A. and J.D. McKendrick. 1983. Seasonal changes in chemical composition and nutritive value of native forages in a spruce-hemlock forest, southeastern Alaska. Research Paper PNW-312. USDA Forest Service, Pacific Northwest Research Station, Portland, OR. 41 pp.
- Hanley, T.A. 1984. Relationships between Sitka black-tailed deer and their habitat. General Technical Report PNW-168. USDA Forest Service, Pacific Northwest Research Station, Portland, OR. 21 pp.
- Hanley, T.A. and C.L. Rose. 1987. Influence of forest overstory on snow depth and density in hemlock-spruce stands: implications for management of deer habitat in southeastern Alaska. Research Note PNW-RN-459. USDA Forest Service, Pacific Northwest Research Station, Portland, OR. 11 pp.
- Hanley, T.A. and J.J. Rogers. 1989. Estimating carrying capacity with simultaneous nutritional constraints. Research Note PNW-RN-485. USDA Forest Service, Pacific Northwest Research Station, Portland, OR. 29 pp.
- Hanley, T.A., C.T. Robbins, and D.E. Spalinger. 1989. Forest habitats and the nutritional ecology of Sitka black-tailed deer: a research synthesis with implications for forest management. General Technical Report PNW-GTR-230. USDA Forest Service, Pacific Northwest Research Station, Portland, OR. 52 pp.
- Wipfli, M.S., R.L. Deal, P.E. Hennon, A.C. Johnson, T.L. DeSanto, T.A. Hanley, M.E. Schultz, M.D. Bryant, R.E. Edwards, E.H. Orlikowska, and T. Gomi. 2002. Managing young upland forests in Southeast Alaska for wood products, wildlife, aquatic resources, and fishes: problem analysis and study plan. General Technical Report PNW-GTR-558. USDA Forest Service, Pacific Northwest Research Station, Portland, OR. 64 pp.

Symposia Proceedings and Book Chapters

- Taber, R.D. and T.A. Hanley. 1979. The black-tailed deer and forest succession in the Pacific Northwest. Pages 33-52 in O.C. Wallmo and J.W. Schoen (eds.) Sitka black-tailed deer: proceedings of a conference in Juneau, Alaska (Juneau, Alaska, 22-25 February 1978). Series number R10-48. USDA Forest Service, Alaska Region, Juneau.
- Meehan, W.R., T.R. Merrell, Jr., and T.A. Hanley (eds.). 1984. Fish and wildlife relationships in old-growth forests: proceedings of a symposium (Juneau, Alaska, 12-15 April 1982). American Institute of Fishery Research Biologists, Morehead City, NC. 425 pp.

- Brady, W.W. and T.A. Hanley. 1984. The role of disturbance in old-growth forests: some theoretical implications for southeastern Alaska. Pages 213-218 in W.R. Meehan, T.R. Merrell, Jr., and T.A. Hanley (eds.) Fish and wildlife relationships in old-growth forests: proceedings of a symposium (Juneau, Alaska, 12-15 April 1982). American Institute of Fishery Research Biologists, Morehead City, NC.
- Van Ballenberghe, V. and T.A. Hanley. 1984. Predation on deer in relation to old-growth forest management in southeastern Alaska. Pages 291-296 in W.R. Meehan, T.R. Merrell, Jr., and T.A. Hanley (eds.) Fish and wildlife relationships in old-growth forests: proceedings of a symposium (Juneau, Alaska, 12-15 April 1982). American Institute of Fishery Research Biologists, Morehead City, NC.
- Hanley, T.A., F.L. Bunnell, E.E. Starkey, S.K. Stevenson, and A.S. Harestad. 1984. Habitat relationships of Cervidae (deer) in old-growth forests. Pages 361-367 in New forests for a changing world: proceedings of the 1983 Convention of the Society of American Foresters (Portland, Oregon, 16-20 October 1983). Society of American Foresters, Bethesda, MD.
- Hanley, T.A., R.G. Cates, B. Van Horne, and J.D. McKendrick. 1987. Forest stand-age-related differences in apparent nutritional quality of forage for deer in southeastern Alaska. Pages 9-17 in F.D. Provenza, J.T. Flinders, and E.D. McArthur (compilers) Proceedings: symposium on plant-herbivore interactions (Snowbird, Utah, 7-9 August 1985). General Technical Report INT-222. USDA Forest Service, Intermountain Research Station, Ogden, UT
- Hanley, T.A. 1990. Is there a relation between habitat preference and carrying capacity for large, mammalian herbivores? Pages 40-43 in S. Myrberget (ed.) Transactions of the 19th Congress of the International Union of Game Biologists (Trondheim, Norway, 8-13 September 1989). Norwegian Institute for Nature Research, Trondheim, Norway.
- Hanley, T.A., C.T. Robbins, and D.E. Spalinger. 1991. Influence of forest environment on the nutritional ecology of black-tailed deer in Alaska. Pages 357-361 in B. Bobek, K. Perzanowski, and W.L. Regelin (eds.) Global trends in wildlife managment: transactions of the 18th Congress of the International Union of Game Biologists (Kraków, Poland, 23-29 August 1987). Swiat Press, Kraków, Poland.
- Hanley, T.A. 1991. Old-growth forests and biological conservation in temperate rain forests of North America. Pages 65-68 in N. Maruyama, B. Bobek, Y. Ono, W. Regelin, L. Bartos, and P. Ratcliffe (eds.) Wildlife conservation: present trends and perspectives for the 21st Century: proceedings of the International Symposium on Wildlife Conservation (Tsukuba and Yokohama, Japan, 21-25 August 1990). Japan Wildlife Research Center, Tokyo.
- Hanley, T.A. 1994. Interactions of wildlife research and forest management: the need for maturation of science and policy. Pages 3-13 in I.D. Thompson (ed.) Proceedings of the International Union of Game Biologists XXI Congress (Halifax, Canada, 15-20 August 1993). Canadian Forest Service, Chalk River, Ontario, Canada.
- Hanley, T.A. 1997. Black-tailed deer (*Odocoileus hemionus*) and forest management in Alaska: practical lessons from the pursuit of foraging theory. Pages 401-409 in J.A. Milne (ed.) Recent developments in deer biology: proceedings of the Third International Congress on the Biology of Deer (Edinburgh, Scotland, 28 August-2 September 1994). Macaulay Land Use Research Institute, Aberdeen, United Kingdom.
- Zaborske, R.N., R.N. Hauver, M.H. McClellan, and T.A. Hanley. 2002. Understory vegetation development following commercial thinning in Southeast Alaska: preliminary results from the Second-growth Management Area Demonstration Project. Pages 74-82 in S. Parker and S.S. Hummel (compilers) Beyond 2001: A silvicultural odyssey to sustaining terrestrial and aquatic ecosystems. Proceedings of the 2001 National Silviculture Workshop, May 6-10, Hood River, Oregon. General Technical Report PNW-GTR-546. USDA Forest Service, Pacific Northwest Research Station, Portland, OR.

- Deal, R., M. Wipfli, A. Johnson, T. DeSanto, P. Hennon, and T. Hanley. 2002. Does red alder enhance wildlife, aquatic, and fisheries resources in young-growth western hemlock-Sitka spruce forests of Southeast Alaska? Pages 93-102 in S. Parker and S.S. Hummel (compilers) Beyond 2001: A silvicultural odyssey to sustaining terrestrial and aquatic ecosystems. Proceedings of the 2001 National Silviculture Workshop, May 6-10, Hood River, Oregon. General Technical Report PNW-GTR-546. USDA Forest Service, Pacific Northwest Research Station, Portland, OR.
- Hennon, P., M. Wipfli, R. Deal, A. Johnson, T.DeSanto, M. Schultz, T. Hanley, E. Orlikowska, G. Takashi, M. Bryant, and R. Edwards. 2002. Mixed alder-conifer forests: managing upland ecosystems in Southeast Alaska for wood products, wildlife, and fish. Pages 51-58 in A.C. Johnson, R. Haynes, and R.A. Monserud (editors) Congruent management of multiple resources: proceedings from the wood compatibility initiative workshop (Stevenson, Washington, 4-7 December 2001). General Technical Report PNW-GTR-563. USDA Forest Service, Pacific Northwest Research Station, Portland, OR.

INVITED PRESENTATIONS

- 1983. Annual Convention of the Society of American Foresters (Portland, Oregon, 16-20 October): Leader of panel discussion on "Habitat relationships of Cervidae (deer) in old-growth forests."
- 1985. Second Workshop on Energetics and Nutrition of Wild Ungulates (Fort Collins, Colorado, 8-12 January): Leader of session on "Evaluation of habitat on a nutritional basis."
- 1985. Symposium on Plant-Herbivore Interactions (Snowbird, Utah, 7-9 August): "Forest stand-age-related differences in apparent nutritional quality of forage for deer in southeastern Alaska."
- 1986. Joint Meeting of the Pacific and Arctic Divisions of the American Association for the Advancement of Science (Vancouver, Canada, 8-13 June): Chairman of session on "Wildlife resources of coastal coniferous forests."
- 1987. Eighteenth Congress of the International Union of Game Biologists (Kraków, Poland, 23-29 August): "Influence of forest environment on the nutritional ecology of black-tailed deer in Alaska."
- 1989. Third Workshop on Energetics and Nutrition of Wild Ungulates (Fort Collins, Colorado, 17-20 January): "How does the behavior of individuals relate to carrying capacity?"
- 1989. Nineteenth Congress of the International Union of Game Biologists (Trondheim, Norway, 8-13 September): "Is there a relation between habitat preference and carrying capacity for large, mammalian herbivores?"
- 1989. "Opponent" in Ph.D. dissertation defense at University of Trondheim, Norway (5 December): Reidar Andersen -- "Interactions between a generalist herbivore, the moose *Alces alces*, and its winter food resources: a study of behavioural variation."
- 1990. Fifth International Congress of Ecology (Yokohama, Japan, 23-30 August): "Old-growth forests and biological conservation in temperate rain forests of North America."
- 1991. Annual short-course for Scandinavian Ph.D. students in ecology (Swedish University of Agricultural Sciences, Umeå, Sweden, 18-22 March): "Nutritional Ecology" (the selected topic for 1991); team-taught with C.T. Robbins, K.L. Parker, and M.P. Gillingham.
- 1991. Invited-speaker seminar series: University of Tromsø, Norway (3 May). "Nutritional ecology of deer in forests."
- 1992. Invited-speaker seminar series: University of Wyoming, Laramie (5 March). "Deer research in Alaska nutritional relations between deer and their habitat."
- 1992. "Opponent" in Ph.D. dissertation defense at the Swedish University of Agricultural Sciences, Umeå, Sweden (27 March): Lars Edenius -- "Interactions between a large generalist herbivore, the moose, and Scots pine."
- 1992. Invited-speaker seminar series: Norwegian Forest Research Institute, Ås, Norway (13

- October). "Structure and dynamics of old-growth forests of coastal Alaska."
- 1993. Twenty-first Congress of the International Union of Game Biologists (Halifax, Canada, 15-20 August): "Interaction of wildlife research and forest management: the need for maturation of science and policy." (Plenary Address)
- 1994. Third International Congress on the Biology of Deer (Edinburgh, Scotland, 28 August-2 September): "Black-tailed deer and forest management in Alaska: practical lessons from the pursuit of foraging theory." (Plenary Address)
- 1994. Terje Skogland Memorial Symposium The Ecology of Large Mammals (Trondheim, Norway, 27-28 November): "A nutritional view of understanding and complexity in the problem of diet selection by deer (Cervidae)" and chairman of session "Ecology of reindeer and other ungulates."
- 1995. Conference on Ungulates in Temperate Forest Ecosystems (Wageningen, The Netherlands, 23-27 April): "Potential role of deer (Cervidae) as ecological indicators of forest management."
- 1999. Lectures at Swedish University of Agricultural Sciences (Umeå, Sweden, 19 January): 1) "Nutrition and digestion in herbivores," and 2) "Ecology of food and habitat selection by ruminants."
- 1999. Conference on Ungulate Ecology and Management Integrating Across Scales (Nelson, British Columbia, Canada, 24-28 August): "Applying foraging theory to habitat-management decisions."