

LINDA HOWELL HARDESTY

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EDUCATION

Ph.D. Range Management, Utah State University. Factors affecting the sprouting response of woody caatinga species and their implications for improved caatinga management. Diss Abstr. 48(6):1587. 1986.

M.S. Range Management, Utah State University. A review of tropical and subtropical brush management techniques with special reference to northeast Brazil. 1982.

B.S. Wildlife and Fisheries Management, University of Idaho. 1974.

PROFESSIONAL EXPERIENCE

Associate Professor, Range Management. Department of Natural Resource Sciences, Washington State University.

2000 to present 25% teaching, 25% research and 50% extension

1998 to 2000 50 % teaching, 25% research and 25% extension

1988 to 1997, 50% teaching/50% research

1994 promoted to associate professor with tenure

1993 appointed affiliate faculty in Department of Range Resources, University of Idaho

1990 appointed as adjunct faculty in environmental sciences and regional planning

1989 elected to the graduate faculty

1985-1988, 100% teaching.

Research Associate, Department of Range Science, Utah State University. 1982-1985.

While assigned to the Brazilian National Sheep and Goat Research Center, conducted research on ecology of goats foraging in native vegetation of the semi-arid region. Developed modifications of traditional land use practices designed to improve forage production. On return to campus, jointly designed and taught a problem-centered course in range improvements.

Teaching Assistant, Department of Range Science, Utah State University. 1980-1981.
Assisted with lecture, and conducted weekly field exercises in range vegetation analysis. Taught one section of "Natural Resources and Man's Future." Presented vegetation sampling short course for researchers at the Brazilian National Sheep and Goat Research Center.

Senior Range Manager, Idaho Department of Lands, Boise and Gooding, Idaho. 1977-1980.
Administered leasing of state lands and worked with livestock producers to increase the productivity of rangelands through grazing management and range improvements. Appraised lands for sale and negotiated cooperative land use plans, exchange of use agreements, land sales and exchanges, reclamation and rehabilitation programs, and joint grazing plans with other state and federal agencies and private enterprises.

Range Manager, Idaho Department of Lands, Gooding, Idaho. 1976-1977.
Evaluated the condition and productivity of state owned rangelands. Developed leases to maintain or enhance range condition and ensure a fair return to the endowment funds.

Project Leader, LANDSAT Winter Range Mapping Project, Idaho Department of Fish and Game. 1976. Developed vegetation classification scheme for ground truthing satellite data and worked with NASA and consultants to design a mapping procedure suitable for wildlife habitat inventory.

Assistant Timber Inventory Specialist, Idaho Department of Lands. 1975.
Preliminary timber typing and selection of sites for field inventory. Collation and interpretation of field data and preparation of inventory reports and management plans. Collaborate on NASA remote sensing project.

Research Assistant, Department of Veterinary Science, University of Idaho. 1974-75.
Collected serum and conducted a variety of tests to determine the shared incidence of bacterial and viral diseases of domestic sheep and mule deer in the Snake River Valley.

SPECIALIZED TRAINING

Group facilitation. USDA-NRCS. 2004.

Geographical information systems. University of Idaho. 2004.

Certifying ranch sustainability. The Food Alliance. 2004.

Federal grant submission training. Office of Grants and Research Development. 2004.

Community Assessment. U.S. Environmental Protection Agency. 2003.

Dreamweaver web authoring. College of Agriculture and Home Economics. 2002.

Ethics in the workplace. WSU Attorney General. 2001.

Enhancing the workplace environment. College of Agriculture and Home Economics. 2001.

Leading the change in today's workplace. College of Agriculture and Home Economics. 2000.

Riparian proper functioning condition for extension specialists. CSREES. 1998.

Peer evaluation of instruction. College of Agriculture and Home Economics. 1997.

He said/she said, gender communication. Center for Human Rights. 1997.
Multicultural curriculum development. Dept. of Human Development 1997.
Sexual harassment: prevention and response. College of Agriculture and Home Economics. 1997.
Improving critical thinking in science teaching. National Science Foundation. 1995.
Sexual harassment awareness training. College of Agriculture and Home Economics. 1993.
Increasing minority student retention. College of Agriculture and Home Economics. 1992.
Writing across the curriculum faculty workshop. Washington State University. 1991.
Holistic resource management. Center for Holistic Resource Management. 1991.
Systems teaching workshop. College of Agriculture and Home Economics. 1988.
Preparing grant proposals. Ed Ad 596. Washington State University. 1987.
Project design, implementation and evaluation short course by the International Development Management Center, University of Maryland. 1986.
Diagnosis in farming systems. Washington State University faculty workshop. 1986.
Intensive Portuguese language training. IBEU, Rio de Janeiro, Brazil. 1982.
Ranch appraisal school. American Society of Farm Managers and Rural Appraisers. 1978.

INTERNATIONAL EXPERIENCE

Madagascar 2001 With doctoral student, completed first field season's study of ethnobotanical approaches to resource conservation.

Malawi, Botswana 2001 Led international study team of colleagues from 4 African universities to view different approaches to integration of teaching, extension, rural development and research in an African setting. Three Botswanan faculty have subsequently secured funding and come to WSU for PhD. studies..

Botswana 2000 Short-term visit to meet with faculty at University of Botswana and Botswana Faculty of Agriculture to plan activities under a new education and research grant. Subsequently hosted a series of reciprocal visits of Botswanan to WSU.

Mali 2000 Short-term consulting on sustainable agriculture and natural resources management in the Niger River Basin. Emphasis on inter-tribal conflict resolution between farmers and pastoralists

Madagascar 1995-6 Short-term consulting on environment and natural resource management research being conducted by Peace Corps volunteers and their collaborating agencies.

New Zealand, Australia 1994. Short-term study of agroforestry systems.

Tanzania 1992. Short-term assisting Tanzanian graduate student refine agroforestry field

- research methods.
- Jordan** 1990. Short-term research on Bedouin sheep production systems.
- Portugal** 1984. Short-term consulting on improving beef production systems for US Feed Grains Council.
- Australia** 1984. Short-term study of sheep production systems.
- Brazil** 1981-1984. Long-term research described under professional experience.
- Languages** in order of competence: English, Portuguese.

PROFESSIONAL AFFILIATIONS

Society for Range Management:

- Endowment Board of Governors. 2003 to present.
- Chair Professional Standards Committee 2002-2005.
- Professional Certification Committee 1999-2002.
- Executive Vice President Search Committee 2001.
- Accreditation Committee 1997-2000, Chair 1999-2000.
- International Director 1994-1997.
- Pacific Northwest Section president 1996.
- Pacific Northwest Section Board of Directors 1991-1993.
- Program Co-chair 1992 International Meeting.
- Professional Affairs Committee 1992-1994.
- Research Affairs Committee 1989-91.
- President Panorama Chapter 1988.
- Core Committee 1985 International Meeting.
- Planning Committee for 1979 National Summer Tour.
- Membership Committee Chair, Idaho Section 1979.

EXTENSION ACCOMPLISHMENTS

(50% of appointment)

Washington Coordinated Resource Management Task Group. 1996 - present. In 2002 and 2004, I search for, hired, trained and supervised extension coordinators to implement activities expanding use of CRM in Washington), including workshops, presentations, consultations and intensive collaboration with federal, state, local and non-profit organizations. Program success has resulted in continuing legislative enthusiasm and proposed funding continuation. Our success has become a national model for similar efforts in other states.

Washington Rangeland Committee. 1996 – present. I have continued to research and lead response to 2 issues critically affecting Washington’s rangelands, including authoring the committee’s official responses. The issues include reestablishment of the Columbia Basin pygmy rabbit, and changes in livestock grazing policy on Federal, and State. Past similar efforts have resulted in improved accuracy of rangeland information in the listing documents for the Columbia Basin Pygmy rabbit, major revisions to Department of Fish and Wildlife grazing policy including a statement of anticipated program benefits for wildlife, use of desired future condition as a basis for issuing

permits and monitoring results of grazing programs, and a streamlined comment and approval process within the agency. Our input resulted in a shift from a predominantly anti-grazing sentiment among the commissioners to recognition of the role of this tool on some lands and support of its proper use in these situations.

Invited member, Columbia Pygmy Rabbit Recovery Team. 2003- present.

Washington Coordinator of BEHAVE foraging behavior training program. 2005.

Invited participant in US Forest Service Centennial Forum. Ft. Collins, CO. 2004

Co-presented 2 day facilitation workshop sponsored by Natural Resource Conservation Service and Washington Conservation Commission. 2004.

Invited participant in Sustainable Rangelands Roundtable. 2001-2005. Forest Service-funded response to the Rio Earth Summit.

Member of Committee of Scientists appointed by the Secretary Glickman to recommend improved planning procedures for the U.S. Forest Service under the NFMA legislation. 1997-2000, 2002-3, 2005. We were brought back several times to review the administration's proposed rules based on our 1999 report.

Department liaison to Malawi Agroforestry Research and Extension Project. 1992-2003.

Planned and delivered a 2 day Coordinated Resource Management introductory course attended by over 100. 2003.

Collaborated in organizing and participated in tour for Washington Fish and Wildlife Commission and Director of Methow area wildlife habitat projects that use livestock grazing for habitat improvement. 2002.

Reviewed proposal for Fish and Wildlife Foundation addressing innovative monitoring partnership program for Washington Department of Fish and Wildlife's conservation easements.

Participated in organizing and hosting Coordinated Resource Management tour of Klickitat County area projects and 2002 executive meeting. Co-sponsored by the Washington Cattlemen's Association, the tour included the Secretary of Agriculture, NOAA Fisheries and local government officials for the first time, drew over 100 participants and was widely covered in the regional press.

Invited participant in expert panel assisting the Wilderness Society in formulating a vision for future management of public lands. 2001-2003.

Chair of Washington Coordinated Resource Management Task Group. 2000 – 2001. Led successful effort to secure first ever legislative support for expanding CRM programs. Organized tour of Entiat Watershed CRM project dubbed by the press as "Water for fish and farmers". Expanded participation by Washington Cattlemen's Association and Department of Ecology.

Presented 3 day field workshop on assessment of riparian conditions for Washington Department of Natural Resources land managers. 2001.

Presented workshop: Getting everyone to the table, for Washington Association of Conservation Districts annual meeting. Spokane, Wa. November, 2000.

Presented workshop: Building effective local partnerships, for Department of Ecology local watershed planning groups. Tacoma, Wa. November, 2000.

Briefed staff from Governor Locke's office and from the salmon recovery team on CRM programs, successes and opportunities in Washington State. Olympia, Wa. November 2000.

Contributed to development of Moses Coulee/Beezley Hills information sharing meetings to discuss results and plans for research and management efforts on public and private lands in this critical sagebrush steppe habitat. Wenatchee, Wa. November 2000.

Helped organize and present tour of successful salmon recovery projects conducted by CRM groups in Pierce County for state/federal agency administrators, legislative staffers and the press. Longview, Wa. September 2000.

Presented 3 workshops on resources for Coordinated Resource Management at EPA sponsored regional watershed roundtable. Also contributed to 2 days of input into regional watershed program priorities. September, 2000.

Presentation on range ecology and management in the shrub steppe of the Columbia River basin for Nature Conservancy site conservation planning team. September 2000.

Advised local government officials and met with community members and partner agencies to initiate a watershed improvement group for Leach Cr. watershed, the first urban/suburban salmon habitat CRM effort. Fircrest, Wa. September, 2000.

Participated by invitation in 2 day workshop on restoration of rangeland ecosystems to support implementation of Interior Columbia Basin Ecosystem Management Plan. Workshop resulted in preparation of technical recommendations document. August 2000.

Initiated collaborative relationship with new Nature Conservancy community based conservation program in Eastern Washington. Arranged get acquainted visit to WSU. July 2000.

Briefed Governor's Salmon Recovery Funding Board on suggested program improvements, including successful recommendation to fund planning initiatives for those areas lacking sufficient baseline data. Wenatchee, Wa. March 2000.

Chaired tri-state range management short course: Real World Monitoring. This 2-day program attracted over 100 participants. March, 2000, Okanogan, Wa.

Invited technical reviewer Governor's Salmon Recovery Funding Board proposals. Ellensburg, Wa. February, 2000.

Presented workshop: Coordinated Resource Management opportunities for landowners. Central Klickitat Conservation District annual meeting., Centerville, Washington. February 2000.

Presented program: Who's who in Washington State water regulation. Whitman County Cattlemen. Colfax, Wa. January 2000.

Technical committee for Washington Grazingland Conservation Initiative. 1999-2001. I was one of a core group that worked for several years to initiate a GLCI program in Washington. In 2000, I helped formulate the idea of hiring a range ecologist to support landowners' efforts to improve their land management. Served on search committee and assisted with grant writing to support the position.

Co-coordinator of Washington Accelerated Riparian Restoration (PFC) cadre. 1988 to present.

Presented workshop with D. Guenther: Coordinated Resource Management: an opportunity for improved resource management. Washington Association of Conservation Districts annual meeting, November 1999. Richland, Washington.

Organized Coordinated Resource Management executive tour, September 1999. Okanogan Wa.

Briefing for Washington Fish and Wildlife Commission. A self-sustaining approach to salmon recovery in Washington. August 1999. Ocean Shores, Washington.

Briefing for Washington Conservation Commission: Coordinated Resource Management for salmon recovery in Washington. Wenatchee, Washington. July 1999.

Co-taught riparian proper functioning condition course. Lewiston, Idaho. September 1999.

Coordinated riparian proper functioning condition course. Ellensburg, Washington. May 1999.

Planned and participated in "Salmon Summit" - strategizing means of assisting private landowners to cope with emerging salmonid habitat concerns. Spokane, Washington. April 1999.

Participated in Coordinated Resource Management executive tour, Kelso, Washington. 1998.

Workshop for Washington Cattlemen's Association. Riparian functioning: implications for private landowners. Ritzville, Washington. 1998.

Coordinated riparian proper functioning condition course. Ellensburg, Washington. July 1998.

Organized 2 day Coordinated Resource Management workshop. Ellensburg, Washington. 1998.

Chaired tri-state range management short course: Rangeland Restoration. Spokane, Washington 1997.

Presented program for President's Forest Plan northern advisory group on environmental concerns about livestock grazing on public lands. Chelan, Wa. January 1997.

Planning committee for Riparian and Watershed Management in the Interior Northwest: an Interdisciplinary Symposium. September 1997. LaGrande, Or.

Organized 1 day training session on rangeland ecology for Southeast Washington Resource Advisory Council and Spokane District, Bureau of Land Management. 1996

Forest grazing and other joint production options for non-industrial private forestland owners. Washington Department of Natural Resources Stewardship Workshops, Ellensburg, and Spokane, Wa. 1990.

PROFESSIONAL SERVICE

Provide 3rd party verification of ranch sustainability for applicants to the Food Alliance. Provided input into program improvements and training opportunities. 2004-5.

Independent Scientific Reviewer for Northwest Power and Conservation Council Sub-basin plans. 2004.

Editorial Board of Women in Natural Resources. 1987 to 2003. Continue to solicit features, edit and assist in editorial decisions, such as going totally web-based in 2003. In 2000, located a new managing editor, arranged donation of 2 computer workstations and facilitated successful transition to new editor.

Reviewer for Journal of Range Management, Western Journal of Applied Forestry, Agroforestry Systems and others.

External tenure /promotion referee: Oregon State University, University of Wyoming, University of Nevada, University of Idaho, Michigan State, Michigan Tech and UC Berkeley

Washington State representative to Western Regional Coordinating Committee on Rangeland Research (WRCC-40). 1990-present.

Head Distinguished Professorship selection committee at University of Idaho. 2000.

Initiated a network of approximately 30 women natural resource scientists and graduate students in the Moscow-Pullman area: Women in Natural Resources, which has met monthly from 1990 to the present.

Served on CSREES comprehensive review team for Michigan Tech University School of Forestry and Natural Resources. 1999.

Served on Renewable Natural Resources Foundation policy and position task group. 1997-1998.

Organized 2 day range health workshop, tour and meeting of WCC-40 rangeland ecology group. 1997. Spokane, Wa.

Served on CSREES comprehensive review team for University of Nebraska- Lincoln Department of Forestry, Fisheries and Wildlife. 1996.

Jointly organized a 1 day workshop for 6th grade girls in Moscow, Idaho on career opportunities in natural resource management. 1996.

Organized 2 day workshop on listening skills for conflict prevention on natural resources management. 1996 Annual meeting, Pacific Northwest Section, Society for Range management, The Dalles, OR.

Chaired session on rangeland social science at 1996 international meeting of Society for Range Management, Wichita, Kansas.

Program chair for 4th Conference on Agroforestry in North America. 1995.

Steering Committee founding the Association for Temperate Agroforestry. 1990-1994.

Served on panel to select new range specialist for Washington Department of Natural Resources. 1994.

Chaired session on livestock behavior at 1993 international meeting of Society for Range Management, Colorado Springs, CO.

USDA/CSRS review of rangeland research program at Utah State University. 1993.

Steering committee of symposium, Agroforestry for Sustainable Semi-arid Agriculture, sponsored by USDA Forest Service Center for Semi-arid Agroforestry. 1993-1994.

USDA/CSRS review panel for 1992 Rangeland Competitive Grants Program.

Chaired session "Managing rangelands during drought", at 1991 meeting of Pacific Northwest Section, Society for Range Management. Wenatchee, WA.

Chaired session "People and rangelands", at 1990 international meeting of Society for Range Management, Washington, D.C.

USDA/CSRS review panel for 1990 Rangeland Competitive Grants Program.

Chair international symposium, Planning for Agroforestry. 1987-1989.

Steering Committee for 1st Conference on Agroforestry in North America.

Invited participant in workshop that produced: Nair, P. K. R., H. L. Gholz and M. L. Duryea, eds. 1989. Agroforestry education and training. # 35 Forestry Science Series, Kluwer Academic Publishers, Dordrecht.

Represent Washington State University in the Washington Watershed Coalition. 1988-1989.

Washington State representative to Western Regional Coordinating Committee on Revegetation and Stabilization of Deteriorated and Altered Lands (WRCC-21). 1988-1989.

Advisory Committee of Wetlands Workshop sponsored by Region 10, EPA. 1989.

Steering Committee of Stream Corridor Management Workshop sponsored by Palouse Conservation District. 1988-89.

TEACHING ACCOMPLISHMENTS

(25% of appointment)

CLASSROOM TEACHING

a. Courses Taught at WSU:

Year	Course number & title	Credits	Semester	Size
	New preparation E extended delivery format			
1985-1986				
	FRM 351 Principles of Range Management	3	F	25
	FRM 303 Conservation of Renewable Natural Resources	3	F	50
	FRM 303 Conservation of Renewable Natural Resources	3	S	72
	FRM 555 International Range Management Seminar	3	S	8
1986-1987				
	FRM 403/503 Public Land Management Planning	3	F	11
	FRM 100 Introduction to Forest and Range Management	1	F	20
	FRM 555 Livestock Production in Agroforestry Systems	3	S	10
	FRM 303 Conservation of Renewable Natural Resources	3	S	48
1987-1988				
	FRM 351 Principles of Range Management	3	F	28
	FRM 100 Introduction to Forest and Range Management	1	F	24
	ESRP 520 Perspectives in Agroforestry	2	F	20
	FRM 303 Conservation of Renewable Natural Resources	3	S	105
1988-1989				
	FRM 351 Principles of Range Management	3	F	20
	WLB 280 Introduction to Wildlife Management	3	F	31
	FRM 595 Graduate Seminar	1	S	5
1989-1990				
	NATRS 351 Principles of Range Management	3	F	25
	NATRS 595 Graduate Seminar	1	F	6
	NATRS 280 Intro. to Wildlife Management (w/ Robbins)	3	F	36
1990-1991				
	NATRS 351 Principles of Range Management	3	F	45
	NATRS 519 Special Problems	3	F	3
	NATRS 595 Graduate Seminar	1	F	7
	NATRS 100 Intro. to Natural Resource Management	1	F	44
1991-1992				
	NATRS 351 Principles of Range Management	3	F	25
	NATRS 595 Grad. Seminar "Serving diverse publics"	1	F	7

NATRS 519	Special Problems	3	F	1
1992-1993				
NATRS 351	Principles of Range Management	3	F	42
NATRS 595	Grad. Seminar "Field teaching techniques"	1	F	10
NATRS 499	Special Problems	3	F	1
NATRS 491	Integrated Field Studies (team taught)	2	S	12
1993-1994				
NATRS 351	Principles of Range Management	3	F	48
NATRS 595	Grad. Seminar "Working with volunteers"	1	F	10
NATRS 499	Special Problems	3	F	3
1994-1995				
NATRS 351	Principles of Range Management	3	F	50
NATRS 595	Graduate Seminar	1	F	12
1995-1996				
NATRS 595	Graduate Seminar on Indigenous Issues	1	F	14
NATRS 303	Cons. of Renewable Natural Resources	3	S	11
NATRS 600	Agroforestry directed study	3	S	3
1996-1997				
NATRS 303	Cons. of Renewable Natural Resources	3	S	21
NATRS 303E	Cons. of Renewable Natural Resources	3	Su	5
NATRS 452	Range Development and Improvements	3	S	6
1997-1998				
NATRS 303E	Cons. of Renewable Natural Resources	3	F	60
NATRS 303E	Cons. of Renewable Natural Resources	3	S	60
1998-1999				
	On sabbatical leave			
1999-2000				
NATRS 303E	Cons. of Renewable Natural Resources	3	F	60
NATRS 303E	Cons. of Renewable Natural Resources	3	S	60
NATRS 423	Is Gender an Issue in Nat. Res. Mgmt?	1	S	8
2000-2001				
NATRS 303E	Cons. of Renewable Natural Resources	3	F	90
NATRS 595	Graduate School Survival	1	F	14
NATRS 303E	Cons. of Renewable Natural Resources	3	S	35
NATRS 303E	Cons. of Renewable Natural Resources	3	Su	30
2001-2002				
NATRS 303E	Cons. of Renewable Natural Resources	3	F	40
NATRS 100	Introduction to Natural Resource Mgmt.	1	F	60
NATRS 419	Special Topics (303 on campus)	3	F	2
NATRS 303E	Cons. of Renewable Natural Resources	3	S	10
NATRS 499	Special Problem	2	S	1
NATRS 479	Internship	1	S	1
2002-2003				
NATRS 519	Special Problem	1	F	1

b. Interdisciplinary Teaching at WSU

Year	Course number & title	Semester	Students	Lectures
1986-1987				
	ESRP 101 Natural Resources and the Environment	F	300	2
	AgHec 499 Opportunities in International Agriculture	F	20	1
1987-1988				
	ESRP 101 Natural Resources and the Environment	F	300	2
	ESRP 101 Natural Resources and the Environment	S	300	2
1988-1989				
	ESRP 101 Natural Resources and the Environment	F	300	2
	ESRP 101 Natural Resources and the Environment	S	300	2
	AGRON 512 Sustainable Agricultural Systems	S	20	1
1989-1990				
	ESRP 101 Natural Resources and the Environment	F	350	2
	ESRP 101 Natural Resources and the Environment	S	350	2
1990-1991				
	ESRP 101 Natural Resources and the Environment	F	350	2
	ESRP 101 Natural Resources and the Environment	S	350	2
1992-1993				
	VMS 499 International Veterinary Medicine	F	35	1
1993-1994				
	VMS 499 International Veterinary Medicine	F	25	1
	BioSci 498 Forest ecology and field methods (Central Washington University)	F	17	4
1993-1994				
	VMS 499 International Veterinary Medicine	F	20	1
1994-1995				
	VMS 499 International Veterinary Medicine	F	20	2
	ESRP 101 Natural Resources and the Environment	S	400	2
1995-1996				
	VMS 499 International Veterinary Medicine	F	20	2
	ESRP 101 Natural Resources and the Environment	S	400	2
1996-1997				
	VMS 499 International Veterinary Medicine	F	20	2
1996-1997				
	VMS 499 International Veterinary Medicine	F	30	2
1997-1998				
	VMS 499 International Veterinary Medicine	F	30	1
	Chem Environmental Chemistry (IU)	S	21	1
	AnSci Aquaculture	S	40	1
1998-1999				
	For. 504 Advanced Forest Policy (UI)	F	10	3

1999-2000					
NATRS 100	Introduction to Nat. Res. Mgmt.	F	60	1	
Range 456	Integrated Range Management (UI)	S	30	1	
AnSci	Aquaculture	S	40	1	
2000-2001					
NATRS 280	Introduction to Wildlife Management	F	35	1	
2001-2002					
FWR	Natural Resources Planning (UI)	F	30	1	

GRADUATE STUDENTS SUPERVISED

a. In progress * committee chair

Theogene Mbabaliye*- Ph.D. Environmental and Natural Resource Sciences. Learning outcomes for natural resource science students studying via distance delivery. Planned completion Summer 2004.

Lee Walls*- Ph.D. Environmental and Natural Resource Sciences. The role of traditional plants in conservation planning on Indian lands in Washington State. Planned completion 2005.

Robert Venable - Ph.D. Crops and Soils. Ecology of rhizobacteria in the shrub-steppe. Planned completion 2006.

Elvia Lopez-Perez. - Ph.D. Environmental and Natural Resource Sciences. Effects of forage enhancement on Roosevelt elk in the Wynoochee River Valley of Western Washington. Planned completion August 2005.

Matt Berger - M.S. Natural Resource Sciences. Prospects for reintroduction of pronghorn antelope on the Colville reservation. Planned completion summer 2004.

Amanda Blakely - M.S. Rangeland Ecology and Management. University of Idaho. Introducing GIS tools to ranchers. Planned completion 2005.

b. Programs Completed

Linda Lyon*- Ph.D., 2003 Environmental and Natural Resource Sciences. Ethnobotanical approaches to forest conservation in Madagascar.

Ephraim Mwangomo. *- MS Natural Resource Sciences. 2002. Dry season ecology of the Fisher's lovebird and associated species in Serengeti National Park, Tanzania.

Nicole Siegel – MS Natural Resource Sciences. 2002. The ecology of pygmy rabbits at Sagebrush Flat in Eastern Washington.

Masashi Konoshima – MS Forest Resources, 2001. University of Idaho. Mathematical programming to combine market and traditional values in Nez Perce tribal forest management.

Linda Lyon*- MS Natural Resource Sciences. 1999. Antanosy odyssey: an initial exploration of the potential for agroforestry in Southern Madagascar.

Christopher E. Gebauer*- MS Natural Resource Sciences. 1998. The effects of cattle, big game grazing and tree species on soil properties in a seral forest.

Daniel Forman*- MS Natural Resource Sciences. 1998. The effects of shade and defoliation on reed canarygrass (*Phalaris arundinaceae*) biomass production.: a greenhouse study.

Kimberly McKanna*- MS Natural Resource Sciences. 1997. The influence of neutrality on post-war forest policy: A post-WWII Scandinavian case study.

Huguenel Alezi*- MS Natural Resource Sciences. 1997. An economic analysis of an orchard grazing agroforestry system.

Omaru Badini - PhD Soil Science. 1997. Modeling energy and water dynamics of a temperate agroforestry system.

Holly Munch - MS Natural Resource Sciences. 1996. Reproductive ecology of giant Canada geese.

Anna Owsiak - MS Natural Resource Sciences. 1996. Timber harvest effects on subsequent pocket gopher damage to tree seedlings.

John Paul Adams - MS Range Management, University of Idaho. 1996. Comparing methods of assessing range condition and trend on a forested allotment.

Charlie Bonongwe - MS Natural Resource Sciences. 1995. Economic comparison of agroforestry interventions in Malawi.

Roberto Avila - MS Forest Resources, University of Idaho. 1994. An integrated system for hardwood forest management in Northern Honduras. Ph.D. student at University of Idaho.

Marianne Garrison - MS Forest Resources, University of Idaho. 1994. Tree and herbage production under five densities of *Pinus radiata* in the central Ecuadorian highlands. Employed by Peace Corps.

Rashid Msangi*- MS Natural Resource Sciences. 1992. A comparison of native and introduced browse species for dry season feeding of goats in central Tanzania. Employed by International Center for Research in Agroforestry.

John H. Lawrence* - MS Natural Resource Sciences. 1991. An investigation of the potential for agroforestry in Washington State. Employed by the Government of Guam, Division of Forestry.

Rhonda Beyke - MS Environmental Sciences. 1991. The amelioration of uranium mine spoils by topsoil, sludge, and flyash. Employed by Dept of the Army, Environmental Resource Team.

Yanira Mbekeani - MS Forest Management. 1991. Effect of spacing, and lopping on water relations, leaf area development and biomass partitioning in a *Leucaena*-maize agroforestry system. Employed by the Government of Malawi, Agroforestry Commodity Group.

Sharon E. Churchill* - MS Regional Planning. 1989. The development of management plans for spotted owls in western Oregon by the Forest Service and Bureau of Land Management. Employed by US Forest Service.

Kirk Sullivan - MS Environmental Sciences 1990. The use of benthic aquatic insects as biological indicators on Trout Cr. watershed, Washington. Employed by National Park Service.

Michael Jennings - MS Regional Planning. 1988. Local government policies toward environmentally sensitive areas of British Columbia, Washington, and Oregon

and genetic Doug Osterman - MS Regional Planning. 1987. Watershed planning: an approach to implementing title XII of the Food Security Act of 1985.

Azene Bekele - Tesemma-MS Forest Management. 1987. Rainfall erosivity analysis and index modeling for Ethiopia: a preliminary step in evaluating the effectiveness of erosion control methods.

RESEARCH ACCOMPLISHMENTS

(25% of appointment)

CURRENT RESEARCH PROJECTS

Ecological and genetic approaches to control of *Phalaris arundinacea* in Northwest wetlands. Principal investigator. Agricultural Research Center.

Restoration ethnobotany: Applying traditional ecological knowledge. Principal investigator. Agricultural Research Center.

Evaluating the effectiveness of distance education in the natural resource sciences. Principle investigator.

Breeding ecology of the Fisher's lovebird and rufous-tailed weaver in Serengeti National Park, Tanzania. Co-principle investigator with E. Mwangomo. Funded by USAID and Tanzania Park Service.

Ethnobotanical approaches to forest conservation in Madagascar. Co-principle investigator with L. Lyon. Various funding sources.

PUBLICATIONS

a. **Peer-reviewed** (total 24 in print, 1 in review, 6 in preparation)

E. A. Mwangomo, L. H. Hardesty, A. R.E. Sinclair, and S. Mduma. Rufous-tailed Weaver Nest Site Selection and Defense in Serengeti National Park. African Journal of Ecology. (Currently under review by 3rd and 4th authors)

- Gebauer, C. E., L. H. Hardesty and J. C. Buckhouse. Cattle, Wildlife, and Tree Effects on Soil Compaction in a Seral Forest. (in revision).
- Gebauer, C. E., L. H. Hardesty and J. C. Buckhouse. Grazing and Tree Species Effects on Soil Nutrients in a Seral Forest. (in revision).
- Lyon, L. M. and L. H. Hardesty. Non-Domesticated Medicinal Plants In The Marketplace of Antananarivo, Madagascar. *Journal of Ethnobiology* (in final draft).
- Lyon, L. M. and L. H. Hardesty. Traditional Healing In The Contemporary Life of The Antanosy People of Madagascar. *Human Organization*. (nearing final draft).
- Forman, D. J., L. H. Hardesty, and R. D. Sayler. Greenhouse studies of the effects of shade and defoliation on reed canarygrass (*Phalaris arundinacea*) biomass production. (in final draft).
- Mwangomo, E. A., L. H. Hardesty, A. R. E. Sinclair and S. Mduma.
The association of two endemic birds in the Serengeti ecosystem: habitat selection, diet and group formation of the rufous-tailed weaver, Fischer's lovebird and associated species. *African J. of Ecol.* (accepted).
- Lyon, L. M. and L. H. Hardesty. 2002. Traditional tenure systems regulating forest product extraction and use by the Antanosy of Madagascar. *J. Ethnobiology* 22(2): 273-285.
- Johnson, N. K., J. Agee, R. Beschta, V. Dale, L. Hardesty, J. Long, L. Nielsen, B. Noon, R. Sedjo, M. Shannon, R. Trosper, C. Wilkinson, and J. Wondolleck. 1999. Sustaining the people's lands: recommendations for stewardship of the national forests and grasslands into the next century (excerpts and recommendations). *Journal of Forestry*. 97(5):6-12.
- Johnson, N. K., J. Agee, R. Beschta, V. Dale, L. Hardesty, J. Long, L. Nielsen, B. Noon, R. Sedjo, M. Shannon, R. Trosper, C. Wilkinson, and J. Wondolleck. 1999. Sustaining the people's lands: recommendations for stewardship of the national forests and grasslands into the next century(a summary). *Rangelands* 21(4):25-28.
- Hardesty, L. H. 1999 Sustaining the people's lands: implications for rangeland management. *Rangelands* 21(4):31.
- Hardesty, L. H. and, J. H. Lawrence. 1996. Comparing forest landowner's and land management advisor's perceptions of agroforestry in Washington State. *Women in Natural Resources* 17(2):14-17.
- Hardesty, L. H. and J. A. Tiedeman. 1996. Integrating crop and livestock production in Inland Northwest farming systems. *Am. J. Alt. Ag.* 11(2):21-26.
- Msangi, R. B. R. and L. H. Hardesty. 1993. A comparison of native and introduced browse species for dry season feeding of goats in central Tanzania. *J. Range Manage.* 46:410-415.

- Hardesty, L. H., J. H. Lawrence, S. J. Gill, and R. C. Chapman. 1993. Non-industrial private forest landowner's perceptions of forest grazing in Washington State. *J. Range Manage.* 46:49-55.
- Lawrence, J. H., L. H. Hardesty, R. C. Chapman, and S. J. Gill. 1992. Agroforestry practices of Washington State non-industrial private forest land owners. *Agroforestry Systems* 19:27-36.
- Lawrence, J. H., and L. H. Hardesty. 1992. Mapping the territory: agroforestry awareness among Washington State land managers. *Agroforestry Systems* 19:37-55.
- Hardesty, L. H. 1991. Global deforestation: consequences of the sound nobody hears. *Women in Natural Resources* 12(4): 28-30.
- Hardesty, L. H. 1991. A survey of current range research activity. *J. Range. Manage.* 44:289-294.
- Hardesty, L. H. 1990. Planning for agroforestry. *Land Use Policy* 7(1):87-89.
- Bassman, J. H., K. A. Blatner, and L. H. Hardesty. 1989. Agroforestry: opportunities for American foresters. *Resource Management and Optimization* 6(4):91-100.
- Hardesty, L. H. 1988. Multiple use management in the Brazilian caatinga. *J. For.* 86(8):35-37.
- Hardesty, L. H., and T. W. Box. 1988. Defoliation impacts on coppicing browse species in northeast Brazil. *J. Range Manage.* 41:66-70.
- Hardesty, L. H., T. W. Box, and J. C. Malechek. 1988. Season of cutting affects biomass production by coppicing browse species of the Brazilian caatinga. *J. Range Manage.* 41:479-482.
- Hardesty, L. H. 1987. Coppicing: using a forester's tool on rangelands. *Rangelands* 9(3):129-132.
- Hardesty, L. H., G. Deffar, and K. A. Blatner. 1987. A selected bibliography on analyzing joint production aspects of agroforestry systems. *Women in Natural Resources* 9(2):11-19.
- Hardesty, L. H. 1986. Overseas, women are at home on the range. *Women in Forestry* 7(4):6-8 (reprinted from *Rangelands*, 1984. 6(1):17-18).
- Box, T. W., and L. H. Hardesty. 1984. Coming of age in range management. *Rangelands* 6(5):195-198.
- Hardesty, L. H. 1984. The challenge of integrated brush management in the semi-arid tropics. *Rangelands* 6(6):249-253.
- Hardesty, L. H. 1984. Overseas, women are at home on the range. *Rangelands* 6(1):17-18.
- Hardesty, L. H., and T. W. Box. 1984. The range manager's contribution to small, mixed farming systems: Portugal as a case study. *Rangelands* 6(6):256-258.

b. Books and Book Chapters (total of 3)

Hardesty, L. H., and H. Barrett. 1994. Rangeland watershed management. Pages 597-606 In C. J. Arntzen, ed. Encyclopedia of agricultural sciences. Academic Press, San Diego.

Budd, W. W., L. H. Hardesty and W. T. Hinds. 1990. A conspectus for agroforestry. Pages 321-335 In W.W. Budd, I. Duchhart, L. H. Hardesty, and F. Steiner, eds. Planning for agroforestry. Elsevier Science Publishers, Amsterdam.

Budd, W. W., I. Duchhart, L. H. Hardesty, and F. Steiner, eds. 1990. Planning for agroforestry. Elsevier Science Publishers, Amsterdam.

c. Other Publications (total of 34)

Hardesty, L. H. with S. Martin. 2001. Extending the university in Botswana. Women in Natural Resources 22(3):32-37.

Hardesty, L. H. 2001. Diamonds are forever? Reflections on enduring treasures. Women in Natural Resources 22(3): inside cover, 3.

Hardesty, L. H. 1999. Sagebreath. Women in Natural Resources 20(3): inside cover, 3.

McClure, N. R. and L. H. Hardesty. 1999. Stewardship and sustainability for the salmon crisis and beyond. White paper for the Washington Rangeland Committee, Pullman, WA.

Johnson, N. K., J. Agee, R. Beschta, V. Dale, L. Hardesty, J. Long, L. Nielsen, B. Noon, R. Sedjo, M. Shannon, R. Trosper, C. Wilkinson, and J. Wondolleck. 1999. Stewardship of the peoples' lands. Report to the Secretary of Agriculture. U.S.D.A. Forest Service, Washington, DC.

Hardesty, L. H. 1997. Conservation of Renewable Resources: Course guide. Extended university programs, Washington State University.

Hardesty, L. H. 1997. Conservation of Renewable Resources: a 16 hour video course. Extended university programs, Washington State University

Hardesty, L. H. (ed.) 1997. Conservation of Renewable Resources: Course reader. Extended university programs, Washington State University.

Lambert, S. M., R. D. Sayler, and L. H. Hardesty. 1998 The Palouse Prairie – does it still exist or is it extinct? Forest Knots. Washington State University Cooperative Extension, Pullman, Wa.

Hardesty, L. H. 1997. Soil productivity and range health indicators. Shifting gears for the future: soil quality and long term soil productivity. USFS Northern Region Soils Workshop. 10pp.

Hardesty, L. H. 1996. Five billion rangeland managers. President's message. Pacific Northwest Section SRM Newsletter 47(3):1.

- Hardesty, L. H. 1996. Pacific Northwest. Pages 43-45 *In* M. L. Merwin, ed. The status, opportunities and needs for agroforestry in the United States. Association for Temperate Agroforestry, Lexington, KY.
- Hardesty, L. H. 1996. Community lifelines. President's message. Pacific Northwest Section SRM Newsletter 47(2):1.
- Hardesty, L. H. 1996. A fifty year perspective. President's message. Pacific Northwest Section SRM Newsletter 47(1):1.
- Hardesty, L. H. 1996. Characteristics of future rangelands on the Tyee Cr. and Hatchery Complex fire sites. USDA Forest Service, Pacific Northwest Research Station.
- Hardesty, L. H. 1995. Rekemba reflects. President's message. Pacific Northwest Section SRM Newsletter 46(3):1.
- Hardesty, L. H., and L. M. Lyon. 1995. Agroforestry and sustainable systems in the Pacific Northwest. Pages 187-198. *In* Agroforestry and sustainable systems: Symposium proceedings. USDA Forest Service, RM-GTR-261.
- Hardesty, L. H. and, J. H. Lawrence. 1995. Comparing forest landowner's and land management advisor's perceptions of agroforestry in Washington State. Pages 18-25 *In* Ehrenreich, D. Ed. Proceedings of the 4th Conference on Agroforestry in North America. Boise, Id.
- Garrett, H. E., L. E. Buck, M. A. Gold, L. H. Hardesty, W. B. Kurtz, J. P. Lassoie, H. A. Pearson, and J. S. Slusher. 1994. Agroforestry: an integrated land use management system for production and farmland conservation. Chapter in the 1995 Resource Conservation Act Appraisal. Natural Resource Conservation Service, Washington, DC.
- Everett, R. L. and L. H. Hardesty. 1994. Restoration of stressed, forested rangelands. Pages 99-109, *In* Everett, R. L., Compiler, Volume IV: restoration of stressed sites and processes. Eastside Forest Ecosystem Health Assessment. USDA Forest Service, Pacific Northwest Research Station. PNW-GTR-330.
- Hardesty, L. H. and J. A. Tiedeman. Integration of crop and livestock production in inland northwest farming systems. Proc. U.S. - Middle East Conference and Workshop on Dryland Farming Systems .
- Hardesty, L. H. and W. E. Howell. 1991. Silvopastoral options for fruit growers. Paper presented at 2nd Conference on Agroforestry in North America, Springfield, MO.
- Lawrence, J. H. and L. H. Hardesty. 1991. Agroforestry practices of non-industrial private forestland owners in Washington State. Paper presented at 2nd Conference on Agroforestry in North America, Springfield, MO.
- Hardesty, L. H. 1988. Livestock management in mixed farming systems. Pages 147-157 *In*: C.W. Gay, G. Perrier, and J. Tiedeman eds. Proc. International Rangeland Resources Development Symposium, Corpus Christi, Texas.

- Hardesty, L. H. 1988. The family as a production unit - a video tape series. AWID, Washington State University, Pullman.
- Hardesty, L. H. 1988. Review of Bioenergetics of Wild Herbivores. 1985. CRC Press, Inc. Boca Raton, FL. 314 p. *J. Range Manage.* 41(3):270.
- Hardesty, L. H. 1988. Review of Cattle in the cold desert. 1985. James A. Young and B. Abbott Sparks. Utah State University Press, Logan, 255 p. *J. Range Manage.* 41(1):94.
- Hardesty, L. H., and J. H. Bassman. 1987. Institutionalizing range management's role in agroforestry systems. Pages 9-14 In: J. T. O'Rourke, ed. *Proceedings International Rangeland Resources Development Symposium*. Boise, Idaho.
- Hardesty, L. H. 1987. What does agroforestry have to do with range management? *International Range News*. Vol. 2, No. 1.
- Hardesty, L. H. 1986. Factors affecting the sprouting of woody caatinga species and implications for improved forage production. Pages 103-111 In: W. L. Johnson and E. C. Valois, eds. *Goats and Sheep in Northeast Brazil*. EMPRAPA - CNPC, Sobral, Brazil.
- Hardesty, L. H. 1984. Coppicing to improve dry season forage production in the semi-arid tropics. Page 267 In: P. J. Joss, P. W. Lynch, and O. B. Williams eds. *Rangelands: a Resource Under Siege*. Proc. 2nd International Rangeland Congress, Adelaide, Australia.
- Hardesty, L. H. 1984. Manejo da rebrota da caatinga para aumentar a producao das forragens: relatorio final. Centro National de Pesquisa em Caprinos. 48 pages.
- Hardesty, L. H., 1982. Brush management potential in the caatinga. (pages unavail.) Proc. Simposio Semi-arido. Recife, Brasil.
- Hardesty, L. H., and T. W. Box. 1982. Preparing women for international service: a case study experience. Pages 11-27 In: Proc. *Women in Natural Resources: an International Perspective*.
- d. Published Abstracts (total of 27)**
- Forman, Daniel J. , L. H. Hardesty and R. D. Saylor. 2005. Effects of shade and defoliation on reed canarygrass (*Phalaris arundinacea* L.) biomass production. Abstr. International Meeting, Society for Range Management, Ft. Worth, TX.
- Lyon, L. M., L. H. Hardesty. 2003. Non-domesticated medicinal plants in the marketplace system of Antananarivo, Madagascar. Society of Ethnobiology 26th Annual Meeting, Seattle, Washington.
- Mwangomo, E., L. H. Hardesty, A. R. E. Sinclair, and R. D. Saylor. 2002. Assessing the need for restoration of Fisher's lovebird habitat. Ecological Society of America Annual Meeting, Tucson, Arizona.

- Bianchi, M. and L. H. Hardesty. 2001. EPA Nitrate level standards applied to growth of reed canarygrass (*Phalaris arundinacea* L.). WSU undergraduate research exposition, Pullman, Washington.
- Forman, D. J. L. H. Hardesty and R. D. Saylor. 2001. The effects of shade and defoliation on reed canarygrass (*Phalaris arundinacea* L.) biomass production. Abstr. International Meeting, Society for Range Management, Kona Hawaii.
- Gebauer, C. E., Hardesty, L. H., and J. C. Buckhouse. 2001. Cattle, wildlife, and tree effects on soil nutrients in a seral forest. Abstr. International Meeting, Society for Range Management, Kona Hawaii.
- Mbabaliye, T. and L. H. Hardesty. 2001. "Technology" in natural resources distance education. 2001. Abstr. International Meeting, Society for Range Management, Kona Hawaii.
- Forman, D. J. L. H. Hardesty and R. D. Saylor. 2000. The effects of shade and defoliation on reed canarygrass (*Phalaris arundinacea* L.) biomass production: a greenhouse study. Wa. Dept. Transportation reed canarygrass symposium, Olympia, Washington.
- Gebauer, C. E., Hardesty, L. H., and J. C. Buckhouse. 1998. Impacts of grazing on soil properties of a seral forest in northeastern Oregon. Abstr. 51st International Meeting, Society for Range Management, Guadalajara, Mexico.
- Hardesty, L. H. and L. M. Lyon. 1997. Use of forest products to enhance well-being and sustainability of forest communities in Madagascar. Abstracts of Forest Products for Sustainable Forestry. IUFRO Division 5 Conference. Pullman, Washington.
- Hardesty, L. H. 1997. Working with reed canarygrass (*Phalaris arundinacea*) on moist soil sites in the Pacific Northwest. Abstracts of the Tri-state range management short course: Rangeland Restoration. Spokane, Wa
- Gebauer, C. E., Hardesty, L. H., and J. C. Buckhouse. 1997. Forest soil bulk density after twenty-six years of cattle and big game grazing in northeastern Oregon. Abstr. 50th International Meeting, Society for Range Management, Rapid City, South Dakota.
- Hardesty, L. H. and, J. H. Lawrence. 1995. Comparing forest landowner's and land management advisor's perceptions of agroforestry in Washington State. 4th Conference on Agroforestry in North America, Boise, Idaho.
- Hardesty, L. H., and R. D. Saylor. 1995. An ecological approach to control of *Phalaris arundinacea*. Abstr. 48th International Meeting, Society for Range Management, Phoenix, Arizona.
- Hardesty, L. H., M. F. Linton, and J. C. Buckhouse. 1995. Forest grazing effects on long-term site productivity. Abstr. 48th International Meeting, Society for Range Management, Phoenix, Arizona.

- Sayler, R. D., S. K. Martin, G. W. Witmer, and L. H. Hardesty. 1994. Managing wildlife in forest ecosystems: exploring critical processes and interactions. *Ecosystem Management in Western Interior Forests*, Spokane, Washington.
- Hardesty, L. H., and J. H. Lawrence. 1993. A comparison of private forest landowner's and land management advisor's views of agroforestry. 3rd Conference on Agroforestry in North America, Ames, Iowa.
- Hardesty, L. H., and W. E. Howell 1993. Three approaches to managing browsing in silvopastoral systems. 3rd Conference on Agroforestry in North America, Ames, Iowa.
- Hardesty, L.H., and W. E. Howell. 1992. Establishment and quality of improved pasture species in an orchard understory. Abstr. 45th International Meeting, Society for Range Management, Spokane, Washington.
- Msangi, R. B. R., and L. H. Hardesty. 1992. A comparison of native and introduced browse species for dry season feeding of goats in Tanzania. Abstr. 45th International Meeting, Society for Range Management, Spokane, Washington.
- Hardesty, L. H. 1991. Controlling browsing behavior in agroforestry systems. Abstr. 44th International Meeting, Society for Range Management, Washington, D.C.
- Hardesty, L. H., and A. C. Kennedy. 1988. The ecology of rhizobacteria on rangelands. Abstr. 41st Annual Meeting, Society for Range Management, Corpus Christi, Texas.
- Hardesty, L. H. 1987. Goat browsing influences phenology of deciduous browse species. Abstr. 40th Annual Meeting, Society for Range Management, Boise, Idaho.
- Malechek, J. C., G. Rouse, L. H. Hardesty and F. D. Provenza. 1986. Guided design: a technique for teaching range improvements to undergraduates. Abstr. 39th Annual Meeting, Society for Range Management, Orlando, Florida.
- Hardesty, L. H. 1986. Season of cutting affects production of coppicing browse species in northeast Brazil. Abstr. 39th Annual Meeting, Society for Range Management, Orlando, Florida.
- Hardesty, L. H. and T. W. Box. 1985. Coppicing to improve forage production. Abstr. 38th Annual Meeting, Society for Range Management, Salt Lake City, Utah.
- Hardesty, L.H. 1984. Manejo da rebrota das especies lenhosas da caatinga para melhorar a producao das forragens na estacao seca. Abstr. 21st Reunion Annual da Sociedad Brasileira de Zootecnia, Belo Horizonte, MG Brazil.

SELECTED PRESENTATIONS (from a total of 71 personally presented)

- Hardesty, L. H. 2005. A model for CRM implementation with legislative funding. Coordinated Resource Management Workshop. International Meeting, Society for Range Management, Ft. Worth, TX.
- Hardesty, L. H., D. J. Forman, and R. D. Saylor. 2005. Effects of shade and defoliation on reed canarygrass *Phalaris arundinacea* L.) biomass production. International Meeting, Society for Range Management, Ft. Worth, TX.
- Hardesty, L. H. 2004. How can the Forest Service better serve the public while caring for the land in the 21st Century? US Forest Service Centennial Forum, Ft. Collins, CO.
- Hardesty, L. H. 2003. Back to the future: Restoration ethnobotany. College of Natural Resources, University of Idaho, Moscow, Idaho.
- Hardesty, L. H. 2002. Range management on the livestock/environment interface. South Dakota State University, Brookings, South Dakota.
- Hardesty, L. H. 2002. Extension on the livestock/environment interface. Western State Experiment Station, Rapid City, South Dakota.
- Mwangomo, E., L. H. Hardesty, A. R. E. Sinclair, and R. D. Saylor. 2002. Assessing the need for restoration of Fisher's lovebird habitat. Ecological Society of America Annual Meeting, Tucson, Arizona.
- Hardesty, L. H. 2001. The potential for using livestock grazing to manipulate wildlife habitat on WDFW lands. Washington Department of Fish and Wildlife Land Manager's Conference. Mt. Vernon, Washington.
- Hardesty, L. H. and O. T. Totolo. 2001. International collaboration to extend the mission of agriculture and environmental science academic programs in Botswana. Association Liasion Office Annual Conference, Washington DC.
- Hardesty, L. H. 2001. Is there a role for livestock grazing in conserving biodiversity? The Nature Conservancy Aridlands Grazing Network Workshop, Boise, Idaho.
- Hardesty, L. H. 2001. Field evaluation of riparian conditions. MacIntosh Ranch tour. Whitman County Cattlemen. Colfax, Washington.
- Hardesty, L. H. 2001. Riparian proper functioning condition: theory and practice. Washington Department of Natural Resources. Malaga, Washington.
- Hardesty, L. H. 2000. Alphabet soup: who is who in Washington State water regulation. Whitman County Cattlemen. Colfax, Washington.
- Hardesty, L. H. 2000. The "D" word – distance delivery of range science education. Symposium: Blazing new trails: range management science education in the 21st century. Boise, Idaho.

- Hardesty, L. H., B. Little, and J. Marvel. 1999. Is collaboration possible? The future of public lands grazing. A public debate sponsored by University of Idaho Colleges of Natural Resources and Agriculture.
- Hardesty, L. H. and D. Guenther. 1999. Coordinated Resource Management: an opportunity for improved resource management. Washington Association of Conservation Districts Annual Meeting, Richland, Washington.
- Hardesty, L. H., and C. Perry. 1999. A grassroots vision for salmon recovery in Washington. Briefing for Washington Fish and Wildlife Commission. Ocean Shores, Washington.
- Hardesty, L. H., and C. Perry. 1999. Coordinated Resource Manage for salmon recovery in Washington. Briefing for Washington Conservation Commission. Wenatchee, Wa.
- Hardesty, L. H. 1999. What are the pieces? Keynote address of symposium: Fish and Water: bringing the pieces together. Okanogan, Washington.
- Hardesty, L. H. 1998. Riparian functioning: implications for private landowners. Workshop for Washington Cattlemen's Association. Ritzville, Wa.
- Hardesty, L. H. 1997. Riparian proper functioning condition (PFC) as an opportunity for conservation districts. Washington Association of Conservation Districts, Spokane, Wa.
- Hardesty, L. H. 1997. Soil productivity and range health indicators. Shifting gears for the future: soil quality and long term soil productivity. USFS Northern Region Soils Workshop. Coeur d' Alene, Id.
- Hardesty, L. H. 1997. Working with *Phalaris arundinacae* on moist soil sites. Rangeland restoration short course. Spokane, Wa.
- Hardesty, L. H. 1996. Supervising graduate research overseas. Peace Corps Convocation. Baltimore MD.
- Hardesty, L. H. 1996. Ecological processes in time and space. Southeast Washington Resource Advisory Council and Spokane District, Bureau of Land Management, Spokane, WA.
- Hardesty, L. H. 1995. Comparing forest landowner's and land management advisor's perceptions of agroforestry in Washington State. 4th Conference on Agroforestry in North America, Boise, Idaho.
- Hardesty, L. H. 1995. A range manager's perspective on watershed / community based planning. Puget Sound Research '95, Seattle, Washington.
- Hardesty, L. H. 1994. Agroforestry as a blueprint for integrating land uses in the northwest? Sustaining Rangeland Ecosystems Symposium, LaGrande, OR.
- Hardesty, L. H. 1994. Agroforestry and sustainable systems in the Pacific Northwest. Agroforestry and Sustainable Systems Symposium, Fort Collins, CO.

- Hardesty, L. H. 1993. A context for forest grazing in the future. Invited paper at the Pacific Northwest Section, Society for Range Management, Penticton, BC.
- Hardesty, L. H. 1993. Range extension in the era of ecosystem management. Seminar, Department of Rangeland Resources, Oregon State University, Corvallis, OR.
- Hardesty, L. H. 1993. Integration of crop and livestock production in inland northwest farming systems. US-Middle East Conference and Workshop on Dryland Farming Systems, Moscow, ID.
- Hardesty, L. H. and W. E. Howell. 1993. Potential use of sheep to hedge vineyards. Grape grower's breakfast, Grandview, WA.
- Hardesty, L. H. 1993. Success and succession on transitory range. Range permittee education, Twisp Ranger District, Twisp, WA.
- Hardesty, L. H. 1992. Establishment and quality of improved pasture species in an orchard understory. 45th International Meeting, Society for Range Management, Spokane, Washington.
- Hardesty, L. H. 1992. Agroforestry: research and application. Workshop on Integrated Livestock Grazing and Forest Management, Goldendale, WA.
- Hardesty, L. H., and W. E. Howell. 1991. Silvopastoral options for fruit growers. 2nd Conference on Agroforestry in North America, Springfield, MO.
- Hardesty, L. H. 1991. Agroforestry practices of non-industrial private forestland owners in Washington State. 2nd Conference on Agroforestry in North America, Springfield, MO.
- Hardesty, L. H. 1991. Use of agroforestry by Washington NIPF owners. Invited paper at annual meeting of Inland Empire Chapter of Society of American Foresters, Clarkston, WA.
- Hardesty, L. H. 1991. Controlling browsing behavior in agroforestry systems. Society for Range Management 1991 International Meeting, Washington, D.C.
- Hardesty, L. H. 1990. Livestock behavior as a key to improved grazing management. Invited paper presented at the 4th Indian Agriculture Symposium, Spokane, WA.
- Hardesty, L. H. 1990. Diversifying with sheep below the orchard canopy. Invited paper at the 1990 Organic Growers Conference, Chelan, WA.
- Hardesty, L. H. 1990. Forest grazing and other joint production options for non-industrial private forestland owners. Washington Department of Natural Resources Stewardship Workshops, Ellensburg, and Spokane, WA.
- Hardesty, L. H. 1989. When boundaries fail: an exploration of jurisdictional aspects of environmental problems. Washington State University Mini-University, Pullman, WA.

- Hardesty, L. H. 1989. The prospects for agroforestry planning. Planning for agroforestry--an international symposium, Pullman, WA.
- Hardesty, L. H. 1989. Global deforestation--echoes of the sound nobody hears. Centennial Seminar. University of Idaho, Moscow, ID.
- Hardesty, L. H. 1989. Assessing current range research needs and funding. 42ed Annual Meeting, Society for Range Management, Billings, MT.
- Hardesty, L. H. 1988. Livestock management in mixed farming systems. International Rangeland Development Symposium, Corpus Christi, TX.
- Hardesty, L. H. 1987. An agroforestry scheme for northeast Brazil. Range Resource Seminar, University of Idaho, Moscow, ID.
- Hardesty, L. H. and J. H. Bassman. 1987. Integrating agroforestry in agricultural education programs. Workshop for Community College Agriculture Teachers, Washington State University, Pullman, WA.
- Hardesty, L. H. 1987. Opportunities for improved woodland grazing in northeast Brazil. Seminar, Department of Forestry and Resource Management, University of California, Berkeley, CA.
- Hardesty, L. H. 1986. Strategies for improving browse production in the caatinga. Range Science Seminar, Utah State University, Logan, UT.
- Hardesty, L. H. 1986. Season of cutting affects production of coppicing browse species in northeast Brazil. 39th Annual Meeting, Society for Range Management, Orlando, Florida.
- Hardesty, L. H. and T. W. Box. 1985. Coppicing to improve forage production. 38th Annual Meeting, Society for Range Management, Salt Lake City, Utah.
- Hardesty, L. H. 1984. Manejo da rebrota da caatinga para aumentar a producao das forragens. Centro National de Pesquisa em Caprinos, Sobral, Ceara, Brazil.
- Hardesty, L. H. 1984. Coppicing to improve dry season forage production in the semi-arid tropics. 2nd International Rangeland Congress, Adelaide, Australia.
- Hardesty, L. H. 1982. Brush management potential in the caatinga. Simposio Semi-arido, Recife, Brazil.

GRANTS AND CONTRACTS

a. Current

Legislative line item for Collaborative Resource Management Support Program. \$200,000. 2003-2005. Principal.

b. Previous

Closing the gap between science, education and application for on-the-ground impact - a higher education challenge: a partnership model for environment and natural resources. \$334,000. 9/00-9/03 Co-principal investigator with J. C. Noel.

Legislative line item for Collaborative Resource Management Support Program. \$200,000. 2001-2003. Principal.

Reed canarygrass (*Phalaris arundinacea*) response to dissolved nitrogen and phosphorus: Growth response and nutrient absorption. Undergraduate research experience grant \$500.00 2001. Awarded to M. Bianchi with L. H. Hardesty as faculty advisor.

Collaboration in Natural Resources Research and Education. WSU International Programs Boeing Internationalisation Mini-grant Program. \$2,500. 2001. Principal.

Support for Okanogan County landowners to attend monitoring workshop. Funded by People for Salmon. \$500.00. 2000. Principal.

Effect of livestock grazing on pygmy rabbits in Eastern Washington. Funded by Washington Department of Fish and Wildlife. \$91,000. 1999-2001. Co-principal investigator with R. D. Saylor and L. A. Shipley.

Collaborative extended education opportunities in natural resources. Funded by Kellogg 2020 grant \$7,000. 1998-9. Co-principal investigator with K. Johnson and W. Krueger.

Characteristics of future rangelands on the Tyee Cr. and Hatchery Complex fire sites. USDA Forest Service, Pacific Northwest Research Station \$7,000. 1995-1996. Principal investigator.

USDA CSRS Rangeland Competitive Grants Program. The influence of grazing on long term site productivity of transitory range. \$68,500. 1994-1996. 1994-1999. Principal investigator with John Buckhouse.

USDA Forest Service, Rocky Mountain Forest and Range Experiment Station. Agroforestry in the Pacific Northwest. \$3000. 1993-1994. Principal investigator.

USDA Low Input Sustainable Agriculture Grant Program. Silvopastoral alternatives for fruit growers. \$23,000. 1991-1992. Principal investigator.

Verle Kaiser Endowment. 1992. Educating future natural resource managers about soil erosion while developing field instruction skills. \$800. (Principal investigator with E. J. DePuit).

MOU support for African agroforestry field research. \$3000. 1990-1991. Principal investigator.

USDA Low Input Sustainable Agriculture Grant Program. Silvopastoral alternatives for fruit growers. \$42,641. 1989-1991. Principal investigator.

MOU/PSG support of domestic agroforestry research. \$5000. 1988-1990. Principal investigator.

USDA (SCS, USFS, OICD) support for international agroforestry symposium. \$30,000. 1987-1988. Principal investigator.

MOU/PSG support of International Symposium. \$3000. 1987-1988. Principal investigator.

Agroforestry Interdisciplinary Research Unit, Washington State University \$2500. 1987. Principal investigator.

USAID/WID. The Family as a Production Unit video tape series. \$3600. 1985-1986.

Visiting Professor Proposals, Washington State University 1986, 1989.

Travel Grant to present paper at International Rangeland Congress in Australia. \$4000. 1984.

Title XII Strengthening Grant to present vegetation sampling shortcourse in Brazil. \$3500. 1981.

UNIVERSITY AND DEPARTMENT SERVICE

UNIVERSITY SERVICE

College of Agriculture and Home Economics Diversity Advisory Committee. 2000-2001.

College of Agriculture and Home Economics Animal Systems Design Team. 2000 – 2001.

College of Agriculture and Home Economics International Advisory Committee. 2000-2001.

Faculty Senate Budget Committee. 1995-1998.

Committee to select College of Agriculture and Home Economics Outstanding Juniors. 1996.

Teaching Portfolio Committee, College of Agriculture and Home Economics. 1995.

Committee to plan College of Agriculture and Home Economics All-faculty conference. 1994.

Search Committee for HRM program coordinator.

Provost's Task Force on Internationalizing the University. 1990.

Committee to prepare College of Agriculture and Home Economics Unit Plan. 1990.

Search Committee for Chair, Department of Natural Resource Sciences. 1989-1990.

Initiatives for Century II Task Force on conserving and managing natural resources. 1989-1990.

Environmental Science and Regional Planning Program Policy Committee. 1989-1990.

Co-organizer and 1988-89 Chair of the Agroforestry Consortium.

University Academic Advising and Reinstatement Committee. 1989.

DEPARTMENT SERVICE

Developed new rangeland management minor and negotiated with University of Idaho for WSU student access to the 3 additional courses needed to meet OPM range conservationist requirements.

Search Committee member for extension coordinator. 2004.

Represent Washington State University on Range Science Education Council. 1998 – present.

Advisor for student Range Club. 1989-1990, 1992-present.

Chaired search Committee chair for extension coordinator. 2002.

Departmental tenure advisory committee. 1996-2002.

Initiated and participated in internal assessment of range education programs. 2000-02.

Search committee chair for rangeland watershed extension specialist. 2001.

Department working/learning climate task force. 1996-8.

Departmental undergraduate curriculum committee. 1998-2000.

Search Committee for mammalian ecologist and wildlife habitat ecologist. 1996-7.

Department Graduate Studies Committee. 1988-1994, chair 1993-1994.

Department Recruitment Committee, 1987-1990, 1993-1994.

Department Safety Committee Representative. 1985-1988.