

ESTABLISHING AN HERBARIUM
AT
TAYLOR RANCH RESEARCH FIELD STATION

Starting date: May 22, 1989

Amount requested: \$3,223.00

Principal Investigators: Dr. James Fazio
Ms. Holly Akenson

James R. Fazio, Department Head
Wildland Recreation Management, College of
Forestry, Wildlife & Range Sciences

Date _____

Leon Neuenschwander, Associate Dean/
Research, College of Forestry,
Wildlife & Range Sciences

Date _____

ESTABLISHING AN HERBARIUM AT TAYLOR RANCH RESEARCH FIELD STATION

ABSTRACT:

An herbarium needs to be established at the Taylor Ranch Field Station as an on-site research tool for students, visitors, and researchers in botanical and nonbotanical fields. Some specimens have been collected, while additional specimens need to be collected in order to establish a reference collection of representative plants of the area. Labelling and specimen arrangement in the herbarium will be coordinated with formats used at the University of Idaho Herbarium. Plant collecting and establishing of the Taylor Ranch Herbarium will be done in summer 1989 by a student with botany experience.

JUSTIFICATION:

The Taylor Ranch Field Station is operated through the Wilderness Research Center to facilitate research on natural processes in the relatively undisturbed and unmanaged environments of the Frank Church River of No Return Wilderness. A reference plant collection is needed for on-site use by researchers. This herbarium will serve several functions: as a collection of representative vegetation of the area, as an educational tool for plant identification, and for use in botanical or forestry research. This grant application is for two separate projects: 1. To establish an herbarium at Taylor Ranch 2. To expand the Taylor Ranch collection to include the important plants of the area.

To date, 200 specimens have been collected and identified for the Taylor Ranch collection, from the Frank Church River of No Return Wilderness around the Taylor Ranch. An additional 60 specimens have been collected, but not identified. Specimens have been collected in triplicate: one for the Taylor Ranch Herbarium, one for the U of I Herbarium, and one for the Forestry Herbarium. Half of these specimens have been mounted for the Taylor Ranch collection; half have had the species identification verified by personnel of the Forestry Herbarium. Plants previously collected need to be mounted, labelled, catalogued, and systematically arranged in an herbarium cabinet at Taylor Ranch.

After the herbarium has been organized and accumulated plant specimens have been mounted and filed, additional specimens need to be collected. All species which are "indicator" species of the forest habitat types of central Idaho (Steele, et al., 1981), as well as other common plants of the area need to be included in the Taylor Ranch Herbarium. Past collecting has been done in localized areas. Plant collecting needs to be systematically expanded to a larger area and a wider range of plant communities and phenological stages in order to represent the diversity of the area. Due to the logistical problems of access and travel within this large wilderness, few collecting expeditions and botanical studies have been done in this area. Interest in specimens provided to the University of Idaho Herbarium and Forestry Herbarium from this remote area could stimulate initiation of new studies of floristics or ranges of particular species. A Taylor Ranch Herbarium of representative vegetation of the area is imperative as an educational tool for students, visitors, and on-site researchers in nonbotanical fields, as well as a research aid for plant studies.

OBJECTIVES:

To establish an herbarium at Taylor Ranch:

- Mount and label specimens previously collected.
- Systematically arrange specimens in an herbarium.
- Set up a computer filing system for the herbarium.
- Coordinate Taylor Ranch Herbarium labelling and specimen arrangement with that of the University Herbarium.

To enhance the Taylor Ranch Herbarium by assembling a representative collection of common flora of the area:

- Collect specimens of plants which are indicator species for Steele's habitat types of central Idaho and those which are common within the collecting area.
- Include collected plants in the Taylor Ranch Herbarium.
- Collect duplicate specimens for University of Idaho Herbarium and College of Forestry Herbarium.

PROCEDURES:

During summer 1989 a student with experience and/or educational background in botany will be hired for four weeks to set up the herbarium and eight weeks to collect and mount representative plant species. To establish an herbarium at Taylor Ranch, previously collected plant specimens will be identified (60 specimens) and verified (150 specimens) using Hitchcock and Cronquist (1973) and Hitchcock, et al. (1969), mounted (150 specimens), labelled (300 specimens), and arranged in an herbarium cabinet. University of Idaho Herbarium formats will be used in the preparation and storage of specimens. Labels will be generated on a PC computer. Computerized label information will also be utilized as a data base for information retrieval and cataloging of specimens, using a software program such as DBASE 3. Duplicate plant specimens with collection information will be deposited in the University of Idaho Herbarium and the College of Forestry Herbarium.

The Taylor Ranch Herbarium will be expanded by collecting those plant species which are indicators of Steele et al's (1981) habitat types of central Idaho; plants which are significant components of plant communities such as riparian, grasslands, and shrublands, which were not classified by Steele; or common species, including introduced species that are not represented in either of the above categories. The collection area for this project encompasses 700 square miles, including the Big Creek drainage and the area north to Cold Meadows. Location of various habitat types will be determined through aerial photo interpretation and knowledge of the area. Collecting sites will be selected to minimize logistical travel constraints. Collecting will be done on foot from a base camp or airstrip, or while travelling with a pack mule and plant press. Specimens will be identified according to Hitchcock and Cronquist (1973) or Hitchcock, et al. (1969), mounted, labelled, catalogued, and arranged in the Taylor Ranch Herbarium. Duplicate specimens will be collected for and presented to the University Herbarium and Forestry Herbarium.

BUDGET

Student wages @ \$200.00/week plus 11.5% benefits	
Organizing herbarium (4 weeks)	\$892.00
Plant collecting (8 weeks)	\$1784.00
Travel:	
1 charter flight Cascade to Taylor Ranch	\$150.00
1 charter flight Taylor Ranch to Cold Meadows airstrip	\$100.00
Supplies	
Herbarium genus covers, 500	\$139.00
Herbarium mounting paper, 500	\$88.00
Computer and office supplies, telephone	\$45.00
Horse feed	\$25.00

TOTAL	\$3223.00

BIBLIOGRAPHY

Hitchcock, C. L., and A. Cronquist, 1973. Flora of the Pacific Northwest. University of Washington Press, Seattle. 730 pp.

Hitchcock, C. L., A. Cronquist, M. Ownbey, and J. W. Thompson, 1969. Vascular plants of the Pacific Northwest. University of Washington Press, Seattle. 5 volumes.

Steele, R., R. D. Pfister, R. A. Ryker, and J. A. Kittams, 1981. Forest habitat types of central Idaho. USDA Forest Service, Intermt. Forest and Range Exp. Sta. Gen. Tech. Rpt. INT-114. 138pp.



Faculty Member's Curriculum Vitae

Information furnished for your curriculum vitae will be placed on word-processor disks in the Office of the Faculty Secretary and a printout will be returned to you for verification. Corrected copies will then be provided to you and to the vice president for academic affairs and research, your dean and departmental administrator, and the News Bureau. Whenever there is a need to update your vita, mark the desired additions, deletions, or other changes on the latest printout you have and send it to the Office of the Faculty Secretary. Copies of the updated version will be sent to you and to all offices where such files are maintained. Where insufficient space is provided for a particular entry, attach additional sheets. Please include any additional items that you feel are appropriate.

PLEASE PRINT OR TYPE

Name: Holly A. Akenson

Date: 3-24-89

Rank or Title: Taylor Ranch Manager

Department: Wildland Recreation Mgt.

Office Location: Taylor Ranch Field Station Office Phone: 382-4336

Date and Place of Birth: 12-3-57

Spouse's Name: James Akenson

Date of First Employment at UI: September 1982

Date of Tenure: N/A

Date of Present Rank or Title: September 1982

Administrative Positions at UI (past and present--include dates): none

EDUCATION BEYOND HIGH SCHOOL:

B.S. Biology 1979 Eastern Oregon State College, LaGrande

B.S. Secondary Education 1983 Eastern Oregon State College

M.S. Wildlife Resources in progress University of Idaho

EXPERIENCE:

In Educational Institutions Since Receipt of Bachelor's Degree:

Teaching and Research:

Develop and supervise student internship program at Taylor Ranch.
Master's degree research on behavior of bighorn sheep, deer, elk.
Initiated small mammal and plant collections for Taylor Ranch Lab.
Designed a summer short course on wilderness skills.

Field research on bighorn sheep ecology and mortality.

Assist and coordinate on other research projects at Taylor Ranch:
archaeology, bobcat ecology, water and air quality/heavy metals
sampling, range transects, aquatic invertebrate and fishery

Extension and Service:

surveys.

none

Administration:

none

Major Committee Assignments:

none

EXPERIENCE (Cont.)

Other Professional:

Employment:

USDA Forest Service, Forest Experiment Station, LaGrande, OR.
Field research on ecology of great gray owl. 1982-1983.

USFS Wallowa-Whitman National Forest, Baker, OR.
Biol. Tech. Riparian inventory, stand exams, wildlife inventories, ecotyping. Seasonal 1979-82.

Eastern Oregon State College, LaGrande, OR.
General Biology lab teaching assistant. 1977-78.

Consulting:

none

Membership in Professional and Scholarly Organizations (including offices held and dates):

The Wildlife Society

American Institute of Biological Sciences, past member

Other Experience:

Armed Forces:

Community and Service (activities and memberships):

International Club, past member EOSC
Grande Ronde Resources Council, past member

PUBLICATIONS:

Books:

Refereed Publications (subjected to external peer review; please provide complete citation and identify lead author):

Other Publications:

PAPERS PRESENTED AT SCHOLARLY MEETINGS:

Slide lecture on bighorn sheep rutting behavior presented to Foundation for North American Wild Sheep at national convention 1988 and Idaho state convention 1987 and 1988.

CREATIVE ACTIVITIES APPROPRIATE TO THE ARTS:

Adjudicated Exhibitions, Recitals, and Presentations:

Other Exhibitions, Recitals, and Presentations:

GRANTS AND CONTRACTS (title, sponsor, amount):

Bighorn sheep population ecology and migration patterns.
sponsor: Foundation for North American Wild Sheep. \$10,000 in 1988.

Cooperative internship program. sponsor: Payette National
Forest. \$1,000 in 1986, \$1,000 in 1987.

SCHOLARLY WORK IN PROGRESS:

Bighorn sheep population ecology and migration.

HONORS AND AWARDS:

Magna cum laude graduate, EOSC
Outstanding Biology Student 1979, EOSC
Outstanding Senior Woman 1979 - runner up EOSC

1/20/89

VITAE - James R. Fazio

Address: 1049 Colt Road
Moscow, Idaho 83843

Phone: Home (208) 882-6668
Office (208) 885-6314

Personal Data:

Age: 46	Weight: 175	Married: Dawna C. Fazio
Height: 6'0"	Health: Excellent	Children: Walter, 5 yrs. and Julianna, 3

Present Position:

Head, Department of Wildland Recreation Management
College of Forestry, Wildlife and Range Sciences
University of Idaho
Moscow, Idaho 83843

Formal Education:

North Hills High School, Pittsburgh, PA; high school diploma, 1960.

West Virginia University, College of Forestry, Morgantown, WV; B.S. in
Forestry (with minor in wildlife management), 1964.

Cornell University, New York State College of Agriculture and Life Sciences,
Ithaca, New York; Master of Professional Studies, 1971.

M.P.S. course work emphasis: Environmental Education
Communication Arts

Master's thesis title: "A Description and Evaluation of a Communications
Short Course for Natural Resources Personnel"

Colorado State University, College of Forestry, Fort Collins, CO:
Doctor of Philosophy degree in recreation resources, 1974.

Ph.D. course work emphasis: Recreation Resources and Education

Dissertation title: "A Mandatory Permit System and Interpretation for
Backcountry User Control in Rocky Mountain National Park"

Other Education:

U.S. Forest Service in-service training schools (included: fire control, first aid, law enforcement, personnel management, information and education, and the establishment of instructional objectives).

C.S.U. Police Academy (1972): law enforcement, and subsequent in-service training in all phases of police work.

University of Idaho: Courses in Adult Education, Communication and Attitude Change, Norwegian I & II, Natural Resources Law. Short courses in: Human Effectiveness; Time Management; Dealing with Difficult People; Team Building; Executive Effectiveness and others.

Personal Interests and Hobbies:

Hiking/backpacking; photography; racquetball; cross country and downhill skiing; running.

Awards and Honors

American Assoc. of College Editors' first place award for excellence in radio feature writing and production (1972)

Colorado State University Tuition Scholarship (1972-1973)

Chief of Police Commendation, Colorado State University, Police Department (1974)

The Nature Conservancy Stewardship Award (1979)

Professional Achievement Award, Colorado State University, College of Forestry and Natural Resources (1982)

Idaho Trails Council Achievement Award for excellence in editing and producing Trailhead (1982)

Certificate of Appreciation, College of Forestry Student Affairs Council (1984)

Forester of the Year Award, Inland Empire Society, Society of American Foresters (1984)

Panhellenic - Interfraternity Council Outstanding Faculty Award (1985-86)

National Arbor Day Foundation Book of the Year Award (for The Woodland Steward) (1986)

Association for Conservation Information, Special Publication, First Place (for The Woodland Steward) 1986

Foreign Experience

Mexico 1966
 Canada 1975, 1976, 1981
 Indonesia 1982

Iceland, Norway, England 1981, 1988
 (Including: consulting, Icelandic
 Soil Conservation Service; and
 Visiting Professor, Dept. of
 Geography, University of Oslo)

Teaching Experience (College):

FWR 101	Forestry Orientation
RcMgt 102	Introduction to Recreation Professions
RcMgt 287	Principles of Wildland Recreation Management
RcMgt 387	Environmental Interpretive Methods
RcMgt 397	Wildland Recreation Management Internship
RcMgt 299, 499, 502	Directed Studies
RcMgt 400, 501	Public Relations Problems in Nat. Res. Mgt.
RcMgt 404	Special Topics: Free Enterprise in WRM
RcMgt 404	Special Topics: WRM International
RcMgt 404	Special Topics: Entrepreneurialism and Contracting in Natural Resource Management
RcMgt 488	Interpretive Methods Laboratory
RcMgt 489, WLF 489	Personalities and Philosophies in Conservation
RcMgt 500	Master Research and Thesis
RcMgt 501	Seminar: Wildland Recreation Management
RcMgt 600	Doctoral Dissertation
RcMgt C400	A Correspondence Course in Public Relations Problems in Natural Resources Management

College and University Committee Service:

- *Ad hoc Campus Trees and Arboretum Advisory Committee
 - Ad hoc Space Allocation Committee (College of FWR)
 - Administrative Hearing Board (Chairman, 1984-85)
 - *Advisory Committee, UI Experimental Forest
 - College Commencement Committee
 - Competency Review Committee (College of FWR)
 - Continuing Education Advisory Board
 - Faculty Appeals Board
 - Library Affairs Committee (Chairman, 1987-88)
 - Search Committees:
 - College faculty level (6), chairman (2)
 - Dean, College of Forestry
 - University Foundation Director
 - Manager, McCall Field Campus
 - High School/Community College Relations Director
 - *Technical Board, University of Idaho Wilderness Research Center
 - University Curriculum Committee, CFWR Representative
 - University Assurance (Human Research Subjects) Committee
 - University Judicial Council
 - University Long Range Planning Evaluation Team
 - University Promotions Review Committee
 - University Relations Committee
- *Current

Memberships and Offices:

Adirondack 46ers	
American Forestry Association	
Association for Conservation Information	
Conservation Education Association	
Forest History Society	
Governor's Committee on the Lewis and Clark Trail	Chairman (1984-present)
Human Dimensions in Wildlife Study Group	Chairman (Nominating Committee, 1988)
Idaho Academy of Science	
Idaho Recreation & Parks Society	Outdoor Recreation Conference Program Chairman (1978, 1982, 1983)
Idaho Trails Council	Board of Directors (1975-present) President (1976-1978) Newsletter Editor (1976-1986)
International Society of Arboriculture	
John Burroughs Memorial Society	
Lewis and Clark Trail Heritage Foundation	President, Idaho Chapter (1986-present) Board of Directors (1986-present)
National Association of Interpretive Naturalists	Newsletter Editor (1978-80)
National Audubon Society	
Outdoor Writers Assoc. of America	
Society of American Foresters	Vice Chairman, Palouse Chapter (1975-1977) Book Review Chairman, Education and Information Working Group (1975-1979) Secretary, Education & Communication Working Group (1986-1988)
The Nature Conservancy	Vice Chairman and Executive-Secretary, Inland Empire Chapter (1974-1978) Trustee, Idaho Chapter (1981-1986; vice chairman, 1984-1986); manager, Idler's Rest. Nature Preserve (1975-present)
University Interdisciplinary Discussion Group	

Current Employment

HEAD, DEPARTMENT OF WILDLAND RECREATION MANAGEMENT.
Executive responsibility for department of 63 undergraduates, 20 graduate students, 5 faculty, and the college's Wilderness Research Center and Natural Resources Communication Laboratory.

May, 1983-1988 - ASSOCIATE DEAN FOR ACADEMICS AND CONTINUING EDUCATION: served as the principal executive officer representing

the dean in academic affairs. Responsible for budgetary analysis, planning, coordinating, and evaluating all resident instruction, continuing education, and outreach programs. Chief liaison person between the college and the university Admissions Office, Financial Aids Office, Student Services, High School/Junior College Relations, Alumni, and related units. Planned and coordinated college recruiting, admissions and scholarship programs. College majors include Forest Resources, Forest Products, Fishery Resources, Wildlife Resources, Range Resources and Wildland Recreation Management.

1975 to 1983 - PROGRAM CHAIRMAN/DEPARTMENT HEAD; appointed chairman of academic program that was established less than one year and had 30 undergraduates, 5 graduate students, and 3 outgoing staff. Later the program was converted to a department; was elected head. Developed to approximately 100 undergraduates, 20 graduate students and faculty of six. Recruited faculty and established policies; supervised establishment of record system, development of curriculum and extra-curricular activities, and move to enlarged quarters with laboratory space.

1980-81 - PUBLIC INFORMATION SPECIALIST, BLM; on leave under contract through Interagency Personnel Act to work in Office of Public Affairs, Bureau of Land Management, U.S. Dept. of Interior in Washington, D.C. Responsibilities included liaison with the Division of Recreation and Cultural Resources, serving as acting coordinator of environmental education, and the planning and production of related media plans and materials.

Previous Professional Employment

June 1972 to August 1974 - GRADUATE TEACHING ASSISTANT; Dean's Office, College of Forestry and Natural Resources, Colorado State University. Responsibilities included advising students in the interdisciplinary major and working with the Assistant Dean on a variety of other assignments. Also worked part time as a Special Services Unit Peace Officer in the Colorado State University Police Department.

1969-1972 - EXTENSION ASSISTANT; Department of Natural Resources, Cornell University. Assignments included: interviewing absentee forest landowners in a communications study; teaching 4-H youth and leaders interpretive trail construction and providing orientation to conservation careers; guest lectures; environmental education techniques at teachers' workshops and other extension events; discussion leader in undergraduate course in environmental conservation; editor of Conservation Circular, a departmental quarterly for disseminating research and other information to the public via extension channels; and co-editor of Conservation Comments, weekly house organ.

1967-1969 - ASSOCIATE EDITOR;

The Northern Logger & Timber Processor, a major regional trade journal covering the forest industries from Maine to Minnesota, Virginia to Missouri. Filled new position to expand magazine into lake states and midwest. Responsibilities included establishing new office and contacts, contacting potential advertisers, servicing existing advertising accounts and providing editorial coverage of the area to increase reader interest and circulation.

1964-1967 - FORESTER; U.S. Forest Service in Montana, southern California and Utah. Assignments included assisting with various aspects of forest management; planning and supervising wildlife habitat improvement projects and trail maintenance; fire control and information and education.

Publications:

Books and Book Chapters

- 1987 - (Second Edition) "The Woodland Steward" (1985) 220pp.
- 1986 - (Second Edition) "Public Relations and Communications for Natural Resource Managers" (1981). 399 pp.
- 1985 - "The Woodland Steward: A Practical Guide to the Management of Small Private Forests." The Woodland Press, Moscow, ID. 220 pp.
- 1983 - "Idaho Forests." Entry in The Encyclopedia of American Forest and Conservation History. Richard C. Davis, Editor. Forest History Society, Santa Cruz, CA.
- 1981 - "Public Relations and Communications for Natural Resource Managers." Co-authored with D.L. Gilbert. Kendall/Hunt Publishing Company, Dubuque, IA. 375 pp.
- 1979 - "Parks and Outdoor Life." In Leisure: Emergence and Expansion. (Hilmi Ibrahim and Jay Shivers, Editors) Hwong Publishing Co., Los Alamitos, CA. Pp. 197-231.

Student Workbooks

- Annually - Readings in the Personalities and Philosophies of Conservation (edited). 152 pp.
- 1982 (Revised 1987) - Correspondence Study Guide: Public Relations Problems in Natural Resource Management. 35 pp.

Professional

- In preparation - Mailed literature as a method to reduce problems of wild river management. Co-author, Robert J. Ratcliffe.
- In preparation - Some uses of public education and communication to counter resource degradation in Scandinavia. Co-author, Bjorn Kaltenborn.
- 1985 - Back to definitions in environmental education: the case of Inland Northwest Camps. Co-authored with S.H. Ham and R.D. Langseth. J. of Environ. Educ. 16:4 pp. 11-15.
- 1984 - Ethics - A protective shield for natural area parks. Parks in the West and American Culture. Institute of the American West, Sun Valley, Id. Pp. 45-46.
- 1983 - Threats to national parks: a preliminary survey. Co-authored with David L. Tichnell and Gary E. Machlis. Parks 8:1 Pp. 14-17.
- 1980 - The political implications of fire management. John F. Marker, co-author. In Proceedings: SAF Fire Management Working Group Technical Session, 1980 Convention. Society of American Foresters, Washington, D.C.
- 1980 - The conceptual design of interpretive exhibits for Idaho National Environmental Research Park. Forest, Wildlife and Range Exp. Sta. Contrib. No. 192. 63 pp.
- 1979 - Agency literature as an aid to wilderness management. Journal of Forestry 77:97-98.
- 1979 - Communicating with the wilderness user. Univ. of Idaho Forest, & Wildlife Exper. Sta. Bull. No. 28. 65 pp.
- 1977 - Communicating with the wilderness user: final report to the Pacific Northwest Regional Commission. William W. Bramlette, co-author. Univ. of Idaho Forest, Wildlife & Range Exper. Sta. Pub. No. 84. 167 pp.
- 1976 - Management plan for Idler's Rest Nature Preserve. Dawna M. Chapman, co-author. Univ. of Idaho Forest, Wildlife & Range Exper. Sta. Misc. Pub. No. 1. 69 pp.
- 1976 - Wildland recreation education - competition or complement? Idaho J. of Health, PE and Recreation. Spring '76. Pp. 13-14.
- 1975 - Liberty Hyde Bailey and Enos A. Mills: Pioneers in environmental interpretation. Nature Study 29:1-3 +12.
- 1974 - Mandatory wilderness permits: some indications of success. Douglas L. Gilbert, co-author, J. of Forestry 72:753-756.

- 1972 - Communications education: closing the gap. Douglas L. Gilbert, co-author, J. of Forestry 70:676-677.
- 1971 - Community analysis - a Cornell approach. Douglas L. Gilbert, co-author. J. of Envir. Education 3:14-15.
- 1970 - Introduction to field ecology: an experience in learning. New York State College of Agr. and Life Sci., Dept. of Natural Resources, Cornell University. 54 pp.
- 1969 - Plant or thin: a new emphasis for New York? Robert R. Morrow, co-author. The Northern Logger 18:18+.
- 1967 - Men on the mountain: a historical look at the Vernal Ranger District. U.S. Forest Service, Ashley National Forest. 69 pp.

Extension/Continuing Education

- In Press. A guide to starting and developing community forestry programs with specific reference to shade tree committees. (C. Foss, C. Rowe and R. Mahoney, co-authors). Univ. of Idaho Ext. Series Bull. 692. 14 pp.
- 1983 - (unpublished) Outdoor Recreation Guide (set of five for Bear Lake County, Idaho; Uinta and Lincoln Counties, Wyoming; Summit and Rich Counties, Utah). Overthrust Industrial Association, Denver, Colorado.
- 1982 - Awareness Event Guidelines. USDI Bureau of Land Management, Washington, D.C.
- 1982 - ORV poster series. (Set of four with activities for teachers). USDI Bureau of Land Management, Washington, D.C.
- 1979 - (Diane Spott, co-author). A guide to Idaho interpretive and environmental education facilities and sites. Univ. of Idaho Forest, Range & Wildlife Exper. Sta. Misc. Pub. No. 7. 82 pp.
- 1977 - (Ed.) Proceedings . . . Idaho Trails Symposium: river and trail restrictions - a new approach to recreation in Idaho? Forest, Wildlife & Range Exper. Sta. 60 pp.
- 1972 - Let's look at the urban environment. 4-H Environmental Awareness Series. Dept. of Nat. Res., Cornell University.
- 1972 - Nature trails: Guides to environmental understanding. 4-H Leaders' Guide. Dept. of Nat. Res., Cornell University. 24 pp.
- 1972 - Nature trails: Good public relations for the Christmas tree grower. In Proceedings . . . Cornell School for Christmas Tree Growers. Dept. of Nat. Res., Cornell University.

- 1971 - Aerial photography provides excellent guide for land use. Chenango County Farm News 55:1+.
- 1971 - Nature Centers of New York. Anne LaBastille, co-author. Conservation Circular 9(2). 11 pp.
- 1970 - Nature trails: guides to environmental understanding. John Weeks, co-author. Dept. of Nat. Res., Cornell University. 34 pp.
- 1970 - Beauty and the timber beast. The Northern Logger 18:14-15.
- 1970 - What every logger should know about lightning. The Northern Logger 18:16-17+.
- 1970 - Citizen action will make environmental quality a reality. Orange County Farm News 46(1).

Popular and Semi-Technical

(Weekly columns in two newspapers, and approximately 25 articles in trade journals, state conservation magazines and other popular publications)

Periodicals (Editor)

- 1987 - present - Tree City USA Bulletin. The National Arbor Day Foundation, Lincoln, NE.
- 1986 - present - "The World of Trees" in Arbor Day. Bimonthly. The National Arbor Day Foundation, Lincoln, NE.
- 1978 - 1980 - NW RAIN, Quarterly newsletter of the Pacific Northwest Region, Association of Interpretive Naturalists.
- 1976 - 1986 - TRAILHEAD, Bimonthly publication of Idaho Trails Council.
- 1975-79 - Newsletter, Inland Empire Chapter of The Nature Conservancy (Quarterly).
- 1967-72 - (See Previous Professional Experience)

Book Reviews

- 1986 - This well wooded land. Thomas R. Cox et al. Idaho Yesterdays. Idaho State Historical Society.
- 1986 - Outdoor recreation in America (4th edition). C.R. Jensen. J. of Wildlife Management.
- 1982 - Horse camping. George Hatley. American Forests. 88:3.
- 1981 - Above timberline. Dwight Smith. American Forests. 87:12.

- 1976 - Interpreting the environment. Grant W. Sharp (Ed.) J. of Forestry 74:551.
- 1974 - Educational principles and techniques for interpreters. Boulander, F. David and John P. Smith, authors. J. of Environmental Education 6(1):15.
- 1972 - The communication of ideas. Anon. Communicator 4:43.
- 1971 - Natural resources and public relations. Douglas L. Gilbert, author. J. of Forestry 69:304.

Major Presentations:

- Oct. & Nov., 1988 Guest lectures on Environmental Interpretation, Recreation Resource Management, and Public Relations at: University of Oslo, Dept. of Geography, Agricultural and Forestry College, As, Norway
Icelandic Horticultural College, Hveragerdi, Iceland
- January 30, 1986 "Priority Needs for Communication of Wildlife Values." Economic and Social Values of Wildlife Symposium, Syracuse, New York.
- May 4, 1985 "Future Directions of the Idaho Lewis and Clark Trail Committee" at Idaho-Oregon-Washington Lewis and Clark Symposium, Lewiston, Idaho.
- Aug. 17-18, 1984 "Western Landscapes, Western Values and Future Potentials," and "A Park Ethics for the Future." Panel presentations at Parks in the West Conference, Institute of the American West, Sun Valley, Idaho.
- October 16, 1983 "Fulfilling the Needs of Forestry Students in Developing Communication Skills." Society of American Foresters National Convention, Portland, Oregon.
- March 12, 1982 "The Image of Foresters." Annual meeting of Inland Empire Society of American Foresters, Spokane, Washington.
- March 10, 1981 "Environmental Education, Interpretation and Public Relations--Semantic Quagmire but Useful Tools." BLM Visitor Services Workshop, Apple Valley, California.
- March 11, 1980 "Wildland Recreation Mgt. in our Modern Society," Brigham Young University, Provo, Utah.

[Numerous earlier presentations not listed; provided on request]

Continuing Education and Panel Moderation:

- 1987 - Panel Moderator, "Education and Communication Working Group Technical Section," SAF, Minneapolis, Minnesota.
- 1986 - Panel Moderator, "How Others See Us." Inland Empire Section, SAF, Spokane, Washington.
- 1983 & 1984 Coordinator, High School Counselor's Workshop, University of Idaho, Moscow.
- 1982 - "Conducted Tour" and "Good PR - Essential for Success." Interpretation Workshop, Whitman Mission National Historical Site, Walla Walla, Washington.

[Panel moderator and workshop instructor/coordinator at numerous earlier short courses and conferences; list available on request]

Graduate Student Advisement (Major Professor):

- (In progress) - Bajimaya, Shyam. Strategies for communicating with local residents near national parks in Nepal. Master's project (non-thesis).
- (In progress) - Campbell, Jill. Interpretive guide for shipboard tourists in southeast Alaska. Master's project (non-thesis).
- 1988 - McConnell, Douglas. Controlled burning use by Alabama private, non-industrial forest owners: An adoption study. Ph.D. dissertation.
- 1988 - Radcliffe, Robert T. The relationship of river managers' perceptions of recreation management problems and the content and dissemination of mailed, pre-trip information. Master's thesis.
- 1983 - Bone, Sharon. Interpretive media package for orientation to the Colorado Outdoor Education Center. Master's project (non-thesis).
- 1982 - Ham, Sam H. Familiarity and adaptation: A study of family attendance at interpretive activities. Ph.D. dissertation.
- 1981 - Mindick, Robert. A survey of the current use of information and education within natural resource management agencies. M.S. thesis.
- 1981 - Tai, Doris. An evaluation of the use and effectiveness of two types of interpretive trail media in Yellowstone National Park. M.S. thesis.
- 1979 - Miles, Thomas A. An evaluative comparison of single and dissolve slide projection techniques. M.S. thesis.

- 1978 - Hartung, John W. Documentation of historical resources in the Idaho primitive area, Big Creek Drainage. M.S. thesis.
- 1978 - Spott, Diane. Directory of interpretive and environmental education areas and facilities in Idaho. Master's project (non-thesis).
- 1977 - Bramlette, William W. Communication characteristics and knowledge levels of Selway-Bitterroot wilderness users. M.S. thesis.
- 1977 - Bell, Lawrence. Characteristics of non-consumptive wildlife users in Idaho. M.S. thesis.
- 1976 - Ferguson, A.J. Proposed Harriman State Park of Idaho: background information and interpretive prospectus. Master's project (non-thesis).